

CONSTRUCTION DOCUMENTS PROJECT MANUAL

DANE COUNTY DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION
ROOM 425, CITY-COUNTY BUILDING
MADISON, WISCONSIN 53703

REBID - REQUEST FOR BIDS NO. 107117 LAKVIEW ROOFS AND RELATED WORK DANE COUNTY HUMAN SERVICES 1202 NORTHPORT DRIVE MADISON, WISCONSIN

Opening Date: **September 27, 2007**

Bid Deposit: **5% OF BID AMOUNT**

Time: **2:00 P.M.**

Performance / Payment Bond: **100% OF CONTRACT AMOUNT**

Location: **ROOM 425, CITY-COUNTY BUILDING**

FOR INFORMATION ON THIS BID, PLEASE CONTACT:

JOHN SCHRAUFNAGEL, PROJECT ENGINEER
DANE COUNTY DEPARTMENT OF PUBLIC WORKS,
HIGHWAY & TRANSPORTATION
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713
TELEPHONE NO.: 608/266-4798
FAX NO.: 608/267-1533
E-MAIL: SCHRAUFNAGEL@CO.DANE.WI.US

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DANE COUNTY VENDOR REGISTRATION PROGRAM

All bidders / proposers wishing to submit a bid / proposal must be a *paid registered vendor* with Dane County. Prior to the bid / proposal opening, you can complete a registration form online by visiting our web site at www.danepurchasing.com, or you can obtain a Vendor Registration Form by calling 608/266-4131. Your completed Vendor Registration Form and Registration Fee must be received for your bid / proposal to be considered for an award.

LEGAL NOTICE

REQUEST FOR BIDS

The Dane County Purchasing Division, Room 425, City-County Bldg, 210 Martin Luther King Jr. Blvd., Madison, WI 53703, will receive sealed Bids until:

2:00 P.M., THURSDAY, SEPTEMBER 27, 2007

REBID

BID NO. 107117

LAKVIEW REROOFING AND RELATED WORK

DANE COUNTY HUMAN SERVICES

1202 NORTHPORT DRIVE

MADISON, WISCONSIN

A Request for Bids package may be obtained at the Dane County Public Works, Highway & Transportation Dept., 1919 Alliant Energy Center Way, Madison, WI 53713, by calling 608/266-4018, or downloading it from www.countyofdane.com/pwht/bid. For additional information, contact John Welch at 608-266-4592.

All bidders wishing to submit a bid must be registered with Dane County prior to bid opening. Complete a Vendor Registration Form online or obtain one by calling 608-266-4131.

PUBLISH: SEPTEMBER 18, 2007 - WISCONSIN STATE JOURNAL

INSTRUCTIONS TO BIDDERS

**LAKVIEW ROOFS AND RELATED WORK
DANE COUNTY HUMAN SERVICES
1202 NORTHPORT DRIVE
MADISON, WI**

1. SECURING DOCUMENTS

- A. Construction Documents may be obtained at:
Dane County Department of Public Works, Highway & Transportation
1919 Alliant Energy Center Way, Madison, Wisconsin 53713
608/266-4018
www.danepurchasing.com.
- B. If Construction Documents are obtained from the Dane County web site, Bidder is responsible to check back regularly at the web site for Addenda.
- C. Deposit for Drawings and Specifications is not required.

2. BID REQUIREMENTS

- A. Bidder shall submit lump sum bid for furnishing all labor, equipment, tools and materials necessary to perform all Work described in Construction Documents. Only firms with capabilities, experience and expertise with similar projects should submit bids.
- B. One (1) Bid Form shall be submitted with your Bid. Bid Form is provided with Construction Documents; no other form or letter shall be accepted.
- C. Bidders shall not add any conditions, escalator clauses or qualifying statements to Bid Form.
- D. Erasures or other changes to Bid must be explained or noted, and shall be accompanied by initials of bidder.
- E. Envelope containing Bid shall be clearly marked as for this project (note title at top of page). Bids shall be delivered to:
Dane County Department of Public Works, Highway & Transportation
c/o Dane County Purchasing Agent
210 Martin Luther King Jr. Blvd. - Room 425
Madison, Wisconsin 53703
- F. Legally authorized official of bidder's organization must sign Bids.
- G. Bid Bond shall be made payable to Dane County in amount of five percent (5%) of bid amount. Bid Bond shall be either certified check or bid bond issued by surety licensed to conduct business in the State of Wisconsin. Successful bidder's Bid Bond shall be retained until Contract is signed; and required Performance / Payment Bond is submitted. Bids shall be binding on bidder for sixty (60) days after Bid Opening. Bid Bond must be submitted with Bid.

- H. Successful bidder shall furnish and pay for Performance / Payment Bond as called for in Conditions of Contract.
- I. Bidding organization must be a *paid registered vendor* with Dane County. Prior to the bid opening, you can complete a registration form online by visiting our web site at www.danepurchasing.com, or you can obtain a Vendor Registration Form by calling 608/266-4131.
- J. Bidding organization must submit a completed Fair Labor Practices Certification form.

3. INQUIRIES

- A. Written inquiries regarding intent of Construction Documents should be directed to:
John Schraufnagel, Project Engineer
Dane County Department of Public Works, Highway & Transportation
1919 Alliant Energy Center Way, Madison, Wisconsin 53713
Fax: 608/267-1533
- B. Bidders shall bring questions, discrepancies, omissions, conflicts or doubt as to meaning of any part of Construction Documents to attention of Department of Public Works, Highway & Transportation at least ten (10) days before due date for Bids. Prompt clarification of intent of Construction Documents shall be made available to bidders in form of Addendum. Bidder shall acknowledge all Addenda on Bid Form.
- C. Failure to request clarification of interpretation of Construction Documents shall not relieve bidders of their responsibilities to perform Work.

4. EXAMINATION OF SITE

- A. Coordinate site access activities with Facility Manager, Laura Huttner, 608/242-6260.
- B. Bidder shall carefully examine project site. Investigate all site conditions that may affect execution of Work as detailed in Construction Documents.

5. ALTERNATES

- A. Each bidder shall carefully read requests for alternate bids. Thoroughly examine Drawings and Specifications to determine to what extent various changes and conditions affect Bids. Base Bid shall be considered void if alternate bids are not submitted in space available on Bid Form.
- B. Bidders shall state amount to be added or deducted from Base Bid for making changes, including all incidentals, omissions, additions, and adjustments as may be necessary or required by stated alternates.
- C. See Bid Form, Section 01000 - Basic Requirements, and indicated specification sections for alternates included in this project.

6. WITHDRAWAL OF BIDS

- A. Any bidder may withdraw their Bid any time prior to Bid Opening. Withdrawn Bids shall be returned unopened.

7. BID OPENING

- A. See Legal Notice (advertisement).

8. COMMENCEMENT AND COMPLETION OF WORK

- A. Work shall commence by November 12, 2007.
- B. Work shall be completed by December 15, 2007.

9. RESERVATION

- A. Dane County reserves the right to reject any or all Bids, to waive any informalities in the Bid, and to accept any Bid which shall be in the best interest of Dane County.

BID FORM

BID NO. 107117

**PROJECT: LAKEVIEW ROOFS AND RELATED WORK
DANE COUNTY HUMAN SERVICES**

**TO: DANE COUNTY PURCHASING AGENT
210 MARTIN LUTHER KING, JR. BLVD. - ROOM 425
MADISON, WISCONSIN 53703**

BASE BID:

This project consists of removing all existing roofing, vents, and pipes until the concrete roof slab is exposed, removing all parapet wall capping, removing the east parapet wall, tuckpointing 50 sq. ft. of exterior face, replacing 50 sq. ft. of existing brickwork on exterior face, sealing off existing roof drain, oil fill pipe, and other irregularities with latex concrete, providing a new EPDM roofing system, capping remaining parapet walls, and providing a fascia board, aluminum flashing, a 5" gutter, downspout, and downspout extension. Work also includes removing an additional 5' length of parapet wall, re-securing the electrical conduits to the roof slab with an angle iron, and rebuilding the parapet wall in this area, as described in Specification Section 04810. In addition, Work includes providing two new 12" roof vents, a new 12" x 30" J-duct, and sleeves, performing minor brush clearing, creating a swale, and some minor fence removal and replacement. The undersigned, having examined the site at 1202 Northport Drive, Madison, WI, where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda for Bid No. 107117 prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price

The undersigned further agrees to add the alternate(s) portion of the Work as described, for the following addition(s) to or subtraction(s) from the Base Bid stipulated below. They further agree to honor the alternate(s) bid for 60 days from date of Award of Contract.

UNIT PRICE BID 1:

Provide a **unit price per square foot** for tuckpointing up to 100 sq. ft. of exterior face on the maintenance building. This is in addition to the 50 sq. ft. of tuckpointing included in the Base Bid. Existing mortar is to be ground out at minimum 3/4 inch and replaced with new mortar. Contractor must provide all materials, labor, equipment and services necessary to complete Work. Engineer will determine areas to be added to Work.

_____ and _____ /100 Dollars per sq.ft
Written Price

\$ _____ /sq.ft
Numeric Price

UNIT PRICE BID 2:

Provide a **unit price per square foot** for replacement of up to 100 sq. ft. of existing brickwork on exterior of the maintenance. This is in addition to the 50 sq. ft. of brick replacement included in the Base Bid. Owner will provide replacement brick. Contractor must provide all other materials, labor, equipment and services necessary to complete Work. Engineer will determine areas to be added to Work.

_____ and _____ /100 Dollars per sq.ft
Written Price

\$ _____ /sq.ft
Numeric Price

ALTERNATE BID 1:

Provide a bid for all labor, materials, equipment and services necessary for the complete and satisfactory execution of the Work, as specified in the Construction Documents for cleaning the existing grade level roof and leveling areas with a latex concrete. Work also includes providing a new .060 mil fully adhered EPDM, tapered ISO insulation roof system, as described in Specification Section 07531 Single Ply Roofing – Fully Adhered, Section 2.2, Paragraph I, and as shown on details. Build a 20’ long, 8” x 48” poured concrete wall at grade between the boiler building and the maintenance building. Work also includes sealing joints as specified in Specification Section 07190, Water Repellants; cutting out asphalt paving; landscaping; and miscellaneous preparation. Backfill and repave cut out section of asphalt to match existing thickness and grade, except where pavement is to be coved 8” up the new concrete wall.

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price

Receipt of the following addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No(s). _____ through _____

Dated _____

Dane County Human Services would like to have this project completed by December 15, 2007. Assuming this Work can be started by November 12, 2007, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(final, not substantial)

Name of Bidder: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Contact Person: _____

SIGNATURE: _____
(Bid is invalid without signature)

<p>BID CHECK LIST: These items must be included with Bid or completed before bidding <input type="checkbox"/> Bid Form <input type="checkbox"/> Bid Bond <input type="checkbox"/> Fair Labor Practices Certification <input type="checkbox"/> Vendor Registration</p>
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FAIR LABOR PRACTICES CERTIFICATION

Dane County Ordinance 25.11(28)

The undersigned, for and on behalf of the PROPOSER, BIDDER OR APPLICANT named herein, certifies as follows:

1. That he or she is an officer or duly authorized agent of the above-referenced PROPOSER, BIDDER OR APPLICANT, which has submitted a proposal, bid or application for a contract with the county of Dane.

2. That PROPOSER, BIDDER OR APPLICANT has: (Check One)

_____ not been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the date this Certification is signed.

_____ been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the date this Certification is signed

Date Signed: _____

Officer or Authorized Agent

Business Name

NOTE: You can find information regarding the violations described above at:
www.nlrb.gov and <http://werc.wi.gov>.

For Reference Dane County Ord. 28.11 (28) is as follows:

(28) BIDDER RESPONSIBILITY. (a) Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The purchasing manager shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder's responsibility to perform the contract.

If you indicated that you have been found by the NLRB or WERC to have such a violation, you must include a copy of any relevant information regarding such violation with your proposal, bid or application.

COUNTY OF DANE
PUBLIC WORKS CONTRACT

Contract No. _____ Bid No. 107117

AUTHORITY: Res. _____, 2006-07

THIS CONTRACT, made and entered into as of the date by which authorized representatives of both parties have affixed their signatures, by and between the County of Dane (hereafter referred to as "COUNTY") and _____ (hereafter, "CONTRACTOR"), and

WITNESSETH:

WHEREAS, COUNTY, whose address is c/o Assistant Director of Public Works, 1919 Alliant Energy Center Way, Madison, WI 53713, desires to have CONTRACTOR provide Lakeview Roofs and Related Work at 1202 Northport Drive, Madison, WI, including Alternate Bid 1 and Unit Prices 1 & 2 ("the Project"); and

WHEREAS, CONTRACTOR, whose address is _____ is able and willing to construct the Project, in accordance with the Construction Documents;

NOW, THEREFORE, in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is acknowledged by each party for itself, COUNTY and CONTRACTOR do agree as follows:

1. CONTRACTOR agrees to construct, for the price of \$_____ the Project and at the CONTRACTOR'S own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence labor, insurance, and other accessories and services necessary to complete the Project in accordance with the conditions and prices stated in the Bid Form, Conditions of Contract, the drawings which include all maps, plats, plans, and other drawings and printed or written explanatory matter thereof, and the specifications therefore as prepared by _____ (hereinafter referred to as "the Architect / Engineer"), and as enumerated in the specification volume Table of Contents, all of which are made a part hereof and collectively evidence and constitute the Contract.

2. COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the Contract subject to additions and deductions, as provided in the Conditions of Contract, and to make payments on account thereof as provided in Article entitled, "Payments to Contractor" of the Conditions of Contract.

3. During the term of this Agreement, CONTRACTOR agrees to take affirmative action to ensure equal employment opportunities. The CONTRACTOR agrees in accordance with Wisconsin Statute 111.321 and Chapter 19 of the Dane County Code of Ordinances not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs. Such equal opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation. CONTRACTOR agrees to post in conspicuous places, available to all employees and applicants for employment, notices setting forth the provisions of this paragraph.

4. CONTRACTOR shall file an Affirmative Action Plan with the Dane County Contract Compliance Officer in accord with Chapter 19 of the Dane County Code of Ordinances. Such plan must be filed within fifteen (15) days of the effective date of this Agreement. During the term of this Agreement CONTRACTOR shall also provide copies of all announcements of employment opportunities to COUNTY'S Contract Compliance Office, and shall report annually the number of persons, by race, ethnicity, gender, and disability status, which apply for employment and, similarly classified, the number hired and number rejected.

5. During the term of this Agreement, all solicitations for employment placed on CONTRACTOR'S behalf shall include a statement to the effect that CONTRACTOR is an "Equal Opportunity Employer."

6. CONTRACTOR agrees to furnish all information and reports required by COUNTY'S Contract Compliance Officer as the same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and the provisions of this Agreement.

7. CONTRACTOR agrees that all persons employed by CONTRACTOR or any subcontractor shall be paid no less than the minimum wage established under Chapter 40, Subchapter II, Dane County Code of Ordinances. CONTRACTOR agrees to abide by and comply with the provisions of Chapter 40, Subchapter II of the Dane County Code of Ordinances, and said Subchapter is fully incorporated herein by reference.

8. This Contract is intended to be a Contract solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties including, but not limited to, employees of either of the parties.

9. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that the express terms of this Contract shall not be amended in any fashion except in writing, executed by both parties.

IN WITNESS WHEREOF, COUNTY and CONTRACTOR, by their respective authorized agents, have caused this Contract and its Schedules to be executed, effective as of the date by which all parties hereto have affixed their respective signatures, as indicated below.

* * * * *

FOR CONTRACTOR:

Signature Date

Printed or Typed Name and Title

Signature Date

Printed or Typed Name and Title

NOTE: If CONTRACTOR is a corporation, Secretary should attest. In accordance with IRS Regulations, unincorporated entities are required to provide either their Social Security or Employer Number in order to receive payment for services rendered.

* * * * *

This Contract is not valid or effectual for any purpose until approved by the appropriate authority designated below, and no work is authorized until the CONTRACTOR has been given notice to proceed by COUNTY'S Assistant Director of Public Works.

FOR COUNTY:

Kathleen M. Falk, County Executive Date

Robert Ohlsen, County Clerk Date

UNITED STATES FIDELITY AND GUARANTY COMPANY



BID BOND

BOND NUMBER

KNOW ALL MEN BY THESE PRESENTS:

THAT

..... of

....., as Principal, and UNITED STATES FIDELITY AND GUARANTY COMPANY, a Maryland corporation, as Surety, are held and firmly bound unto.....

as Oblige, in the full and just sum of.....

..... Dollars,
lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is herewith submitting its proposal

THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall be awarded the contract the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the Oblige the difference in money between the amount of the bid of the said Principal and the amount for which the Oblige legally contracts with another party to perform the work if the latter amount be in excess of the former, but in no event shall liability hereunder exceed the penal sum hereof.

Signed, sealed and delivered.....
(Date)

.....(SEAL)

.....(SEAL)

UNITED STATES FIDELITY AND GUARANTY COMPANY

.....
Attorney-in-fact

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A312

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

SAMPLE

CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond:

None

See Page 3

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for

which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation avail-

able to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12 DEFINITIONS

12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Con-

tractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

SAMPLE

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL
Company: _____ (Corporate Seal)

SURETY
Company: _____ (Corporate Seal)

Signature: _____
Name and Title:
Address:

Signature: _____
Name and Title:
Address:

CONDITIONS OF CONTRACT

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1. BIDS AND QUOTATIONS

- A. **Addressing of Bids.** Bids shall be addressed to the attention of Dane County Purchasing Agent and received at the Dane County Purchasing Division, 210 Martin Luther King, Jr. Blvd., Room 425, Madison, WI 53703, on or before the local time and date specified herein for the Bid Opening. Seal all bids in envelopes provided by Dane County or similar and clearly mark the front with bid number and a reference to the specified contents of the bid. All uses of the term “County” in the Construction Documents shall mean Dane County.
- B. **Only One Copy Required.** Unless otherwise specified, only one copy of a bid or quotation on prescribed Bid Form will be required.
- C. **Additional Data with Bid.** Bidder may submit, on the firm’s letterhead only, additional data and information deemed advantageous to the County. The County shall hold optional the consideration of such data and information.
- D. **More than One Bid.** Bidders desiring to submit more than one bid may do so provided such additional bid or bids are properly submitted on the Dane County Department of Public Works, Highway & Transportation’s Bid Form. Obtain extra sets of Construction Documents from the Dane County Department of Public Works, Highway & Transportation. All uses of the term “Department” in the Construction Documents shall mean the Department of Public Works, Highway & Transportation, which is a unit of Dane County government.
- E. **Withdrawal or Late Bids.** The County will not accept formal bids, amendments thereto, or requests for withdrawal of a bid or any part thereof, after the time of Bid Opening.
- F. **Preparation and Submission.** All written bids, unless otherwise provided for, must be submitted on and in accordance with forms provided by the County properly signed in ink. Bids not signed by hand are not accepted. Bidders must register in advance with the Purchasing Division.
- G. **Products by Name.** Intention of Specifications of products by name is to be descriptive of quality, workmanship, finish, function and approximate characteristics desired; intention is not necessarily restriction. Consideration of products substitution for those named is possible, provided the substitute offered is, in the opinion of the Dane County Public Works

Project Engineer, equal or superior in quality, workmanship, finish, function and approximate characteristics to that specified in the Project Manual Specifications listed herein.

- H. **Visitation of Sites.** Bidder shall visit the site(s) that will receive the intended work or installation, and in so doing, be held responsible for a job deemed satisfactory by the County after completion of the Work or installation. No additional compensation shall be allowed for any condition of which bidder could have been informed.
- I. **Completeness.** Supply all information required by Construction Documents to constitute a regular bid. This includes:
 - 1. Signed Bid Form;
 - 2. Bid Bond made payable to Dane County in amount of five percent (5%) of bid amount. Bid Bond shall be either certified check or bid bond issued by surety licensed to conduct business in the State of Wisconsin;
 - 3. A complete Dane County vendor registration form. Vendor registration form can be obtained online by visiting our web site at www.danepurchasing.com or by calling 608/266-4131; and
 - 4. Completed Fair Labor Practices Certification form.
- J. **Bids Binding Sixty (60) Days.** Unless otherwise specified all formal bids submitted shall be binding for sixty (60) calendar days following Bid Opening date.
- K. **Conditional Bids.** Qualified bids are subject to complete rejection, or partial rejection.
- L. **All or Part.** Bids or quotations may be considered and award made for all or any part of total quantities as specified in the Construction Documents.
- M. **Errors.** Unit bid price shall govern when extending total prices has errors. Carelessness in quoting prices or in preparation of bid otherwise, will not relieve the bidder. Explain all erasures in bids and include signature of bidder.
- N. **Regulation by State Statutes.** The bidding and letting of contracts are subject to provisions of Wisconsin Statutes 59.52(29) and 66.0901 and all subsequent sections and amendments thereof.
- O. **Bidders Present.** The Bid Opening is the time fixed for the opening of formal bids. The Bids' contents will be made public for the information of bidders and others properly interested, who may be present either in person or by representative. Bidders are encouraged to attend all openings, and to offer constructive suggestions for improvements to bid format or ways in which County can realize greater savings.
- P. **Taxes.** Contractor shall pay applicable State and local sales taxes.

2. GUARANTEE AND BOND

- A. **Bid Bond / Guarantee.** A Bid Bond shall accompany Bids, which shall be either a flat sum or a percentage figure as shown on the Project Manual Cover. This Bid Bond shall serve as a warrant that the successful bidder will fulfill the terms of the bid within the time limit as indicated in the bid after notice of award by the Dane County. The Bid Bond may be a certified check (note: uncertified checks will not be acceptable), a cashier's check or a United State money order payable to the order of the Treasurer of Dane County; or on a Bid Bond with corporate surety authorized to do business in the State of Wisconsin and a warranty of attorney to confess judgment thereon attached thereto. The County will return negotiable Bid

Bonds to unsuccessful bidders after awarding of bid. The County shall return a check held from a Contractor after satisfactory completion of the Contract or after receipt by the County of a Performance Bond from the Contractor, if one is required. Surety Bid Bonds will not be returned unless specifically requested by individual bidders.

- B. **Guarantor Liability.** When guarantee is required, failure of bidder to furnish an acceptable Performance Bond (Article 2.C.) within twenty (20) days after receipt of notice of award shall render the guarantor liable to the County. Bids covered by certified check or bond such security shall become the absolute property of the County and shall be deposited with the County Treasurer for the benefit of the County as liquidated damages. The County shall forthwith proceed to collect on the Bid Bond.
- C. **Performance / Payment Bond.** When required, file a guarantee that the successful bidder will faithfully perform the obligations of the bid as accepted. Such guarantee must be a bond complying with Wisconsin Statute 779.14 with corporate surety authorized to do business in this State, and that the Contractor or subcontractors will be responsible for all claims for injuries to persons or damages to property or premises arising out of or in connection with their operations prior to the acceptance of the finished work or supplies, and that they will promptly make payments to all persons supplying them with labor or materials in the execution of the Work provided for in the Contract; guarantee to indemnify and hold the County and its Agencies and employees harmless from all costs, damages and expenses growing out of or by reason of the successful bidder's failure to comply and perform the Work and complete the Contract in accordance with the Construction Documents; attach thereto a warrant of attorney authorizing the confession of judgment thereon for the benefit of the County.

3. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a subcontractor, sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- B. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- C. Samples are physical examples that illustrate materials, equipment or workmanship and establish standards to compare the Work.
- D. Shop Drawings, Product Data, Samples and similar submittals are not Construction Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Construction Documents.
- E. The Contractor shall review, approve and submit to the Public Works Project Engineer Shop Drawings, Product Data, Samples and similar submittals required by the Construction Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the County or of separate contractors. Submittals made by the Contractor not required by the Construction Documents, may be returned without action.
- F. The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the Public Works Project

Engineer has approved the respective submittal. Such Work shall be in accordance with approved submittals.

- G. By approving and submitting, Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Construction Documents.
- H. The Contractor shall not be relieved of responsibility for deviations from requirements of the Construction Documents by the Public Works Project Engineer's approval of Shop Drawings, Product Data, Samples and similar submittals unless the Contractor has specifically informed the Public Works Project Engineer in writing of such deviation at the time of submittal and the Public Works Project Engineer has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Sample or similar submittals by the Public Works Project Engineer's approval thereof.
- I. The Contractor shall in writing direct specific attention to revised and / or resubmitted Shop Drawings, Product Data, Samples or similar submittals that were not requested by the Architect / Engineer or the Public Works Project Engineer on previous submittals.
- J. Unless specified otherwise, Contractor shall submit three (3) copies of all Shop Drawings, Product Data, Samples or similar submittals for each submission, until receiving final approval. After final approval, provide five (5) additional copies for distribution and such other copies as may be required.

4. AWARDS

- A. **Lowest Responsible Bidder.** If County elects to perform only the Base Bid work, award will be to the responsible bidder with the lowest Base Bid conforming to Construction Documents. If County elects to perform both the Base Bid and the Alternate 1 work, each bidder's Base Bid and Alternate 1 Bid will be added. Then, award will be to the responsible bidder with the lowest sum conforming to Construction Documents
- B. **Other Considerations.** Quantities involved, time of delivery, purpose for which required, competency of bidder, the ability to render satisfactory service and past performance will be considered in determining responsibility.
- C. **Rejection of Bids.** The County reserves the right to reject any or all bids or quotations in whole or in part and to award by items, parts of items, or by any aggregate group of items specified. The County reserves also the right to waive technical defects when in its judgment the best interests of the County thereby will be served.
- D. **Notice of Acceptance.** Sufficient notification of acceptance of bid will be written notice of award to a bidder in the form of a Purchase Order or similar, mailed or delivered to the address shown on the Bid Form.
- E. **Tie Bids.** If two or more bidders submit identical bids, the decision of the County to make award to one or more of such bidders shall be final. Cash discount will be taken into consideration determining an award. Also, see Article 7.A. IDENTICAL BIDDING, Antitrust Laws.

- F. **Qualifying Bidders.** Prior to solicitation and / or awarding of bid, the County may require submission by bidder of complete financial statement and questionnaire describing bidder's financial ability and experience in performance of similar work. Refer to Instructions to Bidders.
- G. **Disqualification.** Awards will not be made to any person, firm or company in default of a Contract with the County, or to any bidder having as its sales agent or representative or as a member of the firm, any individual previously in default or guilty of misrepresentation.
- H. **Bid Results.** Bidders may secure information pertaining to results of bids by visiting the County Purchasing Division Office Monday through Friday, between 7:45 a.m. and 4:30 p.m.

5. CONTRACT PROVISIONS

- A. **Acceptance Constitutes Contract.** Written acceptance by the Public Works Project Engineer of a proposal for services shall constitute a Contract, which shall bind the bidder to perform the Work as detailed in the Construction Documents, for the bid amount and in accordance with all conditions of said accepted bid. A formal Contract containing all provisions of the Contract signed by both parties shall be used when required by the Public Works Project Engineer.
- B. **Local Restrictions and Permits.** All work shall be done according to applicable laws, ordinances and codes. Owner shall procure zoning permit alteration to extend height of antenna on roof of building. The Contractor shall procure and pay for all other required permits for permanent or temporary work.
- C. **Payment of Invoices.** Payment may be made only after inspection and acceptance by the using agency and approval by the Dane County Public Works Project Engineer, and, where required by ordinances, approval by the Dane County Board of Supervisors. If materials or equipment were delivered, constructed, erected, installed or tested on site, payment shall be made based on ninety-five percent (95%) of the value of all Work performed up to fifty percent (50%) of scheduled values less the total of previous payments. Authorized extra work will be included in progress payments. Payment of balances will be made only after approval and final acceptance by the County in consideration and elimination of the possibilities of imperfect work, faulty materials or equipment, liens that have been filed, or if evidence indicates the possible filing of claims.
- D. **Contract Alterations.** No alterations or variables in the terms of a contract shall be valid or binding upon the County unless made in writing and signed by the Purchasing Agent or authorized agent.
- E. **Assignments.** No contract may be assigned, sublet or transferred without written consent of the Public Works Project Engineer.
- F. **Cancellations.** A contract may be canceled or voided by the Public Works Project Engineer upon non-performance or violation of contract provisions, and an award made to the next low bidder or articles specified may be purchased on the open market. In either event, the defaulting contractor (or their surety) shall be liable to Dane County for costs to the County in excess of the defaulting contractor's contract prices.
- G. **Right of the Department to Terminate Contract.**
 - 1. In the event that the Contractor or any subcontractors violate any of the provisions of this Contract, the County may serve written notice upon the Contractor and the Surety of its

intention to terminate the Contract. Such notice to contain the reasons for such intention to terminate the Contract, and unless within ten (10) days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, the Contract shall, upon the expiration of said ten (10) days, cease and terminate.

2. In the event of any such termination, the County shall immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the Contract subject to County's approval. However, if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the County may take over the Work and prosecute the same to completion by Contract or by force account for the account and at the expense of the Contractor. The Contractor and Surety shall be liable to the County for any excess cost occasioned the County thereby, and in such event the County may take possession of and utilize in completing the Work, such equipment, materials and / or supplies as may be on the site of the Work and therefore necessary.

H. **Non-Liability.** The Contractor shall not be liable in damages for delay in shipment or failure to deliver when such delay or failure is the result of fire, flood, strike, the transporting carrier, act of God, act of government, act of an alien enemy or by any other circumstances which, in the Public Works Project Engineer's opinion, is beyond the control of the Contractor. Under such circumstances, however, the Public Works Project Engineer may in the discretion, cancel the Contract.

I. **Quality Assurance.** Inspection of equipment, materials and / or supplies shall be made by or at the direction of the County or the Agency to which the goods are delivered, and any articles supplied that are defective, or fails in any way to meet Specifications or other requirements of the Contract, will be rejected. The Public Works Project Manager shall direct all required laboratory tests. The decision of the Project Manager on acceptance shall be final.

J. **Time for Completion.** The Contractor agrees that the Work shall be prosecuted regularly and diligently and complete the entire project as stated in the Construction Documents.

K. **Changes in the Work.**

1. Except in cases of emergency, no changes in the Work covered by the approved Construction Documents shall be made without having prior written approval of the Department. Charges or credits for the work covered by the approved change shall be determined by one of the following methods:
 - a) Unit bid prices previously approved.
 - b) An agreed lump sum based on actual cost of:
 - 1) Labor, including foremen, and all fringe benefits that are associated with their wages;
 - 2) Materials entering permanently into the Work;
 - 3) The ownership or rental cost of construction plant and equipment during the time of use on the extra work;
 - 4) Power and consumable supplies for the operation of construction or power equipment;
 - 5) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance;
 - 6) Social Security, pension and unemployment contributions;
 - 7) To the cost under K.1.b) 2), there shall be added a fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of the actual cost of the Work performed

- with their own labor force; the fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expense;
- 8) On that portion of the work under K.1.b) 2) done under subcontract, the Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit and any other general expense; and
 - 9) The Contractor shall keep and present in such form as directed, a correct amount of the cost together with such supporting vouchers as may be required by the Department.
- c) Cost-Plus Work, with a not-to-exceed dollar limit, based on actual cost of:
- 1) Labor, including foremen, and all fringe benefits that are associated with their wages;
 - 2) Materials entering permanently into the Work;
 - 3) The ownership or rental cost of construction plant and equipment during the time of use on the extra work. (Rental cost cannot exceed fifty percent (50%) replacement value of rented equipment);
 - 4) Power and consumable supplies for the operation of construction or power equipment;
 - 5) Workmen's Compensation, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance;
 - 6) Social Security, pension and unemployment contributions;
 - 7) To the cost under K.1.c) 3) there shall be added a fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of the actual cost of the Work performed with their own labor force; the fee shall be compensation to cover the cost of supervision, overhead, bond, profit, and any other general expense;
 - 8) On that portion of the work under K.1.c) 3) done under subcontract, the Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit, and any other general expense; and
 - 9) The Contractor shall keep and present in such form as directed, a correct amount of the cost together with such supporting vouchers as may be required by the Department.
2. If the Contractor claims that by any instructions given by the Architect / Engineer, the Department, by drawings or otherwise, regarding the performance of the Work or the furnishing of material under the Contract, involves extra cost, the Contractor shall give the Department written notice thereof within two weeks after the receipt of such instructions and in any event before proceeding to execute the work, unless delay in executing the work would endanger life or property.
 3. No claim for extra work or cost shall be allowed unless the same was done in pursuance of a written order of the Architect / Engineer and approved by the Department, as previously mentioned, and the claim presented with the payment request submitted after the changed or extra work is completed.
 4. Negotiation of cost for a change in the Work shall not be cause for the Contractor to delay prosecution of the Work if the Contractor has been authorized in writing by the Public Works Project Engineer to proceed.

L. Payments to Contractor.

1. The County will make partial payments to the Contractor for the value, proportionate to the amount of the Contract, of all labor and material incorporated in the work during the preceding calendar month upon receipt of approved Application and Certificate of Payment from the Architect / Engineer and approval of the Department.

2. The Contractor shall submit to the Architect / Engineer an Application and Certificate of Payment. The Architect / Engineer will review and approve this before sending it to the Public Works Project Engineer. Evidence may be required, and supplied on demand, that supports the request and the Contractor's right to the payment claimed.
3. Request for payment for preparatory work and materials delivered and suitably stored at the site to be incorporated into the Work at some future period, will be given due consideration. Requests involving materials stored off the site, may be rejected; however, if deemed essential for reasons of job progress, protection, or other sufficient cause, requests will be considered conditional upon the submission by the Contractor of bills of sale and such other procedures as will adequately protect the County's interest such as storage in a bonded warehouse with adequate coverage. If there is any error in a payment, the Contractor is obligated to notify the Department immediately, but no longer than ten (10) days from receipt of payment.
4. Payments by the County will be due within forty-five (45) days after receipt by the Department of a certified request.
5. Five percent (5%) of each request for certification will be retained until final completion and acceptance of all the Work covered by the Contract. However, anytime after fifty percent (50%) of the Work has been furnished and installed at the site, the remaining payments will be made in full if the Architect / Engineer and Public Works Project Engineer find that the progress of the Work corresponds with the construction progress schedule. If the Architect / Engineer and Public Works Project Engineer find that the progress of the Work does not correspond with the construction progress schedule, up to ten percent (10%) of each request for payment may be retained for the Work completed.
6. All material and work covered by partial payments made shall become the sole property of the County. This provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the County to require the fulfillment of all of the terms of the Contract.
7. Final payment will be made within sixty (60) days after final completion of the Work, and will constitute acceptance thereof.
8. On completion and acceptance of each separate division of the Contract, on which the stated price is separated in the Contract, payment may be made in full, including retained percentages thereon, less authorized deductions.
9. Every contractor engaged in performance of any contract for Department of Public Works, Highway & Transportation shall submit to this Department, as requested and with final application for payment for work under said contract, affidavit(s) as required to prove that all debts and claims against this Work are paid in full or otherwise satisfied, and give final evidence of release of all liens against the Work and County. If Wisconsin Prevailing Wage Rate Determination is required for this Work, use "Prime Contractor Affidavit of Compliance With Prevailing Wage Rate Determination" and "Agent or Subcontractor Affidavit of Compliance With Prevailing Wage Rate Determination" (if applicable). If Wisconsin Prevailing Wage Rate Determination is not required for this Work, use "Dane County, Wisconsin Contractor Wage Affidavit". Forms of such affidavits are included in Supplementary Conditions.

M. Withholding of Payments.

1. The County, after having served written notice on the said Contractor, may either pay directly any unpaid bills of which the Department has written notice, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged. Then payment to the Contractor shall be resumed in accordance with the terms of this Contract, but in no event shall these provisions be construed to impose any obligations upon the County to either the Contractor or the Contractor's Surety.
2. In paying any unpaid bills of the Contractor, the County shall be deemed the Agent of the Contractor, and any payment so made by the County, shall be considered as a payment made under the Contract by the County to the Contractor and the County shall not be liable to the Contractor for any such payment made in good faith.
3. The Contractor agrees to indemnify and hold the County, its officers, agents, servants, and employees harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the performance of this Contract.
4. At the Department's request, the Contractor shall furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged or waived.

N. Acceptance of Final Payment as Release.

1. The making of final payment shall constitute a waiver of all claims by the County except those arising from:
 - a) Unsettled lien;
 - b) Faulty or defective work appearing after substantial completion;
 - c) Failure of the work to comply with the requirements of the Construction Documents; or
 - d) Terms of any special guarantees required by the Construction Documents.
2. The acceptance of final payment shall constitute a waiver of all claims by the Contractor.

O. Lien Waivers. The Contractor warrants that title to all work covered by an application for Payment will pass to the County no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all work for which Certificates for Payment have been previously issued and payments received from the County shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, subcontractor, material suppliers, or other persons or entities making a claim by reason of having provide labor, materials and equipment related to the Work.

P. Use and Occupancy Prior to Acceptance. The Contractor agrees to the use and occupancy of a portion or unit of the project before formal acceptance by the Department, provided the Department:

1. Secures written consent of the Contractor; except when in the opinion of the Department's Public Works Project Engineer, the Contractor is chargeable with unwarranted delay in final cleanup of punch list items or other Contract requirements;
2. Secures endorsement from the insurance carrier and consent of the Surety permitting occupancy of the building or use of the project during the remaining period of construction, or, secures consent of the Surety;
3. Assumes all costs and maintenance of heat, electricity and water; and

4. Accepts all work completed within that portion or unit of the project to be occupied, at time of occupancy.

Q. Correction of Work.

1. All work, all materials whether incorporated in the Work or not, and all processes of manufacture shall at all times and places be subject to the inspection of the Architect / Engineer and the Public Works Project Engineer who shall be the judge of the quality and suitability of the work, materials, and processes of manufacture for the purposes for which they are used. Should they fail to meet the Architect / Engineer's and the Public Works Project Engineer's approval they shall be reconstructed, made good, replaced or corrected, as the case may be, by the Contractor at the Contractor's expense. Rejected material shall immediately be removed from the site.
2. If the Contractor defaults or neglects to carry out the Work in accordance with the Construction Documents or fails to perform any provision of the Contract, the Department may, after ten (10) days written notice to the Contractor and without prejudice to any other remedy the County may have, make good such deficiencies. In such case, an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including the cost of the Architect / Engineer's additional services made necessary by such default, neglect or failure.

6. GENERAL GUARANTEE

- A. Neither the final certificate of payment nor any provision in the Construction Documents nor partial or entire occupancy of the premises by the County shall constitute an acceptance of work not done in accordance with the Construction Documents or relieve the Contractor of liability in respect to any expressed warranties or responsibility for faulty materials or workmanship.
 1. In no event shall the making of any payment required by the Contract constitute or be construed as a waiver by County of any breach of the covenants of the Contract or a waiver of any default of Contractor and the making of any such payment by County while any such default or breach shall exist shall in no way impair or prejudice the right of County with respect to recovery of damages or other remedy as a result of such breach or default.
- B. The Contractor shall remedy and make good all defective workmanship and materials and pay for any damage to other work resulting therefrom, which appear within a period of one year from the date of substantial completion, providing such defects are not clearly due to abuse or misuse by the County. The Department will give notice of observed defects with reasonable promptness.
- C. Guarantee on work executed after certified date of substantial completion will begin on the date when such work is inspected and approved by the Architect / Engineer and the Public Works Project Engineer.
- D. Where guarantees or warranties are required in sections of Construction Documents for periods in excess of one year, such longer terms shall apply; however, the Contractor's Performance / Payment Bond shall not apply to any guarantee or warranty period in excess of one year.

7. IDENTICAL BIDDING

- A. **Antitrust Laws.** All identical bids submitted to the County because of advertised procurement for materials, supplies, equipment or services exceeding \$1,000,000.00 in total amount shall be reported to the Attorney Generals of the United States and the State of Wisconsin for possible violation and enforcement of antitrust laws.

8. BINDING CONTRACTS

- A. **Contract Commitment.** Any contracts resulting from this bid shall be binding on a successful bidder(s) to its conclusion and on its assigns, heirs, executors, administrators or successors.

9. AFFIRMATIVE ACTION PROVISION AND MINORITY / WOMEN / DISADVANTAGED BUSINESS ENTERPRISES

- A. **Affirmative Action Provisions.** During the term of its Contract, Contractor agrees not to discriminate on the basis of race, religion, color, sex, handicap, age, sexual preference, marital status, physical appearance, or national origin against any person, whether a recipient of services (actual or potential), an employee, or an applicant for employment. Such equal opportunity shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). Contractor agrees to post in conspicuous places, available to all employees, service recipients and applicants for this paragraph. The listing of prohibited bases for discrimination shall not be construed to amend in any fashion state or federal law setting forth additional bases and exceptions shall be permitted only to the extent allowable in state or federal law.
- B. Contractor is subject to this paragraph only if Contractor has ten (10) or more employees and receives \$10,000.00 or more in annual aggregate contracts with County. Contractor shall file an Affirmative Action Plan with the Dane County Contract Compliance Officer in accord with Chapter 19 of the Dane County Code of Ordinances. Contractor must file such plan within fifteen (15) days of the effective date of this Contract and failure to do so by that date shall constitute grounds for immediate termination of the Contract. During the term of this Contract, Contractor shall also provide copies of all announcements of employment opportunities to the County's Contract Compliance Office, and shall report annually the number of persons, by race, sex and handicap status, which apply for employment and, similarly classified, the number hired and the number rejected.
- C. Contact the Dane County Contract Compliance Officer at Dane County Contract Compliance Office, 210 Martin Luther King, Jr. Blvd., Room 421, Madison, WI 53703, 608/266-4114.
- D. In all solicitations for employment placed on Contractor's behalf during the term of this Contract, Contractor shall include a statement to the effect the Contractor is an "Equal Opportunity Employer."
- E. Contractor agrees to furnish all information and reports required by County's Contract Compliance Officer as the same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and the provision of this Contract.

- F. **Minority / Women / Disadvantaged / Emerging Small Business Enterprises.** Chapter 19.508 of the Dane County Code of Ordinances is the official policy of Dane County to utilize Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), Disadvantage Business Enterprises (DBEs) and Emerging Small Business Enterprises (ESBEs) fully.
- G. The Contractor may utilize MBEs / WBEs / DBEs / ESBEs as subcontractors or suppliers. A list of subcontractors will be required of the low bidder as stated in this Contract. The list shall indicate which subcontractors or suppliers are MBEs / WBEs / DBEs / ESBEs and what percentage of subcontract is awarded, shown as a percentage of the total dollar amount of the bid.

10. COMPLIANCE WITH FAIR LABOR STANDARDS

- A. During the term of this Agreement, PROVIDER shall report to the County Contract Compliance Officer, within ten (10) days, any allegations to, or findings by the National Labor Relations Board (NLRB) or Wisconsin Employment Relations commission (WERC) that PROVIDER has violated a statute or regulation regarding labor standards or relations,. If an investigation by the Contract Compliance Officer results in a final determination that the matter adversely affects PROVIDER'S responsibilities under this Agreement, and which recommends termination, suspension or cancellation of this agreement, the County may take such action.
- B. PROVIDER may appeal any adverse finding by the Contract Compliance Officer as set forth in sec. 25.015(11)(c) through (e).
- C. PROVIDER shall post the following statement in a prominent place visible to employees: "As a condition of receiving and maintaining a contract with Dane County, this employer shall comply with federal, state and all other applicable laws prohibiting retaliation or union organizing."

11. INSURANCE REQUIREMENTS

- A. The Contractor shall indemnify, hold harmless and defend the County, its boards, commissions, agencies, officers, employees and representatives from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from, and is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a part indemnified hereunder.
- B. In any and all claims against the County or any of its boards, commissions, agencies, officers, employees or representatives or by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Contract shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable

by or for the Contractor or any subcontractor under worker's compensation acts, disability benefits or other employee benefit acts.

- C. The obligations of the Contractor under this Contract shall not extend to the liability of the Architect / Engineer, its agents or employees arising out of (1) the preparation or approval of maps, drawings, opinion, reports, surveys, change orders, designs or specifications; or (2) the giving of or the failure to give directions or instruction by the Architect / Engineer, its agents or employees provided such giving or failure to give is the primary cause of the injury or damage.
- D. The County shall not be liable to the Contractor for damages or delays resulting from work by third parties or by injunctions or other restraining orders obtained by third parties.
- E. **Contractor Carried Insurance.** In order to protect itself and the County, the Contractor shall not commence work under this Contract until obtaining all the required insurance and the County has approved such insurance. The Contractor shall not allow any subcontractor to commence work on the subcontract until the insurance required of the subcontractor has been so obtained and approved.
 - 1. **Worker's Compensation Insurance**

The Contractor shall procure and shall maintain during the life of this Contract, Worker's Compensation Insurance as required by statute for all of its employees engaged in work at the site of the project under this Contract and, in case of such work sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Worker's Compensation Insurance.
 - 2. **Contractor's Public Liability and Property Damage Insurance**

The Contractor shall procure and maintain during the life of this Contract, Contractor's Public Liability Insurance and Contractor's Property Damage Insurance in an amount not less than \$1,000,000.00 per occurrence for bodily injury and death, and Contractor's Property Damage Insurance in an amount not less than \$1,000,000.00 and shall be primary with Dane County as an "Additional Insured".
 - 3. **Auto Liability Insurance**


The Contractor shall procure and maintain during the life of this Contract, Comprehensive Automobile Liability Insurance covering owned, non-owned and hired automobiles for limits of not less than \$1,000,000.00 and shall be primary with Dane County as an "Additional Insured".
- F. The Contractor either (1) shall require each of the subcontractors to procure and to maintain during the life of the subcontract, subcontractor's Public Liability Property Damage Insurance, and Comprehensive Automobile Liability Insurance of the type and in the same amount specified in the preceding paragraphs; or (2) insure that activities of the subcontractors in their own policy.
- G. The Contractor shall furnish the County with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. Such certificates shall also contain substantially the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after ten (10) days written notice has been received by the County."

H. **County Provided Protection.** The County shall provide a Builder's Risk policy when applicable to the project. The County's Risk Manager, upon the Contractor's request, will make available the terms of this policy. By executing this contract, the Contractor warrants it is familiar with the terms of said policy.

SUPPLEMENTARY CONDITIONS

1. APPLICATION & CERTIFICATE FOR PAYMENT

- A. Every contractor engaged in performance of any contract for Department of Public Works, Highway & Transportation shall submit partial and final Application & Certificate for Payment for work under said contract. Form shall provide similar information as shown on AIA G702™ and G703™ forms (samples shown below). Forms shall be submitted to project Architect / Engineer for approval.


AIA Document G702™ – 1992

Application and Certificate for Payment

TO OWNER:	PROJECT:	APPLICATION NO:	Distribution to:
		PERIOD TO:	OWNER <input type="checkbox"/>
		CONTRACT FOR:	ARCHITECT <input type="checkbox"/>
FROM CONTRACTOR:	VIA ARCHITECT:	CONTRACT DATE:	CONTRACTOR <input type="checkbox"/>
		PROJECT NOS:	FIELD <input type="checkbox"/>
			OTHER <input type="checkbox"/>

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM \$ _____

2. Net change by Change Orders \$ _____

3. CONTRACT SUM TO DATE (Line 1 + 2) \$ _____

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ _____

5. RETAINAGE:

a. % of Completed Work (Column D + E on G703) \$ _____

b. % of Stored Material (Column F on G703) \$ _____

Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$ _____

6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total) \$ _____

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificates) \$ _____

8. CURRENT PAYMENT DUE \$ _____

9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 8 Less Line 6) \$ _____

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: _____ Date: _____

By: _____

State of _____

County of _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$	\$
Total approved this Month	\$	\$
TOTALS	\$	\$
NET CHANGES by Change Order	\$	

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ _____

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT: _____

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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AIA Document G703™ – 1992

Continuation Sheet

AIA Document G703, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.
 In tabulations below, amounts are stated in the nearest dollar.
 Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:
 APPLICATION DATE:
 PERIOD TO:
 ARCHITECT'S PROJECT NO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED (SHEET D-08 E)	G TOTAL COMPLETED AND STORED TO DATE (D+d+E)	H % (G ÷ C)	I BALANCE TO FINISH (C - G)	J RETENAGE (IF VARIABLE RATE)
			FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD					

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.
 AIA Document G703™ – 1992. Copyright © 1963, 1965, 1966, 1967, 1970, 1976, 1983 and 1992 by The American Institute of Architects. All rights reserved. (AIA/INHO) This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

2. CONTRACTOR WAGE AFFIDAVIT

- A. Every contractor engaged in performance of any contract for Department of Public Works, Highway & Transportation shall submit to this Department, as requested and with final application for payment for work under said contract, affidavit in form as hereinafter set forth in this section. Affidavit affirms that all persons employed by contractor or by any of contractor's subcontractors on such contract have been paid no less than minimum wages established under Dane County Ordinances, Chapter 40, Subchapter II (Minimum Wage Ordinance) and in effect at date of execution of contract, that full payment of wages earned has been made, and that no rebates either directly or indirectly have been made. Form of such affidavit is included in this section.

SECTION 01000
BASIC REQUIREMENTS

PART 1 GENERAL

1.1 SECTION SUMMARY

- A. Section Includes:
1. Section Summary
 2. Summary of the Work
 3. Contractor Use of Premises
 4. Applications for Payment
 5. Alternates
 6. Coordination
 7. Cutting and Patching
 8. Conferences
 9. Progress Meetings
 10. Submittal Procedures
 11. Proposed Products List
 12. Shop Drawings
 13. Product Data
 14. Samples
 15. Manufacturers' Instructions
 16. Manufacturers' Certificates
 17. Quality Assurance / Quality Control of Installation
 18. References
 19. Interior Enclosures
 20. Protection of Installed Work
 21. Parking
 22. Progress Cleaning
 23. Products
 24. Transportation, Handling, Storage and Protection
 25. Product Options
 26. Substitutions
 27. Contract Closeout Procedures
 28. Final Cleaning
 29. Spare Parts and Maintenance Materials
 30. As-Built Drawings and Specifications

1.2 SUMMARY OF THE WORK

- A. Project Description: Perform the work as specified and detailed in Construction Documents package. Work on maintenance building includes removing all existing roofing, vents, and pipes as identified in Specification Section 07591 Preparation for Reroofing, Section 1.2, until the concrete roof slab is exposed. Remove all parapet wall

capping and completely remove the east parapet wall so that the brick remains 4" above the top of the roof slab. Perform 50 sq. ft of brick replacement and 50 sq. ft of tuckpointing. Remove 5' of the south parapet wall down to the level of the concrete deck, re-secure the electrical conduits, and rebuild the parapet wall in this location, as described in Section 04810. Cap remaining parapet walls with 14 gauge galvanized metal with 3/4" drip edges. Attach a 2" x 8" treated wood board to the top outer edge of the remaining parapet walls, and use this board to attach new caps. Remove the two 12" roof ventilators and the 12" x 30" J-duct and sleeves, and replace with new materials that match existing. Abandon roof drain and oil fill pipe. Clean entire roof slab surface until smooth and fill in and seal off existing roof drain, oil fill pipe, and other irregularities with latex concrete. Install new tapered ISO insulation that slopes to the east 1/4 inches per foot and maintains at least 3 inches thickness in all areas, in addition to the overlying 1 inch thick fiberboard. Filler materials may be used to create slope if minimum of 3" of ISO and 1" fiberboard is used in all locations. Provide new .060 mil fully adhered EPDM roofing membrane as described in Specification Section 07531 Single Ply Roofing – Fully Adhered, Section 2.2, Paragraph I, and as shown on details. Provide a 2" x 10" fascia board, .024 inch aluminum flashing, and gutter where the parapet wall was removed. Provide a full height open downspout and downspout extension that runs directly south into the drainage swale. Clear an 8' span of brush at the end of the ground level roof and convert area into a 12" deep, 6' wide, flat bottom swale draining to the east 1/4 inch per foot. The swale is to have a .010 mil black plastic base covered in rock rip rap. Lastly remove two sections of chain linked fencing as described in Specification Section 02225 Minor Demolition for Remodeling, Section 1.1B, and as shown on details and patch in a 9'2" area with a clear span section of fence anchored to the building and the existing corner post.

- B. Work by Owner: Owner will supply brick needed for repairs.
- C. Permits: Prior to commencement of the Work, Contractor to secure any and all necessary permits for completion of the Work.

1.3 CONTRACTOR USE OF PREMISES

- A. Limit use of premises to allow access by Owner.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit two (2) copies of each application on AIA Form G702 or approved contractors invoice form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Twice monthly.

1.5 ALTERNATES

- A. Alternates quoted on Bid Form shall be reviewed and accepted or rejected at the Owner's option.

- B. Coordinate related work and modify surrounding work as required.
- C. Schedule of Alternates:
1. Alternate Bid 1
 - a. Provide a bid for all labor, materials, equipment and services necessary for the complete and satisfactory execution of the Work for cleaning the ground level roof and leveling it by pouring a latex concrete in specified areas. Work also includes building a new .060 mil fully adhered EPDM, tapered ISO insulation roof system, as described in Specification Section 07531 Single Ply Roofing – Fully Adhered, Section 2.2, Paragraph I, and as shown on details. Roof work includes the installation of a perimeter 2” x 10” fascia board anchored to the concrete roof slab. Also build an approximately 20’ long, 8” x 48” concrete poured wall between the boiler building and the maintenance building. Work includes cutting out asphalt paving and sealing the poured wall and 16” of the lower foundation wall with a water resistant sealant, as described in Specification Section 07190, Water Repellants. Backfill and repave cut out section of asphalt to match existing thickness and grade, except where pavement is to be coved 8” up the new concrete wall.
- D. Schedule of Unit Prices:
1. Unit Price 1
 - a. Provide a **unit price per square foot** for tuckpointing up to 100 sq. ft. of exterior face on the maintenance building. This is in addition to the 50 sq. ft. of tuckpointing included in the Base Bid. Existing mortar is to be ground out to a minimum of 3/4 inch and replaced with new mortar. Contractor must provide all materials, labor, equipment and services necessary to complete Work. Engineer will determine areas to be added to Work.
 2. Unit Price 2
 - a. Provide a **unit price per square foot** for replacement of up to 100 sq. ft. of existing brickwork on exterior of the maintenance. This is in addition to the 50 sq. ft. of brick replacement included in the Base Bid. Owner will provide replacement brick. Contractor must provide all other materials, labor, equipment and services necessary to complete Work. Engineer will determine areas to be added to Work.

1.6 COORDINATION

- A. Coordinate Work with contractor who will be performing masonry restoration on the building. Do not interfere with work of contractor who is performing tuckpointing. Do not replace or reinstall downspouts, gutters, or fascia until tuckpointing has been completed in areas adjacent to these items.
- B. Coordinate scheduling, submittals, and work of various sections of Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.

- C. Verify utility requirement characteristics of operating equipment are compatible with building utilities.

1.7 CUTTING AND PATCHING

- A. Employ a skilled and experienced installer to perform cutting and patching new work; restore work with new Products.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.
- C. Fit work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- D. Refinish surfaces to match adjacent finishes.

1.8 CONFERENCES

- A. Dane County Department Public Works, Highway & Transportation will schedule a preconstruction conference after Award of Contract for all affected parties.
- B. When required in individual Specification section, convene a pre-installation conference at project site prior to commencing work of the section.

1.9 PROGRESS MEETINGS

- A. Owner shall schedule and administer meetings throughout progress of the Work.
- B. Owner shall preside at meetings, record minutes, and distribute copies within two (2) days to those affected by decisions made.

1.10 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Construction Documents references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Construction Documents.
- C. Identify variations from Construction Documents and Product or system limitations that may be detrimental to successful performance of completing the Work.
- D. Revise and resubmit submittals as required; identify all changes made since previous submittal.

1.11 PROPOSED PRODUCTS LIST

- A. Within fifteen (15) days after date of Award of Contract, submit complete list of major Products proposed for use, with name of manufacturer, trade name, and model number of each Product.

1.12 SHOP DRAWINGS

- A. Submit number of copies that Contractor requires, plus two (2) copies that shall be retained by Public Works Project Engineer.

1.13 PRODUCT DATA

- A. Submit number of copies that Contractor requires, plus two (2) copies that shall be retained by Public Works Project Engineer.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this Project.

1.14 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Public Works Project Engineer's selection.

1.15 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual Specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.16 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification sections, submit manufacturers' certificate to Public Works Project Engineer for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.17 QUALITY ASSURANCE / QUALITY CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions.

- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.18 REFERENCES

- A. Conform to reference standard by date of issue current as of date for receiving bids.
- B. Should specified reference standard conflict with Construction Documents, request clarification from Public Works Project Engineer before proceeding.

1.19 INTERIOR ENCLOSURES

- A. Provide temporary partitions as required to separate work areas from Owner occupied areas, to prevent distribution of dust and moisture into Owner occupied areas, and to prevent damage to existing materials and equipment.

1.20 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual Specification sections.

1.21 PARKING

- A. Contact Laura Huttner at 608/242-6260 to arrange for temporary parking areas to accommodate construction personnel. Parking shall be available at the Work site.

1.22 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition. Dispose of material on a weekly basis.
- B. Apply top soil seed and mulch to any lawn damage in order to return to pre-job conditions.

1.23 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by Construction Documents.

1.24 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- A. Transport, handle, store and protect Products in accordance with manufacturer's instructions.

1.25 PRODUCT OPTIONS

- A. Where definite material is specified, it is not intention to discriminate against "equal" product made by another manufacturer. Intention is to set definite standard of material quality. Should bidder choose to bid materials other than those specified, bidder shall submit said materials specifications to Department of Public Works, Highway & Transportation for approval at least seven (7) days prior to Bid Opening.
- B. Products and materials that are not specified, but have been approved for use by Public Works Project Engineer shall be identified in addenda to all bidding contractors.
- C. Requests for material or product substitutions submitted after Bid Opening may be considered. Dane County reserves right to approve or reject substitutions based on Specification requirements and intended use.

1.26 SUBSTITUTIONS

- A. Public Works Project Engineer shall consider requests for Substitutions only within fifteen (15) days after date of Public Works Contract.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Construction Documents.
- C. Submit three (3) copies of requests for Substitution for consideration. Limit each request to one (1) proposed Substitution.
- D. Substitutions shall not change contract price established at Bid Opening.

1.27 CONTRACT CLOSEOUT PROCEDURES

- A. Submit written certification that Construction Documents have been reviewed, the Work has been inspected, and the Work is complete in accordance with Construction Documents and ready for Public Works Project Engineer's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum / Price, previous payments, and amount remaining due.

1.28 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view.
- C. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.29 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.

B. Deliver to the Work site and place in location as directed.

1.30 AS-BUILT DRAWINGS AND SPECIFICATIONS

A. Contractor shall furnish Public Works Project Engineer with original tracings of drawings in reproducible format and one set of as-builts drawings in manually drafted format.

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Temporary water service.
 - 3. Temporary sanitary facilities.
- B. Construction Facilities:
 - 1. Vehicular access.
 - 2. Parking.
 - 3. Progress cleaning and waste removal.
- C. Temporary Controls:
 - 1. Barriers.
 - 2. Enclosures and fencing.
 - 3. Security.
 - 4. Dust control.
- D. Removal of utilities, facilities, and controls.

1.2 TEMPORARY ELECTRICITY

- A. Owner will pay cost of non-heat electrical power that is needed. Exercise measures to conserve energy. Utilize Owner's existing power service.
- B. Provide temporary electric feeder from existing building electrical service at location as directed by Owner. Do not disrupt Owner's use of service.
- C. Complement existing power service capacity and characteristics as required for construction operations.
- D. Provide power outlets, with branch wiring and distribution boxes located as required for construction operations. Provide flexible power cords as required for portable construction tools and equipment.

1.3 TEMPORARY WATER SERVICE

- A. Owner will pay cost of temporary water. Exercise measures to conserve energy. Utilize Owner's existing water system, extend and supplement with temporary devices as needed to maintain specified conditions for construction operations.

1.4 TEMPORARY SANITARY FACILITIES

- A. Existing facilities may be used during construction operations. Maintain daily in clean and sanitary condition.
- B. At end of construction, return existing facilities used for construction operations to same or better condition as original condition.

1.5 VEHICULAR ACCESS

- A. Maintain unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.
- B. Maintain access to fire hydrants and control valves free of obstructions.
- C. Use existing on-site roads for construction traffic.

1.6 PARKING & STORAGE

- A. Use three designated areas of existing parking stalls. One enclosed, lockable garage storage area will be provided by Owner. Additional outdoor space will be provided for storage of materials and equipment.
- B. Do not allow heavy vehicles or construction equipment in parking areas.
- C. Maintenance:
 - 1. Maintain traffic and parking areas in sound condition free of construction equipment, products, mud, snow, and ice.
 - 2. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- D. Repair:
 - 1. Repair existing facilities damaged by use, to original condition.

1.7 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from closed or remote spaces, prior to enclosing spaces.
- C. Collect and remove waste materials, debris, and rubbish from site periodically and dispose off-site.

1.8 BARRIERS

- A. Provide barriers to protect existing facilities and adjacent properties from damage from construction operations and demolition.

- B. Provide barricades and covered walkways for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.9 ENCLOSURES AND FENCING

- A. Construction: Contractor's option.

1.10 SECURITY

- A. Security Program:
 - 1. Protect Work from theft, vandalism, and unauthorized entry.
 - 2. Initiate program in coordination with Owner's existing security system at project mobilization.

1.11 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Final Application for Payment inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing and permanent facilities used during construction to original condition.

END OF SECTION

SECTION 01508

RECYCLING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Waste Management Goals
 - 2. Waste Management Plan
 - 3. Reuse
 - 4. Recycling
 - 5. Materials Sorting and Storage On Site
 - 6. Lists of Recycling Facilities Processors and Haulers
 - 7. Waste Management Plan Form

- B. Related Sections:
 - 1. Section 01000 - Basic Requirements
 - 2. Section 01500 - Temporary Facilities and Controls: Progress cleaning and waste removal
 - 3. Section 07591 - Preparation for Roofing

1.2 WASTE MANAGEMENT GOALS

- A. Dane County requires that as many waste materials as possible produced as result of this project be salvaged, reused or recycled in order to minimize impact of construction waste on landfills and to minimize expenditure of energy and cost in fabricating new materials. Additional information may be found in The Dane County Green Building Policy, Resolution 299, 1999-2000.

- B. Contractor shall develop, with assistance of Public Works Project Engineer and Architect / Engineer, Waste Management Plan (WMP) for this project. Outlined in RECYCLING section of this specification are examples of materials that can be recycled or reused as well as recommendations for waste sorting methods.

1.3 WASTE MANAGEMENT PLAN

- A. Contractor shall complete WMP and include cost of recycling / reuse in Bid. WMP will be submitted to Public Works Project Engineer within fifteen (15) days of Notice to Proceed date. Copy of blank WMP form is in this Section. Submittal shall include cover letter and WMP form with:
 - 1. Information on:
 - a. Types of waste materials produced as result of work performed on site;
 - b. Estimated quantities of waste produced;
 - c. Identification of materials with potential to be recycled or reused;

- d. How materials will be recycled or reused;
- e. On-site storage and separation requirements (on site containers);
- f. Transportation methods; and
- g. Destinations.

1.4 REUSE

- A. Contractors and subcontractors are encouraged to reuse as many waste materials as possible. Salvage should be investigated for materials not reusable on site.

1.5 RECYCLING

- A. These materials can be recycled in Dane County area:
 - 1. Wood.
 - 2. Wood Pallets.
 - 3. Fluorescent Lamps.
 - 4. Foam Insulation & Packaging (extruded and expanded).
 - 5. PVC Plastic (pipe, siding, etc.).
 - 6. Concrete.
 - 7. Corrugated Cardboard.
 - 8. Metal.
 - 9. Carpet Padding.
 - 10. Gypsum Drywall.
 - 11. Barrels & Drums.
 - 12. Solvents.

1.6 MATERIALS SORTING AND STORAGE ON SITE

- A. Contractor shall provide separate containers for recyclable materials. Number of containers will be dependent upon project and site conditions.
- B. Contractor shall provide on-site locations for subcontractors supplied recycling containers to help facilitate recycling.

1.7 LISTS OF RECYCLING FACILITIES PROCESSORS AND HAULERS

- A. Web site www.countyofdane.com has recycling symbol (link) near top of page that lists current information for Dane County Recycling Markets. Contractors can also contact Dane County's Recycling Manager at 608/267-8815, or local city, village, town recycling staff listed in above referenced web site. Statewide listings of recycling / reuse markets at available from Wisconsin Department of Natural Resources, www.dnr.state.wi.us/org/aw/wm/markets.

1.8 WASTE MANAGEMENT PLAN FORM

A. Contractor Information:

Name: _____

Address: _____

Phone No.: _____ Recycling Coordinator: _____

MATERIAL	ESTIMATED QUANTITY	DISPOSAL METHOD (CIRCLE ONE)	RECYCLING / REUSE COMPANY OR DISPOSAL SITE
Salvaged & reused building materials	_____ cu. yds. _____ tons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Glass	_____ cu. yds. _____ tons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Wood	_____ cu. yds. _____ tons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Wood Pallets	_____ units	Self-Haul or Hauler Hauler Name: _____	Name: _____
Fluorescent Lamps	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
Foam Insulation	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
Asphalt & Concrete	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
PVC Plastic	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
Corrugated Cardboard	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
Metals	_____ cu. yds. _____ tons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Carpet Padding	_____ cu. ft. _____ lbs.	Self-Haul or Hauler Hauler Name: _____	Name: _____
Gypsum / Drywall	_____ cu. yds. _____ tons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Barrels & Drums	_____ units	Self-Haul or Hauler Hauler Name: _____	Name: _____

Solvents	_____ gallons	Self-Haul or Hauler Hauler Name: _____	Name: _____
Other	_____	Self-Haul or Hauler Hauler Name: _____	Name: _____
Other	_____	Self-Haul or Hauler Hauler Name: _____	Name: _____
Other	_____	Self-Haul or Hauler Hauler Name: _____	Name: _____

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 02225

MINOR DEMOLITION FOR REMODELING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolishing designated construction.
 - 2. Cutting and alterations for completion of the Work.
 - 3. Protecting items designated to remain.
 - 4. Removing demolished materials.

- B. Items to Be Demolished:
 - 1. Chain linked fence, areas as shown on Drawings
 - 2. Maintenance Building East Parapet Wall
 - 3. 5' section of south parapet wall to be demolished and rebuilt for re-securing electrical conduits.
 - 4. Vegetation and dirt in 8' span
 - 5. Existing roof systems
 - 6. Cut out asphalt curb and related material. Backfill and repave cut out section of asphalt to match existing thickness and grade. Cove new asphaltic pavement 8" up the new concrete wall.
 - 7. Poorly patched section of roof slab
 - 8. Remove all existing vents, pipes, and other roof penetrations. Replace the sanitary vent stack flashing, the two 12" roof ventilators, and the 12" x 30" J-duct. Remove the two furnace stacks and accompanying flashings and store safely for reinstallation.
 - 9. Remove all existing parapet caps. Along north, south, and east walls, replace existing parapet caps with 14 gauge galvanized metal caps with 3/4" drip edges. In order to connect the new caps to the wall, attach a 2" x 8" treated wood board to the top outer edge of the parapet wall. Fasten this board with 5" x 1/4" anchors 3 feet o.c.

1.2 QUALITY ASSURANCE

- A. Conform to applicable code for demolition work and dust control.
- B. Conform to applicable code for procedures when hazardous or contaminated materials are discovered.
- C. Obtain required permits from authorities having jurisdiction.
- D. Perform Work in accordance with State of Wisconsin standards.

1.3 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.4 SCHEDULING

- A. Schedule Work to coincide with new construction.
- B. Cooperate with Owner in scheduling noisy operations and waste removal that may impact Owners operation in adjoining spaces.

1.5 PROJECT CONDITIONS

- A. Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Cease operations immediately if structure appears to be in danger and notify Engineer. Do not resume operations until directed.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PREPARATION

- A. Erect, and maintain temporary barriers and security devices, including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.
- B. Provide appropriate temporary signage including signage for exit or building egress.
- C. Do not close or obstruct building egress path.

3.2 DEMOLITION

- A. Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Maintain protected egress from and access to adjacent existing buildings at all times.
- C. Do not close or obstruct roadways, sidewalks, or entrances without permission of the project Engineer.
- D. Cease operations immediately when structure appears to be in danger or when major building use issues occur, and notify project Engineer.
- E. Demolish in orderly and careful manner. Protect existing improvements.

- F. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- G. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- H. Remove temporary Work.

END OF SECTION

SECTION 03100

CONCRETE FORMS AND ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Formwork for cast-in place concrete.
 - 2. Shoring, bracing, and anchorage.
 - 3. Architectural form liners.
 - 4. Form accessories.
 - 5. Form stripping.

- B. Related Sections:
 - 1. Section 03200 - Concrete Reinforcement.
 - 2. Section 03300 - Cast-in-Place Concrete.
 - 3. Section 04810 - Unit Masonry Assemblies: Product requirements for masonry accessories for placement by this Section.

1.2 REFERENCES

- A. American Concrete Institute:
 - 1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials.
 - 2. ACI 347 - Guide to Formwork for Concrete.

- B. ASTM International:
 - 1. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

1.3 DESIGN REQUIREMENTS

- A. Design, engineer, and construct formwork, shoring, and bracing to conform to design and code requirements to achieve concrete shape, line, and dimension as indicated on the Drawings or as directed by the Engineer.

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. Submit formwork and shoring shop drawings.
 - 2. Indicate the following:
 - a. Pertinent methods of construction, types of connections, materials, and joint arrangement.
 - b. Sequence and timing of erection and stripping.

B. Product Data: Submit data on void form materials.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with State of Wisconsin Standards.

1.6 COORDINATION

A. Coordinate this Section with other sections of work, requiring attachment of components to formwork.

PART 2 PRODUCTS

2.1 WOOD FORM MATERIALS

A. Form Materials: At discretion of Contractor.

2.2 PREFABRICATED FORMS

A. Furnish materials in accordance with State of Wisconsin Standards.

B. Preformed Steel Forms: Minimum 16 gage (1.5 mm) matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.

C. Glass Fiber Fabric Reinforced Plastic Forms: Matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished concrete surfaces.

D. Pan Type: Steel or Glass fiber of size and profile required.

E. Steel Forms: Sheet steel, suitably reinforced, and designed for particular use indicated on Drawings.

F. Form Liners: Smooth, durable, grainless and non-staining hardboard, unless otherwise indicated on Drawings.

G. Framing, Studding and Bracing: Stud or No. 3 structural light framing grade.

H. Substitutions: As approved by project Engineer.

2.3 FORMWORK ACCESSORIES

A. Form Ties: Removable or Snap-off type, galvanized metal, fixed or adjustable length, free of defects capable of leaving holes larger than 1 inch (25 mm) in concrete surface.

- B. Spreaders: Standard, non-corrosive metal form clamp assembly, of type acting as spreaders and leaving no metal within 1 inch (25 mm) of concrete face. Wood spreaders or through bolts are not permitted.
- C. Form Release Agent: Colorless mineral oil that will not stain concrete, or absorb moisture, or impair natural bonding, or color characteristics of coating intended for use on concrete.
 - 1. Manufacturers:
 - a. Arcal Chemical Corporation Arcal-80.
 - b. Industrial Synthetics Company Synthex.
 - c. Nox-Crete Company Nox-Crete Form Coating.
- D. Corners: Chamfer, rigid plastic or wood strip; 1 x 1 inch size; maximum possible lengths
- E. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Size, strength and character to maintain formwork in place while placing concrete.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify lines, levels, and centers before proceeding with formwork. Verify dimensions agree with Drawings.
- B. When formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Engineer.

3.2 INSTALLATION

- A. Formwork - General:
 - 1. Construct forms to correct shape and dimensions, mortar-tight, braced, and of sufficient strength to maintain shape and position under imposed loads from construction operations.
 - 2. Carefully verify horizontal and vertical positions of forms. Correct misaligned or misplaced forms before placing concrete.
 - 3. Complete wedging and bracing before placing concrete.
- B. Forms for Smooth Finish Concrete:
 - 1. Use steel, plywood or lined board forms.
 - 2. Use clean and smooth plywood and form liners, uniform in size, and free from surface and edge damage capable of affecting resulting concrete finish.
 - 3. Install form lining with close-fitting square joints between separate sheets without springing into place.
 - 4. Use full size sheets of form lines and plywood wherever possible.
 - 5. Tape joints to prevent protrusions in concrete.
 - 6. Use care in forming and stripping wood forms to protect corners and edges.
 - 7. Level and continue horizontal joints.
 - 8. Keep wood forms wet until stripped.

- C. Framing, Studding and Bracing:
 - 1. Space studs at 16 inches on center maximum for boards and 12 inches on center maximum for plywood.
 - 2. Size framing, bracing, centering, and supporting members with sufficient strength to maintain shape and position under imposed loads from construction operations.
 - 3. Distribute bracing loads over base area on which bracing is erected.
 - 4. When placed on ground, protect against undermining, settlement or accidental impact.
- D. Erect formwork, shoring, and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- E. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- F. Obtain Engineer's approval before framing openings in structural members not indicated on Drawings.
- G. Install void forms in accordance with manufacturer's recommendations.

3.3 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces are indicated to receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.
- D. Reuse and Coating of Forms: Thoroughly clean forms and reapply form coating before each reuse. For exposed work, do not reuse forms with damaged faces or edges. Apply form coating to forms in accordance with manufacturer's specifications. Do not coat forms for concrete indicated to receive "scored finish". Apply form coatings before placing reinforcing steel.

3.4 INSTALLATION - INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Locate and set in place items required to be cast directly into concrete.
- B. Coordinate with Work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.
- C. Form Ties:
 - 1. Use sufficient strength and sufficient quantity to prevent spreading of forms.
 - 2. Place ties at least 1 inch (25 mm) away from finished surface of concrete.
 - 3. Leave inner rods in concrete when forms are stripped.

4. Space form ties equidistant, symmetrical and aligned vertically and horizontally unless otherwise shown on Drawings.
- D. Arrangement: Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.
- E. Construction Joints:
1. Install 3/8" x 3/8" surfaced pouring strip where construction joints intersect exposed surfaces to provide straight line at joints.
 2. Cut out kerf in existing brick walls and caulk in 4' long ribbed with centerbulb waterstop to be poured around with concrete.
 3. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage.
 4. Show no overlapping of construction joints. Construct joints to present same appearance as butted plywood joints.
 5. Arrange joints in continuous line straight, true and sharp.
- F. Embedded Items:
1. Make provisions for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, water stops, and other features.
 2. Do not embed wood or uncoated aluminum in concrete.
 3. Obtain installation and setting information for embedded items furnished under other Specification sections.
 4. Securely anchor embedded items in correct location and alignment prior to placing concrete.
- G. Screeds:
1. Set screeds and establish levels for tops of concrete slabs and levels for finish on slabs.
 2. Before depositing concrete, remove debris from space to be occupied by concrete and thoroughly wet forms. Remove freestanding water.
- H. Screed Supports:
1. For concrete over waterproof membranes and vapor barrier membranes, use cradle, pad or base type screed supports which will not puncture membrane.
 2. Staking through membrane is not permitted.

3.5 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.

3.6 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads and removal has been approved by Engineer.
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.
- D. Leave forms in place for minimum number of days as specified in ACI 347.

3.7 ERECTION TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 301.
- B. Tolerances: Construct formwork to produce completed concrete surfaces within construction tolerances specified in ACI 117.

3.8 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.
- B. Notify Engineer after placement of reinforcing steel in forms, but prior to placing concrete.
- C. Schedule concrete placement to permit formwork inspection before placing concrete.

END OF SECTION

SECTION 03200
CONCRETE REINFORCEMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Reinforcing bars.
 - 2. Reinforcement accessories.
- B. Related Sections:
 - 1. Section 03100 - Concrete Forms and Accessories.
 - 2. Section 03300 - Cast-in-Place Concrete.

1.2 REFERENCES

- A. American Concrete Institute:
 - 1. ACI SP-66 - ACI Detailing Manual.
- B. ASTM International:
 - 1. ASTM A704/A704M - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
- C. American Welding Society:
 - 1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.
- D. Concrete Reinforcing Steel Institute:
 - 1. CRSI - Manual of Standard Practice.
 - 2. CRSI - Placing Reinforcing Bars.

1.3 SUBMITTALS

- A. Manufacturer's Certificate: Certify Products meet or exceed specified requirements

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Maintain one copy of each document on site.

1.5 COORDINATION

- A. Coordinate with placement of formwork, formed openings and other Work.

PART 2 PRODUCTS

2.1 REINFORCEMENT

2.2 Reinforcing Steel: ASTM A615/A615M, # 4 by 60 ksi (420 MPa) 12" o.c. yield grade rebar; plain billet steel bars, unfinished

- A. Tie Wire: Minimum 16 gage annealed type
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions

2.3 FABRICATION

- A. Fabricate concrete reinforcement in accordance with ACI 318 (ACI 318M) and ASTM A184/A184M.
- B. Locate reinforcement splices not indicated on Drawings, at point of minimum stress. Review location of splices with Engineer.

PART 3 EXECUTION

3.1 PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Conform to applicable code for concrete cover over reinforcement.
- C. Splice reinforcing in accordance with splicing device manufacturer's instructions at a minimum of 20" lap.
- D. Anchor rebar reinforcement to concrete ground level roof by drilling 3/4" x 4" deep holes to insert rebar. Secure rebar with non-shrink grout as specified in Section 3300, Cast in Place Concrete, Section 2.3 Accessories.
- E. Anchor rebar reinforcement to concrete and brick walls by drilling 3/4" x 8" holes to insert rebar. Secure rebar with non-shrink grout as specified in Section 3300, Cast in Place Concrete, Section 2.3 Accessories.

3.2 FIELD QUALITY CONTROL

- A. Request Project Engineer inspection before pouring concrete.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes cast-in-place concrete for the following:
 - 1. Foundation walls.
- B. Related Sections:
 - 1. Section 03100 - Concrete Forms and Accessories.
 - 2. Section 03200 - Concrete Reinforcement.
 - 3. Section 07190 - Water Repellants

1.2 REFERENCES

- A. American Concrete Institute:
 - 1. ACI 306.1 - Standard Specification for Cold Weather Concreting.
- B. ASTM International:
 - 1. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
 - 2. ASTM C150 - Standard Specification for Portland Cement.
 - 3. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 4. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
 - 5. ASTM C1116 - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
 - 6. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
 - 7. ASTM D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
 - 8. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

1.3 SUBMITTALS

- A. Product Data: Submit data on joint devices and attachment accessories
- B. Design Data:
 - 1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
 - a. Hot and cold weather concrete work.
 - b. Air entrained concrete work.
 - 2. Identify mix ingredients and proportions, including admixtures.

- C. Samples: Submit two 2” x full width samples of expansion/contraction joint and control joint.
- D. Manufacturer's Installation Instructions: Submit installation procedures and interface required with adjacent Work.

1.4 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of embedded utilities and components concealed from view in finished construction on as-builts.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Conform to ACI 306.1 when concreting during cold weather.

1.6 COORDINATION

- A. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

PART 2 PRODUCTS

2.1 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type I – Normal Portland type; ASTM C595, 4,000 psi, gray color, with reinforcing fibers 3 lb/cubic yard.
- B. Reinforcing rebar: #4 steel grade 60 rebar, 12 inch o.c. in both directions.
- C. Water: Clean and not detrimental to concrete.

2.2 ADMIXTURES

- A. Furnish materials in accordance with State of Wisconsin Standards.
- B. Air Entrainment: ASTM C260.

2.3 ACCESSORIES

- A. Bonding Agent: Apply between poured concrete wall and: 1) ground level roof concrete and 2) both existing side walls. Bonding agent shall be Polymer resin emulsion, Polyvinyl Acetate, or Latex emulsion. Bonding Agent must be approved by Engineer.
- B. Non-Shrink Grout: ASTM C1107, Grade A; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days.

- C. Concrete Reinforcing Fibers: ASTM C1116, high strength industrial-grade fibers specifically engineered for secondary reinforcement of concrete. Tensile strength –130 ksi; toughness 15 ksi; 3/4 inch long fibers, 34 million/lb fiber count. Use 3 lb/cubic yard of concrete.

2.4 JOINT DEVICES AND FILLER MATERIALS

- A. Joint Filler Type B: ASTM D1752; Closed cell foam, resiliency recovery of 95 percent it not compressed more than 50 percent of original thickness.
- B. Substitutions as approved by Engineer.

2.5 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ACI 211.1 and ACI 301.
- B. Provide concrete to the following mix design:

<u>Unit</u>	<u>Measurement</u>
Compressive Strength (28 day)	4000psi
Cement Content (minimum)	540 pounds/cu yd
Water/Cement Ratio (maximum)	.5
Air Entrained (maximum)	3 percent
Fly Ash Content:	maximum 17.5 percent of cement content
Slump (maximum):	5 inches
- C. Admixtures: Include admixture types and quantities indicated in concrete mix designs approved through submittal process.
 - 1. Use accelerating admixtures in cold weather. Use of admixtures will not relax cold weather placement requirements.
 - 2. Add air entraining agent to normal weight concrete mix for work exposed to exterior.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify requirements for concrete cover over reinforcement.
- B. Verify anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

3.2 PREPARATION

- A. Remove asphalt on underlying ground level roof slab to expose concrete where new poured wall will be placed. Clean existing concrete by mean of steel brush or sand blasting and apply bonding agent per manufacturers directions.

- B. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
- C. In locations where new concrete wall is doveled to existing east and west building brick walls, drill holes at minimum 8 inches deep x 3/4" in existing brick surface, insert #4 grade x 60 ksi steel bars 12 inches o.c. and pack solid with non-shrink grout. Wall surface on maintenance building is irregular and will require cutting and grinding before poured concrete wall can be poured and adjoined to the existing wall.
- D. Repeat same process as specified in 3.2C, except drill holes 4 inches deep x 3/4" in existing concrete slab.
- E. Cut into existing walls for waterproof expansion joint on both sides where new wall meets existing walls, as shown in Drawings.

3.3 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301.
- B. Notify Architect/Engineer minimum 24 hours prior to commencement of operations.
- C. Ensure reinforcement, inserts, embedded parts, and formed expansion and contraction joints are not disturbed during concrete placement.
- D. Separate poured wall from existing walls with a 3/8" x 3/8" thick vertical joint filler located on the exterior face of the north and south sides of the wall. Secure to resist movement by wet concrete.
- E. Install joint device anchors. Maintain correct position to allow joint cover to be flush with wall finish.
- F. Install joint covers in one length.
- G. Apply sealants in joint devices in accordance with Section 2.4.
- H. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- I. Place concrete continuously between predetermined expansion, control, and construction joints.
- J. Do not interrupt successive placement; do not permit cold joints to occur.

3.4 CONCRETE FINISHING

- A. Provide formed concrete surfaces to be left exposed concrete walls with a smooth rubbed finish as Scheduled in this section.
- B. Steel trowel surfaces which are indicated to be exposed.

3.5 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

3.6 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed in accordance with ACI 301.
- B. Provide free access to Work and cooperate with Engineer.
- C. Submit proposed mix design of concrete to Engineer for review prior to commencement of Work.
- D. Tests of cement and aggregates may be performed to ensure conformance with specified requirements.

3.7 PATCHING

- A. Allow Engineer to inspect concrete surfaces immediately upon removal of forms.
- B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.
- C. Immediately patch imperfections, as directed by Engineer, to match texture and color of original poured wall.

3.8 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- B. Repair or replacement of defective concrete will be determined by Engineer.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.

END OF SECTION

SECTION 04065
MASONRY MORTAR

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes mortar for masonry.
- B. Related Sections:
 - 1. Section 04810 - Unit Masonry Assemblies: Installation of mortar.
 - 2. Section 04900 - Masonry Restoration and Cleaning: Bedding and pointing mortar for masonry restoration work.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Brick Tuckpointing:
 - 1. Basis of Measurement: Square foot.
 - 2. Basis of Payment: Includes grinding out old mortar, mortar placement, tooling, and cleaning.
- B. Brick Replacement:
 - 1. Basis of Measurement: Square foot.
 - 2. Basis of Payment: Includes all related Work, but Owner will supply brick.

1.3 REFERENCES

- A. ASTM International:
 - 1. ASTM C270 - Standard Specification for Mortar for Unit Masonry.
 - 2. ASTM C1329 - Standard Specification for Mortar Cement.
- B. The Masonry Society:
 - 1. TMS MSJC - Building Code for Masonry Structures (ACI 530/ASCE 5/TMS 402), Specification for Masonry Structures (ACI 530.1/ASCE 6/TMS 602) and Commentaries.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS MSJC Code and TMS MSJC Specification.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Hot and Cold Weather Requirements: TMS MSJC Specification.

PART 2 PRODUCTS

2.1 MORTAR AND MASONRY GROUT

- A. Manufacturers:
 - 1. Citadel Cement.
 - 2. CTS Cement Manufacturing Co.
 - 3. Lehigh Portland Cement.
 - 4. Medusa Cement Co.
 - 5. Substitutions: As approved by project Engineer.

2.2 COMPONENTS

- A. Mortar Cement: ASTM C1329, Type N.
- B. Mortar Color: To match existing.
- C. Calcium chloride is not permitted.

2.3 MIXES

- A. Mortar Mixes:
 - 1. Pointing Mortar: ASTM C270, Type N using proportion specification.
- B. Mortar Mixing:
 - 1. Thoroughly mix mortar ingredients in accordance with ASTM C270 in quantities needed for immediate use.
 - 2. Achieve uniformly damp sand immediately before mixing process.
 - 3. Add mortar color to achieve uniformity of mix and coloration.
 - 4. Re-temper only within two hours of mixing.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify surfaces are ready for work of this section.

3.2 PREPARATION

- A. Thoroughly clean all surfaces that will come in contact with new mortar.

3.3 INSTALLATION

- A. Install mortar in accordance with TMS MSJC Specification.

END OF SECTION

SECTION 04810

UNIT MASONRY ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes brick units and reinforcement, anchorage, and accessories.
- B. Section describes 5' section of south parapet wall which is to be demolished and rebuilt, as shown on Roof Plan. In this area, the power lines and their conduits are beginning to pull the parapet wall away from the building. Remove approximately 5' of the parapet wall in this location down to the level of the concrete roof deck. Bolt the electrical conduits to the concrete deck with a 2" x 2" x 1/4" x 3' galvanized angle iron fastened to the edge of the roof slab with five (5) 3/8" galvanized steel anchors embedded 4" into slab. Once the electrical conduits are fastened to the concrete roof slab, rebuild the parapet wall in this area, as described in this Section and in Section 04900.3.3.A of the Specifications.
- C. This Section also describes work in any other areas where engineer determines that existing brick is to be replaced.
- D. Related Sections:
 - 1. Section 04065 - Masonry Mortar and Grout: Mortar and grout.
 - 2. Section 04900 - Masonry Restoration and Cleaning.

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM A951 - Standard Specification for Masonry Joint Reinforcement.
 - 2. ASTM C1261 - Standard Specification for Firebox Brick for Residential Fireplaces.
 - 3. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- B. The Masonry Society:
 - 1. TMS MSJC - Building Code for Masonry Structures (ACI 530/ASCE 5/TMS 402), Specification for Masonry Structures (ACI 530.1/ASCE 6/TMS 602) and Commentaries.

1.3 SUBMITTALS

- A. Product Data: Submit data for wall ties, anchors, and other accessories.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS MSJC Code and TMS MSJC Specification.

- B. Maintain one copy of each document on site.

1.5 QUALIFICATIONS

- A. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Owner will provide storage area within 100' of construction site.
- B. Owner will supply all brick needed for repairs.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Hot and Cold Weather Requirements: TMS MSJC Specification.

1.8 COORDINATION

- A. Coordinate masonry work with roofing, landscaping, and cleaning work.

PART 2 PRODUCTS

2.1 UNIT MASONRY ASSEMBLIES

- A. Brick materials supplied by owner to match existing.

2.2 ACCESSORIES

- A. Preformed Control Joints: Neoprene material. Furnish with corner and tee accessories, cement fused joints.
- B. Joint Filler: Closed cell polyurethane or rubber; oversized 50 percent to joint width.
- C. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify field conditions are acceptable and are ready to receive work.
- B. Verify items provided by other sections of work are properly sized and located.
- C. Verify built-in items are in proper location, and ready for roughing into masonry work.

3.2 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied to other sections.
- B. Furnish temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent support.

3.3 INSTALLATION

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form bed and head joints of uniform thickness.
- C. Coursing of Concrete Masonry Units:
 - 1. Bond: Match Existing
 - 2. Coursing: Match Existing
 - 3. Mortar Joints: Match Existing
- D. Placing And Bonding:
 - 1. Remove excess mortar as work progresses.
 - 2. Isolate top of masonry from horizontal structural framing members and slabs or decks with compressible joint filler.
- E. Cutting And Fitting for new masonry:
 - 1. Coordinate with other sections of work to provide correct size, shape, and location.
 - 2. Obtain Engineer's approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.4 CLEANING

- A. Remove excess mortar and mortar smears as work progresses.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with cleaning solution.
- D. Use non-metallic tools in cleaning operations.

END OF SECTION

SECTION 04900

MASONRY RESTORATION AND CLEANING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes water or chemical cleaning of brick surfaces; replacement of brick units; and repointing mortar joints.
- B. Related Sections:
 - 1. Section 04065 - Masonry Mortar and Grout.

1.2 REFERENCES

- A. The Masonry Society:
 - 1. TMS MSJC - Building Code for Masonry Structures (ACI 530/ASCE 5/TMS 402), Specification for Masonry Structures (ACI 530.1/ASCE 6/TMS 602) and Commentaries.

1.3 SUBMITTALS

- A. Product Data: Submit data on cleaning solutions and mortar.
- B. Manufacturer's Installation Instructions: Submit installation procedures for products selected for use, manufacturer's installation instructions, and perimeter conditions requiring special attention.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS MSJC Code and TMS MSJC Specification.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.6 PRE-CONSTRUCTION MEETINGS

- A. Notify the project Engineer minimum one week prior to commencing work of this section. The Engineer will arrange for a time and place for the meeting.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store restoration cleaner materials in manufacturer's packaging.
- B. Store mortar ingredients in manufacturer's packaging, or when delivered loose, with adequate weatherproof covering.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Hot and Cold Weather Requirements: TMS MSJC Specification.

1.9 SEQUENCING

- A. Perform repointing before cleaning masonry surfaces.

1.10 SCHEDULING

- A. Perform cleaning, washing, and tuckpointing to exterior masonry between hours of 7 AM to 7 PM daily.

PART 2 PRODUCTS

2.1 MASONRY RESTORATION AND CLEANING

- A. Manufacturers:
 - 1. Diedrich Chemicals Restoration Technology
 - 2. ProSoCo Inc.
 - 3. STO Concrete Restoration.
 - 4. Substitutions: As approved by project Engineer.

2.2 COMPONENTS

- A. Cleaning Agent: Detergent or solvent cleaner.
- B. Cleaning Agent: Sodium hydrosulphite or ammonium bifluoride mixture to one gallon of water per manufacturer's recommendations.
- C. Mortar and Grout Materials: Conform to requirements of Section 04065.
- D. Brick: As supplied by Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify surfaces to be cleaned or restored are ready for work of this section.

3.2 PREPARATION

- A. Protect elements surrounding work of this section from damage or disfiguration.
- B. Immediately remove stains, efflorescence, or other excess resulting from work of this section.
- C. Protect roof membrane and flashings from damage. Lay 1/2 inch plywood or protective board on roof surfaces over full extent of work area and traffic route.
- D. Carefully remove and store fixtures, fittings, finishing hardware, and accessories.
- E. Close off, seal, mask, and board up areas, landscaping, materials, and surfaces not receiving work of this section to protect from damage.

3.3 INSTALLATION

- A. Rebuilding:
 - 1. Cut out damaged and deteriorated masonry with care in manner to prevent damage to adjacent remaining materials.
 - 2. Support structure in advance of cutting out units to maintain stability of remaining materials.
 - 3. Cut away loose or unsound adjoining masonry and mortar as directed by Engineer to provide firm and solid bearing for new work.
 - 4. Build in Owner provided masonry units following procedures for new work specified in Sections 04065 and 04810.
 - 5. Mortar Mix: Colored and proportioned to match existing work.
 - 6. Ensure anchors, ties, reinforcing, dowels, and flashings are correctly located and built in.
 - 7. Install built in masonry work to match and align with existing, with joints and coursing true and level, faces plumb and in line. Build in openings, accessories and fittings.
- B. Repointing:
 - 1. Cut out loose or disintegrated mortar in joints to minimum 3/4 inch depth, and where mortar is broken or loose, beyond to full depth of breakage to solid mortar.
 - 2. Utilize hand tools or power tools only after test cuts determine no damage to masonry units results.
 - 3. When cutting is complete, remove dust and loose material by brushing or with air jet.
 - 4. Premoisten joint and apply mortar specified in Section 04065. Pack tightly in layers. Form smooth, compact joint to match existing.
- C. Cleaning Existing Masonry:
 - 1. Contractor to choose between the following non-acidic cleaners and methods:
 - a. Cleaning Detergent or Chemicals: Brush, spray, or hand wash clean masonry surfaces with detergent or chemicals. Saturate masonry with clean water before and after application of cleaning detergents or chemicals and flush loose mortar and dirt.

- b. High Pressure Cold Water: Cold water blast with pressure that will not cause damage to bricks or mortar, used on brick masonry surfaces, providing uniform finish.

D. Cleaning New Masonry:

- 1. Verify mortar is fully set and cured.
- 2. Clean surfaces and remove large particles with wood scrapers, brass or nylon wire brushes.
- 3. Scrub walls with detergent or chemical solution using stiff brush. Thoroughly rinse and wash off cleaning solution, dirt and mortar crumbs using clean, pressurized water.

3.4 CLEANING

- A. As work proceeds and on completion, remove excess mortar, smears, droppings.
- B. Clean surrounding surfaces.
- C. Remove all equipment and excess materials, and clean storage areas upon sufficient completion.

END OF SECTION

SECTION 07190
WATER REPELLENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes water repellent coating applied to exterior concrete surfaces.
- B. Related Sections:
 - 1. Section 03300-Cast-In-Place Concrete: Concrete surfaces.

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM D1653 - Standard Test Method for Water Vapor Transmission of Organic Coating Films.
 - 2. ASTM E514 - Standard Test Method for Water Penetration and Leakage Through Masonry.

1.3 SYSTEM DESCRIPTION

- A. Cement Based Waterproof Coating: Material to restrict moisture absorption in material being treated as recommended by manufacturer for specific substrate.

1.4 SUBMITTALS

- A. Product Data: Submit details of product description, tests performed, limitations to coating, and chemical properties including percentage of solids.
- B. Manufacturer's Installation Instructions: Submit special procedures and conditions requiring special attention, and cautionary procedures required during application.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three years experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect coating liquid from freezing.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply coating when ambient temperature is lower than 50 degrees F or higher than 100 degrees F.
- B. Do not apply coating when wind velocity exceeds manufacturer recommendations.

1.8 WARRANTY

- A. Furnish five year manufacturer warranty for water repellents.

PART 2 PRODUCTS

2.1 WATER REPELLENTS

- A. Manufacturers:
 - 1. Thoroseal.
 - 2. Substitutions: As approved by project Engineer.

2.2 COMPONENTS

- A. Thoroseal Cementitious Waterproofing-Cement based waterproof coating.
 - 1. Water Vapor Transmission: Maximum metric permeability of .10698.
 - 2. Resistance to Accelerated Weathering: No loss in repellency after 5,000 hours, ASTM G 26.
 - 3. Reduction of Leakage: Permeance maximum of 12 perms, ASTM E 96.
 - 4. Barber Coleman Impressor hardness range 30 to 60.
 - 5. Color: Weatherproofing color to match adjacent concrete surfaces of poured wall.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify water repellent is installed and cured.
- B. Verify surfaces to be coated are dry, clean, and free of efflorescence, oil, or other matter detrimental to application of coating.

3.2 PREPARATION

- A. Delay Work until masonry mortar substrate is cured minimum of 14 days.
- B. Remove loose particles and foreign matter.
- C. Remove oil or foreign substance with chemical solvent which will not effect coating.

D. Scrub and rinse surfaces with water and let dry.

3.3 APPLICATION

A. Apply per Manufacturer's recommendations.

B. Apply to entire surface of poured concrete wall and a minimum 16" below grade on north side of exposed ground level roof concrete slab and foundation wall.

C. Apply in two continuous, uniform coats.

3.4 PROTECTION OF INSTALLED CONSTRUCTION

A. Protect adjacent surfaces not scheduled to receive coating.

B. Protect landscaping, property, and vehicles.

C. When applied to unscheduled surfaces, remove immediately by methods as instructed by coating manufacturer.

3.5 SCHEDULES

A. Exterior concrete surfaces: Two coat application, pigmented to match tan of adjacent poured wall.

END OF SECTION

SECTION 07531

SINGLE PLY ROOFING - FULLY ADHERED

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes deck preparation, filler and leveler compound insulation, sheathing and directly adhered 0.60 mil EPDM roof, base flashings roofing membrane expansion joints, cant strips, and counterflashings.
- B. Related Sections:
 - 1. Section 07591 - Preparation for Re-roofing.

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
 - 2. ASTM D4637 - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane.
 - 3. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
- B. FM Global:
 - 1. FM 4470 - Approval Standard for Class 1 Roof Coverings.
- C. National Roofing Contractors Association:
 - 1. NRCA - The NRCA Roofing and Waterproofing Manual.
- D. Underwriters Laboratories Inc.:
 - 1. UL 790 - Tests for Fire Resistance of Roof Covering Materials.
- E. Intertek Testing Services (Warnock Hersey Listed):
 - 1. WH - Certification Listings.

1.3 SYSTEM DESCRIPTION

- A. Elastomeric Sheet Membrane Conventional Roofing System: One ply membrane system with insulation, sheathing, and adhesive applied membrane finish.

1.4 SUBMITTALS

- A. Product Data: Submit characteristics on membrane materials, adhesives, seaming materials, flashing materials, insulation, fiber board, eave trough, and all other materials used for the project.
- B. Samples: Submit two 3 x 3 inch in size illustrating insulation.

- C. Manufacturer's Installation Instructions: Submit special precautions required for seaming membrane.
- D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
- E. Manufacturer's Field Reports: Indicate procedures followed; ambient temperatures, humidity, and wind velocity during application.
- F. The EPDM sheet manufacturer shall supply the Owner with a ten (10) year labor and material warranty; which shall include coverage of materials and installation, as well as damage to building resulting from failure to resist penetration of moisture. Cost of said warranty to be included in the Contractor's bid. A sample of the warranty shall be submitted with the Bid Form for review by the County Corporation Counsel. The warranty shall be issued within 30 days of final acceptance of the completed roof project.
- G. The roofing contractor shall guarantee all materials and workmanship for a period of ten (10) years from the date of final acceptance. In the event that roof failure occurs within the guarantee period, the contractor shall repair said failure at no expense to Dane County. Contractor's acceptance of payment for work performed implies acceptance of this guarantee requirement.

1.5 QUALITY ASSURANCE

- A. The roofing system shall be installed by a roofing contractor who is authorized by the manufacturer and is experienced with the products and their application. A manufacturer's representative shall be available to inspect the project to assure the contractor's compliance with the membrane manufacturer's specifications and warranty requirements.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three years experience approved by manufacturer.

1.7 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing Work of this section.
- B. Review preparation and installation procedures and coordinating and scheduling required with related Work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

- B. Store products in weather protected environment, clear of ground and moisture. Store adhesives, primer, and sealants between 60°F and 80°F. If exposed to lower temperatures, restore to at least 60°F prior to use.
- C. Protect foam insulation from direct exposure to sunlight.
- D. Do not store materials on the roof deck in excess of live load limitations.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply roofing membrane during inclement weather or ambient temperatures which do not comply with manufacturer's recommendations without proper weather protection.
- B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.

1.10 COORDINATION

- A. Coordinate Work with contractor who may be tuckpointing or replacing brick on exterior faces of the maintenance building. Do not interfere with work of contractor who is performing other tasks. Do not install downspouts, gutters, or fascia until tuckpointing has been completed in areas adjacent to these items
- B. Coordinate Work with installation of associated roof penetrations and metal flashings, as Work of this section proceeds.

PART 2 PRODUCTS

2.1 SINGLE PLY ROOFING - FULLY ADHERED

- A. Manufacturers:
 - 1. Carlisle SynTec Systems – Adhered roofing system, design A.
 - 2. Firestone Building Products Co. – Rubbergard adhered roofing system.
 - 3. GenFlex Roofing Systems – Adhered roofing system.
 - 4. Mule-HideProducts Co. – Fully adhered EPDM system.
 - 5. Substitutions: As approved by Project Engineer.

2.2 COMPONENTS

- A. Membrane: EPDM, ASTM D4637; .060 mil gauge, black color.
- B. Furnish all splice adhesives, primer wash, splice tape, lap sealant, membrane flashing, termination bars, corrosion resistant fasteners, prefabricated accessories, and miscellaneous materials to provide a complete roofing system.

- C. Seaming Materials: As recommended by membrane manufacturer.
- D. Adhesive Materials:
1. Membrane Adhesives: As recommended by membrane manufacturer.
 2. Insulation Adhesive: As recommended by insulation manufacturer.
- E. Insulation:
1. Install fully adhered polyisocyanurate board stock roof insulation so that it is at least 3" thick in all areas, in addition to the 1" thick fiber board, and slopes down 1/4 inch per foot to the east (base bid only) on the maintenance building and 1/4 inch per foot to the south (alternate bid 1 only) on the ground level roof. Install as two layers of insulation, minimum of 1-1/2" each, with staggered joints between layers. Use Ultra-Gard SP by Manville, Barrier Board insulation by NRG or equal, as approved by Project Engineer. As long as a minimum of 3" of ISO insulation is maintained in all areas, other materials, as approved by Project Engineer, may be used to create the 1/4" per foot slope.
 2. Above insulation, install 1" thick fully adhered high-density wood fiberboard. Use GAFTEP by GAF Building materials Corporation, High Density Roof Fiberboard by Georgia-Pacific, or equal, as approved by Project Engineer.
- F. Fascia:
1. (Base bid only) Install new 2" x 10" fascia, .60 ACQ treated, kiln dried before treatment, white woods, #2 and better, on full length of East side of maintenance building where parapet wall has been removed. Anchor fascia to existing brick so that top of fascia board lies flush with top of 1" thick high density wood fiber board.
 2. (Alternate bid 1 only) Install new 2" x 10" fascia, .60 ACQ treated, kiln dried before treatment, white woods, #2 and better, on edge along the south and west sides of the ground level roof. Anchor fascia to concrete slab so that top of fascia board lies flush with top of ground level 1" thick high density fiber board.
 3. Wrap EPDM membrane around fascia and secure it to back of fascia in all locations, as shown on details.
- G. Flashings:
1. All flashing fabrication shall meet the SMACNA requirements for forming, expansion, and joining of architectural sheet metal.
 2. Install flashings as described above and to match installation of existing flashings located at joints of exterior building walls and roof edge .
 3. Replace all existing flashings at joints of roof edge and exterior building walls and parapets with 0.60 mil EPDM with terminations per detail on Drawings.
 4. Provide new EPDM boots and pipe flashings around sanitary vent cap, J-duct, and two 12" roof ventilators. Also replace J-duct and two 12" roof ventilators with new materials to match existing.
 5. Remove existing flashing from two furnace stacks and store for re-installation.
- H. Parapet Caps
1. Remove all existing parapet caps. Along north, south, and east walls, replace existing parapet caps with 14 gauge galvanized metal caps with 3/4" drip edges. In order to connect the new caps to the wall, attach a 2" x 8" treated wood board

to the top outer edge of the parapet wall. Fasten this board with 5" x 1/4" anchors 3 feet o.c.

- I. Gutters and downspouts:
 - 1. There is approximately 40' of gutter to be installed on the east side of the maintenance building, where the parapet wall is to be removed.
 - 2. There is one downspout which must drain to the south end of the maintenance building. This full-height downspout needs to be installed on the south end of the gutter and must drain approximately 10' horizontally into the swale.
 - 3. Attach .024" anodized aluminum flashing, color to be chosen by owner, so that it overlaps EPDM membrane and gutter at roof edge, as shown in gutter details.
 - 4. See Drawings for gauge and style of downspout and gutter.

2.3 ACCESSORIES

- A. Fiber Cant and Tapered Edge Strips: Asphalt impregnated wood fiberboard or equal, preformed to 45 degree angle.
- B. Insulation Joint Tape: As recommended by roofing system manufacturer.
- C. Sealants: As recommended by membrane manufacturer.
- D. Fully adhere insulation securely to concrete deck and 1" fiberboard, and fully adhere EPDM membrane to fiberboard per manufacturer's recommendations.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify surfaces and site conditions are ready to receive Work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains or eaves, and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, and wood cant strips and wood nailing strips are in place.
- F. Contact Project Engineer after existing roof is removed for concrete deck inspection to determine if preparation Work is adequate.

3.2 PREPARATION

- A. (Base bid only) Tear maintenance building roof all the way down to concrete deck. Clean the roof and ensure surface is smooth in all areas. Remove the furnace stacks and

store for re-installation. Remove the two 12" roof ventilators and the J-duct, and replace these with new materials after adhering the roofing membrane. Remove and abandon the roof drain and the oil fill pipe. Repair penetrations and poorly patched deck area with latex concrete.

- B. (Alternate bid 1 only) Clean surface of the ground level roof until smooth. Fill low, uneven areas of the roof, as specified by the Engineer, with a latex concrete approved by the engineer.

3.3 INSTALLATION – BASE BID & ALTERNATE 1

A. Insulation Application:

1. Ensure vapor retarder is clean and dry.
2. Fully adhere insulation to concrete deck and filler materials per manufacturer's recommendations.
3. Place 1" high density fiberboard over insulation with joints staggered minimum 6 inches from joints of first layer.
4. Fasten insulation board securely to insulation or filler materials per manufacturer's recommendations.
5. Minimum Total ISO Insulation Thickness: 3 inch in addition to 1" fiberboard; Two (2) layers of 1-1/2" with staggered joints between layers.
6. Taper insulation down to the east 1/4 inch per foot. As long as a minimum of 3" of ISO insulation is maintained in all areas, filler materials, as approved by Project Engineer, may be used to create the 1/4" per foot slope.
7. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
8. Apply no more insulation than can be covered with membrane in same day.

B. Membrane Application:

1. Apply primer.
2. Apply adhesive at rate of manufacturer's recommendation.
3. Roll out membrane, free from air pockets, wrinkles, or tears. Firmly press sheet into place without stretching.
4. Bond sheet to substrate.
5. Overlap edges and ends and seal by solvent welding, minimum 3 inches Seal permanently waterproof.
6. Use three or less sections of membrane that span the entire 35' width of the building and are wide enough to wrap around up and under the cap of the parapet walls and required flashing. These widths must be wide enough to prevent extra joints in the membrane running the length of the roof. Apply joint tape and seal per manufacturer's recommendations at all joints.
7. Extend membrane up cant strips minimum of 16 inches on exterior brick wall surfaces. Coordinate this with flashings at these locations.
8. Seal membrane around roof penetrations.
9. (Alternate bid 1 only) At southeast corner of ground level roof, wrap EPDM up and over top of raised slab and terminate at least 6" away from edge and seal with appropriate flat bar, concrete fasteners, and caulk joint.
10. (Alternate bid 1 only) At southwest corner of ground level roof, wrap EPDM over edge of roofing and fasten to bottom of 2" x 10" fascia board.

- C. Flashings And Accessories:
 - 1. Apply flexible flashings to seal membrane to vertical elements.
 - 2. Secure to nailing strips at 4 inches o.c.
 - 3. Seal flashings and flanges of items penetrating membrane.

3.4 FIELD QUALITY CONTROL

- A. Allow for site attendance of roofing and insulation materials' manufacturers during and after installation of the Work for warranty purposes.

3.5 CLEANING

- A. In areas where finished surfaces are soiled by Work of this section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.
- B. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protect building surfaces against damage from roofing Work.
- B. Where traffic must continue over finished roof membrane, protect surfaces.

END OF SECTION

SECTION 07591

PREPARATION FOR REROOFING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes partial removal of existing roofing system in preparation for new roof membrane system.
- B. Related Sections:
 - 1. Section 07531 - Single Ply Roofing - Fully Adhered.

1.2 SYSTEM DESCRIPTION

- A. (Base Bid and Alternate Bid 1) Entire Roof Area: Remove existing perimeter flashings, base flashings, counter flashings, vent stack flashings, roofing membrane, insulation, vapor retarder, air barrier, sheathing, and all other materials until the concrete roof slab is fully exposed.
- B. (Base Bid only) Remove all existing vents, pipes, and other roof penetrations. Replace the sanitary vent stack flashing, the two 12" roof ventilators, and the J-duct. Remove the two furnace stacks and accompanying flashings, and store safely for reinstallation. Remove and abandon the roof drain and the oil fill pipe.
- C. (Base Bid only) Remove materials and patch area of roof with existing poor patch Work. Seal this area by plugging the void and pouring a 2" minimum patch of latex concrete in the void. Pour flush with the surrounding concrete slab.
- D. (Base Bid Only) Seal the existing drain and the oil fill pipe penetrations on the maintenance building by plugging the void and pouring a 2" minimum patch of latex concrete in the void. Pour flush with the surrounding concrete slab.
- E. (Alternate 1) Properly seat all manhole covers and patch entire roof with latex concrete as needed. Fill all holes and taper all irregularities.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with State of Wisconsin standards.

1.4 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not remove existing roofing membrane when weather conditions threaten integrity of building contents or intended continued occupancy.
- B. Maintain continuous temporary protection prior to and during installation of new roofing system to keep building weather tight.

1.6 SCHEDULING

- A. Schedule Work to coincide with commencement of installation of new roofing system.

1.7 COORDINATION

- A. Remove only existing roofing materials being replaced with new materials same day.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Temporary Protection: Sheet polyethylene; furnish weights to retain sheeting in position.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing roof surface is clear and ready for work of this section.

3.2 PREPARATION

- A. Sweep roof surface clean of loose matter.
- B. Remove loose refuse and dispose off site.

3.3 EXISTING CONSTRUCTION

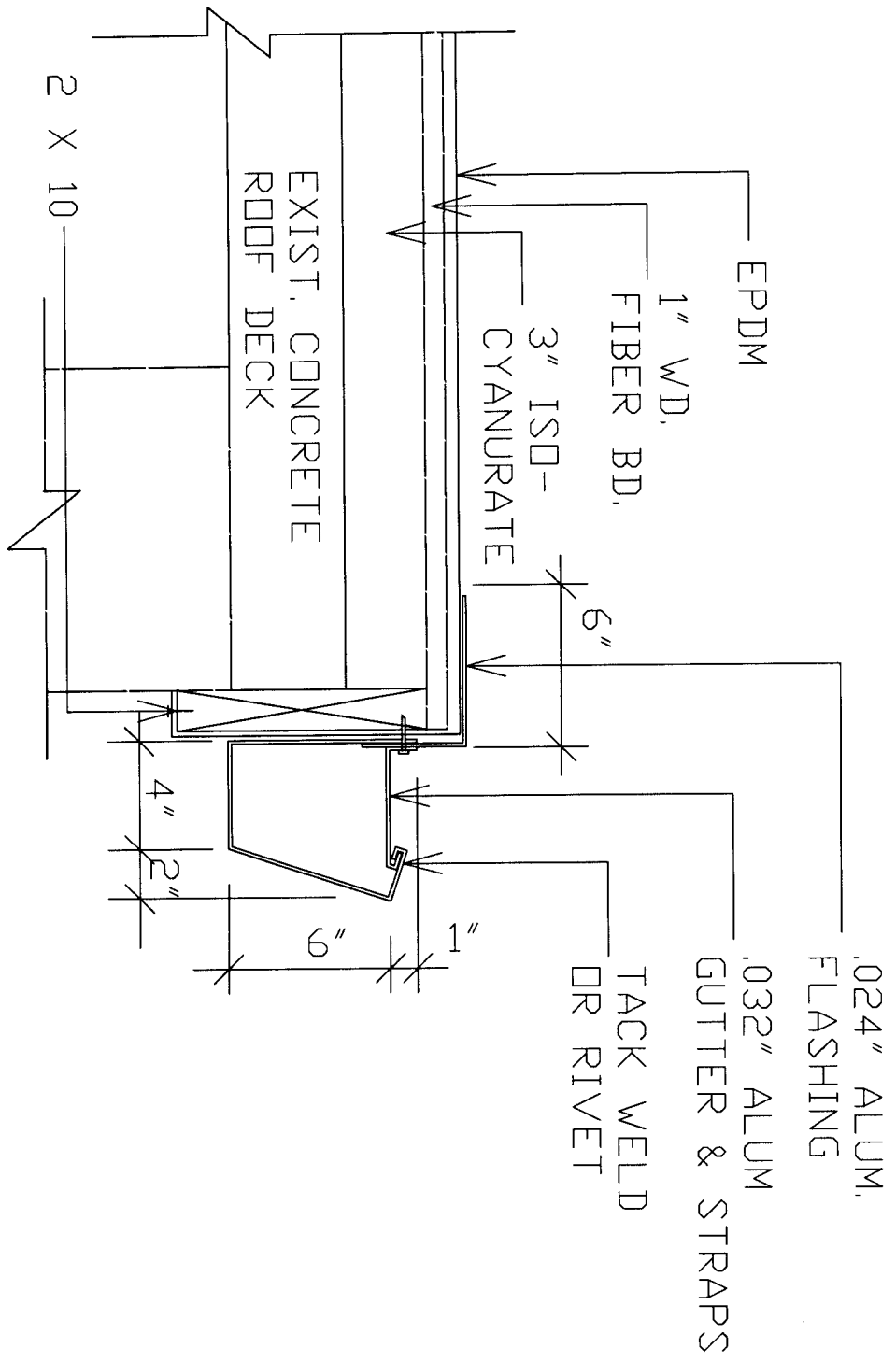
- A. Remove metal counter flashings.
- B. Remove roofing membrane, perimeter base flashings, flashings around roof protrusions, pitch pans and pockets, insulation vents, roofing membrane, and miscellaneous debris.
- C. Remove insulation and fasteners, cant strips, and blocking.
- D. Remove vapor retarder and sheathing.
- E. Remove damaged deck materials, as approved by Project Engineer.

- F. (Base bid only) Remove the east parapet wall on the maintenance building so that the brick is 4" above the concrete roof slab.
- G. (Base bid only) In order to re-secure electrical conduits, remove 5' of the south parapet wall on the maintenance building, as indicated on the Roof Plans, so that the brick is flush with the concrete roof slab. Bolt the electrical conduits to the concrete deck with a 2" x 2" x 1/4" x 3' galvanized angle iron fastened to the edge of the slab with five (5) 3/8" galvanized steel anchors embedded 4" into slab. Rebuild parapet wall in this area, as described in Specification Section 04810.
- H. Repair existing concrete deck surface to provide smooth working surface for new roof system.

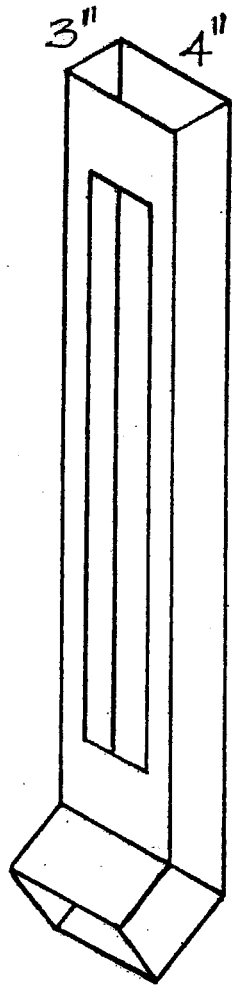
3.4 PROTECTION OF INSTALLED CONSTRUCTION

- A. Install temporary protective sheeting over uncovered deck surfaces.
- B. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights and temporary fasteners.
- C. Provide for surface drainage from sheeting to existing drainage facilities.
- D. Do not permit traffic over unprotected or repaired deck surface.

END OF SECTION



GUTTER DETAIL



TYPICAL DOWNSPOUT
NO SCALE

