HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation
DT1502 01/2020 s.66.0901(7) Wis. Stats

Proposal Number: 016

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	2656-00-72	N/A	C Milwaukee S 70th Street; Bridge Over Cp Rr/Hast P-40-856	LOC STR

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: $75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: March 14, 2023 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time November 10, 2023	
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

Type of Work: **For Department Use Only**

Grade, Base, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Lighting, Pavement Marking, Structure B-40-1008, R-724, 725.

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

BID PREPARATION

Preparing the Proposal Schedule of Items

A. General

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

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

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

(3) The department will provide bidding information through the department's web site at:

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 department's 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:

4. Have a properly executed annual bid bond on file with the department.
5. 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.

B Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

Effective with March 2010 Letting

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

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

Table of Contents

Article	Description	Page #
1.	General.	2
2.	Scope of Work.	2
3.	Prosecution and Progress.	2
4.	Traffic.	4
5.	Holiday and Special Event Work Restrictions.	4
6.	Utilities.	5
7.	Street Lighting.	6
8.	Erosion Control.	7
9.	Notice to Contractor – Survey.	7
10.	Notice to Contractor – Verification of Asbestos Inspection, No Asbestos Found.	7
11.	Notice to Contractor – Milwaukee County Transit System.	7
12.	Coordination with WDNR (Hank Aaron State Trail).	8
13.	Concrete Identification Stamping.	8
14.	Protection of Concrete.	8
15.	Public Convenience and Safety.	9
16.	Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.	9
17.	Concrete Staining B-40-1008, Item 517.1010.S.001.	11
18.	Concrete Staining Multi-Color B-40-1008, Item 517.1015.S.001.	12
19.	Architectural Surface Treatment B-40-1008, Item 517.1050.S.001.	14
20.	Anchor Assemblies Poles on Structures, Item 531.8990.	15
21.	Field Office, Type C; Item 642.5201.	15
22.	Conduit Rigid Nonmetallic Schedule 40 2 ½-Inch, Item 652.0230;	16
23.	Maintaining Bird Deterrent System Station 10+50, Item 999.2005.S.	16
24.	Adjusting Water Boxes, Item SPV.0060.001.	19
25.	Temporary No Parking Signs, Item SPV.0060.010.	19
26.	Junction Boxes 18-Inch x 12-Inch x 8-Inch, Item SPV.0060.592.	20
27.	Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.302.	21
28.	Electrical Cable Type 3#2/1#8 XLPE, Item SPV.0090.308.	21
29.	Wall Concrete Panel Mechanically Stabilized Earth R-40-724, Item SPV 0165.001; Wall Concrete Panel Mechanically Stabilized Earth R-40-725, Item SPV 0165.002.	24
30.	Management of Solid Waste, Item SPV.0195.001.	32

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 2656-00-72, C Milwaukee, S 70th Street, Bridge Over CP RR/HAST P-40-856, Local Street, 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, 2023 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 (20220628)

2. Scope of Work.

The work under this contract shall consist of removal of the existing Structure P-40-856, the construction of the new Structure B-40-1008, the construction of mechanically stabilized earth retaining walls R-40-724 and R-40-725, structure approach work including removing existing roadway, concrete pavement, associated grading, base aggregate, lighting, conduit, pavement marking, 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 10 calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the approved start date.

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

HMA Paving work shall be completed by November 1, 2023.

During construction of the bridge, close South 70TH Street to through traffic as shown on the traffic control plans for the entire construction period.

Construct and maintain a 12'-0" x 12'-0" trail zone above Hank Aaron State Trail during construction. Provide debris protection within this area. Limited short-term closures may be allowed with approval of engineer.

Do not commence work under this contract until the required traffic control devices and markings are in place and the engineer approves the installations.

Once work has started on the contract, work continually until the contract work is complete. The contract will not be considered complete until all items on the contract are completed, including seeding and roadway finishing. Obtain approval from the engineer at least 24-hours in advance if work on Saturday, Sunday, or nationally recognized legal holidays is desired. Notify the engineer as soon as possible, but no later than 12:00 PM the day before of scheduling changes after approval has been obtained.

Arrange weekly construction/progress meetings to apprise all sub-contractors and work being done by others of current status of project.

Provide proposed sequence of operations, methods of handling traffic and method of operation in regards to the Hank Aaron State Trail (HAST) in writing within 14 days before the preconstruction conference. Submit revisions in traffic handling to the engineer for approval at least 48-hours in advance of making any changes in traffic operations.

The contractor will be responsible to find the staging area during construction by occupying the work area on the bridge, approaches, or be negotiating with the adjacent property owners for the construction staging.

Obtain permission from the engineer a minimum of 48 hours prior to any construction schedule change.

Use equipment having vacuum or water-spray mechanisms to eliminate the dispersion of dust when performing roadway-cleaning operations. Provide suitable, self-contained particulate collectors, if vacuum equipment is used, to prevent discharge from collection bin into the atmosphere.

Store drums, buckets and other containers related to construction operations in a secure area to prevent vandalism, spills, and unwanted dumping. If an abandoned container is discovered on the project site, notify the WDNR at (800) 943-0003.

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from April 15 to August 31.

See below for information on affected structure(s). As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining one suitable deterrent device on the following structure(s) prior to nesting activity under the bid item Maintaining Bird Deterrent System:

- Structure P-40-856

The structure has an existing deterrent that was installed by City of Milwaukee.

Northern Long-eared Bat *(Myotis septentrionalis)*

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

Ensure all operators, employees, and subcontractors working in areas of known or presumed bat habitat are aware of environmental commitments and avoidance and minimization measures (AMMs) to protect both bats and their habitat.

Direct temporary lighting, if used, away from wooded areas during the bat active season: April 1 to October 31, both dates inclusive.

Contractor means and methods to remove trees will not allowed. If it is determined that trees with a 3-inch or greater diameter at breast height (dbh) need to be removed beyond contractor means and methods, notify the engineer to coordinate with the WisDOT REC to determine if consultation with United States Fish and Wildlife Service (USFWS) is required. The contractor must be aware that the WisDOT REC and/or USFWS may not permit modifications.

Construction Staging

During construction of the bridge, close South 70th Street to through traffic as shown on the traffic control plans for the entire construction period.

Access to the Hank Aaron State Trail (HAST) will remain open at all times, except when short term closures are necessary to accommodate the removal of existing bridge P-40-856. Other trail closures may be necessary to safely complete work adjacent to the HAST and are subject to approval by the engineer.

Utility Relocation Schedule

Utility relocation work is anticipated to be completed in July 2023. Schedule road construction operations to account for utility relocation work occurring simultaneously with road construction. Contact each individual utility company to determine the current status of relocation work and their anticipated completion schedule. Refer to the Utilities section of these specifications for more information.

4. Traffic.

Undertake traffic control according to standard spec 643 and/or as approved by the engineer, except as hereinafter modified.

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

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs, or other traffic control devices that are damaged or disturbed, in accord with standard spec 643.3.1(6). The cost to maintain and restore the above items shall be considered incidental to the item as bid and no additional payment will be made.

Supply the name and telephone number of a local contact person for traffic control repair prior to or at the preconstruction conference.

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

On-street parking will not be allowed during construction.

In the event where emergency vehicles and equipment which provide fire, police, and rescue service for the public need access to properties, the contractor shall cooperate to the fullest extend in accommodating emergency access in the shortest possible time.

All construction vehicles and equipment entering or leaving the project site shall yield to through traffic.

The City of Milwaukee's Traffic Operations section will provide all posting of parking restrictions required to facilitate construction operations. Contact Cameron Potter at (414) 286-3276 three working days prior to the start of construction operations.

Traffic Control Signs PCMS

Install Traffic Control Signs PCMS along S. 70th Street in both directions and along the HAST in both directions at the detour closure limits to notify users of upcoming construction activities two weeks before closures are enacted. These timeframes may be adjusted by the engineer.

Coordinate the locations of Traffic Control Signs PCMS with the engineer. Obtain acceptance from the engineer for all messages for all Traffic Control Signs PCMS.

Advance Notification

Notify City of Milwaukee first responders (police, fire, EMS), Milwaukee County Sheriff's Department, engineer, Milwaukee Public Schools, garbage/recycling pick-up companies, and the post office two weeks in advance of all road closures and detours. Notifications should be confirmed with all parties one week before implementation. Parties shall also be notified if a closure is cancelled.

Notify City of West Allis first responders (police, fire, EMS), engineer, schools, DPW, and post office two weeks in advance of all road closures and detours. Notifications should be confirmed with all parties one week before implementation. Parties shall also be notified if a closure is cancelled.

Hank Aaron State Trail

The Hank Aaron State Trail (HAST) located under the structure will remain open at all times, except when short term closures are necessary to accommodate the removal of existing bridge P-40-856. Other trail closures may be necessary to safely complete work adjacent to the HAST and are subject to approval by the engineer.

The contractor shall not close the HAST until the detour traffic control has been installed as shown in the plans. Do not close the HAST over the weekend (end of work on Friday to start of work on Monday), unless approved by the engineer.

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying S. 70th Street traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Monday, July 3, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day.

stp-107-005 (20210113)

6. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.

stp-107-066 (20080501)

The following operations are necessary for the construction of new facilities and/or adjustment of existing facilities and shall be coordinated with the contractor's construction operations by each representative utility unless otherwise noted. Coordinate construction activities with a call to Digger's Hotline or a direct call to the utilities that have facilities in the area as required by statutes. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Note: Bidders are advised to contact each utility company listed in the plans prior to preparing their bid to obtain current information on the status of each utility company's work required in association with the project. Existing trees, street light poles, hydrants and utility poles are to remain in place during construction unless noted on plans. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants, poles, other utilities and any other physical structures and the construction equipment.

AT&T Corp (Transmission)

AT&T Corp (Transmission) has underground communication facilities within the project limits along the north side of the HAST, no conflicts are anticipated.

Contact Kenneth Nine at (574) 904-6336 or knine@jmceainc.com with questions or concerns.

CenturyLink / Lumen Technologies

CenturyLink / Lumen Technologies has aerial communication facilities within the project limits along the east side of the bridge. Lumen will relocate handhole 20 ft NE out of conflict with proposed street light conduit, work will take place prior to construction. Use caution when working around Lumen 144 Fiber in the NE corner intersection of S 70th St and W Dickinson St Station # 11+60 R and the area where W Dickinson St connects to 70th. Per plan set removing 0-4' of contaminated soils, Fiber in area, which may be exposed should removal of more than 2' of contaminated soils, pothole cable and use caution when replacing soils.

Contact Brahim Gaddour at (414) 704-1026 or brahim.gaddour@lumen.com with questions or concerns.

Charter / Spectrum

Charter / Spectrum has aerial communication facilities within the project limits with two diagonal Charter lines overhead on the We Energies timber poles located at the south-west corner of the bridge and at the north-east corner of the bridge. Charter's aerial facilities and risers will be constructed per WE Energies work plan, prior to construction.

Contact Beau Abuya at (414) 758-9241 for coordination of work involving Charter's facilities within the limits of the project.

City of Milwaukee, Water Works

City of Milwaukee, Water Works has water facilities within the project limits in the vicinity of the intersection of South 70th Street and West Dickinson Street, no conflicts are anticipated.

Contact Josh Iwen at (414) 286-3640 or jiwen@milwaukee.gov with questions or concerns.

Midwest Fiber Networks

Midwest Fiber Networks has aerial communication facilities within the project limits with an east-west line attached to the We Energies poles crossing immediately north of the bridge and will move with We Energies poles prior to construction.

Contact Cory Schmuki at (414) 349-2764 for coordination of work involving Midwest Fiber Networks' facilities within the limits of the project.

We Energies - Electric

We Energies - Electric has aerial facilities within the project limits with two timber poles with overhead distribution lines located at the south-west corner of the bridge and at the north-east corner of the bridge. We Energies will remove and relocate the pole located at the north-east side of the bridge to the NE corner of S. 70th Street and W. Dickenson before the start of bridge construction. Following bridge construction, pole will be moved back to original location.

Contact We Energies - Electric dispatch line at 1 (800) 4797 for any coordination of work involving We Energies facilities within the limits of the project.

Contact Phil McDonnell at (414) 944-5620 or phil.mcdonnell@we-energies.com with questions or concerns.

We Energies - Gas

We Energies - Gas has underground facilities near the project limits, no conflicts are anticipated.

Contact We Energies Gas Dispatch, 1 (800) 261-5325 or Alex Dantinne at (920) 621-6903 or alex.dantinne@we-energies.com with questions or concerns.

7. Street Lighting.

A. City of Milwaukee

City of Milwaukee, Street Lighting has facilities within the project limits directly north of the bridge at the intersection of West Dickinson Street along both the east and west curbs of South 70th Street and there are two 2-1/2" diameter street lighting PVC schedule 40 conduits cast in the west sidewalk of the bridge.

Contractor shall not store or stock pile materials up against street lighting facilities.

The contractor is responsible for supplying and installing conduit, cable, pull boxes, junction boxes, a concrete light pole base, and light pole anchorage on bridge blister as detailed in the plans. The contractor shall contact the City Street Lighting Field Mangers as noted below after the new conduit is installed but before concrete is poured for inspection of the installation. There must be an expansion coupler installed wherever the conduit(s) exits the structure. Each conduit that runs through the bridge structure is to be extended a minimum of 3 feet beyond the approach slab, unless otherwise noted. All street lighting conduits are to have a 3/8-inch nylon pull rope installed and all conduit stubs are also to be capped with a temporary PVC cap and not duct tape.

The contractor is to keep Street Lighting Field Mangers informed of the progress of the bridge construction and allow for inspection of electrical work on and off the bridge. The Street Lighting Field Mangers listed below or the Street Lighting Project Manager will need to approve / accept the electrical materials used and the work done by the contractor.

Contact Neal Karweik of City of Milwaukee Street Lighting Field Manager at (414) 286-5943-office or (414) 708-4245-mobile, or Willie Cotton (414) 286-5997-office or (414) 708-1629-mobile, a minimum of 10 working days before construction work starts, and during construction to give a minimum of 5 working days' notice for coordination for permanent street lighting work.

Contractor is responsible to protect street lighting facilities and use CAUTION when working around underground or near overhead street lighting cables and equipment. Please immediately contact the Street Lighting Shop Dispatcher (414) 286-5944 if damage occurs. Any costs incurred by Street Lighting repairing and/or replacing damaged facilities will be billed to the contractor.

If the contractor requests the relocation of any street lighting facilities, for his convenience, he will be responsible for all costs incurred by the street lighting personnel fulfilling his request.

For general questions regarding the street lighting design contact Street Lighting Project Manager, Denis Kozelek of the City of Milwaukee at (414) 286-3252-office.

B. City of West Allis

For general questions regarding City of West Allis street lighting, contact Don Molleson of the City of West Allis at (414) 302-8808.

8. Erosion Control.

The contractor shall prepare and submit an erosion control implementation plan (ECIP) for the project including borrow sites, material disposal sites, dust control, and dewatering according to Chapter TRANS 401 requirements. The erosion control implementation plan shall supplement information shown on the plans and shall not reproduce it. The erosion control implementation plan will identify how the contractor intends to implement the project's erosion control plan.

Provide the ECIP 14 calendar days prior to the pre-construction conference. Provide 1 copy of the ECIP to WisDOT and 1 copy of the ECIP to the WDNR Liaison (Ms. Kristina Betzold; WDNR Southeast Region Headquarters; 1027 W. St. Paul Ave.; Milwaukee, WI 53233). Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-top soiling to minimize the period of exposure to possible erosion. Do not implement the ECIP until it has been approved by the department.

Re-topsoil graded areas, as designated by the engineer, immediately after grading is completed within those areas. Place sod, as designated by the engineer, within 5 calendar days after placement of topsoil.

When performing roadway cleaning operations, the contractor shall use equipment having vacuum or water spray mechanism to eliminate the dispersion of dust. If vacuum equipment is employed, it shall have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

Stockpile excess material or spoils on upland areas away from wetlands, floodplains and waterways. Stockpiled materials/and/or spoils shall be protected against erosion. Piles of stockpiled soil shall be protected against erosion and shall not create nuisance dust emissions. Said materials and/or spoils shall not be stockpiled for more than 14 calendar days.

Use Silt fence on the side slopes, and use erosion mat if needed which is paid under item Erosion Mat Class II Type B.

Do not place any fills in waterways or wetlands for work pads.

Reuse incidental amounts of sediment that are excavated during bridge rehabilitation in project area.

9. Notice to Contractor – Survey.

Digital design file information/existing surface data, including design surface DTMs and/or coordinate system GPS information will not be available for this project. As such, machine grading will not be possible.

All survey work necessary to stake out and construct all portions of this project will be measured and paid for under the staking bid items designated in this contract.

10. Notice to Contractor – Verification of Asbestos Inspection, No Asbestos Found.

John Roelke, License Number All- 119523, inspected Structure P-40-0856 for asbestos on April 22, 2019. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from Jonathan Thomas (414) 286-0463.

stp-107-127 (20220628)

11. Notice to Contractor – Milwaukee County Transit System.

The Milwaukee County Transit System (MCTS) operates the following bus route within and/or directly adjacent to the construction limits: 76 (N-S 76th Street, S 70th Street).

Impacts to MCTS Routing

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 10 business days prior to beginning project work to provide advance notice of potential service impacts.

MCTS contacts:

Armond Sensabaugh
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1728
asensabaugh@mcts.org

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

12. Coordination with WDNR (Hank Aaron State Trail).

During construction, the Hank Aaron State Trail (HAST) located in the project limits will remain open at all times, except when short term closures are necessary to accommodate the removal of existing bridge P-40-856. Other trail closures may be necessary to safely complete work adjacent to the HAST and are subject to approval by the engineer. Notify the DNR contact listed below at least seven calendar days prior to any closure:

Angela Vickio
Lakeshore State Park Manager/Hank Aaron State Trail Manager
Wisconsin Department of Natural Resources
500 N Harbor Drive, Milwaukee, WI 53202
Phone: (414) 274-4281
Email: Angela.Vickio@wisconsin.gov

During construction, the Hank Aaron State Trail (HAST) located in the project limits will remain open at all times, except when short term closures are necessary to accommodate the removal of existing bridge P-40-856. Other trail closures may be necessary

13. Concrete Identification Stamping.

Stamp ends of all monolithic portland cement concrete surfaces with a stamp bearing the contractor's name and the year of construction. Make all letters 2-inches in height.

Include the cost of this work in the contract unit price for other Portland cement concrete items and no additional payment will be made.

14. Protection of Concrete.

Supplement standard spec 415.3.14 as follows:

Provide for a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. Finisher must actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

Include the cost for providing the finisher(s), the necessary equipment, and materials in the contract unit price for each concrete item.

15. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

Motorized equipment shall be operated in compliance with all applicable local, state, and federals laws and regulations relating to noise levels. All motorized construction equipment will be required to have mufflers constructed according to manufacturer's specifications, and it will be required that mufflers and exhaust systems be maintained in good working order, free from leaks or holes.

Upon request the City of Milwaukee's Department of Neighborhood Services (DNS), may issue a construction noise variance, to work outside of the hours listed above.

Department of Neighborhood Services
4001 South 6th Street
(414) 286-2268

16. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

B Materials

B.1 General

Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1 inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1 inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8 inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap slices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

The department will measure the Bar Couplers Stainless bid items as each individual coupler, 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
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

stp-505-005 (20190618)

17. Concrete Staining B-40-1008, Item 517.1010.S.001.

A Description

This special provision describes providing a two coat concrete stain on the exposed concrete surfaces of structures as the plans show.

B Materials

B.1 Mortar

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

Preblended, Packaged Type II Cement:	Tri-Mix by TK Products
	Thoroseal Pearl Gray by Thoro Products

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

Acrylic Bonding Admixture:	TK-225 by TK Products
	Achro 60 by Thoro Products
	Achro Set by Master Builders

B.2 Concrete Stain

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two coat finish system:

Tri-Sheen Concrete Surfacer, Smooth by TK Products

Tri-Sheen Acrylic by TK Products

TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products

Safe-Cure & Seal EPX by Chem Masters

H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

C Construction

C.1 General

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

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

C.2 Preparation of Concrete Surfaces

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

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

C.3 Staining Concrete Surfaces

Apply the concrete stain according to the manufacturer's recommendations.

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

The color of the stain shall be as given on the plan. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

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

C.4 Test Areas

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

C.5 Surfaces to be Coated.

Apply concrete stain to the surfaces according to the plan.

D Measurement

The department will measure Concrete Staining B-40-1008 in area by the square foot of surface, acceptably prepared and stained.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.001	Concrete Staining B-40-1008	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.

stp-517-110 (20140630)

18. Concrete Staining Multi-Color B-40-1008, Item 517.1015.S.001.

A Description

This special provision describes providing a multi-color concrete stain on the exposed concrete surfaces of the structure as the plan details show.

B Materials

B.1 Mortar

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

Preblended, Packaged Type II Cement:	Tri-Mix by TK Products
	Thoroseal Pearl Gray by Thoro Products

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

Acrylic Bonding Admixture:	TK-225 by TK Products
	Achro 60 by Thoro Products
	Achro Set by Master Builders

B.2 Concrete Stain

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

Tri-Sheen Concrete Surfacer, Smooth by TK Products

Tri-Sheen Acrylic by TK Products

TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products

Safe-Cure & Seal EPX by Chem Masters

H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

C Construction

C.1 General

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

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

C.2 Preparation of Concrete Surfaces

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

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

C.3 Staining Concrete Surfaces

Apply the concrete stain according to the manufacturer's recommendations.

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

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

Finish Color: Stain the joints between stones produced by the form liner to create the appearance of grouted joints in cement gray.

Stones shall consist of the following colors:

Bluff Stone
Soap Stone
H&C 159 – Orange
Dark Gold

Highlighting on the stones shall consist of the following colors:

Soap Stone
Bluff Stone
Sand Stone
Cement Gray

Contractor shall submit 3 drawdowns of each color.

The department will either approve of the colors, or request for three drawdowns of an additional color. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

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

C.4 Test Areas

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

C.5 Surfaces to be Coated.

Apply concrete stain to the surfaces according to the plan.

D Measurement

The department will measure Concrete Staining Multi-Color B-40-1008 in area by the square foot of surface, acceptably prepared and stained.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1015.S.001	Concrete Staining Multi-Color B-40-1008	SF

Payment is full compensation for furnishing and applying the coloring system; for preparing the concrete surface; and for constructing and staining the sample panels.

stp-517-115 (20140630)

19. Architectural Surface Treatment B-40-1008, Item 517.1050.S.001.

A Description

This special provision describes providing a concrete masonry architectural surface treatment on the exposed concrete surfaces of structures as the plan details show.

B Materials

Use form liners that attach easily to the forming system, and do not compress more than 1/4 inch when poured at a rate of 10 vertical feet/hour.

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

Wall ties shall have set "break-backs" at a minimum of 3/4 inches from the finished concrete surface.

C Construction

C.1 Equipment

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

C.2 Form Liner Preparation

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

Apply form release per manufacturer's recommendations.

C.3 Form Liner Attachment

Place adjacent liners less than 1/4 inch from each other, attach liner securely to forms according to the manufacturer's recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing

Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement

The department will measure Architectural Surface Treatment B-40-1008 in area by the square foot of architectural surface, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1050.S.001	Architectural Surface Treatment B-40-1008	SF

Payment is full compensation for producing the proposed architectural surface treatment including preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.

stp-517-150 (20110615)

20. Anchor Assemblies Poles on Structures, Item 531.8990.

Perform this work according to standard spec 657 except as otherwise provided in the plans or hereinafter provided.

Provide 2 1/2” diameter conduit and 90° conduit elbows with 18” radius from lighting junction boxes to pole bases.

The cost for conduits and elbows will be incidental to the cost for Anchor Assemblies Poles on Structures.

21. Field Office, Type C; Item 642.5201.

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 600 square feet.

The facility shall have no fee parking with a minimum parking for 15 cars. The space shall include a meeting room with a minimum of 150 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 1 mile 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. Three suitable office desks with drawers and locks.
2. Three 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. Four 6-foot folding tables.
4. One 10-foot folding table.
5. Three 2-drawer file cabinets.
6. Three 4-shelf bookcases.
7. Ten 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.

22. Conduit Rigid Nonmetallic Schedule 40 2 ½-Inch, Item 652.0230;

This work consists of furnishing and installing PVC conduits according to standard spec 652, and as shown in the plan details. All work shall be according to standard spec 651.

Supplement standard spec 652 as follows:

652.2 Material

652.2.1 General

Add the following text:

(2) Contractor must submit a certificate of compliance certifying that the conduit rigid nonmetallic as furnished conform to the above requirements. Send a copy of the certificate of the conduit rigid nonmetallic to:

City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & City Underground Conduit Engineer
841 N. Broadway (Room 920)

652.3.1 Installation of Conduit

652.3.1.1 General

Add the following text:

(7) Locations of the conduits where they are required are identified in the plans. However, installation will require integration with existing field conditions. Appropriate adjustment on conduit locations may be made if the field conditions are such that the pipes cannot be installed at the specified locations. Any relocation of greater than 5 feet must be approved by the engineer.

(8) Field design changes must be approved by the City of Milwaukee Electric Services Supervisor. The primary contacts are Mr. Dennis Miller, Street Lighting Supervisor (414) 286-5942-office, (414) 708-4251-mobile; or Mark MacRae, Street Lighting Supervisor (414) 708-0434-mobile; or Neal Karweik, Street Lighting Supervisor (414) 286-5943-office, (414) 708-4245-mobile.

23. Maintaining Bird Deterrent System Station 10+50, Item 999.2005.S.

A Description

This special provision describes inspecting, installing and/or maintaining approved deterrents that prevent migratory bird nesting on bridges and culverts. Swallows or other migratory birds' nests have been observed on or under the existing culvert or bridge at the station identified. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. One deterrent system shall be installed and/or maintained for each applicable structure. Deterrent methods selected shall be appropriate for structure type, size and/or site-specific constraints.

B Materials

B.1 Hardware and Lumber

Lumber, hardware, and fastening devices shall be durable enough to last through the length of the nesting season. Fastening devices and deterrence system must be approved by the engineer prior to installation on culverts and bridges that will remain in service after removal of deterrent systems. The method of fastening should not compromise the culvert or bridge concrete surfaces or steel protection systems. The attachment locations must be restored and repaired as needed by use of engineer approved fillers, sealers and paint systems

B.2 Netting Materials

Exclusion netting is material either wrapped around or draped and fastened to bridge decks/abutments and culvert corners to prevent bird entry.

Furnish exclusionary netting to deter nesting in bridge decks and abutments and corners of box culverts, consisting of either:

a. 1/2” x 1/2” or 3/4" x 3/4” knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.

b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

At a minimum, use either 1” x 2” (nominal) lumber or 3/4” x 2” pressure treated plywood strips and of equal length as the netting.

B.3 Plastic Strip Curtain

Plastic strip curtains are strips of plastic attached to vertical surfaces in areas suitable for nesting.

Furnish 3-foot wide lengths of 6 mil minimum plastic sheeting with the lower 2 feet cut into vertical strips 2 inches wide.

At a minimum, use either 1” x 2” (nominal) lumber or 3/4” x 2” pressure treated plywood strips and staples to attach plastic strips to wood to fabricate the strip curtain.

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

Corner slopes are pieces of curved plastic placed in corners suitable for nesting. They are particularly effective in preventing nesting in top corners of box culverts.

Furnish U.V. stabilized pre-fabricated PVC or polycarbonate corner slopes from commercial bird-deterrent manufacturers or an approved equal.

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison, Kristina Betzhold at (414) 263-8517, or the department regional environmental coordinator, Brenda Ruenger at (262) 548-6709.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

Remove unoccupied nests prior to the beginning of the nesting season as designated in Prosecution and Progress. Nest removal involves the removal and disposal of unoccupied or partially constructed nests without eggs or nestlings. Removing all evidence of nesting (e.g., cleaning droppings from structures) eliminates a visual cue for a potential breeding location, especially for first-time breeders. Nest removal is not a type of deterrent and does not prevent nest establishment but can delay the process. As such, it should only be used in conjunction with other methods. It cannot be used on its own to ensure compliance. Nest removal is not required if deterrents are installed before the start of the avoidance window unless nests interfere with successful installation of the deterrent.

Remove nests on the structure by scraping or pressure washing prior to established avoidance windows to deter nesting. Remove only unoccupied or partially constructed nests without eggs or nestlings. Remove newly built nests every two days before eggs are laid. Nest removal is intended to be used prior to and in conjunction with other nesting deterrents.

C.3 Exclusion Netting

C.3.1 Installation

Using concrete screws, anchor lumber to bridge or culvert along perimeter of intended netting. Fasten netting to lumber until netting is held taut. Eliminate any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

For culverts, attach netting at a 45-degree angle at the culvert corner so it extends at least 12” below the corner.

C.4 Plastic Curtains

C.4.1 Installation

Attach plastic curtains along the entire length of vertical surface or corner on which nest building is to be deterred. Affix plastic curtain strips to treated lumber with staples spaced a minimum of 1 foot O.C. Wrap plastic curtains around lumber prior to attaching it to the structure to reduce the likelihood of it tearing out at the staples. Screw lumber into the underside of the bridge deck or top of box culvert with concrete screws placed 24-inches O.C. minimum.

C.5 Corner Slopes

C.5.1 Installation

Attach corner slopes to the structure per the manufacturer’s recommendations. Use urethane-based adhesives if manufacturer supplied hardware or adhesives are not available or no recommendations are provided. Install end caps or seal ends of corner slopes to prevent entry of birds or other animals.

C.6 Inspection and Maintenance

Inspect bird deterrent devices every two weeks both during and prior to construction when deterrents have been installed to exclude birds prior to nesting windows, and after large storm events or high winds. Ensure that netting is taut, that no gaps or holes have formed, and that the nets are functioning properly. Ensure that corner slopes are not cracked or otherwise damaged and are functioning properly. Ensure that curtains are undamaged, with no tears, holes, or creases. Repair any damaged or loose deterrent devices. Inspect, maintain, and repair nesting deterrents whether installed by the contractor or others. Repair, replace, supplement deterrents as necessary with materials meeting the requirements of this specification.

Remove any unoccupied or partially constructed nests without eggs or nestlings.

Repair deterrents to prevent birds from attempting to nest again.

Record all inspection, removal, and maintenance activities. Provide inspection, removal and maintenance records to the engineer upon request.

C.7 Removal and Structure Repair

Maintain the deterrent until the engineer determines that the deterrent is deemed no longer necessary. Upon completion of the project, remove any remaining migratory bird deterrent from the project site. If the existing bridge or culvert is to remain after construction, restore and repair as needed by use of engineer approved fillers, sealers and paint systems.

D Measurement

The department will measure Maintaining Bird Deterrent System (Station) as a single unit at each structure, 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
999.2005.S	Maintaining Bird Deterrent System Station 10+50	EACH

Payment is full compensation for inspecting structures for the presence of migratory birds, inspecting deterrents installed by others; maintaining, repairing, replacing, and supplementing existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

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24. Adjusting Water Boxes, Item SPV.0060.001.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the paving project, to all City of Milwaukee water service boxes and water valve boxes located within the project limits.

B Materials

All material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the City of Milwaukee by contacting Andray DeCordova, Milwaukee Water Works, at (414) 708-3209 (or Tim Garczynski, Milwaukee Water Works at (414) 286-6301).

If there is contractor damage, the materials must still be provided by the City of Milwaukee, however, in this case, the contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th St.

C Construction

The contractor, or authorized project representative, shall contact Milwaukee Water Works prior to the start of construction. The city will locate, mark, inspect and repair all water service boxes and water valve boxes within the limits of the project prior to commencement of work on the project.

All water service boxes and water valve boxes within the project limits shall be adjusted to proposed elevations by the contractor using materials meeting city specifications.

Throughout the duration of the project, the contractor must ensure that all water service boxes, and water valve boxes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces. Exercise caution working adjacent to water facilities to avoid damage and ensure accessibility.

Upon completion of the contract, the city will inspect all water facilities to ensure the water boxes are clean, properly aligned, and accessible. The contractor shall be responsible to make identified repairs and adjustments, and if any repairs or adjustments are made by the city, the cost will be charged to the contractor.

D Measurement

The department will measure Adjusting Water Boxes 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.0060.001	Adjusting Water Boxes	EACH

Payment is full compensation for all excavation, backfilling, disposal of surplus materials, water box adjustments, water box clean-out, and restoration of the work site.

25. Temporary No Parking Signs, Item SPV.0060.010.

A Description

This special provision describes providing, installing, maintaining, and removing Temporary No Parking signs.

B Materials

Furnish materials under this item according to the details as shown on the plans.

Temporary No Parking signs shall be fabricated using 18”x24” 4mm white corrugated (polypropylene twinwall) plastic sign base to print R7-1 regulation; use R7-1D, R7-1L or R7-1R where necessary. Provide a 0.4-inch thick base with a 0.035-inch wall thickness and 0.4-inch cell size. Prepare the sign base as the sheeting manufacturer recommends.

Sign shall be affixed to using 9-gauge galvanized electric fence wire.

C Construction

Install Temporary No Parking Signs according to the plans. Plan changes must be approved by a City of Milwaukee Traffic Engineer.

Any No Parking signage attached to city street trees shall be of a temporary method (nails or spikes are not allowed).

Please contact Mr. Cameron Potter at (414) 286-3276 with questions.

D Measurement

The department will measure Temporary No Parking Signs by the each, 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.0060.010	Temporary No Parking Signs	EACH

Payment is full compensation for providing, installing, maintaining, and removing Temporary No Parking signs.

26. Junction Boxes 18-Inch x 12-Inch x 8-Inch, Item SPV.0060.592.

A Description

This special provision describes furnishing and installing 18-Inch x 12-Inch x 8-Inch electrical boxes for use as pull boxes on 2 1/2-inch nonmetallic rigid conduit installations.

B Materials

Furnish junction boxes made by an approved cast iron manufacturer and having a hot dipped galvanized coating. The covers and removable flanges shall be cast iron with a hot dipped galvanized coating and designed for vehicular applications. The covers and flanges shall be interchangeable to permit replacement without disturbing the box or conduit system. Furnish covers with a cross checkered pattern for vehicular traffic and equipped with pry bar slots, neoprene gasket and recessed stainless steel cover screws. Covers to have “STREET LIGHTING” cast into the cover or permanently attached.

Supply a stainless steel ¼” X 20” grounding lug on all boxes on a side of box opposite the entering conduit.

Direct all materials question to Mr. Eng-Kie Lee, (414) 286-2174.

C Construction

Furnish and install junction boxes. Provide 1” nonmetallic drains in the bottom of all junction boxes. Junction box conduit and elbow holes shall be cut in the field.

D Measurement

The department will measure Junction Boxes 18-Inch x 12-Inch x 6-Inch by each individual box, 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.0060.592	Junction Boxes 18-Inch x 12-Inch x 8-Inch	EACH

Payment is full compensation for providing all materials, drains and fittings, including the junction box and cover, grounding lug and stainless steel mounting hardware; and for properly disposing of surplus materials.

27. Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.302.

A Description

This special provision describes providing furnishing and installing Fiberglass/Polymer Concrete Pull Box at the locations shown on the plans according to standard spec 653.

B Materials

Furnish fiberglass/polymer concrete pull box of rectangular composite enclosure with Tier 15 Rating (15,000 lb Design Load) and (22,500 lb Test Load), and nominal 13” wide x 24” long and 24” total depth, flared wall style #CHB132424 as by Highline Products or #B12132424A as by Hubbell Power Systems or approved equal. Cover shall be Tier 15 Rating (15,000 lb Design Load) and (22,500 lb Test Load), bolted cover with logo “Street Lighting” #CHC1324HL1 as by Highline Products or #C12132402A41 as by Hubbell Power Systems or approved equal. The pull box shall be listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

C Construction

Conform to standard spec 673.3 and City of Milwaukee standards. The pull box shall be installed on 12inches of crushed stone, set flush with grade and backfilled.

D Measurement

The department will measure Pull Box 13-Inch x 24-Inch x 24-Inch by the individual, 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.0060.302	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH

Payment is full compensation for furnishing and installing all materials, including pull box, crushed aggregate, for excavation, backfill, for disposing of surplus material.

28. Electrical Cable Type 3#2/1#8 XLPE, Item SPV.0090.308.

A Description

This special provision describes furnishing and installing service cable according to current City of Milwaukee Electrical methods and National Electrical Code standards. The service cable shall consist of four cross-linked polyethylene covered, stranded, copper conductors. All work shall be according to standard spec 651.

B Materials

B.1

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) Specification No. S-61-402, NEMA WC5, latest revision.

B.1.1 Conductors

The conductors shall be of soft round annealed uncoated stranded copper conductor per ASTM B-3, ASTM B-8, and UL Standard UL-44. Conductors No. 8 A.W.G. or larger shall be stranded. Conductors smaller than No. 8 A.W.G. shall be solid unless otherwise specified. Stranding must meet the requirements of ASTM B8, Class B.

B.2 Insulation

B.2.1 600V

The insulation for cable rated 600V shall be cross XLPE thermosetting chemically crosslinked polyethylene insulation according to industry standard ICEA Pub. No. S-95-658/Nema WC-70 (2009), latest revision, and shall be a nominal 45 mils. thickness. Insulation shall meet the ANSI/ASTM D2220-74 (latest revision) accelerated water absorption requirements and -30°C (-22°F) cold bend test with a separator applied between the stranded conductor and insulation to facilitate cable stripping. The outside diameter of the insulating covering must be circular and extruded concentrically over the conductor.

B.2.2 Nominal Thickness

The nominal insulation thickness around each individual conductor shall be not less than 90% of the thickness specified in the schedule.

B.2.3 Color Code

The insulation compound which covers each conductor making up a cable shall be color coded in conformance with the N.E.M.A. Color Code Standard, unless otherwise specified; however, printed color designations as in I.3.2 or I.3.3. will not be acceptable under this specification (see schedule). Individual cables will be black, red, white and green.

B.3. Marking

B.3.1

Identification for each conductor must be provided by colors according to I.M.S.A. Standards. The outer insulation must be marked with the following information at a minimum: conductor size (AWG), 600V, XLPE, USE-2, manufacturer’s name and date of manufacturer. All markings must be a minimum of 1/8-inch in height. Marking shall be at approximately 2-foot intervals. A sequential footage marking must be located on the opposite side of the jacket. All marking must be perfectly legible with permanent white ink.

B.4 Round Cable

B.4.1

This cable shall consist of stranded, uncoated, conductors each concentrically encased with a cross linked polyethylene USE-2 rubber insulation.

B.4.2 Inspection and Tests

Each length of the individual insulated conductor and completed cable shall comply with all requirements of I.C.E.A. Standards S-61-402. Sampling and Test Methods shall be according to Part 6. A certified report of the tests made on the cable to show compliance with this specification may be required prior to shipment. If requested, a sample of the cable covered by the report shall also be submitted.

POWER, CABLE SCHEDULE FOR SPECIFICATION

	3#2/1#8	
Size of Conductor	#2	#8
Number of Conductors	3	1
Number of Wires in Conductor	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green
Non-Hydroscopic Fill	None	
Moisture Resisting Sheath		
Jacket Thickness	None	
	3#6/1#8	
Size of Conductor	#6	#8
Number of Conductors	3	1
Number of Wires in Conductor	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green
Non-hydroscopic Fill	None	
Moisture Resisting Sheath		
Jacket Thickness	None	

All conductors shall be uncoated annealed soft copper.

C Construction

The cable shall be installed in P.V.C. conduit when indicated on plans. Any turf damage during installation of cable shall be restored (grass, asphalt or concrete) by the contractor, All splices in luminaires and transformer bases, must be completed by the contractor unless otherwise designated on plans. Do not splice underground in vault or conduit. Do not leave wire or cable ends uncovered or submerged in water.

If the engineer observes this condition, the engineer may reject the entire length of cable or wire. Make all electrical connections and splices with approved pressure or compression type fittings. Cover tape with a liberal coating of an electrical varnish or sealant providing flexible protection from oil, moisture, and corrosion. Obtain the engineer's approval of this electrical coating before using. Extend wire for termination 15 inches beyond the pole hand hole.

For all cables entering each vault, provide an extra loop, approximately 6 feet in length, to remain in each vault. This loop of cable is in addition to the amount needed to reach from the entrance conduit raceway end to the opening in the exiting conduit raceway.

Install conductors in continuous lengths without splices from termination to termination. The contractor may splice only at hand-holes in the bases of poles. At locations where no transformer bases exist, splice at the hand-holes in poles.

D Measurement

The department will measure the Electrical cables 3#2/1#8 XLPE by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.308	Electrical Cable Type 3#2/1#8 XLPE	LF

Payment is full compensation for furnishing and installing service cable and incidental materials, and site restoration.

29. Wall Concrete Panel Mechanically Stabilized Earth R-40-724, Item SPV 0165.001; Wall Concrete Panel Mechanically Stabilized Earth R-40-725, Item SPV 0165.002.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facing shall be designed according to AASHTO LRFD 11.10.2.3. The facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the

wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length, unless the plans indicate other.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads according to AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3” shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a concrete leveling pad. The bottom units shall be horizontal and centered on the leveling pad. The minimum thickness of the leveling pad shall be 6-inches. The minimum width of the leveling pad shall be 12-inches.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process, and have cast-in-place concrete pads or footings. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joints between panels shall be no more than 0.75 inch. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact.

For cast in place concrete cap or coping, use poured concrete Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

A minimum of two bearing pads shall be used per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in^3 according to ASTM D1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

B.3.2 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
PH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications, and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1” material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.3 Soil Reinforcement

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be according to AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be according to ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be according to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

C.3.2 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C3.3 Panel Tolerances

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed ¾-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be ¾-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed ½-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a ¾-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

C.4.3 Equipment

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

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 General

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

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

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

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

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

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

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

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

C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

D Measurement

The department will measure the Wall Concrete Panel Mechanically Stabilized Earth by the square foot, acceptably completed, measured at the front face of wall as defined by the pay limits the contract plans show. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.001	Wall Concrete Panel Mechanically Stabilized Earth R-40-724	SF
SPV.0165.002	Wall Concrete Panel Mechanically Stabilized Earth R-40-725	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings and leveling pad; constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes. Parapets, railings, abutment bodies and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

30. Management of Solid Waste, Item SPV.0195.001.

A General

A.1 Description

This work will conform with the requirements of standard spec 205, to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736. This work will conform with the requirements of standard spec 205; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil considered to be solid waste due to Foundry Sand and Petroleum Contamination will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes including soil mixed with foundry sand. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as petroleum-contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. The nearest WDNR-approved disposal facilities are:

Waste Management Orchard Ridge Landfill
W124 N9355 Boundary Road
Menomonee Falls, WI 53051
(866) 909-4458

Green For Life (GFL) Environmental Emerald Park Landfill
W124 S10629 S. 124th St.
Muskego, WI 53150
(414) 529-1360

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor – Solid Waste Locations

The department and others completed hazardous materials assessment for locations within this project where excavation is required. Investigation for soil and groundwater contamination was conducted at select locations. Results indicate that solid waste (foundry sand contaminated with petroleum, chlorinated solvents, and/or metals) is present at the following locations as shown on the plans:

- Station 9+75 to 10+10, from project limits left to project limits right, from approximately 1 to 20 feet bgs. The estimated volume of contaminated soil to be excavated at this location is 388.6 CY (approximately 660.6 tons using a conversion factor of 1.7 tons per cubic yard). Groundwater at this location is contaminated with petroleum and metals.

- Station 10+10 to 10+95, from project limits left to project limits right, from approximately 1 to 6 feet bgs. The estimated volume of contaminated soil to be excavated at this location is 1,698.8 CY (approximately 2,822 tons using a conversion factor of 1.7 tons per cubic yard). Groundwater at this location is contaminated with petroleum and metals.

- Station 10+95 to 11+25, from project limits left to 65 feet right of reference line, from approximately 1 to 20 feet bgs. The estimated volume of contaminated soil to be excavated at this location is 532.9 CY (approximately 906 tons using a conversion factor of 1.7 tons per cubic yard). Groundwater at this location is contaminated with petroleum and metals.

- Station 11+25 to 11+80, from project limits left to 65 feet right of reference line, from approximately 1 to 4+ feet bgs. The estimated volume of contaminated soil to be excavated at this location is 321.5 CY (approximately 546.6 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load solid waste soil excavated by the project at the above locations into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

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

If active groundwater monitoring wells are encountered during construction, notify the engineer and protect the wells to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For wells that do not 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.

A.3 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. 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.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	6737 W. Washington St., Suite 2100, West Allis, WI 53214
Contact:	Bryan Bergmann
Phone:	(262) 901-2126 office, (262) 227-9210 cell
Fax:	(262) 879-1220
E-mail:	bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of solid waste to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying soils to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill 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 area of solid waste fill described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted areas. Notify the environmental consultant at least three calendar days prior to commencement of excavation in the impacted areas. Perform excavation in the impacted areas on a continuous basis until excavation work is completed. Do not transport soil containing solid waste 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 historic fill contaminated with industrial waste (foundry sand) and associated regulated metals and organic compounds. 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 impacted area 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 impacted areas to minimize the quantity of soil excavated.

The environmental consultant will periodically monitor soil excavated from the areas identified in A.2 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 solid waste soil designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

Verify that the vehicles used to transport material are licensed for such activity according to applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the areas of known contamination, larger pieces of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill, to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in areas of known contamination, water generated from dewatering activities may contain chlorinated solvents, petroleum compounds and/or metals. Such water may require analytical testing, and with approval from the City of Milwaukee and the Milwaukee Metropolitan Sewerage District (MMSD) be discharged to the sanitary sewer as follows:

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

Groundwater with a petroleum sheen cannot be discharged to the sanitary sewer per MMSD guidelines. If dewatering is necessary where the groundwater has a sheen on the surface, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

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 dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure Management of Solid Waste by the ton of waste, accepted by the disposal facility, and as documented by weight tickets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001	Management of Solid Waste	TON

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

ADDITIONAL SPECIAL PROVISION 4

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.

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 is not allowed to withhold 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.

Acceptance and Final Payment

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.

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

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

(1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.

(2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

(1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

(1) Furnish material conforming, before dilution, to the following:

Anionic emulsified asphalts[1] ..... AASHTO M140
Cationic emulsified asphalts[1] ..... AASHTO M208
Polymer-modified cationic emulsified asphalts ..... AASHTO M316

[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

PRODUCT	ANTT	CNTT
Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS	15-100	15-100
Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs[1]	30-200	30-200
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max	1 max
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min	50 min
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3	0.3
Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm	10-40	10-40
Ash Content, (AASHTO T 111), %	1 max	1 max
Solubility in Trichlorethylene Test, (AASHTO T 44)[2]	97.5% min	97.5% min

[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).

[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

(1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:

- Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
  1. Document and provide corrective action results to the engineer as soon as they are available.
  2. Department will conduct two tests within the next business day after corrective action is complete.

     If blended aggregate gradations are within the tarantula curve limits by the second department test:

     - Continue with concrete production.
     - Include a break in the 4-point running average.
     - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.

  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
- Submit a new optimized aggregate gradation mix design and perform the following:
  1. Restart control charts for the new mix design.
  2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

(1) The department will pay incentive for concrete strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Flexural strength of 650 psi for pavements.
- Compressive strength of 4000 psi for structures and barrier.

(5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.

(6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.

(7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

(1) The department will adjust pay for each lot using equation “QMP 3.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.1 x PWL) – 9.5
>= 85 to < 95	0
>= 30 to < 85	(1.5/55 x PWL) – 127.5/55
< 30	-1.50

(2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by $1.50 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

(1) The department will adjust pay for each lot using equation “QMP 6.02” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.2 x PWL) – 19
>= 85 to < 95	0
>= 50 to < 85	(2.0/35 x PWL) – 170/35
< 50	-2.00

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by $2.00 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

(1) The department will adjust pay for each lot using equation “QMP 2.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 99 to 100	10
>= 90 to < 99	0
>= 50 to < 90	(7/8 x PWL) – 78.75
< 50	-35

(2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.

(3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by $35 per cubic yard.

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. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. 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).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

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

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).

BUY AMERICA PROVISION

Buy America (as documented in M-22-11 from the Office of Management and Budget: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

1. Iron and Steel

   All iron and steel manufacturing and coating processes (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 the iron and steel manufacturing and coating processes Buy America 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.

2. Manufactured Product

   All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983, and are currently exempt from Buy America.

3. Construction Material

   All construction materials (as defined in OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 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 DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: https://wisconsindot.gov/Documents/formdocs/dt4567.docx

Attach a list of iron or steel exemptions and their associated costs to the certification form.

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0110 Clearing	550.000 SY	_____.____	_____.____
0004	201.0210 Grubbing	550.000 SY	_____.____	_____.____
0006	203.0220 Removing Structure (structure) 001. P-40-856	1.000 EACH	_____.____	_____.____
0008	203.0330 Debris Containment (structure) 001. P-40-856	1.000 EACH	_____.____	_____.____
0010	204.0100 Removing Concrete Pavement	1,200.000 SY	_____.____	_____.____
0012	204.0110 Removing Asphaltic Surface	47.000 SY	_____.____	_____.____
0014	204.0150 Removing Curb & Gutter	11.000 LF	_____.____	_____.____
0016	204.0155 Removing Concrete Sidewalk	130.000 SY	_____.____	_____.____
0018	205.0100 Excavation Common	230.000 CY	_____.____	_____.____
0020	210.1500 Backfill Structure Type A	5,976.000 TON	_____.____	_____.____
0022	213.0100 Finishing Roadway (project) 001. 2656-00-72	1.000 EACH	_____.____	_____.____
0024	305.0120 Base Aggregate Dense 1 1/4-Inch	1,210.000 TON	_____.____	_____.____
0026	415.0070 Concrete Pavement 7-Inch	267.000 SY	_____.____	_____.____
0028	415.0080 Concrete Pavement 8-Inch	524.000 SY	_____.____	_____.____
0030	415.0410 Concrete Pavement Approach Slab	198.000 SY	_____.____	_____.____
0032	416.0190 Concrete Driveway 9-Inch	71.000 SY	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	416.0620 Drilled Dowel Bars	33.000 EACH	_____.____	_____.____
0036	455.0605 Tack Coat	13.000 GAL	_____.____	_____.____
0038	465.0105 Asphaltic Surface	15.000 TON	_____.____	_____.____
0040	502.0100 Concrete Masonry Bridges	604.000 CY	_____.____	_____.____
0042	502.3200 Protective Surface Treatment	700.000 SY	_____.____	_____.____
0044	503.0137 Prestressed Girder Type I 36W-Inch	476.000 LF	_____.____	_____.____
0046	505.0400 Bar Steel Reinforcement HS Structures	10,074.000 LB	_____.____	_____.____
0048	505.0600 Bar Steel Reinforcement HS Coated Structures	73,659.000 LB	_____.____	_____.____
0050	505.0800.S Bar Steel Reinforcement HS Stainless Structures	1,870.000 LB	_____.____	_____.____
0052	506.2605 Bearing Pads Elastomeric Non-Laminated	14.000 EACH	_____.____	_____.____
0054	506.4000 Steel Diaphragms (structure) 001. B-40-1008	6.000 EACH	_____.____	_____.____
0056	511.1200 Temporary Shoring (structure) 001. B-40-1008	150.000 SF	_____.____	_____.____
0058	513.2001 Railing Pipe 001. R-40-724	146.000 LF	_____.____	_____.____
0060	513.2001 Railing Pipe 002. R-40-725	142.000 LF	_____.____	_____.____
0062	513.7011 Railing Steel Type C2	219.000 LF	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	516.0500 Rubberized Membrane Waterproofing	72.000 SY	_____.____	_____.____
0066	517.1010.S Concrete Staining (structure) 001. B-40-1008	3,588.000 SF	_____.____	_____.____
0068	517.1015.S Concrete Staining Multi-Color (structure) 001. B-40-1008	892.000 SF	_____.____	_____.____
0070	517.1050.S Architectural Surface Treatment (structure) 001. B-40-1008	892.000 SF	_____.____	_____.____
0072	531.8990 Anchor Assemblies Poles on Structures	1.000 EACH	_____.____	_____.____
0074	550.1100 Piling Steel HP 10-Inch X 42 Lb	1,950.000 LF	_____.____	_____.____
0076	601.0322 Concrete Curb & Gutter 22-Inch	14.000 LF	_____.____	_____.____
0078	601.0331 Concrete Curb & Gutter 31-Inch	330.000 LF	_____.____	_____.____
0080	602.0410 Concrete Sidewalk 5-Inch	1,180.000 SF	_____.____	_____.____
0082	602.0515 Curb Ramp Detectable Warning Field Natural Patina	40.000 SF	_____.____	_____.____
0084	604.0400 Slope Paving Concrete	44.000 SY	_____.____	_____.____
0086	611.8110 Adjusting Manhole Covers	3.000 EACH	_____.____	_____.____
0088	612.0206 Pipe Underdrain Unperforated 6-Inch	16.000 LF	_____.____	_____.____
0090	612.0406 Pipe Underdrain Wrapped 6-Inch	288.000 LF	_____.____	_____.____
0092	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0094	624.0100 Water	15.000 MGAL	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0096	625.0100 Topsoil	73.000 SY	_____.____	_____.____
0098	628.1504 Silt Fence	280.000 LF	_____.____	_____.____
0100	628.1520 Silt Fence Maintenance	280.000 LF	_____.____	_____.____
0102	628.1905 Mobilizations Erosion Control	1.000 EACH	_____.____	_____.____
0104	628.1910 Mobilizations Emergency Erosion Control	5.000 EACH	_____.____	_____.____
0106	628.2023 Erosion Mat Class II Type B	550.000 SY	_____.____	_____.____
0108	628.7015 Inlet Protection Type C	8.000 EACH	_____.____	_____.____
0110	630.0170 Seeding Mixture No. 70	1.000 LB	_____.____	_____.____
0112	631.0300 Sod Water	5.000 MGAL	_____.____	_____.____
0114	631.1000 Sod Lawn	73.000 SY	_____.____	_____.____
0116	642.5201 Field Office Type C	1.000 EACH	_____.____	_____.____
0118	643.0300 Traffic Control Drums	2,535.000 DAY	_____.____	_____.____
0120	643.0420 Traffic Control Barricades Type III	7,098.000 DAY	_____.____	_____.____
0122	643.0500 Traffic Control Flexible Tubular Marker Posts	16.000 EACH	_____.____	_____.____
0124	643.0600 Traffic Control Flexible Tubular Marker Bases	8.000 EACH	_____.____	_____.____
0126	643.0705 Traffic Control Warning Lights Type A	14,196.000 DAY	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0128	643.0715 Traffic Control Warning Lights Type C	2,535.000 DAY	_____.____	_____.____
0130	643.0900 Traffic Control Signs	10,140.000 DAY	_____.____	_____.____
0132	643.0920 Traffic Control Covering Signs Type II	10.000 EACH	_____.____	_____.____
0134	643.1050 Traffic Control Signs PCMS	56.000 DAY	_____.____	_____.____
0136	643.3150 Temporary Marking Line Removable Tape 4-Inch	330.000 LF	_____.____	_____.____
0138	643.3250 Temporary Marking Line Removable Tape 8-Inch	600.000 LF	_____.____	_____.____
0140	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0142	646.1020 Marking Line Epoxy 4-Inch	489.000 LF	_____.____	_____.____
0144	646.3020 Marking Line Epoxy 8-Inch	92.000 LF	_____.____	_____.____
0146	650.4500 Construction Staking Subgrade	300.000 LF	_____.____	_____.____
0148	650.6501 Construction Staking Structure Layout (structure) 001. B-40-1008	1.000 EACH	_____.____	_____.____
0150	650.6501 Construction Staking Structure Layout (structure) 002. R-40-724	1.000 EACH	_____.____	_____.____
0152	650.6501 Construction Staking Structure Layout (structure) 003. R-40-725	1.000 EACH	_____.____	_____.____
0154	650.7000 Construction Staking Concrete Pavement	300.000 LF	_____.____	_____.____
0156	650.8501 Construction Staking Electrical Installations (project) 001. 2650-00-72	1.000 EACH	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0158	650.9000 Construction Staking Curb Ramps	3.000 EACH	_____.____	_____.____
0160	650.9500 Construction Staking Sidewalk (project) 001. 2656-00-72	1.000 EACH	_____.____	_____.____
0162	650.9911 Construction Staking Supplemental Control (project) 001. 2656-00-72	1.000 EACH	_____.____	_____.____
0164	652.0130 Conduit Rigid Metallic 2 1/2-Inch	48.000 LF	_____.____	_____.____
0166	652.0230 Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	326.000 LF	_____.____	_____.____
0168	654.0105 Concrete Bases Type 5	1.000 EACH	_____.____	_____.____
0170	655.0305 Cable Type UF 2-12 AWG Grounded	150.000 LF	_____.____	_____.____
0172	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	1.000 EACH	_____.____	_____.____
0174	690.0150 Sawing Asphalt	110.000 LF	_____.____	_____.____
0176	690.0250 Sawing Concrete	160.000 LF	_____.____	_____.____
0178	715.0502 Incentive Strength Concrete Structures	450.000 DOL	1.00000	450.00
0180	715.0720 Incentive Compressive Strength Concrete Pavement	791.000 DOL	1.00000	791.00
0182	999.2005.S Maintaining Bird Deterrent System (station) 001. STA 10+50	1.000 EACH	_____.____	_____.____
0184	SPV.0060 Special 001. Adjusting Water Boxes	2.000 EACH	_____.____	_____.____
0186	SPV.0060 Special 010.Temporary No Parking Signs	10.000 EACH	_____.____	_____.____

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0188	SPV.0060 Special 302. Pull Boxes 13-Inch x 24-Inch x 24-Inch	4.000 EACH	_____.____	_____.____
0190	SPV.0060 Special 592. Junction Boxes 18-Inch x 12-Inch x 8-Inch	1.000 EACH	_____.____	_____.____
0192	SPV.0090 Special 308. Electrical Cable Type 3#2/1#8 XLPE	125.000 LF	_____.____	_____.____
0194	SPV.0165 Special 001. Wall Concrete Panel Mechanically Stabilized Earth R-40-724	2,272.000 SF	_____.____	_____.____
0196	SPV.0165 Special 002. Wall Concrete Panel Mechanically Stabilized Earth R-40-725	2,243.000 SF	_____.____	_____.____
0198	SPV.0195 Special 001. Management of Solid Waste	5,750.000 TON	_____.____	_____.____
	Section: 0001		Total:	_____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA 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

March 8, 2023

NOTICE TO ALL CONTRACTORS:

Proposal #16: 2656-00-72
C Milwaukee S 70th Street
Bridge over CP RR/HAST P-40-856
Loc Str
Milwaukee County

Letting of March 14, 2023

This is Addendum No. 01, which provides for the following:

Special Provisions:

Revised Special Provisions	
Article No.	Description
6	Utilities

Added Special Provisions	
Article No.	Description
31	AT&T Fiber Optic Protection, Item SPV.0060.015

Schedule of Items:

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
SPV.0060.015	AT&T Fiber Optic Protection	EA	0	1	1

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
14	AT&T underground Transmission line added
35	Miscellaneous Quantities; Added AT&T Fiber Optic Protection
117	Added AT&T underground Transmission line. Footing removal depth revised from 4’-0” to 2’-0”

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. 01

2656-00-72

March 8, 2023

Special Provisions

6. Utilities.

Replace entire section titled **AT&T Corp (Transmission)** *with the following:*

AT&T Corp

AT&T Corp. has facilities within the project limits along the north side of the Hank Aaron State Trail (HAST). The existing fiber optic 9-duct package is buried at a depth 6-ft 5-in under the existing grade, and 20-ft north of centerline of the HAST.

Contact Kenneth Nine of AT&T at (574) 842-8830 (office) at least one week prior to bridge pier removal to schedule a technician to be on site for removal of the north bridge pier.

31. AT&T Fiber Optic Protection, Item SPV.0060.015

A Description
This special provision describes providing protection for the existing AT&T fiber optic nine (9) duct package during construction operations.

B Materials
The contractor shall provide materials for the protection of the fiber optic duct package during construction operations.

C Construction
AT&T maintains as existing nine (9) fiber optic duct package which is buried at a depth of approximately 6'-5" under the existing grade and located 20' north of center line of the Hank Aaron State Trail. The fiber optic duct package is to remain during the construction.

The contractor shall exercise extra caution while working in the area of the fiber optic cable for removing the existing bridge footing to the specified depth below grade or for excavating for the new bridge elements. Provide protection or use means that will not damage the existing buried cable.

AT&T will require a tech on site once removal of the north bridge pier or excavation in the area of the fiber optic cable is to begin.

Coordinate work at least 7 days in advance of construction with AT&T. Contact Kenneth Nine of AT&T at (574)904-6336 or Knine@jmceainc.com for any question.

D Measurement
The department will measure AT&T Fiber Optic Protection as a single complete unit of work in the contract.

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

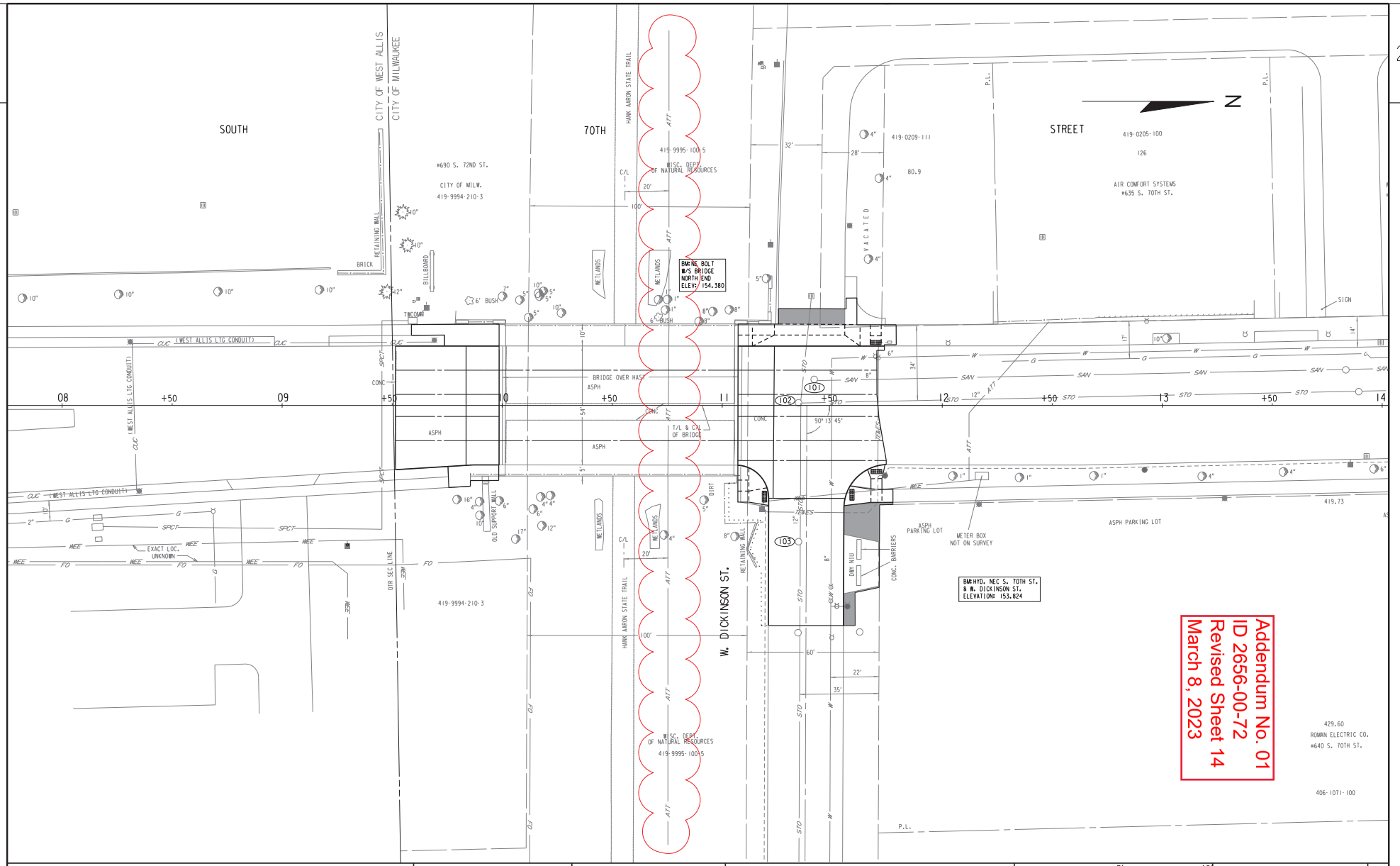
ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.015	AT&T Fiber Optic Protection	Each

Payment is full compensation for protecting the AT&T Fiber Optic cable during construction.

Schedule of Items
Attached, dated March 8, 2023, are the revised Schedule of Items Page 7.

Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 14, 35 and 17.

END OF ADDENDUM



Addendum No. 01
ID 2656-00-72
Revised Sheet 14
March 8, 2023

STATE PROJECT NUMBER 2656-00-72	HWY: S. 70TH ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 14	E

FILENAME: W:\STR\B0920\2020 APPROACH PLANS\UTIL 08-14.DGN

REVISED DATE: 02-28-2023 BY JC

3

FIELD OFFICE

CATEGORY 0010

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
2656-00-72	1
TOTAL	1

ADJUSTING WATER BOXES

CATEGORY 0030

LOCATION	SPV.0060.001 ADJUSTING WATER BOXES EACH
S. 70TH STREET	2
TOTAL	2

3

MAINTAINING BIRD NETTING SYSTEM

CATEGORY 0020

LOCATION	999.2005.S MAINTAINING BIRD DETERRENT SYSTEM 01. STA. 10+50 EACH
S. 70TH STREET	1
TOTAL	1

AT&T FIBER OPTIC PROTECTION

CATEGORY 0020

LOCATION	999.2005.S AT&T FIBER OPTIC PROTECTION EACH
S. 70TH STREET	1
TOTAL	1

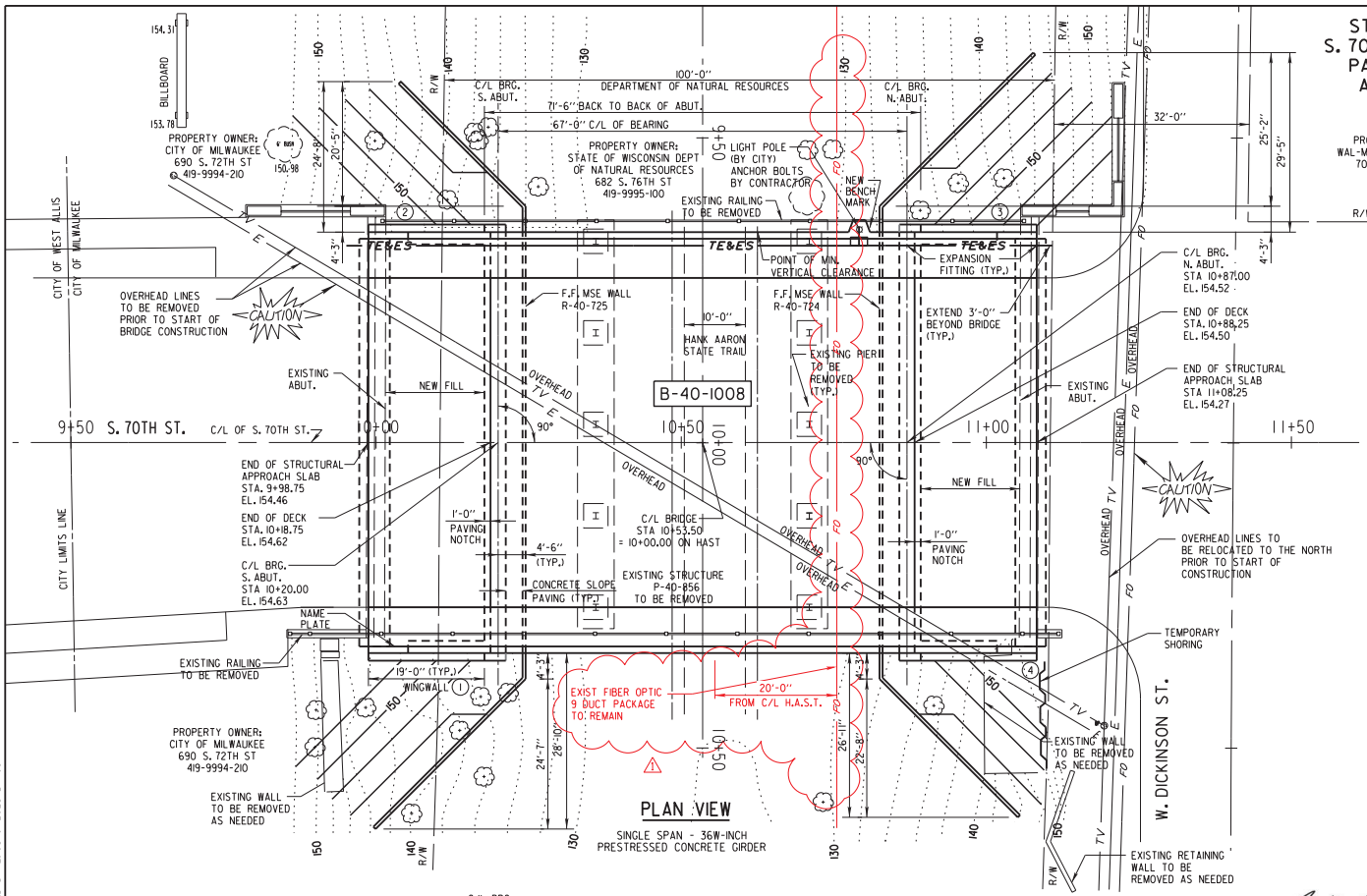
Addendum No. 01
ID 2656-00-72
Revised Sheet 35
March 8, 2023

STRUCTURE B-40-1008
S. 70TH ST. OVER CANADIAN PACIFIC RAILWAY/HANK AARON STATE TRAIL

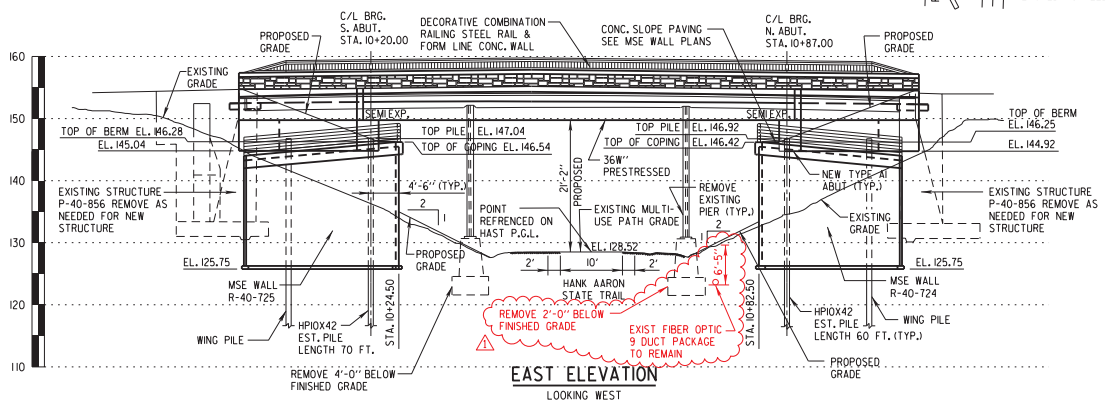
STATE PROJECT NUMBER
2656 - 00 - 72

LIST OF DRAWINGS

1. SITE PLAN AND ELEVATION
2. CROSS SECTION AND PROFILE
3. ESTIMATE OF QUANTITIES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. NORTH ABUTMENT
7. ABUTMENT DETAILS
8. SOUTH ABUTMENT WINGWALLS 1 AND 2
9. NORTH ABUTMENT WINGWALLS 3 AND 4
10. ABUTMENT AND WINGWALL BILL OF BARS
11. 36W" PRESTRESSED GIRDER DETAILS (1 OF 2)
12. 36W" PRESTRESSED GIRDER DETAILS (2 OF 2)
13. INTERMEDIATE STEEL DIAPHRAGMS
14. DECK PLAN
15. DECK CROSS SECTION AND DECK ELEVATIONS
16. LIGHT POLE BASE REINFORCEMENT
17. LIGHT POLE BASE BILL OF BARS
18. DECK BILL OF BARS AND PRESTRESSED GIRDER DETAILS
19. SOUTH STRUCTURAL APPROACH SLAB PLAN
20. NORTH STRUCTURAL APPROACH SLAB PLAN
21. STRUCTURAL APPROACH SLAB DETAILS
22. RAILING ELEVATION
23. RAILING REINFORCEMENT
24. RAILING DETAILS
25. STEEL RAILING DETAILS



PLAN VIEW
SINGLE SPAN - 36W-INCH PRESTRESSED CONCRETE GIRDER



EAST ELEVATION
LOOKING WEST

WISDOT BRIDGE OFFICE CONTACT:
AARON BONK 608-261-0261

CITY OF MILWAUKEE CONTACT:
JONATHAN THOMAS 414-286-0463

BENCH MARK:
HYDRANT, N.E. CORNER OF S. 70TH ST. & W. DICKINSON ST.
ELEVATION: 153.824

SDR
03/06/23

WISCONSIN
JONATHAN D. THOMAS
E-42372
MILWAUKEE, WI
PROFESSIONAL ENGINEER
3/2/2023

NO.	DATE	REVISION	BY
1	3/2/23	ADD. #1 - EXISTING AT&T CORP.	S.S.R.

ORIGINAL PLANS PREPARED BY
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-1008
S. 70TH ST. OVER CANADIAN PACIFIC RAILWAY/HANK AARON STATE TRAIL

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	MILWAUKEE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.	M.V.
S.S.R.	A.R.	G.J.R.	S.S.R.	

SITE PLAN AND ELEVATION

SHEET 1 OF 25
117

Addendum No. 01
ID 2656-00-72
Revised Sheet 117
March 8, 2023

REVISED DATE: 03-01-2023 BY JC

8

Proposal ID: 20230314016 Project(s): 2656-00-72

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0188	SPV.0060 Special 302. Pull Boxes 13-Inch x 24-Inch x 24-Inch	4.000 EACH	_____.____	_____.____
0190	SPV.0060 Special 592. Junction Boxes 18-Inch x 12-Inch x 8-Inch	1.000 EACH	_____.____	_____.____
0192	SPV.0090 Special 308. Electrical Cable Type 3#2/1#8 XLPE	125.000 LF	_____.____	_____.____
0194	SPV.0165 Special 001. Wall Concrete Panel Mechanically Stabilized Earth R-40-724	2,272.000 SF	_____.____	_____.____
0196	SPV.0165 Special 002. Wall Concrete Panel Mechanically Stabilized Earth R-40-725	2,243.000 SF	_____.____	_____.____
0198	SPV.0195 Special 001. Management of Solid Waste	5,750.000 TON	_____.____	_____.____
0200	SPV.0060 Special 015. AT&T Fiber Optic Protection	1.000 EACH	_____.____	_____.____
	Section: 0001		Total:	_____.____

Total Bid: _____.____