

# PROJECT MANUAL

## CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS CLINTON, IOWA

Project No. 19083636  
Contract No. 329C7052

JUNE 11, 2024

**SHIVEHATTERY**  
ARCHITECTURE + ENGINEERING

SH Project No.: 2142206680



**IOWA ARMY NATIONAL GUARD**

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## CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS CLINTON, IOWA

For The  
**IOWA ARMY NATIONAL GUARD**

Project No. 19083636  
Contract No. 329C7052

**JUNE 11, 2024**

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*THE ARMORY BOARD  
DEPARTMENT OF PUBLIC DEFENSE (MILITARY DIVISION)*

*THE ADJUTANT GENERAL  
Major General STEPHEN E. OSBORN  
CHAIRMAN OF THE ARMORY BOARD*

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**ISSUED BY:**

**STATE COMPTROLLER OFFICE:**

Zach Gillen, Contracting Officer  
Camp Dodge, Building 3465 (W-41)  
7105 NW 70th Avenue  
Johnston, IA 50131-1824  
Phone: (515) 252-4522

**CONSTRUCTION & FACILITIES MANAGEMENT OFFICE:**

Michael Brothers, Design Branch Chief  
Camp Dodge, Building 3535 (B-61)  
7105 NW 70th Avenue  
Johnston, IA 50131-1824  
Phone: (515) 252-4225

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DOCUMENT 00 01 02

PROJECT DESIGN TEAM:

**CIVIL ENGINEER:**

Brent Strauch  
Shive-Hattery  
4125 Westown Parkway, Suite 100  
West Des Moines, Iowa 50266  
515-223-8104 (phone)  
bstrauch@shive-hattery.com (email)

**ELECTRICAL ENGINEER:**

Kevin Bruxvoort  
Shive-Hattery  
4125 Westown Parkway, Suite 100  
West Des Moines, Iowa 50266  
515-223-8104 (phone)  
kbruxvoort@shive-hattery.com (email)

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DOCUMENT 00 01 05  
CERTIFICATIONS

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <hr/> <p><b>Signature</b> _____ <b>Date</b> _____ Printed or typed name: Brent M. Strauch License Number: 24125 My license renewal date is: 12-31-2024 Pages, Sheets, or Divisions covered by this Seal: All specification sections.</p>
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END OF DOCUMENT 00 01 05

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**Responsible  
Party****Number Title**

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END OF DOCUMENT 00 01 10

**Legend:**

IAARNG: Iowa Army National Guard  
SH: Shive-Hattery

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ADVERTISEMENT FOR BIDS

**PROJECT TITLE:** CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS  
**PROJECT LOCATION:** CLINTON, IOWA  
**BID DATE:** SEPTEMBER 3, 2024  
**PROJECT NO.:** 19083636  
**CONTRACT NO.:** 329C7052

The Iowa Department of Public Defense, on behalf of the Iowa National Guard (IANG), will be receiving sealed bids until **12:00 P.M.** local time at the **CLINTON READINESS CENTER**, 1200 13<sup>TH</sup> AVENUE NORTH, CLINTON, IOWA 52732 for the proposed CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS, CLINTON, IOWA. The general scope of work includes, but is not limited to:

Base Bid: Site and drainage improvements including connection of existing roof drains to new underground storm system. improvements also include new storm pump, pit, and associated force main. site improvements also include removal and replacement of existing sewage pump and pit, pavement, and general site restoration.

Bids received will be opened and read aloud at the time and place stated. Late bids will not be considered. Bids must be hand-delivered (bids received via mail, delivery service, oral, telephonic, facsimile or other electronically transmitted bids will not be accepted). Interested parties are invited to attend.

Bids shall be submitted on the Bid Form and shall be accompanied by a Bid Security as set forth in the Instructions to Bidders in the amount of five percent (5%) of the total bid amount. Each bid shall be accompanied by a bid bond executed by corporations authorized to contract as surety in Iowa, cashier's check or a certified check drawn upon a solvent bank chartered under the laws of the United States of America, made payable to Iowa Department of Public Defense; as a guarantee that the accepted bidder shall enter into a contract with the State of Iowa and file an approved surety company Performance and Payment Bond for the faithful performance thereof. Upon failure to comply, said check or bid bond shall become forfeited as liquidated damages.

Any construction contractor performing work in Iowa (including out-of-state contractors) must comply with Chapter 91C of Iowa Code

Bidders must comply with all affirmative action/equal employment opportunity provisions of the State of Iowa and the Federal Government. The Iowa Department of Public Defense, Iowa Army National Guard, seeks to provide opportunities for Targeted Small Businesses in accordance with the provisions of Chapter 73 of the Code of Iowa. A listing of certified Targeted Small Businesses can be obtained by visiting the Iowa Department of Economic Development website at <https://iowaeda.microsoftportals.com/tsb-search/>

The Iowa Department of Public Defense reserves the right to reject any and all bids, and to waive irregularities and to accept a bid that is deemed in the best interest of the State of Iowa and the IANG.

This project is exempt from Iowa Sales Tax. Davis Bacon Wages **will not** apply to this project.

Bidding Documents may be obtained from Beeline and Blue (2507 Ingersoll Avenue, Des Moines, Iowa 50312, (515) 244-1611 or 1-800-347-1610) and will be loaned to qualified contract bidders upon receipt of Master Builders of Iowa non-cash deposit card or a check in the amount of fifty dollars (\$50.00) deposit per set payable to "Iowa Department of Public Defense". Deposit will be refunded to bidders upon return of

their complete set of Bidding Documents, including any addenda, properly bound and in good condition to Beeline and Blue within 14 calendar days after opening of bids. Cash deposits will not be accepted.

Bidding Documents may also be viewed online or downloaded at [www.beelineandblue.com](http://www.beelineandblue.com). Click on "EPLANROOM" and then "PUBLIC JOBS". Register and log in, then select the project name or enter the project name in the search window.

The Plan Holders List may be viewed online at [www.beelineandblue.com](http://www.beelineandblue.com). Navigate to the project as outlined above and click on the "PLAN HOLDERS" tab.

For questions regarding the website, please call (515) 244-1611 or 1-800-347-1610.

A set of the Bidding Documents is also available for review at the Construction and Facilities Management Office, Bldg 3535 (B-61), Camp Dodge.

Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations under this agreement are considered null and void.

For further information regarding this project please call Michael Brothers at (515) 252-4225.

END OF DOCUMENT 00 11 00

INSTRUCTIONS TO BIDDERS

**TABLE OF ARTICLES**

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## ARTICLE 1 - DEFINITIONS

- 1.1** The following definitions add to the list of definitions included in the General Conditions of the Contract and shall be used in conjunction with them as a part of the Bidding Documents.
- 1.2** Bidding Documents include The Bidding Requirements and the proposed Contract Documents:
- 1.3** The Bidding Requirements consists of:
- .1 Advertisement For Bids.
  - .2 Instructions to Bidders.
  - .3 Form of Bid
  - .4 Supplements to Form of Bid:
    - .(1) Supplement A: Bid Bond .....(Submit With Form of Bid)
    - .(2) Supplement D: Targeted Small Business Form .....(Submit With Form of Bid)
    - .(3) Supplement F: Substitution Request Form (Bidding Phase).
    - .(4) Supplement G: Proposed Subcontractor Form.
    - .(5) Supplement H: Wage Rate Requirements Statement
    - .(6) Supplement J: 889 Representation Form
- 1.4** The Proposed Contract Documents consists of:
- .1 Form of Agreement between the Owner and Contractor.
  - .2 Conditions of the Contract (General, Supplementary, and other Conditions).
  - .3 Drawings.
  - .4 Specifications.
  - .5 Addenda issued prior to execution of the Contract.
  - .6 Modifications issued after execution of the Contract.
  - .7 Other documents listed in the Agreement.
- 1.5** Definitions set forth in the General Conditions of the Contract for Construction or in other Contract Documents are applicable to the Bidding Documents.
- 1.6** Addenda are a written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.7** A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- 1.8** The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work as described in the Bidding Documents.
- 1.9** An Allowance is a specified monetary sum, specified quantity or time not otherwise defined by the specifications or drawings, but which the contractor is required to include in the bid price.
- 1.10** A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.
- 1.11** An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- 1.12** A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.
- 1.13** A Sub-bidder is a person or entity who submits a Bid to a Bidder for materials, equipment or labor for a portion of the Work.

## ARTICLE 2 - RECEIPT AND OPENING OF BIDS

- 2.1 The Iowa Department of Public Defense (Military Division), Iowa Army National Guard, hereinafter called the Owner, will receive Bids at the CLINTON READINESS CENTER, 1200 13<sup>TH</sup> AVENUE NIORTH, CLINTON, IOWA 52732, until the established bid date and time (see Section 00 41 00 - Form of Bid). The Owner will then publicly open and read all properly submitted Bids.
- 2.2 The Owner will secure, unopened, all Bids received prior to the established bid date and time. The Owner's representative whose duty it is to open Bids will decide when the specified time has arrived and will not consider any Bid received thereafter.
- 2.3 The Owner will reject and return unopened any Bid received after the time specified for the receipt of Bids.
- 2.4 **Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.**
- 2.5 **Mailed or Delivery Service Bids will not be considered.**
- 2.6 Each Bidder shall be solely responsible for the delivery of their Bid to the Owner at the place and before the time specified in Paragraph 2.1 above.
- 2.7 The Owner acknowledges the responsibility of the Iowa Public Bidding Requirements in advertising and receiving bids for this project.

## ARTICLE 3 - BIDDING DOCUMENTS

- 3.1 Bidders may obtain complete sets of the Bidding Documents from the issuing entity designated in the Advertisement for Bid for the deposit sums stated therein. Deposits will be refunded as designated in the Advertisement for Bid.
- 3.2 Bidders and Sub-bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 3.3 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the Purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

## ARTICLE 4 - PREPARATION OF BIDS

- 4.1 Prepare Bids on an exact copy of the "Form of Bid" included in these documents. Fill in all applicable blank spaces, typewritten or in ink. The amount must be in both words and figures. If words and figures do not agree, the amount as written in words shall govern.
- 4.2 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change".
- 4.3 The person signing the Bid must initial all erasures or corrections.
- 4.4 Bids must indicate the full name of the Bidder, must be signed in the firm or corporate name of the Bidder, and must bear the longhand signature of a principal duly authorized to execute contracts for the Bidder. Bids signed by an agent of the Bidder must be accompanied by evidence of the agent's authority to execute contracts for the Bidder. Type or print below the signature the name of each person signing the Bid.

## ARTICLE 5 - SUBMITTAL OF BIDS

- 5.1 Enclose in its own sealed envelope the “Form of Bid for Construction Contract” separate from the other required Supplements to the Form of Bid identified below and label with the name of the Bidder and the following designation:

**SEALED BID for:  
CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS  
CLINTON, IOWA  
Contract Number 329C7052  
Iowa Army National Guard**

- 5.2 Enclose in a second sealed envelope along with the separately sealed “Form of Bid for Construction Contract” the following Supplements to the Form of Bid:

1. Supplement A: The Bid Security (Contractor provided document).
2. Supplement D: Targeted Small Business Form (use provided form).

Label this second sealed envelope with the name and address of the Bidder and the following designation:

**BID DOCUMENTS for:  
CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS  
CLINTON, IOWA  
Contract Number 329C7052  
Iowa Army National Guard**

- 5.3 **HAND CARRIED BIDS:** Deliver to address indicated in Article 2.1 above.

## ARTICLE 6 - MODIFICATION OF BIDS

- 6.1 No modification of submitted Bids in any way or form will be permitted.

## ARTICLE 7 - WITHDRAWAL OF BIDS

- 7.2 Any Bid may be withdrawn and resubmitted prior to the time set for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

- 7.3 No bid may be withdrawn for a period of sixty (60) calendar days after the time set for the receipt of Bids.

## ARTICLE 8 - IOWA TARGETED SMALL BUSINESS REQUIREMENTS

- 8.1 PROGRAM DESCRIPTION AND REQUIREMENTS:

- 8.1.1 On construction contracts bid competitively for which a participation goal is indicated, each Bidder who is not a Targeted Small Business and who will be using a Certified Targeted Small Business Subcontractor or supplier must:

- .1 Submit with the Form of Bid: Supplement D: Targeted Small Business Form provided herein.
- .2 Comply with all relevant provisions of the Iowa Civil Rights Act, Chapter 601A; Executive Order #11, 1984, and #15, 1973, as appended by Executive Order #34, dated July 22, 1988; Federal Executive Order #11245, 1965, as amended by Federal Executive Order #11375, 1967; the Equal Employment Opportunity Act of 1972; and Iowa Code Section 19B.7.
- .3 Comply with all provisions of the State of Iowa relevant to fair employment practices, and furnish all information and submit all reports requested by these provisions.



- .4 Continue to use the Iowa Targeted Small Business certification guidelines as set out in 481-Chapter 25 of the Iowa Administrative Code for the purpose of identifying Targeted Small Businesses for participation in the award of general and subcontracts.
- 8.1.2** The mandatory set-aside requirements and bid preferences required by Iowa Code Sections 73.16 to 73.21 are not currently in effect. Use the following guidelines to encourage Targeted Small Business participation.
- 8.1.3** DEFINITIONS:
- .1 Actively manage means exercising the power to make policy decisions affecting the business.
- .2 Minority person means an individual who is black, Hispanic, Pacific Island native, American Indian, or Alaskan Native.
- .3 Operated means actively involved in the day-to-day management of the business.
- .4 Small Business means any enterprise which is located in this State, which is operated for profit under a single management, and which has either fewer than twenty employees or an annual gross income of less than three million dollars computed as an average of the three previous years.
- 8.2** The Department of Public Defense (Military Division), Iowa Army National Guard (IAARNG), seeks to provide opportunities for Targeted Small Businesses in the awarding of contracts. The IAARNG may award contracts to Targeted Small Businesses under the terms of the Iowa Small Business Procurement Act of 1986 and the Iowa Administrative Code. The IAARNG is also authorized to establish certified Targeted Small Business participation requirements for construction contracts.
- 8.3** When entering into this contract with the IAARNG, the General Contractor will take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting or supplying of materials. This project has a Targeted Small Business participation goal of ten percent (10%).
- 8.4** If a prime contractor fails to meet the Targeted Small Business participation goal indicated, the prime contractor shall still be required to submit with the Form of Bid (on the Targeted Small Business Form provided herein) the names of Targeted Small Businesses contacted.
- 8.5** If the Bidder intends to subcontract with a certified Targeted Small Business in the absence of a stated Targeted Small Business participation goal, the Bidder should inform the State Comptroller Office of this intent by submitting a Targeted Small Business Form so that they may receive credit for this participation.

## **ARTICLE 9 - BID SECURITY FOR TARGETED SMALL BUSINESS BIDDERS**

- 9.1** On projects where Bid amount exceeds \$25,000.00, the instructions in Article 10, Bid Security for Non-Targeted Small Business Bidders, apply.
- 9.2** On Bids of \$25,000.00 or less, Certified Targeted Small Businesses, as part of the Bid Documents, may either provide a Bid Bond or a bond waiver from the Department of Economic Development.

## **ARTICLE 10 - BID SECURITY FOR NON-TARGETED SMALL BUSINESS BIDDERS**

- 10.1** Secure Bids with a cashier's check, certified check, or a Bid Bond in an amount of at least five percent (5%) of the Bid. The Owner will automatically disqualify Bids secured by other means.
- 10.2** Make certified checks and cashier's checks payable to "IOWA DEPARTMENT OF PUBLIC DEFENSE".

- 10.3** Submit Bid Bonds in the form prescribed in these documents. Bid Bonds must be executed solely by corporations authorized to contract a surety in Iowa and, in addition to all other provisions, clearly designate an Iowa resident agent as attorney-in-fact. Attorneys-in-fact who sign surety bonds must file with each bond a certified and effectively dated copy of their power of attorney.
- 10.4** Bid security acts as the measure of liquidated damages which the Owner will sustain by failure, neglect, or refusal of Bidder to deliver a signed contract stipulating performance of the Work in unqualified compliance with Contract Documents within ten (10) days after notification of award of contract is given.
- 10.5** The Owner will return Bid security when submitted in the form of either a cashier's check or a certified check by any Bidder except the three lowest Bidders within forty-eight (48) hours after opening.
- 10.6** The Owner will all return retained Bid securities (cashier's check, or certified check) within forty-eight (48) hours of executing a contract, performance and payment bond with the successful Bidder. If the award process involves more than the bid holding time established in the Bidding Documents, those Bidders whose securities are retained shall have the right to negotiate with the Owner on the matter.

#### **ARTICLE 11 - QUALIFICATION OF BIDDERS**

- 11.1** Bidders must be registered with the Iowa Labor Commissioner. The Bidders must include an Iowa registration number as provided for on the Form of Bid.
- 11.2** Non-resident corporations submitting Bids must be in compliance with Section 490.1501 of the Code of Iowa and legally authorized thereby to carry on such business in the State of Iowa as is required by the Contract Documents.
- 11.3** Non-resident corporations certify by submittal of a Bid that the corporation shall comply with Chapter 73 of the Iowa Code.
- 11.4** The Owner may make such investigations as deemed necessary to determine the ability of the Bidder to perform the Work, and the Bidder must furnish to the Owner all such information and data for these purposes as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work described herein.
- 11.5** The Owner gives preference to Iowa domestic labor in the constructing or building of any public improvement. By virtue of statutory authority, preference is given to products and provisions produced or grown within the State of Iowa.
- 11.6** Bidders and all Subcontractors shall be prepared to represent post-bid whether they do or do not use prohibited telecommunications equipment or services in accordance with Section 889 Part B of the FY 2019 National Defense Authorization Act (NDAA). Refer to Article 22 – Post-Bid Information

#### **ARTICLE 12 - SUBCONTRACTORS**

- 12.1** In accordance with Iowa law, the successful Bidder must furnish in writing to the Owner a list of the names of subcontractors who will work on the project as described in Article 22.
- 12.2** The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must (1) be registered in the State of Iowa and have contractor's registration number, and (2) be acceptable to the Owner.

## ARTICLE 13 - BIDDERS REPRESENTATION

- 13.1** Each Bidder by submitting a Bid represents that:
- 13.1.1** The Bidder has read and completely understands the Bidding Requirements and Contract Documents.
  - 13.1.2** The Bidder has visited the site, become familiar with the local conditions under which the Work is to be performed, including availability and cost of labor and materials, and has carefully correlated personal observations with the requirements of the Contract Documents.
    - .1** Bidders shall arrange for site visits in advance by contacting **David Umland** at **(515) 313-8096**.
  - 13.1.3** The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.
  - 13.1.4** The Bidder has familiarized himself/herself with Federal, State, and Local laws, ordinances, rules, and regulations affecting performance of the Work.
  - 13.1.5** The Bidder agrees that the Contract Time will begin upon receipt of a Notice to Proceed from the Owner, and will achieve Substantial Completion of all the Work within the Contract Time stated on the Bid Form, excepting for delays covered in Article 8 of the General Conditions of the Contract.
  - 13.1.6** The Bidder has given preference to use of Iowa domestic labor and products and provisions produced or grown within the State of Iowa.
- 13.2** Failure of the selected Bidder to fulfill the provisions of this Article in no way relieve the obligation of the Bidder to furnish all materials and labor necessary to carry out the provisions of the Contract, nor shall such failure constitute grounds for extra compensation over the price stated in the accepted Bid.

## ARTICLE 14 - SUBSTITUTIONS

- 14.1** The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.
- 14.2** No substitution will be considered during the bidding period unless written request has been submitted to the Architect for approval, on the form provided herein, at least 5 days prior to the bid date. Each such request must include the name of the material, product or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, cuts, performance and test data, and any other data or information necessary for a complete evaluation. The burden of proof of the merit of the proposed substitution is upon the proposer.
- 14.3** Request for approval of a substitution will not be considered if Substitution Request Form provided herein is not completely filled out.
- 14.4** If the Architect approves any proposed substitution, such approval is not official until set forth in an addendum. Do not include any substitutions not confirmed by written addenda.
- 14.5** Substitutions after the Contract Award may be considered only as provided for in the Conditions of the Contract and Division 1 of the Project Manual.

## **ARTICLE 15 - ADDENDA AND INTERPRETATIONS**

- 15.1** Bidders must carefully examine and compare the Bidding Documents, examine the site and local conditions and at once report any ambiguity, inconsistency, or error discovered. Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make written request to the Architect for interpretation or correction. Such requests must reach the Architect at least seven (7) days prior to the bid date.
- 15.2** The Architect will issue any and all interpretations, corrections, revisions, and amendments to all holders of Bidding Documents in the form of written addenda. Addenda will be transmitted at least forty-eight (48) hours prior to the time set for the receipt of Bids to all who are known by the issuing office to have received a complete set of Bidding Documents. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose. Each Bidder is responsible to ascertain prior to submitting a Bid that the Bidder has received all Addenda issued. All addenda issued shall become part of the Contract Documents and Bidders must acknowledge them in the Form of Bid.
- 15.3** Only those interpretations, corrections, revisions, and amendments confirmed by written addenda are binding. Bidders are cautioned to refrain from including in their Bid any interpretations, corrections, revisions, or amendments which are not confirmed by written addenda.
- 15.4** Any question relating to the technical specifications may be directed to the individuals identified on Document 00 01 02 – Project Design Team.

## **ARTICLE 16 - BID PREFERENCE**

- 16.1** All Bidders must certify their state or foreign country of residence by completing the official address section of the Form of Bid.
- 16.2** Under Iowa law, as described in the Iowa Administrative Code, resident Bidders on public improvements are allowed a preference equal to the preference given or required by the state or foreign country in which the nonresident Bidder is a resident. "Resident Bidder" means a person or firm authorized to transact business in this State, and having a place of business at which it is and has conducted business for at least six months prior to the first advertisement for the public improvement and, in the case of a corporation, at least fifty percent (50%) of the common stock is owned by residents of this State.

## **ARTICLE 17 - METHOD OF AWARD**

- 17.1** It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner may reject any or all Bids, waive any irregularities, informalities, or technicalities in any Bid, and accept any Bid in whole or in part which it deems to be in the Owner's best interests.
- 17.2** All requested Alternates shall be bid. The Owner reserves the right to accept Alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternate(s) accepted.
- 17.3** Generally, all Bids received by the Owner which require allocation of appropriated Government funding are subject to the acceptance of the issuing department for the State of Iowa. Each prime Bidder, subcontractor, and material supplier on this project agrees to guarantee their Bid for a period of sixty (60) calendar days after the time set for the receipt of Bids.
- 17.4** Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day Bid guarantee after the date of receiving Bids, all rights and obligations to enter into a contract are considered null and void.

- 17.5 The Owner sending a "Notice of Award" to the selected Bidder constitutes award of the Contract.

#### **ARTICLE 18 - EXECUTION OF CONTRACT**

- 18.1 Selected Bidder must, within ten (10) calendar days after receiving Notice of Award, enter into a written contract with the Owner on the Form of Agreement prescribed in these documents.
- 18.2 The Contract, when duly executed, represents the entire agreement between parties.
- 18.3 Simultaneously with the delivery of the executed Contract, the Contractor must furnish a performance and payment surety bond in the amount of 100% of the Contract Sum as security for faithful performance of the Contract and for the payment of all persons performing labor and furnishing materials for the work, or evidence of eligibility for waiver of the bond requirements. The bond shall be on the form prescribed in these documents (Submit one copy only). The surety on such bond shall be by a corporation duly authorized to do business in the State of Iowa, and said bond shall be signed or countersigned by an Iowa Resident Agent. Attorneys-in-fact who sign surety bonds must file with each bond a certified and effectively dated copy of their power of attorney.
- 18.4 Completed Contract and Contract Performance and Payment Bond must be dated the same and executed as per State contracting instruction procedures.
- 18.5 The Owner will maintain a contract administration system ensuring that contractors perform in accordance with the terms, conditions, and specification of their Contract Document.

#### **ARTICLE 19 - IOWA STATE BUILDING CODE**

- 19.1 All construction under this Contract must conform to the requirements of the Iowa State Building Code. Adhere to the provisions of the Iowa State Building Code which takes precedence over local governmental bodies' regulations. Perform work not regulated by the Iowa State Building Code in accordance with other applicable local regulations.

#### **ARTICLE 20 - TAXES**

- 20.1 This project is TAX EXEMPT. Refer to Article 3.6 of the General Conditions (as modified by the Supplementary Conditions) and Article 21.3 of the Instructions To Bidders.

#### **ARTICLE 21 - POST-BID INFORMATION**

- 21.1 Prior to consideration for Award of Contract, the Apparent Low Bidder shall submit for the general contractor and ALL subcontractors a completed:
- 21.1.1 Supplement J: 889 Representation Form.
- .1 Failure of the bidding entity to successfully meet the requirements of Section 889 Part B of the 2019 NDAA, either through non-use of the prohibited equipment or meeting the mitigation requirements as outlined in Supplement J, will result in the bid being rejected. Failure to meet these requirements by a proposed subcontractor will result in their rejection and trigger the actions outlined in Section 22.2.1 below.
- 21.2 The Awarded Bidder shall, within forty eight (48) hours of notification of selection for the award of a Contract for the Work, submit:
- 21.2.1 Supplement G - Proposed Subcontractor Form:
- .1 Include the following:
- (1). A designation of the Work to be performed by the Bidder with his/her own forces.

- (2). A list of names of the subcontractors or other persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work including but not limited to Mechanical Work, Electrical Work, Masonry Work, and Telecommunication Work (as applicable).
  - (3). The list must include Iowa Contractor's registration numbers for all Subcontractors.
- .2 The Bidder will be required to establish to the satisfaction of the Architect and the Owner the reliability and responsibility of the proposed subcontractors or other persons or entities to furnish and perform the Work described in the Bidding Documents.
  - .3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or the Architect, after due investigation, has reasonable objection to any subcontractor, person or entity on such list. If the Owner or Architect has a reasonable objection to any subcontractor, person or entity on such list, the Bidder may, at the Bidder's option:
    - (1). Withdraw the Bid.
    - (2). Submit an acceptable substitute subcontractor, person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may, accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification under this subparagraph, bid security will not be forfeited, notwithstanding anything to the contrary in Paragraph "Bid Security" of this Section.
  - .4 Subcontractors and other persons and entities proposed by the Bidder and to whom the Owner and the Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and the Architect.
- 21.3** The Awarded Bidder shall, within one week following the Pre-Construction meeting and prior to purchasing any materials for the Work, submit a completed 'Sales Tax Exempt Application Form'. The Owner will email an electronic copy of the form to the General Contractor shortly after the Pre-Construction Meeting.

END OF DOCUMENT 00 21 00

**FORM OF BID**  
for  
**CONSTRUCTION CONTRACT**

<b>I. PROJECT TITLE:</b> CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS	<b>BID DATE:</b> SEPTEMBER 3, 2024 AT: 12:00 p.m. Local time
<b>PROJECT LOCATION:</b> CLINTON, IOWA	<b>PROJECT NO.:</b> 19083636 <b>CONTRACT NO.:</b> 329C7052

TO: Iowa Army National Guard  
State Comptroller Office  
Attn: Contracting Officer  
(Reference Section 00 21 00 for Submittal of Bids)

**II. ACKNOWLEDGEMENT**

A. The undersigned Bidder, in response to your Advertisement for Bids for construction of the above project, having examined the Drawings, Specifications, and other Bidding Documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the proposed Contract Documents within the time set forth therein and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the proposed Contract Documents of which this bid is a part.

B. Accompanying this proposal are the following required documents:

- 1) Supplement A: The Bid Security .....(Contractor provided document).
- 2) Supplement D: Targeted Small Business Form .....(use provided form).

C. Bidder acknowledges receipt of the following Addenda which are a part of the Bidding Documents:  
Numbers \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

**III. LUMP SUM PROPOSAL**

A. **BASE BID:** Bidder agrees to perform all of the work described in the proposed Contract Documents and shown on the Drawings for the Sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

B. **Amounts will be shown in both words and figures. In case of discrepancy, the amount in words will govern.**

**IV. SCHEDULE**

A. It is estimated that work can commence by..... (mm/dd/yyyy).

and be completed by..... (mm/dd/yyyy).

(Note: Not a bid award determining factor.)

**V. SUBMISSION CONDITIONS**

- A. In submitting this bid, it is understood that the Owner reserves the right to accept Alternates in any order or combination and to determine the low Bidder on the basis of the sum of the Base Bid and Alternate(s) accepted.
- B. Bidder hereby certifies: (a) that his bid is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, or corporation; (b) that Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; (c) that Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; (d) that Bidder has not sought by collusion to obtain any advantage over any other bidder or over Owner.

**VI. CONTRACTOR SIGNATURE**

A. Respectfully Submitted:

Firm Name: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Official Address: \_\_\_\_\_ FAX No.: \_\_\_\_\_

\_\_\_\_\_ EMAIL: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
(if different from above)

\_\_\_\_\_

Signed By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

\_\_\_\_\_  
(Title)

Date: \_\_\_\_\_

Federal ID No.: \_\_\_\_\_

Iowa Contractor Registration No.: \_\_\_\_\_

END OF DOCUMENT 00 41 00



DOCUMENT 00 43 13

SUPPLEMENT A:  
BID BOND

**(To be submitted with the Form of Bid if securing Bid with a Bid Bond)**

AIA Document A310 - Bid Bond, 2010 Edition, is hereby a part of the Specifications as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

END OF DOCUMENT 00 43 13

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SUPPLEMENT D: TARGETED SMALL BUSINESS FORM

(To be submitted with Form of Bid)

**I. PROJECT TITLE:**

CLINTON ARMORY SITE DRAINAGE  
IMPROVEMENTS

**PROJECT NO.:** 19083636

**CONTRACT NO.:** 329C7052

**PROJECT LOCATION:**

CLINTON, IOWA

\_\_\_\_\_  
Bidder's Company Name

\_\_\_\_\_  
Area Code/Telephone

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

Bidder is \_\_\_\_\_ is not \_\_\_\_\_ a certified Iowa Targeted Small Business.

**INSTRUCTIONS:** Bidder shall provide the information requested below showing any Targeted Small Business Enterprise contacts made prior to bid submission for the project listed. Bidder shall use the construction-related Iowa Targeted Small Business Directory as certified by the Department of Economic Development, State of Iowa. Bidders shall comply with all affirmative action/equal opportunity provisions of State and Federal laws. The Owner seeks to provide opportunities for Targeted Small Businesses in accordance with the provisions of Chapter 73 of the Code of Iowa. Information is subject to verification and confirmation.

TSB Company Name and Phone #	Date Contacted	Quote Rec'd (Y/N)	\$ Amount Proposed (if quote used in bid)

(Use second sheet if needed)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Bidder (same person signing the Form of Bid)

END OF DOCUMENT 00 43 16

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SUPPLEMENT F:  
SUBSTITUTION REQUEST FORM (BIDDING PHASE)

TO: **FORWARD ALL SUBSTITUTION REQUESTS TO:**  
Cara Lindell,  
Shive-Hattery  
4125 Westown Parkway, Suite 100 West Des Moines, Iowa 50266  
515-415-4362 (phone) clindell@shive-hattery.com (email)

PROJECT: CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS  
CAMP DODGE, JOHNSTON, IOWA

Specification: Tile, Section, Page, Paragraph / Article

Proposed Substitution: Description, Manufacturer, Model, Phone No., Trade Name

Product Data: Drawings, Specifications, Performance Data, Test Data – Attached

The Undersigned Certifies: (Check each)

- Substitution is equal or superior in all respects to specified item.
- Will provide same warranty as specified item.
- Same maintenance service and source of replacement parts, as applicable, are available.
- Substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Substitution does not affect dimensions or functional clearances.
- Will coordinate installation and adjust other work which may be required, at no additional cost to the Owner.
- Waives claims for additional costs or time extensions which may subsequently become apparent.
- Will reimburse Owner for review or design services for re-approval by authorities, for changes in building design, detailing, and construction costs caused by the substitutions.

Requested By: \_\_\_\_\_ Signature: \_\_\_\_\_  
 Company: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Address: \_\_\_\_\_ Fax: \_\_\_\_\_

END OF DOCUMENT 00 43 25

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SUPPLEMENT G:  
PROPOSED SUBCONTRACTOR FORM

**(To be submitted within 48 hours of notification of selection for the award of a contract)**

**A. Work proposed to be performed by the Bidder with his/her own forces:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

(attach additional pages as required)

**B. A list of names of the subcontractors or other persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work including but not limited to the following (as applicable):**

1. Mechanical: \_\_\_\_\_
2. Electrical: \_\_\_\_\_
3. Masonry: \_\_\_\_\_
4. Geothermal: \_\_\_\_\_
5. Telecommunication: \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_

(attach additional pages as required)

END OF DOCUMENT 00 43 36

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SUPPLEMENT H:  
WAGE RATES REQUIREMENTS STATEMENT



NGB-AEN

DEPARTMENTS OF THE ARMY AND THE AIR FORCE  
NATIONAL GUARD BUREAU  
111 SOUTH GEORGE MASON DRIVE  
ARLINGTON, VA 22204-1382




RECEIVED  
NOV 30 1993 24 NOV 1993

MEMORANDUM FOR SEE DISTRIBUTION FACILITIES & CONSTRUCTION

SUBJECT: Applicability of Davis-Bacon Act

1. The purpose of this memorandum is to clarify the relation of the Davis-Bacon Act to State contracts.
2. All State contracts are exempt from the provisions of the Davis-Bacon Act even though they are funded by 100% Federal funds contributed to the State from the National Guard Bureau. 32 CFR 33.36 (i)(5) requires the use of the Federal Davis-Bacon Act only in cases where it is required by the Federal grant program legislation. Our authorization statues do not require the use of the Davis-Bacon Act. Therefore, the States must follow the applicable State law. Questions should be referred to the State full time Judge Advocate.
3. For further information, please contact Patrick Batt at DSN 327-7911.

FOR THE CHIEF, NATIONAL GUARD BUREAU:

  
DONALD R. FRANKLAND  
LTC EN  
Director of Engineering

DISTRIBUTION

Each TAG (1)

CF:

Each FMO (1)

Each USPFO (1)

6 JAN 94

MEMORANDUM FOR CW5 JERRY KLINKEFUS

SUBJECT: APPLICABILITY OF DAVIS BACON ACT TO STATE CONTRACT ACTIVITY

1. As a result of my review of the code of IOWA, I have determined that the IOWA state contracting actions which use ARNG appropriations, do not require the Davis Bacon Act clause(s).

2. This is consistent with NGB guidance specific to National Guard appropriation and authorization language, part 31, Code of Federal Regulations.



EDWARD J STROBL, LT COL, IA ANG  
STAFF JUDGE ADVOCATE

END OF DOCUMENT 00 43 43

SUPPLEMENT J:  
889 REPRESENTATION FORM

MICRO-PURCHASE NATIONAL DEFENSE AUTHORIZATION ACT (NDAA) SECTION 889 REPRESENTATION			
<i>For additional information see: <a href="https://www.acquisition.gov/FAR-Case-2019-009/889_Part_B">https://www.acquisition.gov/FAR-Case-2019-009/889_Part_B</a></i>			
1. <input type="checkbox"/> Merchant has an active registration in SAM ( <a href="http://www.sam.gov">www.sam.gov</a> ) and FAR 52.204-26 is dated Oct 2020 (or later) <input type="checkbox"/> Merchant is not registered in SAM ( <a href="http://www.sam.gov">www.sam.gov</a> ) or is registered, but FAR 52.204-26 is dated earlier than Oct 2020			
2. Company Name / Merchant (Offeror)			3. Date
4. Company Street Address	5. City	6. State	7. Zip Code
8. Owner or Designated Representative Name	9. E-mail	10. Telephone Number	
11. DUNS Number (if applicable)	12. Cage Code Number (if applicable)	13. SAM Registration Expiration Date (if applicable)	
<p>14. Complete the following <a href="#">FAR 52.204-26</a> Representation:</p> <p style="text-align: center;"><b>COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES-REPRESENTATION (OCT 2020)</b></p> <p>(a) <i>Definitions.</i> As used in this provision, "covered telecommunications equipment or services" and "reasonable inquiry" have the meaning provided in the clause <a href="#">52.204-25</a>, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.</p> <p>(b) <i>Procedures.</i> The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<a href="https://www.sam.gov">https://www.sam.gov</a>) for entities excluded from receiving federal awards for "covered telecommunications equipment or services".</p> <p>(c)(1) <i>Representation.</i> The Offeror represents that it <input type="checkbox"/> does, <input type="checkbox"/> does not provide covered telecommunications equipment or services as a part of its offered products or to the Government in the performance of any contract, subcontract, or other contractual instrument.</p> <p>(2) After conducting a reasonable inquiry for purposes of this representation, the offeror represents that it <input type="checkbox"/> does, <input type="checkbox"/> does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services</p> <p style="text-align: center;">Signature of Owner or Designated Representative identified in Block 8 above. <span style="border: 1px solid black; display: inline-block; width: 150px; height: 30px; vertical-align: middle;"></span></p> <p style="text-align: center;"><b><i>This representation expires on the date in block 13 or one year from the date in block 3, whichever is soonest. Forward any representation modifications/changes to the sender within 30 days.</i></b></p>			
Additional Disclosure Instructions to Merchant/Offeror (if applicable)			
<p>(a) If the Offeror represents in (c)(1) above that, "it <i>does</i> provide covered telecommunications equipment [...]", then the Offeror should go to FAR 52.204-24 -- Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment, paragraph (e)(1) <i>Disclosures</i> (<a href="https://www.acquisition.gov/far/part-52#FAR_52_204_24">https://www.acquisition.gov/far/part-52#FAR_52_204_24</a>) to identify the additional documentation that should accompany this representation when sending it back to the sender.</p> <p>(b) If the Offeror represents in (c)(2) above that, "it <i>does</i> use covered telecommunications equipment [...]", then the Offeror should go to FAR 52.204-24 -- Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment, paragraph (e)(2) <i>Disclosures</i> (<a href="https://www.acquisition.gov/far/part-52#FAR_52_204_24">https://www.acquisition.gov/far/part-52#FAR_52_204_24</a>) to identify the additional documentation that should accompany this representation when sending it back to the sender.</p>			

GPC-Merchant 889 Representation v.4

END OF DOCUMENT 00 43 46

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FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

**IOWA DEPARTMENT OF PUBLIC DEFENSE  
(MILITARY DIVISION)**

**ARMORY BOARD  
IOWA ARMY NATIONAL GUARD**

**STANDARD CONTRACT FOR CONSTRUCTION**

STATE PROJECT: PROJECT NO.: 19083636  
CONTRACT NO.: 329C7052

AGREEMENT

made as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year of Two Thousand Twenty-Four (2024).

BETWEEN the Owner: Iowa Department of Public Defense (Military Division)  
Armory Board, Iowa Army National Guard, Adjutant General Chairman  
Camp Dodge, 7105 NW 70<sup>th</sup> Avenue, Johnston, Iowa 50131-1824

and the Contractor:

The Project: CLINTON ARMORY SITE DRAINAGE IMPROVEMENTS  
CLINTON, IOWA

The Engineer: Shive-Hattery  
4125 Westown Parkway, Suite 100  
West Des Moines, Iowa 50266

Amount: \$ \_\_\_\_\_

Payment to be made by: Iowa Department of Public Defense  
State Comptroller Office  
Building 3465 (W-41), Camp Dodge  
7105 NW 70<sup>th</sup> Avenue  
Johnston, Iowa 50131-1824

The Owner and the Contractor agree as follows:

## **ARTICLE 1 - THE CONTRACT DOCUMENTS**

**1.1** The Contract Documents consists of this Agreement, the Conditions of the Contract (General, Supplementary, and other Conditions), the Drawings, the Specifications, all Addenda issued prior to execution of this Agreement, all other documents listed in this Agreement, and all Modifications issued after execution of this Agreement; these form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than modifications, appears in Article 9.

## **ARTICLE 2 - THE WORK OF THIS CONTRACT**

**2.1** The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

## **ARTICLE 3 - DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

**3.1** DATE OF COMMENCEMENT: The Contractor will be required to commence Work under this Contract by \_\_\_\_\_, after receipt by the Contractor of Notice to Proceed. The Contract Time shall be measured from the date of commencement.

**3.2** SUBSTANTIAL COMPLETION: The Contractor shall achieve Substantial Completion of the entire Work not later than \_\_\_\_\_, subject to adjustments of this Contract Time as provided in the Contract Documents.

## **ARTICLE 4 - CONTRACT SUM**

**4.1** The Owner shall pay the Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract Sum of

\$ \_\_\_\_\_

**4.2** The Contract Sum is determined as follows:

BASE BID: \$ \_\_\_\_\_

## **ARTICLE 5 - PROGRESS PAYMENTS**

**5.1** Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor for the period ending on the last day of the month as provided in the Contract Documents and as follows:

**5.1.1** Not later than 30 days following the date the Application for Payment is received by the Owner's Representative, ninety-five percent (95%) of the portion of the Contract Sum properly allocable to labor, materials, and equipment incorporated in the Work and ninety-five percent (95%) of

the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the Site or at some other location agreed upon in writing, for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner, and upon Substantial Completion of the entire Work, a sum sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Architect shall determine for all incomplete Work, retainage applicable to such work and unsettled claims as provided in the Contract Documents.

**5.2** Application for Payment: One (1) copy shall be submitted to the Architect via email in pdf format on AIA Document G702 - 1992, Application and Certificate for Payment, supported by AIA Document G703 – 1992, Continuation Sheet.

**5.3** Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due in accordance with Section 573.12, Code of Iowa.

## **ARTICLE 6 - FINAL PAYMENT**

**6.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

**6.1.1** The Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Subparagraph 12.2.2 of the General Conditions and to satisfy other requirements, if any, which extend beyond final payment;

**6.1.2** all closeout documents required to be submitted with the final Application have been received by the Architect; and

**6.1.3** a final Certificate for Payment has been issued by the Architect.

**6.2** The Owner's final payment to the Contractor shall be made thirty days after the issuance of the Owner's Letter of Final Acceptance.

## **ARTICLE 7 - MISCELLANEOUS PROVISIONS**

**7.1** Terms in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

**7.2** Where reference is made in this Agreement to a provision of the General Conditions or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

## **ARTICLE 8 - FUNDING**

**8.1** Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations under this agreement are considered null and void.

## **ARTICLE 9 - ENUMERATION OF THE CONTRACT DOCUMENTS**

**9.1** The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

1. This executed Agreement
2. Any issued Addendums
3. Performance and Payment Bond
4. Application and Certificate for Payment
5. General Conditions of the Contract for Construction
6. Supplementary and other Conditions
7. Certificate(s) of Insurance
8. Certificate of Substantial Completion
9. General Requirements (Division 1)
10. Technical Specifications (All other Divisions)
11. Drawings



**STATE OF IOWA:**

Department of Public Defense (Military Division)  
Armory Board, Iowa Army National Guard

**CONTRACTOR:**

By \_\_\_\_\_

\_\_\_\_\_  
(Name Typed)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
Iowa National Guard  
(Address)

\_\_\_\_\_  
Camp Dodge, 7105 NW 70<sup>th</sup> Avenue

\_\_\_\_\_  
Johnston, Iowa 50131-1824

By \_\_\_\_\_

(Contractor)

\_\_\_\_\_  
(Name Typed)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Address)

Phone No.: \_\_\_\_\_

FAX No.: \_\_\_\_\_

Federal ID No.: \_\_\_\_\_

IA Registration No.: \_\_\_\_\_

NOTE: If the Contractor is a corporation, the following witness signatures are not required, but the annexed Certificate of Corporate Authority must be completed. Type or print names under all witness signatures.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

(Date to be completed by Owner upon receipt of all signatures.)

\_\_\_\_\_  
State of Iowa - Witness Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Contractor – Witness Signature

\_\_\_\_\_  
Printed Name

**CERTIFICATE OF CORPORATE AUTHORITY**

I, \_\_\_\_\_ certify that I am the  
(typed name of corporate officer other than person signing Contract)  
\_\_\_\_\_ of the corporation named as Contractor  
(typed corporate office of person signing above)  
herein; that \_\_\_\_\_, who signed this Contract on behalf of  
(typed name of person who signed Contract)  
the Contractor, was then \_\_\_\_\_ of said corporation;  
(typed position of person signing Contract)  
that said Contract was duly signed for and in behalf of said corporation by authority of its governing body,  
and is within the scope of its corporate powers.

**AFFIX YOUR CORPORATE SEAL TO THE BOTTOM OF THIS FORM IF ONE EXISTS**

END OF DOCUMENT 00 52 00

DOCUMENT 00 61 00

PERFORMANCE AND PAYMENT BOND

AIA Document A312 – Performance and Payment Bond, 2010 Edition shall be utilized for this project and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

END OF DOCUMENT 00 61 00

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DOCUMENT 00 62 10

APPLICATION AND CERTIFICATE FOR PAYMENT

AIA Document G702 (1992) – Application and Certificate for Payment Form, supported by AIA Document G703 (1992) Continuation Sheet shall be utilized for this project and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

Note: Electronically submit Applications for Payment to the Architect or Engineer per the Supplementary Conditions.

END OF DOCUMENT 00 62 10

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DOCUMENT 00 72 00

GENERAL CONDITIONS

AIA Document A201-2007 – General Conditions of the Contract for Construction, hereafter referred to as General Conditions, forms the General Conditions for this Construction Contract and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

Note: Any use of the term 'Architect' in the AIA Document A201-2007 – General Conditions of the Contract for Construction shall be construed to mean 'Engineer'.

END OF DOCUMENT 00 72 00

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SUPPLEMENTARY CONDITIONS

The following supplements modify the General Conditions of the Contract for Construction, AIA Document A201-2007. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

Unless noted otherwise, all references are to Articles and Sections of AIA Document A201-2007, General Conditions of the Contract for Construction.

See also related topics in Division 1 – General Requirements for additional requirements.

Note: Any use of the term ‘Architect’ in these Supplementary Conditions shall be construed to mean ‘Engineer’.

**REFERENCE ARTICLE 1 - GENERAL PROVISIONS**

1. Reference Section 1.1.1:

A written order for a minor change in the Work may also be issued by the Owner’s Construction Manager as provided in Section 2.1.1.5 of these Supplementary Conditions.

2. Reference Section 1.1.2; Add Sections:

**1.1.2.1** All contracts awarded by the State are subject to access by the State, National Guard Bureau, The Comptroller General of the United States, or any of their duly authorized representatives. This includes books, documents, papers, etc., and records of the Contractor which are directly pertinent to that specific contract for the purpose of making audits, examinations, excerpts, and transcriptions.

**1.1.2.2** Regulations for proper operation and administration of construction contracts: Code of Federal Regulations (CFR), provide solicitation provisions and contract clauses that pertain to this Project. A copy of these regulations are not bound herein, but are included by reference. Copies may be reviewed in the State Comptroller Office, Building 3465 (W-41), Camp Dodge, 7105 NW 70th Avenue, Johnston, Iowa 50131-1824.

3. Reference Section 1.2.1; Add Section:

**1.2.1.1** In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- .1 Modifications
- .2 The Agreement.
- .3 Addenda, with those of later date having precedence over those of earlier date.
- .4 The Supplementary Conditions.
- .5 The General Conditions of the Contract for Construction.
- .6 Division 1 of the Specifications.
- .7 Drawings and Divisions 2-49 of the Specifications.
- .8 Other documents specifically enumerated in the Agreement as part of the Contract Documents.

In the case of conflicts or discrepancies between Drawings and Division 2-49 of the Specifications or within or among the Contract Documents and not clarified by Addendum, the Architect will determine which takes precedence in accordance with Sections 4.2.11, 4.2.12, and 4.2.13. In instances where conflict or discrepancy involves quality or quantities, the better quality or greater quantity of work will take precedence.

4. Reference Section 1.5; Delete Section 1.5.1 and substitute the following:

**1.5.1** All Drawings, Specifications, and other Instruments of Service, and copies thereof, including those in electronic form, are and shall remain the Owner's property with the exception of one contract set for each party to the Contract.

5. Reference Section 1.5; Delete Section 1.5.2 and substitute the following:

**1.5.2** The Drawings, Specifications and other Instruments of Service prepared by the Owner or Architect and Architect's consultants, and copies thereof furnished to, or made by, the Contractor, are for use solely with respect to this Project. They are not to be reproduced or used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of Work without the specific written consent of the Owner.

## **REFERENCE ARTICLE 2 - OWNER**

6. Reference Section 2.1.1; Add Sections:

**2.1.1.1** Unless otherwise indicated, the term Owner where referred to in the Contract Documents shall mean The Armory Board for the Iowa Army National Guard – Adjutant General Chairman.

**2.1.1.2** The Owner's Representative shall be the State Contracting Officer for the Iowa Army National Guard – State Comptroller Office, executing the Contract on behalf of the State and any other officer or civilian employee properly designated Contracting Officer.

The Owner's Representative hereby authorizes the following persons to represent the Owner in the fulfillment of their respective duties as hereinafter described:

1. The Architect
2. The Owner's Construction Manager

### **2.1.1.3** Duties of the Owner's Representative

1. The Owner's Representative is authorized to act on behalf of the Owner and shall fulfill the duties, rights and obligations of the Owner under the Contract Documents.
2. The Owner's Representative will prepare and initiate Contract Change Orders in accordance with Section 7.2.
3. The Owner's Representative will have authority to reject Work that does not conform to the Contract Documents in accordance with Section 4.2.6 after review with the Architect.

### **2.1.1.4** Duties of the Architect

1. The Architect is as defined in Section 4.1.1 and shall provide administration of the Contract as described in the Contract Documents.

### **2.1.1.5** Duties of the Construction Manager

1. The Owner's Construction Manager shall act on behalf of the Owner in all daily actions and communication in accordance with Section 4.2.4.
2. The Owner's Construction Manager shall be responsible for communication and coordination of concerns of the Project to and from all persons within the Owner's organization.
3. The Owner's Construction Manager shall observe the progress of the Work and report any observed deviations from the Contract Documents to the Architect for a determination. The Owner's Construction Manager is not authorized to permit deviations from the Contract Documents.

4. The Owner's Construction Manager shall assist in coordinating the Contractor's operations with those of the Owner. The Owner's Construction Manager, however, shall not perform any duties for the Contractor.
5. The Owner's Construction Manager shall have the authority to, and may issue an order for a minor change in the Work in accordance with Section 7.4 after review with the Architect.

7. Reference Section 2.2; Delete Section 2.2.5 and substitute the following:

**2.2.5** No copies of the Contract Documents will be furnished by the Owner to the Contractor with the exception of any complete sets of Bidding Documents returned to the issuing entity designated in the Advertisement for Bids. Additional reproductions may be made by the Contractor pursuant to Section 1.5.2.

8. Reference Section 2.2; Add Section:

**2.2.6** The Owner will procure and bear costs of Special Inspections if required by applicable building codes for the project. See Section 13.5.1.1 of these Supplementary Conditions for additional requirements.

### **REFERENCE ARTICLE 3 - CONTRACTOR**

9. Reference Section 3.1.1; Add Section:

**3.1.1.1** Under Chapter 91C of the Iowa Code (1989), any construction contractor performing work in Iowa (including out-of-state contractors) is required to register with the Iowa Division of Labor. (See Article 11 of the Instructions to Bidders).

10. Reference Section 3.2.1; Add Section:

**3.2.1.1** The Contract is executed as set forth in the Instructions to Bidders.

11. Reference Section 3.2; Add Sections:

**3.2.5** Figured dimensions on the Drawings shall be used in preference to scaling the Drawings. If Contractor scales Drawings, dimensions so obtained shall be the sole responsibility of the Contractor.

**3.2.6** Where the Work of the Contractor is affected by finish dimensions of manufacturer's equipment, the finish dimension shall be determined by the Contractor, who shall assume the responsibility for proper coordination.

**3.2.7** If in the opinion of the Contractor it is not reasonably possible to provide first-class Work by following the procedures and requirements detailed or specified in the Contract Documents, the Contractor shall make a written request for interpretation to the Architect outlining the conditions and concerns. The Contractor shall not proceed with the portion of the Work in question until a response has been received from the Architect. The Architect shall respond with reasonable promptness.

12. Reference Section 3.3; Add Sections:

**3.3.4** The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties performed by the Owner or Architect in the Administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

**3.3.5** The Contractor shall perform the Work so as to cause a minimum of inconvenience to and interruption of the Owner's operations. Any and all interruptions of the operations of the Owner necessary for the performance of the Work shall be noted in the progress schedule and the Contractor shall additionally give the Owner sufficient advance notice of such interruptions as to allow the Owner time to adjust its operations accordingly. Contractor's failure to give the Owner timely notice of such intentions shall place the responsibility for any resulting delays, additional costs, or other liabilities solely with the Contractor.

**3.3.6** Prior to commencing the Work under the Contract, the Contractor shall contact all affected entities supplying utilities and arrange for the moving of such utility installations as is necessary for the performance of the Work. It shall be the responsibility of the Contractor to coordinate the Work with that of the affected entities in such a manner as to cause the least possible interference.

13. Reference Section 3.4.1; Add Section:

**3.4.1.1** By virtue of statutory authority, give preference to Iowa domestic labor and materials in the execution of the Work, in accordance with provisions of Chapter 73, Code of Iowa, 1962, and amendments including Senate File 2160, dated April 11, 1984. Machinery, equipment, materials and articles installed or used without such approval are at risk of subsequent rejection.

14. Reference Section 3.4.2; Add Section:

**3.4.2.1** After the Contract has been executed, the Owner and Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 1 of the Specifications).

15. Reference Section 3.5; Add Sections:

**3.5.1** This warranty shall be for the period specified in the Contract Performance and Payment Bond unless a longer period is required elsewhere in the Contract Documents for certain portions of Work, in which case the longer period shall govern.

**3.5.2** The general warranty provided herein is in addition to and not in limitation of the Contractor's obligations under Section 12.2 and any other warranty or remedy provided by law or by the Contract Documents.

**3.5.3** The Contractor will furnish maintenance and 24-hour call-back service for the equipment provided and/or installed by the Contractor for a period of 3 months after the date of Substantial Completion. This maintenance and service will include repair and regular examinations of the equipment and installation by competent and trained employees of the Contractor, and all necessary adjustments, greasing, oiling, cleaning, supplies and parts required to keep the equipment in proper operations, except such parts made necessary due to misuse, accidents, or negligence not caused by the Contractor, Subcontractors, or Sub-subcontractors.

16. Reference Section 3.6; Delete Section and substitute the following:

**3.6 TAXES**

**3.6.1** This project is TAX EXEMPT.

**.1** The Iowa Department of Public Defense (DPD) is a registered Designated Exempt Entity (DEE) with the Iowa Department of Revenue (IAC chapter 701 - 19.12.) As a DEE, all contractors that are awarded a contract with the Department are issued a tax-exempt certificate for each project that allows the purchase of building materials or withdraw of inventory without incurring a state sales tax. This special exemption certificate would also allow a manufacturer of building materials to consume materials in the performance of a construction contract with a designated exempt entity, without owing tax on the fabricated cost of those materials.

**.2** All Contractors responding to a DPD request for proposal should take this in to consideration when figuring out the cost of materials in the project proposal. Refunds for

state sales tax on building materials will not need to be considered in the proposal and are discouraged. For more information please refer to:

<https://tax.iowa.gov/construction-contracts-designated-exempt-entities>

.3 If the contract includes machinery or equipment, the contractor must purchase it for resale and give the supplier a regular exemption certificate (issued from DPD). The contractor should not charge sales tax on machinery and equipment sold to DPD.

17. Reference Section 3.7.2; Add Section:

**3.7.2.1** Compliance with the above shall not preclude the establishment of and compliance with non-conflicting higher standards as may be specified or indicated elsewhere in the Contract Documents.

18. Reference Section 3.7.4; Add Sections:

**3.7.4.1** The conditions described in the first sentence include any conditions which the Contractor will consider as the basis for a claim for extra compensation and include but are not limited to materials containing asbestos, polychlorinated biphenyl (PCB), or other hazardous materials.

**3.7.4.2** By failing to give notice within the time allotted above, the Contractor waives all rights for extra compensation of any kind arising out of the concealed or unknown conditions.

19. Reference Section 3.7.5; Modify Section by adding the underlined words, so that the section now reads as follows:

**3.7.5** If, in the course of the Work, the Contractor knowingly encounters and recognizes human remains, burial markers, archeological sites or previously undelineated wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence or good faith belief of such existence of such remains or features may be made as provided in Article 15.

20. Reference Section 3.7; Add Sections:

**3.7.6** See Section 10.7 of these Supplementary Conditions for Stormwater Pollution Prevention Plan and Permit requirements.

**3.7.7** The Contractor must recognize mandatory standards and policies relating to energy efficiency contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act (PL 94-163).

21. Reference Section 3.9.1; Modify the first sentence by adding the underlined words, so that the first sentence now reads as follows:

**3.9.1** The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work (including work performed by subcontractors).

22. Reference Section 3.9; Add Section:

**3.9.4** The superintendent shall organize and coordinate scheduling of the Work and shall review and coordinate Work between the trades/Subcontractors.

23. Reference Section 3.10.2; Delete the last sentence.

24. Reference Section 3.13; Add Sections:

**3.13.1** The Contractor shall provide any additional facilities or areas beyond those areas permitted at the site as required for construction operations or storage of materials at no additional cost to the Owner.

**3.13.2** The Contractor shall take all necessary precautions to prevent damage to pipes, conduits, and other underground structures. The Contractor shall protect from disturbance or damage all monuments and property marks until an authorized agent of the Owner has witnessed or otherwise referenced their location and the Contractor shall not remove such marks or monuments until directed.

25. Reference Section 3.15; Delete Sections 3.15.1 and 3.15.2 and substitute the following:

**3.15.1** The Contractor shall at all times keep the site of the Work and adjacent premises as free from materials, debris, rubbish and trash as practical and shall remove same from any portion of the site and adjacent premises if, in the opinion of the Owner, such materials, debris, rubbish or trash constitute a nuisance or are in any way objectionable to the public. The Contractor shall be responsible for the timely removal of dirt accumulations or any other debris on access roads and public streets and highways resulting from the Contractor's operations.

**3.15.2** At the completion of the Work, the Contractor shall remove all materials, implements, staging, piling falsework, debris and rubbish connected with or caused by operations for such Work immediately upon completion of that Work and shall leave the premises in perfect condition insofar as affected by the Work under the Contract. Fires for disposal of rubbish on the site are prohibited.

**3.15.3** If the Contractor should fail to clean up the premises as provided in the Contract Documents, the Owner, after giving the Contractor forty-eight hours notice, may do so and Owner shall be entitled to reimbursement from the Contractor.

26. Reference Section 3.16; Add Section:

**3.16.2** The Contractor shall furnish the Owner and Architect all necessary assistance to facilitate inspections throughout the process of manufacture or construction, or for the examination of any materials entering into the Work, or for any other purpose required in the discharge of the Owner or Architect's duties.

27. Reference Section 3.18; Add Sections:

**3.18.3** The obligations of the Contractor under Section 3.18 shall not extend to the liability of the Owner and its consultants, its agents or employees arising out of: (1) the preparation or approval of maps, Drawings, opinions, reports, surveys, Contract Change Orders, designs or specifications, or (2) the giving of or failure to give directions or instructions by the Owner, its agents or employees providing such giving or failure to give directions or instructions is the primary cause of the injury or damage.

**3.18.4** The Contract Documents define claims, damage, losses, and expenses as, but do not limit them to: (1) injury or damage consequent upon the failure of or use or misuse by the Contractor, its Subcontractors, agents, servants, or employees, of any hoist, rigging, blocking, scaffolding, or any and all other kinds of items of equipment furnished or loaned by the Owner; (2) all attorneys' fees and costs incurred in defense of the claim or in bringing an action to enforce the provision of this indemnity or any other indemnity contained in the Contract Documents; and (3) all costs, expenses, lost time, opportunity costs, etc., incurred by the party being indemnified or its employees, agents, or consultants.

**3.18.5** The indemnification obligations of the Contractor under this Contract does not extend to the liability of the Owner, any Owner's consultants, or their agents, consultants, or employees arising out of their own negligence.

**3.18.6** If trade unions perform the Work or any portion of the Work, the Contractor shall make all necessary arrangements to reconcile without delay, damage or cost to the Owner and its consultants, any conflict between the Contract Documents and any agreements or regulations of any kind at any time in force among members or councils which regulate or distinguish what activities are not included in the work of any particular trade. If this affects the progress of the Work in finishing or installing any items or materials or equipment required under the Contract Documents because of the conflict involving any such agreement or regulation, the Owner or its consultants may require that the Contractor provide other material or equipment of equal kind and quality at no additional cost to the Owner.

#### **REFERENCE ARTICLE 4 - ADMINISTRATION OF THE CONTRACT**

28. Reference Section 4.2.2; Add Section:

**4.2.2.1** The presence or absence of an Owner's Representative or the Architect on the site for the purpose of inspection shall not relieve the Contractor from any obligations to perform the Work in accordance with the requirements of the Contract Documents.

29. Reference Section 4.2.6:

The Owner will also have the authority to reject Work as provided in Section 2.1.1.3 of these Supplementary Conditions.

#### **REFERENCE ARTICLE 5 - SUBCONTRACTORS**

30. Reference Section 5.3; Add Sections:

**5.3.1** Such agreements between the Contractor and each Subcontractor (and where appropriate between Subcontractors and Sub-subcontractors) shall also contain provisions that:

.1 require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a party, in reasonable time to enable the Contractor to apply for payment in accordance with Article 9;

.2 require that all Claims for additional costs, extensions of time, damages for delays or other claims with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like Claims by the Contractor against the Owner;

.3 waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by property insurance described in Article 11, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee;

.4 inform Subcontractors of their rights under Chapter 573, Code of Iowa; and

.5 obligate each Subcontractor to consent specifically to the provisions of Section 5.2.

**5.3.2** In accordance with Section 573.12 of the Code of Iowa, the Contractor will make prompt payments to Subcontractors for satisfactory performance of the Work.

#### **REFERENCE ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

31. Reference Section 6.1.3; Add Section:

**6.1.3.1** The Contractor shall be responsible for furnishing accurate information for and participating in the development of a realistic Project schedule.

32. Reference Section 6.2.4; Add Section:

**6.2.4.1** Should the Contractor cause damage to the Work or property of any separate contractor or be the cause of delay or failure to perform, the Contractor shall upon due notice promptly attempt to settle with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues or initiates an arbitration proceeding against the Owner on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall defend such proceedings, and if any judgment or award against the Owner arises therefrom the contractor shall pay or satisfy it and shall reimburse the Owner for all attorneys' fees and court or arbitration costs which the Owner has incurred.

33. Reference Section 6.2; Add Sections:

**6.2.6** Claims and other disputes and matters in question between the Contractor and separate contractors are subject to the provisions of Section 15.3 and 15.4 provided the separate contractor has reciprocal obligations.

**6.2.7** The Contractor shall execute all Work in such manner and in such order, or procedure, as will permit the commencement and carrying on of the Work of the Owner and of separate contractors with the least interference possible using a reasonable procedure whenever it is necessary or desirable to execute such work either simultaneously with the Work under Contract, or otherwise. To this end the Contractor shall cooperate and assist the Owner and separate contractors in every reasonable way, and shall interfere as little as possible with their Work. The Contractor shall move, free of charge, the Contractor's plant equipment and materials or any part of same whenever the Owner considers it reasonable and necessary for the work of the Owner or separate contractors.

## **REFERENCE ARTICLE 7 - CHANGES IN THE WORK**

34. Reference Section 7.1.2; Add Section:

**7.1.2.1** The Owner's Construction Manager shall also have authority to act alone in issuing an order for a minor change in the Work as provided in Section 2.1.1.5 of these Supplementary Conditions.

35. Reference Section 7.1; Add Sections:

**7.1.4** The pricing of changes in the Work which result in an adjustment to the Contract Sum (excepting Alternate Bids, see Section 7.1.5) shall be limited to the Contractor's direct expenses as defined in Sections 7.3.7.1 through 7.3.7.5, plus the applicable percentage of overhead and profit subject to the following limits:

.1 Fifteen percent (15%) maximum mark-up for Work directly performed by employees of the Contractor, Subcontractor, or Sub-subcontractor.

.2 Five percent (5%) maximum Contractor's mark-up for Work performed or passed through by a Subcontractor and passed through to the Owner by the Contractor.

.3 Five percent (5%) maximum Subcontractor's mark-up for Work performed by a Sub-subcontractor and passed through to the Owner by the Subcontractor and Contractor.

.4 The maximum allowable mark-up is twenty-five percent (25%) passed through to the Owner by the Contractor under any circumstances.

**7.1.5** The pricing of changes in the Work that add work already bid as an Alternate which have expired, shall adhere to the following guidelines:

.1 Direct material and labor costs associated with the alternate shall be enumerated in the Request for Change and highlight the original cost, the current cost, the difference, and the reason for the difference.



.2 The Contractor may add up to 15% mark-up for the difference between the original direct material and labor costs and the current material and labor costs only.

.3 The contractor may add to the total a 2% mark-up for increased bonds and insurance costs.

**7.1.6** Prices shall include all subcontracts and shall be itemized as follows:

.1 Labor costs shall indicate trade, hourly rate, man hours, and total costs.

.2 Materials, supplies and equipment costs shall indicate unit cost, quantity, and total cost for each item.

.3 Machinery and equipment costs shall indicate machinery or equipment type, number of each, hourly rate, and total cost for each item.

**7.1.7** The Contractor shall be allowed no additional compensation for any costs, fees or expenses incurred in performing services already required by the Contract for Construction, and shall not be entitled to additional reimbursement for its home office, other non-job site or indirect overhead expenses, or tools necessary for construction.

**7.1.8** Any request for time extension as a result of the Change in Work must be justified and presented in adequate detail showing that the proposed change will delay the final Contract completion date.

**7.1.9** Contractor shall not apply sales, consumer, use and similar tax charges incurred for material purchases in charges toward the overhead and profit percentage.

**7.1.10** The following definitions shall be used in establishing process for Changes in Work:

.1 Direct expense is the Contractor's actual cost of any item that is easily defined as a required item for the completion of his Contract obligation.

.2 Overhead is a business expense created by the Project but not necessarily a direct part of that portion of the Work involved.

.3 Profit is the compensation accruing to the Contractor for the assumption of risk in a business enterprise.

36. Reference Section 7.2.1; Delete Section and substitute the following:

**7.2.1** A Change Order is a written instrument prepared by the Owner and signed by the Owner and Contractor stating their agreement upon all of the following:

37. Reference Section 7.4; Add Section:

**7.4.1** The Owner's Construction Manager shall also have authority to issue an order for a minor change in the Work as provided in Section 2.1.1.5 of these Supplementary Conditions.

## **REFERENCE ARTICLE 8 - TIME**

38. Reference Section 8.2; Add Section:

**8.2.4** In the event the Contractor fails to maintain the schedule, including accepted revisions, the Contractor shall promptly, at no additional cost to the Owner, increase work forces, increase hours, and/or initiate revisions to means and methods of construction as required to make up lost time and complete the Work in accordance with the construction schedule.

## REFERENCE ARTICLE 9 - PAYMENTS AND COMPLETION

39. Reference Section 9.3.1; Add the following sentence to Section 9.3.1:

The Form of Application for Payment shall be a current authorized edition of AIA Document G702 – 1992, Application and Certificate for Payment, supported by a current authorized edition of AIA Document G703 – 1992, Continuation Sheet. One copy of each Application for Payment shall be submitted electronically in .pdf format via email to the Architect or, if applicable, uploaded to the project website for each progress payment.

40. Reference Section 9.3.1; Add Sections:

**9.3.1.3** Applications for Payment shall be submitted once a month.

**9.3.1.4** The Owner will withhold until final payment, retainage in an amount consistent with the provisions of Section 573.12, 573.13, and 573.14 of the Code of Iowa.

41. Reference Section 9.5.1; Add Section:

**9.5.1.8** third party claims filed pursuant to Chapter 573 of the Iowa Code.

42. Reference Section 9.5.3; Delete section in its entirety.

43. Reference Section 9.6.4; Delete the first two sentences.

44. Reference Section 9.8.5; Delete the second sentence and substitute the following:

Upon such acceptance and consent of surety, if any, the Owner shall make payment sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work and unsettled claims.

45. Reference Section 9.10.1; Add Section:

**9.10.1.1** Issuance of a letter of Final Acceptance by the Owner shall establish the commencement of the thirty-day period during which the Owner retains final payment of the balance due under the Contract under Iowa law and per provisions of this Agreement. If at the end of such thirty-day period, claims are on file with the Owner, the Owner will withhold a sum equal to double the total amount of claims on file or five percent (5%) of the Contract price, whichever is less, until such claims are released or otherwise adjudicated. The Owner will issue a letter of Final Acceptance to the Contractor upon receipt of the Final Certificate for Payment from the Architect.

46. Reference Section 9.10.2; Add Sections:

**9.10.2.1** The Owner will not make final payment until the Contractor has performed final cleanup in accordance with Section 3.15

**9.10.2.2** See Division 1 – General Requirements for items to be submitted with the final Application for Payment. The Architect will not issue a final Certificate of Payment until all items indicated are submitted:

## REFERENCE ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

47. Reference Section 10.1; Add Sections:

**10.1.1** Accident Prevention: The safety provisions of all applicable laws, building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the latest edition of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws.

**10.1.2** The Work shall be governed by applicable provisions of the general law, including the latest amendments of the following:

1. William-Steiger Occupational Safety & Health Act of 1970, Public Law 91-596.
2. Part 1910 – Occupational Safety & Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.
3. Part 1518 –Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

**10.1.3** The Contractor is responsible for conducting a safety program and/or precautions on the project site that assures work on the site is conducted in accordance with all guidelines and requirements of OSHA and other applicable laws, building and construction codes, and sound construction practice. The Contractor shall prepare, implement and enforce a project safety plan for the purpose of maintaining a site where work is conducted in a safe manner. A copy of the safety plan shall be maintained on the site at all times.

48. Reference Section 10.2; Add Sections:

**10.2.9** The Contractor must comply with provisions of Section 88.6(1) of the Code of Iowa pertaining to Occupational Safety and Health Administration (OSHA) entrance and inspections which states that the State Labor Commissioner or State Labor Commissioner's representative upon presenting appropriate credentials to the Owner, operator, or agent in charge, is authorized:

- .1 To enter without delay and at reasonable times a factory, plant, establishment, construction site, or other area, work place, or environment where work is performed by an employee of an employer; and
- .2 To inspect and investigate during regular working hours and other reasonable times, and within reasonable limits, and within a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such owner, operator, agent, or employer.

49. Reference Section 10.3.1; Add Section:

**10.3.1.1** The Contractor is not required pursuant to Article 7 to perform without consent any work relating to asbestos or polychlorinated biphenyl (PCB).

50. Reference Section 10.3; Add Sections:

**10.3.7** Lamps, bulbs and ballasts indicated to be removed by the Contractor, and not indicated to be reused on the project, can be salvaged by the Owner or the Contractor. If not salvaged, the Contractor shall pay any required fees and ensure proper disposal as universal waste (ballasts labeled as "PCB Free" can be disposed as solid waste).

**10.3.8** All self-luminous or photo-luminescent (radioactive tritium) exit signs shown to be removed by the Contractor shall be removed without damage and turned over to the Owner for disposal.

**10.3.9** The Contractor shall not use asbestos-containing products or materials. Requests for exceptions shall be forwarded by the Contractor to the Owner for approval by the Environmental Branch of the Directorate of Installation Management.

**10.3.10** The Contractor shall not knowingly remove, damage or disturb asbestos-containing materials unless required by the project's plans and specifications. Any asbestos abatement identified in the Contract Documents as the responsibility of the Contractor must be performed by properly trained and certified personnel in accordance with all environmental and worker safety regulations.

51. Reference Section 10.3.1; Add Section:

**10.3.1.1** The Contractor is not required pursuant to Article 7 to perform without consent any work relating to asbestos or polychlorinated biphenyl (PCB).

52. Reference Article 10; Add Sections:

**10.5 IOWA HAZARDOUS CHEMICAL RISKS RIGHT TO KNOW LAW:**

**10.5.1** Owner's Responsibility. Upon request, the Owner will provide to the Contractor a list of known hazardous chemicals within the Project Site to which their employees may be exposed and suggestions for appropriate protective measures.

**10.5.2** Contractor's Responsibility. Contractor must inform his/her employees of the Iowa Hazardous Chemical Risks Right to Know Law.

**10.5.3** The Contractor must provide to the Owner a list of known hazardous chemicals that they anticipate using on site as well as other pertinent information relating to employee protection. Contractor's Material Safety Data Sheets (MSDS) must be available to the Owner upon request.

**10.7 POLLUTION PREVENTION PROCEDURES**

**10.7.1** The following pollution prevention procedures shall apply to all Contractors working on Iowa Army National Guard projects:

.1 Spill Prevention and Response: The Contractor shall take adequate precautions to prevent spills of hazardous chemicals, oils, and fuels. The Contractor shall have procedures in place to immediately clean up all spills that could occur on the job site or during transportation to and from the job site. Expenses incurred in the spill cleanup shall belong to the Contractor. Specifically:

- .a When liquid hazardous chemicals, oils, or fuels are stored on the job site, the contractor shall provide secondary containment, for containers with 55 gallon capacity or greater, equal to or greater than 110% of the volume of the single largest container.
- .b The Contractor shall notify the Iowa Army National Guard Environmental Branch in the event of a spill of chemicals, oils or fuels. The Contractor must have sufficient resources on the work site to clean up a spill. All workers at the site shall know whom the Contractor point of contact is and what they are to do in the event of a spill.
- .c The point of contact for the Environmental Branch is:

Shannan Garretson, Environmental Program Manager  
Building 3535 (B-61), Camp Dodge  
7105 NW 70th Avenue  
Johnston, Iowa 50131-1824  
Phone: (515) 252-4557  
Non-duty Hours Cell Phone (515) 249-5847

.d The Contractor must notify the Iowa Department of Natural Resources and the local sheriff's office of a hazardous substance spill that meets the definition of a "hazardous condition" as defined in the Iowa Administrative Code. Iowa law requires reporting as soon as possible but not later than six hours. Spills meeting the criteria of a "reportable spill" will also require notification of the National Response Center.

**10.7.4** Storm Water Pollution Prevention Plans and Permits:

- .1 A Storm Water Pollution Prevention Plan and a discharge permit will be required for construction activities resulting in one acre or more soil disturbance.
- .2 The Iowa Army National Guard's Director of Installation Management Environmental Branch shall obtain the permit.

.3 The General Contractor, and each subcontractor that has a responsibility described in the plan, will be a co-permittee with the Owner. The General Contractor shall be responsible for compliance with and fulfilling all requirements of the NPDES General Permit Number 2, including the Storm Water Pollution Prevention Plan.

.4 The initial Storm Water Pollution Prevention Plan and Notice of Intent will be provided by the Owner. These and the General Contractor's project inspection diary must be kept on-site and presented to federal, state and local environmental regulatory personnel, and the Owner, when requested.

.5 The General Contractor will provide an individual experienced with storm water pollution prevention plans and techniques to conduct weekly and rainfall inspections of the construction site and review the project's Storm Water Pollution Prevention Plan at the time of each inspection. The General Contractor is responsible for maintaining a copy of each inspection report. The General Contractor will review the weekly and rainfall storm water inspection reports and address any deficiencies within seven days. Deficiencies may also be identified by the Owner at any time. Corrective actions may include installation of additional erosion controls and/or maintenance of existing controls.

.6 If the Contractor should fail to conduct inspections, create reports, maintain the project inspection diary, and address deficiencies, the Owner, after giving the Contractor forty-eight hours notice, may do so and the Owner shall be entitled to reimbursement from the Contractor.

The General Contractor shall be responsible for continuing compliance with all SWPPP requirements until final stabilization is achieved regardless of whether Substantial Completion has been granted or the Owner has occupied any portion of the site or facility. Such practices shall include, but not be limited to, inspections and reports and maintenance of erosion control measures as described above.

.7 The Owner will file a Notice of Discontinuation upon final stabilization of the disturbed area. The General Contractor will provide the original project inspection diary and the marked-up copy of the Storm Water Pollution Prevention Plan to the Owner at the completion of the project.

#### **10.7.5 Removal of Regulated Wastes:**

.1 At the completion of the construction project, the Contractor will be required to remove all waste and unused hazardous chemicals including, but not limited to: solvents, adhesives, paints, and fuels. Said materials shall be properly identified, containerized and, if no longer usable, disposed at the Contractor's expense.

### **REFERENCE ARTICLE 11- INSURANCE AND BONDS**

#### **53. Reference Section 11.1; Add Sections:**

**11.1.5 Insurance:** No prime Contractor shall commence work under this contract until he/she has obtained all insurance required under this Section and until such insurance has been approved by the Owner, nor his/her sub-contractor until all similar insurance required of the subcontractor has been obtained and approved. No policy of insurance which is cancelable on less than 30 days written notice to the insured is satisfactory to the Owner's Representative.

**11.1.6 Compensation and Employer's Liability Insurance:** The Contractor shall take out and maintain during the life of this Contract the Statutory Workmen's Compensation and Employer's Liability Insurance for all of his/her employees to be engaged in work on the project under this Contract, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.

**11.1.7 Bodily Injury Liability and Property Damage Liability Insurance:** Each prime Contractor shall take out and maintain during the life of the Contract such Bodily Injury Liability and Property

Damage Liability Insurance as shall protect him/her and any subcontractor performing work covered by the Contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract, whether such operations be by him/herself or by any subcontractor or by anyone directly or indirectly employed by either of them and the amount of such insurance shall be no less than:

.1 Public Liability Insurance, in an amount no less than Five Hundred Thousand Dollars (\$500,000.00), for injuries including wrongful death to any one person, and subject to the same limit for each person in any amount not less than One Million Dollars (\$1,000,000.00) on account of one accident.

.2 Property Damage Insurance, in a minimum amount of One Million Dollars (\$1,000,000.00) for damages on account of all accidents other than automobile property damage accidents.

.3 Motor Vehicle Bodily Injury Liability in a minimum amount of Five Hundred Thousand Dollars (\$500,000.00), per occupant and One Million Dollars (\$1,000,000.00) per accident on account of any one automobile accident.”

**11.1.8 Insurance Certificates:** Each prime Contractor shall furnish certificates of insurance listed above to the Owner and they shall also be subject to the Owner’s approval for adequacy of protection.”

**11.1.9 Owner’s Protective Liability Insurance:** Each prime Contractor shall take out and furnish to the Owner and maintain during the life of this Contract, complete Owner’s Protective Liability Insurance in amounts as specified in Section 11.1.7 above, for Bodily Injury Liability Insurance and for Property Damage Liability Insurance.”

**11.1.10** All insurance coverage must be provided by insurance companies having policy holder ratings no lower than “A” and financial ratings not lower than “XII” in the Best’s Insurance Guide, latest edition in effect as of the date of the Contract.

**11.1.11** The required limits of liability may be met by using a split-limit or a combined single limit basis. However, the total limit of liability cannot be less than that stated in the requirements.

54. Reference Section 11.3; The Contractor is directed to purchase and maintain Builder’s Risk insurance. Modify Section 11.3 and subsections as follows:

a. Modify the first sentence of Section 11.3.1 as follows: Delete “Unless otherwise provided, the Owner” and substitute “The Contractor”. Add the following sentence:

If the Owner is damaged by the failure of the Contractor to purchase and maintain such insurance without so notifying the Owner in writing, then the Contractor shall bear all reasonable costs attributable thereto.

b. Delete Section 11.3.1.2.

c. Modify Section 11.3.1.3 by substituting “Contractor” for “Owner”.

d. Modify Section 11.3.2 by substituting “Contractor” for “Owner” at the first reference to “Owner”.

e. Delete Section 11.3.4.

f. Modify Section 11.3.6 by making the following substitutions: (1) in the first sentence, substitute “Contractor” for “Owner” and “Owner” for “Contractor”, and (2) substitute “Owner” for “Contractor” at the end of the last sentence.

g. Modify Section 11.3.7 by substituting “Contractor” for “Owner” at the end of the first sentence.

- h. Modify Section 11.3.8 by substituting “Contractor” for “Owner”; each time the latter word appears except that at the first reference to “Owner” in the first sentence, the word “this” should be substituted for “the Owner’s”.
- i. Modify Section 11.3.9 by substituting “Contractor” for “Owner” each time the latter word appears except at the third occurrence in the third sentence and in the last sentence.
- j. Modify Section 11.3.10 by substituting “Contractor” for “Owner” each time the latter word appears except at the third occurrence in the first sentence and in the first occurrence in the last sentence.

55. Reference Section 11.4; Delete Section 11.4.1 and substitute the following:

**11.4.1** The Contractor shall furnish bonds on the date of execution of the Contract covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in the Bidding Requirements or specifically required in the Contract Documents. The bond shall be on the form prescribed in the Bidding Requirements and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum.

.1 The Contractor shall deliver the required bonds to the Owner simultaneously with the delivery of the executed Contract.

.2 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

56. Reference Section 11.4; Add Section:

**11.4.3** If any surety upon any bond furnished in connection with this Contract becomes unacceptable to the State, or if any such surety fails to furnish reports as to their financial condition from time to time as additional security as may be required from time to time to protect the interests of the State or of persons supplying labor or materials in the prosecution of the Work contemplated by the Contract, the State may terminate the Contract.

## REFERENCE ARTICLE 12- UNCOVERING AND CORRECTION OF WORK

57. Reference Section 12.1.2; Add Section:

**12.1.2.1** If the condition noted in Section 12.1.2 above was caused by a separate contractor, the Contractor shall first attempt to reach settlement with the separate contractor as provided in Article 6.

58. Reference Section 12.2.2; Add the following sentence to Section 12.2.2.1:

The obligations of the Contractor under this Section shall survive termination of the Contract.

59. Reference Section 12.2.2; Add Sections:

**12.2.2.4** Upon request by the Owner and prior to the expiration of one year from the date of Substantial Completion, the Architect will conduct and the Contractor shall attend a meeting with the Owner to review the facility operations and performance.

**12.2.2.5** If it becomes necessary for the Contractor to replace an item after Substantial Completion under the terms of the Contract Documents, the warranty period of time for the replacement shall begin with the date of the completion of the replacement.

**12.2.2.6** If the Contractor does not proceed with correction of such nonconforming Work within a reasonable time fixed by written notice, the Owner may remove it and store the salvageable materials or equipment at the Contractor’s expense. If the Contractor does not pay costs of such removal and storage within ten (10) days after written notice, the Owner may, upon ten (10) additional days written notice, sell such materials and equipment and account for the proceeds

thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation of the Owner's services and expenses made necessary by this action. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Sum will be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor must pay the difference to the Owner.

## **REFERENCE ARTICLE 13 - MISCELLANEOUS PROVISIONS**

60. Reference Section 13.1; Delete the words following "...where the Project is located".

61. Reference Section 13.5.1; Add Section:

**13.5.1.1** Special Inspections, if required for this Project by the Contract Documents, will be procured and paid for by the Owner. The duties and responsibilities of the Contractor in regard to Special Inspections shall be as defined in the General Requirements of the Contract Documents. Special Inspections, if required, are separate and distinct from other Tests and Inspections required by the Contract Documents which shall be procured and paid for by the Contractor under the provisions of Section 13.5.

62. Reference Section 13.6; Delete Section 13.6 and substitute the following:

**13.6 INTEREST:** Payments due and unpaid under the Contract Documents shall bear interest in accordance with Section 573.12 and 573.14 of the Code of Iowa.

63. Reference Section 13.7; Delete Section in its entirety and substitute the following:

### **13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD**

**13.7.1** As between the Owner and Contractor:

.1 Before Substantial Completion. As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;

.2 Between Substantial Completion and Final Certificate for Payment. As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and

.3 After Final Certificate for Payment. As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Section 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Section 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

64. Reference Article 13; Add Sections:

### **13.8 ENERGY REBATE FORM(S)**

**13.8.1** The Contractor shall obtain Energy Rebate Forms from all applicable utility providers for the Work. The Contractor shall partially complete and sign the rebate forms; providing the information identified below. The Contractor shall submit the rebate forms with the Application for Final Payment as directed in Article 9.

Lighting:

1. List brand name & model number of fixture(s).



2. List number of fixtures installed.
3. Provide a copy of invoice(s) from supplier to Contractor.
4. Provide Contractor signature.
5. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

HVAC:

1. List manufacturer, size, efficiency, model number, serial number, and installed cost of unit(s). Include manufacturer, model, and installed cost of programmable thermostats.
2. Provide a copy of invoice(s) from the Supplier to Contractor.
3. Provide Contractor signature.
4. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

Motors:

1. List variable speed drive information including manufacturer, model number, serial number, rating, efficiency, equipment cost, and installation cost.
2. List NEMA Premium motor information including manufacturer, model number, serial number, HP rating, efficiency, motor speed, and motor and installation cost.
3. Provide a copy of invoice(s) from the Supplier to Contractor.
4. Provide Contractor signature.
5. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

**13.9 MANUFACTURER'S DIRECTIONS**

**13.9.1** Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer unless herein specified to the contrary.

**13.9.2** Any additional costs incurred as a result of this requirement shall be borne by the Contractor.

**13.10 CODE OF FAIR PRACTICES**

**13.10.1** During the performance of this Contract, the Contractor agrees as follows:

.1 The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, religion, national origin, sex, age, or physical or mental disability, or status as a Vietnam-era disabled veteran. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, religion, national origin, sex, age, physical or mental disability, or status as a Vietnam-era disabled veteran except where it relates to a bona fide occupational qualification. Such action includes but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the Owner setting forth provisions of the nondiscrimination clause.

.2 The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sex, age, physical or mental disability, or status as a Vietnam-era disabled veteran except where it relates to a bona fide occupational qualification.

.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice advising the labor union or workers' representative of the Contractor's commitments under this

nondiscrimination clause and post copies of the notice in conspicuous places available to employees and applicants for employment.

.4 The Contractor will comply with all relevant provisions of the Iowa Civil Rights Act of 1965, as amended by Iowa Executive order #15 of 1973, as amended by Iowa Executive Order #34 of 1988; Federal Executive Order 11246 of 1965, as amended by Federal Executive Order 11375 of 1967; the Equal Employment Opportunity Act of 1972; and all provisions relevant to fair application of the rules and regulations of the Owner. The Contractor will furnish all information and reports requested by the Owner or required by or pursuant to the rules and regulations thereof and will also permit access to its payroll and employment records by the Owner or representatives for purposes of investigation to ascertain compliance with such rules, regulations, or requests, or with this nondiscrimination clause.

.5 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the aforesaid rules, regulations, or requests, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the Owner. In addition, the Owner may take such further action, and such other sanctions may be imposed and remedies invoked, as provided by the Iowa Civil Rights Act of 1965 as amended, Chapter 601A, Code of Iowa, as heretofore and hereafter amended, or by the rules and regulations of the Owner or as otherwise provided by law.

.6 The Contractor will include the provisions of this section of Article 13 hereof in every subcontract and purchase order unless specifically exempt by approval of the Owner, in accordance with the rules and regulations, so that such provisions will be binding on each Subcontractor and vendor. The Contractor will take such action with respect to any Subcontractor or purchase order as the Owner or the authorized representative thereof may direct as a means of enforcing such provisions including sanctions for noncompliance; provided however, that in the event the Contractor becomes involved in, or is threatened with, litigation by a Subcontractor or vendor as a result of such direction by the Owner, the Contractor may request the State of Iowa to enter into such litigation to protect the interests of the State of Iowa.

## **REFERENCE ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT**

65. Reference Section 14.3; Add Section:

**14.3.3** Adjustments made for increases in the cost may have a mutually agreed fixed or percentage fee.

66. Reference Section 14.4; Delete Section 14.4.3 and substitute the following:

**14.4.3** In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive from the Owner, payment for Work executed and for proven loss with respect to material, equipment, tools, and construction equipment and machinery, including reasonable overhead and profit. The Contractor shall transfer title to Owner and deliver in the time, place and manner as directed by the Owner, all fabricated and unfabricated parts, Work-in-process, completed Work, supplies and other materials produced as part of, or acquired in connection with the discontinued Work, and other property which would have been required to be furnished to Owner if the Contract had been completed.

67. Reference Article 14; Add Section:

### **14.5 MISCELLANEOUS TERMINATION**

**14.5.1** Funding: If the Bidding Requirements indicate Federal funding for this project is received from the Federal Government prior to award of the Contract and such Federal funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations to enter into a Contract are considered null and void.

**14.5.2** Provisions of law as contained in Chapter 573A of the Code of Iowa, current edition (which pertains to termination of contracts for construction of public improvements when Work thereon is stopped because of a national emergency), applies to and is a part of this Contract and binding upon all parties hereto, including Subcontractors and sureties.

## **REFERENCE ARTICLE 15 – CLAIMS AND DISPUTES**

68. Reference Section 15.1.5.1; Add Section:

**15.1.5.1.a** The Contractor shall not be entitled to an increase in the Contract Sum as a result of any delays in the progress of the Work. The Contractor's sole remedy for delay is an extension of time, extended by Change Order for such reasonable time as proposed by the Contractor and approved by the Owner.

END OF DOCUMENT 00 73 00

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**DIVISION 1**

**SUDAS – GENERAL PROVISIONS AND COVENANTS**

The Statewide Urban Specifications for Public Improvements, Current Edition, referred to in the plans and specifications as SUDAS, shall apply to construction work on this project, except as modified in the plans and specifications. These specifications may be obtained by contacting:

SUDAS Program  
2711 S. Loop Drive, Suite 4700  
Ames, IA 50010-8632  
Ph: 515-294-0467

These specifications are also available on-line at: [www.iowasudas.org](http://www.iowasudas.org).

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SECTION 01 10 00

PLANS LIST

**SERVICE ROAD REPLACEMENT**

Contract # 329C7052

1. PLANS

The work shall conform with the following drawings (bound separately) and applicable figures in the Statewide Urban Standard Specifications for Public Improvements (SUDAS)

SHEET DESCRIPTION

SHEET NUMBERS

COVER SHEET	C000
GENERAL NOTES	C001
EXISTING CONDITIONS AND DEMOLITION PLAN	CD01
SITE AND UTILITY PLAN	C101
GRADING PLAN	C201
CONSTRUCTION DETAILS	C501
CONSTRUCTION DETAILS	C502

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## SECTION 01 33 05

### ELECTRONIC SUBMITTAL PROCEDURES

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Electronic Shop Drawings, Electronic Product Data, and other electronic submittals.
- B. Related Sections and Documents:
  - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
  - 2. Division 00 – Bidding and Contract Requirements issued by the Contracting Officer, apply to this Section.

##### 1.2 SUBMITTALS

- A. Website provider operation and access instructions.

#### PART 2 - PRODUCTS

##### 2.1 PROJECT WEBSITE SERVICE PROVIDER:

- A. Website Service Provider: Subject to compliance with requirements, provide products and/or service under their current licensing agreements by one of the following website service providers:
  - 1. “Submittal Exchange” ([www.submittalexchange.com](http://www.submittalexchange.com)) (800-714-0024).
  - 2. Equal website service provider pre-approved prior to Bid Date. (See Document 00 43 25 Supplement F – Substitution Request Form (Bidding Phase)).
- B. Website Service shall have the following capabilities:
  - 1. Independently hosted, web-based system designed specifically for transmitting submittals and other construction communications between all project team members. FTP site and e-mail exchanges are not acceptable.
  - 2. Utilize SSL encryption and hosted at SAS70 Type II compliant data centers.
  - 3. Minimum four years documented experience of use on comparable commercial construction projects.
  - 4. Unlimited individual user accounts and system access for all project subcontractors, general contractor, owner, design consultants, and subconsultants.
  - 5. Capability to log and organize by tab an unlimited number of electronic submittals with no file size limitations.
  - 6. Separate locations for owner, design consultant, and subconsultant review comments with contractors restricted from viewing comments until final review or release by owner or primary design consultant.

7. Automatic customized company-specific PDF review and transmittal forms setup as required for owner, design consultants, subconsultants, and general contractor.
8. Full version histories and dates of exchanges automatically tracked and available for viewing, searching, and reporting in a linear log format compatible with AIA G712.
9. Automatic, configurable email notifications for each project team member for new and reviewed submittals and other items.
10. Automatic, configurable email reminders of past due items.
11. Prior to project start, system vendor shall create submittal log with all required items from project manual. Owner or primary design consultant shall have full control over required items list and access to edit, add, or remove items during project.
12. Training shall be provided to general contractor, owner, design consultants, and subconsultants after Notice to Proceed but prior to start of construction.
13. Training sessions for subcontractors shall be provided minimum of twice weekly throughout project.
14. Allowance for scanning and printing services provided by local third-party reprographic vendor to assist with obtaining documents electronically and online print ordering.
15. At completion of project closeout, make available for download an electronic archive of all documents and tracking logs. Electronic archive shall emulate the online project website in organization and operation.

## 2.2 MINIMUM INTERNET SERVICE AND EQUIPMENT REQUIREMENTS

- A. Email address and internet service at Contractor's main office(s).
- B. Adobe Acrobat ([www.adobe.com](http://www.adobe.com)), Bluebeam PDF Revu ([www.bluebeam.com](http://www.bluebeam.com)), NitroPDF ([www.nitropdf.com](http://www.nitropdf.com)) or other similar PDF review software for applying electronic stamps, mark-ups, and comments.

## 2.3 COSTS AND DURATION

- A. General Contractor shall obtain and pay for the website service subscription. (The cost for the service shall be included in the Contractor's Base Bid. Contact the website service provider prior to submitting Bid to obtain pricing).
  1. The minimum duration of the website service subscription shall extend **6 months** beyond the Contractor's anticipated Date of Substantial Completion.

## PART 3 EXECUTION

### 3.1 PROCEDURES

- A. General Contractor's project management team and subcontractors shall attend training sessions with the Owner, Design Consultants, and website provider on the use of the project website prior to uploading any submittals.
- B. Contractor shall not alter the layout or function of the project website.

- C. Electronic Submittals shall be transmitted to the Architect in electronic (PDF) format via a website service designed specifically for transmitting electronic submittals between construction team members.
- D. The intent of electronic submittals is to:
1. Reduce paperwork and shipping costs.
  2. Improve and expedite information flow.
  3. Decrease turnaround time.
  4. Provide the Owner with an electronic archive of submittals at project completion.
- E. Contractor shall be responsible for coordinating with the website service provider for training of their employees, sub-contractors, and suppliers in the use of the website service and PDF submittals.
- F. The following items, at a minimum, shall be electronic submittals and shall be uploaded under the appropriate "tab" on the project website (where applicable, these submittals will be uploaded by the Owner or Design Consultant):
1. Project Team Directory.
  2. Shop Drawings.
  3. Product Data.
  4. Transmittals for Samples delivered.
  5. Informational Submittals.
  6. Closeout Submittals.
  7. Substantial Completion Documents
  8. Supplemental Instructions (SI's).
  9. Change Directives (CD's).
  10. Requests for Information (RFI's).
  11. Requests for Change (RFC's) and Requests for Proposal (RFP's).
  12. Meeting Minutes.
  13. Schedules.
  14. Photos.
  15. Reports.
  16. Tests and Inspections.
  17. Punchlists
- G. Submittal Preparation: Contractor may use any or all of the following options:
1. Subcontractors and Suppliers provide electronic (PDF) submittals to General Contractor via uploading to the website service.
  2. Subcontractors and Suppliers provide electronic (PDF) submittals to General Contractor via email and General Contractor uploads submittals to the website service.
  3. Subcontractors and Suppliers provide paper copy submittals to General Contractor. General Contractor scans submittals to convert to PDF format, and uploads submittals to website service.
  4. Subcontractors and Suppliers provide paper copy submittals to Scanning Service. Scanning Service scans submittals to convert to PDF format. Subcontractors and Suppliers uploads submittals to the website service or forwards to General Contractor for uploading.
- H. Submittal Format:

1. All submittals shall be uploaded in "PDF" format. Reduce pdf file size before uploading whenever feasible.
  2. For all submittals larger than 11" x 17", Contractor shall submit two (2) full-size paper copy to Architect for reference only (paper copy will not be returned) in addition to the electronic submittal.
- I. Shop Drawing and Product Data Submittal Procedures:
1. General Contractor shall review submittals, add review comments, and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.
  2. General Contractor shall create an electronic transmittal for each submittal, attach to submittal in PDF format, and upload submittal to website.
  3. Architect (and/or Sub-Consultant if applicable) shall review submittal, add review comments, apply electronic stamp indicating status of submittal, and upload reviewed submittal to website. General Contractor will receive email notice of completed review.
  4. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the General Contractor.
  5. Re-submittals, if required, shall be uploaded to the website service under the same procedures as described above.

### 3.2 NON-ELECTRONIC SUBMITTALS:

- A. The following items shall be hard-copy submittals:
1. Color Samples, Actual Color Charts, Physical Material Samples
    - a. Upload a transmittal form to the project website for review and tracking purposes.
  2. Applications for Payment.
  3. Change Orders.
    - a. Upload a pdf copy to the project website upon approval of change order.

END OF SECTION 01 33 05

## SECTION 01 74 19

### CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Salvaging nonhazardous demolition and construction waste.
  - 2. Recycling nonhazardous demolition and construction waste.
  - 3. Disposing of nonhazardous demolition and construction waste.

##### 1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Divert: Redirection of demolition or construction waste from disposal in landfills to alternate destinations for recycle, salvage, or reuse.
- E. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- F. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- G. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

##### 1.3 PERFORMANCE REQUIREMENTS

- A. General: Achieve minimum end-of-Project rate for salvage/recycling of **60 percent** by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including, but not limited to, the following:
  - 1. Demolition Waste:

- a. Asphalt paving.
- b. Concrete.
- c. Concrete reinforcing steel.
- d. Brick.
- e. Concrete masonry units.
- f. Wood studs.
- g. Wood joists.
- h. Plywood and oriented strand board.
- i. Wood paneling.
- j. Wood trim.
- k. Structural and miscellaneous steel.
- l. Rough hardware.
- m. Roofing.
- n. Insulation.
- o. Doors and frames.
- p. Door hardware.
- q. Windows.
- r. Glazing.
- s. Metal studs.
- t. Gypsum board.
- u. Acoustical tile and panels.
- v. Carpet.
- w. Carpet pad.
- x. Demountable partitions.
- y. Equipment.
- z. Cabinets.
- aa. Plumbing fixtures.
- bb. Piping.
- cc. Supports and hangers.
- dd. Valves.
- ee. Sprinklers.
- ff. Mechanical equipment.
- gg. Refrigerants.
- hh. Electrical conduit.
- ii. Copper wiring.
- jj. Lighting fixtures.
- kk. Lamps.
- ll. Ballasts.
- mm. Electrical devices.
- nn. Switchgear and panelboards.
- oo. Transformers.
- pp. Site-clearing waste.

2. Construction Waste:

- a. Concrete
- b. Masonry and CMU.
- c. Lumber.
- d. Wood sheet materials.
- e. Wood trim.
- f. Metals.
- g. Roofing.

- h. Insulation.
- i. Carpet and pad.
- j. Gypsum board.
- k. Piping.
- l. Electrical conduit.
- m. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle **100 percent** of the following uncontaminated packaging materials:
  - 1) Paper.
  - 2) Cardboard.
  - 3) Boxes.
  - 4) Plastic sheet and film.
  - 5) Polystyrene packaging.
  - 6) Wood crates.
  - 7) Plastic pails.

B. Methods of trash/waste disposal that are not acceptable are:

- 1. Burning on the project site.
- 2. Burying on the project site.
- 3. Dumping or burying on other property, public or private.
- 4. Other illegal dumping or burying.

C. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State, and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

#### 1.4 ACTION SUBMITTALS

A. Waste Management Plan: Submit plan within 10 days of date established for the Notice to Proceed or prior to commencement of any work, whichever comes first.

#### 1.5 INFORMATIONAL SUBMITTALS

A. Waste Reduction Reports: Reports shall be created using Owner's "Waste Reduction Report Template". Print reports to pdf prior to submission. **Include scans of all related invoices/weight tickets with each report.**

- 1. Progress Reports: Submit an updated report monthly. Submit concurrently with Applications for Payment. Failure to submit report may delay payment. Upload reports to the Project website. Include the following information:
  - a. Total quantity of construction waste in tons.
  - b. Total quantity of diverted waste in tons (itemized by material type).
    - 1) If containers taken to a recycling facility contain co-mingled waste to be sorted by the recycler, use the current recovery rate for their facility for each drop-off date when calculating actual diverted waste quantities for reporting. For example, if the facility's recovery rate is 75.8%, and 20 tons of

co-mingled waste is dropped off, even though it may be 100% recyclable, only 75.87% of it can be reported (15.16 tons). Verify the facility's current recovery rate for the month in which each drop-off was made.

- c. Total percentage of construction waste diverted from landfill.
  - d. Landfill Disposal:
    - 1) Identification of material.
    - 2) Amount of waste material disposed of in landfills in tons. List weights for each individual haul and calculated total weight on each updated report.
    - 3) Identity of the landfill, hauler, date of haul, and ticket number.
  - e. Recycled and Salvaged Material:
    - 1) Identification of material, including material retrieved by installer for use on other projects or for return to manufacturer for recycling.
    - 2) Amount of waste material recycled or salvaged in tons. List weights for each individual haul and calculated total weight on each updated report.
    - 3) Identity of the receiving party, hauler, date of haul, and ticket number.
    - 4) Certification by receiving party that materials will not be disposed of in landfills or by incineration.
  - f. Material Reused on Project:
    - 1) Identification of material and how it was reused on the Project.
    - 2) Amount of waste material reused in tons. List weights for each material and calculated total weight on each updated report.
    - 3) Include weight tickets or calculations as evidence of quantities.
  - g. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.
2. Final Report: At completion of Project, upload a Final Report to the Project website.

## 1.6 WASTE MANAGEMENT PLAN

- A. Develop a waste management plan to include the following information:
1. Analysis of the trash and waste projected to be generated during the entire project cycle, including types and quantities.
  2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of.
  3. Landfill Alternatives: List all waste materials that will be diverted from landfills using reuse, salvage, or recycling. Include list of local receivers and processors and type of material each will accept. Include names, addresses, and telephone numbers.
  4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
  5. Materials Handling and Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
  6. Transportation: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.



## **PART 2 - PRODUCTS (Not Used)**

## **PART 3 - EXECUTION**

### **3.1 PLAN IMPLEMENTATION**

- A. Coordinator: Designate an on-site waste management coordinator responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to the job site foreman, each subcontractor, the Owner, and the Owner's Project Architect.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures as appropriate for the work:
  - 1. Distribute and review the Waste Management Plan with each entity when they first begin work on-site. Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse and return methods to be used by all parties at the appropriate stages of the project.
  - 2. Provide follow-up training for each entity as needed to maintain compliance with the plan.
- D. Meetings:
  - 1. Review the Waste Management Plan at the Pre-Construction Meeting. Discuss responsibilities of each involved party and goals for the project. Revise and resubmit the plan as agreed to at the meeting.
  - 2. Include waste management and recycling discussion in pre-installation meetings.
  - 3. Include waste management and recycling as an agenda item in all progress meetings with the Owner and job safety meetings with the subcontractors..
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
  - 1. As a minimum, provide:
    - a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
    - b. Separate dumpsters for each category of recyclable.
    - c. Recycling bins at worker lunch areas.
  - 2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
  - 3. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes in accordance with applicable regulations.

- G. Transportation: Arrange for timely pickups from the site or deliveries to approved facilities of trash/waste material to keep construction site clear and prevent contamination of materials. Keep copies of delivery and pickup receipts for reporting.

### **3.2 SALVAGING DEMOLITION AND CONSTRUCTION WASTE**

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  - 3. Store items in a secure area until installation.
  - 4. Protect items from damage during transport and storage.
  - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for sale and donation not permitted on Project site.
- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  - 3. Store and protect items from damage in a secure area until pick-up by Owner.
  - 4. Notify Owner when items are ready for pick-up.

### **3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL**

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
  - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    - a. Inspect containers and bins for contamination and remove contaminated materials if found.
  - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
  - 4. Store components off the ground and protect from the weather.
  - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

### 3.4 RECYCLING DEMOLITION WASTE

- A. Land Clearing Debris: Collect wood debris from land clearing separate from large amounts of dirt and other non-wood materials and transport to recycling facility.
- B. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.
- C. Concrete and Masonry: Free of metals including reinforcing, wood, and other contaminants. Process by one of the following means:
  - 1. If allowed by specifications, during demolition, crush concrete and concrete masonry to aggregate size. Store crushed material on-site in a clean area to avoid contamination from other materials or building processes. Re-use on site crushed material for fill, for stabilizing soils, or as base and sub-base materials.
  - 2. If crushing on-site is impractical, store material during demolition processes on site in a clean, uncontaminated area and transport concrete and masonry materials to a certified concrete recycler.
- D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials. Reuse on-site as appropriate or transport to recycling facility.
- E. Metals: Cut as required to fit into containers.
- F. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- G. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- H. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- I. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- J. Carpet (and pad): Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
  - 1. Store clean, dry carpet (and pad) in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- K. Carpet Tile: Remove debris, trash, and adhesive.
  - 1. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- L. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- M. Conduit: Reduce conduit to straight lengths and store by type and size.

N. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

**3.5 DISPOSAL OF WASTE**

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill acceptable to authorities having jurisdiction.
1. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

**END OF SECTION 01 74 19**

**DIVISION 2-11**

**SUDAS – STANDARD SPECIFICATIONS**

The Statewide Urban Specifications for Public Improvements, Current Edition, referred to in the plans and specifications as SUDAS, shall apply to construction work on this project, except as modified in the plans and specifications. These specifications may be obtained by contacting:

SUDAS Program  
2711 S. Loop Drive, Suite 4700  
Ames, IA 50010-8632  
Ph: 515-294-0467

These specifications are also available on-line at: [www.iowasudas.org](http://www.iowasudas.org)

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SECTION 33 4413

PACKAGE STATION – SUBMERSIBLE PUMP

**PART 1 GENERAL**

1.1 SCOPE OF WORK

- A. The work in this section shall include furnishing and placing into operation Flygt submersible pump(s) complete with submersible motor, carriage, rails and cable, as specified herein and as

1.2 REFERENCES

- A. American Society for testing and material (ASTM) International
  - 1. A 48: Standard Specification for Gray Iron Castings.
  - 2. A743: Standard Specification Iron-Chromium Nickel, Corrosion Resistant.
- B. American National Standards Institute (ANSI):
  - 1. B16.1: Standard for Cast Iron Pipe Flanges and Flanged Fittings, 125 lb.
- C. Hydraulic Institute: Current Standards.
  - 1. 1. HI 14.6: Hydrodynamic Pumps for Hydraulic Performance Acceptance Tests.
  - 2. HI 11.6: Submersible Pump Tests.

1.3 SUBMITTALS

- A. Submittal data shall be provided to show compliance with these specifications, plans or other specifications that will influence the proper operation of the pump(s).

1.4 STANDARD SUBMITTAL DATA FOR APPROVAL MUST CONSIST OF:

- 1. Pump Performance Curves.
  - 2. Pump Outline Drawing.
  - 3. Station Drawing for Accessories.
  - 4. Electrical Motor Data.
  - 5. Typical Installation Guides.
  - 6. Technical Manuals and Parts List.
  - 7. Printed Warranty.
  - 8. Management system certificate ISO 9001.
  - 9. Manufacturer's Equipment Storage Recommendations.
  - 10. Manufacturer's Standard Recommended Start-Up Report Form.
- B. Lack of the above requested submittal data is cause for rejection.

1.5 QUALIFICATION REQUIREMENTS

- A. The manufacturer shall provide data on equipment manufacturer's experience. Only Manufacturers with 20 or more years of experience who have furnished at least 5 similar lift stations shall be considered.

- B. After installation, a pump station start-up shall be performed by the installing contractor under the supervision of the manufacturer's authorized representative. 4 hours of field service shall be provided by an authorized, factory trained representative of the pump manufacturer. Services shall include, but not be limited to, inspection of the completed pump station installation to ensure that it has been performed in accordance with the manufacturer's instructions and recommendations, supervision of all field-testing and activation of the Pump Manufacturer's Warranty. The test shall demonstrate to the satisfaction of the Owner that the equipment meets all specified performance criteria, is properly installed and anchored, and operates smoothly without exceeding the full load amperage rating of the motor. The Contractor shall be responsible for coordinating the required field services with the Pump Manufacturer.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle products to site according to manufacturer's instructions and in accordance with SUDAS Standard Specifications – Division 1.

#### 1.7 OPERATIONAL REQUIREMENTS AND WARRANTY

- A. The pumps shall be provided with prorated 60 months (5 years) warranty against defects in materials and or workmanship. The warranty shall be in printed form and previously published as the manufacturer's standard warranty for all similar units manufactured, latest revision. Upon warranty occurrence, the manufacturer's authorized service center shall remove the pump, repair, reinstall and provide start up on the repaired pump. A detailed failure analysis shall be submitted to the Owner for their records summarizing corrective action taken.
- B. The pump shall be capable to operate without any limitation between 50% and 125% of the Best efficiency point (B.E.P) of the performance curve.

### **PART 2 PRODUCTS**

#### 2.1 SUBMERSIBLE PUMPS

##### A. Pump Design Configuration

- 1. Wet Pit Installation - The pump(s) shall automatically and firmly connect to the discharge connection, guided by no less than two 2 inch stainless steel guide bars extending from the top of the station to the discharge connection. There shall be no need for personnel to enter the wet-well. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor.

##### B. Pump Construction

- 1. Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. The lifting handle shall be of stainless steel. All exposed nuts or bolts shall be of stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.
- 2. Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.
- 3. Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.



C. Cooling System

1. Motors shall be sufficiently cooled by the surrounding environment or pumped media. Water jackets or oil-filled motors are not permitted.

D. Cable Entry Seal

1. The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of dual cylindrical elastomer grommets, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter. The grommets shall be compressed by the cable entry unit, thus providing a strain relief function. The assembly shall provide ease of changing the cable when necessary using the same entry seal. The cable entry junction chamber and motor shall be sealed from each other, which shall isolate the stator housing from foreign material gaining access through the pump top. Epoxies, silicones, or other secondary sealing systems shall not be considered equal.

E. Power Cable

1. The motor shall be equipped with cable suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet.

F. Motor

1. Each pump shall be equipped with a 10 HP, submersible electric motor according IP 68 connected for operation on 208 volts, three-phase, 60 hertz, and with 50 feet of submersible cable suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards.
2. The junction chamber shall be sealed off from the stator housing and shall contain a terminal board for connection of power and pilot sensor cables using threaded compression type terminals. The use of wire nuts or crimp-type connectors is not acceptable. The motor and the pump shall be produced by the same manufacturer.
3. Motor horsepower shall be sufficient so that the pump is non-overloading throughout its entire performance curve, from shut-off to run-out. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.
4. The pump motor shall be submersible according IP 68. It shall be an induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated according class F. The motor shall be explosion approved according FM Class 1, Division 1 Groups C and D T4.
5. The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 104 F and capable of no less than 20 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 257 F shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection as optional and shall be connected to the PSS control panel.
6. The motor shall have a voltage tolerance of 10%. The motor shall be designed for operation in a liquid with a temperature up to 104 F. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.

7. The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater. The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.
- G. Bearings
1. The integral pump/motor shaft shall rotate on two bearings. The motor bearings shall be sealed and permanently grease lubricated with high temperature grease. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Sleeve or single row lower bearings are not acceptable.
- H. Mechanical Seals
1. Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit. Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall jeopardize the integrity of the system and shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.
  2. Seal lubricant shall be non-hazardous.
- I. Pump Shaft
1. The pump and motor shaft shall be a single piece unit. The pump shaft is an extension of the motor shaft. Shafts using mechanical couplings shall not be acceptable. The shaft shall be stainless steel – ASTM A479 S43100-T or AISI 431. Shaft sleeves will not be acceptable.
- J. Impeller
1. The impeller shall be of Hard-Iron (ASTM A-532 (Alloy III A) 25% chrome cast iron), dynamically balanced, semi-open, multi-vane, back swept, screw-shaped, non-clog design. The impeller leading edges shall be mechanically self-cleaned automatically upon each rotation as they pass across a spiral groove located on the volute suction. The leading edges of the impeller shall be hardened to Rc 60 and shall be capable of handling solids, fibrous materials, heavy sludge and other matter normally found in wastewater. The screw shape of the impeller inlet shall provide an inducing effect for the handling of up to 5% sludge and rag-laden wastewater. The impeller to volute clearance shall be readily adjustable by the means of a single trim screw. The impeller shall be locked to the shaft, held by an impeller bolt and shall be coated with alkyd resin primer.
- K. Volute / Suction Cover
1. The pump volute shall be a single piece grey cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller.
- L. Coatings
1. All castings must be blasted before coating. All wet surfaces are to be coated with two-pack oxyrane ester Duasolid 50. The total layer thickness should be at least 120 microns. Zink dust primer shall not be used.

M. Protection

1. Each pump motor stator shall incorporate thermal switches, one per stator phase winding and be connected in series, to monitor the temperature of the motor. Should the thermal switches open, the motor shall stop and activate an alarm. A float switch shall be installed in the seal leakage chamber and will activate if leakage into the chamber reaches 50% chamber capacity, signaling the need to schedule an inspection.
2. The thermal switches and float switch shall be connected to a Mini-CAS control and status monitoring unit. The Mini-CAS unit shall be designed to be mounted in the pump control panel.
3. The hydraulic of the pump shall be ideal for handling stormwater conditions, with impeller composed of hardened iron for abrasives typically present in stormwater.

N. Testing

1. Each completed and assembled pump/motor unit shall undergo the following factory tests at the manufacturer's plant prior to shipment. The Manufacturer shall provide on demand a copy of his quality control plan for these tests and an ISO 9001 factory certificate.
  - a. Minimum 5-point hydraulic performance test according HI 11.6:2012 Grade 2B
  - b. No-Leak seal integrity test
  - c. Electrical integrity test

O. Design Criteria

1. Pump(s) shall be model NP3127-425LT as manufactured by Flygt, or approved equivalent.

<b>DESIGN CRITERIA</b>	
<b>Location:</b>	STMH 1.2
<b>Quantity:</b>	Two (2)
<b>Pumped Fluid:</b>	Stormwater
<b>Primary Condition:</b>	1200 GPM 20-FT TDH
<b>Secondary Condition:</b>	N/A
<b>Maximum Condition:</b>	1200 GPM 20-FT TDH
<b>HP (Max):</b>	10 HP
<b>Speed (RPM):</b>	1800 RPM
<b>Voltage:</b>	208 volt
<b>Phase:</b>	Three-Phase
<b>Hz:</b>	60
<b>Pump Model:</b>	FLYGT NP 3127-425 LT
<b>Explosion-Proof:</b>	FM Explosionproof
<b>Installation:</b>	Submersible

2.2 PREFABRICATED SEWAGE LIFT STATION

- A. Contractor shall furnish all labor, materials, equipment and performance of all work necessary or incidental to furnish and install a duplex prefabricated fiberglass reinforced polyester (FRP) Lift station. Dimensions shall be as listed herein or as demonstrated on the plansheets. The lift station shall be completely factory-assembled unit, requiring minor adjustments and reassembly on site.

- B. The Manufacturer shall demonstrate the ability to fabricate the various lift station components, as shown in the plans and as specified herein. The complete Lift Station shall be supplied by the pump vendor as a packaged unit including pumps & controls.
- C. Wet well FRP Wall Laminate must be designed to withstand wall collapse or buckling based on these assumptions and third party specifications.
  - 1. Hydrostatic Pressure: 62.4 lbs. Per SQ Ft.
  - 2. Saturated soil weight: 120 lbs. Per Cubic Ft.
  - 3. Soil Modulus: 700 lbs. Per SQ Ft.
- D. Pipe Stiffness as specified in ASTM D 3753.
- E. The wet well FRP laminate must be constructed to withstand or exceed two times the assumed loading on any depth of the wet well.
- F. The exterior layer of body of laminate shall be of construction suitable for the service intended and contain sufficient glass by weight (50 TO 80 %) to provide the aggregate strength necessary to meet the tensile and flexural requirements. The exterior surface shall be relatively smooth with no exposed fibers or sharp projections. Hand work is acceptable, but enough resin shall be present to prevent fiber show.
- G. The resin rich inner surface shall be free of cracks and crazing with smooth finish with an average of not more than (2) two pits per square foot, providing the pits are less than 0.125 in diameter and 0.3125 inches in depth and are covered with sufficient resin to avoid exposure of any fiberglass reinforcement materials. Some waviness shall be permissible as long as the surface is smooth. A minimum of 0.100 inch of the laminate next to the inner surface shall be reinforced with not less than 20 percent nor more than 30 percent by weight of non-continuous glass strands having fiber lengths from 0.5 to 2.0 inches. Both exterior and interior laminates shall have a Barcol Hardness of at least 90 percent of resin manufacture specified hardness for fully cured resin.
- H. Must be constructed suitable for the service designated by the project engineer. Under total water submerged conditions. The center deflections of any basin bottom must be less than 3/8" in as not to interfere with the pump mounting requirements and Rail system. No bottom shall have a form of glue adhesive as attachment of the basin bottom and or anti floatation collar.
- I. The wet well top flange shall have an outside diameter at least 4 inches greater than the inside diameter of the basin. A (6) six hole pattern shall accommodate the mounting of a cover with at least 3/8 inches in diameter 300 series stainless steel fasteners. Non –corroding stainless steel threaded inserts shall be fully encapsulated with non-continuous mat or chop strand glass fiber reinforcement, the inserts shall have an offset tab to prevent stripping or spinning out when removing and reinserting cover fasteners.
- J. The anti-float shall be manufacture by way of (RTM) resin transferred molded Continuous Mat and or chop spray, with an outside diameter no less than (4) inches larger than the ID of any basin. The anti-float shall have no glue adhesive in form of attachment to any basin. No more than 3/8 inch deflection in center of basin bottom.
- K. The steel anti-floatation shall be constructed from 0.187 inches this (ASTM A 36) structural steel plate, encapsulated in at least 0.125 inches of chopped-strand glass fiber reinforcement on all sides, the steel anti-floatation may be square and or round, with no less than 4 inches greater than the inside diameter of any basin. The steel anti-floatation collar shall be attached to the basin bottom with chopped-strand glass fiber reinforcement. AK recommends basins over 10 feet in length to install steel anti-floatation.
- L. The cover shall be constructed of 1/4 inch thick material finish aluminum diamond plate pattern with 300 series stainless steel hardware. The hatch shall have a positive means of holding door open in the vertical position (Locking hold open arm) made of non-corrosive material. The cover shall be mounted with minimum of six 300 series stainless steel fasteners. The access hatch cover shall have a lift handle and a means of locking.

- M. Designated size NPT, 300 series stainless coupling, full welded in the center of a 300 series stainless steel plate. Mounted with 300 series stainless steel hardware. 1 1/4 inch thru 4 inch. Wet well penetrations to be sealed prior to mounting of coupling.
- N. The Cast Iron Caulking Hubs are made of cast iron conforming to radius of fiberglass basin. All fasteners to be 300 series stainless steel. Use local plumbing codes for approved sealing methods and materials.
- O. Float bracket shall be fabricated from 300 series stainless steel with compression style cord grips to maintain float level position. Install with 300 series stainless steel hardware.
- P. Wet well ventilation shall comply with all applicable codes.
- Q. Purchaser of prefabricated FRP lift station shall coordinate with contractor so that the lift station is delivered to project site for installation. Handling instructions shall be provided by lift station manufacture with lift station to insure proper handling of the lift station. After inspection up on delivery by receiver, the contractor shall store any loose items and account for them in a clean and dry environment. All equipment needed to off load and install lift station shall be determined and be provided by contractor on the project.
- R. The prefabricated FRP lift station manufacture shall guarantee the prefabricated lift station as approved drawings for a period of One year from the date of delivery.

## 2.3 CONTROL PANEL

### A. General

1. The System Supplier shall furnish a NEMA Painted Steel control panel enclosure rated for the environment it will be located in. The panel will house the equipment furnished as specified herein to provide integral liquid level control, moisture and thermal protection modules with a PLC. The Pump Control Panel is to be supplied by the pump & basin supplier as an equipment package.
2. Main Lugs for Incoming Power. The Control Panel shall incorporate Feeder Breakers of the appropriate size. The breakers shall be Heavy Duty NEMA rated and suitable for use with aluminum or copper conductors. Utility Meter and Fused Disconnect shall be located outside of the panel and be provided by an Electrical Contractor or shall be existing where applicable.
3. Each pump motor circuit shall be protected by a properly sized H frame molded case circuit breaker. Each pole of these breakers shall provide inverse time delay overload protection and instantaneous short circuit protection by means of a thermal magnetic element. The breaker shall be operated by a toggle type handle and shall have a Quick-make, Quick-break over center switching mechanism that is mechanically trip free from the handle so that the contacts cannot be held closed against short circuits and abnormal currents. Tripping due to overload or short circuit shall be clearly indicated by the handle automatically assuming a position midway between the manual "ON" and "OFF" position. The minimum interrupting rating of the breaker shall be 22,000 amps at 208 VAC. Pump motor circuit breaker toggle shall be operable through a cutout in the inner door.
4. Hand-Off-Automatic switches to select the operating mode for each pump. Switches shall be installed on the control panel inner dead front door.
5. Elapsed time meters and Run, Fail and Alarm Lights shall be provided for each pump motor with appropriate relays as required.
6. Pump sequencing shall be controlled by an alternating relay which is able to be bypassed to single pump operation.

7. The hinged inner door shall contain cutouts for all circuit breaker toggles & Indicator Lights. Control switches and indicators shall be labeled and mounted to the hinged inner door to keep operators from entering the live electrical compartment. A warning sign stating "DANGER -- Disconnect All Sources Of Power Before Opening Door" shall be installed on the inner door. The inner door shall be completely removable for ease of service and shall be held closed by at least (2) hand operated 1/4 turn fasteners.
8. Back-panel - The control system enclosure shall include a removable back-panel. The back-panel shall be fabricated from cold roll steel.
9. Components shall be fastened to the back-panel using stainless steel pinhead machine screws. All devices shall be clearly labeled in accordance with the schematic ladder diagram.
10. Control Panel components shall be as listed herein at a minimum:
  - a. Type 4 / 12, Painted Steel, Wall / Rack Mounted, w/ 3 Point Latch
  - b. Drip Shield
11. Door Stop
  - a. Panel Insulation
  - b. Circuit Breakers For Each Pump
  - c. NEMA Contactor w / Electronic Overload Relay For Each Pump
  - d. Fused Open Type Transformer, Sub-Panel Mounted
  - e. 100W Strip Heater, Adjustable Thermostat
  - f. Inner Dead-Front Door (\* Denotes Items Mounted on Inner Door)
    - 1) Main Circuit Breaker w/ Extended Rotary Handle \*
    - 2) Hand-Off-Auto Switch (30mm) For Each Pump \*
    - 3) Pump Run Pilot Light (30mm, Green) For Each Pump \*
    - 4) Pump Tripped Pilot Light (30mm, Red) For Each Pump \*
    - 5) Pump High Temp Pilot Light (30mm, Red) For Each Pump \*
    - 6) Pump Seal Fail Pilot Light (30mm, Red) For Each Pump \*
    - 7) Pump Run Pilot Light (30mm, Green) For Each Pump \*
    - 8) Elapsed Time Meter For Each Pump (Analog) \*
  - g. Alarm Light (40W), Red
  - h. Alarm Horn w/ Silence Pushbutton, 120VAC
  - i. Alternator Relay w/ Lead/Lag Selector Switch
  - j. Terminal Blocks As Required
  - k. Control Relays As Required
12. Wires Labeled
  - a. Engraved Labels
  - b. Listed: UL508(A)

B. Equipment Monitoring

1. Alarms & Monitoring: The system shall provide alarms and monitoring for the system, pump and sump. Alarms shall be presented on the display, via a Summary Alarm relay and via Modbus registers. All alarms, when occurring, shall remain active until reset. Alarms shall have a built-in 4 second delay to prevent nuisance tripping. Alarms shall be as follows:
  - a. Pump Over Temperature (thermal contacts in motor stator)
  - b. Pump Seal Leak (Seal leakage sensor)
  - c. High Sump Level (via level float switch or submersible transducer)
  - d. Submersible transducer Sensor Error (Submersible transducer is not connected, reports faulty values or the wrong start level is used)

C. Level Control - Floats

1. Five (5) APG Series FT-100 / FT-300 Cable Float Switches single point level sensor shall be provided for system operation.
2. The switch operating levels shall be easily adjustable, and the floats designed for use in clean water and sewage applications.

**PART 3 EXECUTION**

3.1 GENERAL

- A. Perform installation in accordance with Contract Documents and manufacturers specifications.

3.2 EXAMINATION

- A. A factory trained technician shall examine the work area prior to beginning work and check the following:
1. The environment is safe to begin working in.
  2. All surfaces are ready to receive work.
  3. All tools are in the proper location and are in good condition.
  4. Grounding of the system.

3.3 FIELD QUALITY CONTROL

- A. After installation, a pump station start-up shall be performed by the installing contractor under the supervision of the manufacturer's authorized representative. 4 hours of field service shall be provided by an authorized, factory trained representative of the pump manufacturer. Services shall include, but not be limited to, inspection of the completed pump station installation to ensure that it has been performed in accordance with the manufacturer's instructions and recommendations, supervision of all field-testing and activation of the Pump Manufacturer's Warranty. The test shall demonstrate to the satisfaction of the Owner that the equipment meets all specified performance criteria, is properly installed and anchored, and operates smoothly without exceeding the full load amperage rating of the motor. The Contractor shall be responsible for coordinating the required field services with the Pump Manufacturer.
- B. Functional test of all equipment as required.

3.4 CERTIFICATION OF TESTING

A. Manufacturer's technician shall provide a complete start-up report for each pump.

3.5 TRAINING

A. Training shall be a minimum of 4 hours and cover the complete Pumping System and related controls.

B. Instruction material shall be provided for a minimum of 2 trainees.

**END OF SECTION**