HIGHWAY WORK PROPOSAL

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

Proposal Number: 012

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	1060-34-78	N/A	Zoo Ic, Detention Pond; At North Avenue Interchange	NON HWY

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: $100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: April 14, 2020 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time October 04, 2020	
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)	(Bidder Signature)
(Print or Type Name, Notary Public, State Wisconsin)	(Print or Type Bidder Name)
(Date Commission Expires)	(Bidder Title)

Notary Seal

For Department Use Only

Type of Work:
Mill, Grade, Storm Sewer, Base, Asphalt Pavement, Curb & Gutter, Sidewalk, Beam Guard, Pavement Marking

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 PM local time on the Thursday before the letting. Check the department's web site after 5:00 PM 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 PM 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:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4th floor, 4822 Madison Yards Way, Madison, WI, during regular business hours.

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.

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

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

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

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1060-34-78, Zoo IC, Detention Pond, at North Avenue Interchange, Non Hwy, Milwaukee County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2020 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 (20190618)

2. Scope of Work.

The work under this contract shall consist of removals, grading, subgrade, HMA Pavement, beam guard, sidewalk, storm sewer, erosion control, traffic control, pavement marking, restoration, hauling and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

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

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

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

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

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

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

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

Provide Milwaukee County Highway Maintenance and Milwaukee County Sheriff's Office with a 24-hour emergency contact number for when maintenance is required

Interim Completion and Interim Liquidated Damages

IH 41 Northbound Exit Ramp Closure (Stage 1)

For 21 consecutive calendar days, the IH 41 northbound exit ramp to North Avenue can be closed. Complete all work on the ramp necessary to open the ramp to traffic, including beam guard, pavement marking, and concrete curb and gutter.

If the contractor does not complete the work necessary to reopen the IH 41 northbound exit ramp to North Avenue to traffic within 21 calendars days, the department will assess the contractor $2500 in interim liquidated damages for each calendar day that the contract work remains incomplete beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the exit ramp 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.

Lane Closures

North Avenue Westbound Full Closure (Stage 2A)

For 36 consecutive hours, the westbound lanes of North Avenue between the southbound and northbound IH 41 entrance ramps can be closed and the eastbound lanes of North Avenue can be reduced to one 12' lane between the southbound and northbound IH 41 entrance ramps. Additionally, during this extended hour closure period, the interchange loop ramps can be closed: (1) IH 41 northbound exit ramp to westbound North Avenue, and (2) IH 41 southbound exit ramp to eastbound North Avenue. Complete all work on North Avenue necessary to open all lanes and ramps to traffic, including storm sewer construction, placement of HMA pavement, asphaltic curb, pavement marking, and all incidentals necessary for opening all lanes of North Avenue for vehicular traffic. The 36 consecutive hour closure is only permitted on weekends between the hours of 7:00 PM Friday to 7:00 AM Sunday.

If the contractor does not open all lanes and ramps to traffic by 7:00 AM Sunday after the 36 hour closure period, the department will assess lane rental fees for each North Avenue westbound lane and each interchange ramp as defined in the article Lane Rental Fee Assessment.

Schedule of Operations

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

The department anticipates that the schedule for each stage shall be as follows:

Stage 1 - Construction:

Ramp NOB

- Remove and replace concrete curb and gutter.
- Construct beam guard
- Begin pond excavation and grading.

Advanced Fill IH-94 Site

- Begin embankment construction.

Stage 2A - Construction:

North Avenue

- Construct Pipe P624 and connection to existing Structure NE712 within the North Avenue roadway.
- Restore North Avenue pavement and curb and gutter.

Stage 2 - Construction:

Ramp NOB

- Construct fence.
- Complete pond excavation and grading.
- Remove shaft shoring system.
- Construct pond outlet storm sewer structure and storm sewer outfalls.
- Construct pond clay liner, final erosion control, and restore all disturbed areas.

Advanced Fill IH-94 Site

- Complete embankment construction.

Definitions – Freeway Work Restrictions

The following definitions apply to this contract for freeway work restrictions:

System Ramps	Freeway to freeway ramps
Service Ramps	Freeway to/from local road ramps

Weekday Peak Hours

- 5:30 AM – 9:00 AM Monday, Tuesday, Wednesday, Thursday, and Friday
- 2:00 PM – 7:00 PM Monday, Tuesday, Wednesday, Thursday, and Friday

Weekday Midday

- 9:00 AM – 2:00 PM Monday, Tuesday, Wednesday, Thursday, and Friday

Weekday Off-Peak Hours

- 7:00 PM – 9:30 PM Monday, Tuesday, Wednesday, Thursday
- 7:00 PM – 11:00 PM Friday

Weekend Peak Hours

- 10:00 AM – 7:00 PM Saturday, Sunday

Weekend Off-Peak Hours

- 8:00 AM – 10:00 AM Saturday, Sunday
- 7:00 PM – 11:00 PM Saturday
- 7:00 PM – 9:30 PM Sunday

Night Time Hours

- 9:30 PM Sunday, Monday, Tuesday, Wednesday and Thursday – 5:30 AM the following day

Advance Notification

Notify the engineer if there are any changes in the schedule, early completions, or cancellations of scheduled work. Coordinate the locations of messages of portable changeable message sign with the engineer and department STOC. Notify the engineer of proposed changes for alternate routes and detours and provide a revised signing plan for the review by and approval of the engineer.

Provide the engineer with a schedule of lane and ramp closures by 9:00 AM on Wednesday for the next ten calendar days. In addition, provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System.

Service Ramp Closures:	3 business days
Freeway Lane Closures:	3 business days
Construction Stage Changes:	14 calendar days
Detours:	14 calendar days
Local Road Lane Closures:	5 business days
Local Road/Intersection Full Closures:	14 calendar days

Notify local emergency and police agencies seven calendar days prior to local road closures.

Freeway Work Restrictions - General

No Weekday Peak or Weekend Peak Hour lane closures are allowed. No Weekday Off-Peak or Weekend Off-Peak Hour lane closures are allowed. No Weekday Midday lane closures are allowed.

Provide a minimum of three lanes in each direction of the freeways and ensure that the freeways are entirely clear for traffic during Weekday Peak, Weekend Peak, Weekday Midday, Weekday Off-Peak, and Weekend Off-Peak Hours except as shown in the traffic control plans. Provide a minimum of one lane in each direction of the freeway and ensure that the freeways are entirely clear for traffic during Night Time Hours.

No lane or shoulder closures will be allowed at any time along I-94 EW for the placement of the fill material on the WisDOT Advanced Fill parcel located west of 27th Street.

Ramp Closures

All entrance and exit ramps shall be posted three business days in advance of their closure with dates and time of closure.

No Weekday Peak, Weekend Peak, Weekday Midday, Weekday Off-Peak, or Weekend Off-Peak Hour ramp closures are allowed except as shown in the plans.

No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is shown in the traffic control plans or approved by the engineer.

Rolling Closure

Short term freeway mainline rolling closures may be allowed for a maximum of 15 minutes for equipment moves across the road, or other required work as determined by the engineer. The department will allow short term rolling closures only between 2:00AM and 4:00 AM, and they may only be performed by freeway law enforcement.

Obtain approval from the engineer before coordinating these closures with freeway law enforcement. Coordinate 14 calendar days in advance of closure. Present the scheduled time for the short term rolling closure at the weekly traffic meeting a minimum of one week prior to the closure.

Work Zone Ingress/Egress

Provide engineer approved signage and parallel deceleration and acceleration lanes for freeway access into and out of the work zones at locations approved by the engineer.

Locations of work zone egress or ingress for construction vehicles, other than as shown in the plans, is subject to approval from the engineer. Access into the work zones are not allowed directly from the freeway during peak and off-peak hours. Access into the work zones from the freeway will be allowed during night-time hours, subject to approval by the engineer, if operations can be safely accomplished and do not result in non-construction traffic entering the work zones. Exiting work zones directly onto the freeway are only allowed when operations do not obstruct or slow traffic on the freeway. All construction vehicles shall yield to all through traffic at all locations.

Portable Changeable Message Signs

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

Equipment Parking/Materials Storage, Miscellaneous

Park or store equipment and materials only at work sites approved by the engineer. Parking equipment or storing materials on the shoulders or within 30’ of the roadway during non-working hours is not permitted.

Keep open travel lanes free of construction debris at all times.

General Local Street Restrictions

Keep sidewalks open unless otherwise shown on the plans, or as approved by the engineer. North Avenue sidewalk remains open to pedestrians along one side minimum at all times. Maintain pedestrian access to adjacent properties, businesses, schools, and at bus stops or provide where necessary, as directed by the engineer. Protect pedestrians from falling debris at all times when sidewalks are open.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours and hauling routes. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing a minimum of 3 days prior to performing such work.

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants and poles and the paving equipment. No additional compensation will be made.

Make all local road lanes available to traffic at all times, except as shown in the Traffic Control plans, or as approved by the engineer.

Maintain vehicle access to and from residences adjacent to the work at all times, except during paving operations and curing periods for concrete items: curb and gutter, sidewalk, and driveways. Do not close residential approaches or remove from service without giving sufficient notice to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access. Schedule sidewalk and driveway approach removal and replacement so that the time lapse between removal and replacement is minimal.

All Work Restrictions

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

Excavation material and cleared and grubbed material should be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways as determined by engineer.

4. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Prosecution and Progress article, and the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

- $5,000 per IH 41 lane, per direction of travel, per hour broken into 15 minute increments
- $5,000 per IH 41 ramp, per hour broken into 15 minute increments
- $5,000 per North Avenue westbound lane, per hour broken into 15 minute increments

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.

5. Traffic.

Perform the work under this contract in a manner that will interfere as little as possible with active traffic on local streets. Do not park or store vehicles, equipment, or materials on City of Wauwatosa streets adjacent to active traffic or within the clear zone except at the time of performance of the work. Materials or equipment may be stored within the right-of-way only at locations meeting the approval of the engineer.

At all times maintain access to businesses and residents on the existing local streets within the project work area. Do not close or remove driveway approaches or parking stalls from service without a five day notice given to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access.

Coordinate traffic requirements under this contract with other ongoing department construction projects. This contractor shall be responsible for implementing and coordinating with other contractors all traffic control as shown on the plans.

Stage 1:

See the Prosecution and Progress article for more detailed information on lane and ramp closures.

IH 41

- Nighttime lane closures permitted at times as defined under the article Prosecution and Progress.

Ramps

- IH 41 northbound exit ramp to westbound North Avenue (Ramp NOB) can be closed for 21 consecutive days.
- All other ramps remain open.

North Avenue

- All lanes open

Stage 1 Detours

- Ramp NOB closure requires a detour for northbound IH 41 to westbound North Avenue.

Stage 2A:

See the Prosecution and Progress article for more detailed information on lane and ramp closures.

IH 41

- Nighttime lane closures permitted at times as defined under the article Prosecution and Progress.

Ramps

- 36-hour weekend closure of IH 41 northbound loop exit ramp to westbound North Avenue.
- 36-hour weekend closure of IH 41 southbound loop exit ramp to eastbound North Avenue.
- All other ramps remain open.

North Avenue

- Westbound: Close all westbound lanes between ramp terminals for 36-hour weekend closure. Maintain one westbound lane between Mayfair Road and the northbound IH 41 ramp terminal during 36-hours weekend closure.
- Eastbound: Eastbound reduced to one lane between 114th Street and the northbound IH 41 ramp terminal during 36-hours weekend closure.

Stage 2A Detours

- Ramp NOB closure requires a detour for northbound IH 41 to westbound North Avenue.
- Ramp NOG closure requires a detour for southbound IH 41 to eastbound North Avenue.
- Westbound North Avenue closure requires a detour for westbound through traffic and access to southbound IH 41.

Stage 2:

See the Prosecution and Progress article for more detailed information on lane and ramp closures.

IH 41

- Nighttime lane closures permitted at times as defined under the article Prosecution and Progress.

Ramps

- Nighttime ramp closures permitted at times as defined under the article Prosecution and Progress.

North Avenue

- All lanes open.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway or local street, and entirely clear the traveled way and shoulders 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 22, 2020 to 6:00 AM Tuesday, May 26, 2020 for Memorial Day;
- From noon Friday, July 3, 2020 to 6:00 AM Monday, July 6, 2020 for Independence Day;
- From noon Friday, September 4, 2020 to 6:00 AM Tuesday, September 8, 2020 for Labor Day.

Additional Special Event Freeway Restrictions:

<u>During Summerfest and State Fair:</u>

- Maintain three open lanes on northbound IH 41 until one hour after the event closes each night.

<u>During Milwaukee Brewer home games at Miller Park:</u>

- Maintain three open lanes on northbound IH 41 until two hours after the game ends.

<u>During other special events at Miller Park:</u>

- Restrictions will be defined during construction on an as needed basis as determined by the engineer.

stp-107-005 (20050502)

7. Utilities.

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

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

Underground and overhead utility facilities are located within the project limits. Utility adjustments are not required for this construction project. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

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

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

Known utilities in the projects are as follows:

NORTH AVENUE DETENTION POND

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

- An underground communications line beginning beyond the easterly project limits and running westerly along the north side of the median of North Avenue to a vault at Station 120NO+13, 9'LT. From there the line runs westerly and northwesterly, along a line 22' north of the North Avenue reference line, to beyond the project limits. This line will remain in place without adjustment.

AT&T Wisconsin also has discontinued underground communications lines within the project limits in the following locations:

- A discontinued underground communications line beginning beyond the easterly project limits and runing westerly along the north side of the median of North Avenue to a vault at Station 120NO+13, 9'LT. From there the line runs westerly and northwesterly along the north side of the median to a discontinued manhole at Station 113NO+35, 3'LT and then continues northwesterly to beyond the project limits.
- A discontinued underground communications line beginning beyond the southerly project limits and running northerly across eastbound North Avenue to a discontinued manhole at Station 113NO+35, 3'LT. From there it continues northerly across westbound North Avenue and ends at Station 113NO+38, 58'LT.

AT&T Wisconsin contact is Jay Bulanek, (262) 896-7669 office, (414) 491-2855 cell.

Charter Communications has a discontinued underground communications line beginning at Station 116NO+64, 52'LT and running easterly along the northerly right-of-way of North Avenue to beyond the project limits.

Charter Communications contact is Beau Abuya, (414) 908-1343 office, (414) 758-9241 cell.

Wauwatosa, City of – Lighting has existing underground electric lines and light poles along the northerly curb line of North Avenue throughout the project limits. These facilities will remain in place without adjustment.

City of Wauwatosa contact is Randy Michelz, (414) 471-8429 office, (414) 248-0987 cell.

We Energies – Gas has underground gas facilities within the project limits beginning beyond the easterly project limits and running westerly and northwesterly, along a line 33' north of the North Avenue reference line, to beyond the project limits. This line will remain in place without adjustment.

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

- A discontinued underground gas main beginning beyond the easterly project limits and running westerly along the northerly North Avenue curb line to a tee at Station 117NO+34, 46'LT. From there the line continues westerly and northwesterly along the north curb line to a tee at Station 113NO+66, 45'LT and then continues northwesterly along the northerly curb line to beyond the project limits.
- A discontinued underground gas main beginning at a tee at Station 117NO+34, 46'LT and running southerly, crossing North Avenue at Station 117NO+34, and continuing southerly to beyond the project limits.
- A discontinued underground gas main beginning at a tee at Station 113NO+66, 45'LT and running southwesterly, crossing North Avenue at Station 113NO+64, and continuing southwesterly to beyond the project limits.

We Energies contact is Nick Ernster, (414) 944-5574 office.

WisDOT – Lighting has existing lighting facilities within the project limits in the following locations:

- Existing underground electric lines, pull boxes and light poles along the inside of the northbound IH 41/USH 45 off ramp to westbound North Avenue, approximately 10' inside the inside edge of pavement. These facilities will remain in place without adjustment.
- Existing underground electric lines, pull boxes and light poles along the easterly edge of pavement of the northbound IH 41/USH 45 on ramp from North Avenue. These facilities will remain in place without adjustment.

WisDOT contact is Eric Perea, (262) 574-5422 office, (414) 750-0935 cell.

WisDOT – STOC has existing underground communications lines, cabinets, pull boxes and traffic management devices approximately 10' east and northeast of the easterly edge of pavement of the northbound IH 41/USH 45 on ramp from North Avenue throughout the project limits. These facilities will remain in place without adjustment.

WisDOT contact is Jeff Madson, (414) 225-3723.

FILL SITE (27TH STREET and GREVES STREET)

ATC Management, Inc. (aka. American Transmission Company) has six existing overhead 138kV electric transmission circuits within the project limits beginning the westerly project limits and running northeasterly to a transmission tower at Station 10+29, 63'RT, where they turn and run northeasterly along the southerly right-of-way of IH 94 and across IH 94 to beyond the project limits. These lines will remain in place without adjustment.

American Transmission Company contact is Ivan Keller, (262) 422-0326.

AT&T Legacy (aka. AT&T Corporation) has existing underground communications facilities within the project limits in the following locations:

- An existing underground communication line beginning beyond the westerly project limits and running northeasterly along the southerly fence line of IH 94 to a manhole at Station 11+37, 2'LT. From there the line continues northeasterly along the southerly fence line to beyond the project limits. This line will remain in place without adjustment.
- An existing underground communication line beginning at a manhole at Station 11+37, 2'LT and running northwesterly across IH 94 to beyond the project limits. This line will remain in place without adjustment.

AT&T Legacy contact is Ken Nine, (574) 842-8830 office, (574) 904-6336 cell.

AT&T Wisconsin has an existing overhead communications line on We Energies' poles within the project limits beginning beyond the westerly project limits and running northeasterly along a line 5' south of and parallel to the northerly right-of-way of Greves Street to beyond the easterly project limits. This line will remain in place without adjustment.

AT&T Wisconsin contact is Jay Bulanek, (262) 896-7669 office, (414) 491-2855 cell.

Milwaukee, City of - Lighting has existing underground electric lines and light poles within the project limits beginning beyond the westerly project limits and running northeasterly along the northerly curb line of Greves Street to beyond the easterly project limits. These facilities will remain in place without adjustment.

The City of Milwaukee contact is Dennis Miller, (414) 286-5942 office, (414) 708-4251 cell.

Milwaukee, City of - Sewer has an existing sanitary sewer within the project limits beginning beyond the westerly project limits and running northeasterly along the center of Greves Street to beyond the easterly project limits. This sewer will remain in place without adjustment.

The City of Milwaukee contact is Jason Barman, (414) 286-3267.

Milwaukee, City of – Water (aka. Milwaukee Water Works) has an existing water main within the project limits beginning beyond the westerly project limits and running northeasterly along the northerly right-of-way of Greves Street to Station 13+16, 325'RT where it turns and runs southeasterly to Station 13+23, 334'RT. From there the line turns and runs northeasterly along a line 11' south of and parallel to the northerly right-of-way of Greves Street to beyond the easterly project limits. This main will remain in place without adjustment.

The City of Milwaukee contact is Dave Goldapp, (414) 286-6301.

Verizon has an existing underground communications line within the project limits beginning beyond the westerly project limits and running northeasterly along to the northerly right-of-way of Greves Street to beyond the easterly project limits. This line will remain in place without adjustment.

Verizon contact is Tom Buher, (708) 458-6410 office, (708) 261-1394 cell.

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

- An existing overhead line beginning beyond the westerly project limits and running northeasterly along a line 5' south of and parallel to the northerly right-of-way of Greves Street to a pole at Station 11+63, 315'RT. From there the line continues northeasterly to a pole at Station 12+78, 324'RT and then continues to a pole at Station 13+46, 331'RT. From there the line continues northeasterly to beyond the easterly project limits. This line will remain in place without adjustment.
- An overhead electric line beginning a pole at Station 11+63, 315'RT and running northeasterly and ending at a pole at Station 11+78, 305'RT. This line will remain in place without adjustment. A private overhead electric line runs northerly from the pole at Station 11+78, 305'RT to billboard signs south of IH 94.
- An overhead electric line beginning at a pole at Station 12+78, 324'RT and running southeasterly to a pole south of Greves Street at Station 12+93, 359'RT where it turns and runs southeasterly to beyond the project limits. This line will remain in place without adjustment.
- An overhead electric line beginning at a pole at Station 12+78, 324'RT and running southeasterly across Greves Street to beyond the project limits. This line will remain in place without adjustment.
- An underground electric line beginning at a pole at Station 13+46, 331'RT and running northerly to Station 13+48, 323'RT where it turns and runs northeasterly to Station 14+64, 331'RT. From there it turns and runs northeasterly to beyond the easterly project limits. This line will remain in place without adjustment.

We Energies contact is Nicholas Welch, (414) 944-5765 office / (414) 791-0406 cell.

We Energies – Gas has an underground gas main within the project limits beginning beyond the easterly project limits and running southwest along a line 3' south of and parallel to the northerly right-of-way of Greves Street and ending at Station 11+78, 313'RT. This line will remain in place without adjustment.

We Energies contact is Nick Ernster, (414) 944-5574 office.

8. Other Contracts.

Coordinate your work according to standard spec 105.5.

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

The following projects may be under construction concurrently with the work under this contract. Coordinate activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

Project 1060-11-73 -- Bridge Rehabilitation

IH 94 East West Freeway

70th Street to 16th Street

WisDOT contact: Scott Anderson, (262) 548-6894

Project 1060-34-76 – Sanitary Reconstruction and Multi-Use Path

Zoo I/C, North Leg Prep Work

Swan Blvd to North Ave

WisDOT Contact: Chris Zacharias, (414) 750-4955

Project 1228-09-74 -- Resurfacing

Marquette Interchange IH 94, IH 43 and IH 794

WisDOT Contact: Evan Limberatos (414) 750-3362

Project 2759-03-70 – Reconstruction

North Avenue

Calhoun Road to E. County Line

WisDOT Contact: Phil Ciha, (414) 750-1951

9. Hauling Restrictions.

Replace standard spec 107.2 with the following:

Obtain all local permits for haul routes that are not part of the state trunk highway system. Present to the department, fourteen calendar days before any proposed hauling, a proposed haul route plan detailing haul routes that are not part of the state trunk highway system. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work, and copies of approved local permits.

The department will review the submittal and either approve or provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. If approved, the department will subsequently survey the existing condition of that haul route to establish a baseline for assessing damage that the contractor’s hauling operations might cause.

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

10. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit

(WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Chris Zacharias at (262) 548-6716. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

11. Notice to Contractor – Interstate Work Restriction.

From 5:30AM Thursday July 9thto 11:59 PM Friday July 17th, 2020:

Do not perform work; haul equipment; or haul materials, on, along, or across any portion of IH 94 and IH 41, including ramps. Any exceptions to this work restriction must be approved by the engineer in writing.

Roadway and traffic control maintenance required by the contractor shall be performed as needed during this work restriction. Coordinate with the project engineer for approval in advance of performing necessary roadway or traffic control maintenance work.

12. Notice to Contractor – Safety

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

The contractor and respective subcontractors shall provide a copy of their current Company Safety Plans to the Department at the preconstruction meeting. All workers shall comply with the Safety Plans of their employer. The department will not issue a notice to proceed until all safety plans have been provided.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work in accordance with Wisconsin Department of Transportation Standard Specification 108.6 applicable under the contract.

13. Environmental Protection - Waste.

Conduct construction activities in an environmentally sound manner, including the proper disposal of all demolition material that cannot be recycled.

The excavation management plan for this project has been designed to minimize the off-site disposal of impacted material. Follow the requirements for the off-site management of petroleum-contaminated soil (bioremediation at a landfill) and reuse of low-level petroleum-contaminated soil (at the WisDOT-owned Former Red Star Yeast property at 2702 W. Greves St. in Milwaukee, WI) as indicated in these special provisions. If subsurface contamination or other signs of non-exempt (NR 500.08) solid waste including buried containers, industrial fill, stained soils, noxious odors, etc., are unexpectedly encountered elsewhere on the project during excavation, terminate excavation in the area and notify the engineer immediately. Work with the department's environmental consultant to properly manage the waste following the WisDOT-WDNR materials management options as indicated in the table below. Contact Andrew Malsom (WisDOT) at (262) 548-6705 or Andrew.Malsom@dot.wi.gov to arrange for environmental consultant coordination. The environmental consultant will perform waste characterization and coordinate with the WDNR for an appropriate handling and disposal.

Management of Material Excavated During Highway Construction		
Classification	Characterization of Material	Material Management
1. Common Excavation (NR 500.08(2) Unregulated or Exempt Material)	Native soil Fill soils that have no obvious visual or olfactory contamination and may not have been analyzed for contaminants. Clean unpainted or untreated wood, brick, concrete, cured asphalt, and trace amounts of glass.	Contractor-selected sites approved through Erosion Control Implementation Plan (ECIP) review process, or on-site reuse
2. Special Excavation (NR 500.08(4) Solid Waste Low Hazard Exemption)	Soil with low levels of petroleum contamination or contaminant metals within the site fill plan criteria. Trace amounts (<25% volume of the excavation equipment's bucket load) of foundry sand, cinders, and fly ash.	WisDOT selected site or on-site reuse with WDNR concurrence. Sites must meet the location criteria of 504.04 (3) (c) and (4) (a) to (f). Fill plans are also approved through ECIP review process.
3. Contaminated Soil and Fill Material	Lead painted or treated wood Petroleum contaminated soil Significant amounts (>25% volume of the excavation equipment's bucket load) of foundry sand, cinders, or fly ash.	Contaminated material disposed at a WDNR-licensed solid waste disposal facility. Petroleum contaminated material shall be treated at a bioremediation facility (biopile) prior to disposal at the landfill. Direct disposal of contaminated material at landfills without such pre-treatment must be pre-authorized by the WisDOT.
4. Asbestos-containing Waste	Asbestos-containing material	Landfill at a WDNR–licensed solid waste landfill with approval to accept asbestos-containing material.
5. Hazardous Waste	RCRA Subtitle C (NR 600) contaminated media (hazardous waste)	Disposed or treatment under State's hazardous waste disposal contract with Veolia. Significant quantities should be evaluated for potential treatment to render non-hazardous to reduce disposal costs.
6. Potentially contaminated material	Potentially contaminated material with unusual visual, olfactory, or other characteristics	Temporary stockpile with appropriate environmental controls constructed per NR 718.05. Temporary stockpiling at solid waste landfill may be alternative with WDNR and Landfill's approvals.

14. Erosion Control.

Add the following to standard spec 107.20 as paragraphs nine through fifteen:

(9) Erosion control best management practices (BMP's) the plans show are at suggested locations. The actual locations shall be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP shall supplement information the plans show and not reproduce it. The ECIP shall identify how to implement the project's erosion control plan. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of top soil to minimize the exposure to possible erosion.

(10) Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison (Kristina Betzold, (414) 507-4946, kristina.betzold@wisconsin.gov). Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.

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

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

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

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

(15) Dewatering is paid separately.

sef-107-010 (20180104)

15. Dewatering and Disposal of Contaminated Water.

Add the following to standard spec 107.24:

If dewatering is required in an area of known contamination, water generated from dewatering activities may contain Petroleum Volatile Organic Compounds (PVOCs) and Metals. Such water may, with approval of Milwaukee Metropolitan Sewerage District (MMSD), be discharged to the MMSD sanitary sewer as follows:

1. Meet all applicable requirements of the MMSD including the control of suspended solids. Perform all necessary monitoring to document compliance with MMSD requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with MMSD requirements.
2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

The MMSD contact is Micki Klappa-Sullivan at (414) 225-2178 and mklappasullivan@mmsd.com.

Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

The cost for this work is paid for under the article Control of Water.

SER-107.4 (20170110)

16. Notice to Contractor – Milwaukee County Transit System.

The Milwaukee County Transit System (MCTS) operates the Routes 21, 28, and 31 within and/or directly adjacent to the construction limits. Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations.

Notify MCTS at least ten (10) business days prior to beginning work. If necessary, MCTS will remove their existing bus stop shelters before work begins and reinstall bus stop shelters before new pavement opens to vehicular traffic. The contactor may remove bus stop standards and signs and stow nearby within the work zone during construction. MCTS will be responsible for the reinstallation of bus stop standards and signs, with the contractor granting access to MCTS personnel for the purposes reinstallation before new pavement opens to vehicular traffic.

MCTS contacts:

David Locher
Milwaukee County Transit System – Routes
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1727
dlocher@mcts.org

Andy Tillman
Milwaukee County Transit System – Bus Stops
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1728
Atillman@MCTS.org

17. Public Involvement Meetings.

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

sef-999-040 (20160915)

18. Traffic Meetings and Traffic Control Scheduling.

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

Meet with the engineer weekly at a designated WisDOT office location to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the meeting.

Attend a traffic meeting(s) as determined by the engineer with local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the

meeting attendees, edit, delete and add information to the detailed 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

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

19. Material and Equipment Staging.

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

20. Contractor Document Submittals.

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

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

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

Submit electronic copies in PDF format to the engineer-designated folder within the department's SharePoint site. Send alerts with a link to the document via email to accounts the engineer determines. If possible, create PDFs from original documents in their native format (e.g. Word, Excel, AutoCAD, etc.). Scan other documents to PDF format with a minimum resolution of 600 dpi.

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

sef-105-010 (20150619)

21. Information to Bidders, Use of Recovered Material.

The department encourages the use of waste materials and recovered industrial byproducts as material substitutions (106.2.1), provided they meet standard specification gradation requirements, conform to NR 538 requirements, and follow standard engineering practice for their intended use.

22. Dust Control Implementation Plan.

A Description

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

B (Vacant)

C Construction

C.1 General

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

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

C.2 DCIP Contents

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

Include all of the following:

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

C.3 Updating the DCIP

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

C.4 Dust Control Deficiencies

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

D Measurement

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

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

623.0200 Dust Control Surface Treatment

624.0100 Water

628.7560 Tracking Pads

SPV.0105.0002 Pavement Cleanup

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

E Payment

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

sef-107-005 (20170323)

23. Project Site Air Quality.

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

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

Portable Concrete Crusher Plants

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

sef-999-039 (20160929)

24. Maintaining Drainage.

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

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

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

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

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

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

sef-107-016 (20170310)

25. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

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

sef-108-035 (20171004)

26. Removing Buried Shaft Support System, Item 204.9060.S.0001.

A Description

This special provision describes removing a buried storm sewer shaft support system from top elevation 755.00 to bottom elevation 717.34 according to the pertinent provisions of standard spec 204 and as hereinafter provided.

The buried storm sewer shaft system was installed in 2016 for the purpose of tunneling storm under contract ID 1060-34-86 (Zoo IC, Deep Storm Sewer, North Avenue to Center Street).

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Buried Shaft Support System by each system removed, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0001	Removing Buried Shaft Support System	EACH

stp-204-025 (20150630)

27. Excavation.

Replace standard spec 205.4.1(1) with the following:

The department will measure the quantity of cut excavation at the North Avenue Interchange by the cubic yard utilizing a surveyed and modeled surface to surface comparison method. The department will perform this measurement by surveying and modeling the existing ground surface and the bottom of cut ground surface, including the bottom of the pond clay liner.

The department will measure Excavation Common by the cubic yard, acceptably completed, as the difference of the cut excavation and the two contaminated soil items: (1) Excavation, Hauling, and Disposal of Petroleum-Contaminated Soil; and (2) Excavation Hauling and Reuse of Low-Level Petroleum-Contaminated Soil. Excavation Hauling and Disposal of Petroleum-Contaminated Soil will be converted to cubic yards by using a conversion factor of 1.7 tons per cubic yard.

28. Embankment – Designed Earthwork Fill Site.

Supplement standard spec 207 Embankment with the following:

Work under this contract includes placing fill material at a designated fill site location at the WisDOT property at 2702 W. Greves St., Milwaukee, WI.

Construct a fill section at this site according to the elevations as shown in the plans. The quantity of the fill to be placed at this location includes fill material excavated from the North Avenue interchange, including all excavated material for the item Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil; and Clay Cap material.

29. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and bioremediation of petroleum contaminated soil at a DNR licensed facility. The closest DNR licensed landfill facilities that can bioremediate this soil once excavated are:

Waste Management Orchard Ridge Landfill
N96W13503 County Line Road
Menomonee Falls, WI 53051
Phone (262) 253-8620

Advanced Disposal Emerald Park Landfill, LLC
W124 S10629 S 124th St
Muskego, WI 53150
Phone (414) 529-1360

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

A.2 Notice to the Contractor – Contaminated Soil Location

The department and others completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following locations as shown on the plans:

- Station 435+50NS to 437+00NS from 55 feet right of reference line to 125 feet right of reference line, from approximately 8 to 12+ feet below grade. Soil excavated from this area will require off-site bioremediation. The estimated volume of contaminated soil to be excavated at this location is 1,800 cubic yards (approximately 3,060 tons using a conversion factor of 1.7 tons per cubic yard).
- Station 435+10NS to 437+00NS from 125 to 225 feet right of reference line, from approximately 8 to 27.5+ feet below grade. Soil excavated from this area will require off-site bioremediation. The estimated volume of contaminated soil to be excavated at this location is 15,000 cubic yards (approximately 25,500 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load soil excavated by the project at the above locations into trucks that will transport the soil to a WDNR-licensed bioremediation facility.

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer.

No active groundwater monitoring wells were observed within the construction limits. If active groundwater monitoring wells are encountered during construction, notify the engineer and protect them to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously

mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

If dewatering is required at the above locations, conduct the dewatering according to Section C below.

A.3 Excavation Management Plan

The excavation management plan for this project has been designed to minimize the offsite bioremediation of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798
Phone:	(262) 548-6705
Fax:	(262) 548-6891
E-mail:	andrew.malsom@dot.wi.gov

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Contact:	Bryan Bergmann, P.G.
Phone:	(262) 901-2126 office, (262) 227-9210 cell
Fax:	(262) 879-1220
E-mail:	bbergmann@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for bioremediation of contaminated soil from the bioremediation facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed.

Identify the DNR licensed bioremediation facility that will be used for bioremediation of contaminated soils and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the bioremediation facility for bioremediation of contaminated soils. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products and metals. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health

Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically monitor soil excavated from the contaminated areas. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul soils designated by the environmental consultant for offsite disposal to the DNR approved bioremediation facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

If dewatering is required in an area of known contamination, water generated from dewatering activities may contain contaminants and require special handling and disposal. Such water may, with approval of the City of Wauwatosa and the Milwaukee Metropolitan Sewerage District (MMSD), be discharged to the sanitary sewer as follows:

- Meet all applicable requirements of the MMSD including the control of suspended solids. Perform all necessary monitoring to document compliance with MMSD's requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with MMSD's requirements.
- Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation and dewatering in the contaminated area are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from the construction project.

Limit excavation in the location described above in A.2 to minimize the handling of groundwater. Notify the engineer of any dewatering activities and obtain any permits necessary to discharge or dispose of contaminated water. Provide copies of such Permit to the engineer. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary. No additional payment will be made for tipping fees associated with the disposal of contaminated soil.

30. QMP Subgrade.

A Description

This special provision describes requirements for subgrade materials within the roadway foundation (entire proposed grading limits) as defined in standard spec 101.3 and as shown on the plans at the Advanced Fill Site located west of 27th Street. Conform to standard spec 207 as modified in this special provision for all work within the roadway foundation (entire proposed grading limits) shown on the plans at the Advanced Fill Site.

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

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

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

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

B.3 Laboratory

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

Materials Laboratory
3502 Kinsman Boulevard
Madison, Wisconsin 53704-2583
Telephone: (608) 246-7938

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

B.4 Equipment

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

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

http://www.atwoodsystems.com/

Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge. Nuclear density gauge calibration verification is required daily when earthwork construction operations require testing under this special provision article. This calibration verification shall be performed using the departments "Validator" apparatus which is located at the Zoo Interchange Construction Field Office: 2424 S. 102nd St., West Allis, Wisconsin 53227. Establish a standard gauge reading for the "Validator" using the ten test average method. The source emitter depth for calibration verification, in the direct transmission mode, will be determined by the engineer. This procedure will establish the "Validator" apparatus, as the contractor's project reference site.

Conform to ASTM D 6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

B.5 Soil Source Study

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

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

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

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

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

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

B.6 Quality Control Documentation

B.6.1 Control Charts

Maintain separate control charts for the field density and field moisture content of each grading area. All of the fill to be placed at the Advanced Fill Site west of 27th Street should be considered:

1. Future roadway foundation embankment fill where embankments are 20 feet or higher – to be known as special compaction area regardless of location.

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

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

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

B.6.2 Records

Document all observations, inspection records, adjustments to fill placement procedures, soil changes, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record. Density test locations shall be identified by a specific test number and include horizontal and vertical control for reference as noted in Section B.7.1.

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

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

B.7 Contractor Testing

B.7.1 General

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

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

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 0.5 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location. Elevations must be referenced to NAV88 datum.

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

B.7.2 Field Density and Field Moisture

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

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

B.7.3 One-Point Proctor

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

B.7.4 Testing Frequency

B.7.4.1 Future roadway foundation embankment fill where embankments are 20 feet or higher – special compaction area

Perform the required tests at the following minimum frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 6,000 cubic yards or when a change in fill material occurs.

B.7.5 Compaction Zones

B.7.5.1 Future roadway foundation embankment fill where embankments are 20 feet or higher – special compaction area

All embankment material placed where proposed embankments are 20 feet or higher regardless of zone is subject to the quality controls for upper zone material.

For this contract, the station ranges where proposed embankments are 20 feet or higher and require higher levels of compaction (special compaction) are as follows:

(a) Station 9+04 to Station 14+97 (All fill placed within Advanced Fill Site along IH 94)

Also see plan notes identifying special compaction.

B.7.6 Control Limits

B.7.6.1 Field Density

B.7.6.1.1 Future roadway foundation embankment fill where embankments are 20 feet or higher

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

B.7.6.2 Field Moisture Content

B.7.6.2.1 Future roadway foundation embankment fill where embankments are 20 feet or higher

The upper control limit for the field moisture content in the special compaction area is 105.0% of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average. The lower control limit for the field moisture content in the special compaction area is 90% of the determined optimum moisture for the 4-point running average.

B.7.7 Corrective Action

Notify the engineer if an individual field density test falls below the individual test control limit. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the subgrade material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable. The field density tests, soil moisture content tests and soil stability must meet the requirements of this special provision for the fill to be considered acceptable.

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

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

B.8 Department Testing

B.8.1 General

The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all verification and independent assurance personnel for the project.

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

B.8.2 Verification Testing

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

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

The department will perform verification testing as follows:

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

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

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

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

B.8.3 Independent Assurance Testing

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

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

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

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

B.9 Dispute Resolution

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

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

B.10 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

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

31. Catch Basins, Manholes, and Inlets.

Supplement standard spec 611.3.7 with the following:

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

Replace standard spec 611.5.2 (1) with the following:

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

32. 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
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

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

stp-616-030 (20160607)

33. Covering Signs.

Replace standard spec 643.2.3.3(2) with the following:

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

Add the following to standard spec 643.3.4.1 as paragraph four:

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

sef-643-005 (20180104)

34. Pond Liner Clay, Item 640.1303.S.

A Description

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

B Materials

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

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

C Construction

C.1 Low Permeable Clay Placement

C.1.1 Subgrade

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

C.1.2 Erosion Protection

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

C.1.3 Low Permeable Clay Placement

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

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

Table 1

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

Notes:

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

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

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

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

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

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

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

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

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

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

Provide the following:

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

D Measurement

The department will measure Pond Liner Clay in volume by the cubic yards, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
640.1303.S	Pond Liner Clay	CY

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

stp-640-016 (20130615)

35. Nighttime Work Lighting-Stationary.

A Description

This special provision describes furnishing portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days before the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

stp-643-010 (20100709)

36. Clay Cap, Item SPV.0035.0031.

A Description

This special provision describes furnishing and installing the clay cap material to cap the low level petroleum contaminated soil material placed at the designated fill site location at 2702 W. Greves Street in Milwaukee as shown in the plans.

B Materials

The clay material can be acquired on site or be furnished by the contractor from a borrow site. The contractor shall submit laboratory test results of the clay cap material from onsite or borrow source(s) documenting that the clay meets or exceeds the clay material specifications prior to the start of cap construction and prior to bringing borrow to the site. The laboratory tests shall be conducted on clay material from on site or borrow areas at the frequency listed below and be performed according to ASTM standard methods as listed below. The test results shall be submitted to the engineer for review and approval prior to construction. The following tests are required:

- A minimum of 50 percent by weight which passes the 200 sieve.
- Liquid Limit (LL): 22 percent or greater.
- Plasticity Index (PI): 12 percent or greater.

Clay not meeting these three requirements shall be removed and disposed of by the contractor without additional payment.

In addition to the three above testing requirements, the contractor shall provide additional test results for any clay furnished to be used for informational purposes. These testing results are listed below.

Reference standards are listed as follows:

American Society for Testing and Materials (ASTM):

- ASTM D698 Test for Moisture-Density Relations of Soils and Soil Aggregate Mixtures Using 5.5 lb Rammer and 12 in. Drop (Standard Proctor).
- ASTM D2922 Test for Density of Soil In Place by Nuclear Method (Shallow Depth).
- ASTM D1140 Test Method for Amount of Materials in Soils Finer than the No. 200 Sieve.
- ASTM D422 Method for Particle-Size Analysis of Soils.
- ASTM D4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- ASTM D2487 Classification of Soils for Engineering Purposes.

Number of Required Tests

Test	One Borrow Source Only and Also For Onsite Clay	Multiple Borrow Sources	Minimum Requirement
Grain Size Analysis	3 (Total)	1 test/4,500 cy or less/site[(a)]	≥ 50% by Wt. Passing 200 Sieve
Hydrometer Analysis	3 (Total)	1 test/4,500 cy or less/site[(a)]	Info. Only
Atterberg Limits (ASTM D4318)	3 (Total)	1 test/2,250 cy or less/site[(a)]	LL ≥ 22% PI ≥ 12%
USCS Classification (ASTM D2487)	3 (Total)	1 test/2,250 cy or less/site[(a)]	Info. Only
Standard Proctor Analysis 5-Point Curve (Minimum) (ASTM D698)	2 (Total)	1 test/5,000 cy or less/site[(b)]	Info. Only

[(a)] For each clay borrow site to be used, one test Grain Size and Hydrometer shall be performed and provided to engineer for each 4,500 cubic yards or less of clay to be obtained from each of the borrow sources. For each clay borrow site to be used, one Atterberg Limits and USCS Classification shall be performed and provided to engineer for each 2,250 cubic yards or less of clay to be obtained from each of the borrow sources.

[(b)] For each clay borrow site to be used, one test shall be performed and provided to engineer for each 10,000 cubic yards or less of clay to be obtained from each of the borrow sources.

C Construction

C.1 Clay Cap Placement

C.1.2 Clay Cap

Before the waste is placed, the existing surface will need to be scarified to a 1-foot depth and re-compacted to at least 95 percent of the Standard Proctor (ASTM D-698) value for the soil at a moisture content between 90 percent to 105 percent of the optimum moisture content. Clay cap can only be placed after testing confirms that the subgrade has achieved the density and moisture content requirements

After the grading is complete, the contractor shall place and compact approved clay cap material a maximum of 6-inch lifts for a total compacted thickness of 18 inches.

Contractor shall notify the engineer at least three days prior to start of placing clay cap.

Lift thickness shall be 6 inches maximum after compaction.

Clay cap shall be 18 inches thick measured perpendicular to the surface.

Compact clay to a minimum of 95% Standard Proctor Maximum Density (ASTM D698) with a sheepsfoot roller or other suitable equipment.

Placement of each lift shall not proceed until all required clay testing and documentation has been completed for the previous lift.

The moisture content of the clay during placement shall be:

- No drier than 90 percent of the optimum moisture content as determined by ASTM D698.
- No wetter than 105 percent above the optimum moisture content as determined by ASTM D698.

Excessively dry or wet clay soil shall be properly moisture-conditioned to within the above range of values.

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

The contractor is responsible for construction of the clay cap per the plans. If the in-place clay cap fails to meet the requirements of this section, the contractor shall be responsible for the following:

- Removing and replacing or reworking any portion of the clay cap not meeting the project specifications until project specifications are met.
- The contractor shall not be compensated for removing, replacing and reworking clay cap not meeting the specification requirements.

C.1.4 Testing of Constructed Soils

As construction of the clay cap proceeds, the department will provide all required on-site quality control testing of installed materials as follows:

- Record thickness of clay cap.
- Density testing (ASTM D2922) on after the clay is placed and compacted. One test per lift (minimum) or one test for every 25,000 sq. foot of lift constructed, whichever is greater.
- HTCP certified person will perform all necessary sampling, testing, data analysis and documentation during all Clay Cap placement and compaction.
- One Standard Proctor (ATM D698) for each soil type used but no less than one Proctor analysis for each 5,000 cubic yards of clay placed.
- After the cap is placed and compacted, one Shelby tube sample and bulk sample shall be retrieved and analyzed for the following:
    - Grain size distribution and hydrometer analysis.
    - Moisture content.
    - Dry density.
    - Atterberg Limits.

The contractor shall provide the following:

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

D Measurement

The department will measure Clay Cap by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0031	Clay Cap	CY

Payment is full compensation for furnishing, placing and compacting the clay cap on the surface of the Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil stock pile material.

37. Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil, Item SPV.0035.7000.

A General

A.1 Description

This special provision describes excavating, relocating, and reusing low-level petroleum-contaminated soil within the project limits or at a WDNR-approved off-site location.

Perform this work according to the requirements of standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport impacted soil.

A.2 Notice to the Contractor – Impacted Soil Locations

The department completed testing for soil contamination at locations within this project where excavation is required. Testing indicated that low-level petroleum-contaminated soil is present at the following locations as shown on the plans:

- Station 435+10NS to 437+00NS from 125 to 225 feet right of reference line, from approximately 0 to 8 feet below grade. Approximately 5,300 cubic yards (approximately 9,010 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.
- Station 435+10NS to 437+00NS from 225 to 350 feet right of reference line, from approximately 0 to 8 feet below grade. Approximately 7,500 cubic yards (approximately 12,750 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.
- Station 437+00NS to 437+60NS from 280 feet to 350 feet right of reference line, from approximately 0 to 8 feet below grade. Approximately 1,500 cubic yards (approximately 2,550 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.
- Station 437+00NS to 437+60NS from 205 feet to 280 feet right of reference line, from approximately 0 to 40.5+ feet below grade. Approximately 7,100 cubic yards (approximately 12,070 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.
- Station 437+60NS to 438+40NS from 205 feet to 280 feet right of reference line, from approximately 0 to 29 feet below grade. Approximately 5,700 cubic yards (approximately 9,690 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.
- Station 113+70NO to 114+10NO from 110 feet left of reference line to 45 feet right of reference line, from 0 to 26 feet below grade (from surface elevation of existing North Ave). Approximately 2,672 cubic yards (approximately 4,550 tons at an estimated 1.7 tons per cubic yard) of soil to be excavated from this area will be reused on the project as specified in Section A.3.

If other signs of contamination are encountered at these locations or elsewhere on the project, terminate excavation activities in the area and notify the engineer.

A.3 Reuse of Low-Level Petroleum-Contaminated Soils

Soil excavated from the locations listed in A.2 is characterized as Low-Level Petroleum-Contaminated Soil and shall be reused as fill at the following location:

- WisDOT property at 2702 W. Greves St., Milwaukee, WI

Upon final placement of all reuse soil, the reuse soil shall be capped with a minimum of 18 inches of clay. The clay cap can be covered with additional fill material to bring the embankment surface to final grade. If at any time during the contract placement of reuse soil is halted for a period exceeding more than 60 consecutive days, an interim 18-inch clay cap shall be placed over the reuse fill material. Topsoil is not required on the interim clay cap. Topsoil, erosion mat, and seed the final embankment surface.

Soils that are reused as project fill should not contain crushed asphalt or other non-exempt solid wastes.

A.4 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of impacted material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, Waukesha, WI 53187-0798
Phone:	(262) 548-6705
Fax:	(262) 548-6891
E-mail:	andrew.malsom@dot.state.wi.us

A.5 Coordination

Coordinate work under this contract with the WisDOT BTS environmental consultant. Determine the environmental consultant by contacting the following at least 30 days prior to the pre-construction conference:

Name:	Bryan Bergmann, P.G.
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Phone:	(262) 901-2126
Fax:	(262) 879-1220
E-mail:	bbergmann@trcsolutions.com

The role of the environmental consultant will be limited to:

- Determining the location and limits of low-level petroleum-contaminated soil to be excavated and reused as fill based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
- Documenting that activities associated with management of low-level petroleum-contaminated soil are in conformance with the low-level petroleum-contaminated soil management methods for this project as specified herein; and,
- Obtaining the necessary approvals for the reuse of low-level petroleum-contaminated soils from the WDNR.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas specified above to the environmental consultant. Also notify the environmental consultant at least 3 calendar days prior to commencement of excavation activities in each low-level petroleum-contaminated soil area.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the low-level petroleum-contaminated soil areas. Perform excavation work in each of these areas on a continuous basis until excavation work is completed.

The environmental consultant will be responsible for obtaining the necessary approvals for reuse of the excavated low-level petroleum-contaminated soil from the WDNR. Do not transport soil offsite without prior approval from the environmental consultant.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

Control operations in the impacted areas to minimize the quantity of low-level petroleum-contaminated soil excavated and hauled for reuse at the designated reuse location.

The environmental consultant will periodically evaluate soil excavated from the area specified above. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul soils designated by the environmental consultant for reuse. Use loading and hauling practices that are appropriate to prevent any spills or releases of soil during transit. Prior to transport, sufficiently dewater soils designated for on-site reuse so as not to contain free liquids.

D Measurement

The department will measure Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil in cubic yards of low-level petroleum-contaminated soil reused as documented by the engineer, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.7000	Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil	CY

Payment is full compensation for excavating, segregating, loading, hauling, and placing of low-level petroleum-contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary.

38. Backfill Slurry, Item SPV.0035.8002.

A Description

This special provision describes furnishing and placing Backfill Slurry. Conform to standard spec 209 except as hereinafter modified.

B Materials

Replace standard spec 209.2.2 with the following:

(1) Use aggregates that conform to the gradation conforming to standard spec 501.2.5.3 for fine aggregate and for Size No. 1 in standard spec 501.2.5.4. Provide aggregates in the same proportion by weight as for Grade A concrete as in standard spec 501.3.2.2. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water meeting the requirements of standard spec 501.2.4 to enable the mixture to flow readily.

C Construction

Replace standard spec 209.3 with the following:

Discharge from the truck in a manner to prevent segregation. Completely fill excavation in a single operation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

D Measurement

Replace standard spec 209.4 with the following:

The department will measure Backfill Slurry in volume by the cubic yard of material placed and accepted. Such volume shall be computed from actual measurements of the dimensions of the area to be backfilled. In irregular or inaccessible areas, the engineer may allow volume to be determined by other appropriate methods.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.8002	Backfill Slurry	CY

Payment is full compensation conforming to standard spec 209.5.(2) and 209.5.(5).

39. Field Facilities Office Space, Item SPV.0060.0001.

A Description

This special provision describes furnishing, equipping, and maintaining a field office as required in the contract at engineer-approved locations conforming to standard spec 642 and as hereinafter provided.

B Materials

Provide Field Facilities Office Space conforming to standard spec 642.2.1 except revise by deleting paragraphs (1), (7), and (9).

Replace standard spec 642.2.1(4) with the following:

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, and stock with sanitary supplies for the duration of the contract. Furnish office space in an existing office building or existing building converted to office space with a minimum of 2,000 square feet. The facility shall have no fee parking with a minimum parking for 20 cars. The space shall include a meeting room with a minimum of 250 square feet. The exterior door(s) shall have locks in good working order and keys provided for all field staff. The office space shall be located within 2 miles of the construction project.

Equip the office as specified in standard spec 642.2.2.1 except delete paragraph (1) and (4) and add the following:

1. Ten suitable office desks with drawers and locks.
2. Ten ergonomically correct office chairs in working condition with at a minimum: 5-legged base with casters, seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge, and high backrest with no arms or adjustable arms.
3. Six 6-foot folding tables.
4. Two 10-foot folding table.
5. Ten 2-drawer file cabinets.
6. Six 4-shelf bookcases.
7. Thirty folding chairs.

Provide for the professional cleaning of the field office during regular business hours twice monthly. Provide clearly marked recycling and waste receptacles within the field office, and separate recycling and waste dumpsters near the field office. Cover outdoor containers to keep out rain, snow, and wind-driven debris. Provide regularly scheduled recycling and waste pick-up.

C Construction

Conform to standard spec 642.3 except delete paragraph (2).

D Measurement

The department will measure the Field Facilities Office Space as each office, 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. 0001	Field Facilities Office Space	EACH

Payment is full compensation for providing, equipping, securing, and maintaining the facility; for parking, for telecommunications equipment, installation, and service fees; and for providing bottled water, utilities, fuel, ventilation, and toilet facilities as required for the time specified in standard spec 642.3.

The department will pay for the cost of telecommunications usage fees incurred by department staff.

40. Existing Pipe Connections to Structures, Item SPV.0060.0500.

A Description

This special provision describes reconnecting existing storm sewer laterals to new structures or existing pipe.

B Materials

Provide culvert pipe concrete collars conforming to 520.2.4.

Provide couplings conforming to standard spec 607.2.

C Construction

Identify all existing pipes in existing structures before that structure's removal. Remove existing pipes to the next good joint and replace in-kind. Verify that positive drainage is achieved when connecting to the new inlet or curb outlet structure. The contractor will be allowed to salvage any structurally sound pipe that was removed with prior approval by the engineer. Connect the existing pipes to the new pipes with the appropriate coupling, concrete collar or by means approved by the engineer. Any additional pipe or materials required to reconnect the storm sewer laterals are considered incidental to this bid item.

D Measurement

The department will measure Existing Pipe Connections to Structures by each connection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0500	Existing Pipe Connections to Structures	EACH

Payment is full compensation for removal of existing pipes, furnishing and installing all materials, couplings, concrete collars, and pipe.

41. Traffic Control Interim Freeway Lane Closure, Item SPV.0060.0905.

A Description

This special provision describes adjusting existing traffic control items that have previously been placed on the freeway for a lane closure, intended lane closure or are in position for staged construction as shown on the plans into position for an additional lane closure, and for readjusting the traffic control items to their original state or position upon removal of the additional lane or two lane closure within a 24 hour period. All work shall be according to standard spec 643, the plans, and as directed by the engineer.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Traffic Control Interim Freeway Lane Closure as each individual freeway lane or two-lane closure is setup and subsequently removed per direction of traffic within a 24-hour time period, 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.0060.0905	Traffic Control Interim Freeway Lane Closure	EACH

Payment is full compensation for setup and subsequent removal per direction of traffic within a 24-hour time period of a freeway lane or two-lane closure.

42. Traffic Control Interim Freeway Two Lane Closure, Item SPV.0060.0910.

A Description

This item shall consist of adjusting existing traffic control items that have previously been placed on the freeway for a two lane closure, intended two lane closure or are in position for staged construction as shown on the plans into position for an additional two lane closure, and for readjusting the traffic control items to their original state or position upon removal of the two lane closure within a 24 hour period. All work shall be according to standard spec 643, the plans, and as directed by the engineer.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Traffic Control Interim Freeway Two Lane Closure as each individual freeway two lane closure setup and subsequently removed per direction of traffic within a 24-hour time period, acceptably completed. Single lane closures or shoulder closures placed during off-peak hours just prior to freeway night time hour two lane closures are considered incidental to this item.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0910	Traffic Control Interim Freeway Two Lane Closure	EACH

Payment is full compensation for setup and subsequent removal per direction of traffic within a 24-hour time period of a freeway lane or two-lane closure. No separate payment will be made for single lane closure or shoulder closure placed during off-peak hours just prior to freeway night time hour two lane closures.

43. Ramp NOB Pond Outlet Storm Sewer Structure, Item SPV.0060.8002.

A Description

Furnish and install pond outlet storm sewer structure according to the pertinent provisions of standard spec 611, as shown on the plans and as hereinafter provided. Furnish and install trash racks on the outlet Storm Sewer Structure. Furnish and install trash racks according to the pertinent provisions of standard spec 506 and 513, as shown on the plans and as hereinafter provided. Provide orifice holes and anti-seep collar as shown on the plan.

B Materials

Furnish manhole materials according to standard spec 611.

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel galvanized according to ASTM A123 and ASTM 153 as applicable.

Trash racks shall be fabricated from structural steel shapes, flat bar and plates and shall be galvanized after fabrication. Shop drawings for the trash racks shall be submitted to the engineer for approval prior to fabricating the trash racks.

Furnish bolts, nuts and washers for the installation of the trash racks onto the Outlet Storm Sewer Structures. Bolts, nuts and washers according to standard spec 513.2.2.5.

C (Vacant)

D Measurement

The department will measure Ramp NOB Pond Outlet Storm Sewer Structure as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.8002	Ramp NOB Pond Outlet Storm Sewer Structure	EACH

Payment is full compensation for providing and placing all materials, including all masonry, steel and pipe connections, and other fittings; furnishing and installing trash racks; for providing orifice holes and anti-seep collars; for furnishing all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

44. Cover Plates Left-In-Place, Item SPV.0060.8005.

A Description

This special provision describes providing a steel plate to cover and support construction, backfill material, and traffic loading at storm sewer structures as the plans show, conforming to the appropriate provisions of standard spec 611, and as modified in this special provision.

Cover plates left in place becomes the property of the department after final acceptance by the engineer.

B Materials

Provide a 0.75-inch minimum thickness steel plate that extends to the outside edge of the existing masonry walls. Backfill with base aggregate dense 1 1/4 inch.

Provide 1/4 inch diameter steel bolts and epoxy to secure the cover plate to the top deck of the existing structure.

C Construction

Remove the existing grate, frame, and accompanying grade adjusting rings. Remove 2' minimum concrete block. Remove all loose debris and other accumulated material found on the structure deck which would otherwise interfere with cover plate installation. Drill a single 3/8-inch hole centered in each corner of the cover plate. Set the cover plate on the existing structure deck, ensuring the access hole is covered and that the cover plate extends to the edges of the existing masonry. Place cover plate over portion of storm sewer structure which is below the proposed flow line elevation. Do not extend covers above the proposed flow line to prevent flow bypass of the inlet.

Embed and epoxy each 1/4-inch steel bolt a minimum of 2-inches into the structure deck through each drilled hole. Backfill to the subgrade elevation construction voids above the cover plate with base aggregate dense 1-1/4 inch.

Place cover plates as the plans show.

D Measurement

The department will measure Cover Plates Left-In-Place as each individual cover plate left in place, 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.0060.8005	Cover Plates Left-In-Place	EACH

Payment is full compensation for providing the cover plate and leaving cover plates in place; providing drilled epoxy bars; base aggregate dense 1 1/4 inch backfill; removing inlet frame and lid; removing 2-foot minimum concrete block; and for excavation.

sef-611-005 (20180104)

45. Pipe Connection to Existing Structure, Item SPV.0060.8015.

A Description

This special provision describes connecting new storm sewer pipe to existing structure.

B Materials

Conform to standard spec 608.2 and standard spec 611.2

C Construction

Conform to standard spec 608.3 and standard spec 611.3

D Measurement

The department will measure Pipe Connection to Existing Structure by each pipe connected, 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.0060.8015	Pipe Connection to Existing Structure	EACH

Payment is full compensation for performing all work; excavation, backfilling, furnishing, masonry and fittings; disposing of surplus material, coring holes in existing structure to connect new pipe; and installing all materials, couplings, concrete collars, and pipe.

46. Removing Bulkhead, Item SPV.0060.8018.

A Description

This special provision describes removing existing bulkhead as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction

Carefully remove the bulkhead without damaging the pipe. Replace portion of damaged pipe with similar size and material.

D Measurement

The department will measure Removing Bulkhead by each bulkhead removed, 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.0060.8018	Removing Bulkhead	EACH

Payment is full compensation for furnishing all materials; removing bulkhead, replacing damaged pipe material including concrete collar around the pipe; and excavating and backfilling where necessary.

47. Survey Project 1060-34-78, Item SPV.0105.0001.

A Description

This special provision describes modifying standard spec 105.6 and 650 to define the requirements for construction staking for this contract. Conform to standard spec 105.6 and 650 and as follows.

The department will not perform any construction staking for this contract. Obtain engineer's approval before performing all survey required to lay out and construct the work under this contract.

Replace standard spec 650.1 with the following:

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

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- pavement
- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- beam guard
- electrical installations
- supplemental control
- slope stakes
- ponds
- utilities
- conduit
- traffic control items
- fencing

B (Vacant)

C Construction

Add the following to standard spec 650.3.1 (5):

Confirm with engineer before using global positioning methods to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.
6. Sanitary sewer construction or other gravity–based drainage system, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1(6) with the following:

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

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

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

Replace standard spec 650.3.3.1 with the following:

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

Replace standard spec 650.3.3.3.4.1 with the following:

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

Add the following to standard spec 650.3.3.3.6.2 as paragraph four:

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

Add the following to standard spec 650.3 as subsections 650.3.15 and 650.3.16:

650.3.15 Water Main

Record all elevation data for the casing, grade breaks, water main pipe, bends, fittings, and all information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe, valves and bends to within 0.10 feet horizontal and establish the elevations to within 0.10 feet vertical.

Set construction stakes at all water main valves, fittings and bends and at maximum interval of 50 feet for water main piping.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all bends, fittings, valves and tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing.

650.3.16 Sanitary Sewer

Record all elevation data for pipe inverts, outside drops, bends, fittings, casings and other information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically. Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing and the size and material of all pipes

D Measurement

Replace standard spec 650.4 with the following:

(1) The department will measure Survey Project 1060-34-78 as a separate single lump sum unit, acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0001	Survey Project 1060-34-78	LS

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

sef-650-005 (20181219)

48. Pavement Cleanup 1060-34-78, Item SPV.0105.0002.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site.

B Materials

B.1 Pavement Cleanup

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

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

Use a vacuum-type sweeper as the primary sweeper, except as specified herein or approved by the engineer.

C Construction

C.1 Pavement Cleanup

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

Provide surveillance to identify if material is being tracked from the jobsite. Clean up spillage and material tracked from the project within an hour of occurrence or as directed by the engineer. Perform cleanup operations in a safe manner.

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

- North Avenue
- IH-41 Exit and Entrance Ramps at North Avenue
- Greves St.
- St. Paul St.
- Mayfair Rd.
- And any other roadways approved by the department

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to deal with dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Respond to emergency sweeping requests within 4 hours.

If the vacuum-type sweeper breaks down, a mechanical broom sweeper may be substituted for no more than 24 hours total elapsed time. Repair the vacuum-type sweeper within that 24 hours or substitute a vacuum-type sweeper.

Skid steers with mechanical power brooms may only be utilized on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer.

D Measurement

The department will measure Pavement Cleanup Project 1060-34-78 as a single lump sum for 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.0105.0002	Pavement Cleanup Project 1060-34-78	LS

Payment schedule for this item will be according to the percentage of contract value earned.

Payment is full compensation for surveillance, mobilization, sweeping, and disposing of materials.

49. Control of Water, Item SPV.0105.8098.

A Description

This section addresses the provisions for controlling, handling, disposing, and treating groundwater and surface water, including contaminated groundwater that may be encountered in the Ramp NOB detention basin excavation and at the IH 94 designated fill site construction, as required for performance of the work as shown in the plans.

Refer to the dewatering guidelines of WisDNR Storm Water Management Technical Standards, Code #1061, “Dewatering”. This document can be found at the WisDNR website: http://dnr.wi.gov/topic/stormWater/documents/Dewatering_1061.pdf

B Materials

The contractor is responsible to determine materials required to meet this special provision.

C Construction

C.1 Submittals

C.1.1 General

The discharge permits and water control plan shall be submitted to the engineer at least 30 days prior to start of excavation, unless otherwise noted.

C.1.2 Subsurface Conditions

The contractor shall review pertinent geotechnical reports for groundwater information and soil types.

C.1.3 Submittals

Discharge Permit: Submit discharge and well permit applications to Wisconsin Department of Natural Resources (WDNR) if dewatering wells are to be used. Also submit design and calculations for the sedimentation tank or clarifier system to be utilized to reduce sediment levels to minimum levels required by WDNR prior to discharging.

Water Control Plan: The following items shall be included in the water control plan, as a minimum.

a. Descriptions of proposed groundwater and surface water control facilities including, but not limited to: equipment, methods, installation, standby equipment and power supply, pollution control facilities including silt removal facilities, discharge locations, removal of water control systems, and provisions for immediate temporary water supply.

b. Shop drawings showing locations, dimensions, and relationships of elements of each water control system.

c. Design calculations demonstrating dewatering zone of influence, and adequacy of proposed water control systems and components.

d. Manufacturer's literature describing installation, operation, and maintenance procedures for all components of the water control system.

e. Monitoring plans including measurement of: pumping rates at excavated locations and wells, reading of piezometers, water quality sampling of discharge, and discharge quantities.

The contractor may be required to demonstrate the systems proposed in the water control plan and verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required.

If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

Quality Control: During construction, submit discharge and pumping rate measurements, water level readings taken at piezometers, groundwater quality data, and sediment content test results. Contractor's readings shall be performed in addition to any readings taken by the department. Submit the data and test results within 24 hours of readings.

C.1.4 Acceptance

All Information Submittals shall be submitted to the engineer. The engineer can reject the submittals which do not contain adequate detail, as required herein. The contractor shall resubmit the rejected submittals within 7 days upon the receipt of the engineer's rejection notice.

C.2 General Requirements

The contractor shall continuously control, handle, treat and dispose water at all times during the course of construction, and provide adequate backup systems to accomplish control of water in conformance with this special provision to obtain satisfactory working conditions and to maintain the progress of the work. Water to be controlled includes groundwater, contaminated groundwater; and surface water (precipitation and run-off).

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic.

General dewatering and lowering of the groundwater table for purpose of stabilization of the detention basin excavation surface will be permitted for detention basin construction.

The contractor shall modify the water control system at their own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

C.3 Regulatory Requirements

Storm water discharge to storm sewers, watercourses, lakes, and wetlands shall conform to the requirements of local, state, and Federal regulations. Water from excavations shall be kept separate from storm water discharge associated with surface construction.

In the event that contaminated waters are encountered, the contractor is required to notify the department prior to discharging contaminated water. Comply with WDNR regulations regarding disposal of contaminated groundwater. Obtain additional permits, if required. Notify the Milwaukee Metropolitan Sewerage District (MMSD) for any discharge of contaminated water into the sewer system and provide laboratory test results documenting contaminant concentrations.

C.4. Surface Water Control

Intercept and divert surface drainage away from the work sites by the use of dikes, curbwalls, ditches, sumps, or other means. Design surface drainage systems to prevent erosion either on or off the site. Control surface runoff to prevent entry of surface water into excavations and to prevent erosion either on or off the site. Remove drainage systems when no longer needed.

C.5 Water Control in Excavations

Use water control methods that are appropriate, as determined by the contractor, to permit conditions, ground conditions, construction operations, and requirements of these plans and special provisions. The methods shall involve removal of water accumulating within excavations from precipitation and

groundwater infiltration and may involve removal of water outside excavations by means such as the use of dewatering or pressure relief wells.

Water control methods shall minimize adverse effects of elevated or reduced water pressure on the work, the surrounding ground and adjacent facilities and structures. Design and operate the water control measures to prevent removal of in-situ materials (development of lost ground) or loosening or softening of subgrade soils within excavations.

Water control methods shall be capable of lowering and maintaining the free water and piezometric levels to an elevation at least 2 feet below excavation bottoms, including the base of excavation required for placement of the clay liner. The methods shall have sufficient capacity to accomplish this desired result allowing for normal variations in precipitation and soil and aquifer properties.

Control groundwater and surface water such that the construction excavations, trenches and other structures can be performed without adverse effects of water on the facilities being constructed, including prevention of hydrostatic uplift pressures on the new facilities until construction has been adequately completed. If the water level cannot be maintained at the specified levels, contractor shall, at no additional cost to the department, control seepage of groundwater by whatever means are necessary to assure that there is no loss of ground by erosion or piping of fines with seepage through shoring or lagging into excavated areas and no instability of slopes due to seepage. Control water during periods when excavating, installing ground support systems, installing subgrade protection measures, placing concrete (except tremie concrete), placing pipe, and at such other times as is necessary for efficient and safe execution of the work.

If water enters the excavation in volumes that could adversely affect the performance of the work or has the potential to cause loss or damage to adjacent property or structures, take immediate steps to reduce or mitigate the water inflow.

Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the work or the safety of personnel.

C.6 Monitoring of Groundwater Levels

Monitor groundwater levels as necessary to evaluate the sufficiency of the water control system. A system of construction piezometers is required to evaluate the effectiveness of the water control system in fulfilling the requirements specified herein. Piezometers shall be of adequate numbers and in suitable arrangements and depths for determining the free water surface elevations and piezometric elevation over the area. A minimum of one piezometer per four dewatering wells or one piezometer per excavation location shall be installed with the dewatering system at locations and depths proposed by the contractor.

Piezometers shall be installed using direct rotary drilling methods with drilling fluid that does not impact the development of the piezometer and conforms to ASTM D5783. During drilling, soil samples shall be obtained at intervals of 2.5 feet or less using standard penetration tests according to ASTM D1586. Piezometers shall be constructed and developed according to ASTM D5092, with development a minimum of 24 hours after completion. The contractor’s engineer shall determine the depth of the sensing zone for each piezometer based on observations of retained soil samples.

Make a minimum of one reading at each piezometer, per 24-hour period, 5 days per week during the period of dewatering activities (including dewatering by pumping seepage from sumps within shafts or other excavation areas) and one reading at each piezometer per week until the end of construction during periods of no dewatering.

C.7 Dewatering Wells

Obtain a site-specific dewatering discharge or construction site storm water discharge permit if the WDNR has specific concerns that are not addressed by other permits that might otherwise apply.

Obtain a WDNR permit for operation of any well or well system that has a combined pumping capacity of 70 gallons per minute or more (a high capacity extraction system). For purposes of permitting, a well is defined as any opening made in the ground where the depth of the opening is greater than its largest surface dimension and extends more than 10 feet below ground surface. The permit will require that wells be constructed, operated, and abandoned according to Chapter NR 812, Wisconsin Administrative Code.

Comply with WDNR regulations regarding disposal of contaminated groundwater in the event that contaminated waters are encountered. Obtain additional permits, if required.

Keep dewatering influence zone to the minimum necessary for execution of the work. Obtain any additional geotechnical information necessary for design of a dewatering well system, including performing pump tests, grain size analyses, groundwater chemical analyses, and subsurface

investigations. Design and operate wells so as to prevent removal of fine soils with seepage through backpack material and screens. Provide means by which water discharge from each well can be measured and flow rates adjusted. Construct and operate wells according to WDNR requirements. Monitor the rate of discharge from each well on a daily basis with an accuracy of at least 2 percent of the flow.

Wells shall be designed, installed and operated in a manner that will preclude removal of materials by the pumping operation (hereafter referred to as "piping of fines"). After installation, each well shall be individually pump-tested at maximum design flow to verify acceptability with respect to piping of fines (sediment mostly consisting of silt and sand) as measured using a centrifugal tester. Any well or wellpoint segment found to be causing piping of fines at a rate exceeding 40 parts per million (ppm) by volume during the individual pump-test at the maximum design flow shall be replaced in a manner acceptable to the engineer, and at no additional cost to the department. Each well shall be checked for sediment piping using a centrifugal tester immediately after installation and at least once per month during operation. Measure the sediment content of the total dewatering effluent using a centrifugal tester at least once every 30 days. If the sediment content of the total effluent is greater than 1 ppm, contractor shall identify and abandon wells that are producing excessive sediments and replace them. All sediment content tests shall be performed in the presence of the engineer.

C.8 Ground Loss from Dewatering Operations

Support any structure including, but not limited to, buildings, bridges, freeway surfaces, streets, and utilities, or portions of such structure, including footings, foundations, basements, walls or concrete driveways that become unstable or vulnerable to settlement due to removal or disturbance of groundwater. Cease excavation and other construction operations that result or have the potential to result in further settlement until corrective measures are implemented. Support shall include but not be limited to shoring; sheeting; bracing; underpinning; compaction grouting; driving piles; excavating, backfilling, and placing new structural concrete beneath or adjacent to the unstable structure; or other means necessary to rectify the particular problem involved.

The contractor shall bear the costs of all loss or damage arising from removal or disturbance of groundwater including, but not limited to claims for subsidence and loss of structure support that may occur in the prosecution of the work. If the contractor fails to correct the damage resulting from his operations, the engineer may deem the work to be unacceptable work as defined in standard spec 105.3.2.2.

C.9 Treatment and Disposal of Water

Water may be discharged from the construction site through pipes or hoses. Do not convey water in open ditches or trenches. Discharge water in a manner that will not cause soil erosion at the discharge point. Discharge shall not cause sediment accumulation or flooding in any stream, storm sewer, or on adjacent properties.

Treat all water to remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling basins, on-site treatment plant, or other means selected by the contractor. Design the treatment systems for the maximum discharge rates. Treatment systems shall be capable of expansion if greater capacity becomes necessary during the course of the work. The contractor shall provide copies of all records required by the WDNR.

Obtain permission to use storm sewers or drains for water disposal purposes from the authority having jurisdiction. Protection of storm sewers and drains shall be in conformance with the Wisconsin Construction Site Best Management Practices Handbook, latest revision and the requirements by authority having jurisdiction. Any requirements and costs for such use shall be the responsibility of the contractor. Do not cause flooding by overloading or blocking the flow in the drainage facilities and leave the facilities unrestricted and as clean as originally found. Document the condition of the drainage facilities prior to and subsequent to their use. The engineer may independently verify the condition of such facilities. Repair or restore any damage to facilities as a result of the contractor's operations as directed by the authority having jurisdiction, at the contractor's expense.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Ventilate enclosures around wells and water discharge points to prevent the accumulation of combustible gas that may escape from solution in groundwater.

On completing the work, clean out and dispose of all sediments and residues in settling basins, treatment facilities, and the like. Dispose of sediments and residues according to applicable regulations.

C.10 Abandonment of Piezometers and Dewatering Wells

Abandon the design-phase piezometers and all piezometers and dewatering wells installed during construction according to standard spec 204.3.3.3 and according to NR 812 Wisconsin Administrative Code, whichever is more stringent.

D Measurement

The department will measure Control of Water as a lump sum unit of work, acceptably completed. The contractor is responsible for removing all surface and ground water regardless of the quantity during construction to accomplish the work.

E Payment

The department will pay for Control of Water at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.8098	Control of Water	LS

Payment is full compensation for system design, providing submittals, obtaining permits, furnishing materials, installation, all dewatering, testing, protection, maintenance, replacement or repair of damaged instruments, installations or adjacent structures, obtaining data readings, abandonment, and for hauling.

50. Settlement Plates, Item SPV.0105.9001.

A Description

This special provision describes the work necessary to furnish and install geotechnical settlement plates at the Advanced Fill Site along IH-94; for maintenance of installed settlement plates; and taking initial and subsequent plate elevation readings; and leaving the settlement plates in place during all stages of construction. The contractor shall be responsible for monitoring ground movement as necessary to conform to the requirements of the contract. The instrumentation program specified herein and shown on the plans is not intended to be used to ensure the safety of the work.

A.1 Definitions

Open Ground

Ground without any above- or below-grade facilities, paved or unpaved roads, and utilities within a 25-foot horizontal radius.

Surface Settlement Plates

Settlement Plates are plates attached to rods installed in unpaved areas at predetermined locations to measure vertical (elevation) changes of the ground surface.

Embankment Fill

Fill is soil used to raise the grades in the planned Advanced Fill Site along IH-94. The fill must be placed and compacted according to the QMP Subgrade special provision for the project.

A.2 Personnel Qualifications

Surveyor licensed in Wisconsin with a minimum of 5 years of experience in surveying monuments similar to those specified herein. The surveyor must be physically present at the installation sites to supervise the installations and to take initial settlement plate baseline readings.

A.3 Submittals

Submit the following specific information for information only, at least 15 days prior to the start of instrument installation:

1. Submit surveyor’s state of Wisconsin registration information.
2. Drawing that indicates the locations of control points and benchmarks associated with surveys for monitoring geotechnical settlement plates. Drawing also needs to indicate planned settlement plate locations.
3. Description of methods for installing and protecting all settlement plates.
4. Schedule of settlement plate installation related to fill placement activities or milestones in the overall project.

5. Following installation of the settlement plates and prior to the start of fill placement, submit drawings showing the exact installed location, the instrument identification number, the installation date and time, and installed locations of control points and benchmarks associated with surveys for monitoring geotechnical settlement plates. Include details of installed settlement plates, accessories, and protective measures including all dimensions and materials used.

A.4 Review of Instrumentation Plan

Prior to ordering materials or installation of settlement plates, discuss with the engineer as to the suitability of the planned settlement plates and locations. The instrumentation plan specified herein and shown on the plans may be modified by the contractor prior to installation, to suit the contractor's means and methods of construction.

Replace, at no cost to the department, plates in place that become inaccessible or unreadable as a result of the contractor’s means and methods of construction or changes in the contractor's means and methods of construction that could have been anticipated by the contractor prior to installation. The locations of replacement settlement plates shall be jointly determined by the engineer and contractor.

B Materials

B.1 Settlement Plates (SP)

Each settlement plate shall consist of ¾-inch black steel pipe attached via a coupling or union that is welded to a 2 foot by 2 foot by ¼-inch-thick steel plate. The steel pipe must be 5-foot lengths. The total length of pipe per plate varies between 25 and 30 feet. The steel pipe will need to be added to as the fill height progresses over time, so the top of the steel pipe always extends above the soil embankment fill.

B.2 Sleeve Casing

Riser pipe for sleeve casing shall consist of schedule 40 or thicker PVC pipe with glued couplings. All PVC pipe shall have a nominal diameter of 2 inches. The PVC pipe is required to prevent fill soil around the pipe from attaching to the pipe and resulting in erroneous settlement readings. The PVC pipe must have a maximum length of 5 feet. The total length of PVC pipe per plate will vary between 25 and 300 feet. The PVC pipe will need to be added to as additional soil embankment fill is placed.

C Construction

C.1 General

Notify the engineer at least 48 hours prior to all instrumentation installation operations so that the engineer may monitor the installation work. Provide the engineer and the department access to the settlement plates at all times.

C.2 Control Points

Settlement plate elevations must be determined to 1/100 of a foot. Tie control points to benchmarks and other monuments outside of the zone of ground movements that might result from underground excavations.

C.3 Tolerances

Install settlement plates within 5 feet of the horizontal locations indicated on the plans or approved shop drawings.

Obtain prior acceptance from the engineer for new instrument locations and elevations should actual field conditions prohibit installation at the locations and elevations indicated on the plans.

C.4 Execution

C.4.1 General

Install settlement plates at the locations indicated on the plans or approved drawings, and as approved by the engineer. Install settlement plates under the direct supervision of the contractor’s surveyor and the engineer.

Locate conduits and underground utilities in all areas where settlement plates will be installed. Modify settlement plate locations, as approved by the engineer, to avoid interference with the existing conduits and utilities. Repair damage to existing utilities resulting from settlement plates installations at no additional cost to the department.

Install settlement plates and complete baseline surveys/initial readings before commencing any fill placement within the Advanced Fill Site along IH-94. Settlement plate elevations must be determined to 1/100 of a foot.

Collect survey data from the settlement plates required by this article and provide to the engineer as specified herein.

C.5 Installation

C.5.1 General

Complete installation and initial survey of each settlement plate a minimum of 1 week prior to fill placement within 100 feet of the plate.

The anticipated general locations of settlement plates are shown on the plans. Mark locations of all plates in the field prior to installation acceptance of the location obtained from the engineer. Confer with the engineer in the event that conflicts with utilities occur, and changes to the planned locations become necessary.

Clearly mark, permanently label, and protect settlement plates to avoid being obstructed or otherwise damaged by construction operations or the general public. Mark sleeve casings.

After installation of each settlement plate, survey the as-built location to define the vertical and lateral positions of the plates according to the requirements herein and furnish the engineer with a copy of the results within 72 hours of field data acquisition.

C.5.2 Installing Settlement Plates

Install settlement plates at the locations as shown on the plans. Settlement plates are to be set so as not to move relative to the surface to which it is placed. Place the settlement plates on a firm and unyielding subgrade. The required settlement plate identification numbers and locations of the plates are as shown below:

Surface Settlement Plate	Northing/Easting	Approximate Elevation
SP-1	N297559.47/E595511.33	592
SP-2	N297457.58/E595460.29	592
SP-3	N297523.62/E595598.61	592

C.6 Protection

Flag and protect all locations. Exercise care during construction so as to avoid damage to plates. Repair or replace settlement plates that are damaged as a result of the contractor's operation at the contractor’s expense. The engineer will determine whether repair or replacement is required. Complete the repair or replacement within one day after written notification by the engineer as to whether a repair or replacement is required.

C.6.1 Maintenance of Surface Settlement Plates

Maintain installed settlement plates to ensure their availability for use for the duration of the work which extends beyond this contract. At the completion of the job, leave all settlement plates in place for future use by the department or another contractor. Surface Settlement Plates shall be painted with fluorescent orange paint prior to the contractor leaving the project for the last time.

C.7 Monitoring Settlement plates

Obtain all surveyor readings as specified in this article. Provide access to the plates as requested by the engineer. Make all survey data available to the engineer within 3 working days of reading. The elevations of the top of the black steel pipes that comprise the plates must be determined over time. Perform initial plate elevation survey at a minimum of 1 week prior to any placement of soil embankment fill within 100 feet of the plates. Additional plate surveys are required weekly during all fill placement and at least once every three weeks after final grades have been established until the end of the contract or until the settlement has reduced to a level that the engineer considers acceptable. Survey the fill surface elevation at each settlement plate according to the same schedule as the settlement plates.

Add sections of black steel pipe and PVC sleeve pipe to the settlement plates as the fill placement proceeds. Survey the top elevation of the existing steel pipe immediately prior to adding another section of steel pipe and PVC pipe and calculate the increase in height and base plate elevation/settlement.

D Measurement

The department will measure Settlement Plates as a 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.9001	Settlement Plates	LS

Payment is full compensation for furnishing and installing each settlement plate, for providing submittals, furnishing materials, installation, protection, maintenance, replacement or repair of damaged settlement plates, replacement of inaccessible or unreadable plates, all survey readings, providing access to the engineer for reading, and all other specified items of work for which no separate bid item is provided.

51. Inclinometers, Item SPV.0105.9002.

A Description

This special provision includes requirements to furnish, install, and maintain the inclinometers located at the Advanced Fill Site along IH-94. The purpose of the inclinometers is to monitor horizontal ground movements adjacent to Greves Street. The instrumentation program specified herein is not intended to be used to ensure the safety of the work.

A.1 Personnel Qualifications

Surveyor: Qualified personnel shall be a licensed surveyor registered in the State of Wisconsin and have a minimum of five years of experience in the installation of geotechnical instrumentation similar to those specified herein.

Instrumentation Engineer: The contractor shall hire a professional civil or geotechnical engineer or engineering geologist, with a minimum of five years of experience in the installation of inclinometers specified herein.

B Materials

Protective Cover: Protective covers shall be guard casings or valve boxes depending upon installation location, as specified in this special provision. Each protective cover shall be 2 inches larger than the instrument within, or a minimum of 4 inches in inside diameter. Guard casing shall consist of Schedule 40 steel pipe, or equal. Guard casing shall be of such length that it will have a minimum depth below ground surface of 2 feet, and a height above ground surface of 2 feet to 4 feet, or as instructed by the engineer. Guard casing shall have a bolting or screw-type cover that is free of sharp edges and burrs and is easy to remove for monitoring. Valve boxes shall be cast iron or steel designed to resist traffic loading typical for roadway installation. Valve boxes shall be of such length to have a minimum depth below ground surface of 1.5 feet when installed flush with the ground surface. The valve box shall have a bolting cover.

Inclinometers (INC): Inclinometer casing shall be grooved plastic 2.75-inch OD casing that is compatible with the inclinometer being provided. The casing shall be complete with necessary rigid self-aligning couplings and end plugs. The inclinometer monitoring system shall include a probe, 100 feet of cable, cable relief, pulley assembly, cable hold, and readout. The inclinometer readout shall measure inclinations at any depth selected by the operator and shall digitally store, process and report the data (by display and downloadable digital files) as lateral movements from a stored baseline reading. The cable connecting the sensor and indicator shall have a stranded steel core to take the stress of pulling so as not to break any connectors or wires. The cable shall be jacketed with a waterproof material and marked externally at 1-foot intervals for accurate depth determination. The cable guide pulley shall mount to the top of the inclinometer casing.

C Construction

C.1 Submittals

C.1.1 General

Prepare and submit the qualifications, inclinometer plan and shop drawings, and at least 15 calendar days prior to start of inclinometer installation. The engineer will accept the submittal as submitted or return the submittal with requested revisions. Do not start any work until the engineer provides acceptance of qualifications and inclinometer plan and shop drawings.

C.1.2 Submittals for Approval

Qualifications: Submit qualifications of the surveyors and the instrumentation engineer.

Inclinometer Plan and Shop Drawings: The inclinometer plan and shop drawings shall be prepared by the instrumentation engineer and shall ear the seal, signature and date of the instrumentation engineer. As a minimum, include the following:

a. Shop drawings detailing locations (coordinates), depths, types, details, and other pertinent information showing the installation details for the inclinometers.

b. Shop drawings that indicates the locations of control points and benchmarks associated with surveys for monitoring inclinometers.

c. Description of methods for installing and protecting inclinometers.

d. Materials and mix portions for cement-bentonite or cement-lime grout for installing inclinometers.

e. Schedule of instrument installation and baseline related to significant activities or milestones in the overall project.

f. Manufacturer's literature describing installation, operation, and maintenance procedures for all instruments, materials, readout units, and accessories.

As-built Plans: Following installation of the inclinometers and prior to the start of embankment construction, submit as-built drawings showing the exact installed location (coordinates and elevation), inclinometer’s groove orientation relative to Greves Street, the instrument identification number, the installation date and time, the tip elevation and instrument length, and installed locations of control points and benchmarks associated with surveys for monitoring inclinometers. Include details of installed instruments, accessories, and protective measures including all dimensions and materials used.

C.1.3 Information Submittals

Certificates: Submit for each instrument to be installed, as applicable, a certificate issued by the instrument's manufacturer stating that the manufacturer has inspected and tested each instrument before it leaves the factory to confirm that the instrument is working correctly and has no defects or missing parts.

Reports and Records:

a. Drilling and installation logs for inclinometer installations prepared by the instrumentation engineer.

b. Submit initial/baseline readings specified herein to the engineer, at least 15 days prior to the start of any construction activity within 200 feet of the instrument.

c. Weekly monitoring report by the instrumentation engineer shall be submitted on a weekly basis as specified herein. Supply copies of field notes if requested. As a minimum, construction status (lateral and vertical extent of embankment fill placement), monitoring data (with comparison to the baseline readings), interpreted results, exceedances and comments, and impact assessment to adjacent roadway based on monitored movement shall be included in the weekly monitoring report.

C.1.4 Acceptance

The engineer will evaluate the Submittals for Approval with the requirements of this special provision. Within 14 calendar days after receipt of the Submittals of Approval, the engineer will notify the contractor of the acceptance of the submittal, or if additional information and/or changes are required. Any unacceptable part of the Submittals of Approval will require resubmission. The contractor must resubmit the Submittals of Approval for evaluation and review with the necessary changes or additional information provided. The engineer will provide a written notice of acceptance or rejection of contractor’s resubmitted Submittal for Approval within 14 calendar days after its receipt.

After the engineer’s acceptance of Submittal of Approval, no changes to the Submittal of Approval can be made without written consent of the engineer.

All Information Submittals should be submitted to the engineer. The engineer can reject the submittals which do not adequate detail, as required herein. The contractor shall resubmit the rejected submittals within 7 days upon the receipt of the engineer's rejection notice.

C.2 General Requirement

The contractor shall develop the inclinometer plan based on the following requirements:

a. Inclinometers shall be installed at the following locations:
    i. INC-1: N297382.10/E595490.61
    ii. INC-2: N297441.12/E595613.44

The contractor shall install instruments as per the approved submittals. The instrumentation engineer shall be responsible for inclinometer installation required. The instrumentation engineer shall be physically present at the installation sites to supervise the installations.

Maintain installed inclinometers to ensure their availability for use for the duration of the work which extends beyond this contract. At the completion of the job, leave all inclinometers in place for future use by the department or another contractor. Inclinometers shall be painted with fluorescent orange paint prior to the contractor leaving the project for the last time. Deliver final inclinometer data and any items required for future access to inclinometers to the department:

Attn: Casey Wierzchowski
WisDOT SE Region Geotechnical Engineer
141 NW Barstow Street
Waukesha, WI 53187
(262) 521-4427
casey.wierzchowski@dot.wi.gov

C.3 Installation

Inclinometers shall be installed, and baseline readings shall be completed prior to any fill placement at the Advanced Fill Site along IH 94.

The contractor shall locate conduits and underground utilities in all areas where instruments are to be installed. Instrument locations shall be modified, as approved by the instrumentation engineer, to avoid interference with the existing conduits and utilities. Repair damage to existing utilities resulting from instrument installations at no additional cost to the department.

All instruments shall be clearly marked, permanently labeled, and protected to avoid being obstructed or otherwise damaged by construction operations or the general public. Protective housing and box or vault covers shall be marked.

After installation of each instrument, survey the as-built location to define the vertical and lateral positions of the exposed parts.

Provide a protective cover for all inclinometers. Maintain exposed parts of installed inclinometers as necessary to ensure their availability for use for the duration of the work. Replace, at no cost to the department, inclinometers that becomes damaged, inaccessible, or unreadable as a result of the contractor's means and methods of construction or changes in the contractor's means and methods of construction that could have been anticipated by the contractor prior to installation. The locations of replacement instruments shall be jointly determined by the engineer and the contractor. Complete the repair or replacement as soon as practical.

C.4 Installing Inclinometer

Drilling method utilized for inclinometer installation shall be hollow-stem augers per ASTM D6151. Drill borings for inclinometers using 6-inch minimum inside diameter casing and water or, where ground conditions permit, using drilling mud in a 6-inch minimum diameter borehole. During the drilling, soil sampling at intervals of 2.5 feet or less using standard penetration tests shall be formed according to ASTM D1586.

Install the inclinometer casing completed with end plug as shown on the plans. Install the inclinometer casing at each location to a depth of 50 feet each. Carefully orient the casing grooves so there are approximately parallel and perpendicular to adjacent Greves Street. Grout the inclinometer casing in place. Place grout by tremie method. If steel drill casing has been used to support the borehole, remove the drill casing in increments, and top off the grout level with each increment.

Perform tremie grouting by pumping grout through a tremie pipe positioned 3 to 5 feet above the bottom of the space to be grouted. Keep the bottom end of the tremie pipe submerged in grout as the grout level is brought up to the ground surface. The density of the grout flowing from the space at the ground surface shall be the same as the density of the grout being placed. Allow the grout to set for a minimum 12-hour period before additional materials are placed on top of the grout. Top off any settling of grout.

The grout shall consist of a cement to water ratio ranging from 2.5 to 1 for hard soil and 6.6 to 1 for soft soil by weight. The specific ratio to be used will be determined by the instrumentation engineer. The bentonite to cement ratio will be approximate 0.3 to 1, by weight, adjusted to produce grout with the consistency of heavy cream. Mix cement and water first. Add bentonite as necessary to achieve the specified consistency.

Provide the top of each inclinometer casing with a cap. The cap shall be easy to remove.

Perform a groove tracking test after the installation has been completed to ensure that the inclinometer casing has been properly installed. Lower the inclinometer sensor to the bottom of the casing in all four possible orientations, verifying that on rising to the top of the casing the inclinometer orientation is unchanged.

C.5 Monitoring Instruments

Horizontal and vertical survey accuracy shall be 1/8 inch or less.

The contractor shall take a minimum of two sets of initial readings. After initial readings are approved by the instrumentation engineer, the average from the initial readings shall be used to establish the baseline reading.

Obtain all surveyor readings as specified in this article. Provide access to the inclinometers as requested by the engineer. Make all survey data available to the engineer within two working days of reading. Perform initial inclinometer baseline readings at a minimum of one week prior to any placement of soil embankment fill within the Advanced Fill Site along IH 94. Additional inclinometer readings are required at least once per week during fill placement and weekly for a period of one month beyond fill placement, and at least once every three weeks after final grades have been established until the end of the contract or until the movement has reduced to a level that the engineer considers acceptable. Provide the lateral and vertical extent of the fill placement at the Advanced Fill Site along IH-94 according to the same schedule as the inclinometers. If the horizontal ground movement recorded at either inclinometer exceeds 1-inch, notify engineer immediately so further evaluation can be performed.

D Measurement

The department will measure Inclinometers as a lump sum unit of work, acceptably completed.

E Payment

The department will pay for the specified quantities, or revised quantities if agreed to in advance of placement by the department, at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.9002	Inclinometers	LS

Payment for Inclinometers is full compensation for furnishing and installing each instrument, for providing submittals, furnishing materials, installation, testing, protection, maintenance, replacement or repair of damaged instruments, initial readings, subsequent monitoring, and all other specified items of work for which no separate bid item is provided.

52. Topsoil Special, Item SPV.0180.0001.

A Description

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

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

B Materials

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

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

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

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

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

C Construction

C.1 Preparing the Roadway for Topsoil

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

C.2 Processing Topsoil

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

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

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

C.3 Placing Topsoil

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

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

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0001	Topsoil Special	SY

Payment for Topsoil Special is full compensation for removing, stockpiling, reclaiming, providing, processing, excavating, loading, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, underfilling embankments, or deductions for materials obtained from areas of cut sections.

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

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

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53. Soil Drying, Item SPV.0180.0002; Soil Drying Agent, Item SPV.0195.0001.

A Description

Use a soil drying agent only when directed by the engineer and weather conditions are not conducive to using disking, natural sunlight and wind to dry the soil to within an acceptable range of soil moisture content for efficient compaction per the QMP Subgrade special provision. The drying agent shall be used principally in the late fall, winter and early spring when drying weather is not normally available. Soil shall be dried per this specification when the moisture content is greater than the specified percent above the soil optimum moisture content and disking and air drying are not effective in reducing the soil moisture content. The contractor cannot use a soil drying agent until the engineer determines that soil moisture content, project schedule and weather require that the agent be used. Drying agents shall only be used to facilitate soil compaction after the approval and authorization of the engineer.

The drying agent to be used for the project shall be fly ash. Other drying agents such as hydrated lime, lime kiln dust and cement kiln dust are not allowed to be used as drying agents.

Drying agents will not be considered as part of a Cost Reduction Incentive (CRI) and will have to meet the general requirements of this special provision. The fly ash is used in absorption and chemical binding of moisture to facilitate compaction. The intent of this specification is to dry the soil and not to increase the strength of the soil-fly ash mixture.

Fly ash can be used to dry most soils however the expectation is that it will be used for predominantly cohesive (clay - CL) and silty (ML and SM) soil. Clean sand and gravel will not benefit by addition of fly ash and therefore shall not be dried using fly ash. The fly ash must be thoroughly mixed with the soil as fill lifts are placed to dry the soil and meet the compaction requirements.

B Materials

Fly ash is a finely divided residue resulting from combustion of coal in an electric generating plant, transported from the boiler by flue gases and later collected by precipitators. The soil drying agent must consist of Class C fly ash according to ASTM C618. The fly ash shall conform to the general requirements of standard spec 501.2

C Construction

C.1 Submittals

C.1.1 General

Prepare and submit soil drying agent mix and work plan at least 10 calendar days prior to beginning drying agent activities. A minimum dosage of 40 pounds of fly ash per square yard to an 8-inch depth/lift by the dry weight of the soil must be used. The department will accept the submittal as submitted or return the submittal with requested revisions. Do not start any drying agent work until the department provides acceptance of soil drying agent mix and work plan. Acceptance of the submittals does not relieve the contractor of responsibility for successful completion of the earthwork.

C.1.2 Submittals for Approval

Soil Drying Agent Mix:

a. Submit mix designs for the drying agent proposed for use. A mix design is required for each soil type and dosage rate. Resubmit as appropriate if the mixes are modified during the course of the work including fly ash source changes. The mix design must indicate the optimum amount of fly ash needed as a percentage of the soil dry weight for the soil to be dried. Each mix design shall show the ingredients of the mix and shall include:

    i. Type, source, and amounts of fly ash, and other additives.

    ii. Material Safety Data Sheet (MSDS) for the fly ash (provide once per fly ash source).

    iii. Source and amount of additional water, as needed.

    iv. Representative samples of soil and ash materials for materials test and mix proportion testing (provide once per soil type and fly ash source).

    v. Combined grading of each mix design.

    vi. Specific gravity of all materials.

    vii. Atterberg Limits tests (ASTM D-4318) for the soil and soil fly ash mixture.

    viii. Standard Proctor tests (ASTM D-698) on the soil and soil fly ash mixture.

    ix. Tests showing soil moisture loss with the proposed dosage rate.

    x. Results of required tests.

b. Submit certificates of compliance for each load of fly ash which is according to ASTM C618 and certificates of compliance for all admixtures. Supporting test data shall be furnished when requested by the department. All testing and sampling procedures shall be according to ASTM C311.

Soil Drying Agent Work Plan: The work plan for placing the soil drying agent shall include:

a. Drying agent placement methods, mixing procedures and sequences for soil drying.

b. Method of transporting and distributing fly ash into the soil including rotary mixer equipment and materials.

c. Means for measuring fly ash per fill area. Use of truck tickets that specify net weight of fly ash in a truck is acceptable.

d. Embankments to be treated, natural moisture contents of the cut to fill soils, and proposed dosage rates.

Submit a revised work plan reflecting any changes made during the course of the work. Do not continue with Soil Drying Agent work until the revised work plan is approved by the engineer.

C.1.3 Information Submittals

Soil Drying Agent Daily Records: Submit the following daily reports and records for soil drying agent.

a. Daily logs of drying agent placement operations at all locations (station and position) of embankment fill placement, including fly ash volumes, mix details and weather conditions.

b. Additional lab testing as identified in section C.1.2.a is expected to be required if the soil to be dried changes engineering characteristics. Supplemental test reports from a certified testing laboratory are required when the fill soil changes.

C.1.4 Acceptance

The department will evaluate the Submittals for Approval with the requirements of these special provisions. Within five calendar days after receipt of the Submittals of Approval, the department will notify the contractor of the acceptance of the submittal, or if additional information and/or changes are required. Any unacceptable part of the Submittals of Approval will require resubmission. The contractor must resubmit the Submittals of Approval for evaluation and review with the necessary changes or additional information provided. The department will provide a written notice of acceptance or rejection of contractor's resubmitted Submittal for Approval within five calendar days after its receipt.

After the department's acceptance of Submittal of Approval, no changes to the Submittal of Approval can be made without written consent of the department.

All Information Submittals should be submitted to the department. the department can reject the submittals which do not provide adequate detail, as required herein. The contractor shall resubmit the rejected submittals within seven days upon the receipt of the department's rejection notice.

C.2 General Soil Drying Requirement

Notify the department at least 24 hours in advance of the start of soil drying operations. Soil drying cannot be used on frozen soil or with frozen fly ash. Compaction must be started no later than 1 to 2 hours after the fly ash is mixed with the soil.

Soil drying agent must be thoroughly mixed into each lift of wet soil using a rotary mixer to be sure that the fly ash is uniformly distributed and uniformly dries the soil to acceptable moisture content for compaction.

Soil drying can be performed in colder weather as long as the soil and fly ash are not frozen. If fill placement must occur during freezing conditions, soil drying can be used but any soil/fly ash mixture that freezes must be removed including materials that freeze overnight. The removal must extend to an unfrozen subgrade and the frozen material must be replaced with non-frozen soil or soil/fly ash.

C.3 Cleanup

Care must be exercised by the contractor to prevent fugitive dust containing fly ash while mixing and placing the ash. Minimize spilling and do not allow blowing of fly ash on areas that do not need to be dried. Remove or mix any spilled ash with soil to prevent ash from becoming air born. Properly dispose of all waste materials.

D Measurement

The department will measure Soil Drying in area by the square yard per lift of the soil, effectively dried and acceptably completed.

The department will measure Soil Drying Agent per ton, acceptably completed, using truck weight tickets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0002	Soil Drying	SY
SPV.0195.0001	Soil Drying Agent	TON

Payment for Soil Drying is full compensation for preparing submittals, soil testing, maintaining daily records, and mixing drying agent with wet soil for compaction, including all necessary equipment, water and disposal of surplus materials. Compaction of fill is paid for under other specifications and not included herein.

Payment for Soil Drying Agent is full compensation for providing, hauling and spreading the drying agent.

No additional payment will be provided for Soil Drying when used in previously placed embankment areas that have been removed as a result of frost or poor drainage.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment

A Description

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

B Categories of Work Items

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

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

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

The base Fuel Index (BFI) for this contract is $2.15 per gallon.

D Computing the Fuel Cost Adjustment

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

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

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

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

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

E Payment

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

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

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

104.3 Contractor Notification

Replace the entire text with the following effective with the December 2019 letting:

104.3.1 General

(1) Subsection 104.3 specifies the step-by-step communication process to be followed to expedite the resolution of potential contract revisions identified by the contractor. Both contractor actions and department responses are outlined. The contractor's non-compliance with the requirements of 104.3 may constitute a waiver of entitlement to a pay adjustment under 109.4 or a time extension under 108.10. The department and contractor can mutually agree to extend any time frame specified throughout 104.3.

104.3.2 Contractor Initial Oral Notification

(1) If required by 104.2, or if the contractor believes that the department's action, the department's lack of action, or some other situation results in or necessitates a contract revision, the contractor must promptly provide oral notification to the project engineer. Upon notification, the project engineer will attempt to resolve the identified issue.

104.3.3 Contractor 5-Day Written Statement

(1) If the project engineer has not responded or resolved the identified issue within 5 business days after receipt of initial notification, provide a contractor written statement to the project engineer in the following format:

Part 1 - Executive Summary *(label page 1.1 through page 1.x)*

Include a detailed, factual statement of the request for additional compensation and contract time. Include the date the issue was identified, the date initial notification was given to the project engineer, and the dates and specific locations of work involved.

Part 2 - Contractor's Basis of Entitlement *(label page 2.1 through page 2.x)*

Include references to relevant contract provisions and a narrative summarizing how the contract provisions support the request for a revision to the original contract.

Part 3 - Contractor's Request for Damages *(label page 3.1 through page 3.x)*

When requesting additional compensation, include an itemized list of costs with a narrative supporting the requested amount and explaining how the costs are tied to the requested contract revision.

When requesting additional contract time, include a copy of the schedule that was in effect when the issue occurred and a detailed narrative explaining how the issue impacted controlling items of work. Provide a time impact analysis utilizing base and updated schedules.

If the full extent of either compensation or time is not known at the date of submittal of the contractor 5-Day written statement, provide a brief statement as to why, and include estimated compensation and time.

Part 4 - Supporting Documentation *(label page 4.1 through page 4.x)*

Include copies of the following:

A. Relevant excerpts from specifications, special provisions, plans, change orders, or other contract documents.

B. Communication on the issue, including: letters, e-mails, meeting minutes, etc.

C. Any other documentation to support or clarify the contractor's position, including: daily work records, cost summary sheets, weigh tickets, test results, sketches, etc.

(2) With the submittal of the written statement, the contractor may also request a meeting with the region.

104.3.4 Region One-Day Written Acknowledgment

(1) Within one business day after the contractor provides the 5-day written statement, the project engineer will provide a region one-day written acknowledgment to the contractor. The project engineer will continue to resolve the issue.

104.3.5 Region 5-Day Written Response

(1) Within 5 business days after receiving the contractor 5-day written statement, the project engineer may request specific additional information to allow the project engineer to decide whether item 1 or 2 of 104.3.6(1) applies. The project engineer will state the information needed and date it is to be

received for further review. Submit additional information as an amendment to the contractor 5-day written statement.

104.3.6 Region Final Decision

(1) Within 10 business days after receiving the contractor 5-day written statement or additional information requested in 104.3.5(1), whichever comes last, the region will consider all information and provide a region final decision in writing to the contractor with one or more of the following responses:

1. The region will confirm that the contractor is entitled to a contract revision and a contract change order is necessary as specified in 104.2. The project engineer will give direction concerning the potential change.
2. The region will deny that the contractor is entitled to a contract revision. The project engineer will provide a statement as to why the issue is not a change to the contract. At a minimum, the project engineer will respond to the contractor's issues and refer to the contract to show why the issues are not a change from the original contract.

(2) If the contractor does not agree with the region's decision the contractor may pursue the issue as a claim as specified in 105.13. Alternatively, if the contractor and department mutually agree, the department will get a third-party advisory opinion according to the department's dispute resolution procedures.

(3) If a third party reviews the issue, their recommendation is not binding on either party. The region has 10 business days after receipt of the third party's written recommendation to render a decision. If the department fails to respond in writing within those 10 business days or the contractor disagrees with the region's decision, the contractor may pursue the issue as a claim as specified in 105.13.

104.6.1.2.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conduct construction operations and provide facilities required to maintain the portion of the project open to the public in a condition that safely and adequately accommodates public traffic. Use barricades, signs, flaggers, and temporary barrier as specified in part VI, of the WMUTCD and ensure that the contractor's use of the right-of-way conforms to 107.9. Throughout the life of the contract, and as the engineer directs, conduct construction operations and provide facilities as follows:

- Conduct flagging operations conforming to plan details and the department's flagging handbook.
- Use drums, barricades, and temporary barrier to delineate and shield abrupt drop-offs and other hazards.
- Furnish, erect, and maintain traffic control devices and facilities conforming to 643.
- Furnish, erect, and maintain temporary pedestrian devices and facilities conforming to 644.

104.6.1.2.2 Flagging

Replace paragraph three with the following effective with the December 2019 letting:

(3) Provide associated advanced warning signs that meet the retroreflective requirements of 637.2.2.2. Provide temporary portable rumble strips from the department's APL installed according to manufacturer's instructions and as specified in the flagging plan details. Provide guidance service through the worksite using pilot vehicles if required.

Replace paragraph five with the following effective with the December 2019 letting:

(5) Flagging is incidental to the contract and includes costs for advance signing, temporary portable rumble strips, and pilot vehicle guidance service.

104.8 Rights in the Use of Materials Found on the Project

Replace paragraph two with the following effective with the December 2019 letting:

(2) Do not excavate or remove material from within the right-of-way that is not within the vertical and horizontal excavation limits the plans show except as follows:

- If the contract does not identify potential source areas, obtain written authorization from the engineer to use those sources. Complete required environmental documentation and obtain necessary permits. The department will reduce pay by $1.50 per cubic yard under the Material from Right-of-Way administrative item for material obtained from those areas.
- If the contract identifies potential source areas that were evaluated and permitted in the original environmental document, do not begin excavating in those areas until the engineer allows in writing. Additional environmental documentation and environmental permits are not required. The department will not reduce pay for material obtained from those areas.

The department may suspend use of these sources if the contractor's operation affects the essential functions or characteristics of the project.

104.10.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Subsection 104.10 specifies a 2-step process for contractors to follow in submitting a cost reduction incentive (CRI) for modifying the contract in order to reduce direct construction costs computed at contract bid prices. The initial submittal is referred to as a CRI concept and the second submittal is a CRI proposal. The contractor and the department will equally share all savings generated to the contract due to a CRI as specified in 104.10.4.2(1). The department encourages the contractor to submit CRI concepts for the following situations:

1. The contractor generates the original cost savings idea and formulates it into a concept.
2. The department generates the original cost savings idea and obtains the contractor’s assistance to formulate the idea into a concept.

Replace paragraph five with the following effective with the December 2019 letting:

(5) The department will consider a CRI that changes but does not impair the essential functions or characteristics of the project. These functions or characteristics include, but are not limited to, appearance, service life, economy of operations, ease of maintenance, design, and safety of structures and pavements, construction phasing or procedures, or other contract requirements. The department will not consider a CRI that changes the following:

- Permanent pavement type.
- Permanent structural cross section above the subgrade.

104.10.2 Submittal and Review of a CRI Concept

Replace paragraphs five and six with the following effective with the December 2019 letting:

(5) The department may consider a CRI concept that addresses a potential change under 104.2.

(6) The department will not implement a contractor-initiated CRI concept, or portion of that concept, without sharing the cost savings with the contractor as specified in 104.10.4.2.

(7) The savings generated by the CRI must be sufficient to warrant its review and processing and offset the level of risk. The department will assess the risk of the CRI relative to departmental design policies and criteria for the project. The department may reject a CRI concept for the following reasons:

1. It requires excessive time or costs for the contractor to develop the CRI proposal.
2. It requires excessive time or costs for review, evaluation, investigation, or implementation.
3. It introduces an inappropriate level of risk.

104.10.4.2 Payment for the CRI Work

Replace paragraph one with the following effective with the December 2019 letting:

(1) The department will pay for completed CRI work as specified for progress payments under 109.6. The department will pay for CRI's under the Cost Reduction Incentive administrative item. When all CRI costs are determined, the department will execute a contract change order that does the following:

1. Adjusts the contract time, interim completion dates, or both.
2. Pays the contractor for the unpaid balance of the CRI work.
3. Pays the contractor 50 percent of the net savings resulting from the CRI, calculated as follows:

NS = CW - CRW - CC - DC

Where:

NS = Net Savings

CW = The cost of the work required by the original contract that is revised by the CRI. CW is computed at contract bid prices if applicable.

CRW = The cost of the revised work, computed at contract bid prices if applicable.

CC = The contractor's cost of developing the CRI proposal.

DC = The department's cost for investigating, evaluating, and implementing the CRI proposal.

105.13 Claims Process for Unresolved Changes

Replace the entire text with the following effective with the December 2019 letting:

105.13.1 General

(1) Before submitting a claim, the department and contractor can mutually agree to have the department get a third-party advisory opinion as specified in 104.3.6.

(2) The department and contractor can mutually agree to extend any time frame specified throughout 105.13 and can mutually agree to utilize an alternative dispute resolution method at any point before the department renders its final decision.

(3) The department and contractor share costs related to referral to a dispute review board (DRB) as prescribed in the department's dispute resolution procedures.

105.13.2 Notice of Claim

(1) If the contractor has followed the procedures for revising the contract specified in 104.2 and provided the notification specified in 104.3, but still disagrees with the region, the contractor may pursue the issue as a claim. File a notice of claim with the project engineer concerning the disagreement within 14 calendar days of receiving the region's decision under 104.3.6(1).

(2) The project engineer may deny the applicable portion of a claim if the contractor does not do the following:

1. File the notice of claim within 14 calendar days as specified in 105.13.2(1).
2. Give the project engineer sufficient access to keep a record of the actual labor, materials, and equipment used to perform the claimed work.

(3) Upon filing the notice of claim, maintain records as specified for force account statements in 109.4.5. Unless the project engineer issues a suspension, continue to perform the disputed work. The department will continue to make progress payments to the contractor as specified in 109.6.

105.13.3 Submission of Claim

(1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim, but not later than the end of the time allowed under 109.7 for the contractor to respond in writing to the engineer-issued semi-final estimate. If the contractor does not submit the claim within that response time, the department will deny the claim.

(2) The department will not accept the submission of a claim until the resolution process in 104.3 has been completed and the contractor makes no further requests to submit updated information that may affect the region's final decision.

105.13.4 Content of Claim

(1) The final contractor written statement under 104.3.3 is considered the content of the claim. If the contractor makes a request to submit updated information that may affect the region's final decision under 104.3.6, submit the updated information as an amendment to the contractor written statement and continue the resolution process in 104.3 before submitting a claim.

(2) The department may refer the claimant of a false claim to the appropriate authority for criminal prosecution. Certify the claim using the following form:

The undersigned is duly authorized to certify this claim on behalf of (the contractor).

(The contractor) certifies that this claim is made in good faith, that the supporting data are accurate and complete to the best of (the contractor's) knowledge and belief, and that the amount requested accurately reflects the contract adjustment for which (the contractor) believes that the department is liable.

(THE CONTRACTOR)

By:_____
(Name and Title)

Date of Execution:_____

105.13.5 Department Final Decision

(1) The department will have up to 28 calendar days, from the contractor's submission of the claim, to perform a final review of the claim and conduct all meetings. The department may request, in writing, that the contractor submit additional information related to the claim. Submit that additional information, or notify the department in writing to base its decision on the information previously submitted. Either the contractor or region may request a meeting to present their views. Before the meeting, both parties will agree upon written ground rules for the meeting.

(2) Upon completion of the 28 calendar days for the department's review and meetings, the department will have up to 21 calendar days to render a written decision. The department will consider written and oral submissions from the contractor and region, and may consider other relevant information in the project records.

(3) The department will provide the following in its final decision:

1. A concise description of the claim.
2. A clear, contractual basis for its decision that includes a reference to 104.2 on revisions to the contract and as appropriate, specific reference to language regarding the bid items in question.
3. Other facts the department relies on to support its decision.
4. A concise statement of the circumstances surrounding the claim and reasons for its decision. If the department rejects the claim in whole or in part, the department will explain why the claimed work is not a change to the contract work.
5. The amount of money or other relief, if any, the department will grant the contractor.

(4) If the contractor disagrees with the department's final decision, the contractor may initiate a legal action pursuant to state statutes.

106.3.4.2.2.2 Freeze-Thaw Soundness

Replace paragraph one with the following effective with the December 2019 letting:

(1) Perform freeze-thaw soundness testing according to AASHTO T103 as modified in CMM 8-60.2. Provide freeze/thaw soundness test results based on the fraction retained on the No. 4 sieve as follows:

1. Using virgin crushed stone aggregates produced from limestone/dolomite sources in one or more of the following counties or from out of state:

Brown	Columbia	Crawford	Dane	Dodge
Fond du Lac	Grant	Green	Green Lake	Iowa
Jefferson	Lafayette	Marinette	Oconto	Outagamie
Rock	Shawano	Walworth	Winnebago	

2. Using gravel aggregates produced from pit sources in one or more of the following counties or from out of state:

Dodge	Washington	Waukesha

208.5 Payment

Replace paragraph three with the following effective with the December 2019 letting:

(3) The department will adjust pay for material obtained from within the project right-of-way limits but outside project excavation limits, furnished under 208.2.2, as specified in 104.8.

301.2.3 Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) Department and contractor testing shall conform to the following:

Sampling[1]	AASHTO T2
Percent passing the 200 sieve	AASHTO T11
Gradation[1]	AASHTO T27
Gradation of extracted aggregate	AASHTO T30
Moisture content[1]	AASHTO T255
Liquid limit	AASHTO T89
Plasticity index	AASHTO T90
Wear	AASHTO T96
Sodium sulfate soundness (R-4, 5 cycles)	AASHTO T104
Freeze/thaw soundness[1]	AASHTO T103
Lightweight Pieces in Aggregate	AASHTO T113
Fracture	ASTM D5821 as modified in CMM 8-60
Moisture/density[1]	AASHTO T99 and AASHTO T180
In-place density[1]	AASHTO T191
Asphaltic material extraction	CMM 8-36 WisDOT Test Method 1560

[1] As modified in CMM 8-60.

301.2.4.5 Aggregate Base Physical Properties

Replace paragraph one with the following effective with the December 2019 letting:

(1) Furnish aggregates conforming to the following:

TABLE 301-2 AGGREGATE BASE PHYSICAL PROPERTIES

PROPERTY	CRUSHED STONE	CRUSHED GRAVEL	CRUSHED CONCRETE	RECLAIMED ASPHALT	REPROCESSED MATERIAL	BLENDED MATERIAL
Gradation AASHTO T27						
dense	305.2.2.1	305.2.2.1	305.2.2.1	305.2.2.2	305.2.2.1	305.2.2.1[1]
open-graded	310.2	310.2	not allowed	not allowed	not allowed	not allowed
Wear AASHTO T96 loss by weight	<=50%	<=50%	note[2]	___	note[2]	note[3]
Sodium sulfate soundness AASHTO T104 loss by weight						
dense	<=18%	<=18%	___	___	___	note[3]
open-graded	<=12%	<=12%	not allowed	not allowed	not allowed	not allowed
Freeze/thaw soundness AASHTO T103[6] loss by weight						
dense	<=18%	<=18%	note[2]	___	___	note[3]
open-graded	<=18%	<=18%	not allowed	not allowed	not allowed	not allowed
Liquid limit AASHTO T89	<=25	<=25	<=25	___	___	note[3]
Plasticity AASHTO T90	<=6[4]	<=6[4]	<=6[4]	___	___	note[3]
Fracture ASTM D5821[6] min one face by count						
dense	58%	58%	58%	___	note[5]	note[3]
open-graded	90%	90%	not allowed	not allowed	not allowed	not allowed

[1] The final aggregate blend must conform to the specified gradation.

[2] No requirement for material taken from within the project limits. For material supplied from a source outside the project limits:

- LA wear maximum of 50 percent loss, by weight.
- Freeze thaw maximum of 42 percent loss, by weight.

[3] Required as specified for the individual component materials defined in columns 2 - 6 of the table before blending.

[4] For base placed between old and new pavements, use crushed stone, crushed gravel, or crushed concrete with a plasticity index of 3 or less.

[5] >=75 percent by count of non-asphalt coated particles.

[6] as modified in CMM 8-60.

450.2.2 Aggregate Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) The department and the contractor will sample and test according to the following methods, except as revised with the engineer's approval:

Sampling aggregates	AASHTO T2
Material finer than No. 200 sieve	AASHTO T11
Sieve analysis of aggregates	AASHTO T27
Mechanical analysis of extracted aggregate	AASHTO T30
Sieve analysis of mineral filler	AASHTO T37
Los Angeles abrasion of coarse aggregate	AASHTO T96
Freeze-thaw soundness of coarse aggregate[1]	AASHTO T103
Sodium sulfate soundness of aggregates (R-4, 5 cycles)	AASHTO T104
Extraction of bitumen	AASHTO T164

[1] As modified in CMM 8-60.2.

450.3.2.6.3 Compaction Roller Pattern Determined by Growth Curve

Add 450.3.2.6.3 as a new subsection effective with the December 2019 letting:

450.3.2.6.3 Compaction Roller Pattern Determined by Growth Curve

(1) When specified in 460.3.3.1, compact asphaltic mixture using the roller pattern established during construction of a control strip. Use 2 or more rollers per paver if placing more than 165 tons per hour.

(2) On the first day of production, construct a control strip under the direct observation of department personnel. After compacting the control strip with a minimum of 3 passes, mark the gauge outline and take a one-minute wet density measurement using a nuclear density gauge in back scatter mode at a single location. Take a density measurement at the same location after each subsequent pass. Continue compacting and testing until the increase in density is less than 1 pcf for 3 consecutive passes. Submit the final roller pattern to the engineer in writing. Once the roller pattern is established do not change the pattern or decrease the number, type, or weight of rollers without the engineer's written approval.

(3) After establishing the roller pattern, and under the direct observation of the engineer, cut at least one 4-inch diameter or larger core from the control strip density gauge outline. Prepare cores and determine density according to AASHTO T166. Dry cores after testing. Fill core holes and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing.

450.3.2.8 Jointing

Replace paragraph three with the following effective with the December 2019 letting:

(3) Construct notched wedge longitudinal joints for mainline paving of HMA layers 1.75 inches or greater. Extend the wedge beyond the normal lane width as the plans show or as the engineer directs.

Replace paragraph five with the following effective with the December 2019 letting:

(5) Construct the wedge for each layer using an engineer-approved strike-off device that will provide a uniform slope and will not restrict the main screed. Shape and compact the wedge with a weighted steel side roller wheel or vibratory plate compactor the same width as the wedge. Apply a tack coat to the wedge surface and both notches before placing the adjacent lane.

(6) Clean longitudinal and transverse joints coated with dust and, if necessary, paint with hot asphaltic material, a cutback, or emulsified asphalt to ensure a tightly bonded, sealed joint.

455.2.5 Tack Coat

Replace paragraph one with the following effective with the December 2019 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the December 2019 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	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm)	No. 2 (25.0 mm)	No.3 (19.0 mm)	No. 4 (12.5 mm)	No. 5 (9.5 mm)	No. 6 (4.75 mm)	SMA No. 4 (12.5 mm)	SMA No. 5 (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	100	58 - 80	90 - 100
4.75-mm	___	___	___	___	90 max	90 - 100	25 - 35	35 - 45
2.36-mm	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm	___	___	___	___	___	30 - 55	___	___
0.60-mm	___	___	___	___	___	___	18 max	18 max
0.075-mm	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min[1]	15.0 min[2]	16.0 - 17.5	16.0 min	17.0 min

[1] 14.5 for LT and MT mixes.

[2] 15.5 for LT and MT mixes.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the December 2019 letting:

(1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. Ensure that SMA mixture designs adhere to AASHTO R 46 and AASHTO M 325 in addition to the required test procedures outlined in CMM 8-66 table 1 and CMM 8-66 table 2. Determine the specific gravity of fines or super fines used as a mineral filler or additional stabilizer in SMA designs according to AASHTO T 100. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to CMM 8-66.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	35
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103 as modified in CMM 8-60.2) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821 as modified in CMM 860) (one face/2 face, % by count)	65/___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40[1]	43[1]	45	45
Sand Equivalency (AASHTO T176, min)	40	40[2]	45	50
Clay Lumps and Friable Particle in Aggregate (AASHTO T112)	<= 1%	<= 1%	<= 1%	<= 1%
Plasticity Index of Material Added to Mix Design as Mineral Filler (AASHTO T89/90)	<= 4	<= 4	<= 4	<= 4
Gyratory Compaction				
Gyrations for Nini	6	7	8	7
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	100
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.5 (95.5)
% Gmm Nini	<= 91.5[3]	<= 89.0[3]	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	<= 98.0
Dust to Binder Ratio[4] (% passing 0.075/Pbe)	0.6 - 1.2[5]	0.6 - 1.2[5]	0.6 - 1.2[5]	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[6] [8]	65 - 75[6] [7] [9]	65 - 75[6] [7] [9]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283)[10] [11]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.80 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	<= 0.30
Minimum Effective Asphalt Content, Pbe (%)	___	___	___	5.5

[1] For No 6 (4.75 mm) nominal maximum size mixes, the specified fine aggregate angularity is 43 for LT and 45 MT mixes.

[2] For No 6 (4.75 mm) nominal maximum size mixes, the specified sand equivalency is 43 for MT mixes.

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

[4] For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

[5] For No 6 (4.75 mm) nominal maximum size mixes, the specified dust to binder ratio limits are 1.0 - 2.0 for LT mixes and 1.5 - 2.0 for MT and HT mixes.

[6] For No. 6 (4.75mm) nominal maximum size mixes, the specified VFB is 67 - 79 percent for LT mixes and 66 - 77 percent for MT and HT mixes.

[7] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

[8] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[9] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[10] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

[11] Run TSR at asphalt content corresponding to 3.0% air void regressed design, or 4.5% air void design for SMA, using distilled water for testing.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Replace paragraph four with the following effective with the December 2019 letting:

(4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at the frequency indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.
- 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 ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.

Asphalt content (AC) in percent:

AC by ignition oven according to AASHTO T308 (CMM 8-36.6.3.6), by chemical extraction according to AASHTO T-164 method A or B; or by automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.

Bulk specific gravity of the compacted mixture according to AASHTO T166.

Maximum specific gravity according to AASHTO T209.

Air voids (Va) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

460.2.8.2.1.4.2 Control Charts

Replace paragraph one with the following effective with the December 2019 letting:

(1) Maintain standardized control charts at the laboratory. Record contractor test results on the charts the same day as testing. Record data on the standardized control charts as follows:

- Blended aggregate gradation tests in percent passing. Of the following, plot sieves required in table 460-1: 37.5-mm, 25.0-mm, 19.0-mm, 12.5-mm, 9.5-mm, 4.75-mm, 2.36-mm, 1.18-mm, 0.60-mm, and 0.075-mm.
- Asphalt material content in percent.
- Air voids in percent.
- VMA in percent.

(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. 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.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2019 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
4.75-mm	+/- 5.0	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
1.18-mm	+/- 4.0	+/- 3.0
0.60-mm	+/- 4.0	+/- 3.0
0.075-mm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent[1]	+1.3/-1.0	+1.0/-0.7
VMA in percent[2]	- 0.5	- 0.2

[1] For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

[2] VMA limits are based on requirements for each mix design nominal maximum aggregate size in table 460-1. For No. 6 (4.75mm) mixes, JMF limits are +/- 0.5 and warning limits are +/- 0.2.

460.3.2 Thickness

Replace paragraph one with the following effective with the December 2019 letting:

(1) Provide the plan thickness for lower and upper layers limited as follows:

NOMINAL SIZE	MINIMUM LAYER THICKNESS (in inches)	MAX LOWER LAYER THICKNESS (in inches)	MAX UPPER LAYER THICKNESS (in inches)	MAX SINGLE LAYER THICKNESS[3] (in inches)
No. 1 (37.5 mm)	4.5	6	4.5	6
No. 2 (25.0 mm)	3.0	5	4	6
No. 3 (19.0 mm	2.25	4	3	5
No. 4 (12.5 mm)[1]	1.75	3[2]	2.5	4
No. 5 (9.5 mm)[1]	1.25	3[2]	2	3
No. 6 (4.75 mm)	0.75	1.25	1.25	1.25

[1] SMA mixtures use nominal size No. 4 (12.5 mm) or No. 5 (9.5 mm).

[2] SMA mixtures with nominal sizes of No. 4 (12.5 mm) and No. 5 (9.5 mm) have no maximum lower layer thickness specified.

[3] For use on cross-overs and shoulders.

(2) Place leveling layers using No. 4 (12.5 mm), No. 5 (9.5 mm), or No. 6 (4.75 mm) mixtures. Leveling layers may be thinner than the minimum lower layer thickness for the mixture used.

(3) Place wedging layers as the contract specifies or engineer directs. Wedging layers have no specified minimum or maximum thickness.

460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2019 letting:

(1) Compact No. 6 mixtures in lower layers as specified in 450.3.2.6.2 and in upper layers as specified in 450.3.2.6.3. For other HMA mixtures, compact all layers to the density table 460-3 specifies.

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT and MT	HT	SMA[5]
TRAFFIC LANES[2]	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	93.0
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	___
	UPPER	92.0	92.0	92.0

[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 will investigate the acceptability of that material according to CMM 8-15.11.

[2] Includes side roads, crossovers, turn lanes, ramps, parking lanes, bike lanes, and park-and-ride lots as defined by the contract plans.

[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 a lower layer constructed directly on crushed aggregate or recycled base courses.

460.3.3.2 Pavement Density Determination

Replace paragraph three with the following effective with the December 2019 letting:

(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 460-3. The lot density is the average of all samples taken for that lot. The department determines the number of tests per lot according to CMM 8-15.

460.5.2.1 General

Replace paragraph six with the following effective with the December 2019 letting:

(6) If during a QV dispute resolution investigation the department discovers unacceptable mixture defined by one or more of the following:

- Va less than 2.5 or greater than 6.5 percent for SMA, or for other mixes, less than 1.5 or greater than 5.0 percent.
- VMA more than 1.0 percent below the minimum or above the maximum specified in table 460-1.
- AC more than 0.5 % below the JMF target.

Remove and replace the material, or if the engineer allows the mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

501.2.5.5 Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) Sample and test aggregates for concrete according to the following:

Sampling aggregates[1]	AASHTO T2
Lightweight pieces in aggregate	AASHTO T113
Material finer than No. 200 sieve[1]	AASHTO T11
Unit weight of aggregate	AASHTO T19
Organic impurities in sands	AASHTO T21
Sieve analysis of aggregates	AASHTO T27
Effect of organic impurities in fine aggregate	AASHTO T71
Los Angeles abrasion of coarse aggregate	AASHTO T96
Alkali Silica Reactivity of Aggregates	ASTM C1260
Alkali Silica Reactivity of Combinations of Cementitious Materials and Aggregates	ASTM C1567
Freeze-thaw soundness of coarse aggregate[1]	AASHTO T103
Sodium sulfate soundness of coarse aggregates (R-4, 5 cycles)	AASHTO T104
Specific gravity and absorption of fine aggregate	AASHTO T84
Specific gravity and absorption of coarse aggregate[1]	AASHTO T85
Flat & elongated pieces based on a 3:1 ratio[1]	ASTM D4791
Sampling fresh concrete	AASHTO R60
Making and curing concrete compressive strength test specimens	AASHTO T23
Compressive strength of molded concrete cylinders	AASHTO T22

[1] As modified in CMM 8-60.

505.2.2 Bar Steel Reinforcement

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, type S or type W.

505.2.3 High-Strength Bar Steel Reinforcement

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, grade 60, type S or type W.

505.2.4.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, grade 60, type S or type W. Ensure that the coating is applied in a CRSI certified epoxy coating plant. Bend bars that require bending before coating, unless the fabricator can bend the bar without damaging the coating.

505.2.6.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) For dowel bars and straight tie bars, there is no requirement for bend tests. Ensure that the bars are the specified diameter and length the plans show.

505.2.6.2.2 Solid Dowel Bars

Replace paragraph one with the following effective with the December 2019 letting:

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Alternatively the contractor may furnish dowel bars conforming to AASHTO M227 grade 70-80. Coat in a plant certified by the Concrete Reinforcing Steel Institute with a thermosetting epoxy conforming to AASHTO M254, type B.

625.3.2 Processing Topsoil or Salvaged Topsoil

Delete paragraph four effective with the December 2019 letting.

701.3.1 General

Replace the entire text with the following effective with the December 2019 letting:

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Use the test methods specified in table 701-1.

TABLE 701-1 TESTING AND CERTIFICATION STANDARDS

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 8-30.9.2	Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2[1][4]	TMS, AGGTECT-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11[1]	AGGTEC-I, ACT-AGG
Fine and coarse aggregate gradation	AASHTO T27[1]	
Aggregate moisture content	AASHTO T255[1]	
Fractured faces	ASTM D5821[1]	
Liquid limit	AASHTO T89	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Plasticity index	AASHTO T90[3]	
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152[2]	
Air void system of fresh concrete	AASHTO TP118[5]	
Concrete slump	AASHTO T119[2]	
Concrete temperature	ASTM C1064	
Making and curing concrete cylinders	AASHTO T23	
Moist curing for concrete cylinders	AASHTO M201	
Concrete compressive strength	AASHTO T22	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Concrete flexural strength	AASHTO T97	
Profiling	—	PROFILER

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

[3] A plasticity check, if required under individual QMP provisions, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

[4] Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

[5] Consolidate by rodding.

715.2.1 General

Replace paragraph five with the following effective with the December 2019 letting:

(5) For new lab-qualified mixes, test the air void system of the proposed concrete mix. Include the SAM number as a part of the mix design submittal.

715.3.1.1 General

Replace paragraph two with the following effective with the December 2019 letting:

(2) Test the air void system at least once per lot and enter the SAM number in the MRS for information only. SAM testing is not required for the following:

- For lots with less than 4 sublots.
- High early strength (HES) concrete.
- Special high early strength (SHES) concrete.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls
  - Steel Grid Floor Concrete Filled
  - Crash Cushions Permanent
  - Crash Cushions Permanent Low Maintenance
  - Crash Cushions Temporary

730.3.1 General

Replace paragraph three with the following effective with the December 2019 letting:

(3) Stockpile tests[1] can be used for multiple projects. If placement on a project does not begin within 120 calendar days after the date the stockpile sample was obtained, retest the stockpile before placement begins.

[1] Replace the stockpile test with an in-place production test for concrete pavement recycled and processed on-site; test on the first day of production.

730.3.2 Contractor QC Testing

Replace paragraph four with the following effective with the December 2019 letting:

(4) Submit test results to the engineer within one business day of obtaining the sample, except any aggregate classification with recycled asphalt may be submitted within two business days.

730.3.4.1 Contractor QC Testing

Replace the entire text with the following effective with the December 2019 letting:

(1) For small quantity contracts with <= 500 tons, submit 2 production tests or 1 stockpile test. Production tests are valid for 3 years from the date the production sample was obtained. Begin placement within 3 years of the date sampled.

(2) For small quantity contracts with <= 6000 tons and >= 500 tons, do the following:

1. Conduct one QC stockpile test before placement.
2. Submit 2 production tests or conduct 1 loadout test instead of placement tests. Production tests are valid for 3 years from the date the production sample was obtained; the first day of placement must be within 3 years of the date sampled.
3. If the actual quantity placed is more than 6000 tons, on the next day of placement perform one additional random QC test for each 3000 tons of overrun, or fraction thereof.

740.3.2 Contractor QC Testing

Replace paragraph three with the following effective with the December 2019 letting:

(3) Field-locate the beginning and ending points for each profile run. Measure the profiles of each standard and partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. 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.

Errata

104.6.1.2.3 Drop-Off and Hazard Protection

Correct errata by changing 2 inches or greater to greater than 2 inches.

(1) Eliminate vertical drop-offs greater than 2 inches and edge slopes steeper than 3:1 between adjacent lanes open to traffic.

305.3.3.3 Shoulders Adjacent to Asphaltic Pavement or Surfacing

Correct errata by changing 2-inch or more to greater than 2-inch.

(2) If the roadway remains open to through traffic during construction and a greater than 2-inch drop-off occurs within 3 feet or less from the edge of the traveled way, eliminate the drop-off within 48 hours after completing that days paving. Unless the special provisions specify otherwise, provide aggregate shoulder material compacted to a temporary 3:1 or flatter cross slope from the surface of the pavement edge.

614.3.6 Thrie Beam Structure Approach Retro Fits

Correct errata by deleting the galvanization reference already required under 614.3.1.

(2) Install posts and drill holes into existing thrie beam conforming to 614.3.2.

628.3.7 Mobilizations for Erosion Control

Correct errata by clarifying that mobilizations for erosion control include proceeding with the work.

(1) Move personnel, equipment, and materials to the project site and promptly proceed with construction of erosion control items at the stages the contract indicates or the engineer directs.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

Effective January 2019 Letting ASP 9

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data 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 their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals 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/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

https://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4400 CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0004	201.0105 Clearing	4.000 STA	_____.____	_____.____
0006	201.0205 Grubbing	4.000 STA	_____.____	_____.____
0008	204.0100 Removing Pavement	90.000 SY	_____.____	_____.____
0010	204.0120 Removing Asphaltic Surface Milling	40.000 SY	_____.____	_____.____
0012	204.0150 Removing Curb & Gutter	160.000 LF	_____.____	_____.____
0014	204.0155 Removing Concrete Sidewalk	28.000 SY	_____.____	_____.____
0016	204.0170 Removing Fence	1,431.000 LF	_____.____	_____.____
0018	204.0210 Removing Manholes	5.000 EACH	_____.____	_____.____
0020	204.0220 Removing Inlets	6.000 EACH	_____.____	_____.____
0022	204.0240 Site Clearance (parcel) 0001. IH 94 EW	 LS	LUMP SUM	_____.____
0024	204.0245 Removing Storm Sewer (size) 0001. 12-Inch	222.000 LF	_____.____	_____.____
0026	204.0280 Sealing Pipes	3.000 EACH	_____.____	_____.____
0028	204.9060.S Removing (item description) 0001. Buried Shaft Support System	1.000 EACH	_____.____	_____.____
0030	205.0100 Excavation Common	128,841.000 CY	_____.____	_____.____
0032	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	28,560.000 TON	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	213.0100 Finishing Roadway (project) 0001. 1060-34-78	1.000 EACH	_____.____	_____.____
0036	305.0120 Base Aggregate Dense 1 1/4-Inch	35.000 TON	_____.____	_____.____
0038	455.0605 Tack Coat	6.000 GAL	_____.____	_____.____
0040	460.6223 HMA Pavement 3 MT 58-28 S	15.000 TON	_____.____	_____.____
0042	460.6224 HMA Pavement 4 MT 58-28 S	23.000 TON	_____.____	_____.____
0044	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	4.000 EACH	_____.____	_____.____
0046	522.1060 Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	1.000 EACH	_____.____	_____.____
0048	601.0331 Concrete Curb & Gutter 31-Inch	159.000 LF	_____.____	_____.____
0050	602.0410 Concrete Sidewalk 5-Inch	400.000 SF	_____.____	_____.____
0052	603.8000 Concrete Barrier Temporary Precast Delivered	1,025.000 LF	_____.____	_____.____
0054	603.8125 Concrete Barrier Temporary Precast Installed	1,025.000 LF	_____.____	_____.____
0056	606.0200 Riprap Medium	227.000 CY	_____.____	_____.____
0058	606.0300 Riprap Heavy	27.000 CY	_____.____	_____.____
0060	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	41.000 LF	_____.____	_____.____
0062	608.0536 Storm Sewer Pipe Reinforced Concrete Class V 36-Inch	117.000 LF	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	611.0420 Reconstructing Manholes	1.000 EACH	_____.____	_____.____
0066	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.____	_____.____
0068	611.0642 Inlet Covers Type MS	1.000 EACH	_____.____	_____.____
0070	611.3004 Inlets 4-FT Diameter	1.000 EACH	_____.____	_____.____
0072	611.3901 Inlets Median 1 Grate	1.000 EACH	_____.____	_____.____
0074	614.0905 Crash Cushions Temporary	1.000 EACH	_____.____	_____.____
0076	614.2300 MGS Guardrail 3	982.000 LF	_____.____	_____.____
0078	614.2500 MGS Thrie Beam Transition	8.200 LF	_____.____	_____.____
0080	614.2620 MGS Guardrail Terminal Type 2	3.000 EACH	_____.____	_____.____
0082	616.0206 Fence Chain Link 6-FT	1,518.000 LF	_____.____	_____.____
0084	616.0329 Gates Chain Link (width) 0001. 10-FT	1.000 EACH	_____.____	_____.____
0086	616.0700.S Fence Safety	1,372.000 LF	_____.____	_____.____
0088	618.0100 Maintenance And Repair of Haul Roads (project) 0001. 1060-34-78	1.000 EACH	_____.____	_____.____
0090	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0092	623.0200 Dust Control Surface Treatment	28,661.000 SY	_____.____	_____.____
0094	624.0100 Water	264.000 MGAL	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0096	627.0200 Mulching	10,670.000 SY	_____.____	_____.____
0098	628.1104 Erosion Bales	30.000 EACH	_____.____	_____.____
0100	628.1504 Silt Fence	1,498.000 LF	_____.____	_____.____
0102	628.1520 Silt Fence Maintenance	1,498.000 LF	_____.____	_____.____
0104	628.1905 Mobilizations Erosion Control	5.000 EACH	_____.____	_____.____
0106	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.____	_____.____
0108	628.2004 Erosion Mat Class I Type B	7,086.000 SY	_____.____	_____.____
0110	628.2008 Erosion Mat Urban Class I Type B	18,724.000 SY	_____.____	_____.____
0112	628.6510 Soil Stabilizer Type B	5.600 ACRE	_____.____	_____.____
0114	628.7005 Inlet Protection Type A	11.000 EACH	_____.____	_____.____
0116	628.7015 Inlet Protection Type C	15.000 EACH	_____.____	_____.____
0118	628.7020 Inlet Protection Type D	13.000 EACH	_____.____	_____.____
0120	628.7504 Temporary Ditch Checks	50.000 LF	_____.____	_____.____
0122	628.7560 Tracking Pads	5.000 EACH	_____.____	_____.____
0124	628.7570 Rock Bags	50.000 EACH	_____.____	_____.____
0126	629.0210 Fertilizer Type B	23.000 CWT	_____.____	_____.____
0128	630.0120 Seeding Mixture No. 20	816.000 LB	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0130	630.0200 Seeding Temporary	746.000 LB	_____.____	_____.____
0132	630.0500 Seed Water	680.000 MGAL	_____.____	_____.____
0134	633.5200 Markers Culvert End	5.000 EACH	_____.____	_____.____
0136	640.1303.S Pond Liner Clay	6,145.000 CY	_____.____	_____.____
0138	643.0300 Traffic Control Drums	4,250.000 DAY	_____.____	_____.____
0140	643.0410 Traffic Control Barricades Type II	1,560.000 DAY	_____.____	_____.____
0142	643.0420 Traffic Control Barricades Type III	225.000 DAY	_____.____	_____.____
0144	643.0705 Traffic Control Warning Lights Type A	1,975.000 DAY	_____.____	_____.____
0146	643.0715 Traffic Control Warning Lights Type C	1,125.000 DAY	_____.____	_____.____
0148	643.0800 Traffic Control Arrow Boards	115.000 DAY	_____.____	_____.____
0150	643.0900 Traffic Control Signs	5,530.000 DAY	_____.____	_____.____
0152	643.0910 Traffic Control Covering Signs Type I	1.000 EACH	_____.____	_____.____
0154	643.0920 Traffic Control Covering Signs Type II	3.000 EACH	_____.____	_____.____
0156	643.1000 Traffic Control Signs Fixed Message	227.250 SF	_____.____	_____.____
0158	643.1050 Traffic Control Signs PCMS	130.000 DAY	_____.____	_____.____
0160	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0162	645.0120 Geotextile Type HR	793.000 SY	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0164	646.1020 Marking Line Epoxy 4-Inch	2,516.000 LF	_____.____	_____.____
0166	646.6120 Marking Stop Line Epoxy 18-Inch	36.000 LF	_____.____	_____.____
0168	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	160.000 LF	_____.____	_____.____
0170	649.0150 Temporary Marking Line Removable Tape 4-Inch	1,450.000 LF	_____.____	_____.____
0172	649.0250 Temporary Marking Line Removable Tape 8-Inch	150.000 LF	_____.____	_____.____
0174	690.0150 Sawing Asphalt	160.000 LF	_____.____	_____.____
0176	690.0250 Sawing Concrete	95.000 LF	_____.____	_____.____
0178	SPV.0035 Special 0031. Clay Cap	6,557.000 CY	_____.____	_____.____
0180	SPV.0035 Special 7000. Excavation, Hauling, and Reuse of Low-Level Petroleum-Contaminated Soil	29,772.000 CY	_____.____	_____.____
0182	SPV.0035 Special 8002. Backfill Slurry	118.000 CY	_____.____	_____.____
0184	SPV.0060 Special 0001. Field Facilities Office Space	1.000 EACH	_____.____	_____.____
0186	SPV.0060 Special 0500. Existing Pipe Connections to Structures	1.000 EACH	_____.____	_____.____
0188	SPV.0060 Special 0905. Traffic Control Interim Freeway Lane Closure	25.000 EACH	_____.____	_____.____
0190	SPV.0060 Special 0910. Traffic Control Interim Freeway Two Lane Closure	15.000 EACH	_____.____	_____.____

Proposal ID: 20200414012 **Project(s):** 1060-34-78

Federal ID(s): N/A

SECTION: 0001 DETENTION POND

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0192	SPV.0060 Special 8002. Ramp NOB Pond Outlet Storm Sewer Structure	1.000 EACH	_____._____	_____._____
0194	SPV.0060 Special 8005. Cover Plates Left In Place	1.000 EACH	_____._____	_____._____
0196	SPV.0060 Special 8015. Pipe Connection To Existing Structure	1.000 EACH	_____._____	_____._____
0198	SPV.0060 Special 8018. Removing Bulkhead	1.000 EACH	_____._____	_____._____
0200	SPV.0105 Special 0001. Survey Project 1060-34-78	LS	LUMP SUM	_____._____
0202	SPV.0105 Special 0002. Pavement Cleanup	LS	LUMP SUM	_____._____
0204	SPV.0105 Special 8098. Control of Water	LS	LUMP SUM	_____._____
0206	SPV.0105 Special 9001. Settlement Plates	LS	LUMP SUM	_____._____
0208	SPV.0105 Special 9002. Inclinometers	LS	LUMP SUM	_____._____
0210	SPV.0180 Special 0001. Topsoil Special	32,880.000 SY	_____._____	_____._____
0212	SPV.0180 Special 0002. Soil Drying	110,000.000 SY	_____._____	_____._____
0214	SPV.0195 Special 0001. Soil Drying Agent	2,340.000 TON	_____._____	_____._____
	Section: 0001		**Total:**	_____._____

Total Bid: _____._____

PLEASE ATTACH SCHEDULE OF ITEMS HERE

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

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

April 3, 2020

NOTICE TO ALL CONTRACTORS:

Proposal #12: 1060-34-78
Zoo IC, Detention Pond
At North Avenue Interchange
Non Hwy
Milwaukee County

Letting of April 14, 2020

This is Addendum No. 01, which provides for the following:

Other

ASP-5 has been revised and is effective with the April 2020 letting.

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

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

END OF ADDENDUM

ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment

A Description

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

B Categories of Work Items

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

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

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

The base Fuel Index (BFI) for this contract is $1.15 per gallon.

D Computing the Fuel Cost Adjustment

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

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

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

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

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

E Payment

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

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

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

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

April 8, 2020

NOTICE TO ALL CONTRACTORS:

Proposal #12: 1060-34-78
Zoo IC, Detention Pond
At North Avenue Interchange
Non HWY
Milwaukee County

Letting of April 14, 2020

This is Addendum No. 02, which provides for the following:

Special Provisions:

Deleted Special Provisions	
Article No.	Description
11	Notice to Contractor – Interstate Work Restriction

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

Sincerely,

Mike Coleman
Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 02

1060-34-78

April 8, 2020

Special Provisions

11. DELETED

END OF ADDENDUM