

PROJECT MANUAL

PROJECT NAME:

DAS CC Fleet Building Demolition

PROJECT ADDRESS:

301 E 7th Street
Des Moines, Iowa 50319

PROJECT DATE: October 16, 2025

OWNER:

Iowa Department of Administrative Services
109 Southeast 13th Street
Des Moines, Iowa 50319



OWNER PROJECT NUMBER: 9479.00

OWNER REQUEST FOR BID NUMBER: RFB 947900-01

CONSTRUCTION MANAGER:

DCI Group, Inc.
220 SE 6th Street – Suite 200
Des Moines, IA 50309



CONSTRUCTION MANAGER PROJECT NUMBER: 25-020

ARCHITECT:

Shive-Hattery, Inc.
4125 Westown Parkway – Suite 100
West Des Moines, IA 50266



ARCHITECT PROJECT NUMBER: 225001045-0

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 00 01 07
SEALS PAGE**

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge.

Discipline: Civil

Stamp:

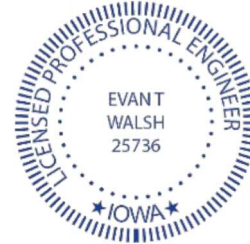
Company Name: Shive-Hattery, Inc.

Address: 2839 Northgate Drive, Iowa
City, Iowa 52245

Telephone: 319.248.3391

Name: Evan T. Walsh

License #: 25736



Signature: 

Responsibility: Sections 01 57 23.00,

01 57 23.10, 01 57 23.20, 01 57 23.30,

01 57 23.40, 01 57 23.50, Divisions 02, 31, 32

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 0110

TABLE OF CONTENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

1.01 DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

A.	00 0101	Project Title Page
B.	00 0107	Seals Page
C.	00 0110	Table of Contents
D.	00 0115	List of Drawing Sheets
E.	00 0116	Bid Submittal Checklist
F.	00 1113	Notice to Bidders
G.	00 2113	Instructions to Bidders
H.	00 2113.01	IMPACS Electronic Procurement System Instructions
I.	00 2113.02	Sample Contractor Certificate of Insurance
J.	00 2113.03	Certificate of Site Visit
K.	00 3113	Preliminary Schedule
L.	00 3126	Existing Hazardous Material Information
M.	00 3143	Permit Application
N.	00 4116	Bid Form
O.	00 4116.01	Non-Discrimination Clause Information
P.	00 4116.02	Targeted Small Business Information
Q.	00 4313	Bid Security Forms
R.	00 5200	Agreement Form
S.	00 6000	Payment Bond and Performance Bond Forms

1.02 DIVISION 01 – GENERAL REQUIREMENTS

A.	01 1200	Contract Summary
B.	01 1201	Special Work Requirements
C.	01 1202	General Work Requirements
D.	01 2500	Substitution Procedures
E.	01 2600	Contract Modification Procedures
F.	01 2900	Payment Procedures
G.	01 3100	Project Management and Coordination
H.	01 3100.01	Web Based Construction Management
I.	01 3200	Construction Progress Documentation
J.	01 3300	Submittal Procedures
K.	01 4000	Quality Requirements
L.	01 5000	Temporary Facilities and Controls
M.	01 57 23	Stormwater Pollution Prevention Plan
N.	01 57 23.10	Stormwater Pollution Prevention Plan – Contractor/subcontractor Certification
O.	01 57 23.20	Stormwater Pollution Prevention Plan – Inspection Report
P.	01 57 23.30	Stormwater Pollution Prevention Plan – Implementing Erosion/Sediment Control
Q.	01 57 23.40	Stormwater Pollution Prevention Plan – Owner Certification
R.	01 57 23.50	Stormwater Pollution Prevention Plan – Plan Review and Revisions
S.	01 6000	Product Requirements
T.	01 7300	Execution
U.	01 7700	Closeout Procedures

1.03 DIVISION 02 – EXISTING CONDITIONS

- A. 02 41 00 Building Demolition
- B. 02 41 13 Selective Site Demolition

1.04 **DIVISION 31 – EARTHWORK**

- A. 31 22 13 Earthwork and Rough Grading
- B. 31 23 16.13 Trench Excavation and Backfill
- C. 31 25 00 Erosion and Sediment Control

1.05 **DIVISION 32 – EXTERIOR IMPROVEMENTS**

- A. 32 11 16.16 Aggregate Subbase Courses
- B. 32 13 13 Concrete Paving
- C. 32 13 13.10 Concrete Paving for Sidewalks and Shared Use Paths
- D. 32 91 12.13 Topsoil Placement and Grading
- E. 32 92 19 Seeding and Soil Supplements
- F. 32 92 23 Sodding
- V.

END OF SECTION

SECTION 00 0115

LIST OF DRAWING SHEETS

DRAWINGS

1.01	SHEET	TITLE
A.	G000	Cover Sheet
B.	C001	Existing Conditions
C.	C101	Stormwater Pollution Prevention Plan – Pre-During - Construction
D.	C102	Stormwater Pollution Prevention Plan – Post-Construction
E.	C201	Site Laydown
F.	C301	Site Preparation and Demolition – Surface
G.	C302	Site Preparation and Demolition – Subsurface
H.	C501	Construction Details
I.	C601	Site Restoration
J.	C700	Site Grading Plan – Overall
K.	C701	Site Grading Plan – South
L.	C702	Site Grading Plan – North
M.	R101	Fleet Floor Plan – Basement & First Floor
N.	R102	Fleet Floor Plan – Second Floor

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 0116

BID SUBMITTAL CHECKLIST

PART 1 - GENERAL

1.01 BID SUBMITTAL CHECKLIST

- A. The Bidder is responsible to see that the bid is submitted online at [IMPACS Electronic Procurement System](#) on or before the due date and time specified. Late bids shall not be accepted.
- B. Bids shall be typewritten or in ink. All information requested shall accompany the bid. All blocks shall be completed. Errors shall be lined out and initialed.
- C. The right is reserved to reject any or all bids. The State may waive minor deficiencies or informalities in the best interest of the State of Iowa.
- D. A properly prepared and submitted bid document is the bidder's responsibility.
- E. Bids cannot be changed after the bid opening.
- F. In all cases, no verbal communications by any party will override written communications from the issuing office.
- G. The Bid Form shall be completed in full and signed and submitted by an officer of the bidder with authority to bind in a contract.
- H. If Bid Bond is called for, it shall accompany the Bid submission.
- I. If Non-discrimination Clause information is called for, it shall accompany the Bid submission.
- J. If Targeted Small Business Pre-bid Contact information is called for, it shall accompany the Bid submission.
- K. Certificate of Site Visit form from one of the mandatory pre-bid meetings

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 1113

NOTICE TO BIDDERS

RFB #947900-01

The Iowa Department of Administrative Services will be receiving bids for abatement and demolition of the Capitol Complex Fleet Building at 301 E 7th St., Des Moines, IA 50319.

The Iowa Department of Administrative Services anticipates construction to begin on November 19, 2025 and end on April 20, 2026.

Bids must be received no later than **2:00 pm, Tuesday, November 4, 2025**. Late bids will not be considered. Bids shall be submitted on [IMPACS Electronic Procurement System](#). The Bid shall be accompanied by a Bid Security as set forth in the Instructions to Bidders in the amount of 5% of the total bid amount. Each bid shall be accompanied by a bid bond, cashier's check or a certified check drawn upon a solvent bank chartered under the laws of the United States of America.

Bid Opening

The time and place of bid opening will be held at meet.google.com/nmg-xhve-nkj and teleconference number (US) +1 914-586-3821 Pin: 416 552 625# at 3:00 pm on November 4, 2025.

The Iowa Department of Administrative Services 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.

Bidders must comply with all affirmative action/equal employment opportunity provisions of the State of Iowa and the Federal Government.

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

Questions must be submitted by 4:00 pm, October 29, 2025, to the Issuing Officer.

Bidding documents may stipulate a specific product. Substitute product will be considered if a written request is received by 4:00 pm, October 29, 2025, prior to bid opening. Substitution requests will be considered for all products per Section 01 2500 Substitution Procedures, even if the specification does not include a statement such as "or equal," "equal to," "equivalent to," or "basis of design," unless otherwise noted.

Mandatory pre-bid meetings will be held on Thursday, October 23, 2025 at 2:00 pm at the Fleet Building at 301 E 7th St., Des Moines, IA 50319 and on Tuesday, October 28, 2025 at 1:00 pm at the Fleet Building at 301 E 7th St., Des Moines, IA 50319. Attendance at one of the two mandatory pre-bid meetings is **required** to qualify for bidding. Prospective bidders shall meet in the alley on the East side of the building for the pre-bid.

Bidding Documents, including drawing sheets bearing the project name Fleet Building Demolition, Dated 10/16/2025 and the Project Manual prepared by Shive-Hattery, Inc. dated 10/16/2025, may be obtained from Beeline and Blue by visiting www.beelineandblue.com or by calling (515) 244-1611 on Monday, October 20, 2025.

For further information regarding this project contact:

Michael Bradbury – Issuing Officer

Phone: (515) 515-823-9327

E-Mail: construction.procurement@iowa.gov

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 2113
INSTRUCTIONS TO BIDDERS
RFB #947900-01

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project Description
- B. Owner
- C. State Agency Representatives and Contacts
- D. Proposal Form and Submissions
- E. Taxes
- F. Alternate Bids
- G. Drawings
- H. Bid Security
- I. Due Date and Time for Receipt of Bids
- J. Commencement and Completion Date
- K. Site Visit
- L. Pre-bid Meeting
- M. Questions
- N. Addenda and Interpretations of the Contract Documents
- O. Substitutions
- P. Obligation of Bidder
- Q. Public Records and Requests for Confidential Treatment
- R. Withdrawal of Bid
- S. Bid Closing
- T. Basis of Bids
- U. Informalities/Rejection of Bids
- V. Consideration of Bids
- W. Preference
- X. Qualifications
- Y. Insurance
- Z. Form of Agreement between Owner and Contractor
- AA. Execution of Contract
- BB. Laws and Regulations
- CC. Contract Documents and Order of Precedence
- DD. Conditions of the Work
- EE. Subcontracts
- FF. Project Manual/Drawings

1.02 PROJECT DESCRIPTION

- A. Project Description: Abatement and demolition of the Capitol Complex Fleet Building in Des Moines, IA.

1.03 OWNER

- A. State of Iowa, Department of Administrative Services, 109 SE 13th St, Des Moines, IA 50319

1.04 STATE AGENCY REPRESENTATIVES AND CONTACTS

- A. PURCHASING AGENT: Michael Bradbury – Issuing Officer, State of Iowa, Department of Administrative Services, Hoover State Office Building, 3rd floor, 1305 East Walnut Street, Des Moines, IA 50319-0105, Phone: 515-823-9327; email: construction.procurement@iowa.gov
- B. OWNER REPRESENTATIVE: Jennie Elliott, State of Iowa, Department of Administrative Services, 109 SE 13th Street, Des Moines, IA 50319, Phone: 515-745-3244; email: Jennie.Elliott@iowa.gov
- C. ON-SITE COORDINATOR: Brad Meister, Project Manager/Energy Associate, Iowa Department of Administrative Services, 109 SE 13th Street, Des Moines, IA 50319, Phone: 515-720-6262; email: brad.meister@iowa.gov
- D. CONSTRUCTION MANAGER CONTACT: Jarrad Boever, DCI Group, 220 SE 6th St, Suite 200, Des Moines, IA 50309, Phone: 515-480-8280; email: jarradb@dcigroup-us.com
- E. DESIGN PROFESSIONAL CONTACT: Evan Walsh, Shive-Hattery, 2839 Northgate Drive, Iowa City, IA 52245, Phone: 319-541-1492; email: ewalsh@shive-hattery.com

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 PROPOSAL FORM AND SUBMISSION

- A. A properly prepared and submitted bid is the bidder's responsibility. Bids are to be made in accordance with these Instructions to Bidders and items included on the Bid submission. Failure to comply may be cause for rejection.
- B. The Bid is to consist of the required Bid information, together with the other information specified below to be submitted with the Bid, in which copies are included with these Bidding Documents.
 - 1. The total bid package submitted is required to include the following:
 - a. An online submission including:
 - 1) Required Bid Form (To be uploaded online)
 - 2) Required Non-discrimination Clause Information
 - 3) Required Targeted Small Business Pre-bid Contact Information
 - 4) Bid Security (documentation provided by Bidder) (To be uploaded online) (Required)
 - 5) Certification of Site Visit (To be uploaded online if Pre-Bid is Mandatory)
- C. Include the amount for performing all work described in the drawings and specifications for Base Bid and for each Alternate Bid requested.
- D. Acknowledge receipt of all Addenda issued, where so indicated on the Bid Form
- E. All required information to be submitted, by an officer of the company having authority to bind the company in a contract.
- F. Commencement of the work of the contract shall begin with the Contractor's receipt of a fully executed contract (signed by both parties).
- G. The Owner reserves the right to award a contract for Base Bid only, or for Base Bid in combination with any, or all, identified Alternate Bids. The Owner reserves the right to award a contract for individual Bid Packages, or any combination of Bid Packages. Each Bidder must comply with all of the General Requirements of the project and any requirements of the Project manual that apply to their scope of work.
- H. The company's Federal I.D. Number and the Iowa Contractors Registration Number shall be included in the Bid Form.
- I. Unless indicated otherwise, the Bid shall be for a single responsibility contract for all work as indicated on the Drawings and specified in the Project Manual, and shall be a lump sum amount. If no change in the Base Bid amount is required with respect to consideration of a particular Alternate Bid, enter "No Change" in the blank for that Alternate Bid.
- J. Where so requested, provide Unit Prices for the designated types of work and in the units specified, in which the Unit Prices would be used as adjustments to the quantities described in

the instructions as the basis for the Base Bid and any Alternate Bid work. A Unit Price would be applicable in the event the Owner should request additional work of that type beyond the extent and quantity that has been established as the scope of the work by graphic delineation and notations on the Drawings, or by otherwise stipulating in the Bidding Documents a numerical quantity of the work, for the Bidder's use in determining the lump sum bid amount for the Base Bid and any requested Alternate Bid containing such work. The Unit Prices shall also be used to adjust the Contract Amount for actual quantities of work involved when the work subject to Unit Price adjustment differs by being less in quantity than that contemplated by the original scope of work for the respective Base Bid or Alternate Bid.

- K. Completed State of Iowa Nondiscrimination Clause information and Subcontractor Targeted Small Business Enterprise Pre-Bid Contact Information, included in these Bidding Documents, are to accompany the Bid submission. 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.
- L. All Bid information is to be submitted online. Any required Bid Security shall be provided, in the form and amount specified elsewhere in these Instructions to Bidders, at the time of submission of the Bid. When a site visit is mandatory as specified elsewhere in these Instructions to Bidders, and a Certificate of Site Visit is required to be submitted with the Bid as evidence of such visit having occurred for purposes of observing the conditions of the site and the work proposed therein, the Certificate shall be uploaded with the bid submission.

3.02 TAXES

- A. In accordance with Section 423 of the Code of Iowa and 701-19 of the Iowa Administrative Rules, Iowa Construction Sales Tax Exemption Certificates for this project will be issued. Do not include Iowa sales tax or use tax, or any local option sales tax, on construction materials in determining your bid prices. The successful Contractor will be required to notify the Department of Administrative Services project manager of all Subcontractors within forty-eight (48) hours after the published date and time by which bids must be submitted. Information on the Contractor and each Subcontractor shall include the firms' name, address, contact person, federal tax identification number, and the Iowa contractor registration number. For the Contractor and each Subcontractor, designate the type of trade or category of work that is to be provided on the project. The Construction Manager for the Department of Administrative Services must be informed when any Subcontractor is added to the project. Following receipt of the information, the Construction Manager for the Department of Administrative Services will arrange to have an authorization letter and certificate (please see sample, included in the Project Manual) issued on behalf of the Contractor and each Subcontractor and will forward the documents to the Contractor for distribution and use by each in purchasing construction materials for this project. Certificates issued for this project shall be used for tax-exempt purchasing construction materials for this project only.

3.03 ALTERNATE BIDS

- A. Bidders are to bid all Alternates requested on the Bid Form. Alternates quoted will be reviewed and accepted or rejected at the option of the Department of Administrative Services. Accepted Alternates will be identified in the Owner-Contractor agreement. Indicate the price for Alternates described, as shown on the Drawings and specified in the Project Manual, and identify in the correct location on the Bid Form.

3.04 DRAWINGS AND PROJECT MANUAL

- A. Drawings and Project Manual are specified in the Notice to Bidders or any extension thereof made by Addendum.

3.05 BID SECURITY

- A. Each Bid shall be accompanied by Bid Security.

- B. The Bid Security shall be in the form of a Bid Bond, Certified check, or Cashier's check in an amount not less than five percent (5%) of the maximum value of the Bid, including any additive Alternates. NOTE: Checks other than Certified checks and Cashier's checks will not be accepted. Bonds shall be issued by a bonding company licensed to transact business in the State of Iowa. The Attorney in Fact who signs the Bond shall file with the Bond a certified and effectively dated copy of their Power of Attorney. The Bid Security shall be made payable to the Iowa Department of Administrative Services, and shall accompany the Bid. If a Bid Bond is not used, copies of Certified checks or Cashier's checks must be uploaded and hand delivered, in a sealed envelope, or mailed upon request. The Bid Security shall serve as a guarantee that a Bidder who is offered a contract will enter into an Agreement with the State of Iowa and will file an approved surety company's Performance Bond, Payment Bond and the Insurance Certificates as evidence of the required Insurance prior to execution of the contract. Upon failure to comply, the Bid Security shall be forfeited as liquidated damages. The governmental entity shall retain the bid security furnished by the successful bidder until the approved contract form has been fully executed, a bond has been filed by the bidder guaranteeing the performance of the contract, and the contract and bond have been approved by the governmental entity. The provisions of chapter 573, where applicable, apply to contracts awarded under this chapter. The governmental entity shall promptly return the checks or bidder's bonds of unsuccessful bidders to the bidders once the Notice of Intent to Award is issued.

3.06 DUE DATE AND TIME FOR RECEIPT OF BIDS

- A. Properly completed Bids shall be submitted online through [IMPACS Electronic Procurement System](#), no later than the time and date specified in the Notice to Bidder or any extension thereof made by Addendum. Written, emailed, oral or telephonic Bids are invalid, and will not receive consideration. The Bidder shall assume full responsibility for the timely online submission of the Bid. Late bids will not be accepted.

3.07 COMMENCEMENT AND COMPLETION DATES

- A. Commencement of the Work of the Contract shall be the day of receipt by the selected Contractor of the fully-executed contract. Final completion of the Work of the contract shall be acknowledged as a part of the Contractor's proposal.

3.08 SITE VISIT

- A. A site visit by the prospective bidder is highly recommended at the time of the Pre-Bid Meeting of this project.

3.09 PRE-BID MEETING

- A. Pre-Bid Meeting will be specified in the Notice to Bidders or any extension thereof made by Addendum.

3.010 QUESTIONS

- A. Questions on this project may be raised and discussed at the time of the Pre-Bid Meeting or by submitting in writing to the issuing officer as specified in the Notice to Bidders or any extension thereof made by Addendum.

3.011 ADDENDA AND INTERPRETATIONS OF THE CONTRACT DOCUMENTS

- A. Any person contemplating submitting a proposal for the proposed Contract, who is in doubt as to the true meaning of any part of the Bidding Documents, shall submit a written request for an interpretation thereof. The person submitting a request will be responsible for its prompt delivery. Every request for such interpretation should reference the Bid Number specified in the Bidding Documents, and shall be made in writing (email preferred). Questions shall be submitted to the

previously identified Purchasing Agent for the Department of Administrative Services. To be given consideration, requests shall be received as specified in the Notice to Bidders or any extension thereof made by Addendum. Replies, which revise or correct the Bidding Documents, or provide necessary clarifications, will be issued in the form of a written Addendum to the Bidding Documents. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections, or changes. The Bidder is to include any resultant cost changes in the Bid Sum. Addenda will be posted electronically at the respective bid site where the bid is initially posted. Acknowledgment by the Bidder of each issued Addendum shall be noted in the location so indicated on the Bid. All Addenda issued shall become part of the Contract Documents.

3.012 SUBSTITUTIONS

- A. Where the Bidding Documents stipulate a specific product be provided by naming one or more manufacturer and model, a substitute product will be considered when a written request is received as specified in the Notice to Bidders or any extension thereof made by Addendum prior to bid opening. Substitution requests will be considered for all products per Section 01 2500 Substitution Procedures, even if the specification does not include a statement such as “or equal,” “equal to,” “equivalent to,” or “basis of design,” unless otherwise noted. Substitution requests shall be emailed to the Issuing Officer at the email address provided in Instructions to Bidders Section 1.04.

3.013 OBLIGATION OF BIDDER

- A. It shall be the responsibility of each Bidder contemplating the submission of a Bid for the proposed Contract to fully acquaint himself/herself with conditions at the work site, project requirements, and to become acquainted thoroughly with the work, and all conditions that may be related to it. No considerations or revision in the contract price or scope of the project will be considered by the Owner for any item that could have been revealed by a thorough on-site inspection and examination.
- B. By submission of a Bid, it shall be understood that the Bidder assures that he/she has reviewed and is thoroughly familiar with the project requirements, contract conditions and supplementary conditions, the drawings, specifications, addenda, and that the bidder is aware of the conditions existing at the site that may relate to the work of this project. Failure of any Bidder to examine any form, document, or other instrument shall in no way relieve the Bidder from any obligation in respect to his/her Bid.

3.014 PUBLIC RECORDS AND REQUESTS FOR CONFIDENTIAL TREATMENT

- A. The Agency’s release of public records is governed by Iowa Code chapter 22. Contractors are encouraged to familiarize themselves with Chapter 22 before submitting a Proposal. The Agency will copy and produce public records upon request as required to comply with Chapter 22 and will treat all information submitted by a Contractor as non-confidential records unless Contractor requests specific parts of the Proposal be treated as confidential at the time of the submission as set forth herein AND the information is confidential under Iowa or other applicable law.
- B. A Contractor requesting confidential treatment of specific information must: (1) fully complete Form 22 (Available at <https://das.iowa.gov/sites/default/files/procurement/pdf/Form%2022-ConfidentialityRequest-RFB.pdf>), (2) identify the request in the transmittal letter with the Contractor’s Proposal, (3) conspicuously mark the outside of its Proposal as containing confidential information, (4) mark each page upon which confidential information appears, and (5) submit a “Public Copy” from which the confidential information has been excised.
- C. Form 22 will not be considered fully complete unless, for each confidentiality request, the Contractor: (1) enumerates the specific grounds in Iowa Code chapter 22 or other applicable law that supports treatment of the material as confidential, (2) justifies why the material should be maintained in confidence, (3) explains why disclosure of the material would not be in the best interest of the public, and (4) sets forth the name, address, telephone, and e-mail for the person

- authorized by Contractor to respond to inquiries by the Agency concerning the confidential status of such material.
- D. The Public Copy from which confidential information has been excised is in addition to the number of copies requested in Section 3 of this RFP. The confidential material must be excised in such a way as to allow the public to determine the general nature of the material removed and to retain as much of the Proposal as possible.
 - E. **Failure to request information be treated as confidential as specified herein shall relieve Agency and State personnel from any responsibility for maintaining the information in confidence. Contractors may not request confidential treatment with respect to pricing information and transmittal letters. A contractor's request for confidentiality that does not comply with this section or a contractor's request for confidentiality on information or material that cannot be held in confidence as set forth herein are grounds for rejecting contractor's Proposal as non-responsive. Requests to maintain an entire Proposal as confidential will be rejected as non-responsive.**
 - F. If Agency receives a request for information that Contractor has marked as confidential and if a judicial or administrative proceeding is initiated to compel the release of such material, Contractor shall, at its sole expense, appear in such action and defend its request for confidentiality. If Contractor fails to do so, Agency may release the information or material with or without providing advance notice to Contractor and with or without affording Contractor the opportunity to obtain an order restraining its release from a court possessing competent jurisdiction. Additionally, if Contractor fails to comply with the request process set forth herein, if Contractor's request for confidentiality is unreasonable, or if Contractor rescinds its request for confidential treatment, Agency may release such information or material with or without providing advance notice to Contractor and with or without affording Contractor the opportunity to obtain an order restraining its release from a court possessing competent jurisdiction.

3.015 WITHDRAWAL OF BID

- A. A Bid may be modified or withdrawn only before the time and date for receipt of Bids. Said request for modification or withdrawal of a bid must be completed online through [IMPACS Electronic Procurement System](#). A Bid shall remain valid for consideration by the Owner for the following period(s) of time after the date specified for receipt of Bids, or until such time following that period that the apparent low bidder requests in writing that the Bid be withdrawn, after which the Bid may be withdrawn without forfeiture of any required Bid Security. The Bid shall be valid for not less than thirty (30) calendar days after the date Bids are specified to be due. With the approval of the Department of Administrative Services, a bid may be withdrawn after opening, but only if the bidder provides prompt written notification that adequately documents the commission of an honest error that may cause undue financial loss.

3.016 BID OPENING

- A. All bids received on or before the due date and time specified in the Notice to Bidder or any extension thereof made by Addendum will be opened and the name of the Bidder and the amount of their Bid will be announced.

3.017 BASIS OF BIDS

- A. The Bidder shall include all additional documents or appendices that are requested to be submitted concurrent with the Bid submission; failure to comply may be cause for rejection.
- B. In accordance with Iowa law, Section 8A.311: A bidder, to be considered for an award of a state construction contract, shall disclose to the state agency awarding the contract the names of all subcontractors and suppliers who will work on the project being bid, within forty-eight (48) hours after the published date and time by which bids must be submitted. A bidder shall not replace a subcontractor or supplier disclosed without the approval of the state agency awarding the contract.
 - 1. A bidder, prior to an award or who is awarded a state construction contract, shall disclose all of the following, as applicable:

- a. If a subcontractor or supplier disclosed (under the preceding) by a bidder is replaced, the reason for replacement and the name of the new subcontractor or supplier;
 - b. If the cost of work to be done by a subcontractor or supplier is changed or if the replacement of a subcontractor or supplier results in a change in the cost, the amount of the change in cost.
 - c. Any reduction in subcontractor or supplier price as a result of the change, if the change is approved by the Owner, shall be deducted from the Trade Contract via a deductive Change Order. Any such changes, if approved by the Owner, which result in an increase in the Trade Contract Price shall be borne by the Trade Contractor.
- C. 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 an Iowa Contractor's Registration number, and
 - 2. Be acceptable to the Owner.

3.018 INFORMALITIES/ REJECTION OF BIDS

- A. The Iowa Department of Administrative Services reserves the right to waive any irregularities or informalities and to enter into a Contract with a Bidder, or to reject any or all bids as it deems to be in the best interest of the State, without penalty.

3.019 CONSIDERATION OF BIDS

- A. It is the intent of the Department of Administrative Services to award a Contract to the lowest responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and is determined to be compliant with all Bidding Requirements, and does not exceed the funds available for construction.
- B. Bidder is to bid on each Alternate Bid requested. Failure to do so may result in disqualification of the bid. The Department of Administrative Services reserves the right to accept any, or no, Alternate Bid. Alternate Bids may be considered in any order or combination, and the low successful Bidder will be determined on the basis of the sum of the Base Bid and the Alternate(s) accepted at the time of the Contract award.
- C. In evaluating Bids, any proposal offered by a Bidder for an alternate design, or for materials other than those shown or specified for the Base Bid or for Alternate Bid construction under the proposed Construction Documents or called for by any issued Addenda to those Construction Documents, will not be considered in determining the low successful Bidder. However, the Department of Administrative Services reserves the right to consider any such Bidder-proposed (Contractor's Alternate) alternate designs or materials with the low successful Bidder, after the low successful Bidder is determined in the manner described above (A and B).
- D. Notice of Intent to Award the Bid(s) will be sent to all Respondents submitting a timely Bid and may be posted at the website shown on the RFB cover sheet. Negotiation and execution of the Contract(s) shall be completed no later than fifteen (15) days from the date of the Notice of Intent to Award or such other time as designated by Agency. If the successful Bidder fails to negotiate and deliver an executed Contract, including all required documents such as payment and performance bonds and insurance certificate, by that date, the Agency, in its sole discretion, may cancel the award and award the Contract to the remaining Bidder the Agency believes will provide the best value to the State.

3.020 PREFERENCE

- A. By virtue of statutory authority, a preference shall be given to Iowa domestic labor, products produced and provisions grown within the state of Iowa, in accordance with the provisions of Chapter 73, Code of Iowa and any amendments thereto.
- B. Enforcement of reciprocal resident bidder preference and resident labor force preference codified at Iowa Code Section 73A.21.
 - 1. NOTICE: Failure on the part of the bidder to carefully read the following paragraphs and to provide the information requested below may make the bidder's bid materially nonresponsive

and therefore ineligible for contract award. Violations of Iowa Code Section 73A.21 may, among other things, result in civil penalties assessed by the Commissioner of the Division of Labor of Iowa Workforce Development. The bidder should seek out the advice of an attorney if he or she has questions about Iowa Code Section 73A.21. As a part of the competitive procurement of contracts for Public Improvements that must be awarded to the low bidder (if the bid is responsive and the bidder is deemed responsible), Public Bodies shall allow a preference to Resident Bidders if a Nonresident Bidder places a bid for the contract for the Public Improvement and that Nonresident Bidder's state or foreign country gives resident bidders of that state or foreign country a preference (including a labor force preference or any type of preferential treatment). The preference allowed, or reciprocally applied, shall be equal to the preference given or required by the state or foreign country in which the Nonresident Bidder is a resident bidder.

"Public Body" means the State of Iowa (and its agencies) and any of its political subdivisions, including school districts, public utilities, and the state board of regents.

"Public Improvement" means a building or other construction work to be paid for in whole or in part by the use of funds of the State of Iowa, its agencies, and any of its political subdivisions and includes road construction, reconstruction, and maintenance projects.

"Resident Bidder" means a person or entity authorized to transact business in of the State of Iowa and having a place of business for transacting business within the State of Iowa at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. Note, however, that if a nonresident bidder's state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

"Nonresident Bidder" means a person or entity who does not meet the definition of a resident bidder.

- C. Nonresident bidders shall be required to certify on the Bid submission, where so indicated, the state or foreign country in which the firm is a resident, and if that state or foreign country uses a percentage for in-state bidders and the amount of the preference.
- D. If it is determined that this may cause denial of federal funds which would otherwise be available, or would otherwise be inconsistent with requirements of federal law, this section shall be suspended, but only to the extent necessary to prevent denial of the funds or to eliminate the inconsistency with federal requirements.

3.021 QUALIFICATIONS

- A. In accordance with Iowa Code 26.9(2) and 26.16, no potential bidder shall be required to provide confidential or proprietary information or meet any class requirements as a precondition to submitting a responsive bid. However, as noted in Iowa Code 26.9(2), the lowest responsive bidder may be required to provide additional information to verify responsibility prior to and as a condition of obtaining final award of the contract. Any qualification requirements contained in any bid document indicates only preferred qualifications, not a precondition to bid, and the lowest responsive bidder's qualifications will be evaluated individually based on all information provided.
- B. The Owner may make such investigations as he or she deems necessary to determine the ability of the awarded Bidder to perform the required work, and the awarded Bidder shall furnish to the Owner all such information and data for this purpose. The Owner reserves the right to rescind any awarded Bid if the evidence submitted by, or in investigation of, such Bidder fails to satisfy the Owner that the Bidder is properly qualified to carry-out the obligations of the Contract and to complete the Work contemplated therein.
- C. Bidders shall be registered as a Construction Contractor with the Labor Commissioner, Iowa Workforce Development Department, as required by Chapter 91C of the Code of Iowa. Bidder's Iowa Contractor Registration Number shall be included in the location provided in the Bid Form.
- D. 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.
- E. An out-of-state Bidder, if awarded a contract, will be required to submit evidence of authorization to do business in the State of Iowa.

3.022 INSURANCE

- A. Insurance Requirements
 - 1. The Contractor shall maintain in effect, with insurance companies of recognized responsibility, at its expense, insurance covering its work of the type and in amounts required by this Contract. The Contractor's insurance shall, among other things, insure against any loss or damage resulting from the Contractor's performance of this Contract. All such insurance policies shall remain in full force and effect for the entire life of this Contract and shall not be canceled or changed except after thirty (30) days written notice to the Owner.
 - 2. **Amounts of Insurance Required – Refer to ConsensusDOCS 802 (see template in Project Manual)**
- B. Certificates of Coverage
 - 1. Certificates of the insurance described above shall be submitted to the Owner before starting any construction activities and shall be subject to approval by the Owner. The Contractor shall provide certificates for the insurance required. The insurer shall state in the certificate that no cancellation of the insurance will be made without at least thirty (30) days prior written notice to the Contractor. Upon receipt of any notice of cancellation or alteration, Contractor shall within ten (10) days procure other policies of insurance, similar in all respects to the policy or policies, about to be canceled or altered, and, if the Contractor fails to provide, procure, and deliver acceptable policies of insurance, or satisfactory evidence thereof, in accordance with the terms hereof then, at the Owner's option, Owner may obtain such insurance at the cost and expense of Contractor, without the need of any notice to Contractor.
- C. No Limitation of Liability
 - 1. Acceptance of the insurance certificates by the Owner shall not act to relieve the Contractor of any obligation under this Contract. All insurance policies and certificates shall be issued only by companies authorized to transact business in the State of Iowa. It shall be the responsibility of the Contractor to keep the respective insurance policies and coverage's current and in force during the life of this agreement.
 - 2. A Sample Certificate of Insurance is attached for reference following this Section.

3.023 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

- A. The Agreement for the Work will be written on ConsensusDOCS 802 Form of Agreement between Owner and Contractor (sample of the document with modifications incorporated is bound in this Project Manual).

3.024 EXECUTION OF CONTRACT

- A. Contract documents shall mean and include the following:
 - 1. Contract: ConsensusDOCS 802
 - 2. Performance and Payment Bonds
 - 3. Project Manual
 - 4. Drawings
 - 5. Numbered Addenda issued after initial publication of Bid Documents
 - 6. Numbered Modifications (Change Orders) issued after Contract is signed

3.025 LAWS AND REGULATIONS

- A. The Bidder's attention is directed to the fact that all applicable laws and regulations of Federal and State agencies having jurisdiction over the construction of this project shall apply to any contract resulting from this proposal, and it shall be deemed that those rules and regulations are made a part of such contract the same as if set forth in their entirety therein. By submitting a Bid, the Bidder confirms that he/she is familiar with and understands the Contractor's responsibility under all Federal and State of Iowa laws and regulations with respect to the Work described by the proposed Contract Documents.

3.026 CONTRACT DOCUMENTS AND ORDER OF PRECEDENCE

- A. Where an irreconcilable conflict exists among Applicable Legal Requirements, this Contract, the specifications in the Materials and the Drawings, the earliest item mentioned in this sentence involving a conflict shall control over any later mentioned item or items subject to such conflict unless doing so would result in reducing the Bidder's duty of care or obligations under this Contract, in which case the terms resulting in the highest requirements for Bidder performance shall control.

3.027 CONDITIONS OF THE WORK

- A. Each bidder must fully inform him/herself of the conditions under which the work is to be performed at the site of the work, the obstacles which may be encountered, and all other relevant matters concerning the work to be performed. Failure to do so will not relieve a successful bidder of the obligation to furnish all material and labor necessary to carry out the provisions of the contract. When a site visit is required by provisions located elsewhere in these Instructions to Bidders, as a site tour in conjunction with a mandatory Pre-Bid Meeting, it shall be the Bidder's responsibility to fulfill this obligation as a condition of bidding the Work described in the Bidding Documents.
- B. No allowance will be made for any additional compensation by reason of any matter or condition with which the bidder might have fully informed him/herself, but failed to do so prior to bidding. Insofar as possible, the Contractor and all subcontractors shall employ such methods or means in carrying out the work so as not to cause any interruption of, or interference with, the work of any other subcontractor or trade.

3.028 SUBCONTRACTS

- A. The Prime Contractor shall be responsible for notifying all subcontractors and suppliers and informing them that they are bound in each case by all applicable provisions of the bidding information and those of the proposed Form of Agreements as defined in the Contract Documents.

END OF SECTION

SECTION 00 2113.01

IMPACS Public Construction Bidders User Guide

Public construction bids must be submitted on-line at [IMPACS Electronic Procurement System](#).

Bidders must be registered in IMPACS to submit a Bid.

To create an account, enter your email address and click on “Next” and click “Create Account”. Bidder must enter all fields noted with * including legal company name, contact first and last name, phone number, confirm email address, password, re-enter password, select account recovery question including answer, confirm answer, select box accepting websites use terms and conditions and select security check box “I’m not a robot”.

On the [IMPACS Electronic Procurement System](#) Customer Portal Home page, Bidder selects “View Event” in the Sourcing Events section.

Sourcing Events ?

Show Opening or Closing Soon ▾ [Go to Public Opportunities](#)

Event Number	Status	Event Title	Dates	Action
RFB923700-02	Open	Hoover East Side Pavers	Open: 4/27/2022 12:00:00 PM CDT Close: 5/5/2022 12:00:00 PM CDT	View Event ▾

Bidders can view event details including description, prerequisites, buyer attachments, questions and answers.

To submit a Bid, Bidder must select “**Yes, I intend to Bid**”. Bidder must complete the following sections.

Prerequisites - Bidder must complete all prerequisites.

- Bidder must upload a file of the Bid Security/Bond for 5% of total Bid Amount and certify that if they are awarded the construction contract they will enter into the contract at the Bid Amount submitted.
- Bidder must upload the completed and signed Bid Form.
NOTE: Bids are to be entered on the Bid Form only; not in the IMPACS. As a result, IMPACS will display a bid amount of \$0.

Questions - Bidder must complete all questions.

Review & Submit - Bidder must select the certification box certifying that the statements and information in response are true and correct to the best of their knowledge and belief.

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 2113.02

SAMPLE

CERTIFICATE OF LIABILITY INSURANCE



DATE (MM/DD/YYYY)
xx/xx/xxxx

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Agent's Name Agent's Address	CONTACT NAME: Agent's Information		
	PHONE (A/C, No. Ext): E-MAIL ADDRESS:	FAX (A/C, No.):	
INSURED Trade Contractor's Name Trade Contractor's Mailing Address	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Company A (AM Best Rated A/VI or Better)		Admitted
	INSURER B:		Carriers
	INSURER C:		
	INSURER D:		
	INSURER E:		

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	Minimum	
* A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	#TBD- CGL	3/1/17	3/1/18	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPIOP AGG \$ 1,000,000 \$		
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	X	X	#TBD-AL	3/1/17	3/1/18	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$	amount varies based on paragraph 10.2.2 of the ConsensusDocs 802 contract	
C	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	X	X	#TBD-UMB	3/1/17	3/1/18	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$		
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	X	#TBD-WC	3/1/17	3/1/18	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000	
* E	Owners Contrators Protective Liability			#TBD-OCF	3/1/17	3/1/18	*Limits equal to CGL (or) as required by owner (Note- Would be either CGL or OCF, not both)		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Additional Insured on a Primary & Non-Contributory basis (CGL;AL;UMB/Excess) in favor of : (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.
 Waiver of Subrogation (CGL;AL;WC/EL;UMB/Excess) in favor of: (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.
 Project XXXX.XX (Number varies by project)

CERTIFICATE HOLDER Iowa Department of Administrative Services (DAS) 109 SE 13th Street Des Moines, IA 50319	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Signature
--	--

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

CERTIFICATE OF SITE VISIT

This is certification that

(Name of Person)

As authorized representative of:

(Name of Firm)

(Firm's Address)

Visited the job site for verification of the conditions for the:

(Name of Project)

On

(Date of Visit)

(Signature of Owner's Representative or designated site authority)

Attention: This Certification of Site Visit must be completed and submitted with your bid package. If multiple locations are involved, provide a separate form for each location.

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 3113

PRELIMINARY SCHEDULE

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Preliminary Construction Schedule
- B. Schedule Durations

1.02 PRELIMINARY SCHEDULE

- A. A preliminary schedule has been identified by the Owner for the implementation of the Project. Refer to the schedule following this Section for references to anticipated milestones and construction duration.
- B. Each step of the Preliminary Schedule is subject to receipt of acceptable bids, Owner's decision process and date of commencement.
- C. A proposed construction schedule shall be submitted by all Trade Contractors to the Construction Manager no later than 48 hours prior to the pre-construction meeting. A revised Construction Schedule will be submitted by the Construction Manager once all preliminary schedules are reviewed and approved by the Owner.
- D. The final construction schedule will be established post award of bids with the cooperation of all contractors.

1.03 SCHEDULE DURATIONS

- A. Anticipated Notice of Intent to Award – 11/05/2025
- B. Anticipated Date of Commencement – 11/19/2025
- C. Building Demolition and Backfill – by 03/05/2025
- D. Site Restoration – by 04/17/2025

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

9479.00 DAS Fleet Demolition		DCI - Print							17-Oct-25 14:13								
#	Remaining Duration	Start	Finish	Activity Name	D	N	D	J	F	M	A	M	J	J	A	S	
1				9479.00 DAS Fleet Demolition	1	2	0	1	2	0	1	2	0	1	2	0	1
2				Preconstruction	2	0	1	2	0	1	2	0	1	2	0	1	2
3				Consultant Selection	3	0	1	2	0	1	2	0	1	2	0	1	2
4				Design Consultant	4	0	1	2	0	1	2	0	1	2	0	1	2
5				Hazardous Materials Consultant	5	0	1	2	0	1	2	0	1	2	0	1	2
6				Fleet Building	6	0	1	2	0	1	2	0	1	2	0	1	2
7				Fleet Preconstruction	7	0	1	2	0	1	2	0	1	2	0	1	2
8				Design	8	0	1	2	0	1	2	0	1	2	0	1	2
9		23-Sep-25	17-Oct-25	Hazardous Materials Bid Docs.													
10			17-Oct-25	100% Bid Doc Submittal													
11				Bid Letting Abatement & Demolition	11	0	1	2	0	1	2	0	1	2	0	1	2
12		17-Oct-25	17-Oct-25	Issue RFB to Procurement (State)													
13		17-Oct-25	18-Oct-25	Post RFB to TSB (State), MBI, Planrooms													
14		20-Oct-25	04-Nov-25	RFB Procurement													
15		23-Oct-25		RFB Pre-bid Meeting 01													
16			27-Oct-25	RFB Questions Due													
17		28-Oct-25*		RFB Pre-bid Meeting 02													
18			31-Oct-25	RFB Final Addendum													
19			04-Nov-25	Bids Due													
20		05-Nov-25		Contractor NOIs													
21		05-Nov-25	11-Nov-25	Contractor 5 Day Appeal Period													
22		05-Nov-25	18-Nov-25	Contractor Contract Execution													
23				Construction	23	0	1	2	0	1	2	0	1	2	0	1	2
24				Administrative	24	0	1	2	0	1	2	0	1	2	0	1	2
25		19-Nov-25	25-Nov-25	Contractor Site Specific Safety Plans Submitted													
26		19-Nov-25	04-Dec-25	DNR Notification of Demolition & Renovation													
27		19-Nov-25	04-Dec-25	Iowa Division of Labor Asbestos Abatement Notif													
28				Demolition	28	0	1	2	0	1	2	0	1	2	0	1	2
29		05-Dec-25	11-Dec-25	Mobilization													
30		05-Dec-25	05-Dec-25	Demolition Kick-Off Meeting													
31		12-Dec-25	05-Jan-26	Hazardous Materials Abatement													
32		06-Jan-26	12-Jan-26	Disconnects													
33		06-Jan-26	02-Feb-26	Utility Removals and Relocations													

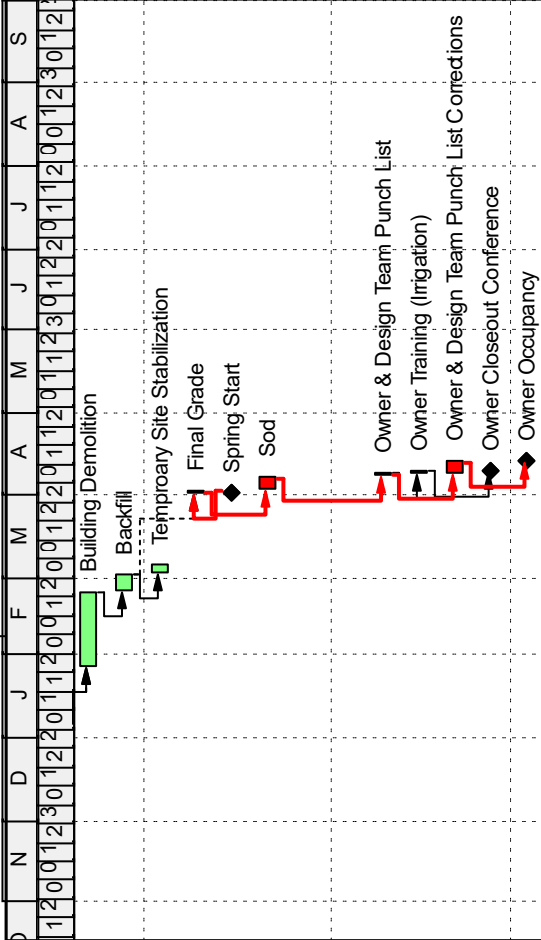
Actual Work █ Critical Remaining W... ◆
 Remaining Work █ Milestone ◆

Page 1 of 2

TASK filter: Hide Done Activities.

© Oracle Corporation

#	Remaining Duration	Start	Finish	Activity Name
34	20	27-Jan-26	23-Feb-26	Building Demolition
35	5	24-Feb-26	02-Mar-26	Backfill
36	3	03-Mar-26	05-Mar-26	Temporary Site Stabilization
37	2	01-Apr-26	02-Apr-26	Final Grade
38	0	01-Apr-26*		Spring Start
39	3	03-Apr-26	07-Apr-26	Sod
40				Closeout
41				Fleet Building
42	1	08-Apr-26	08-Apr-26	Owner & Design Team Punch List
43	1	09-Apr-26	09-Apr-26	Owner Training (Irrigation)
44	3	09-Apr-26	13-Apr-26	Owner & Design Team Punch List Corrections
45	0		09-Apr-26	Owner Closeout Conference
46	0		13-Apr-26	Owner Occupancy



Actual Work █ Critical Remaining W...
 Remaining Work █ Milestone ◆

SECTION 00 3126

EXISTING HAZARDOUS MATERIAL INFORMATION

PART 1 - GENERAL

1.01 EXISTING HAZARDOUS MATERIAL INFORMATION

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions.
- B. The existing hazardous materials survey reports related to this Project, were prepared by:
 - 1. Atlas Technical Consultants LLC dated 08/12/2025
- C. Related Requirements:
 - 1. Section 3.12 "Hazardous Materials" in the ConsensusDocs 802 contract for notification requirements if materials suspected of containing hazardous materials are encountered.
 - 2. Section 02133 Asbestos Abatement Specification by Atlas Technical Consultants LLC dated 08/19/2025

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION



**A S B E S T O S A B A T E M E N T
S P E C I F I C A T I O N**

Fleet Building Pre-Demolition Project #9479.00
301, 307, and 313 East 7th Street
Des Moines, Iowa

August 19, 2025

Project No. 204BS08895 – Task 2

PREPARED FOR:

Iowa Department of Administrative Services
109 SE 13th Street
Des Moines, IA 50319

PREPARED BY:

Atlas Technical Consultants LLC
4503 East 50th Street, Suite 800
Des Moines, Iowa 50317

A handwritten signature in black ink, appearing to read "Phillip Thomas". The signature is fluid and cursive, written over a light gray rectangular background.

Phillip Thomas, OHST, CHMM
Iowa Asbestos Project Designer #25-12850



Asbestos Abatement Specification Section 2081

PART 1 - GENERAL

1.1 INTRODUCTION

Asbestos abatement in building spaces is governed by rules established by the State of Iowa. This specification section addresses or references the requirements for complying with Department of Labor (DOL), Iowa Department of Natural Resources (IDNR), Occupation Safety and Health Organization Administration (OSHA), and the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos rules. Each and every rule requirement may not be restated in detail since trained, accredited, and licensed contractors and individuals are required for this work and are presumed to be familiar with the relevant laws and rules. Full regulatory compliance is required, and is a part of the contract, whether specifically stated herein or not.

1.2 DEFINITIONS

In addition to the terms listed below, all definitions in the laws and regulations listed in Section 1.5 are incorporated by reference, whether or not restated herein.

ACM: Asbestos Containing Materials any material containing greater than one percent (>1%) asbestos by laboratory analysis

Abatement Contractor (AC): the entity responsible for performing the work in this section, and has the training and accreditation to competently perform the work. This entity will obtain and maintain licenses required for the work identified in this section

Asbestos Abatement Supervisor: hereinafter referred to as “supervisor” means any person who supervises asbestos abatement workers. This person must be trained, accredited, and licensed as required, and must also meet OSHA “competent person” criteria for asbestos abatement

Environmental Consultant (EC): is selected by the Owner to serve as the Environmental Project Manager on their behalf. For this project the EC shall be Atlas Technical Consultants LLC

Environmental Project Manager (EPM): is the EC representative to perform environmental monitoring and testing activities on behalf of the Owner on the project, this also shall be Atlas Technical Consultants LLC

HEPA Filter: a High Efficiency Particulate Air filter capable of trapping 99.97% percent of mono-dispersed particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter

IDNR: the Iowa Department of Natural Resources

NESHAP: the National Emission Standards for Hazardous Air Pollutants

NIOSH: the National Institute for Occupational Safety and Health

OSHA: the Occupational Safety and Health Administration

Owner: the owner of the property and the authority ordering the work specified herein

PCM: Phase Contrast Microscopy

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA
 August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



Plasticize: to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.

PPE (Personal Protective Equipment): protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards

SDS: Safety Data Sheet, required by OSHA for any substances which are toxic, caustic, or otherwise hazardous to workers

USEPA: the United States Environmental Protection Agency

Work Area: area or areas where asbestos abatement is being conducted

1.3 SCOPE OF WORK

It is the intent of the Owner to remove the asbestos containing materials identified in Table 1 below:

Table 1: Asbestos Containing Materials				
Sample Number	Material	Location	Approx. Quantity	Asbestos Content
A-2-Caulk	Gray Caulking	Roof Central – Vent Pipe	10 LF	5% Chrysotile
A-7-Insulation	Transite Panels	Roof, Southwest Area – Roof Access	100 SF	60% Chrysotile
A-9	Gray Expansion Joint Compound	North Wall – Exterior	35 LF	8% Chrysotile
A-18, A-21-Joint Compound A-32	Drywall Mud / Joint Compound	1 st Floor, 2 nd Floor Office Space B, Open Office Space	45,000 SF	2 – 5% Chrysotile
A-22	Vibration Damper – HVAC Unit	1 st Floor Office Space B – North End	8 LF	45% Chrysotile
A-24-Glazing	Expansion Joint (bottom layer)	1 st Floor Office Space B – North End	12 LF	3% Chrysotile
A-26, A27	12” x 12” Floor Tile (white) and Black Mastic	1 st Floor Office Space B	3,600 SF	Tile: 4% Mastic: 2% Chrysotile
A-38, A-39 A-42, A-43, A-44, A-47	9” x 9” Floor Tile (pink, green, tan) and Black Mastic	2 nd Floor Office Space B	7,800 SF	Tile: 5-9% Mastic: 4-5% Chrysotile

SF = Square Feet, LF = Linear Feet

Drawings are provided to identify locations of these materials. All ACM noted on the drawings shall be removed. The contractor is responsible for quantifying the materials in the scope of work during the pre-bid site visit. Any discrepancies of locations or quantities should be brought to the attention of EC as soon as possible and before the bid due date. ACM found inside the work areas, or noted in the drawings, shall be the responsibility of the AC for abatement at no additional cost to the Owner.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



1.4 WORK INCLUDED

- A. The work includes all labor, equipment, materials, and supplies necessary to perform the scope of work in the documents by the procedures described herein. The contractor, by submitting a bid for the work, represents itself as knowledgeable and expert in the performance of the work, and includes all things usually and customarily necessary to provide a complete and finished job, whether specifically mentioned or not. Related work may be shown in other related documents, prepared by others. Where there is conflict in the documents, written clarification should be requested to the EC.
- B. Removal of asbestos-containing material listed in Table 1 of Section 1.3 above, including pre-cleaning, establishing regulated areas, isolating the work areas, protection of adjacent areas, containment, construction curtain, cleanup and decontamination to the specified clearance levels, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Prior to performing abatement, the Contractor is required to restrict public access and visibility of the work by installing a temporary barrier in front of the staging area. The barrier shall include black poly sheeting and secured to prevent unauthorized access.
- D. Exhaust units must be vented to the outside of the building. This may involve the use of additional lengths of flexible duct connected to the unit and routed to the nearest outside opening. When not feasible due to fixed windows, as determined by the EC, negative air machines will be double HEPA filtered. The area receiving the exhaust shall not interfere with building occupant activities. Air monitoring by the EC shall be performed at the final exhaust location of the negative air machine if exhausting to the indoors.
- E. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the contractor will comply with the most stringent.
- F. Contractor is required to fully comply with these specifications.
- G. All licenses, accreditations, permits, fees, notifications, reports, or other documents required by law, regulation, this specification, or the Documents.
- H. Provide project closeout documentation to the EC within 30 days after final clearance of each Phase. This documentation shall include, but is not limited to, items listed in Section 1.7, Submittals by the AC.

1.5 LAWS, REGULATIONS AND STANDARDS

- A. The following laws, regulations, and standards are incorporated by reference:
 - 1. Iowa Division of Labor (IDOL), Iowa Workforce Development
Iowa Administrative Code (IAC) 875 Chapter 10 (IAC 875-10)
IAC 875-155
 - 2. Iowa Department of Natural Resources (IDNR)
IAC 567-23
 - 3. Occupational Safety and Health Administration administered by the Iowa Department of Labor:
29 CFR 1910.134 US OSHA Respiratory Protection
29 CFR 1910 US OSHA General Industry Standards
29 CFR 1926 US OSHA Construction Standards
29 CFR 1926.1101 US OSHA Asbestos Construction Standards
29 CFR 1910.1001 US OSHA Asbestos Standards

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



4. Environmental Protection Agency NESHAPS regulations administered by the Iowa IDNR including:
 - ASHARA USEPA Asbestos School Hazard Abatement Reauthorization Act
 - 40 CFR Part 61 USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP)
 - 40 CFR 763 Subpart E USEPA Asbestos Hazard Emergency Response Act (AHERA) Rules
 - 40 CFR 763 Subpart E, USEPA Asbestos Model Accreditation Plan (MAP): Appendix C Interim Final Rule

1.6 ASSESSMENT, MONITORING, TESTING AND ANALYSIS

- A. The EPM will be independent of the AC and hired by the State for monitoring the project. The EPM will perform testing, inspection, and monitoring services during the asbestos work and upon its completion. The EPM will be licensed for asbestos, trained for PCM analysis and a participant in a quality control program for proficiency. The monitoring will include the following parameters:
 1. On an as needed basis during the work, the EPM shall:
 - a. Enter the work area to inspect the work procedures and work area integrity.
 - b. Collect air samples outside the work area at the perimeter and at the exhaust of the negative air machine.
 - c. The EC will stop the work if airborne asbestos concentrations outside the work area exceed 0.01 f/cc. The work may restart when the source of fiber release has been identified and corrected. Contractor will be responsible for cleaning and decontaminating the outside area if caused by the asbestos abatement activities.
 2. Upon completion of the work, the EC shall:
 - a. Visually inspect the work area for visible debris and/or gross contamination.
 - b. Contractor shall be required to re-clean the area, or portions of areas, until no visible debris and/or gross contamination remains, and the work area is dry.
 - c. ~~Not Applicable – Clearance testing by PCM will be performed for each work area.~~
 - d. ~~Not Applicable – Collection and analysis of samples will be conducted in general accordance with NIOSH Method 7400 and the clearance level will not exceed 0.01 f/cc.~~
 - e. Preparation and submittal of the Project Report to the Owner within 30 days of project completion and receipt of all waste manifests.
- B. The Contractor shall provide OSHA compliance air monitoring to determine exposures to its employees in accordance with OSHA 29 CFR 1926.1101. Frequency of testing will comply with OSHA requirements for the anticipated and actual exposure levels.
 1. A written Exposure Assessment is required prior to the start of the work to determine the requirements for respiratory protection and frequency of OSHA monitoring for each type of activity. If the DOL requests additional monitoring and data for the exposure assessment, the testing will be conducted at the expense of the abatement contractor.
 2. Analysis may be performed on-site by a trained Air Sampling Professional experienced in the fiber counting methods outlined in NIOSH Method 7400 and supporting training documentation or successful training certificate.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA
August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



1.7 SUBMITTALS BY THE CONTRACTOR

- A. Bid Submittals. The following list of items shall be submitted in whole upon award of the bid. If the following items are not submitted by the Contractor, the bid may be rejected.
1. Contractor must submit a copy of their current unexpired Iowa permit/license to perform asbestos abatement and their Iowa Contractor Registration.
 2. Disclosure of past and pending violations in respect to environmental, safety or asbestos rules (State and Federal).
- B. All asbestos notifications should be made within the accepted time frame to the Iowa IDNR and IDOL as required. Notifications shall be submitted a minimum of 10 working days before commencement of work. A copy of the required submittals shall also be provided to the EC for review prior to submittal to the regulatory agencies.
- C. After the project is awarded, the selected Contractor shall provide the following to the EC 10 days prior to commencement of Work:
1. Documentation of arrangements of transport and disposal, and landfill name and location.
 2. Contractor must submit a copy of their current unexpired Iowa Asbestos Abatement Worker and Supervisor license for all workers anticipated to be assigned to this project. Worker training documentation, medical examinations, fit tests, certifications and training courses shall also be provided that are relevant to the Project.
 4. Drawings or sketches for layout and construction of isolation barriers and decontamination units and type of containments.
 5. Respirators: NIOSH approvals and manufacturer certification of P-100 cartridges.
 6. Fit test documentation for all employees and the fit test agent.
 7. Manufacturers' certifications that all HEPA vacuums, negative air pressure equipment, and other local exhaust ventilation equipment conform to ANSI Z9.2-79
 8. OSHA Exposure Assessment, if applicable.
 9. Laboratory and analyst credentials for contractor OSHA samples.
 10. Safety Data Sheets (SDS) for chemicals used on-site.
- D. To the EC weekly during the abatement work:
1. Job progress reports detailing abatement activities, progress compared to schedule, problems and actions taken, injury reports, and equipment breakdowns.
 2. Quantity of asbestos materials removed.
 3. Waste Shipment Records.
 4. Work site Entry logs.
 5. Measurement logs for negative pressure differentials for each containment.
 6. Filter Change logs for respirators, HEPA vacuums, negative air machines, and other engineering controls.
 7. OSHA compliance air monitoring data.
 8. Worker license and certification log.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



PART 2 - PRODUCTS

2.1 TOOLS AND EQUIPMENT

All equipment shall at least conform to minimum industry standards (i.e. ground-fault circuit interrupter (GFCI)).

A. Equipment:

1. Negative Air Machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
2. Respirators shall be NIOSH approved for use with asbestos or other contaminants anticipated in the work.
3. Contractor is fully responsible for complying with OSHA rules for other safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.

B. Tools:

1. Shovels and scoops shall be metal, rubber or plastic, suitable for use in a plasticized containment.
2. Scrapers, brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The contractor shall keep an ample supply on hand for the completion of the work. If fixed open blade knives are to be used, the proper hand protection shall be utilized (i.e. cut resistant gloves).
3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.
4. Submit proposed tools and methods to be used for removal.
5. Unsafe tools or improper usage of tools may become prohibited items at the discretion of the Owner's Representative based on safety concerns.

2.2 MATERIALS

A. Installed materials which become a part of the work such as, but not limited to, encapsulants shall be of good quality, non-lead-bearing, free of asbestos, and conform to the respective reinstallation specification sections prepared by others.

1. Contractor shall ensure that encapsulants and sealants used as primers, basecoats, or covering existing materials are compatible with the respective existing or reinstallation materials and their manufacturers' warranties.

B. Abatement materials

1. Polyethylene sheeting for all applications shall be 6-mil nominal thickness for floors, drop cloths, and walls.
2. Tape shall be 2" or 3" duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
4. Disposal bags shall be 6-mil polyethylene and shall be properly labeled.
5. Disposable suits, hoods, and foot coverings shall be TYVEK® or similar.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



6. Solvents shall be compatible with any primers, mastics, adhesives, paints, coatings, or other surfacing materials to be installed following their use.

- C. ACCEPTABLE MANUFACTURERS/PRODUCTS: All products must meet or exceed ASTM standards.

PART 3 - EXECUTION

3.1 EMPLOYEE TRAINING, QUALIFICATION AND MEDICAL SCREENING

- A. Supervisors and Workers shall be trained, accredited, and licensed in accordance with State and Federal rules.
 1. Contractor shall keep copies of licenses, initial training course certificate, and most recent annual refresher training certificate at the jobsite at all times for all contractor personnel.
 2. A licensed asbestos abatement supervisor (competent person) shall be present at the worksite at all times when work under this section is being conducted.
- B. Medical Screening. All contractor personnel shall have a current medical examination in accordance with OSHA requirements. Copies of the Physician's Written Opinions shall be kept on site.

3.2 PERMISSIBLE EXPOSURE LIMITS

- A. The OSHA permissible exposure limit (PEL) for worker exposure to airborne asbestos is 0.1 f/cc as an 8-hour time-weighted average (TWA).
- B. The OSHA short term excursion limit for worker exposure to airborne asbestos is 1.0 f/cc for a 30 minute sample.
- C. The permissible level of airborne fibers in areas adjacent to the work area is 0.01 f/cc as determined by PCM in general accordance with NIOSH Method 7400.
 1. Work shall immediately cease in the work area containment when an airborne fiber concentrations exceed this level.
 2. The source of outside contamination shall be determined, and corrective measures (e.g. wet cleaning, changes in work practices, negative pressure containment) shall be implemented to prevent recurrence.
 3. The contractor shall be responsible for cleanup of contamination in adjacent areas caused by the asbestos abatement activities.

3.3 EXPOSURE ASSESSMENT AND MONITORING

- A. The Contractor shall make an assessment of the airborne exposures. The assessment shall conform to OSHA requirements and may be based upon:
 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of asbestos.
 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, work practices and environmental conditions to be used for this project.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



3. Review of the documentation may require approval from local regulators to be accepted.
- B. The contractor shall perform daily personal monitoring in accordance with those requirements as established in OSHA or by the local governing authority / enforcement officer.

3.4 RESPIRATORY PROTECTION

- A. Respiratory protection shall be worn by all persons potentially exposed to airborne asbestos fibers from the start of the abatement project until all areas have passed clearance air monitoring.
- B. Contractor shall have a written respiratory protection program in accordance with OSHA 29 CFR 1910.134, including but not limited to, medical screening, semi-annual fit testing, training, cleaning and maintenance.
- C. Respirators shall not be removed while in the work area.
- D. Only NIOSH-approved respirators shall be used.
- E. Additional respiratory protection such as organic vapor cartridges, may be needed when handling some solvents, coatings, or stripping products. Consult the MSDS, manufacturer, or industrial hygienist, and obtain the proper cartridges and usages as necessary.

3.5 HYGIENE PRACTICES

- A. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the work area.
- B. All persons entering the work area are required to wear appropriate PPE, and follow the entry and exit procedures posted in the Personnel Decontamination Enclosure System.
- C. PPE shall include, at a minimum:
 1. Full body disposable suits, headgear (including respirators), and footwear.
 2. Gloves.
 3. Non-disposable footwear and clothing shall remain in the work area and shall be disposed of as contaminated waste when the job is completed.
 4. Authorized visitors shall be provided with suitable PPE.

3.6 PROHIBITED ACTIVITIES

- A. Dry removal or dry sweeping.
- B. Use of compressed air for cleaning.
- C. Use of high speed power tools not equipped with a HEPA-filtered local exhaust system.

3.7 WORK AREA ISOLATION AND PREPARATION

- A. General Preparation. Contractor shall:
 1. Post:
 - a. OSHA asbestos warning signs at every entrance to the work area.
 - b. Decontamination and work procedures in equipment rooms and clean rooms.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



- c. USEPA NESHAP asbestos rules (40 CFR Part 61, subparts A & M) in the clean room.
 - d. OSHA Asbestos Construction Standards (29 CFR 1926.1101) in the clean room.
 - e. Entry and Exit Log
 - f. List of telephone numbers in the clean room for:
 - (1) local hospital and/or local emergency squad.
 - (2) owner security office (if applicable).
 - (3) owner representative reachable 24 hours per day.
 - (4) contractor's headquarters.
 - (5) architects or consultants directly involved in the project.
 2. Secure the work area from entry by unauthorized persons using black polyethylene sheeting as a construction area barrier and post construction warning signs.
 3. Separate work areas from occupied areas.
 - a. Seal off all doorways and corridors which will not be used for passage during work.
 - b. Install isolation barriers in all openings larger than 4' x 8', consisting of double-layer 6-mil poly to prevent access to the contained areas.
 4. Have an approved fire extinguisher in the equipment room.
 5. Install and maintain walk-off mats to the general work entrance.
- B. Interior Preparation
 1. Install negative air machine(s) in the work area. The equipment shall exhaust through a HEPA filter to the outside of the building, or the exhaust will be double filtered. The equipment shall remain in operation twenty-four hours a day until decontamination of the work area and final air sampling and analysis is completed. Seal openings around exhaust ducts. Exhaust from the negative air movement equipment shall not be allowed to be released within the buildings unless unfeasible as determined by the EC. All HEPA filtered air movement equipment shall be maintained according to this specification or regulations.
 2. Shut down and isolate heating, ventilating, air conditioning (HVAC) systems which are within the work area.
 3. Seal off all windows, corridors, doorways, bathrooms, closets, skylights, ducts, grilles, diffusers, and other penetrations or openings with 6-mil poly and tape.
 4. Protect and cover floors, in those areas in which no abatement is to be performed with 6-mil poly with seams staggered and taped, and extending 12" up walls. Maintain for the duration of the project.
 5. Protect and cover the walls in the work area.
 6. Protect and cover non-movable fixed objects from which no abatement will be conducted (e.g. fixed cabinets, shelves, etc.).
 7. Asbestos materials shall not be disturbed during the Preparation phase.
 8. Maintain emergency and fire exits.
 9. In all areas for abatement install a three chamber Worker Decontamination Enclosure System, consisting of clean room, shower room (both hot and cold water), and equipment room separated by air locks, all with curtained doorways, of sufficient size to serve the size of the crew.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA
August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



- a. Where an adjacent decon unit is not feasible (i.e., for multiple tented glovebag operations), the AC shall (only with an approved variance from the EC):
 - (1) set up the decon unit within the work area barriers
 - (2) establish a negative pressure of at least 0.02" water column (wc) between the equipment room and adjacent spaces, including the clean room
 - (3) provide at least 4 air changes per hour within the decontamination unit
 10. Once operational, the system shall be inspected daily. Damages and defects will be repaired immediately upon discovery.
- C. Exterior Preparation (for areas that interface with interior work)
1. 6 mil poly sheeting shall be placed over the ground, foundation, or other surfaces below the abatement area.
 2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.
 3. Nearby air intakes, grilles, and other openings into the building interior shall be sealed off with 6 mil poly and tape.

3.8 ABATEMENT PROCEDURES

- A. Removal:
1. Asbestos materials shall be wetted and kept wet during removal.
 2. ACM waste shall be bagged or containerized as it is removed.
 3. Work areas shall be kept wet until visible material is cleaned up.
 4. Asbestos waste shall be removed from the work area daily.
 - a. The waste shall be placed and sealed in a properly labeled 6-mil poly bag.
 - b. The bag shall be cleaned and placed in a second properly labeled 6-mil poly bag. This bag shall be sealed by securing with duct tape, folding over taped area and goose necking with duct tape.

3.9 CLEANING AND DECONTAMINATION

- A. All visible accumulations of ACM, debris, tools, and unnecessary equipment shall be removed from the work area.
- B. First clean:
1. Wet clean all surfaces and remove excess water.
 2. Remove outer layer of poly and dispose as ACM waste (splash guards and poly protecting the underlying surfaces).
 3. Critical barriers on windows, doors, penetrations, and other openings shall remain in place and negative air system shall remain in continuous operation until final clearance tests have passed.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



- C. Visual inspection: EC and contractor jointly inspect the work area for visible residue and excess water and, if observed, repeat the clean/ wait cycle until residues are not detected and work area is dry.
- D. Remove all tools, cleaning materials, remaining wastes from the work area.
- E. Apply lock-down encapsulants where specified in the Documents.
- F. Notify EC that work area is ready for final clearance testing.

3.10 FINAL CLEARANCE

- A. Final clearance testing shall be performed after the final cleaning and visual inspection has been completed and where no visible water or condensation remains.
- B. All work areas shall be tested and analyzed by either PCM or Transmission Electron Microscopy (TEM) methodologies.
- C. If final clearance test(s) fail, the AC shall be responsible for repeating the cleaning sequence as necessary until final clearance tests are successful, at no additional cost to the owner. The AC shall also be responsible for paying for the additional time and expenses incurred by the EC for conducting the repeat clearance sampling, analysis and project oversight.
- D. Upon completion of a successful visual inspection and test, a “punch list” walkthrough shall be conducted for each area that contained special wastes, non-hazardous special waste or hazardous waste within five working days of completion of the work by the Contractor. The Contractor, Environmental Consultant and the Owner will participate in the walkthrough. All punch list items shall be completed within five working days of walkthrough. The items will include all deficiencies found in the inspections of the AC’s work which is to be corrected. When the deficiencies have been removed, the AC shall request a re-inspection by the EC.

3.11 SPECIAL PROCEDURES

- A. **Glovebag Procedure.** Glovebags may be used to remove small sections of ACM pipe insulation encountered.
 - 1. Typical Preparation/notification requirements apply.
 - 2. Glovebag removal will require a single layer, 6 mil poly tent containment with negative pressure air filtration.
 - 3. Monitoring will be performed by the EC.
 - 4. Glovebag construction shall be 6 mil poly with seamless bottom, suitable for the intended use (straight runs, fittings, elbows, vertical pipes, etc.) without modification.
 - 5. At least two licensed workers shall perform glovebag operations.
 - 6. Workers shall wear full body PPE and at least a ½ mask respirator equipped with a P-100 cartridge. Note here, too, that OSHA still requires an exposure assessment and respirators that are appropriate for the expected airborne fiber concentrations.
 - 7. Prior to use, all loose or damaged material adjacent to the operation shall be wrapped in two layers of 6 mil poly or otherwise be rendered intact.
 - 8. Work Practices shall include:
 - a. Install to completely cover the circumference of pipe or other structure. Pipe insulation diameter shall not exceed ½ the bag working length above the glove sleeves.
 - b. Smoke test for leaks and seal any leaks prior to use.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA

August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



- c. Single use and not moved.
- d. Wet removal methods on the materials to be removed and wet cleaning to remove all visible ACM from the pipe or structure surfaces.
- e. Not to be used on surfaces greater than 150°F.
- f. Spray down the interior surfaces of the bag, substrate, and removed ACM.
- g. Wet down remaining ACM surfaces or seal with encapsulant.
- h. Seal off the lower portion of the bag containing the ACM waste by twisting several times and sealing with tape.
- i. Collapse glovebag with a HEPA vacuum.
- j. Place the detached glovebag directly into a 6 mil poly waste disposal bag and gooseneck-seal it in the waste disposal bag for disposal.
- k. Dispose in accordance with this specification.

3.12 WASTE DISPOSAL AND EQUIPMENT LOAD-OUT

A. Preparing equipment for load-out

1. Remove gross debris from equipment and wet wipe all surfaces.
2. Seal openings to prevent escape of internal contamination; or open equipment, remove filters, and make equipment interiors accessible for cleaning and decontamination.

B. Packaging asbestos wastes:

1. All asbestos-containing wastes, including removed ACM and debris, containment poly, critical barrier materials, suits, respirator cartridges, vacuums and negative air machine HEPA filters, water filters, and other asbestos-containing items shall be properly packaged in 6 mil poly for disposal.
2. Use double 6 mil poly bags with “gooseneck” seal, or other impermeable containers.
3. Wrap large or irregular items in 2 layers of 6 mil poly sheeting and seal with tape.
4. Sharp, jagged, or other items that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes or wrapped in burlap or other protective covering before sealing in double bags or double layers of 6 mil poly.
5. Label containers:
 - a. OSHA warning label.
 - b. DOT performance-oriented hazardous material label.
 - c. Name and address of generator and abatement location.

C. Removing items from the work area:

1. Packaged asbestos wastes, non-porous debris (such as doors, hardware, and other items that can be decontaminated), and equipment shall be wet cleaned, moved into the equipment decontamination enclosure system, cleaned a second time, and moved into the holding area.
2. Containers and equipment shall be removed from the holding area by workers in clean PPE and respirators who enter from the uncontaminated side (outside). The equipment decontamination enclosure system shall not be used to enter or exit the work area.

Asbestos Abatement Specification

Fleet Building Pre-Demolition Survey #9479.00 ♦ Des Moines, IA
August 19, 2025 ♦ Atlas Project ID: 204BS08895 – Task 02



- D. Storage of packaged asbestos wastes shall be in a completely enclosed dumpster or other suitable container that can be secured. The secured area shall be kept locked at all times to prevent unauthorized access.

- E. Shipment of items from the project.
 - 1. Decontaminated tools and equipment may be shipped by normal carrier to warehouse, another jobsite, or other destination.
 - 2. For asbestos wastes:
 - a. Line shipping container with 6 mil poly prior to loading packaged asbestos wastes.
 - b. Post NESHAP placards during loading.
 - c. Persons performing loading operations shall wear PPE including respirators.
 - d. Containers and packages shall be tightly packed together to prevent shifting during transport. Large components or heavy items shall be secured to prevent shifting and shall not be stacked on top of bags.
 - e. Execute the NESHAP-required Waste Shipment Record (WSR) to be signed by the generator, transporter, and landfill. All WSRs shall be returned to the EC within 30 days of shipment.

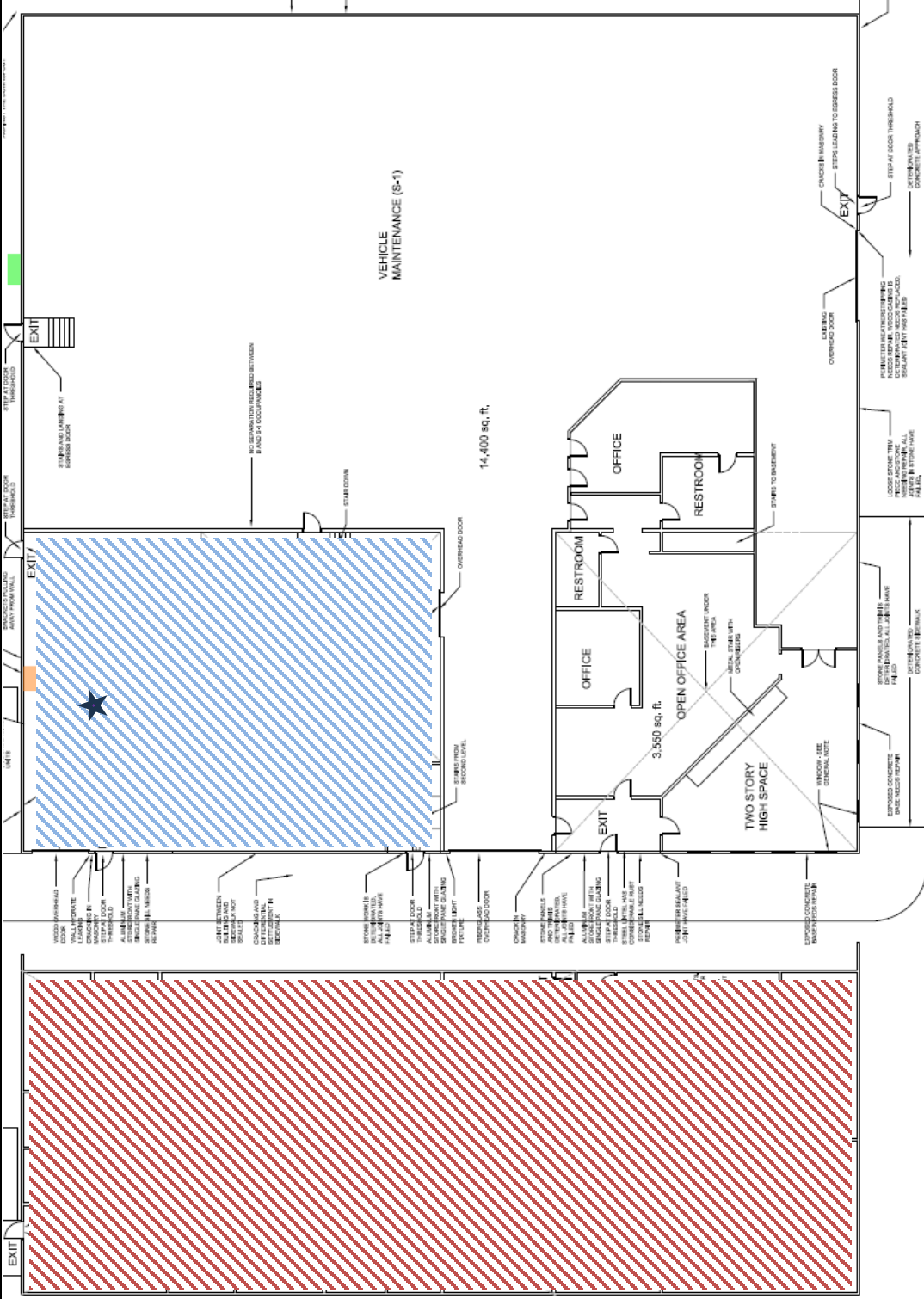
- F. Disposal of packaged asbestos wastes.
 - 1. Only landfills approved and permitted by the State of Iowa for accepting asbestos wastes may be used for disposal.

3.13 DEMOBILIZATION

- A. EC shall visually inspect the work area for evidence of visible debris prior to releasing the area for tear-down. Detection of contamination will require additional cleaning and re-testing of the work area.

- B. Remove critical barriers and seals.

END OF SECTION 02081



- = HVAC Vibration Damper
- = Expansion Joint (bottom layer)
- = Exterior Expansion Joint

= 12" x 12" Floor Tile and Black Mastic

= 9" x 9" Floor Tile (pink-green-tan) and Black Mastic

Project No. 204BS08895	Date: August 22, 2025
Project Manager: Phillip Thomas	
Name: Main and Second Floor Drawing	

4503 East 50th Street, Suite 800
Des Moines, Iowa 50317
PH. (515) 981-4528

Asbestos Containing Material Locations

Fleet Building
301, 307, 313 East 7th Street
Des Moines, Iowa



SECOND FLOOR PLAN

MAIN FLOOR PLAN

 = Joint Compound Associated w/Drywall

Project No. 204BS08895 Date: August 22, 2025

Project Manager: Phillip Thomas

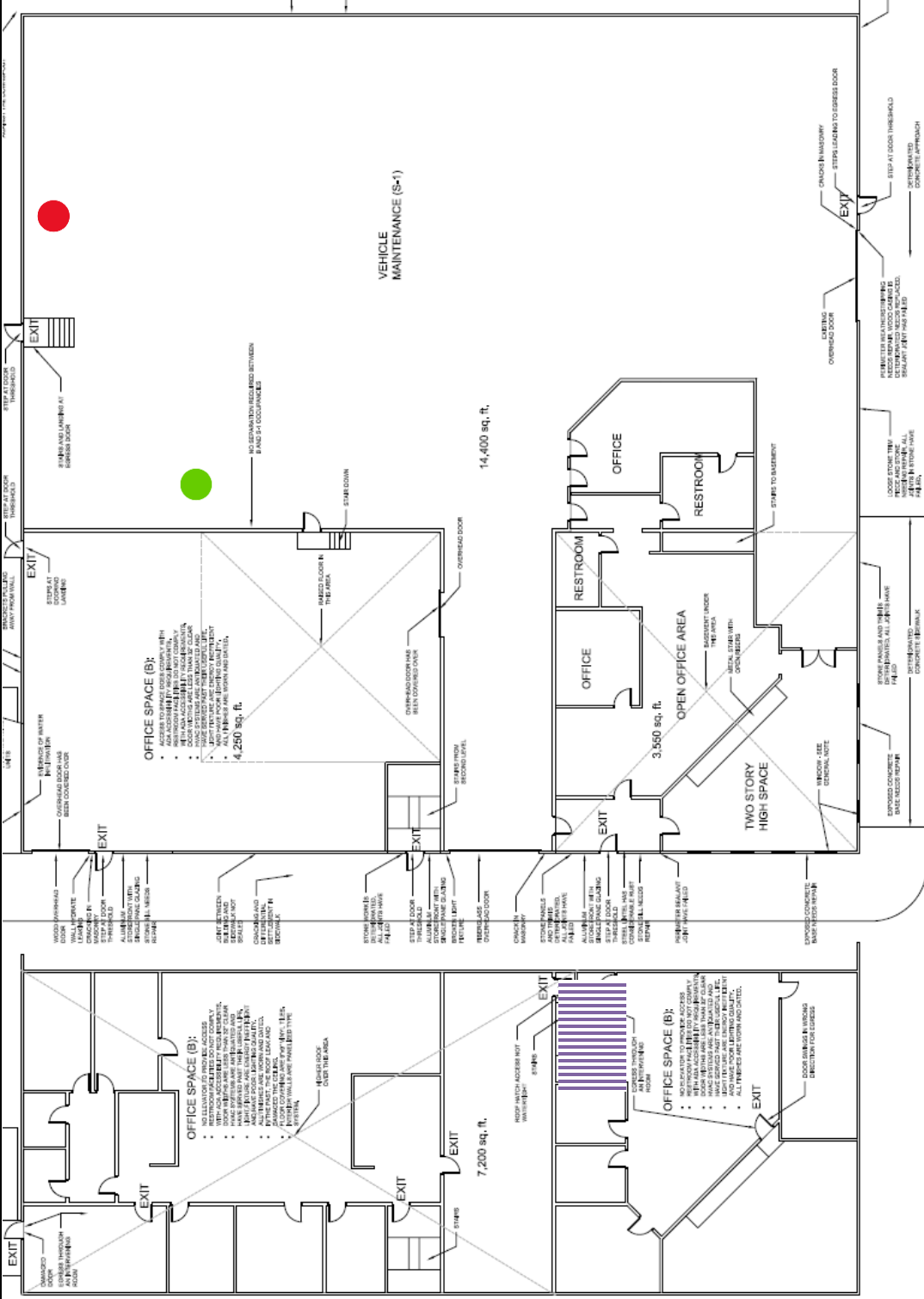
Name: Main and Second Floor Drawing

Asbestos Containing Material Locations

Fleet Building
 301, 307, 313 East 7th Street
 Des Moines, Iowa



4503 East 50th Street, Suite 800
 Des Moines, Iowa 50317
 PH. (515) 981-4528



SECOND FLOOR PLAN

MAIN FLOOR PLAN

||||| = Exterior Transite Panels

● = Grey Caulking on Large Vent Stack

● = <1% Grey Caulking on Large Vent Stack

Project No. 204BS08895 Date: August 22, 2025

Project Manager: Phillip Thomas

Name: Roof

Asbestos Containing Material Locations

Fleet Building
 301, 307, 313 East 7th Street
 Des Moines, Iowa



4503 East 50th Street, Suite 800
 Des Moines, Iowa 50317
 PH. (515) 981-4528

PHILLIP THOMAS



DOB: 05-26-1976

Issued: 01-15-2025



This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	25-12849	01-06-2026
PROJECT DESIGNER	25-12850	01-06-2026
MANAGEMENT PLANNER	25-12851	01-07-2026

 
Asbestos **Larry Johnson, Jr.**
Labor Commissioner



**H A Z A R D O U S B U I L D I N G M A T E R I A L S
P R E - D E M O L I T I O N S U R V E Y**

PREPARED FOR:

Iowa Department of Administrative Services
109 SE 13th Street
Des Moines, IA 50319

PROJECT LOCATION:

Fleet Building Pre-Demolition Project #9479.00
301, 307, and 313 East 7th Street
Des Moines, Iowa

Project Date: July 28 - 29, 2025

Report Date: August 12, 2025

Atlas Project ID: 204BS08895

PREPARED BY:

Atlas Technical Consultants LLC
4503 East 50th Street, Suite 800
Des Moines, IA 50317



August 12, 2025

Ms. Jennie Elliott
Iowa Department of Administrative Services
109 SE 13 Street
Des Moines, IA 50319

Re: Hazardous Building Materials Pre-Demolition Survey
Fleet Building Pre-Demolition Project #9479.00
301, 307, and 313 East 7th Street
Des Moines, Iowa
Atlas Project Number: 204BS08895

Dear Ms. Elliott:

Atlas Technical Consultants LLC (Atlas) is pleased to submit the attached Hazardous Building Materials Pre-Demolition Survey for the above-referenced site. This report includes procedures, methodologies and analytical laboratory results.

Atlas appreciates the opportunity to perform these services for the Iowa Department of Administrative Services (IDAS), and we look forward to working with you in the future. If you need any assistance with the implementation of the recommendations contained in this report, please feel free to give us a call at (515) 981-4528 and we will respond promptly to your needs.

Sincerely,

ATLAS TECHNICAL CONSULTANTS LLC

A handwritten signature in blue ink, appearing to read "Chris Nicolet".

Chris Nicolet
Iowa Inspector

A handwritten signature in black ink, appearing to read "Phillip Thomas".

Phillip Thomas, OHST, CHMM
Project Manager



T A B L E O F C O N T E N T S

LETTER OF TRANSMITTAL i

1.0 SCOPE OF SERVICES 1

2.0 GENERAL SITE CONDITIONS..... 1

3.0 ASBESTOS SURVEY 1

 3.1 Regulation Review..... 2

 3.2 Homogeneous Areas..... 3

 3.3 Sampling Strategy 3

 3.4 Laboratory Analytical Results 3

 3.5 Suspect Asbestos-Containing Materials 3

4.0 LEAD PAINT TESTING..... 7

 4.1 Regulation Review..... 7

 4.2 Lead Paint Testing..... 8

5.0 HAZARDOUS MATERIALS SURVEY..... 9

6.0 CONCLUSIONS AND RECOMMENDATIONS..... 10

 6.1 Asbestos..... 10

 6.2 Lead..... 10

 6.3 Hazardous Materials..... 10

7.0 LIMITATIONS 10

APPENDICES:

- APPENDIX A: Asbestos Analytical Report and Chain of Custody
- APPENDIX B: Lead Analytical Report and Chain of Custody
- APPENDIX C: Drawings with Sample Locations
- APPENDIX D: Hazardous Materials Inventory
- APPENDIX E: Photo Log
- APPENDIX F: Staff Certifications



HAZARDOUS BUILDING MATERIALS PRE-DEMOLITION SURVEY

Fleet Building Pre-Demolition Project #9479.00
301, 307, and 313 East 7th Street
Des Moines, Iowa
Atlas Project Number: 204BS08895

1.0 SCOPE OF SERVICES

The purpose of this project was to conduct a survey for hazardous building materials (HBM) that may be impacted by planned demolition activities at the above-referenced property.

Atlas provided a representative hazardous materials survey in accordance with the referenced agreement and as outlined below:

1. Review any existing HBM survey reports relating to the site, if available.
2. Identify suspect asbestos-containing materials (ACM), surface coatings potentially containing lead paint, and inventory other regulated hazardous materials as part of the Fleet Building HBM Pre-Demolition Project #9479.00
3. Collect and analyze bulk samples of suspect asbestos containing materials and collect paint chip samples from representative surface coatings potentially containing lead-based or lead-containing paint.
4. Provide laboratory analysis of collected samples.
5. Provide a report of findings with copies and interpretation of analytical results and identifying the locations of asbestos-containing materials, lead paint, and Inventory of hazardous building materials.

2.0 GENERAL SITE CONDITIONS

The survey was conducted as part of the Fleet Building HBM Pre-Demolition Project #9479.00 located at 301, 307, and 313 East 7th Street, Des Moines, Iowa. The survey included the inspection of the interior and exterior of the building prior to proposed demolition activities.

3.0 ASBESTOS SURVEY

On July 28 – 29, 2025, the building materials associated with the Fleet Building HBM Pre-Demolition Project #9479.00 were inspected for ACM by inspector Chris Nicolet of Atlas. Mr. Nicolet has completed the requisite training for asbestos accreditation as an inspector at a state approved training provider under TSCA Title II. Mr. Nicolet's State of Iowa Inspector number is 25-12809.



The area(s) were visually inspected for the presence of suspect ACM that may be impacted by the Fleet Building HBM Pre-Demolition Project #9479.00. Materials that were hidden, not accessible, or when sampled would damage the integrity of the structure, were not sampled as part of this survey. Materials visibly identified as non-asbestos (fibrous glass, foam rubber, wood, etc.) were not sampled. The asbestos survey consisted of three basic steps: **1)** a visual inspection of the proposed work areas; **2)** a determination of homogeneous areas with suspect surfacing, thermal system insulation, and miscellaneous materials; and **3)** sampling accessible, friable and non-friable, suspect materials.

3.1 Regulation Review

In Iowa, asbestos activities are regulated by the Iowa Department of Natural Resources (IDNR) and Iowa Workforce Development (IWD), Division of Labor. IDNR regulates asbestos fiber emissions under Iowa Administrative Code 567 Chapter 23 (IAC 567–23) and asbestos-containing waste disposal under IAC 567–109. IWD regulates occupational exposure to asbestos under IAC 875–10 and asbestos removal and encapsulation activities under IAC 875–155.

IAC 567–23.1(3) adopts the USEPA asbestos NESHAP (40 CFR Part 61, Subpart M) by reference. Subpart M regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as friable, Category I nonfriable, or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I nonfriable ACM includes packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos. Category II nonfriable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- Friable ACM;
- Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

The owner or operator must provide the IDNR and IWD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor.

IAC 875–155 Asbestos Removal and Encapsulation requires that any asbestos-related activity conducted in a public building be performed by personnel licensed or permitted by the IWD. Inspections for ACM must be conducted by IWD-licensed inspectors. Asbestos abatement must be performed by IWD-permitted asbestos abatement contractors. Management plans developed for the in-place management of asbestos-containing materials must be developed by an IWD-licensed management planner. When an abatement project design is prepared, it must be prepared by an IWD-licensed project designer.



IAC 875–10 adopts the Occupational Safety and Health Administration (OSHA) Asbestos standard for construction (29 CFR 1926.1101) by reference. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PEL) of 0.1 asbestos fibers per cubic centimeter (0.1 f/cc) of air as an 8-hour time-weighted average and 1.0 f/cc as a 30-minute excursion. The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work.

3.2 Homogeneous Areas

Prior to sampling, homogeneous areas were identified in order to facilitate a sampling strategy. A homogeneous sampling area can be described as one or more areas with suspect material similar in appearance and texture that have the same installation date and function. The actual number of samples collected from each homogeneous sampling area may vary, dependent upon material type and the professional judgment of the inspector.

3.3 Sampling Strategy

The sampling strategy incorporated Asbestos Hazard Emergency Response Act (AHERA) requirements, quantities of suspect material, and the inspector's judgment to aid in the identification of suspect asbestos-containing materials. If the analytical results indicated that all the samples collected per homogeneous area did not contain asbestos, then the homogeneous area (material) was considered non-asbestos-containing. However, if the analytical results of one or more of the samples collected per homogeneous area indicated that asbestos was present in quantities greater than one percent asbestos (as defined by USEPA), all of the homogeneous area (material) was treated as an asbestos-containing material regardless of any other analytical results. Materials which were visually determined to be non-asbestos (i.e. fibrous glass, foam rubber, etc.) by the accredited inspector were not required to be sampled. Actual collection of a bulk asbestos sample involves physically removing approximately one square inch (1 in²) of material and placing it in an airtight sample container. Sample containers were marked with a unique identification number, which was documented in the field notes.

3.4 Laboratory Analytical Results

A total of **55** samples were collected from building materials suspected of containing asbestos. The samples were submitted under chain of custody to EMSL Analytical, Inc. (EMSL) located at 200 Route 130 North Cinnaminson, New Jersey for analysis by polarized light microscopy (PLM) with dispersion staining techniques per the *USEPA Method for the Determination of Asbestos in Bulk Building Materials (600/R-93-116)*. The percentage of asbestos, if applicable, was established by microscopic visual estimation. EMSL is an accredited laboratory by the National Voluntary Laboratory Accreditation Plan (NVLAP) No. 101048-0. Any material that contains greater than one percent (>1%) asbestos is considered an ACM and must be handled according to Occupational Safety and Health Administration (OSHA), USEPA, and all applicable state and local regulations.

Laboratory test results and chain of custody are provided in Appendix A.

3.5 Suspect Asbestos-Containing Materials

The following table contains a list of suspect ACM collected for analysis:



Table 1: Suspect Building Materials		
Material	Location	Sample Number
Roof Insulation Paper	Roof – Central Western Roof	A-1
Gray Caulking	Roof - Central	A-2-Caulk
Black Tar	Roof – Central	A-2-Tar
Roof Sealant	Roof – Northeast Corner	A-3
Roof Sealant	Roof - Northeast Corner	A-4
Gray Caulking	Roof – Northeast Large Stack	A-5
White Caulking	Roof – South Central Skylight	A-6
White Caulking	Roof – Southwest Corner	A-7-Caulk
Gray Insulation	Roof – Southwest Corner	A-7-Insulation
Gray Caulking	North Wall – Exterior	A-8
Expansion Joint	North Wall – Exterior Expansion Joint	A-9
White Caulking	North Wall - Exterior Door	A-10
Black Foam Insulation	Northwest Corner – Exterior Piping	A-11
White Caulking	Northwest Corner – Exterior Piping	A-12
Black Foam Insulation	Northwest Corner – Exterior Piping	A-13
Brown Caulking	Exterior South Wall – Garage Door	A-14
Gray Caulking	Exterior Northwest Corner – Garage Door	A-15
Gray Caulking	Exterior Northwest Corner – Garage Door	A-16
Drywall	1 st Floor – Office Space B	A-17
Drywall Mud	1 st Floor – Office Space B	A-18
2 x 4 Ceiling Tile	1 st Floor – Office Space B	A-19
3in Brown Cove Base	1 st Floor – Office Space B	A-20
Brown Cove Base Mastic	1 st Floor – Office Space B	A-21-Mastic
Drywall Joint Compound	1 st Floor – Office Space B	A-21-Joint Compound
AC Vibration Damper	1 st Floor – Office Space B	A-22
White Fireproof Caulking	1 st Floor – Office Space B	A-23
White Expansion Joint	1 st Floor – Office Space B	A-24-Caulk
Tan Expansion Joint	1 st Floor – Office Space B	A-24-Glazing
Yellow Mastic	1 st Floor – Office Space B	A-25
12 x 12 White VFT	1 st Floor – Office Space B	A-26-Floor Tile
Clear Mastic	1 st Floor – Office Space B	A-26-Mastic
Black Mastic	1 st Floor – Office Space B	A-27



Table 1: Suspect Building Materials		
Material	Location	Sample Number
3 in Gray Cove Base	1 st Floor – Office Space B	A-28
Yellow Cove Base Mastic	1 st Floor – Office Space B	A-29
2 x4 White Ceiling Tile	1 st Floor – Office Space B	A-30
Drywall	1 st Floor – Office Space B	A-31
Drywall Mud	1 st Floor – Office Space B	A-32
Drywall	1 st Floor – Office Space B	A-33
Drywall Mud	1 st Floor – Office Space B	A-34
12 x 12 Ceiling Tile - White	2 nd Floor - Office Space B	A-35
3in Blue Cove Base	2 nd Floor - Office Space B	A-36
Tan Cove Base Mastic	2 nd Floor - Office Space B	A-37-Mastic
Brown Cove Base Mastic	2 nd Floor - Office Space B	A-37-Mastic 2
9 x 9 Pink VFT	2 nd Floor - Office Space B	A-38
VFT Black Mastic	2 nd Floor - Office Space B	A-39
3in Red Cove Base	2 nd Floor - Office Space B	A-40
Clear Cove Base Mastic	2 nd Floor - Office Space B	A-41
9 x 9 Tan VFT	2 nd Floor - Office Space B	A-42
9 x 9 VFT Mastic Black	2 nd Floor - Office Space B	A-43
Sink Vibration Damper/Sealant	2 nd Floor - Office Space B Women's Restroom	A-44-Sealant
9 x 9 Tan VFT	2 nd Floor - Office Space B Women's Restroom	A-44-Floor tile
3in Black Cove Base	2 nd Floor - Office Space B	A-45
Cove Base Mortar – Black	2 nd Floor - Office Space B	A-46
9 x 9 Green VFT	2 nd Floor - Office Space B	A-47
VFT Mastic – Black	2 nd Floor - Office Space B	A-48-Mastic
VFT Mastic – Clear	2 nd Floor - Office Space B	A-48-Mastic 2
9 x 9 Red VFT	2 nd Floor - Office Space B	A-49-VFT
Yellow VFT Mastic	2 nd Floor - Office Space B	A-49-Mastic
Gray Floor Leveler	2 nd Floor - Office Space B	A-49-Leveler
9 x 9 Tan VFT	2 nd Floor - Office Space B	A-50
Tan VFT Mastic	2 nd Floor - Office Space B	A-51
AC Vibration Damper	2 nd Floor - Office Space B	A-52
AC Vibration Damper	2 nd Floor - Office Space B	A-53
Drywall	2 nd Floor - Office Space B	A-54
Drywall	2 nd Floor - Office Space B	A-55



Table 2 below identifies the materials that have been determined, through laboratory analysis, to contain asbestos:

Table 2: Asbestos Containing Materials				
Sample Number	Material	Location	Approx. Quantity	Asbestos Content
A-2-Caulk	Gray Caulking	Roof Central – Vent Pipe	10 LF	5% Chrysotile
A-7-Insulation	Transite Panels	Roof, Southwest Area – Roof Access	100 SF	60% Chrysotile
A-9	Gray Expansion Joint Compound	North Wall – Exterior	35 LF	8% Chrysotile
A-18, A-21-Joint Compound A-32	Drywall Mud / Joint Compound	1 st Floor, 2 nd Floor Office Space B, Open Office Space	45,000 SF	2 – 5% Chrysotile
A-22	Vibration Damper – HVAC Unit	1 st Floor Office Space B – North End	8 LF	45% Chrysotile
A-24-Glazing	Expansion Joint (bottom layer)	1 st Floor Office Space B – North End	12 LF	3% Chrysotile
A-26, A27	12” x 12” Floor Tile (white) and Black Mastic	1 st Floor Office Space B	3,600 SF	Tile: 4% Mastic: 2% Chrysotile
A-38, A-39 A-42, A-43, A-44, A-47	9” x 9” Floor Tile (pink, green, tan) and Black Mastic	2 nd Floor Office Space B	7,800 SF	Tile: 5-9% Mastic: 4-5% Chrysotile
SF = Square Feet, LF = Linear Feet				

Table 3 below identifies materials that were determined to contain asbestos fibers in concentrations of less than one percent (<1%) asbestos.

Table 3: Materials Containing <1% Asbestos			
Sample Number	Homogenous Material	Location	Asbestos Content per Layer
A-5	Gray Caulking	Roof, Northeast Corner – Large Vent Stack	<1% Chrysotile

Materials with an asbestos content of <1% that are not classified as an ACM are not required to be abated prior to renovation or demolition of a building. However, the OSHA Asbestos Standard does regulate exposures associated with disturbance of materials containing <1% asbestos. The renovation contractor should be notified that this material could generate airborne concentrations of asbestos so that they can take the necessary precautions to protect their personnel from potential exposures during work-related activities as per the OSHA standard.



4.0 LEAD PAINT TESTING

Atlas collected paint chip samples from representative surface coatings that may be impacted by renovation/demolition activities.

Surface coatings that were collected were considered to be representative of materials in a homogeneous area if:

1. They exhibited similar physical characteristics (suspect materials alike in appearance, substrate, color, and time of application were tested as homogenous areas)
2. The application of the tested surface could be associated to an application of an unsampled surface.

Atlas collected and submitted a total of **six** paint chip samples from representative surface coatings throughout the building. The samples were submitted to EMSL of Cinnaminson, New Jersey, under proper chain of custody for analysis by Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B). EMSL is accredited under the American Industrial Hygiene Association-Laboratory Accreditation Program (AIHA-LAP, LLC) (AIHA-LAP; lab code 100194).

A copy of the analytical results and chain of custody can be found in Appendix B.

The USEPA has defined LBP as *“paint or other surface coatings that contain lead in excess of 0.5 percent by weight (>0.5%)”*. Results less than 0.5% by weight indicate that lead is not present at or above the USEPA regulatory level; however, lead was present in lower concentrations above the laboratory detection limit in other surfaces tested and these are classified as lead-containing paint (LCP). Negative results do not mean that lead is not present.

4.1 Regulation Review

The disturbance and disposal of materials with surface coatings that contain lead paint are regulated by the USEPA, OSHA and the State of Iowa. The Resource Conservation and Recovery Act (RCRA) provides the USEPA with the authority to regulate the waste status of demolition or renovation debris, including lead-containing materials. Specific notification and testing requirements must be addressed prior to transporting, treating, storing, or disposing of hazardous wastes.

Construction work covered by 29 CFR 1926.62 includes any repair, renovation or other activities that disturb in-place, lead-containing materials, but does not include routine cleaning and repainting where there is insignificant damage, wear or corrosion of existing lead-containing coatings or substrates. Unless adequately protected, employee exposures to lead must not exceed airborne concentrations >50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over an 8-hour period.

Occupational exposure to lead occurring in the course of construction work, including maintenance activities, painting, alteration and repairs is subject to the OSHA Lead standard (29 CFR 1926.62). The lead standard applies to any detectable concentration of lead in paint, as even



small concentrations of lead can result in unacceptable employee exposures depending upon the method of removal and other workplace conditions.

The disposal of lead-based paint waste, as well as paint waste containing other heavy metals, is regulated by the USEPA and State of Iowa. Wastes generated by industrial businesses, commercial businesses, and government institutions are subject to regulation. Commercial business owners and removal contractors are required to determine if paint waste generated from nonresidential structures (such as public and commercial buildings, warehouses, bridges, water towers, and transmission towers) contains heavy metals that would cause the debris to be considered a hazardous waste. Disposal options and applicable management requirements for collected debris will be based upon whether the waste stream is considered a hazardous waste and the amount of debris generated. Removal contractors and building owners need to include these factors when preparing and responding to bid specifications. Specific notification and testing requirements must be addressed prior to transporting, treating, storing, or disposing of hazardous wastes. Lead-containing wastes are considered hazardous waste under RCRA if Toxicity Characteristic Leachate Procedure (TCLP) results exceed 5 milligrams per liter (mg/L). The USEPA has made exceptions for the handling and disposal of lead wastes generated from residential housing.

Specific notification and testing requirements must be addressed prior to transporting, treating, storing, or disposing of hazardous wastes. Lead-containing wastes are considered hazardous waste under RCRA if Toxicity Characteristic Leachate Procedure (TCLP) results exceed 5 milligrams per liter (mg/L). The USEPA has made exceptions for the handling and disposal of lead wastes generated from residential housing.

The above overview is not intended to be inclusive of all potentially pertinent regulatory information. The relevant USEPA, OSHA and State of Iowa regulations should be consulted prior to undertaking activities involving the demolition, renovation or maintenance of surface coatings that contain lead.

4.2 Lead Paint Testing

The following surface coatings were collected as part of the lead paint testing:

Table 4: Lead Paint Summary				
Sample Number	Sample Location	Representative Material	Paint Color	Lead Concentration (% by weight)
L-1	NW Exterior Stair Guardrail	Metal	Yellow	1.6%
L-2	North Wall Exterior Door	Metal	Gray	0.038%
L-3	South Wall Garage Door	Metal	Brown	<0.006%
L-4	Northwest Garage Door	Wood	White	1.1%
L-5	Office Space B – 1 st Floor	Drywall	Gray	<0.007%
L-6	Two Story Office Space – Metal Handrail	Metal	Red	0.11%

bolded = lead-based paint



This evaluation report can help the Owner develop a plan for renovating the building by having concentrations of lead in the paint identified. It is our understanding that the information in this report will be provided to the contractors so that appropriate precautions can be made to minimize worker exposure to lead. If surface coatings with lead containing paint are handled improperly, exposure could occur to workers and future occupants of the facility.

5.0 HAZARDOUS MATERIALS SURVEY

Atlas completed a visual inspection of areas throughout the intended work areas in an attempt to identify hazardous wastes or universal wastes that may be impacted by planned demolition activities. The survey included a visual inspection of: light fixtures and other equipment for the presence of Polychlorinated Biphenyls (PCB); light bulbs, thermostats, switches, and other equipment for the presence of mercury; Chlorofluorocarbons (CFC) or Hydro Chlorofluorocarbons (HCFC) refrigerants, batteries, and devices with potential Low Level Radioactive Sources (LLR) materials. A summary of the hazardous material locations can be found in Appendix D.

Table 5: Hazardous Materials Inventory		
Category	Material	Estimated Quantity
Batteries	Lead Acid	NA
	Nickel Cadmium	NA
	Lithium-Ion	NA
	Sulfuric Acid	NA
Mercury	Thermostats	5
	Fluorescent Light Tubes	917
	High Intensity Discharge Bulbs	NA
	Strobes	11
RCRA Metals	LED Light Fixtures	NA
Poly-Chlorinated Biphenyl (PCB)	Light Ballasts	NA
	Transformers	NA
Low Level Radioactive Sources (LLR)	Tritium Exit Signs	11
	Smoke Detectors	20
Chlorofluorocarbons (CFC) or Hydro Chlorofluorocarbons (HCFC)	Refrigerator/Cooler	4
	Freezer	NA
	Water Fountain	2
	Ac Units	6



Table 5: Hazardous Materials Inventory		
Category	Material	Estimated Quantity
Miscellaneous	Fire Extinguishers	11
	ASTs (Diesel)	NA

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Asbestos

Asbestos **was identified** in 17 of the samples collected and analyzed.

The NESHAP and OSHA regulations govern the removal of ACM. Atlas recommends that a State of Iowa certified abatement contractor be retained to properly abate and dispose of ACM identified in Table 2 above and in accordance with local, state, and federal regulations.

The owner and/or operator are responsible for NESHAP regulatory compliance regarding the proper removal, handling, and disposal of ACM containing >1% asbestos prior to renovation or demolition. Also, per state regulations, please be aware that the owner and/or operator must submit a notification to the IDNR 10 business days prior to asbestos abatement at certain quantity thresholds and prior to renovation/demolition activities.

6.2 Lead

Lead **was identified** in excess of the USEPA level of 0.5% in **two** of the surface coatings collected and analyzed.

Lead **was identified** above the laboratory detection limit but not in excess of the USEPA level in two of the surface coatings tested.

6.3 Hazardous Materials

If any of the hazardous materials or universal wastes identified in Table 4 above are to be impacted as part of the demolition contractor’s scope of work, they shall be collected and disposed of according to the USEPA Toxic Substances Control Act (TSCA) and the State of Iowa regulations.

7.0 LIMITATIONS

The results, findings, conclusions, and recommendations expressed in this report are based solely on conditions noted during the June 20, 2025, Atlas inspection of the FDCF, Building G Water Heater Replacement Project #9471 located at 1550 L Street in Fort Dodge, Iowa.

Although Atlas performed destructive sampling, to identify suspect ACM, additional suspect but unsampled materials could be located under existing building materials, in isolated areas or in other concealed areas. Therefore, if suspect materials are encountered during

Hazardous Building Materials Pre-Demolition Survey

Fleet Building Pre-Demolition Survey #9479 ♦ Des Moines, IA

August 12, 2025 ♦ Atlas Project ID: 204BS08895



renovation/demolition activities that do not appear to have been characterized as non-ACM, samples should be collected and analyzed prior to disturbing these materials or the materials can be assumed to be ACM and abated accordingly. Atlas's selection of sample locations and frequency of sampling was based on the inspector's assumption that like materials in the same area are homogeneous in content.

The report is designed to aid the building owner, architect, construction manager, general contractor, and potential asbestos abatement contractor in locating ACM. Under no circumstances is the report to be utilized as a bidding document or as a project specification document since it does not have all the components required to serve as an Asbestos Project Design document or an Abatement Work plan.

Our professional services have been performed, our findings obtained, and our conclusions and recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

This report is intended for the sole use of the IDAS. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

APPENDIX A

Asbestos Analytical Report and Chain of Custody



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042515406

Customer ID: ATC55

Customer PO: 204BS08895

Project ID:

Attention: Phil Thomas
Atlas Technical
11117 Mockingbird Drive
Omaha, Nebraska 68137

Phone: (402) 697-9747

Fax: (402) 597-8532

Received Date: 07/31/2025 9:35 AM

Analysis Date: 08/01/2025 - 08/05/2025

Collected Date:

Project: 204BS08895 / State of Iowa / Fleet Building / HBM Survey / Des Moines, Iowa

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-1 <i>042515406-0001</i>	Roof - Central Western - Roof Insulation Paper - Off Stack	Black Fibrous Homogeneous	40% Cellulose 45% Glass	15% Non-fibrous (Other)	None Detected
A-2-Caulk <i>042515406-0002</i>	Roof - Central - Caulking - Gray	Gray Non-Fibrous Homogeneous	10% Cellulose	85% Non-fibrous (Other)	5% Chrysotile
A-2-Tar <i>042515406-0002A</i>	Roof - Central - Tar	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-3 <i>042515406-0003</i>	Roof - Northeast - Roof Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-4 <i>042515406-0004</i>	Roof - Northeast - Roof Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-5 <i>042515406-0005</i> <i>Inseparable paint / coating layer included in analysis</i>	Roof - Northeast - Caulking - Gray - Off Large Stack	Gray/Black/Silver Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	<1% Chrysotile
A-6 <i>042515406-0006</i>	Roof - South Central - Caulking - White - Off Skylight	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-7-Caulk <i>042515406-0007</i>	Roof - Southwest - Caulking - White	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-7-Insulation <i>042515406-0007A</i>	Roof - Southwest - Insulation	Gray/Tan/Black Fibrous Homogeneous	10% Cellulose	30% Non-fibrous (Other)	60% Chrysotile
A-8 <i>042515406-0008</i> <i>Result includes a small amount of inseparable attached material</i>	Exterior - North Wall - Caulking - Gray	Gray/Red/Black Fibrous Heterogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
A-9 <i>042515406-0009</i>	Exterior - North Wall - Expansion Joint	Gray/Tan/Various Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
A-10 <i>042515406-0010</i>	Exterior - North Wall - Door Caulking - White	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-11 <i>042515406-0011</i>	Exterior - Northwest Wall - Foam Insulation - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-12 <i>042515406-0012</i>	Exterior - Northwest Wall - Caulking - White - Pipe	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-13 <i>042515406-0013</i>	Exterior - Northwest Wall - Foam Insulation - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 08/05/2025 15:18:40



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042515406
Customer ID: ATC55
Customer PO: 204BS08895
Project ID:

**Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E
Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-14 <i>042515406-0014</i>	Exterior - South Wall - Garage Door - Caulking - Brown	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-15 <i>042515406-0015</i>	Exterior - Northwest Corner - Garage Door - Caulking - Gray	Gray Non-Fibrous Heterogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-16 <i>042515406-0016</i>	Exterior - Northwest Corner - Garage Door - Caulking - Gray	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-17 <i>042515406-0017</i>	1st Floor - Office Space B - Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose 3% Glass	87% Non-fibrous (Other)	None Detected
A-18 <i>042515406-0018</i>	1st Floor - Office Space B - Drywall Mud assoc. with Drywall	Tan/White Non-Fibrous Homogeneous	15% Cellulose	82% Non-fibrous (Other)	3% Chrysotile
A-19 <i>042515406-0019</i>	1st Floor - Office Space B - Ceiling Tile - White	White/Beige Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
A-20 <i>042515406-0020</i>	1st Floor - Office Space B - Cove Base - Brown	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-21-Mastic <i>042515406-0021</i>	1st Floor - Office Space B - Mastic - Brown - assoc. with Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-21-Joint Compound <i>042515406-0021A</i>	1st Floor - Office Space B - Joint Compound- assoc. with Cove Base	White/Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
<i>Result includes a small amount of inseparable attached material</i>					
A-22 <i>042515406-0022</i>	1st Floor - Office Space B - Vibration Dampener	Gray/White Fibrous Heterogeneous	45% Synthetic	10% Non-fibrous (Other)	45% Chrysotile
<i>Inseparable paint / coating layer included in analysis</i>					
A-23 <i>042515406-0023</i>	1st Floor - Office Space B - Fireproof Caulking - White	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-24-Caulk <i>042515406-0024</i>	1st Floor - Office Space B - Expansion Joint	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-24-Glazing <i>042515406-0024A</i>	1st Floor - Office Space B - Expansion Joint	Tan Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
A-25 <i>042515406-0025</i>	1st Floor - Office Space B - Mastic - Yellow - Under Carpet	Yellow Fibrous Homogeneous	5% Synthetic	95% Non-fibrous (Other)	None Detected
A-26-Floor Tile <i>042515406-0026</i>	1st Floor - Office Space B - 12x12 Vinyl Floor Tile - White	White/Beige Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
A-26-Mastic <i>042515406-0026A</i>	1st Floor - Office Space B - 12x12 Vinyl Floor Tile - White	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-27 <i>042515406-0027</i>	1st Floor - Office Space B - Mastic - Black - assoc. with VFT	Brown/Black Non-Fibrous Heterogeneous		98% Non-fibrous (Other)	2% Chrysotile

Initial report from: 08/05/2025 15:18:40



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042515406
Customer ID: ATC55
Customer PO: 204BS08895
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
<i>Result includes a small amount of inseparable attached material</i>					
A-28 042515406-0028	1st Floor - Office Space B - Cove Base - Gray	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-29 042515406-0029	1st Floor - Office Space B - Mastic - Yellow assoc. with Cove Base	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-30 042515406-0030	1st Floor - Office Space B - 2x4 Ceiling Tile - White	White/Beige Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
A-31 042515406-0031	1st Floor - Office Space B - Drywall	Brown/White/Beige Fibrous Homogeneous	10% Cellulose 3% Glass	87% Non-fibrous (Other)	None Detected
A-32 042515406-0032	1st Floor - Office Space B - Drywall - Mud assoc. with Drywall	White/Beige Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
A-33 042515406-0033	1st Floor - Office Space B - Drywall	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
A-34 042515406-0034	1st Floor - Office Space B - Drywall - Mud assoc. with Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-35 042515406-0035	2nd Floor - Office Space B - 12x12 Ceiling Tile - White	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
A-36 042515406-0036	2nd Floor - Office Space B - 3" Cove Base - Blue	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-37-Mastic 042515406-0037	2nd Floor - Office Space B - Tan Mastic assoc. with Cove Base	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-37-Mastic 2 042515406-0037A	2nd Floor - Office Space B - Tan Mastic assoc. with Cove Base	Brown/Red Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-38 042515406-0038	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Pink	Pink/Green Non-Fibrous Homogeneous		91% Non-fibrous (Other)	9% Chrysotile
A-39 042515406-0039	2nd Floor - Office Space B - Black Mastic assoc. with Vinyl Floor Tile	Black Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
A-40 042515406-0040	2nd Floor - Office Space B - 3: Cove Base - Red	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-41 042515406-0041	2nd Floor - Office Space B - Mastic - Clear assoc. with Cove Base	Tan/Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-42 042515406-0042	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Tan	Tan Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile

Initial report from: 08/05/2025 15:18:40



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042515406

Customer ID: ATC55

Customer PO: 204BS08895

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-43 042515406-0043	2nd Floor - Office Space B - Mastic - Black - assoc. with Vinyl Floor Tile	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
A-44-Sealant 042515406-0044	2nd Floor - Office Space B - Sink Sealant Coat	Red/Rust Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-44-Floor Tile 042515406-0044A	2nd Floor - Office Space B - Floor Tile	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
A-45 042515406-0045	2nd Floor - Office Space B - 3" Cove Base - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-46 042515406-0046	2nd Floor - Office Space B - Mortar - Black - assoc. with Cove Base	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-47 042515406-0047	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Green	Green Non-Fibrous Homogeneous		91% Non-fibrous (Other)	9% Chrysotile
A-48-Mastic 042515406-0048	2nd Floor - Office Space B - Mastic - Black - assoc. with Vinyl Floor Tile	Tan/Black Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-48-Mastic 2 042515406-0048A	2nd Floor - Office Space B - Mastic - Black - assoc. with Vinyl Floor Tile	Clear Non-Fibrous Homogeneous	3% Cellulose 2% Synthetic	95% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-49-VFT 042515406-0049	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Red	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-49-Mastic 042515406-0049A	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Red	Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-49-Leveler 042515406-0049B	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Red	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-50 042515406-0050	2nd Floor - Office Space B - 9x9 Vinyl Floor Tile - Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-51 042515406-0051	2nd Floor - Office Space B - Mastic - Tan - Asspc with Vinyl Floor Tile	Gray/Tan Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
<i>Result includes a small amount of inseparable attached material</i>					
A-52 042515406-0052	2nd Floor - Office Space B - Vibratioin Dampener	Gray/Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
A-53 042515406-0053	2nd Floor - Office Space B - Vibratioin Dampener	Gray/Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
A-54 042515406-0054	2nd Floor - Office Space B - Drywall	Brown/White Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 08/05/2025 15:18:40



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042515406
Customer ID: ATC55
Customer PO: 204BS08895
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-55	2nd Floor - Office Space B - Drywall	Brown/White Fibrous	15% Cellulose	85% Non-fibrous (Other)	None Detected
042515406-0055		Homogeneous			

Analyst(s)

Andrea Doughty (18)

Lindsey Van Dusen (27)

Michael Bocchicchio (20)

Samantha Sweeney, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA LAP, LLC-IHLAP Lab 100194, PA ID# 68-00367, LA #04127

Initial report from: 08/05/2025 15:18:40



EMSL ANALYTICAL, INC. LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

042515406
RECEIVED
EMSL
CINNAMINSON, NJ
25 JUL 3 12:20 PM

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

EMAIL: c@emsl.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID:	ATC55			Billing Information	Company Name:	Atlas Technical Consultants, LLC				
	Company Name:	Atlas Technical Consultants, LLC				Billing Contact:					
	Contact Name:	Phil Thomas				Street Address:	11117 Mockingbird Drive				
	Street Address:	11117 Mockingbird Drive				City, State, Zip:	Omaha	NE	68137	Country:	US
	City, State, Zip:	Omaha	NE	68137		Country:	US				
	Phone:	515-981-4528				Phone:	402-697-9747				
Email(s) for Report:	philthomas@oneatlas.com			Email(s) for Invoice:	philthomas@oneatlas.com						

Project Information

Project Name/No: Fleet Building HBM Survey 204B308995 Purchase Order: 204B308995

EMSL LIMS Project ID: (if applicable, EMSL will provide) US State where samples collected: IA State of Connecticut (CT) must select project location: Commercial (Taxable) Residential (Non-Taxable)

Sampled By Name: Chris Nicolet Sampled By Signature: [Signature] No. of Samples in Shipment: 55

Turn-Around-Time (TAT)

3 Hour 4-4.5 Hour 6 Hour 24 Hour 32 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

<p>PCM Air</p> <p><input type="checkbox"/> NIOSH 7400</p> <p><input type="checkbox"/> NIOSH 7400 w/ 8hr. TWA</p> <p>PLM - Bulk (reporting limit)</p> <p><input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)</p> <p><input type="checkbox"/> PLM EPA NOB (<1%)</p> <p><input type="checkbox"/> POINT COUNT</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%)</p> <p>POINT COUNT w/ GRAVIMETRIC</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%)</p> <p><input type="checkbox"/> NIOSH 9002 (<1%)</p> <p><input type="checkbox"/> NYS 198.1 (Friable - NY)</p> <p><input type="checkbox"/> NYS 198.6 NOB (Non-Friable - NY)</p> <p><input type="checkbox"/> NYS 198.8 (Vermiculite SM-V)</p>	<p>TEM - Air</p> <p><input type="checkbox"/> AHERA 40 CFR, Part 763</p> <p><input type="checkbox"/> NIOSH 7402</p> <p><input type="checkbox"/> EPA Level II</p> <p><input type="checkbox"/> ISO 10312*</p> <p>TEM - Bulk</p> <p><input type="checkbox"/> TEM EPA NOB</p> <p><input type="checkbox"/> NYS NOB 198.4 (Non-Friable-NY)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 w Milling Prep (0.1%)</p> <p>Other Test (please specify)</p>	<p>TEM - Settled Dust</p> <p><input type="checkbox"/> Microvac - ASTM D5755</p> <p><input type="checkbox"/> Wipe - ASTM D6480</p> <p><input type="checkbox"/> Qualitative via Filtration Prep</p> <p><input type="checkbox"/> Qualitative via Drop Mount Prep</p> <p>Soil - Rock - Vermiculite (reporting limit)* PLM</p> <p><input type="checkbox"/> EPA 600/R-93/116 with milling prep (<0.25%) PLM</p> <p><input type="checkbox"/> EPA 600/R-93/116 with milling prep (<0.1%) TEM</p> <p><input type="checkbox"/> EPA 600/R-93/116 with milling prep (<0.1%) TEM</p> <p><input type="checkbox"/> Qualitative via Filtration Prep</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep</p>
---	--	--

*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA) Filter Pore Size (Air Samples) 0.8um 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
	See attached sheets		

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Fedex - 2day Sample Condition Upon Receipt:

Relinquished by: Chris Nicolet Date/Time: 7/29/25 1000 Received by: [Signature] EFX Date/Time: 7/31/25 935am

Relinquished by: Date/Time: Received by: Date/Time:

Controlled Document - C0C-05 Asbestos R13 2/26/2021 AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

042515406

ASBESTOS BULK SAMPLE FORM



11117 Mockingbird Drive
Omaha, NE 68137
*RECEIVED
CANNONSON, NJ

Phone (402) 697-9747
Fax (402) 597-8532

Project Information

Client: State of Iowa	Project Description: Fleet Building HBM Survey	Project Manager: Inspector: Chris Nicolet
Date: 7/28/25 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS08895

Sample #	Material Description	Floor	Sample Location	Quantity
A-1	Roof Insulation Paper	R	Central Western Roof	3000SF
A-2	Caulking (Gray) ^{off of} _{stack}	R	Central Roof	50LF
A-3	Roof Sealant	R	NE Roof	25 LF
A-4	Roof Sealant	R	NE Roof	25 LF
A-5	Caulking (Gray) ^{off large} _{stack}	R	NE Roof	50LF
A-6	Caulking (White) ^{off of} _{skylight}	R	South Central Roof	50LF
A-7	Caulking (White)	R	SW Roof	50LF
A-8	Caulking (Gray)	E	North Wall Exterior	50LF
A-9	Expansion Joint	E	North Wall Exterior	-
A-10	Door Caulking (White)	E	North Wall Exterior	50LF
A-11	Foam Insulation (Black)	E	NW Wall Exterior	-
A-12	Caulking (White) Pipe	E	NW Wall Exterior	50LF
A-13	Foam Insulation (Black)	E	NW Wall Exterior	-

042515406

ASBESTOS BULK SAMPLE FORM



11117 Mockingbird Drive
Omaha, NE 68137

*RECEIVED
ATLAS
GUTAMINSON, NJ

Phone (402) 697-9747
Fax (402) 597-8532

Project Information

Client: State of Iowa	Project Description: Fleet Buildings HBM Survey	Project Manager: Phil Thomas Inspector: Chris Nicollet
Date: 7/28/24 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS0 8895

Sample #	Material Description	Floor	Sample Location	Quantity
A-14	Caulking (Brown)	E	South Wall Garage Door	50LF
A-15	Caulking (Gray)	E	SW Corner Exterior Garage Door	50LF
A-16	Caulking (Gray)	E	SW Corner Exterior Garage Door	50LF
A-17	Drywall	1	Office Space B	2000SF
A-18	Drywall Mud Ass. w/ Drywall	1		100SF
A-19	Ceiling Tile (White)	1		-
A-20	Cove Base (Brown)	1		100LF
A-21	Mastic (Brown) Ass. w/ Cove Base	1		100LF
A-22	Vibration Damper	1		-
A-23	Fireproof Caulking (White)	1		15LF
A-24	Expansion Joint	1		-
A-25	Mastic (Yellow) under carpet	1		300SF
A-26	12x12 VFT (White)	1		360SF

042515406

ASBESTOS BULK SAMPLE FORM

RECEIVED



11117 Mockingbird Drive
Omaha, NE 68137

EMSL
CRIVINGTON, NJ

Phone (402) 697-9747
Fax (402) 597-8532

Project Information

Client: State of Iowa	Project Description: Fleet Building HBM Survey	Project Manager: Phil Thomas Inspector: Chris Nicole
Date: 7/28/25 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS08895

25 JUL 31 PM 12:20

Sample #	Material Description	Floor	Sample Location	Quantity	
A-27	Master (Black) Ass. w/ VFT	1	Office Space B	300SF	
A-28	Core Base (Grey) 3in	1		100LF	
A-29	Master (Yellow) Ass w/ Core Base	1		100LF	
A-30	Ceiling tile (White) 2x4	1		-	
A-31	Drywall	1		200SF	
A-32	Drywall Mud Ass. w/ Drywall	1		100SF	
A-33	Drywall	1		200SF	
A-34	Drywall Mud Ass. w/ Drywall	1		100SF	
A-35	Ceiling tile 12x12 (White)	2		Office Space B	-
A-36	Core Base 3in (Blue)	2			100LF
A-37	Master (Tan) Ass. w/ Core Base	2			100LF
A-38	9x9 VFT (Pink)	2			500SF
A-39	Master (Black) Ass. w/ VFT	2			500SF

042515406

ASBESTOS BULK SAMPLE FORM



11117 Mockingbird Drive
Omaha, NE 68137

RECEIVED
EPA
CLAYTON, NJ

Phone (402) 697-9747
Fax (402) 597-8532

Project Information

Client: State of Iowa	Project Description: Fleet Building HBM Survey	Project Manager: Phil Thomas Inspector: Chris Nicolet
Date: 7/28/25 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS0 8895

Sample #	Material Description	Floor	Sample Location	Quantity
A-40	3in Core Base (Red)	2	Office Space B	100LF
A-41	Mastic (Clear) Ass. w/ Core Base	2		100LF
A-42	9x9 VFT (Tan)	2		500SF
A-43	Mastic (Black) Ass. w/ VFT	2		500SF
A-44	Sink Sealant Coat	2		-
A-45	3in Core Base (Black)	2		100LF
A-46	Mastic (Black) Ass. w/ Core Base	2		100LF
A-47	9x9 VFT (Green)	2		500SF
A-48	Mastic (Black) Ass. w/ VFT	2		500SF
A-49	9x9 VFT (Red)	2		500SF
A-50	9x9 VFT (Tan)	2		500SF
A-51	Mastic (Tan) Ass. w/ VFT	2		500SF
A-52	Vibration Damper	2		-

042515406

ASBESTOS BULK SAMPLE FORM



11117 Mockingbird Drive
Omaha, NE 68137

RECEIVED
EMSL
CINNAMINSON, NJ

Phone (402) 697-9747
Fax (402) 597-8532

Project Information

Client: State of Iowa	Project Description: Fleet Building HBM Survey	Project Manager: Phil Thomas Inspector: Chris Nicolet
Date: 7/28/25 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS0 8895

Sample #	Material Description	Floor	Sample Location	Quantity
A-33	Vibration Damper	2	Office Space B	-
A-34	Drywall	2		2000SF
A-35	Drywall	2		2000SF

APPENDIX B

Lead Analytical Report and Chain of Custody

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax:cs@emsl.com
 www.emsl.com

EMSL Order ID: 012529496
LIMS Reference ID: AD29496
EMSL Customer ID: ATC55

Attention: Phil Thomas
 Atlas Technical [ATC55]
 11117 Mockingbird Drive
 Omaha, Nebraska 68137
 (402) 697-9747
 phil.thomas@oneatlas.com

Project Name: Fleet Building HBM Survey / 204BS08895

Customer PO:
EMSL Sales Rep: Anthony DeRosa
Received: 07/31/2025 10:00
Reported: 08/05/2025 09:39

Analytical Results

Analyte	Results	RL	Weight(g)	Prep Date & Tech	Prep Method	Analysis Date & Analyst	Analytical Method	Q	DF
Client Sample ID: L-1/Yellow - NW Exterior Stair Guardrail							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-01		
Lead	1.6 % wt	0.038 % wt	0.208	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B	D	5
Sample Comments:									
Client Sample ID: L-2/Gray - North Wall Door							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-02		
Lead	<0.038 % wt	0.038 % wt	0.0419	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B		1
Sample Comments:									
Client Sample ID: L-3/Brown - South Wall Garage Door							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-03		
Lead	<0.006 % wt	0.006 % wt	0.2467	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B		1
Sample Comments:									
Client Sample ID: L-4/White - NW Corner Garage Door							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-04		
Lead	1.1 % wt	0.031 % wt	0.2581	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B	D	5
Sample Comments:									
Client Sample ID: L-5/Gray - Office Space B 1st Floor							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-05		
Lead	<0.007 % wt	0.007 % wt	0.2416	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B		1
Sample Comments:									
Client Sample ID: L-6/Red - 1st Floor Two Story High Space Stairs							Date Sampled: 07/28/25		
Matrix: Chips							LIMS Reference ID: AD29496-06		
Lead	0.11 % wt	0.016 % wt	0.099	08/01/25 LXB	SW-846 3050B	08/04/25 KD1	SW846-7000B		1
Sample Comments:									

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax:cs@emsl.com
 www.emsl.com

EMSL Order ID: 012529496
LIMS Reference ID: AD29496
EMSL Customer ID: ATC55

Attention: Phil Thomas
 Atlas Technical [ATC55]
 11117 Mockingbird Drive
 Omaha, Nebraska 68137
 (402) 697-9747
 phil.thomas@oneatlas.com

Project Name: Fleet Building HBM Survey / 204BS08895

Customer PO:
EMSL Sales Rep: Anthony DeRosa
Received: 07/31/2025 10:00
Reported: 08/05/2025 09:39

Certified Analyses included in this Report

Analyte	Certifications
SW846-7000B in Chips	
Lead	AIHA LAP

List of Certifications

Code	Description	Number	Expires
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2025
AIHA LAP	American Industrial Hygiene Association (AIHA LAP, LLC)	100194	04/01/2027
NYSDOH	New York State Department of Health ELAP	10872	04/01/2026
California ELAP	California Water Boards	1877	06/30/2025
A2LA	A2LA Environmental Certificate	2845.01	07/31/2026
PADEP	Pennsylvania Department of Environmental Protection	2845.25	11/30/2025
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2025
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2026

Please see the specific Field of Testing (FOT) on www.emsl.com <<http://www.emsl.com>> for a complete listing of parameters for which EMSL is certified.

Notes and Definitions

Item	Definition
C	sample > 4x spike
D	Analyte was reported from a dilution run.
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DA	Direct Analysis
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
NR	Spike/Surrogate showed no recovery.
Q	Qualifier
RCS	Respirable Crystalline Silica
RL	Reporting Limit For paint chips, the RL is 0.008% by wt. (equiv. to 80 mg/kg, or ppm) based upon a minimum sample weight of 0.25 grams. For soils, the RL is 40 mg/kg (ppm) based upon a minimum sample weight of 0.5 grams. For dust wipes, the RL is 10 µg/wipe; reporting units of µg/sq. ft. are not validated by the lab based upon data provided by non-lab personnel.
Wet	Sample is not dry weight corrected.

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:cs@emsl.com
www.emsl.com

EMSL Order ID: 012529496
LIMS Reference ID: AD29496
EMSL Customer ID: ATC55

Attention: Phil Thomas
Atlas Technical [ATC55]
11117 Mockingbird Drive
Omaha, Nebraska 68137
(402) 697-9747
phil.thomas@oneatlas.com

Project Name: Fleet Building HBM Survey / 204BS08895

Customer PO:
EMSL Sales Rep: Anthony DeRosa
Received: 07/31/2025 10:00
Reported: 08/05/2025 09:39

Owen McKenna Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. QC sample results are within quality control criteria and met method specifications unless otherwise noted. All results for soil samples are reported on a dry weight basis, unless otherwise noted.

Analysis following EMSL SOP for the Determination of Environmental Lead by FLAA. The laboratory has a reporting limit of 0.0064% by wt., based upon a minimum sample weight of 0.25g submitted to the lab, and is not responsible for any result or reporting limit provided in mg/cm² since it is dependent upon an area value provided by non-lab personnel. A "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty and definitions of modifications are available upon request. Results in this report are not blank corrected unless specified.



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Lead Chain of Custody

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
EMAIL: ce@emsl.com

AD29496

Customer Information	Customer ID: ATC55	Billing ID: ATC55
	Company Name: Atlas Technical Consultants LLC	Company Name: Atlas Technical Consultants LLC
	Contact Name: Phil Thomas	Billing Contact:
	Street Address: 11117 Mockingbird Drive	Street Address: 11117 Mockingbird Drive
	City, State, Zip: Omaha NE 68137 Country: US	City, State, Zip: Omaha NE 68137 Country:
	Phone: 402-697-9747	Phone: 402-697-9747
Email(s) for Report: phil.thomas@oneatlas.com		Email(s) for Invoice: phil.thomas@oneatlas.com

Project Information		
Project Name/No: Fleet Building HBM Survey 204BS08895	Purchase Order:	
EMSL LIMS Project ID: (if applicable, EMSL will provide)	US State where samples collected: IA	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)
Sampled By Name: Chris Nicolet	Sampled By Signature: Chris Nicolet	No. of Samples in Shipment: 6

Turn-Around-Time (TAT)

3 Hour 6 Hour 24 Hour 32 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT	SELECTION
CHIPS <input checked="" type="checkbox"/> % by wt. <input type="checkbox"/> ppm (mg/kg) <input type="checkbox"/> mg/cm ²	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	<input checked="" type="checkbox"/>
Reporting Limit based on a minimum 0.25g sample weight	SW 846-6010D	ICP-OES	0.0004% (4ppm)	<input type="checkbox"/>
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	<input type="checkbox"/>
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	<input type="checkbox"/>
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	<input type="checkbox"/>
WIPE <input type="checkbox"/> ASTM <input type="checkbox"/> NON-ASTM	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	<input type="checkbox"/>
If no box is checked, non-ASTM Wipe is assumed	SW 846-6010D	ICP-OES	1.0µg/wipe	<input type="checkbox"/>
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLIC	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	<input type="checkbox"/>
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	<input type="checkbox"/>
	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
Wastewater	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Unpreserved <input type="checkbox"/>				
Preserved with HNO ₃ <input type="checkbox"/> PH<2	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
Drinking Water	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
Unpreserved <input type="checkbox"/>				
Preserved with HNO ₃ <input type="checkbox"/> PH<2	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
TSP/SPM Filter	Other: <input type="checkbox"/>			

Sample Number	Sample Location	Volume / Area	Date / Time Sampled
See attached sheets			

Method of Shipment: Fedex - 2 day	Sample Condition Upon Receipt:
Relinquished by: Chris Nicolet	Received by: RJA EFX
Date/Time: 7/29/25 1000	Date/Time: 7/31/25 10AM
Relinquished by:	Received by:
Date/Time:	Date/Time:

AD29496
 PAINT CHIP SAMPLE LOG SHEET



11117 Mockingbird Drive
 Omaha, NE 68137

Phone (402) 697-9747

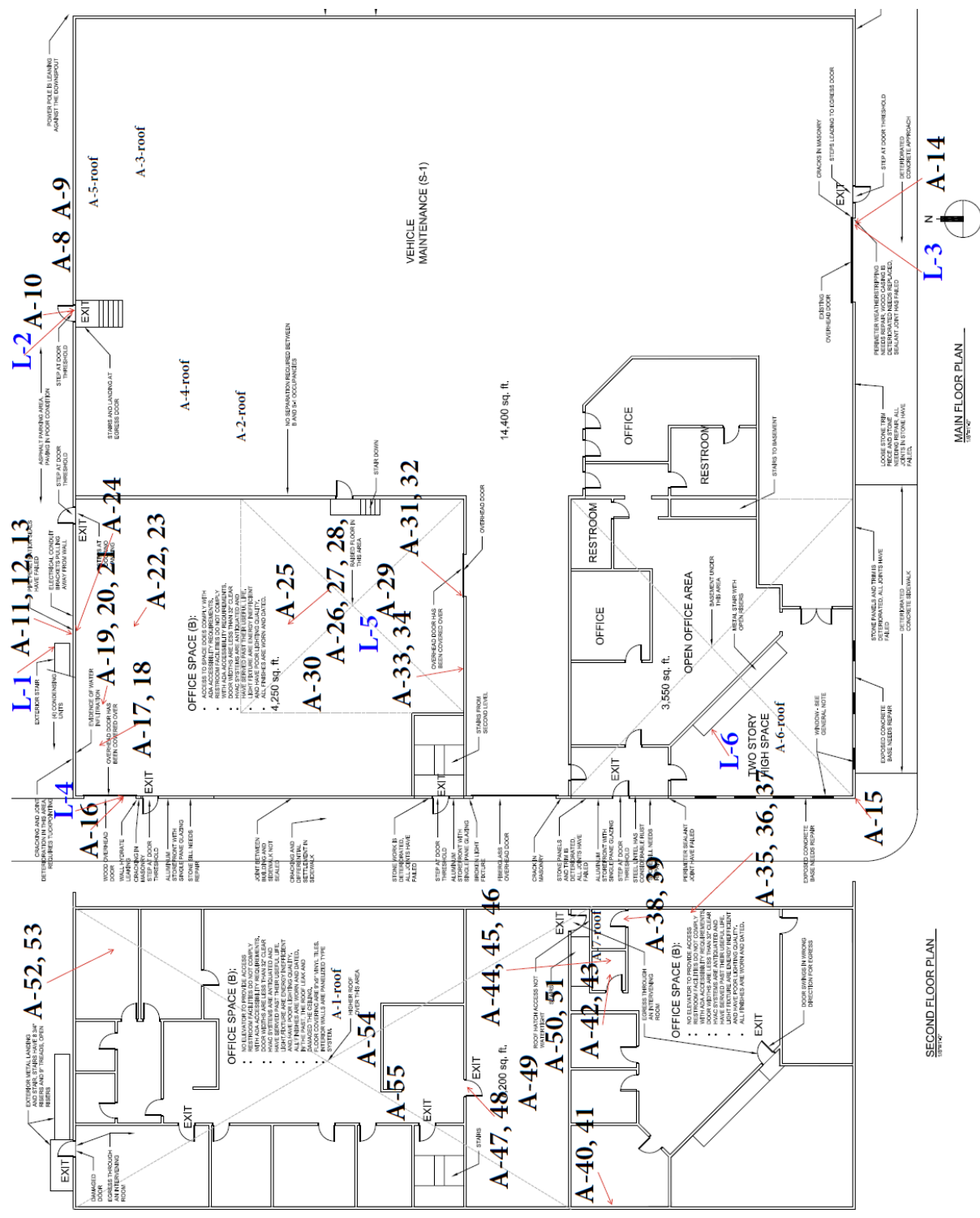
Project Information

Client: State of Iowa	Project Description: Fleet Building HBM Survey	Project Manager: Phil Thomas Inspector: Chris Nicolet
Date: 7/28/25 - 7/29/25	Site Location: Des Moines, Iowa	ATLAS PROJECT NUMBER: 204BS08895

Sample #	Paint Color	Substrate	Sample Location	Quantity
L-1	Yellow	Metal	NW Exterior Stairs Guardrail	50SF
L-2	Gray	Metal	North Wall Door	25SF
L-3	Brown	Wood	South Wall Garage Door	50SF
L-4	White	Wood	SW Corner Garage Door	50SF
L-5	Gray	Drywall	Office Space B 1st Floor	150SF
L-6	Red	Metal	1st Floor Two Story High Space ^{Stairs}	50SF

APPENDIX C

Drawing(s) with Sample Locations



A-XX Asbestos Sample Location
L-XX Lead Sample Location

Project No. 204BS08895 Date: August 12, 2025
 Project Manager: Phillip Thomas
 Name: Main and Second Floor Drawing



4503 East 50th Street, Suite 800
 Des Moines, Iowa 50317
 PH: (515) 981-4528

Asbestos and Lead Paint Sample Locations

Fleet Building
 301, 307, 313 East 7th Street
 Des Moines, Iowa

APPENDIX D

Hazardous Materials Inventory



HAZARDOUS BUILDING MATERIALS INVENTORY SHEET

11117 Mockingbird Drive
Omaha, NE 68137
Phone (402) 697-9747

Client: <u>State of Iowa</u>	Project Description: <u>Free Building HPBM Survey</u>	Inspector: <u>Chris Mesick</u>	Atlas Project Number: <u>20413508895</u>
Date: <u>7/28/25 - 7/29/25</u>	Site Location: <u>Des Moines, Iowa</u>		

Location	Batteries				Mercury				RCRA Metal	PCBs		Radioactive		Refrigerants			Miscellaneous		
	Lead Acid	Nickel Cadmium	Lithium-Ion	Sulfuric Acid	Thermostat	Fluorescent Light Tubes	High Intensity Discharge Bulbs	Strobes	LED Light Fixtures (indicate size)	Light Ballasts	Transformers	Exit Signs	Smoke Detectors	Refrigerator/ Freezer	Water Fountain	AC Units	Fire Extinguishers	ASTs (Diesel)	ASTs (Gasoline)
2nd Floor Office Space B					1	190		3				3	3		2	1	1		
1st Floor Open Office Area					1	142		1				1					1		
Basement						10		1				1				2			
1st Floor Open Office Area B					2	360		6				4				2	2	4	
Vehicle Maintenance					3	275						2	17			1	5		

APPENDIX E

Photo Log



Photo #1 Sample A-2. Asbestos containing grey caulking on central vent stack on roof.



Photo #2 Sample A-7. Asbestos containing transite panels on roof access in the southwest corner of the roof.



Photo #3 Sample A-9. Asbestos containing grey expansion joint on the exterior north wall.



Photo #4 Sample A-18. Asbestos containing drywall mud/joint compound.



Photo #5 Sample A-22. Asbestos containing HVAC vibration dampener on 1st floor unit.



Photo #6 Sample A-24. Asbestos containing expansion joint (lower layer) on the north wall of the 1st floor.



Photo #7 Sample A-26, A-27. Asbestos containing 12" x 12" white floor tile and black mastic.



Photo #8 Sample A-21. Asbestos containing drywall mud/joint compound (on back of cover base).



Photo #9 Samples A-38, A-39. Asbestos containing 9" x 9" pink floor tile and black mastic.



Photo #10 Sample A-32. Asbestos containing drywall mud/joint compound.



Photo #11 Samples A-42, A-43, A-44. Asbestos containing 9" x 9" tan floor tile and black mastic.



Photo #12 Sample A-47. Asbestos containing 9" x 9" green floor tile and black mastic.



Photo #13 Sample A-5. <1% asbestos containing grey caulking on large stack on roof.

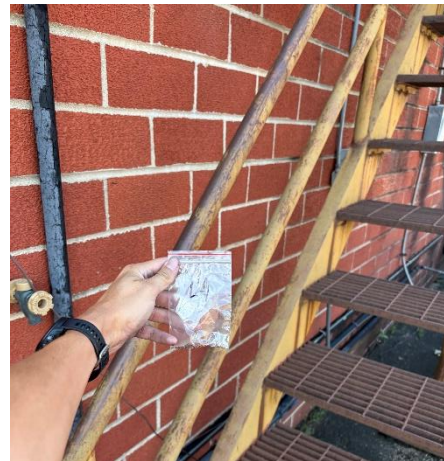


Photo #14 Sample L-1. Lead-based paint (yellow), on northwest exterior staircase.



Photo #15 Sample L-4. Lead-based paint (white), on northwest garage door.

APPENDIX F

Staff Certification(s)

CHRISTOPHER NICOLET

DOB: 05-24-1995

Issued: 01-15-2025



This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	25-12809	12-20-2025



Asbestos

**Larry Johnson, Jr.
Labor Commissioner**

SECTION 00 3143

PERMIT APPLICATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Permit Application Information
- B. Licenses, Permits, and Related Inspections

1.02 PERMIT APPLICATION INFORMATION

- A. State Building Code Plan Review: The plan review and inspections for this project have been applied for by the Architect. Please contact your inspector prior to construction and occupancy.
- B. Electrical Permit and Inspections: Trade Contractor is responsible for permits and inspections.
- C. Other Applicable inspections: Trade Contractor is responsible for any other applicable project specific permits and inspections.

1.03 LICENSES, PERMITS, AND RELATED INSPECTIONS

- A. The Bidder shall comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work. All construction, materials and methods shall comply with the State Building Codes, except where plans and specifications establish a higher standard.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 4116

BID FORM

The Bid Form must be submitted online through the State's [IMPACS Electronic Procurement System](#).

RFB #947900-01

BID FORM for CONSTRUCTION CONTRACT
for
Capitol Complex Fleet Building
301 E 7th St., Des Moines, IA
Project 9479.00

Iowa Department of Administrative Services
Hoover State Office Building, Level 3
1305 East Walnut Street
Des Moines, Iowa 50319-0105

The following information is to be completed and submitted with your bid..

1. Bid Form - Completed and Signed (to be uploaded with bid submission)
2. Non Discrimination Clause Information
3. Contractor Targeted Small Business Enterprise Pre-Bid Contract Information
4. Bid Security – 5% of total Bid amount (to be uploaded with bid submission)
5. Certificate of Site Visit

Authorized Representative:

The undersigned Bidder, in response to your Request for Bid for construction of the above project, having examined the Drawings, Specifications, and other Bidding Documents dated October 15, 2025 and Addenda issued and acknowledged below as received and being familiar with all the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, equipment and supplies to perform all work to construct the project in strict accordance with the proposed Contract Documents, within the time and at the prices stated below. Prices are to cover all expenses incurred in performing the work required under the proposed Contract Documents, of which this bid is a part.

Bidder acknowledges receipt of the following Addenda which are a part of the Bidding Documents and for which any effect on cost of the Work is included in the bid amounts indicated:

Number _____ _____ _____ _____ _____

Dated _____ _____ _____ _____ _____

Note that the State of Iowa is exempt from State and Local sales and use taxes (including local option and school option) for this project. Taxes on construction materials shall NOT be included in the bid amounts.

Amounts shall be indicated in both words and figures. In case of discrepancy, the amount indicated in words shall govern.

BID PACKAGES:

BP 01

Description: Abatement

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

BP 02

Description: Demolition

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

BP 03

Description: Concrete Paving

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

BP 04

Description: Seeding and Sodding

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

ALTERNATES:

ALT 01

Description: Full Foundations Removal

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

ALT 02

Description: 4" Topsoil & Sod

Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

_____ Dollars
(\$_____).

UNIT PRICES:

UNIT 01

Description: Import Soil per CY

_____ Dollars
(\$_____).

UNIT 02

Description: Export Soil per CY

_____ Dollars
(\$_____).

Bidder hereby certifies that:

1. This bid is genuine and is not made in the interest of or on behalf of any undisclosed person, firm or corporation;
2. Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding;

and Bidder has not sought by collusion to obtain any advantage over any other bidder or over the Owner.

3. Bidder hereby certifies that the Bidder is registered with the Iowa Labor Commissioner as a Contractor as required by Chapter 91C, Code of Iowa.
4. Bidder agrees to comply with all Federal and State Affirmative Action/Equal Employment Opportunity requirements concerning fair employment and will not discriminate between or among them by reason of race, color, religion, sex, national origin or physical handicap.
5. All construction under this Contract shall conform to the requirements of the *Iowa State Building Code*.
6. Bidder agrees that this bid shall remain valid and shall not be withdrawn for a period of thirty (30) calendar days after the date for receipt of bids.
7. Bidder agrees that if written notice of acceptance of this bid is mailed, emailed, or delivered to the undersigned within thirty (30) days after the date in which bids are due, or at any time thereafter before it is withdrawn, the undersigned will sign and return the Contract Agreement, prepared in accord with the Bidding Documents and this bid as accepted; and will also provide proof of insurance coverage and required surety bonds.
8. Bidder understands that the Owner reserves the right to reject any and all bids, and to waive irregularities or informalities and enter into a contract for the work, as the Owner deems to be in the best interest of the State.
9. Bidder understands that the Owner reserves the right to accept any, or no, Alternate Bid, if requested, and that the Alternate Bids may be considered in any order or combination, and the low Bidder shall be determined on the basis of the sum of the base bid and any Alternate(s) accepted.

Subcontractors:

The Trade Contractor must identify all Subcontractors and Suppliers within 48 hours of the published date and time for which bids must be submitted, in accordance with Iowa Code Section 8A311, as amended by House File 646 in 2011. Subcontractors and suppliers may not be changed without the approval of the Owner. Requests for changing a Subcontractor or supplier must identify the reason for the proposed change, the name of the new Subcontractor or supplier, and the change in the subcontractor or supplier price as a result of the change. Any reduction in subcontractor or supplier price as a result of the change, if the change is approved by the Owner, shall be deducted from the Trade Contract Price via a deductive Change Order. Any such changes, if approved by the Owner, which result in an increase in the Trade Contract Price shall be borne by the Trade Contractor.

Enforcement of Reciprocal Resident Bidder Preference, per Iowa Code 73A.21.

All bidders shall either check the box next to "Resident Bidder" or check the box next to "Nonresident Bidder" and by doing so and signing thereafter certifies and attests to the same. All information requested must be provided. Seek out the advice of an attorney if you have questions.

"Resident Bidder" means a person or entity authorized to transact business in of the State of Iowa and having a place of business for transacting business within the State of Iowa at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. Note, however, that if a nonresident bidder's state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

Resident Bidder

Name of Resident Bidder: _____

By: _____
Authorized Agent and Signatory of Resident Bidder

OR:

Nonresident Bidder

Name of Nonresident Bidder: _____

Name of State or Foreign Country of Nonresident Bidder: _____

Particularly identify and describe any preference, labor preference, or any other type of preferential treatment, in effect in the nonresident bidder's state or foreign country at the time of this bid:

NOTICE: Nonresident Bidders domiciled in a state or country with a resident labor force preference shall make and keep, for a period of not less than three years, accurate records of all workers employed on the public improvement. The records shall include each worker's name, address, telephone number when available, social security number, trade classification, and the starting ending time of employment.

By: _____
Authorized Agent and Signatory of Nonresident Bidder

REQUIRED: Bid Form shall be signed by an officer of the company with authority to bind in a contract. Notice of acceptance of this bid, or request for additional information by the Department of Administrative Services, may be addressed to the undersigned at the address set forth below:

Legal Name of Firm: _____

Date: _____

Signature of Bidder: _____

Title: _____

Typed Name of Signatory: _____

Email: _____

Business Address:

Telephone Number: _____ Fax Number: _____

Federal Tax Identification Number: _____

Iowa Contractor Registration Number: _____

Bidder Safety Manager Name: _____

For an out-of-state Bidder, Bidder certifies that the Resident Preference given by the State or Foreign Country of Bidder's residence, _____, is _____ %.

END OF SECTION

SECTION 00 4116.01

NON-DISCRIMINATION CLAUSE

This Section is for informational purposes only. All information will be submitted online through the State's [IMPACS Electronic Procurement System](#).

PART 1 - GENERAL

All contractors, subcontractors, vendors and suppliers of goods and services doing business with the State of Iowa and value of said business equals or exceeds \$10,000 annually, agree as stated below.

1.01 NONDISCRIMINATION CLAUSE

- A. The contractor, subcontractor, vendor and supplier of goods and services will not discriminate against an employee or applicant for employment because of race, creed, color, sex, national origin, ancestry, religion, economic status, age, disability, political opinion, or affiliations of an applicant or employee based upon the nature of the job occupation. The contractor, subcontractor, vendor and supplier will develop an Affirmative Action Program to insure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, sex, national origin, ancestry, religion, economic status, age, disability, political opinions or affiliations. Such action shall include, but not be limited to the following:
 - 1. Employment.
 - 2. Upgrading.
 - 3. Demotion or transfer.
 - 4. Recruitment and advertising.
 - 5. Layoff or termination.
 - 6. Rates of pay or other forms of compensation.
 - 7. Selection for training, including apprenticeship.
- B. The contractor, subcontractor, vendor and supplier of goods and services will, in all solicitations or advertisements for employees, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, national origin, ancestry, religion, economic status, age, disability, political opinion or affiliations.
- C. The contractor, subcontractor, vendor and supplier or their collective bargaining representative will send to each labor union or representative or workers with which they have a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the contractor's commitments under this section.
- D. The contractor, subcontractor, vendor and supplier of goods and services will comply with all published rules, regulations, directives and orders of the State of Iowa Affirmative Action Program Contract Compliance Provisions.
- E. The contractor, subcontractor, vendor and supplier of goods and services will furnish and file compliance reports within such time and upon such forms as provided by the Equal Employment Opportunity Officer, said forms may elicit information as to the policies, procedures, patterns, and practices of each subcontractor as state as the contractor themselves and said contractor, subcontractor, vendor and supplier will permit access to their employment books, records and accounts to the State's Equal Employment Opportunity Officer, for the purpose of investigation to ascertain compliance with this Contract and with rules regulations of the State's Affirmative Action Program.
- F. In the event of the contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations and orders; this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts in accordance with procedures authorized by the State of Iowa.

- G. The contractor, subcontractor, vendor and supplier of goods and services will include, or incorporate by reference, the provisions of the nondiscrimination clause in every contract, subcontract or purchase order unless exempted by the rules, regulations or orders of the State's Affirmative Action Program, and will provide in every subcontract or purchase order that said provisions will be binding upon each contractor, subcontractor or seller.
- H. The parties agree to comply with "Compliance with the Law; Nondiscrimination in Employment" of the current Terms and Conditions at the award of this contract. Current Terms and Conditions may be found on the following web site and are, by this reference, made a part of this Agreement. <https://das.iowa.gov/procurement/terms-and-conditions>
- I. We certify and recognize that we are morally and legally committed to nondiscrimination in employment. Any person who applies for employment with our company will not be discriminated against because of race, creed, color, sex, national origin, ancestry, religion, economic status, age or disabilities, unless disabilities are based upon the nature of the job occupation.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

SECTION 00 4116.02

TARGETED SMALL BUSINESS INFORMATION

This Section is for informational purposes only. All information will be submitted online through the State's [IMPACS Electronic Procurement System](#).

PART 1 - GENERAL

1.01 TARGETED SMALL BUSINESS INFORMATION

- A. Subcontractor Targeted Small Business Enterprise Pre-Bid Contact Information, including subcontractor and dollar amount to be subcontracted, is to accompany the Bid submission. 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.

- B. [Search the Targeted Small Business Directory](#) for certified State of Iowa Targeted Small Businesses.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES
 SUBCONTRACTOR
 TARGETED SMALL BUSINESS ENTERPRISE
 PRE-BID CONTRACT INFORMATION

CONTRACTOR	BID NO.
PAGE #	

(to be completed by bidder)

You are requested to provide the information on this form showing your targeted Small Business enterprises contracts made prior to your bid submission. This information is subject to verification and confirmation. NOTE: The Department of General Services will not regard your acceptance or use of a low quote or bid from a non-targeted Small Business Enterprise on any subcontract item as evidence itself of any lack of good faith effort to solicit targeted Small Business Enterprise subcontractors on this project. However, every effort shall be made to solicit quotes or bids on as many subcontractable items as necessary to evidence affirmative action in contracting.

TABLE OF INFORMATION SHOWING BIDDER'S PRE-BID TARGETED SMALL BUSINESS ENTERPRISE CONTACTS

SUBCONTRACTOR	TSB	DATES CONTACTED	QUOTES RECEIVED		QUOTATION USED IN BID	
			YES/NO	DATES	YES/NO	DOLLAR AMOUNT PROPOSED TO BE SUBCONTRACTED

Total dollar amount proposed to be subcontracted to TSB on this project \$ _____
 List items to be subcontracted. (If more space is needed, use reverse side.)

SECTION 00 4313

BID SECURITY FORMS

PART 1 - GENERAL

1.01 BID SECURITY FORMS

- A. A Bid Bond form will be required on this project. An amended ConsensusDocs 262 is attached for reference following this page. ConsensusDocs bid bond form is not required (other standard forms are acceptable to the State of Iowa).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION



**CONSENSUSDOCS 262
 BID BOND
 (AMENDED BY STATE OF IOWA)**

This document was developed through a collaborative effort of organizations representing a wide cross-section of the design and construction industry. The organizations endorsing this document believe it represents a fair allocation of risk and responsibilities for all project participants.

Endorsing organizations recognize that this document must be reviewed and adapted to meet specific needs and applicable laws. This document has important legal and insurance consequences. You are encouraged to consult legal, insurance and surety advisors before completing or modifying this document. The software includes a notes section indicating where information is to be inserted to complete this document. Further information and endorsing organizations' perspectives are available at www.consensusdocs.org/guidebook.

For Use with ConsensusDOCS 200, Standard Form of Agreement and General Conditions Between Owner and Constructor (Where the Contract Price is a Lump Sum) and ConsensusDOCS 500, Standard Agreement and General Conditions Between Owner and Construction Manager.

The Trade Contractor, _____ (the "Trade Contractor") has submitted a Bid to the Owner, _____ (the "Owner") for the _____ (the "Project") in accordance with the Bidding Documents, including Drawings and Specifications prepared by _____ (the "Design Professional").

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.
 ConsensusDOCS 262 • BID BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC. AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY. YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT. ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

By virtue of this Bid Bond (the "Bond"), the Constructor as Principal and _____ as Surety ("Surety"), are bound to the Owner as Oblige in the maximum amount _____, Dollars (\$_____) (the "Bond Sum"). The Constructor and Surety hereby bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein.

1. If the Oblige shall accept the bid of the Constructor, the Constructor shall enter into an Agreement with the Oblige in accordance with the terms of such Bid.
2. Constructor shall procure such bond or bonds as are specified in the Contract Documents for the faithful performance of the Work and for the prompt payment of labor and materials furnished in the performance of the Work.
3. If the Constructor fails to enter such Agreement and give such bonds, the Constructor shall pay to the Oblige the difference between the amount of Constructor's bid and the amount of such agreement the Oblige in good faith executes with another Party to perform the Work covered by Constructor's Bid, not to exceed the Bond Sum stated above.
4. If the Constructor shall fulfill its obligation under Articles 1 through 3, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

This Bond is entered into as of _____ (date)

SURETY: _____ (seal)

BY:

Print Name: _____

Print Title: _____ (Attach Power of Attorney)

Witness:

(Additional signatures, if any, appear on attached page)

Constructor: _____ (seal)

BY:

Print Name: _____

Print Title: _____

Witness:

(Additional signatures, if any, appear on attached page)

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.

ConsensusDOCS 262 • BID BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC, AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY, YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT, ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 00 5200

AGREEMENT FORM

PART 1 - GENERAL

1.01 AGREEMENT FORM

- A. The Form of Agreement to be used on this project is a modified ConsensusDocs 802. A sample is attached following this page.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

ConsensusDocs 802

STANDARD FORM OF AGREEMENT BETWEEN OWNER AND TRADE CONTRACTOR

(Where the Construction Manager Is the Owner's Agent)



TABLE OF ARTICLES

1. AGREEMENT
2. GENERAL PROVISIONS
3. TRADE CONTRACTOR'S OBLIGATIONS
4. OWNER'S RESPONSIBILITIES
5. SUBCONTRACTS
6. TRADE CONTRACT TIME
7. TRADE CONTRACT PRICE
8. CHANGES
9. PAYMENT
10. INDEMNITY, INSURANCE, WAIVERS AND BONDS
11. SUSPENSION, NOTICE TO CURE AND TERMINATION OF AGREEMENT
12. DISPUTE MITIGATION AND RESOLUTION
13. MISCELLANEOUS PROVISIONS
14. TRADE CONTRACT DOCUMENTS

This Agreement has important legal and insurance consequences. Consultations with an attorney and with insurance and surety consultants are encouraged with respect to its completion or modification. Notes indicate where information is to be inserted to complete this Agreement.



ARTICLE 1 AGREEMENT

This Trade Contractor Agreement is made effective as of the XX day of Month, Year , by and between the

OWNER

State of Iowa - DAS, Department of Administrative Services ("DAS"). DAS's principal office is located: 109 SE 13th Street, Des Moines, IA 50319-0120.

and the

TRADE CONTRACTOR

Contractor Name

Address

City, State, Zip

for work in connection with the following

PROJECT

XXXX.XX - Project Name

The CONSTRUCTION MANAGER is

Construction Manager Name

Address

City, State, Zip

The DESIGN PROFESSIONAL for the Project is

Designer Name

Address

City, State, Zip

Notice to the Parties shall be given at the above addresses.

ARTICLE 2 GENERAL PROVISIONS

2.1 RELATIONSHIP OF PARTIES The Owner and the Trade Contractor agree to proceed with this Agreement on the basis of mutual trust, good faith and fair dealing and shall cooperate with each other and with the Construction Manager and Design Professional in furthering the Owner's interests. The Trade Contractor shall use its diligent efforts to perform the work in an expeditious manner consistent with the Trade Contract Documents. The Owner and the Trade Contractor will endeavor to promote harmony and cooperation among all Project participants.

2.1.1 The Owner and the Trade Contractor shall perform their obligations with integrity, ensuring at a minimum that

2.1.1.1 conflicts of interest shall be avoided or disclosed promptly to the other Party; and

2.1.1.2 the Trade Contractor and the Owner warrant that they have not and shall not pay nor receive any contingent fees or gratuities to or from the other Party, including its agents, officers and employees, Subcontractors or others for whom they may be liable, to secure preferential



treatment.

2.2 PROJECT ORGANIZATION This Agreement is for the performance of work described herein in connection with the construction of the Project. The Owner also may enter into separate agreements with other trade contractors for other portions of the Project. The Owner has entered or will enter into a Construction Management Agreement with the Construction Manager, and a design agreement with the Design Professional.

2.3 INDEPENDENT CONTRACTOR The Trade Contractor represents that it is an independent contractor and that its performance of the Trade Contract Work it shall act as an independent contractor. Neither Trade Contractor nor any of its agents or employees shall act on behalf of the Owner except as provided in this Agreement or unless authorized in writing by the Owner.

2.4 CONSTRUCTION MANAGER IS OWNER'S AGENT The Construction Manager will represent the Owner as its agent in the administration and management of this Agreement. Any instructions, reviews, approvals, orders or directions given to the Trade Contractor by the Construction Manager will be given on behalf of and as agent for the Owner. The Trade Contractor shall be obligated to respond or perform as if the same were given directly by the Owner. The Trade Contractor shall communicate and provide all requests and concerns regarding the Trade Contract Work to the Construction Manager. The Trade Contractor shall provide copies to the Construction Manager of all notices to the Owner required by and regarding this Agreement.

2.5 CONSTRUCTION MANAGER NOT IN PRIVITY WITH TRADE CONTRACTOR This Agreement shall not give the Trade Contractor any claim or right of action against the Construction Manager. The Trade Contractor and its subcontractors shall not be beneficiaries of any obligations of the Construction Manager. This Agreement shall not create a contractual relationship between any parties except the Owner and the Trade Contractor.

2.5A NO THIRD-PARTY BENEFICIARY There are no third-party beneficiaries of this Agreement.

2.6 DESIGN PROFESSIONAL The Owner, through its Design Professional, shall provide all architectural and engineering design services necessary for the completion of the Work, except the following:

No exceptions

The Trade Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering except as otherwise provided in section 3.15.

2.6.1 The Owner shall obtain from the Design Professional either a license for Trade Contractor and Subcontractors to use the design documents prepared by the Design Professional or ownership of the copyrights for such design documents, and shall defend, indemnify and hold harmless the Trade Contractor against any suits or claims of infringement of any copyrights or licenses arising out of the use of the design documents. To the extent portions of this paragraph are in conflict with SF 396 (codified at Iowa Code Section 537A.5) said portions are void and unenforceable.

2.7 EXTENT OF AGREEMENT This Agreement is solely for the benefit of the Parties, represents the entire integrated agreement between the Parties, and supersedes all prior negotiations, representations and agreements, either written or oral. This Agreement and each and every provision is for the exclusive benefit of the Owner and the Trade Contractor and not for the benefit of any third party except to the extent expressly provided in this Agreement. In the event of conflict between this Agreement and any of the Exhibits or any other documents incorporated into this Agreement, the terms and provisions of this Agreement shall control.

2.8 DEFINITIONS



2.8.1 Agreement means this ConsensusDocs 802 Standard Form of Agreement Between Owner and Trade Contractor (Where the Construction Manager is the Owner's Agent), as modified by the Parties, and Exhibits and Attachments made part of this Agreement upon its execution.

2.8.2 Design Professional means the Architect, Design Professional or Engineer identified in ARTICLE 1 and its consultants, retained by Owner to perform design services for the Project, and licensed in the State in which the Project is located. The use of the term Design Professional in this Agreement is for convenience and is not intended to imply or infer that the individual or entity named in ARTICLE 1 will provide design professional services in a discipline in which it is not licensed.

2.8.3 Construction Manager means the Construction Manager identified in ARTICLE 1 and its authorized representative.

2.8.4 The Construction Schedule is the document initially prepared by and updated by the Construction Manager and approved by the Owner that indicates proposed activity sequences, durations, or milestone dates for such activities as receipt and approval of pertinent information, issuance of the Construction Documents, the preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead-time procurement, Owner's occupancy requirements and estimated dates of Substantial Completion and Final Completion of the Project.

2.8.5 The term Day shall mean calendar day unless otherwise specifically defined.

2.8.6 Final Completion occurs on the date when the Trade Contractor's obligations under this Agreement are complete and accepted by the Owner and final payment becomes due and payable, as established in ARTICLE 6. This date shall be confirmed by a Certificate of Final Completion signed by the Owner and the Trade Contractor.

2.8.7 A Hazardous Material is any substance or material identified now or in the future as toxic or hazardous under any federal, state or local law or regulation, or any other substance or material which may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal or clean-up.

2.8.8 A Material Supplier is a person or entity retained by the Trade Contractor to provide material or equipment for the Trade Contract Work. This definition is not intended to, and shall not be interpreted to, expand or modify the definition(s) of materials or material suppliers contained in Iowa Code Chapter 573.

2.8.9 Others means other contractors, material suppliers, and persons at the Worksite who are not employed by the Trade Contractor or Subcontractors.

2.8.10 The term Overhead shall mean a) payroll costs and other compensation of Trade Contractor employees in the Trade Contractor's principal and branch offices; b) general and administrative expenses of the Trade Contractor's principal and branch offices including deductibles paid on any insurance policy and c) the Trade Contractor's capital expenses, including interest on capital used for the Work.

2.8.11 Owner is the person or entity identified in ARTICLE 1 as Owner, and includes the Owner's representative.

2.8.12 The Project, as identified in ARTICLE 1, is the building, facility or other improvements for which the Trade Contractor is to perform the Trade Contract Work.

2.8.13 A Subcontractor is a person or entity retained by the Trade Contractor as an independent contractor to provide the labor, materials, equipment or services necessary to complete a specific



portion of the Work. This definition is not intended to, and shall not be interpreted to, expand or modify the definition(s) of materials or material suppliers contained in Iowa Code Chapter 573.

2.8.14 Per Iowa Code Section 26.13, "substantially completed" means the first date on which any of the following occurs: (1) Completion of the Project (or Trade Contract Work, in the case of the multiple Trade Contractors) or when the Project (or Trade Contract Work in the case of multiple Trade Contractors) has been substantially completed in general accordance with the terms and provisions of the contract. (2) The work on the Project (or Trade Contract Work in the case of multiple Trade Contractors) or on the designated portion is substantially completed in general accordance with the terms of the contract so that the State Iowa can occupy or utilize the Project or designated portion of the Project for its intended purpose. (3) The Project (or Trade Contract Work in the case of multiple Trade Contractors) is certified as having been substantially completed by either of the following: (a) the architect or engineer authorized to make such certification (which is defined in this Agreement as the Design Professional). (b) The authorized contract representative (which is defined in this Agreement as the Owner's Representative). (4) The State of Iowa is occupying or utilizing the Project (or Trade Contract Work in the case of multiple Trade Contractors) for its intended purpose. This subparagraph shall not apply to highway, bridge, or culvert projects.

2.8.15 Terrorism means a violent act, or an act that is dangerous to human life, property or infrastructure, that is committed by an individual or individuals and that appears to be part of an effort to coerce a civilian population or to influence the policy or affect the conduct of any government by coercion. Terrorism includes, but is not limited to, any act certified by the United States government as an act of terrorism pursuant to the Terrorism Risk Insurance Act, as amended.

2.8.16 A Trade Contract Change Order is a written order signed by the Owner and the Trade Contractor after execution of this Agreement, indicating changes in the scope of the Trade Contract Work, the Trade Contract Price or Trade Contract Time, including substitutions proposed by the Trade Contractor and accepted by the Owner. Trade Contract Change Orders shall be executed using the ConsensusDOCS 813 Trade Contract Change Order (CM as Owner's Agent) form document with exhibits attached as necessary.

2.8.17 The Trade Contract Documents consist of this Agreement (as modified), the drawings, specifications, addenda issued prior to execution of this Agreement, approved submittals, information furnished by the Owner under subsection 4.1.3, the bid documents, other documents listed in this Agreement and any modifications issued after execution.

2.8.18 The Trade Contract Price is the amount indicated in section 7.1 of this Agreement.

2.8.19 The Trade Contract Time is the period between the Date of Commencement and Final Completion.

2.8.20 Trade Contract Work means the construction and services provided by the Trade Contractor.

2.8.20.1 Changed Work means work that is different from the original scope of Trade Contract Work; or work that changes the Trade Contract Price or Trade Contract Time.

2.8.20.2 Defective Work is any portion of the Trade Contract Work that is not in conformance with the Trade Contract Documents.

2.8.21 The Trade Contractor is the person or entity identified in ARTICLE 1 and includes the Trade Contractor's Representative.

2.8.22 The term Work means the construction and services necessary or incidental to fulfill the Trade



Contractors' obligations for the Project. The Work may refer to the whole Project or only a part of the Project.

2.8.23 Worksite means the geographical area at the location of the Project as identified in ARTICLE 1 where the Trade Contract Work is to be performed.

ARTICLE 3 TRADE CONTRACTOR'S OBLIGATIONS

3.1 GENERAL RESPONSIBILITIES

3.1.1 RESPONSIBILITIES The Trade Contractor shall provide all of the labor, materials, equipment and services necessary to complete the Trade Contract Work, all of which shall be provided in full accord with or as reasonably inferable from the Trade Contract Documents as being necessary to produce the indicated results.

3.1.2 The Trade Contractor shall be responsible for the supervision and coordination of the Trade Contract Work, including the construction means, methods, techniques, sequences and procedures utilized, unless the Trade Contract Documents give other specific instructions. In such case, the Trade Contractor shall not be liable to the Owner for damages resulting from compliance with such instructions unless the Trade Contractor recognized and failed to timely report to the Owner any error, inconsistency, omission or unsafe practice that it discovered in the specified construction means, methods, techniques, safety, sequences or procedures.

3.1.3 The Trade Contractor shall perform Trade Contract Work only within locations allowed by the Trade Contract Documents, applicable permits and applicable local law.

3.2 COOPERATION WITH WORK OF OWNER AND OTHERS

3.2.1 The Owner may perform work at the Worksite directly or by Others. Any agreements with Others to perform construction or operations related to the Project shall include provisions pertaining to insurance, indemnification, waiver of subrogation, coordination, interference, clean up and safety which are substantively the same as the corresponding provisions of this Agreement.

3.2.2 In the event that the Owner elects to perform work at the Worksite directly or by Others, the Trade Contractor and the Owner shall, with the assistance of the Construction Manager, coordinate the activities of all forces at the Worksite and agree upon fair and reasonable schedules and operational procedures for Worksite activities. The Owner shall require each separate contractor to cooperate with the Trade Contractor and assist with the coordination of activities and the review of construction schedules and operations. The Trade Contract Price and Trade Contract Time shall be equitably adjusted, as mutually agreed by the Parties, for subsequent changes made necessary by the coordination of construction activities, and the Trade Contractor's construction schedule and the Construction Schedule shall be revised accordingly. The Trade Contractor, Owner and Others shall adhere to the revised Construction Schedule until it may subsequently be revised.

3.2.3 With regard to the work of the Owner and Others, the Trade Contractor shall (a) proceed with the Trade Contract Work in a manner which does not hinder, delay or interfere with the work of the Owner or Others or cause the work of the Owner or Others to become defective, (b) afford the Owner or Others reasonable access for introduction and storage of their materials and equipment and performance of their activities, and (c) coordinate the Trade Contractor's construction and operations with theirs as required by this section.

3.2.4 Before proceeding with any portion of the Trade Contract Work affected by the construction or operations of the Owner or Others, the Trade Contractor shall give the Owner and Construction



Manager prompt written notification of any defects the Trade Contractor discovers in their work which will prevent the proper execution of the Trade Contract Work. The Trade Contractor's obligations in this section do not create a responsibility for the work of the Owner or Others, but are for the purpose of facilitating the Trade Contract Work. If the Trade Contractor does not notify the Owner and Construction Manager of patent defects interfering with the performance of the Trade Contract Work, the Trade Contractor acknowledges that the work of the Owner or Others is not defective and is acceptable for the proper execution of the Trade Contract Work. Following receipt of written notice from the Trade Contractor of defects, the Owner, through the Construction Manager, shall promptly inform the Trade Contractor what action, if any, the Trade Contractor shall take with regard to the defects.

3.3 RESPONSIBILITY FOR PERFORMANCE

3.3.1 In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Trade Contract Documents, prior to commencing the Work the Trade Contractor shall examine and compare the drawings and specifications with information furnished by the Owner pursuant to subsection 4.1.3, relevant field measurements made by the Trade Contractor and any visible conditions at the Worksite affecting the Trade Contract Work.

3.3.2 If in the course of the performance of the obligations in subsection 3.3.1 the Trade Contractor discovers any errors, omissions or inconsistencies in the Contract Documents, the Trade Contractor shall promptly report them to the Owner and Construction Manager. It is recognized, however, that the Trade Contractor is not acting in the capacity of a licensed design professional, and that the Trade Contractor's examination is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations. Following receipt of written notice from the Trade Contractor of defects, the Owner shall promptly inform the Trade Contractor what action, if any, the Trade Contractor shall take with regard to the defects.

3.3.3 The Trade Contractor shall have no liability for errors, omissions or inconsistencies discovered under subsections 3.3.1 and 3.3.2 unless the Trade Contractor fails to report a recognized problem to the Owner and Construction Manager.

3.3.4 The Trade Contractor may be entitled to additional costs or time if there are changes in the scope of the Trade Contract Work that increase the cost of the Work or increase the number of days required to perform the Work, respectively, because of clarifications or instructions arising out of the Trade Contractor's reports described in the three preceding Subsections.

3.4 CONSTRUCTION PERSONNEL AND SUPERVISION

3.4.1 The Trade Contractor shall provide competent supervision for the performance of the Trade Contract Work. Before commencing the Trade Contract Work, Trade Contractor shall notify Owner and Construction Manager in writing of the name and qualifications of its proposed superintendent(s) and project manager so Owner and Construction Manager may review the individual's qualifications. If, for reasonable cause, the Owner or Construction Manager refuses to approve the individual, or withdraws its approval after once giving it, Trade Contractor shall name a different superintendent or project manager for Owner's and Construction Manager's review. Any disapproved superintendent shall not perform in that capacity thereafter at the Worksite.

3.4.2 The Trade Contractor shall be responsible to the Owner for acts or omissions of parties or entities performing portions of the Trade Contract Work for or on behalf of the Trade Contractor or any of its Subcontractors.

3.4.3 The Trade Contractor shall permit only qualified persons to perform the Trade Contract Work. The



Trade Contractor shall enforce safety procedures, strict discipline and good order among persons performing the Trade Contract Work. If the Owner or Construction Manager determines that a particular person does not follow safety procedures, or is unfit or unskilled for the assigned work, the Trade Contractor shall immediately reassign the person on receipt of the Owner's or Construction Manager's written notice to do so.

3.4.4 TRADE CONTRACTOR'S REPRESENTATIVE The Trade Contractor's authorized representative is . The Trade Contractor's representative shall possess full authority to receive instructions from the Owner and to act on those instructions. The Trade Contractor shall notify the Owner and the Construction Manager in writing of a change in the designation of the Trade Contractor's representative. The Trade Contractor's representative is also authorized to bind the Trade Contractor in all matters relating to this Agreement including, without limitation, all matters requiring the Trade Contractor's approval, authorization, or written notice. The Trade Contractor's representative is also authorized to resolve disputes in accordance with Section 12.2 of this Agreement.

3.5 MATERIALS FURNISHED BY THE OWNER OR OTHERS

3.5.1 In the event the Trade Contract Work includes installation of materials or equipment furnished by the Owner or Others, it shall be the responsibility of the Trade Contractor to examine the items so provided and thereupon handle, store and install the items, unless otherwise provided in the Trade Contract Documents, with such skill and care as to provide a satisfactory and proper installation. Loss or damage due to acts or omissions of the Trade Contractor shall be the responsibility of the Trade Contractor and may be deducted from any amounts due or to become due the Trade Contractor. Any defects discovered in such materials or equipment shall be reported at once to the Owner and Construction Manager. Following receipt of written notice from the Trade Contractor of defects, the Owner shall promptly inform the Trade Contractor what action, if any, the Trade Contractor shall take with regard to the defects.

3.6 TESTS AND INSPECTIONS

3.6.1 The Trade Contractor shall schedule all required tests, approvals and inspections of the Trade Contract Work or portions thereof at appropriate times so as not to delay the progress of the Trade Contract Work or other work related to the Project. The Trade Contractor shall give proper notice to the Construction Manager and to all required parties of such tests, approvals and inspections. If feasible, the Owner and Others may timely observe the tests at the normal place of testing. Except as provided in subsection 3.6.3, the Owner shall bear all expenses associated with tests, inspections and approvals required by the Trade Contract Documents, which, unless otherwise agreed to, shall be conducted by an independent testing laboratory or entity retained by the Owner. Unless otherwise required by the Trade Contract Documents, required certificates of testing, approval or inspection shall be secured by the Trade Contractor and promptly delivered to the Owner and Construction Manager.

3.6.2 If the Owner, Construction Manager or appropriate authorities determine that tests, inspections or approvals in addition to those required by the Trade Contract Documents will be necessary, the Trade Contractor shall arrange for the procedures and give timely notice to the Owner, Construction Manager and Others who may observe the procedures. Costs of the additional tests, inspections or approvals are at the Owner's expense except as provided in subsection 3.6.3.

3.6.3 If the procedures described in subsections 3.6.1 and 3.6.2 indicate that portions of the Trade Contract Work fail to comply with the Trade Contract Documents, the Trade Contractor shall be responsible for costs of correction and retesting.

3.7 WARRANTY



3.7.1 The Trade Contract Work shall be executed in accordance with the Trade Contract Documents in a workmanlike manner. The Trade Contractor warrants that all materials and equipment shall be furnished in sufficient quantities to facilitate the proper and expeditious execution of the Trade Contract Work and shall be new unless otherwise specified, of good quality, in conformance with the Trade Contract Documents, and free from defective workmanship and materials. At the Owner's or Construction Manager's request, the Trade Contractor shall furnish satisfactory evidence of the quality and type of materials and equipment furnished. The Trade Contractor further warrants that the Trade Contract Work shall be free from material defects not intrinsic in the design or materials required in the Trade Contract Documents. The Trade Contractor's warranty does not include remedies for defects or damages caused by normal wear and tear during normal usage, use for a purpose for which the Project was not intended, improper or insufficient maintenance, modifications performed by the Owner or Others, or abuse. The Trade Contractor's warranty pursuant to this section shall commence on the Date of Substantial Completion.

3.7.2 The Trade Contractor shall obtain from its Subcontractors and material suppliers any special or extended warranties required by the Trade Contract Documents. All such warranties shall be listed in an attached Exhibit to this Agreement.

3.8 CORRECTION OF TRADE CONTRACT WORK WITHIN ONE YEAR

3.8.1 If, prior to Substantial Completion and within one year after the date of Substantial Completion of the Trade Contract Work, any Defective Work is found, the Owner shall promptly notify the Trade Contractor in writing. Unless the Owner provides written acceptance of the condition, the Trade Contractor shall promptly correct the Defective Work at its own cost and time and bear the expense of additional services required for correction of any Defective Work for which it is responsible. If within the one-year correction period the Owner discovers and does not promptly notify the Trade Contractor or give the Trade Contractor an opportunity to test or correct Defective Work as reasonably requested by the Trade Contractor, the Owner waives the Trade Contractor's obligation to correct that Defective Work as well as the Owner's right to claim a breach of the warranty with respect to that Defective Work.

3.8.2 With respect to any portion of Trade Contract Work first performed after Substantial Completion, the one-year correction period shall be extended by the period of time between Substantial Completion and the actual performance of the later Trade Contract Work. Correction periods shall not be extended by corrective work performed by the Trade Contractor.

3.8.3 If the Trade Contractor fails to correct Defective Work within a reasonable time after receipt of written notice from the Owner prior to final payment, the Owner may correct it in accordance with the Owner's right to carry out the Trade Contract Work in section 11.2. In such case, an appropriate Trade Contract Change Order shall be issued deducting the cost of correcting such deficiencies from payments then or thereafter due the Trade Contractor. If payments then or thereafter due Trade Contractor are not sufficient to cover such amounts, the Trade Contractor shall pay the difference to the Owner.

3.8.4 If after the one-year correction period but before the applicable limitation period the Owner discovers any Defective Work, the Owner shall, unless the Defective Work requires emergency correction, promptly notify the Trade Contractor. If the Trade Contractor elects to correct the Defective Work, it shall provide written notice of such intent within fourteen (14) Days of its receipt of notice from the Owner. The Trade Contractor shall complete the correction of Defective Work within a time frame mutually agreed upon by the Trade Contractor and the Owner. If the Trade Contractor does not elect to correct the Defective Work, the Owner may have the Defective Work corrected by itself or Others and charge the Trade Contractor for the reasonable cost of the correction and other directly related



expenses. Owner shall provide Trade Contractor with an accounting of correction costs it incurs.

3.8.5 If the Trade Contractor's correction or removal of Defective Work causes damage to or destroys other completed or partially completed Work or existing buildings, the Trade Contractor shall be responsible for the cost of correcting the destroyed or damaged property.

3.8.6 The one-year period for correction of Defective Work does not constitute a limitation period with respect to the enforcement of the Trade Contractor's other obligations under the Trade Contract Documents.

3.8.7 Prior to final payment, at the Owner's option and with the Trade Contractor's agreement, the Owner may elect to accept Defective Work rather than require its removal and correction. In such case the Contract Price shall be equitably adjusted for any diminution in the value of the Project caused by such Defective Work. Before the Owner accepts any such change it must be documented in writing with a Change Order signed by both the Trade Contractor and Owner.

3.9 CORRECTION OF COVERED TRADE CONTRACT WORK

3.9.1 On request of the Owner or Construction Manager, Trade Contract Work that has been covered without a requirement that it be inspected prior to being covered may be uncovered for the Owner's or Construction Manager's inspection. The Owner shall pay for the costs of uncovering and replacement if the Work proves to be in conformance with the Trade Contract Documents, or if the defective condition was caused by the Owner or Others. If the uncovered Trade Contract Work proves to be defective, the Trade Contractor shall pay the costs of uncovering and replacement.

3.9.2 If contrary to specific requirements in the Trade Contract Documents or contrary to a specific request from the Owner or Construction Manager, a portion of the Trade Contract Work is covered, the Owner or Construction Manager, by written request, may require the Trade Contractor to uncover the Trade Contract Work for the Owner's or Construction Manager's observation. In this circumstance the Trade Contract Work shall be uncovered and recovered at the Trade Contractor's expense and with no adjustment to the Trade Contract Time. Costs incurred by the Owner as a direct result of the above shall be deducted from the Trade Contract Price.

3.10 SAFETY OF PERSONS AND PROPERTY

3.10.1 SAFETY PRECAUTIONS AND PROGRAMS The Trade Contractor shall have overall responsibility for safety precautions and programs in the performance of the Trade Contract Work. While this section establishes the responsibility for safety between the Owner and Trade Contractor, it does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with the provisions of applicable laws and regulations.

3.10.2 The Trade Contractor shall seek to avoid injury, loss or damage to persons or property by taking reasonable steps to protect:

3.10.2.1 its employees and other persons at the Worksite;

3.10.2.2 materials and equipment stored at on-site or off-site locations for use in the Trade Contract Work; and

3.10.2.3 property located at the site and adjacent to Trade Contract Work areas, whether or not the property is part of the Trade Contract Work.

3.10.3 TRADE CONTRACTOR'S SAFETY REPRESENTATIVE The Trade Contractor's Worksite Safety Representative is who shall act as the Trade Contractor's authorized safety representative with a duty



to prevent accidents in accordance with subsection 3.10.2 If no individual is identified in this section, the authorized safety representative shall be the Trade Contractor's Representative. The Trade Contractor shall report immediately in writing to the Owner and Construction Manager all recordable accidents and injuries occurring at the Worksite. When the Trade Contractor is required to file an accident report with a public authority, the Trade Contractor shall furnish a copy of the report to the Owner and Construction Manager.

3.10.4 The Trade Contractor shall provide the Owner and Construction Manager with copies of all notices required of the Trade Contractor by law or regulation. The Trade Contractor's safety program shall comply with the requirements of governmental and quasi-governmental authorities having jurisdiction.

3.10.5 Damage or loss not insured under property insurance which may arise from the Trade Contract Work, to the extent caused by the negligent acts or omissions of the Trade Contractor, or anyone for whose acts the Trade Contractor may be liable, shall be promptly remedied by the Trade Contractor.

3.10.6 If the Owner or Construction Manager deems any part of the Trade Contract Work or Worksite unsafe, the Owner or Construction Manager, without assuming responsibility for the Trade Contractor's safety program, may require the Trade Contractor to stop performance of the Trade Contract Work or take corrective measures satisfactory to the Owner, or both. If the Trade Contractor does not adopt corrective measures, the Owner may perform them and deduct their cost from the Trade Contract Price. The Trade Contractor agrees to make no claim for damages, for an increase in the Trade Contract Price or for a change in the Trade Contract Time based on the Trade Contractor's compliance with the Owner's or Construction Manager's reasonable request.

3.11 EMERGENCIES

3.11.1 In an emergency, the Trade Contractor shall act in a reasonable manner to prevent personal injury or property damage. Any change in the Trade Contract Price or Trade Contract Time resulting from the actions of the Trade Contractor in an emergency situation shall be determined as provided in ARTICLE 8.

3.12 HAZARDOUS MATERIALS

3.12.1 The Trade Contractor shall not be obligated to commence or continue Trade Contract Work until any Hazardous Material discovered at the Worksite has been removed, rendered or determined to be harmless by the Owner as certified by an independent testing laboratory and approved by the appropriate government agency.

3.12.2 If after the commencement of the Trade Contract Work a Hazardous Material is discovered at the Worksite, the Trade Contractor shall be entitled to immediately stop Trade Contract Work in the affected area. The Trade Contractor shall report the condition to the Owner, the Construction Manager, and, if required, the government agency with jurisdiction.

3.12.3 The Trade Contractor shall not be required to perform any Trade Contract Work relating to or in the area of Hazardous Material without written mutual agreement.

3.12.4 The Owner shall be responsible for retaining an independent testing laboratory to determine the nature of the Hazardous Material encountered and whether the material requires corrective measures or remedial action. Such measures shall be the sole responsibility of the Owner, and shall be performed in a manner minimizing any adverse effects upon the Trade Contract Work. The Trade Contractor shall resume Trade Contract Work in the area affected by any Hazardous Material only upon written agreement between the Parties after the Hazardous Material has been removed or rendered harmless



and only after approval, if necessary, of the governmental agency with jurisdiction.

3.12.5 If the Trade Contractor incurs additional costs or is delayed due to the presence or remediation of Hazardous Material, the Trade Contractor shall be entitled to an equitable adjustment in the Trade Contract Price or the Trade Contract Time.

3.12.6 To the extent not caused by the negligent acts or omissions of the Trade Contractor, its Subcontractors and Sub-subcontractors, and the agents, officers, directors and employees of each of them, the Owner shall defend, indemnify and hold harmless the Trade Contractor, its Subcontractors and Sub-subcontractors, and the agents, officers, directors and employees of each of them, from and against any and all direct claims, damages, losses, costs and expenses, including but not limited to attorney's fees, costs and expenses incurred in connection with any dispute resolution process, to the extent permitted pursuant to section 6.6, arising out of or relating to the performance of the Trade Contract Work in any area affected by Hazardous Material. To the extent portions of this paragraph are in conflict with SF 396 (codified at Iowa Code Section 537A.5) said portions are void and unenforceable.

3.12.7 MATERIALS BROUGHT TO THE WORKSITE

3.12.7.1 Material Safety Data (MSD) sheets as required by law and pertaining to materials or substances used or consumed in the performance of the Trade Contract Work, whether obtained by the Trade Contractor, Subcontractors, the Owner or Others, shall be maintained at the Worksite by the Trade Contractor and made available to the Owner, Construction Manager, Subcontractors and Others.

3.12.7.2 The Trade Contractor shall be responsible for the proper delivery, handling, application, storage, removal and disposal of all materials and substances brought to the Worksite by the Trade Contractor in accordance with the Trade Contract Documents and used or consumed in the performance of the Trade Contract Work.

3.12.7.3 The Trade Contractor shall indemnify and hold harmless the Owner, Construction Manager, their agents, officers, directors and employees, from and against any and all claims, damages, losses, costs and expenses, including but not limited to attorney's fees, costs and expenses incurred in connection with any dispute resolution procedure, arising out of or relating to the delivery, handling, application, storage, removal and disposal of all materials and substances brought to the Worksite by the Trade Contractor in accordance or not in accordance with the Trade Contract Documents. To the extent portions of this paragraph are in conflict with SF 396 (codified at Iowa Code Section 537A.5) said portions are void and unenforceable.

3.12.8 The terms of this section shall survive the completion of the Trade Work or any termination of this Agreement.

3.13 SUBMITTALS

3.13.1 The Trade Contractor shall submit to the Construction Manager, and the Design Professional, for review and approval all shop drawings, samples, product data and similar submittals required by the Trade Contract Documents. Submittals may be submitted in electronic form if required in accordance with ConsensusDocs 200.2 and subsection 4.4.1. The Trade Contractor shall be responsible to the Owner for the accuracy and conformity of its submittals to the Trade Contract Documents. The Trade Contractor shall prepare and deliver its submittals in a manner consistent with the Construction Schedule and in such time and sequence so as not to delay the performance of the Trade Contract Work or the work of the Owner and Others. When the Trade Contractor delivers its submittals the Trade Contractor shall identify in writing for each submittal all changes, deviations or substitutions from the requirements of the Trade Contract Documents. The review and approval of any Trade Contractor



submittal shall not be deemed to authorize changes, deviations or substitutions from the requirements of the Trade Contract Documents unless express written approval is obtained from the Owner specifically authorizing such deviation, substitution or change. To the extent a change, deviation or substitution causes an impact to the Contract Price or Contract Time, such approval shall be promptly memorialized in a Change Order. Further, the Construction Manager and Design Professional shall not make any change, deviation or substitution through the submittal process without specifically identifying and authorizing such deviation to the Trade Contractor. In the event that the Trade Contract Documents do not contain submittal requirements pertaining to the Trade Contract Work, the Trade Contractor agrees upon request to submit in a timely fashion to the Construction Manager and the Design Professional for review and approval any shop drawings, samples, product data, manufacturers' literature or similar submittals as may reasonably be required by the Owner, Construction Manager, or Design Professional.

3.13.2 The Owner shall be responsible for review and approval of submittals with reasonable promptness to avoid causing delay.

3.13.3 The Trade Contractor shall perform all Trade Contract Work strictly in accordance with approved submittals. Approval of shop drawings is not authorization to Trade Contractor to perform Changed Work, unless the procedures of ARTICLE 8 are followed. Approval does not relieve the Trade Contractor from responsibility for Defective Work resulting from errors or omissions of any kind on the approved Shop Drawings.

3.13.4 Record copies of the following, incorporating field changes and selections made during construction, shall be maintained by the Trade Contractor at the Project site and available to the Owner upon request: drawings, specifications, addenda, Trade Contract Change Order and other modifications, and required submittals including product data, samples and shop drawings.

3.13.5 No substitutions shall be made in the Trade Contract Work unless permitted in the Trade Contract Documents and then only after the Trade Contractor obtains approvals required under the Trade Contract Documents for substitutions. All such substitutions shall be promptly memorialized in a Change Order no later than seven (7) Days following approval by the Owner and, if applicable, provide for an adjustment in the Contract Price or Contract Time.

3.13.6 The Trade Contractor shall prepare and submit to the Construction Manager for submission to the Owner

(Check one only)

- final marked up as-built drawings
- updated electronic data, in accordance with ConsensusDocs 200.2 and section 4.4.1
- such documentation as defined by the Parties by attachment to this Agreement,

in general documenting how the various elements of the Trade Contract Work were actually constructed or installed.

3.14 PROFESSIONAL SERVICES

3.14.1 The Trade Contractor may be required to procure professional services in order to carry out its responsibilities for construction means, methods, techniques, sequences and procedures for such services specifically called for by the Contract Documents. The Trade Contractor shall obtain these professional services and any design certifications required from State of Iowa licensed design professionals. All drawings, specifications, calculations, certifications and submittals prepared by such



design professionals shall bear the signature and seal of such design professionals and the Owner and the Design Professional shall be entitled to rely upon the adequacy, accuracy and completeness of such design services. If professional services are specifically required by the Contract Documents, the Owner shall indicate all required performance and design criteria. The Trade Contractor shall not be responsible for the adequacy of such performance and design criteria. The Trade Contractor shall not be required to provide such services in violation of existing laws, rules and regulations in the jurisdiction where the Project is located.

3.15 WORKSITE CONDITIONS

3.15.1 WORKSITE VISIT The Trade Contractor acknowledges that it has visited, or has had the opportunity to visit, the Worksite to visually inspect the general and local conditions which could affect the Trade Contract Work.

3.15.2 CONCEALED OR UNKNOWN SITE CONDITIONS If the conditions at the Worksite are (a) subsurface or other concealed physical conditions which are materially different from those indicated in the Trade Contract Documents, or (b) unusual and unknown physical conditions which are materially different from conditions ordinarily encountered and generally recognized as inherent in Trade Contract Work provided for in the Trade Contract Documents, the Trade Contractor shall stop Trade Contract Work and give immediate written notice of the condition to the Owner, Construction Manager and the Design Professional. The Trade Contractor shall not be required to perform any work relating to the unknown condition without the written mutual agreement of the Parties. Any change in the Contract Price or the Contract Time as a result of the unknown condition shall be determined as provided in this article. The Trade Contractor shall provide the Owner and the Construction Manager with written notice of any claim as a result of unknown conditions within the time period set forth in section 8.4.

3.16 PERMITS AND TAXES

3.16.1 Trade Contractor shall give public authorities all notices required by law and, except for permits and fees which are the responsibility of the Owner pursuant to section 4.2, shall obtain and pay for all necessary permits, licenses and renewals pertaining to the Trade Contract Work. Trade Contractor shall provide to Owner copies of all notices, permits, licenses and renewals required under this Agreement.

3.16.2 Trade Contractor shall pay all applicable taxes legally enacted when bids are received or negotiations concluded for the Trade Contract Work provided by the Trade Contractor.

3.16.3 The Contract Price or Contract Time shall be equitably adjusted by Trade Contract Change Order for additional costs resulting from any changes in laws, ordinances, rules and regulations enacted after the date of this Agreement, including increased taxes.

3.16.3 (Deleted)

3.17 CUTTING, FITTING AND PATCHING

3.17.1 The Trade Contractor shall perform cutting, fitting and patching necessary to coordinate the various parts of the Trade Contract Work and to prepare its Trade Contract Work for the work of the Owner or Others.

3.17.2 Cutting, patching or altering the work of the Owner or Others shall be done with the prior written approval of the Owner. Such approval shall not be unreasonably withheld.

3.18 CLEANING UP

3.18.1 The Trade Contractor shall regularly remove debris and waste materials at the Worksite resulting



from the Trade Contract Work. Prior to discontinuing Trade Contract Work in an area, the Trade Contractor shall clean the area and remove all rubbish and its construction equipment, tools, machinery, waste and surplus materials. The Trade Contractor shall minimize and confine dust and debris resulting from construction activities. At the completion of the Trade Contract Work, the Trade Contractor shall remove from the Worksite all construction equipment, tools, surplus materials, waste materials and debris.

3.18.2 If the Trade Contractor fails to commence compliance with cleanup duties within two (2) business Days after written notification from the Owner or the Construction Manager of noncompliance, the Owner may implement appropriate cleanup measures without further notice and the cost shall be deducted from any amounts due or to become due the Trade Contractor in the next payment period.

3.19 ACCESS TO TRADE CONTRACT WORK The Trade Contractor shall facilitate the access of the Owner, Construction Manager, Design Professional and Others to Trade Contract Work in progress.

3.20 COST MONITORING The Trade Contractor shall provide the Construction Manager with cost monitoring information appropriate for the manner of Trade Contractor's compensation, to enable the Construction Manager to develop and track construction and project budgets, including amounts for work in progress, uncompleted work and proposed changes.

3.21 ROYALTIES, PATENTS AND COPYRIGHTS The Trade Contractor shall pay all royalties and license fees which may be due on the inclusion of any patented or copyrighted materials, methods or systems selected by the Trade Contractor and incorporated in the Trade Contract Work. The Trade Contractor shall defend, indemnify and hold the Owner harmless from all suits or claims for infringement of any patent rights or copyrights arising out of such selection. The Owner agrees to indemnify and hold the Trade Contractor harmless from any suits or claims of infringement of any patent rights or copyrights arising out of any patented or copyrighted materials, methods or systems specified by the Owner, Construction Manager and Design Professional. To the extent portions of this paragraph are in conflict with SF 396 (codified at Iowa Code Section 537A.5) said portions are void and unenforceable.

3.22 CONFIDENTIALITY The Owner shall treat as confidential information all of the Trade Contractor's estimating systems and historical and parameter cost data that may be disclosed to the Owner in connection with the performance of this Agreement if they are specified and marked as confidential and shall mark them. If a document is not marked as "Confidential" it will not be treated as such. Nothing contained herein, however, shall be interpreted in a manner that modifies or is in conflict with the purpose and application of the open records laws contained in the Code of Iowa.

ARTICLE 4 OWNER'S RESPONSIBILITIES

4.1 INFORMATION SERVICES

4.1.1 FULL INFORMATION Any information or services to be provided by the Owner shall be provided in a timely manner so as not to delay the Trade Contract Work.

4.1.2 FINANCIAL INFORMATION Upon the written request of the Trade Contractor, the Owner shall provide the Trade Contractor with evidence of Project financing. If requested in writing, evidence of such financing shall be a condition precedent to the Trade Contractor's commencing or continuing the Trade Contract Work. The Trade Contractor shall be notified by the Owner prior to any material change in Project financing.

4.1.3 WORKSITE INFORMATION Except to the extent that the Trade Contractor knows of any inaccuracy, the Trade Contractor is entitled to rely on Worksite information furnished by the Owner pursuant to this subsection. To the extent the Owner has obtained, or is required elsewhere in the



Trade Contract Documents to obtain, the following Worksite information, the Owner shall provide at the Owner's expense and with reasonable promptness:

4.1.3.1 information describing the physical characteristics of the site, including surveys, site evaluations, legal descriptions, data or drawings depicting existing conditions, subsurface conditions and environmental studies, reports and investigations;

4.1.3.2 tests, inspections and other reports dealing with environmental matters, Hazardous Material and other existing conditions, including structural, mechanical and chemical tests, required by the Trade Contract Documents or by law; and

4.1.3.3 any other information or services requested in writing by the Trade Contractor which are relevant to the Trade Contractor's performance of the Trade Contract Work and under the Owner's control. The information required by subsection 4.1.3 shall be provided in reasonable detail. Legal descriptions shall include easements, title restrictions, boundaries, and zoning restrictions. Worksite descriptions shall include existing buildings and other construction and all other pertinent site conditions. Adjacent property descriptions shall include structures, streets, sidewalks, alleys, and other features relevant to the Trade Contract Work. Utility details shall include available services, lines at the Worksite and adjacent and connection points. The information shall include public and private information, subsurface information, grades, contours, and elevations, drainage data, exact locations and dimensions, and benchmarks that can be used by the Trade Contractor in laying out the Trade Contract Work. The Trade Contractor shall in writing request from the Owner any information identified in Paragraph 4.1.3 that the Trade Contractor believes the Owner has obtained but has not provided to the Trade Contractor.

4.1.3.4 OWNER'S REPRESENTATIVE The Owner's representative is test. The Owner's representative shall have authority to bind the Owner in all matters relating to this Agreement including, without limitation, all matters requiring the Owner's approval, authorization or written notice. If the Owner changes its representative as listed above, the Owner shall notify the Trade Contractor in advance in writing. The Owner's Representative is also authorized to resolve disputes in accordance with Section 12.2 of this Agreement. The Construction Manager, while unauthorized to modify the Agreement or settle a dispute without the Owner's approval, however, does have the requisite authority to act as the Owner's agent throughout the construction of the Project in accordance with the contract between the Owner and the Construction Manager (ConsensusDOCS 801 as modified by the State of Iowa).

4.2 BUILDING PERMIT, FEES AND APPROVALS Except for those permits and fees related to the Trade Contract Work which are the responsibility of the Trade Contractor pursuant to subsection 3.16.1, the Owner shall secure and pay for all other permits, approvals, easements, assessments and fees required for the development, construction, use or occupancy of permanent structures or for permanent changes in existing facilities, including the building permit.

4.3 Deleted

4.4 TRADE CONTRACT DOCUMENTS Unless otherwise specified, Owner shall provide One (1) copies of the Trade Contract Documents to the Trade Contractor without cost. Additional copies will be provided to the Trade Contractor at cost. This paragraph is not intended to be in conflict with Iowa Code Section 26.3 requirement that a sufficient number of copies of the contract documents be made available to bidders without charge (but a deposit not to exceed \$250 per set may be required). If the Trade Contractor was required to make a deposit for a set of Trade Contract Documents for purposes of bidding then the Trade Contractor may elect to have the deposit returned instead of being provided with an additional copy.



4.4.1 DIGITIZED DOCUMENTS If the Owner requires that the Owner, Design Professional, Construction Manager and Trade Contractor exchange documents and data in electronic or digital form, prior to any such exchange, the Owner, Design Professional, Construction Manager and Trade Contractor shall agree on a written protocol governing all exchanges in ConsensusDocs 200.2 or a separate Agreement, which, at a minimum, shall specify: (a) the definition of documents and data to be accepted in electronic or digital form or to be transmitted electronically or digitally; (b) management and coordination responsibilities; (c) necessary equipment, software and services; (d) acceptable formats, transmission methods and verification procedures; (e) methods for maintaining version control; (f) privacy and security requirements; and (g) storage and retrieval requirements. Except as otherwise agreed to by the Parties in writing, the Parties shall each bear their own costs as identified in the protocol. In the absence of a written protocol, use of documents and data in electronic or digital form shall be at the sole risk of the recipient.

4.5 OWNER'S CUTTING AND PATCHING Cutting, patching or altering the Trade Contract Work by the Owner or Others shall be done with the prior written approval of the Trade Contractor, which approval shall not be unreasonably withheld.

4.6 OWNER'S RIGHT TO CLEAN UP In case of a dispute between the Trade Contractor and Others with regard to respective responsibilities for cleaning up at the Worksite, the Owner may implement appropriate cleanup measures after two (2) business Days' notice and allocate the cost among those responsible during the following pay period.

4.7 COST OF CORRECTING DAMAGED OR DESTROYED WORK With regard to damage or loss attributable to the acts or omissions of the Owner or Others and not to the Trade Contractor, the Owner may either (a) promptly remedy the damage or loss or (b) accept the damage or loss. If the Trade Contractor incurs additional costs or is delayed due to such loss or damage, the Trade Contractor shall be entitled to an equitable adjustment in the Trade Contract Price or Trade Contract Time.

ARTICLE 5 SUBCONTRACTS

5.1 SUBCONTRACTORS The Trade Contract Work not performed by the Trade Contractor with its own forces shall be performed by Subcontractors.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE TRADE CONTRACT WORK

5.2.0 The Trade Contractor must identify all Subcontractors and suppliers within 48 hours of the published date and time for which bids must be submitted, in accordance with Iowa Code Section 8A.311, as amended by House File 646 in 2011. Subcontractors and suppliers may not be changed without the approval of the Owner. Requests for changing a Subcontractor or supplier must identify the reason for the proposed change, the name of the new Subcontractor or supplier, and the change in the subcontractor or supplier price as a result of the change. Any reduction in subcontractor or supplier price as a result of the change, if the change is approved by the Owner, shall be deducted from the Trade Contract Price via a deductive Change Order. Any such changes, if approved by the Owner, which result in an increase in the Trade Contract Price shall be borne by the Trade Contractor.

5.2.1 If the Owner has a reasonable objection to any proposed subcontractor or material supplier, the Owner shall notify the Trade Contractor in writing.

5.2.2 If the Owner has reasonably and promptly objected as provided in subsection 5.2.1, the Trade Contractor shall not contract with the proposed subcontractor or material supplier, and the Trade Contractor shall propose another Subcontractor acceptable to the Owner. To the extent the substitution results in an increase or decrease in the Trade Contract Price or Trade Contract Time, an appropriate



Trade Contract Change Order shall be issued as provided in ARTICLE 8.

5.3 BINDING OF SUBCONTRACTORS The Trade Contractor agrees to bind every Subcontractor (and require every Subcontractor to so bind its subcontractors) to all the provisions of this Agreement and the Trade Contract Documents as they apply to the Subcontractor's portion of the Trade Contract Work.

5.4 Deleted

5.5 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.5.1 If this Agreement is terminated, each subcontract agreement shall be assigned by the Trade Contractor to the Owner, subject to the prior rights of any surety, provided that:

5.5.1.1 this Agreement is terminated by the Owner pursuant to sections 11.3 or 11.4; and

5.5.1.2 the Owner accepts such assignment after termination by notifying the Subcontractor and Trade Contractor in writing, and assumes all rights and obligations of the Contractor pursuant to each subcontract agreement.

5.5.2 If the Owner accepts such an assignment, and the Work has been suspended for more than thirty (30) consecutive Days, following termination, if appropriate, the Subcontractor's compensation shall be equitably adjusted as a result of the suspension.

ARTICLE 6 TRADE CONTRACT TIME

6.1 PERFORMANCE OF THE TRADE CONTRACT WORK

6.1.1 DATE OF COMMENCEMENT The Date of Commencement is the date of Owner's written notice to proceed unless otherwise set forth below:

6.1.2 TIME Substantial Completion of the Trade Contract Work shall be achieved in xxx (xx) Days from the Date of Commencement. Unless otherwise specified in the Certificate of Substantial Completion, the Trade Contractor shall achieve Final Completion within 30 Days after the date of Substantial Completion, subject to adjustments as provided for in the Trade Contract Documents.

6.1.3 Time limits stated above are of the essence of this Agreement.

6.1.4 Unless instructed by the Owner in writing, the Trade Contractor shall not knowingly commence the Trade Contract Work before the effective date of insurance to be provided by the Trade Contractor and Owner as required by the Trade Contract Documents.

6.2 CONSTRUCTION SCHEDULE Prior to the commencement of the construction of the Trade Contract Work, the Trade Contractor shall submit a copy of its critical path method (CPM) construction schedule showing the completion of the Trade Contract Work within the allowable number of days identified above. The Trade Contractor shall regularly update its CPM construction schedule for the Trade Contract Work and promptly furnish the Construction Manager on an ongoing basis scheduling information requested by the Construction Manager for the Trade Contract Work. In consultation with the Trade Contractor, the Construction Manager shall incorporate the Trade Contract Work and work of other trade contractors into an overall Construction Schedule for the entire Project. The Trade Contractor shall be bound by the Construction. Nothing in this Trade Contractor Agreement shall relieve the Trade Contractor of any liability for any unexcused failure to comply with its original schedule, the Construction Schedule, or any completion dates. The Construction Manager shall have the right to coordinate the Trade Contractors, including the right, if necessary, to change the time, order and priority in which the various portions of the Trade Contract Work and the other work associated with the Project shall be performed.



6.3 DELAYS AND EXTENSIONS OF TIME

6.3.1 If the Trade Contractor is delayed at any time in the commencement or progress of the Work by any cause beyond the control of the Trade Contractor, the Trade Contractor shall be entitled to an equitable extension of the Trade Contract Time if the Trade Contractor is able to show that the critical path of the Trade Contract Work was delayed by causes beyond the control of the Trade Contractor. Examples of causes beyond the control of the Trade Contractor include, but are not limited to, the following: acts or omissions of the Owner, the Design Professional, Construction Manager or Others; changes in the Work or the sequencing of the Work ordered by the Owner, or arising from decisions of the Owner that impact the time of performance of the Work; transportation delays not reasonably foreseeable; labor disputes not involving the Trade Contractor; general labor disputes impacting the Project but not specifically related to the Worksite; fire; terrorism, epidemics, adverse governmental actions, unavoidable accidents or circumstances; adverse weather conditions not reasonably anticipated; encountering Hazardous Materials; concealed or unknown conditions; delay authorized by the Owner pending dispute resolution; and suspension by the Owner under section 11.1. The Trade Contractor shall submit any requests for equitable extensions of Contract Time in accordance with the provisions of ARTICLE 8.

6.3.2 In addition, if the Trade Contractor is able to show that it incurred additional costs because the critical path of the Trade Contract Work was delayed by acts or omissions of the Owner, the Design Professional, Construction Manager or Others, changes in the Work or the sequencing of the Work ordered by the Owner, or arising from decisions of the Owner that impact the time of performance of the Work, encountering Hazardous Materials, or concealed or unknown conditions, delay authorized by the Owner pending dispute resolution or suspension by the Owner under section 11.1, then the Trade Contractor shall be entitled to an equitable adjustment in the Trade Contract Price subject to section 6.6.

6.3.3 NOTICE OF DELAYS In the event delays to the Trade Contract Work are encountered for any reason, the Trade Contractor shall provide prompt written notice to the Owner and the Construction Manager of the cause of such delays after Trade Contractor first recognizes the delay. The Owner and Trade Contractor agree to undertake reasonable steps to mitigate the effect of such delays.

6.4 NOTICE OF DELAY CLAIMS If the Trade Contractor believes it is due an equitable extension of Trade Contract Time or an equitable adjustment in Trade Contract Price as a result of a delay described in subsection 6.3.1, the Trade Contractor shall give the Owner and the Construction Manager written notice of the claim in accordance with section 8.4. If the Trade Contractor causes delay in the completion of the Trade Contract Work, the Owner shall be entitled to recover its additional costs subject to subsection 6.6. The Owner shall process any such claim against the Trade Contractor in accordance with ARTICLE 8.

6.5 LIQUIDATED DAMAGES

6.5.1 SUBSTANTIAL COMPLETION The Owner and the Trade Contractor agree that this Agreement shall / shall not (indicate one) provide for the imposition of liquidated damages based on the Date of Substantial Completion.

6.5.1.1 The Trade Contractor understands that if the Date of Substantial Completion established by this Agreement, as may be amended by subsequent Trade Change Order, is not attained, the Owner will suffer damages which are difficult to determine and accurately specify. The Trade Contractor agrees that if the Date of Substantial Completion is not attained the Trade Contractor shall pay the Owner Zero Dollars and No Cents (\$0.00) as liquidated damages and not as a penalty for each day that Substantial Completion extends beyond the Date of Substantial Completion. The liquidated damages provided herein shall be in lieu of all liability for any and all



extra costs, losses, expenses, claims, penalties and any other damages of whatsoever nature incurred by the Owner which are occasioned by any delay in achieving the Date of Substantial Completion.

6.5.2 FINAL COMPLETION The Owner and the Trade Contractor agree that this Agreement shall / shall not (indicate one) provide for the imposition of liquidated damages based on the Date of Final Completion.

6.5.2.1 The Trade Contractor understands that if the Date of Final Completion established by this Agreement, as may be amended by subsequent Trade Change Order is not attained, the Owner will suffer damages which are difficult to determine and accurately specify. The Trade Contractor agrees that if the Date of Final Completion is not attained the Trade Contractor shall pay the Owner Zero Dollars and No Cents (\$0.00) as liquidated damages and not as a penalty for each day that Final Completion extends beyond the Date of Final Completion. The liquidated damages provided herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages of whatsoever nature incurred by the Owner which are occasioned by any delay in achieving the Date of Final Completion.

6.5.3 OTHER LIQUIDATED DAMAGES The Owner and the Trade Contractor may agree upon the imposition of liquidated damages based on other project milestones or performance requirements. Such agreement shall be included as an exhibit to this Agreement.

6.6 LIMITED MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES Except for damages mutually agreed upon by the Parties as liquidated damages in Section 6.5 and excluding losses covered by insurance required by the Trade Contract Documents, the Owner and the Trade Contractor agree to waive all claims against each other for any consequential damages that may arise out of or relate to this Agreement, except for those specific items of damages excluded from this waiver as mutually agreed upon by the Parties and identified below. The Owner agrees to waive damages including but not limited to the Owner's loss of use of the Project, any rental expenses incurred, loss of income, profit or financing related to the Project, as well as the loss of business, loss of financing, principal office overhead and expenses, loss of profits not related to this Project, loss of reputation, or insolvency. The Trade Contractor agrees to waive damages including but not limited to loss of business, loss of financing, principal office overhead and expenses, loss of profits not related to this Project, loss of bonding capacity, loss of reputation, or insolvency. The provisions of this section shall also apply to the termination of this Agreement and shall survive such termination.

6.6.1 The following items of damages are excluded from this mutual waiver: The provisions of this section shall also apply to the termination of this Agreement and shall survive such termination. The Owner and the Trade Contractor shall require similar waivers in contracts with Subcontractors and Others retained for the Project.

ARTICLE 7 TRADE CONTRACT PRICE

7.1 LUMP SUM As full compensation for performance by the Trade Contractor of the Work in conformance with the Contract Documents, the Owner shall pay the Trade Contractor the lump sum price of: XX dollars and XX cents (\$XX.XX) . The lump sum price is hereinafter referred to as the Trade Contract Price, which shall be subject to increase or decrease as provided in article 8.

Lump Sum Price includes Base Bid of \$X.XX and Alternate #XX for {alternate description} for \$X.XX for a total Lump Sum Price of \$X.XX.

7.2 ALLOWANCES

7.2.1 All allowances stated in the Trade Contract Documents shall be included in the Trade Contract Price. The Owner shall select allowance items in a timely manner so as not to delay the Trade Contract



Work.

7.2.2 Allowances shall include the costs of materials, supplies and equipment delivered to the Worksite, less applicable trade discounts and including requisite taxes, unloading and handling at the Worksite, and labor and installation, unless specifically stated otherwise. The Trade Contractor's Overhead and profit for the allowances shall be included in the Trade Contract Price, but not in the allowances. The Trade Contract Price shall be adjusted by Trade Contract Change Order to reflect the actual costs when they are greater than or less than the allowances.

ARTICLE 8 CHANGES

Changes in the Trade Contract Work that are within the general scope of this Agreement shall be accomplished, without invalidating this Agreement, by Trade Contract Change Order, and Trade Contract Interim Directed Change.

8.1 TRADE CHANGE ORDER

8.1.1 The Owner may order or the Trade Contractor may request changes in the Trade Contract Work or the timing or sequencing of the Trade Contract Work that impacts the Trade Contract Price or the Trade Contract Time. All such changes in the Trade Contract Work that affect Trade Contract Time or Trade Contract Price shall in the form of a Trade Contract Change Order. Any such requests for a change in the Trade Contract Price or the Trade Contract Time shall be processed in accordance with this article 8. Trade Contract Change Orders shall be executed on the ConsensusDOCS 813 - Trade Contract Change Order (CM as Owner's Agent) with attachments as necessary.

8.1.2 The Owner, with the assistance of the Construction Manager, and the Trade Contractor shall negotiate in good faith an appropriate adjustment to the Trade Contract Price or the Trade Contract Time and shall conclude these negotiations as expeditiously as possible. Acceptance of the Trade Contract Change Order and any adjustment in the Trade Contract Price or Trade Contract Time shall not be unreasonably withheld.

8.2 TRADE CONTRACT INTERIM DIRECTED CHANGE

8.2.1 The Construction Manager may issue a written Trade Contract Interim Directed Change signed by the Owner directing a change in the Trade Contract Work prior to reaching agreement with the Trade Contractor on the adjustment, if any, in the Trade Contract Price or the Trade Contract Time.

8.2.2 The Owner, with the assistance of the Construction Manager, and the Trade Contractor shall negotiate expeditiously and in good faith for appropriate adjustments, as applicable, to the Trade Contract Price or the Trade Contract Time arising out of a Trade Contract Interim Directed Change. As the Trade Contract Changed Work is performed, the Trade Contractor shall submit its costs for such work with its application for payment beginning with the next application for payment within thirty (30) Days of the issuance of the Trade Contract Interim Directed Change. If there is a dispute as to the cost to the Owner, the Trade Contractor shall continue to perform the Trade Contract Changed Work set forth in the Trade Contract Interim Directed Change and the Owner shall pay the requirements Trade Contractor the Cost of the Work, defined in 8.3.1.3 below upon receipt of an application for payment and the Owner's (and the Architect's and construction manger's) determination that the work has been completed. The Parties reserve their rights as to the disputed amount, subject to the requirements ARTICLE 12.

8.2.3 When the Owner and the Trade Contractor agree upon the adjustment in the Trade Contract Price or the Trade Contract Time, for a change in the Trade Contract Work directed by a Trade Contract Interim Directed Change, such agreement shall be the subject of a Trade Contract Change Order. The



Trade Contract Change Order shall include all outstanding Trade Contract Interim Directed Changes on which the Owner and Trade Contractor have reached agreement on Contract Price or Contract Time issued since the last Trade Contract Change Order.

8.3 DETERMINATION OF COST

8.3.1 An increase or decrease in the Trade Contract Price or the Trade Contract Time resulting from a change in the Trade Contract Work shall be determined by one or more of the following methods:

8.3.1.1 unit prices set forth in this Agreement or as subsequently agreed;

8.3.1.2 a mutually accepted, itemized lump sum;

8.3.1.3 COST OF THE WORK Cost of the Work as defined by this subsection plus 10.0 % for Overhead and 5.0 % for profit. "Cost of the Work" shall include the following costs reasonably incurred to perform a change in the Work

8.3.1.3.1 wages paid for labor in the direct employ of the Constructor in the performance of the Work;

8.3.1.3.2 salaries of the Trade Contractor's employees when stationed at the field office to the extent necessary to complete the applicable Work, employees engaged on the road expediting the production or transportation of material and equipment, and supervisory employees from the principal or branch office performing the functions listed below;

8.3.1.3.3 cost of applicable employee benefits and taxes, including but not limited to, workers' compensation, unemployment compensation, social security, health, welfare, retirement and other fringe benefits as required by law, labor agreements, or paid under the Trade Contractor's standard personnel policy, insofar as such costs are paid to employees of the Trade Contractor who are included in the Cost of the Work in subsections .1 and .2 immediately above;

8.3.1.3.4 reasonable transportation, travel, and hotel expenses of the Trade Contractor's personnel incurred in connection with the Work;

8.3.1.3.5 cost of all materials, supplies, and equipment incorporated in the Work, including costs of inspection and testing if not provided by the Owner, transportation, storage, and handling;

8.3.1.3.6 payments made by the Trade Contractor to Subcontractors for Work performed under this Agreement;

8.3.1.3.7 cost, including transportation and maintenance of all materials, supplies, equipment, temporary facilities, and hand tools not owned by the workers that are used or consumed in the performance of the Work, less salvage value or residual value; and cost less salvage value of such items used, but not consumed that remain the property of the Trade Contractor;

8.3.1.3.8 rental charges of all necessary machinery and equipment, exclusive of hand tools owned by workers, used at the Worksite, whether rented from the Trade Contractor or Others, including installation, repair and replacement, dismantling, removal, maintenance, transportation, and delivery costs. Rental from unrelated third parties shall be reimbursed at actual cost. Rentals from the Trade Contractor or its affiliates, subsidiaries, or related parties shall be reimbursed at the prevailing rates in the locality of the Worksite up to eighty-five percent (85%) of the value of the piece of equipment;

8.3.1.3.9 cost of the premiums for all insurance and surety bonds which the Trade Contractor is



required to procure or deems necessary, and approved by the Owner including any additional premium incurred as a result of any increase in the cost of the Work;

8.3.1.3.10 sales, use, gross receipts or other taxes, tariffs, or duties related to the Work for which the Trade Contractor is liable;

8.3.1.3.11 permits, fees, licenses, tests, and royalties;

8.3.1.3.12 reproduction costs, photographs, facsimile transmissions, long-distance telephone calls, data processing costs and services, postage, express delivery charges, data transmission, telephone service, and computer-related costs at the Worksite to the extent such items are used and consumed in the performance of the Work or are not capable of use after completion of the Work;

8.3.1.3.13 all water, power, and fuel costs necessary for the Work;

8.3.1.3.14 cost of removal of all nonhazardous substances, debris, and waste materials;

8.3.1.3.15 all costs directly incurred to perform a change in the Work which are reasonably inferable from the Contract Documents for the Changed Work;

8.3.1.3.16 DISCOUNTS All discounts for prompt payment shall accrue to the Owner to the extent such payments are made directly by the Owner. To the extent payments are made with funds of the Constructor, all cash discounts shall accrue to the Constructor. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment, shall be credited to the Cost of the Work;

8.3.1.3.17 COST REPORTING The Trade Contractor shall maintain in conformance with generally accepted accounting principles a complete and current set of records that are prepared or used by the Trade Contractor to calculate the Cost of Work. The Owner and Construction Manager shall be afforded access to the Trade Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda and similar data relating to requested payment for Cost of the Work. The Trade Contractor shall preserve all such records for a period of three years after the final payment or longer where required by law;

8.3.1.3.18 COST AND SCHEDULE ESTIMATES The Trade Contractor shall use reasonable skill and judgment in the preparation of a cost estimate or schedule for a change to the Work, but does not warrant or guarantee their accuracy

8.3.1.4 If an increase or decrease cannot be agreed to as set forth in Clauses .1 through .3 above, and the Owner or the Construction Manager issues a Trade Contract Interim Directed Change, the cost of the change in the Trade Contract Work shall be determined by the reasonable actual expense and savings of the performance of the Work resulting from the change. If there is a net increase in the Trade Contract Price, the Trade Contractor's Fee shall be adjusted accordingly. In case of a net decrease in the Trade Contract Price, the Trade Contractor's Fee shall not be adjusted unless ten percent (10%) or more of the Project is deleted. The Trade Contractor shall maintain a documented, itemized accounting evidencing the expenses and savings.

8.3.2 If unit prices are set forth in the Trade Contract Documents or are subsequently agreed to by the Parties, but the character or quantity of such unit items as originally contemplated is so different in a proposed Trade Change Order that the original unit prices will cause substantial inequity to the Owner or the Trade Contractor, such unit prices shall be equitably adjusted.

8.4 CLAIMS FOR ADDITIONAL COST OR TIME Except as provided in subsection 6.3.2 and section 6.4 for



any claim for an increase in the Trade Contract Price or the Trade Contract Time, the Trade Contractor shall give the Owner and the Construction Manager written notice of the claim within fourteen (14) Days after the occurrence giving rise to the claim or within fourteen (14) Days after the Trade Contractor first recognizes (or should have recognized) the condition giving rise to the claim, whichever is later. Except in an emergency, notice shall be given before proceeding with the Trade Contract Work. Thereafter, the Trade Contractor shall submit written documentation of its claim, including appropriate supporting documentation, within twenty-one (21) Days after giving notice, unless the Parties mutually agree upon a period of time. The Owner or Construction Manager shall respond in writing denying or approving the Trade Contractor's claim no later than fourteen (14) Days after receipt of the Trade Contractor's claim. Any change in the Trade Contract Price or the Trade Contract Time resulting from such claim shall be authorized by Trade Contract Change Order.

ARTICLE 9 PAYMENT

9.1 GENERAL PROVISIONS Within fourteen (14) calendar Days from the date of execution of this Agreement, the Trade Contractor shall prepare and submit to the Construction Manager for approval a Schedule of Values apportioned to the various divisions or phases of the Trade Contract Work. Each line item contained in the Schedule of Values shall be assigned a monetary price such that the total of all such items shall equal the Trade Contract Price. The Schedule of Values shall be prepared in such detail and be supported by such documents and proof as may be required by the Construction Manager.

9.2 PROGRESS PAYMENTS

9.2.1 APPLICATIONS The Trade Contractor shall submit to the Construction Manager monthly notarized applications for payment. Trade Contractor's applications for payment shall be itemized and supported by the Trade Contractor's Schedule of Values and any other substantiating data as required by this Trade Contractor Agreement or requested by the Construction Manager or Design Professional. Payment applications may include payment requests on account of properly authorized Trade Contract Change Orders and Interim Directed Changes. The progress payment application shall include Trade Contract Work performed through the preceding calendar month. The Construction Manager will review the application and recommend to the Design professional and the Owner amounts payable by the Owner to the Trade Contractor. The Owner, in accordance with the determination of the Design Professional, shall pay the amount otherwise due on any payment application, less any amounts as set forth below, no later than thirty (30) calendar Days after the payment application, or portion thereof, is approved the Design Professional. The Owner may deduct, from any progress payment, such amounts as may be retained pursuant to subsection 9.2.4 below.

9.2.2 STORED MATERIALS AND EQUIPMENT Unless otherwise provided in the contract documents, applications for payment may include materials and equipment not yet incorporated into the Work but delivered to and suitably stored onsite or offsite including applicable insurance, storage and costs incurred transporting the materials to an offsite storage facility. Approval of payment applications for stored materials and equipment stored offsite shall be conditioned on submission by the Trade Contractor of bills of sale and proof of required insurance, or such other procedures satisfactory to the Owner to establish the proper valuation of the stored materials and equipment, the Owner's title to such materials and equipment, and to otherwise protect the Owner's interests therein, including transportation to the site.

9.2.3 CLAIM WAIVERS

9.2.3.1 PARTIAL CLAIMWAIVERS AND AFFIDAVITS As a prerequisite for payment, the Trade Contractor shall provide, in a form satisfactory to the Owner and the Construction Manager, partial claim waivers in the amount of the application for payment and affidavits from the Trade Contractor, and its Subcontractors, Material Suppliers for the completed Trade Contract Work.



Such waivers shall be effective upon payment. In no event shall the Trade Contractor be required to sign an unconditional waiver of claim, either partial or final, prior to receiving payment or in an amount in excess of what it has been paid.

9.2.4 **RETAINAGE** From each progress payment made to the Trade Contractor has the Owner shall retain FIVE (5) percent of the amount otherwise due after deduction of any amounts as provided in section 9.3 and in no event shall such percentage exceed any applicable statutory requirements of this Agreement. Retainage shall be withheld and administered in accordance with Iowa Code Chapter 572:

9.3 **ADJUSTMENT OF TRADE CONTRACTOR'S PAYMENT APPLICATION** The Owner or the Construction Manager, upon notification of the Design Professional, may reject or adjust a Trade Contractor payment application or nullify a previously approved Trade Contractor payment application, in whole or in part, as may reasonably be necessary to protect the Owner from loss or damage based upon the following, to the extent that the Trade Contractor is responsible therefor under this Trade Contractor Agreement:

9.3.1 the Trade Contractor's repeated failure to perform the Trade Contract Work as required by the Trade Contractor Agreement;

9.3.2 loss or damage arising out of or relating to the Trade Contractor Agreement and caused by the Trade Contractor to the Owner, or to the Construction Manager or others to whom the Owner may be liable;

9.3.3 the Trade Contractor's failure to properly pay for labor, materials, equipment or supplies furnished in connection with the Trade Contract Work;

9.3.4 nonconforming or defective Trade Contract Work which has not been corrected in a timely fashion;

9.3.5 reasonable evidence of delay in performance of the Trade Contract Work such that the work will not be completed within the Trade Contract Time, and that the unpaid balance of the Trade Contract Price is not sufficient to offset any liquidated damages or actual damages that may be sustained by the Owner as a result of the anticipated delay caused by the Trade Contractor;

9.3.6 reasonable evidence demonstrating that the unpaid balance of the Trade Contract Price is insufficient to cover the cost to complete the Trade Contract Work; and

9.3.7 third-party claims involving the Trade Contractor or reasonable evidence demonstrating that third-party claims are likely to be filed unless and until the Trade Contractor furnishes the Owner with adequate security in the form of a surety bond, letter of credit or other collateral or commitment which are sufficient to discharge such claims if established. No later than thirty (30) Days after receipt of an application for payment, the Owner or Construction Manager shall give written notice to the Trade Contractor, disapproving or nullifying it or a portion thereof, specifying the reasons for the disapproval or nullification. When the above reasons for disapproving or nullifying an application for payment are removed, payment will be made for amounts previously withheld.

9.4 **PAYMENT NOT ACCEPTANCE** Payment to the Trade Contractor does not constitute or imply acceptance of any portion of the Trade Contract Work.

9.5 **PAYMENT DELAY** If for any reason not the fault of the Trade Contractor, the Trade Contractor does not receive a progress payment from the Owner sixty (60) calendar Days after the time such payment is due, as defined in Subparagraph 9.2.1, then the Trade Contractor, upon giving within seven (7) calendar Days after written notice to the Owner, and without prejudice to and in addition to any other legal remedies, may stop its Trade Contract Work until payment of the full amount owing to the Trade Contractor has been received. The



Trade Contract Price and Trade Contract Time shall be equitably adjusted by a Trade Contract Change Order to reflect reasonable cost and delay resulting from shutdown, delay and start-up.

9.6 SUBSTANTIAL COMPLETION

9.6.1 The Trade Contractor shall notify the Owner, the Construction Manager and the Design Professional when it considers Substantial Completion of the Trade Contract Work or a designated portion to have been achieved. The Construction Manager and the Design Professional shall promptly conduct an inspection to determine whether the Trade Contract Work or designated portion can be occupied or utilized for its intended use by the Owner without excessive interference in completing any remaining unfinished Trade Contract Work by the Trade Contractor. If the Construction Manager and the Design Professional determine that the Trade Contract Work or designated portion has not reached Substantial Completion, the Design Professional, and the Construction Manager, shall promptly compile a list of items to be completed or corrected so the Owner may occupy or utilize the Trade Contract Work or designated portion for its intended use. The Trade Contractor shall promptly complete all items on the list.

9.6.2 When Substantial Completion of the Trade Contract Work or a designated portion is achieved, the Construction Manager and the Design Professional shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, and the respective responsibilities of the Owner and Trade Contractor for interim items such as security, maintenance, utilities, insurance and damage to the Trade Contract Work. The Owner shall assume all responsibilities for items such as security, maintenance, utilities, and insurance, and damage to the Work. The certificate shall also list the items to be completed or corrected, and establish the time for their completion or correction. The Certificate of Substantial Completion shall be submitted to the Trade Contractor for written acceptance of responsibilities assigned in the Certificate.

9.6.3 Unless otherwise provided in the Certificate of Substantial Completion, warranties required by the Trade Contract Documents shall commence on the date of Substantial Completion of the Trade Contract Work or a designated portion.

9.6.4 Uncompleted items shall be completed by the Trade Contractor by the Final Completion date set forth in the Agreement and/or Construction Schedule. The Trade Contractor may request early release of retainage in accordance with Iowa Code Section 26.13. Payment for completed work and retainage shall be made in accordance with Iowa Code Chapters 26 and 573.

9.7 PARTIAL OCCUPANCY OR USE The Owner may occupy or use completed or partially completed portions of the Trade Contract Work when (a) the portion of the Trade Contract Work is designated in a Certificate of Substantial Completion, (b) appropriate insurer(s) consent to the occupancy or use, and (c) appropriate public authorities authorize the occupancy or use. Such partial occupancy or use shall constitute Substantial Completion of that portion of the Trade Contract Work.

9.8 FINAL PAYMENT

9.8.1 APPLICATION Upon acceptance of the Trade Contract Work by the Construction Manager, and approval by the Design Professional, and upon the Trade Contractor furnishing evidence of fulfillment of the Trade Contractor's obligations in accordance with the Trade Contract Documents, the Trade Contractor shall submit its application for final payment. The Construction Manager will review the Trade Contractor's final payment application and recommend to the Design Professional and the Owner an amount payable by the Owner to the Trade Contractor. The Design Professional shall then recommend an amount to be paid by the Owner. Final payment shall be made in accordance with Iowa Code Chapters 26 and 573.



9.8.2 REQUIREMENTS Along with its application for final payment, the Trade Contractor shall furnish to the Construction Manager:

9.8.2.1 an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Trade Contract Work for which the Owner or its property or the Construction Manager or the Owner's surety might in any way be liable, have been paid or otherwise satisfied;

9.8.2.2 consent of the Trade Contractor's surety to final payment;

9.8.2.3 satisfaction of closeout procedures as may be required by the Trade Contractor Agreement;

9.8.2.4 certification (or other writing indicating) that insurance required by the Trade Contractor Agreement is and will remain effect beyond final payment pursuant to this Trade Contractor Agreement and

9.8.2.5 other data if required by the Owner or Construction Manager, such as receipts, releases, and waivers of liens effective upon payment to the extent and in such form as may be designated by the Owner or Construction Manager. Acceptance of final payment by the Trade Contractor shall constitute a waiver of all claims by the Trade Contractor except those previously made in writing and identified by the Trade Contractor as unsettled at the time of final application for payment.

9.8.3 TIME OF PAYMENT Final payment of the balance of the Trade Contract Price, less any amount retained pursuant to subsection 9.2.4 of this Agreement, and as required by Iowa Code Chapters 26 and 573, which among other things requires that twice the amount of an Iowa Code Chapter 573 subcontractor claim be withheld from final payment, shall be made to the Trade contractor within sixty (60) Days after the Trade Contractor has submitted a complete and accurate application for final payment.

9.8.4 LATE PAYMENT INTEREST Progress payments or final payment due and unpaid under this Trade Contractor Agreement shall bear interest from the date payment is due at the statutory rate prevailing at the place of the Project.

9.9 PAYMENT USE AND VERIFICATION The Trade Contractor is required to pay for all labor, materials and equipment used in the performance of the Trade Contract Work through the most current period applicable to progress payments received. Reasonable evidence, satisfactory to the Construction Manager, may be required to show that all obligations relating to the Trade Contract Work are current before releasing any payment due on the Trade Contract Work. If required by the Construction Manager, before final payment is made for the Trade Contract Work, the Trade Contractor shall submit evidence satisfactory to the Construction Manager that all payrolls, bills for materials and equipment, and all known indebtedness connected with the Trade Contract Work, have been paid or otherwise satisfied as set forth in subsection 9.8.2.

ARTICLE 10 INDEMNITY, INSURANCE, WAIVERS AND BONDS

10.1 INDEMNITY

10.1A To the extent portions of this Article are in conflict with SF 396 (codified at Iowa Code Section 573A.5) said portions are void and unenforceable.

10.1.1 TRADE CONTRACTOR'S INDEMNITY To the fullest extent permitted by law, the Trade Contractor shall indemnify and hold harmless the Owner, the Owner's officers, directors, members,



consultants, agents and employees, from all claims for bodily injury and property damage, other than to the Work itself and other property insured under subsection 10.3.1, including reasonable attorneys' fees, costs and expenses, that may arise from the performance of the Work, but only to the extent caused by the negligent acts or omissions of the Trade Contractor, Subcontractors or anyone employed directly or indirectly by any of them or by anyone for whose acts any of them may be liable. The Trade Contractor shall be entitled to reimbursement of any defense costs paid above the Trade Contractor's percentage of liability for the underlying claim to the extent provided for under subsection 10.1.2.

10.1.2 OWNER'S INDEMNITY To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Trade Contractor, its officers, directors, members, consultants, agents, and employees, from all claims for bodily injury and property damage, other than property insured under subsection 10.3.1, including reasonable attorneys' fees, costs and expenses, that may arise from the performance of work by Owner, Design Professional or Others, but only to the extent caused by the negligent acts or omissions of the Owner, Design Professional or Others. The Owner shall be entitled to reimbursement of any defense costs paid above Owner's percentage of liability for the underlying claim to the extent provided for under subsection 10.1.1.

10.1.3 CONSTRUCTION MANAGER AND DESIGN PROFESSIONAL INDEMNITY The Owner shall cause the Construction Manager and the Design Professional to agree to indemnify and hold harmless the Owner from all claims for bodily injury and property damage, other than to the Work itself and other property insured under section 10.3, that may arise from the Construction Manager's or the Design Professional's services, but only to the extent that such claims result from the negligent acts or omissions of the Construction Manager or the Design Professional, respectively, or anyone for whose acts or omissions the Construction Manager or Design Professional, respectively, is liable. Such provisions shall be in a form no less protective of the Parties than the Construction Manager's Indemnity provided in ConsensusDocs 801 (2011) or the Design Professional's indemnity provided in ConsensusDocs 803 (2011) respectively, and shall be reasonably satisfactory to the Owner and the Trade Contractor.

10.1.4 ADJACENT PROPERTY INDEMNIFICATION To the extent of the limits of Trade Contractor's Commercial General Liability Insurance specified in subsection 10.2.1 or Zero Dollars and No Cents (\$0.00) whichever is more, the Trade Contractor shall indemnify and hold harmless the Owner against any and all liability, claims, demands, damages, losses and expenses, including attorney's fees, in connection with or arising out of any damage or alleged damage to any of Owner's existing adjacent property that may arise from the performance of the Trade Contract Work, but only to the extent of the negligent acts or omissions of the Trade Contractor, Subcontractor or anyone employed directly or indirectly by any of them or by anyone for whose acts any of them may be liable.

10.1.5 NO LIMITATION ON LIABILITY In any and all claims against the Indemnitees by any employee of the Trade Contractor, anyone directly or indirectly employed by the Trade Contractor or anyone for whose acts the Trade Contractor may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Trade Contractor under Workers' Compensation acts, disability benefit acts or other employment benefit acts.

10.2 TRADE CONTRACTOR'S INSURANCE

10.2.1 Prior to the start of the Work, the Trade Contractor shall procure and maintain in force Workers Compensation/Employers' Liability Insurance, Business Automobile Liability Insurance, and Commercial General Liability Insurance (CGL). The CGL policy shall include coverage for liability arising from premises, operations, independent contractors, products-completed operations, personal injury and



advertising injury, contractual liability, and broad form property damage. The Trade Contractor's liability policies, as required in this Subparagraph 10.2.1, shall be written on an occurrence basis with at least the following limits of liability:

10.2.1.1 Workers' Compensation- amount required by the laws of Iowa

10.2.1.2 Employers' Liability Insurance - \$500,000 or an amount required by Iowa law, whichever is greater.

10.2.1.3 Business Automobile Liability Insurance

a. \$1,000,000 Each Accident

10.2.1.4 Commercial General Liability Insurance

a. \$1,000,000 Each Occurrence b. \$2,000,000 General Aggregate c. \$1,000,000 Products/Completed Operations Aggregate d. \$1,000,000 Personal and Advertising Injury Limit

10.2.2 The Trade Contractor Must also carry and maintain Excess or Umbrella Liability coverage for the policies in subsection 10.2.1 in the amounts as listed below:

Trade Contractor Contract Amount: <\$1,000,000 - \$2 Million Umbrella or more \$1,000,000 - \$5,000,000 - \$5 Million Umbrella or more >\$5,000,000 - \$10 Million Umbrella or more

10.2.3 The Trade Contractor shall maintain in effect all insurance coverage required under subsection 10.2.1 with insurance companies lawfully authorized to do business in Iowa. Such insurance companies shall have a minimum A.M. Best Rating of A-VI (Consult instructions and insurance advisor). If the Trade Contractor fails to obtain or maintain any insurance coverage required under this Agreement, the Owner may purchase such coverage and charge the expense to the Trade Contractor, or terminate this Agreement.

10.2.4 To the extent commercially available, the policies of insurance required under Subparagraph 10.2.1 shall contain a provision that the insurance company or its designee must give the Owner written notice transmitted in paper or electronic format: (a) 30 days before coverage is nonrenewed by the insurance company and (b) with 10 business days after cancellation of coverage by the insurance company. The Trade Contractor shall maintain completed operations liability insurance for one year after acceptance of the Contract Documents, whichever is longer. Prior to commencement of services, the Trade Contractor shall furnish the Owner with certificates evidencing the required coverages. In addition, if any insurance policy required under subsection 10.2.1 is not to be immediately replaced without a lapse in coverage when it expires, exhausts its limits, or is to be, cancelled, the Trade Contractor shall give Owner prompt written notice upon actual or constructive knowledge of such condition.

10.2.5 ADDITIONAL LIABILITY COVERAGE

10.2.5.1 The Owner shall / shall not (indicate one) require the Trade Contractor to purchase and maintain liability coverage, primary to the Owner's coverage under subsection 10.3.1.

10.2.5.2 If required by subsection 10.2.5.1, the additional liability coverage required of the Trade Contractor shall be:

1. Additional Insured Owner shall be named as an additional insured on Trade Contractor's Commercial General Liability Insurance specified for operations and completed operations,



but only with respect to liability for bodily injury, property damage or personal and advertising injury to the extent caused by the negligent acts or omissions of Trade Contractor, or those acting on Trade Contractor's behalf, in the performance of Trade Contractor's Work for.

2. OCP Trade Contractor shall provide an Owners' and Contractors' Protective Liability Insurance ("OCP") policy with limits equal to the limits on Commercial General Liability Insurance specified or limits as otherwise required by Owner.

Any documented additional cost in the form of a surcharge associated with procuring the additional liability coverage in accordance with this subsection shall be paid by the Owner directly or the costs may be reimbursed by the Owner to the Trade Contractor by increasing the Trade Contract Price to correspond to the actual cost required to purchase and maintain the additional liability coverage. Prior to commencement of the Work, the Trade Contractor shall obtain and furnish to the Owner a certificate evidencing that the additional liability coverages have been procured.

10.2.6 PROFESSIONAL LIABILITY INSURANCE To the extent the Trade Contractor is required to procure design services under this Agreement, in accordance with section 3.14, the Trade Contractor shall require the designers to obtain professional liability insurance for claims arising from the negligent performance of professional services under this Agreement, with a company reasonably satisfactory to the Owner, including coverage for all professional liability caused by any of the Designer's(s') consultants, written for not less than \$1,000,000 per claim and in the aggregate with the deductible not to exceed \$2,000,000. The deductible shall be paid by the Designer.

10.3 OWNER'S INSURANCE

10.3.1 Deleted.

10.3.2 Deleted.

10.4 PROPERTY INSURANCE

10.4.1 Before the start of Trade Contract Work, the Owner shall obtain and maintain Builder's Risk Policy insurance with minimum coverage limits equal to the full cost of replacement of the Project at the time of loss. This insurance shall also name the Trade Contractor, Subcontractors, Material Suppliers, Construction Manager and Design Professional as insureds. This insurance shall be written as a Builder's Risk Policy or equivalent form to cover all risks of physical loss except those specifically excluded by the policy, and shall insure at least against the perils of fire, lightning, explosion, windstorm, hail, smoke, aircraft and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, debris removal, flood (subject to sublimits), earthquake (subject to sublimits), earth movement, water damage, wind damage, testing if applicable, collapse however caused, and shall include coverage for, material, or equipment stored offsite, onsite or in transit. This policy shall provide for a waiver of subrogation in favor of the Trade Contractor, Subcontractors, Material Suppliers, Construction Manager and Design Professional. This insurance shall remain in effect until the Substantial Completion of the Work, final payment has been made or until no person or entity other than the Owner has an insurable interest in the property to be covered by this insurance, whichever is sooner. Partial occupancy or use of the Work shall not commence until the Owner has secured the consent of the insurance company or companies providing the coverage required in this Subparagraph 10.4.1.

10.4.2 If the Owner does not intend to purchase the property insurance required by this Agreement, including all of the coverages and deductibles described herein, the Owner shall give written notice to the Trade Contractor, the Design Professional and the Construction Manager before the Trade Contract



Work is commenced. The Trade Contractor may then provide insurance to protect its interests and the interests of the Subcontractors, including the coverage of deductibles. The cost of this insurance shall be charged to the Owner in a Change Order. The Owner shall be responsible for all of Trade Contractor's costs reasonably attributed to the Owner's failure or neglect in purchasing or maintaining the coverage described above.

10.4.2.1 The Owner will not obtain insurance to cover the risk of physical loss resulting from Terrorism. The Construction Manager is not required to purchase this type of insurance but may purchase this type of insurance if it chooses. If purchased, the cost of this insurance shall be borne by the Construction manager.

10.4.3 POLICIES The Owner shall provide the Trade Contractor with a copy of all policies including all endorsements upon request.

10.5 PROPERTY INSURANCE LOSS ADJUSTMENT

10.5.1 LOSS ADJUSTMENT Any insured loss shall be adjusted with the Owner and the Trade Contractor and made payable to the Owner as trustee for the insureds, as their interests may appear.

10.5.2 DISTRIBUTION OF PROCEEDS Following the occurrence of an insured loss, monies received will be deposited in a separate account and the trustee shall make distribution in accordance with the agreement of the Parties in interest.

10.6 WAIVERS

10.6.1 PROPERTY DAMAGE The Owner and Trade Contractor waive all claims and other rights they may have against each other for loss of or damage to (a) the Project, (b) all materials, machinery, equipment and other items used in accomplishing the Trade Contract Work or services or to be incorporated into the Project, while the same are in transit, at the Project Site, during erection and otherwise, and (c) all property owned by or in the custody of Owner and its affiliates, however such loss or damage shall occur, to the extent such damage is covered by property insurance. The proceeds of such insurance shall be held by the Owner as trustee.

10.6.2 WAIVER OF SUBROGATION The Owner shall have its insurers waive all rights of subrogation they may have against the Construction Manager, Design Professional, Trade Contractors, and their Subcontractors and Material Suppliers on all policies carried by the Owner on the Project and adjacent properties, including, after final payment, those policies to be provided on the completed Project not intended to insure the Project during construction.

10.6.3 ENDORSEMENT If the policies of insurance referred to in this section require an endorsement to provide for continued coverage where there is a waiver of subrogation, the Owner will cause them to be so endorsed.

10.7 RISK OF LOSS Except to the extent a loss is covered by property insurance, carried by the owner, risk of loss or damage to the Work shall be upon the Trade Contractor until the Date of Final Completion, unless otherwise agreed to by the Parties.

10.8 BONDS Performance and Payment Bonds

are

are not

required of the Trade Contractor that meet the requirements of Iowa Code Chapter 573. A deposit in lieu of a



bond may be acceptable if it meets the requirements of Iowa Code Section 573.4. Such bonds shall be issued by a surety admitted in the State in which the Project is located and must be acceptable to the Owner. The Owner's acceptance shall not be withheld without reasonable cause. The penal sum of the Payment Bond and of the Performance Bond shall each be one hundred percent (100%) of the original Contract Price. Any increase in the Contract Price that exceeds ten percent (10%) in the aggregate shall require a rider to the Bonds increasing penal sums accordingly. Up to such ten percent (10%) amount, the penal sum of the Bond shall remain equal to one hundred percent (100%) of the Contract Price. The Trade Contractor shall endeavor to keep its surety advised of changes potentially impacting the Contract Time and Contract Price, though the Trade Contractor shall require that its surety waives any requirement to be notified of any alteration or extension of time. The Trade Contractor's Payment Bond for the Project, if any, shall be made available by the Owner for review and copying by the Subcontractor. Iowa Code Chapter 573 shall control and take precedence over any conflicting term or condition in this Agreement

ARTICLE 11 SUSPENSION, NOTICE TO CURE AND TERMINATION OF AGREEMENT

11.1 SUSPENSION BY OWNER FOR CONVENIENCE

11.1.1 OWNER SUSPENSION Should the Owner order the Trade Contractor in writing to suspend, delay, or interrupt the performance of the Trade Contract Work for such period of time as may be determined to be appropriate for the convenience of the Owner and not due to any act or omission of the Trade Contractor or any person or entity for whose acts or omissions the Trade Contractor may be liable, then the Trade Contractor shall immediately suspend, delay or interrupt that portion of the Trade Contract Work as ordered by the Owner. The Trade Contract Price and the Trade Contract Time shall be equitably adjusted by Trade Contract Change Order for the cost and delay resulting from any such suspension.

11.1.2 Any action taken by the Owner that is permitted by any other provision of the Trade Contract Documents and that results in a suspension of part or all of the Trade Contract Work does not constitute a suspension of Trade Contract Work under this section.

11.2 NOTICE TO CURE A DEFAULT If the Trade Contractor persistently refuses or fails to supply enough properly skilled workers, proper materials, or equipment to maintain the approved Construction Schedule in accordance with ARTICLE 6, or fails to make prompt payment to its workers, Subcontractors or Material Suppliers; disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction; or is otherwise guilty of a material breach of a provision of this Agreement, the Trade Contractor may be deemed in default. If the Trade Contractor fails within seven (7) business Days after receipt of written notification to commence and continue satisfactory correction of such default with diligence and promptness, then the Owner shall give the Trade Contractor a second notice to correct the default within a three (3) Day period. If the Trade Contractor fails to promptly commence and continue satisfactory correction of the default following receipt of such second notice, the Owner without prejudice to any other rights or remedies may:

11.2.1 supply workers and materials, equipment and other facilities as the Owner or Construction Manager deems necessary for the satisfactory correction of the default, and charge the cost to the Trade Contractor, who shall be liable for the payment of same including reasonable Overhead, profit and attorneys' fees;

11.2.2 contract with Others to perform such part of the Trade Contract Work as the Owner or Construction Manager determines shall provide the most expeditious correction of the default, and charge the cost to the Trade Contractor;

11.2.3 withhold payment due the Trade Contractor in accordance with section 9.3; and

11.2.4 in the event of an emergency affecting the safety of persons or property, immediately commence



and continue satisfactory correction of such default as provided in subsections 11.2.1 and 11.2.2 without first giving written notice to the Trade Contractor, but shall give prompt written notice of such action to the Trade Contractor following commencement of the action.

11.3 OWNER'S RIGHT TO TERMINATE FOR DEFAULT

11.3.1 TERMINATION BY OWNER FOR DEFAULT If, within seven (7) Days of receipt of a notice to cure pursuant to section 11.2, the Trade Contractor fails to commence and satisfactorily continue correction of the default set forth in the notice to cure, the Owner may notify the Trade Contractor that it intends to terminate this Agreement for default absent appropriate corrective action within fourteen additional Days. After the expiration of the additional fourteen (14) Day period, the Owner may terminate this Agreement by written notice absent appropriate corrective action. Termination for default is in addition to any other remedies available to Owner under section 11.2. If the Owner's cost arising out of the Trade Contractor's failure to cure, including the cost of completing the Trade Contract Work and reasonable attorneys' fees, exceeds the unpaid Trade Contract Price, the Trade Contractor shall be liable to the Owner for such excess costs. If the Owner's costs are less than the unpaid Trade Contract Price, the Owner shall pay the difference to the Trade Contractor. In the event the Owner exercises its rights under this section, upon the request of the Trade Contractor the Owner shall furnish to the Trade Contractor a detailed accounting of the cost incurred by the Owner.

11.3.2 USE OF TRADE CONTRACTOR'S MATERIALS, SUPPLIES AND EQUIPMENT If the Owner or Others perform work under this section, the Owner shall have the right to take and use any materials, supplies and equipment belonging to the Trade Contractor and located at the Worksite for the purpose of completing any remaining Trade Contract Work. Immediately upon completion of the Work, any remaining materials, supplies or equipment not consumed or incorporated in the Trade Contract Work shall be returned to the Trade Contractor in substantially the same condition as when they were taken, reasonable wear and tear excepted.

11.3.3 If the Trade Contractor files a petition under the Bankruptcy Code, this Agreement may be terminated for cause at the may be terminated for cause at the Owner.

11.3.3 If the Trade Contractor files a petition under the Bankruptcy Code, this Agreement may be terminated for cause at the may be terminated for cause at the Owner.

11.3.4 The Owner shall make reasonable efforts to mitigate damages arising from Trade Contractor default, and shall promptly invoice the Trade Contractor for all amounts due pursuant to sections 11.2 and 11.3.

11.4 TERMINATION BY OWNER FOR CONVENIENCE

11.4.1 Upon written notice to the Trade Contractor, the Owner may, without cause, terminate this Agreement. The Trade Contractor shall immediately stop the Work, follow the Owner's or Construction Manager's instructions regarding shutdown and termination procedures, and strive to minimize any further costs.

11.4.2 If the Owner terminates this Agreement pursuant to this section, the Trade Contractor shall be paid:

11.4.2.1 for the Work performed to date including Overhead and profit; and

11.4.2.2 for all demobilization costs and costs incurred as a result of the termination but not including Overhead or profit on work not performed;

11.4.2A Upon written notice to the Trade Contractor the Owner has the right to terminate this



Agreement without penalty as a result of the following: 1) the legislature or governor fail to appropriate funds sufficient to allow the Owner to operate as required and fulfill its obligations under this Agreement, 2) funds are de-appropriated or not allocated, 3) the Owner's authorization to operate is withdrawn or there is a material alteration in the programs administered by the owner, or 4) the Owner's duties are substantially modified. If such a termination results then the Trade Contractor shall be paid in the manner set forth in subparagraph 11.4.2. If, however, an appropriation to cover the cost of this Agreement becomes available within sixty (60) days subsequent to termination under this paragraph then the Owner agrees to re-enter into a modified version of this Agreement that accounts for the termination and reinstatement.

11.4.3 If the Owner terminates this Agreement pursuant to sections 11.3 or 11.4, the Trade Contractor shall:

11.4.3 If the Owner terminates this Agreement pursuant to sections 11.3 or 11.4, the Trade Contractor shall:

11.4.3.1 execute and deliver to the Owner all papers and take all action required to assign, transfer and vest in the Owner the rights of the Trade Contractor to all materials, supplies and equipment for which payment has or will be made in accordance with the Trade Contract Documents and all subcontracts, orders and commitments which have been made in accordance with the Trade Contract Documents;

11.4.3.2 exert reasonable effort to reduce to a minimum the Owner's liability for subcontracts, orders and commitments that have not been fulfilled at the time of the termination;

11.4.3.3 cancel any subcontracts, orders and commitments as the Owner or Construction Manager directs; and

11.4.3.4 sell at prices approved by the Owner or Construction Manager any materials, supplies and equipment as the Owner or Construction Manager directs, with all proceeds paid or credited to the Owner.

11.5 TRADE CONTRACTOR'S RIGHT TO TERMINATE

11.5.1 Upon seven (7) Days' written notice to the Owner and Construction Manager, the Trade Contractor may terminate this Agreement if the Trade Contract Work has been stopped for a thirty (30) Day period through no fault of the Trade Contractor for any of the following reasons:

11.5.1.1 under court order or order of other governmental authorities having jurisdiction;

11.5.1.2 as a result of the declaration of a national emergency or other governmental act during which, through no act or fault of the Trade Contractor, materials are not available; or

11.5.1.3 suspension by the Owner for convenience pursuant to section 11.1

11.5.2 In addition, upon seven (7) Days' written notice to the Owner and Construction Manager, the Trade Contractor may terminate the Agreement if the Owner:

11.5.2.1 fails to furnish reasonable evidence pursuant to section 4.1.2 that sufficient funds are available and committed for Project financing, or

11.5.2.2 assigns this Agreement over the Trade Contractor's reasonable objection, or

11.5.2.3 fails to pay the Trade Contractor in accordance with this Agreement and the Trade Contractor has complied with the notice provisions of section 9.5, or



11.5.2.4 otherwise materially breaches this Agreement.

11.5.3 Upon termination by the Trade Contractor in accordance with this section, the Trade Contractor shall be entitled to recover from the Owner payment for all Trade Contract Work executed and for any proven loss, cost or expense in connection with the Trade Contract Work, including all demobilization costs plus reasonable Overhead and profit on work not performed.

11.6 OBLIGATIONS ARISING BEFORE TERMINATION Even after termination pursuant to ARTICLE 11, the provisions of this Agreement still apply to any Trade Contract Work performed, payments made, events occurring, costs charged or incurred or obligations arising before the termination date.

ARTICLE 12 DISPUTE MITIGATION AND RESOLUTION

12.1 WORK CONTINUANCE AND PAYMENT Unless otherwise agreed in writing, the Trade Contractor shall continue the Trade Contract Work and maintain the Construction Schedule during any dispute mitigation or resolution proceedings. If the Trade Contractor continues to perform, the Owner shall continue to make payments in accordance with this Agreement.

12.2 DIRECT DISCUSSIONS If the Parties cannot reach resolution on a matter relating to or arising out of the Agreement, the Parties shall endeavor to reach resolution through good faith direct discussions between the Parties' representatives, who shall possess the necessary authority to resolve such matter and who shall record the date of first discussions. The authorized representative for the Trade Contractor is identified in Paragraph 3.4 of the Agreement. The authorized representative for the Owner is identified in Paragraph 4.2 of the Agreement. The parties' authorized representative are, among other things, authorized to resolve matters of disagreement and disputes between the Parties. If the dispute remains unresolved after fifteen (15) Days from the date of first discussion, the Parties shall submit such matter to the dispute mitigation and dispute resolution procedures selected herein.

12.3 MITIGATION The Parties agree that dispute mitigation procedures provided in this Project. Disputes remaining unresolved after direct discussions shall be directed to the selected mitigation procedure immediately below. The dispute mitigation procedure shall result in nonbinding finding on the matter. This may be introduced as evidence at a subsequent binding adjudication of the matter, as designee on Paragraph 12.5. The Parties agree that the dispute mitigation procedure shall be

(Designate only one.)

Project Neutral

Dispute Review Board

12.3.1 MITIGATION PROCEDURES The Project Neutral/Dispute Review Board shall be mutually selected and appointed by the Parties and shall execute a retainer agreement with the Parties establishing the scope of the Project Neutral/Dispute Review Board's responsibilities. The costs and expenses of the Project Neutral/Dispute Review Board shall be shared equally by the Parties. The Project Neutral/Dispute Review Board shall be available to either Party, upon request, throughout the course of the Project, and shall make regular visits to the Project so as to maintain an up-to-date understanding of the Project progress and issues and to enable the Project Neutral/Dispute Review Board to address matters in dispute between the Parties promptly and knowledgeably. The Project Neutral/Dispute Review Board shall issue nonbinding findings within five (5) business Days of referral of the matter to the Project Neutral, unless good cause is shown.

12.3.2 If the matter remains unresolved following the issuance of the nonbinding finding by the mitigation procedure or if the Project Neutral/Dispute Review Board fails to issue nonbinding findings



within five (5) Days of the referral, the Parties shall submit the matter to the binding dispute resolution procedure designated in section 12.5.

12.4 MEDIATION If direct discussions pursuant to section 12.2 do not result in resolution of the matter and no dispute mitigation procedure is selected under section 12.3, the Parties shall endeavor to resolve the matter by mediation through the current Construction Industry Mediation Rules of the American Arbitration Association, or the Parties may mutually agree to select another set of mediation rules. The administration of the mediation shall be as mutually agreed by the Parties. The mediation shall be convened within thirty (30) business Days of the matter first being discussed and shall conclude within forty-five (45) business Days of the matter first being discussed. Either Party may terminate the mediation at any time after the first session, but the decision to terminate shall be delivered in person by the terminating Party to the non-terminating Party and to the mediator. The costs of the mediation shall be shared equally by the Parties.

12.5 BINDING DISPUTE RESOLUTION If the matter is unresolved after submission of the matter to a mitigation procedure or to mediation, the Parties shall submit the matter to the binding dispute resolution procedure designated herein.

(Designate only one.)

Arbitration using the current Construction Industry Arbitration Rules of the American Arbitration Association

Litigation in either the state or federal court having jurisdiction of the matter in the location of the Project.

12.5.1 The costs of any binding dispute resolution procedures shall be borne by the non-prevailing Party, as determined by the adjudicator of the dispute. However, the costs of binding dispute resolution does not include attorney fees. The Parties are each responsible for paying for their own attorney fees.

12.5.2 VENUE The venue of any binding dispute resolution procedure shall be Des Moines, Iowa.

12.6 MULTIPARTY PROCEEDING All parties necessary to resolve a claim shall be parties to the same dispute resolution proceeding. Appropriate provisions shall be included in all other contracts relating to the Work to provide for the joinder or consolidation of such dispute resolution procedures.

12.7 LIEN RIGHTS The Trade Contractor acknowledges that it has no mechanic's lien rights on this Project because it is a public improvement project.

ARTICLE 13 MISCELLANEOUS PROVISIONS

13.1 ASSIGNMENT Neither the Owner nor the Trade Contractor shall assign their interest in this Agreement without the written consent of the other except as to the assignment of proceeds. The terms and conditions of this Agreement shall be binding upon both Parties, their partners, successors, assigns and legal representatives. Neither Party to this Agreement shall assign the Agreement as a whole without written consent of the other. If either Party attempts to make such an assignment, that Party shall nevertheless remain legally responsible for all obligations under this Agreement, unless otherwise agreed by the other Party.

13.2 GOVERNING LAW This Agreement and all disputes arising there from shall be governed by the Iowa law.

13.3 SEVERABILITY The partial or complete invalidity of any one or more provisions of this Agreement shall not affect the validity or continuing force and effect of any other provision.



13.4 NO WAIVER OF PERFORMANCE The failure of either Party to insist, in any one or more instances, on the performance of any of the terms, covenants or conditions of this Agreement, or to exercise any of its rights, shall not be construed as a waiver or relinquishment of such term, covenant, condition or right with respect to further performance or any other term, covenant, condition or right.

13.5 TITLES AND GROUPINGS The titles given to the articles of this Agreement are for ease of reference only and shall not be relied upon or cited for any other purpose. The grouping of the articles in this Agreement and of the Owner's specifications under the various headings is solely for the purpose of convenient organization and in no event shall the grouping of provisions, the use of sections or the use of headings be construed to limit or alter the meaning of any provisions.

13.6 ASSISTANCE OF COUNSEL AND INTERPRETATION The Parties agree that they had the opportunity to obtain the assistance of counsel in reviewing the Agreement terms prior to execution. This Agreement shall be construed neither against nor in favor of either Party, but shall be construed in a neutral manner.

13.7 RIGHTS AND REMEDIES The Parties' rights, liabilities, responsibilities and remedies with respect to this Agreement, whether in contract, tort, negligence or otherwise, shall be exclusively those expressly set forth in this Agreement.

13.8 ADDITIONAL PROVISIONS (Insert here other provisions, if any, that pertain to this Agreement See Below.)

13.9 COMPLIANCE WITH LAW AND REGULATIONS The Trade Contractor shall comply with all applicable federal, state, and local laws, rules, ordinances, regulations and orders when performing services and/or performing work under this Agreement, including without limitation, all laws applicable to the prevention of discrimination in employment and the use of targeted small businesses as subcontractors or suppliers. The Trade Contractor declares that it has complied with all federal, state and local laws regarding business permits and licenses that may be required to provide the services and work required by this Agreement. The Trade Contractor further acknowledges that if this Project is a recipient of Federal financial assistance that it may be subject to requirements of Federal Acts and Executive Orders as mandated by Federal agencies having authority and jurisdiction to enforce and ensure compliance with such laws and regulations including, but not necessarily limited to, the Davis Bacon Act and other Federal Acts and Executive Orders.

13.10 EMPLOYMENT PRACTICES: It is the intent of the Iowa Department of Administrative Services to assure equal employment opportunity in all contract work as required by law. Vendors, are required to take affirmative action to ensure that applicants employed or seeking employment with them are treated equally as required by law. Vendors shall not illegally discriminate against any employee. During the course of the Project, the Vendor may be required to show compliance with the EEO and Affirmative Action requirements. Noncompliance with the provisions set forth at the time of contract award may result in termination or suspension of the Agreement in whole or in part. All vendors and service providers working under the terms of this Agreement are prohibited from engaging in discriminatory employment practices forbidden by Iowa law. Vendors shall complete and submit the Nondiscrimination Clause form for the Owner's approval.

13.11 RECIPROCAL BIDDER PREFERENCE In accordance with Iowa Code Section 73A.21, as amended in 2011 by HF 648, if the Trade Contractor is not a resident bidder of Iowa, as defined by law, then the Trade Contractor must specifically identify in writing with its bid any and all preferences or preferential treatment (including preferences related to labor) enforced by the state or foreign country in which the Trade Contractor is a resident. If the low bid Trade Contractor is not a resident bidder of Iowa and the Trade Contractor's foreign State of residence enforces such a preference then the Owner shall reciprocally enforce the preference in favor of a resident bidder of Iowa. Failure on the part of the Trade Contractor to completely and accurately abide by this legal requirement may, among other things, result in civil penalties and void this Agreement. The Trade Contractor should contact its attorney regarding this legal requirement if the Trade



Contractor has questions regarding its meaning or application.

13.12 LABOR RELATIONS The Trade Contractor shall comply with all Iowa and Federal labor laws. In accordance with Executive Order Number 69, issued by the Governor of Iowa on or about January 14, 2011, no project labor agreement (also known as a PLA), or similar, will be used on this Project. Iowa is a right to work state. No consultant, contractor, or employee shall be obligated to contract with or join any labor organization as a condition of performing work on this Project.

ARTICLE 14 TRADE CONTRACT DOCUMENTS

14.1 The Trade Contract Documents in existence at the time of execution of this Agreement are as follows:

RFBXXXXXXXXX Bid Package X

14.2 INTERPRETATION OF TRADE CONTRACT DOCUMENTS

14.2.1 The drawings and specifications are complementary. If Trade Contract Work is shown only on one but not on the other, the Trade Contractor shall perform the Trade Contract Work as though fully described on both consistent with the Trade Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

14.2.2 In case of conflicts between the drawings and specifications, the specifications shall govern. In any case of omissions or errors in figures, drawings or specifications, the Trade Contractor shall immediately submit the matter to the Owner for clarification. The Owner's clarifications are final and binding on all Parties, subject to an equitable adjustment in Trade Contract Time or Price pursuant to ARTICLE 6 and ARTICLE 7 or dispute resolution in accordance with ARTICLE 12.

14.2.3 Where figures are given, they shall be preferred to scaled dimensions.

14.2.4 Any terms that have well-known technical or trade meanings, unless otherwise specifically defined in this Agreement, shall be interpreted in accordance with their well-known meanings. This Agreement entered into as of the date entered in ARTICLE 1.

14.2.5 PRECEDENCE In case of any inconsistency, conflict or ambiguity among the Trade Contract Documents, the documents shall govern in the following order: (a) Trade Contract Change Orders and written amendments to this Agreement; (b) this Agreement; (c) subject to subsection 14.2.2 the drawings, specifications and addenda issued prior to the execution of this Agreement; (d) approved submittals; (e) information furnished by the Owner pursuant to subsection 4.1.3; (f) other documents listed in this Agreement. Among all the Trade Contract Documents, the term or provision that is most specific or includes the latest date shall control. Information identified in one Trade Contract Document and not identified in another shall not be considered to be a conflict or inconsistency.

This Agreement entered into as of the date entered in ARTICLE 1.

OWNER State of Iowa, Department of Administrative Services



Trade Contractor: *Contractor Name*

By:

(Authorized Representative)

Name:

Title:

Date:

Owner: State of Iowa - DAS

By:

(Authorized Representative)

Name:

Title:

Date:

END OF DOCUMENT.

DRAFT



THIS PAGE
INTENTIONALLY
LEFT BLANK

SECTION 00 6000

PERFORMANCE AND PAYMENT BOND

PART 1 - GENERAL

1.01 PERFORMANCE AND PAYMENT BOND

- A. Performance and payment bonds to be used on this project, ConsensusDocs 260 and 261 are attached for reference following this page. ConsensusDocs performance and payment bonds are not required (other standard forms are acceptable to the State of Iowa).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION



CONSENSUSDOCS 260 PERFORMANCE BOND

This document was developed through a collaborative effort of organizations representing a wide cross-section of the design and construction industry. The organizations endorsing this document believe it represents a fair allocation of risk and responsibilities for all project participants.

Endorsing organizations recognize that this document must be reviewed and adapted to meet specific needs and applicable laws. This document has important legal and insurance consequences. You are encouraged to consult legal, insurance and surety advisors before completing or modifying this document. The software includes a notes section indicating where information is to be inserted to complete this document. Further information and endorsing organizations' perspectives are available at www.consensusdocs.org/guidebook.

For Use with ConsensusDOCS 200, Standard Form of Agreement and General Conditions Between Owner and Constructor (Where the Contract Price is a Lump Sum) and ConsensusDOCS 500, Standard Agreement and General Conditions Between Owner and Construction Manager.

The Owner, _____, (the "Owner") and the Constructor, _____, (the "Constructor") have entered into a Contract (the "Contract") dated _____ for _____ (the "Project"). The Contract is incorporated by reference into this Performance Bond (the "Bond").

By virtue of this Bond, the Constructor as Principal and _____ as Surety ("Surety"), are bound to the Owner as Oblige in the maximum amount of _____ Dollars (\$ _____) (the "Bond Sum"). The Constructor and Surety hereby bind themselves, their heirs, executors,

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.

ConsensusDOCS 260 • PERFORMANCE BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC. AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY. YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT. ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

administrators, successors and assigns, jointly and severally, as provided herein.

1. GENERAL CONDITIONS It is the condition of this Bond that if the Constructor performs its Contract obligations (the "Work"), the Surety's obligations under this Bond are null and void, Otherwise the Surety's obligations shall remain in full force and effect. The Surety waives any requirement to be notified of alterations or extensions of time made by the Owner in the Contract. The Owner may not invoke the provisions of this Bond unless the Owner has performed its obligations pursuant to the Contract. Upon making demand on this Bond, the Owner shall make the Contract Balance (the total amount payable by the Owner to the Constructor pursuant to the Contract less amounts properly paid by the Owner to the Constructor) available to the Surety for completion of the Work.

2. SURETY OBLIGATIONS If the Constructor is in default pursuant to the Contract and the Owner has declared the Constructor in default, the Surety promptly may remedy the default or shall

- a. Complete the Work, with the consent of the Owner, through the Constructor or otherwise,
- b. Arrange for the completion of the Work by a Constructor acceptable to the Owner and secured by performance and payment bonds equivalent to those for the Contract issued by a qualified surety. The Surety shall make available as the Work progresses sufficient funds to pay the cost of completion of the Work less the Contract Balance up to the Bond Sum, or
- c. Waive its right to complete the Work and reimburse the Owner the amount of its reasonable costs, not to exceed the Bond Sum, to complete the Work less the Contract Balance.

3. DISPUTE RESOLUTION All disputes pursuant to this Bond shall be instituted in any court of competent jurisdiction in the location in which the Project is located and shall be commenced within two years after default of the Constructor or Substantial Completion of the Work, whichever occurs first. If this provision is prohibited by law, the minimum period of limitation available to sureties in the jurisdiction shall be applicable.

This Bond is entered into as of _____.

SURETY _____ (seal)

By:

Print Name: _____

Print Title: _____

(Attach Power of Attorney)

Witness:

CONSTRUCTOR _____ (seal)

By:

Print Name: _____

Print Title: _____

Witness:

(Additional signatures, if any, appear on attached page)

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.

ConsensusDOCS 260 • PERFORMANCE BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC, AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY, YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT. ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.



**CONSENSUSDOCS 261
PAYMENT BOND**

This document was developed through a collaborative effort of organizations representing a wide cross-section of the design and construction industry. The organizations endorsing this document believe it represents a fair allocation of risk and responsibilities for all project participants.

Endorsing organizations recognize that this document must be reviewed and adapted to meet specific needs and applicable laws. This document has important legal and insurance consequences. You are encouraged to consult legal, insurance and surety advisors before completing or modifying this document. The software includes a notes section indicating where information is to be inserted to complete this document. Further information and endorsing organizations' perspectives are available at www.consensusdocs.org/guidebook.

For Use with ConsensusDOCS 200, Standard Form of Agreement and General Conditions Between Owner and Constructor (Where the Contract Price is a Lump Sum) and ConsensusDOCS 500, Standard Agreement and General Conditions Between Owner and Construction Manager.

The Owner, _____, (the "Owner")
and the Constructor, _____,
(the "Constructor") have entered into a Contract (the "Contract") dated _____ for
_____ (the "Project"). The Contract is
incorporated by reference into this Payment Bond (the "Bond").

By virtue of this Bond, the Constructor as Principal and _____ as
Surety ("Surety"), are bound to the Owner as Obligee in the maximum amount of
_____ Dollars (\$ _____) (the
"Bond Sum"). The Constructor and Surety hereby bind themselves, their heirs, executors,

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.
ConsensusDOCS 261 • PAYMENT BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC, AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY. YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT. ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

administrators, successors and assigns, jointly and severally, as provided herein.

1. GENERAL CONDITIONS It is the condition of this Bond that if the Constructor promptly makes payment of all sums for all labor, materials, and equipment furnished for use in the performance of the work required by the Contract, the Surety's obligations pursuant to this Bond are null and void. Otherwise the Surety's obligations shall remain in full force and effect. The Surety waives any requirement to be notified of alterations or extensions of time made by the Owner in the Contract.

2. SURETY OBLIGATION Every Claimant who has not been paid in full before the expiration of a period of ninety (90) Days after such Claimant provided or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, may have a right of action on this Bond. The Surety's obligation to the Claimant(s) shall not exceed the Bond Sum.

3. LIMITATION OF ACTION No suit or action shall be commenced on this Bond by any Claimant
a. Unless Claimant, other than one having a direct Contract with the Constructor, shall have given written notice to the Constructor, the Owner and the Surety within ninety (90) Days after the Claimant provided or performed the last of the work or labor, or furnished the last of the materials for which the claim is made, stating with substantial accuracy the amount claimed and the name of the Party to whom the materials were furnished, or for whom the work or labor was provided or performed. Such notice shall be served by any means which provides written third party verification of delivery to the Constructor at any place it maintains an office or conducts business, or served in any manner in which legal process may be served in the state in which the Project is located.
b. After the expiration of one (1) year from the date on which the Claimant last performed labor or furnished materials or equipment on the Project. If this provision is prohibited by law, the minimum period of limitation available to sureties in the jurisdiction shall be applicable.
c. Other than in any court of competent jurisdiction in the location in which the Project is located.

4. CLAIMANT A Claimant is defined as an individual or entity having a direct contract with the Constructor or having a contract with a subcontractor having a direct contract with the Constructor to furnish labor, materials or equipment for use in the performance of the Contract.

This Bond is entered into as of _____.

SURETY _____ (seal)

By:

Print Name: _____

Print Title: _____

(Attach Power of Attorney)

Witness:

CONSTRUCTOR _____ (seal)

By:

Print Name: _____

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.

ConsensusDOCS 261 • PAYMENT BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC, AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY, YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT, ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

Print Title: _____

Witness:

(Additional signatures, if any, appear on attached page)

IMPORTANT: A vertical line in the margin indicates a change has been made to the original text. Prior to signing, recipients may wish to request from the party producing the document a "redlined" version indicating changes to the original text. Consultation with legal and insurance counsel and careful review of the entire document are strongly encouraged.

ConsensusDOCS 261 • PAYMENT BOND Copyright © 2007, Revised 2009 and 2011, ConsensusDOCS LLC. AN INDIVIDUAL PURCHASE OF THIS DOCUMENT PERMITS THE USER TO PRINT ONE CONTRACT FOR ONE PROJECT ONLY. YOU MAY ONLY MAKE COPIES OF A COMPLETED DOCUMENT FOR DISTRIBUTION TO PARTIES IN DIRECT CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT. ANY OTHER USES, INCLUDING COPYING THE DOCUMENT, ARE STRICTLY PROHIBITED.

SECTION 01 1200

CONTRACT SUMMARY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project Information
- B. Project Summary
- C. Bid Scope Summary
- D. Work Hour Restrictions
- E. Access to Site
- F. Coordination with Occupants
- G. Rules for Construction Workers
- H. Bid Package Instructions

1.02 PROJECT INFORMATION

- A. Facility Name/Location: Fleet Building 301 E 7th Street, Des Moines, Iowa 50309
- B. DAS Project #: 9479.00
- C. Owner: State of Iowa, Department of Administrative Services, Hoover State Office Building, Level 3, 1305 East Walnut Street, Des Moines, IA 50319
- D. Owner's Representative: Jennie Elliott, Iowa Department of Administrative Services, 109 SE 13th Street, Des Moines, IA 50319
- E. Construction Manager: DCI Group, 220 SE 6th St., Suite 200, Des Moines, IA 50309

1.03 PROJECT SUMMARY

- A. The project includes hazardous materials abatement and demolition of the Fleet Building on the Capitol Complex.
- B. Target date to provide substantial completion is:
 - 1. Building Demolition and Backfill: 03/02/2026
 - 2. Site Restoration: 04/20/2026

1.04 BID SCOPE SUMMARY

- A. Scope Applicable to All Bid Packages:
 - 1. 01 1201 Special Work Requirements
 - 2. 01 1202 General Work Requirements
 - 3. The Contractor's Work includes all labor, supervision, materials, equipment, services, supplies, tools, facilities, transportation, hoisting, storage, receiving, licenses, inspections, certifications, overhead, profit, or other items required or reasonably inferable to properly and timely perform and complete all work and services to be performed by the Contractor pursuant to this Agreement. Unless specifically stated otherwise, incidental work required to accomplish the work of this Bid Package shall be included the bid. This would include, but not be limited to, temporary facilities, protection of the work, security of equipment, materials, and work in progress, etc. Contractor's Work shall be performed in accordance with the Drawings, Specification Divisions 00 and 01, and Specification sections applicable to each Contractor's scope.
 - 4. Contractor is responsible for all labor and equipment to unload, account for all material delivered, stock, and delivery for this scope of work. Storage and delivery of materials and equipment at the Site shall be permitted only to the extent approved in advance by the Construction Manager, and if anything so stored obstructs the progress of any portion of the work, it shall be promptly removed or relocated by the Contractor without reimbursement.

5. On site supervision by Prime Contractor at all times work by that contractor or their subcontractors/suppliers is taking place.
6. Provide all temporary facilities required for this scope of work including trailer, trailer power, telephone, secured storage, temporary power for work, temporary and task lighting for work, etc. as determined necessary by Contractor. Coordinate location of trailers, material storage and utility lines with Construction Manager. Limited space is available, and permission to bring any such facility or excess materials on to the site shall be approved by the Construction Manager.
7. Contractor shall provide all equipment and tools for Contractor's own cleanup. Clean up shall be done at end of every shift or more frequently if required for the Contractor to perform their work, for other Contractors to perform their work, as required by the Owner's operations, and at the discretion of the Construction Manager.
8. All turf, landscaping, and subgrade disturbances caused by equipment traffic or other activities related to the Contractor's scope, and not intended for future demolition activities as part of this project, shall be repaired or restored to proper conditions by the Contractor.
9. Protect adjacent existing building elements which are not intended for future demolition activities as part of this project, from damage from Scope of work. Repair existing building elements damaged during Contractor's Scope of work.
10. All contractors are responsible for coordination of utility locates. Contractor shall coordinate a joint utility locate meeting with Iowa One Call, DCI Group, the State of Iowa, and the contractor.
11. All active existing utilities shall be visually located prior to the start of construction either by hand or potholing.
12. Each contractor shall be responsible for all construction staking and layout applicable to their scope of work.
13. The State of Iowa will procure the Iowa DNR NPDES General Permit No. 2. All contractors and sub-contractors will be required to sign on as co-permittees.

1.05 WORK HOUR RESTRICTIONS

- A. Work hours are from 07:00 AM to 5:00 PM, Monday through Friday unless arrangements are made in advance.

1.06 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Provide access to and from site as required by law and Owner:
 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 2. Do not obstruct roadways, sidewalks, or other public ways without permission of Owner and permit if required. If permit is required, it shall the responsibility of the contractor to procure.

1.07 OWNER OCCUPANCY

- A. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

1.08 RULES FOR CONSTRUCTION WORKERS

- A. The staff of the State of Iowa has a responsibility to protect the public by providing a secure environment. All work site rules must be followed to the letter, at all times.
- B. Hot Work Permit Processes and Fire Watch, when necessary, will be adhered to for this project.
- C. All State properties are tobacco free. No smoking will be permitted or tolerated on campus unless in designated areas.

- D. You are permitted access only to the work site and no other area of the institution.
- E. No drugs, alcohol, or firearms are allowed on the work site.
- F. Do not leave drugs or firearms in your personal vehicle.
- G. Company and personal vehicles are to be parked and locked in designated or authorized area of the work. Contractor parking and staging is anticipated to be in the fenced in parking lot north of the Fleet Building.
- H. Secure all tools at the end of the day.
- I. Maintain control of all tools, supplies, and debris at all times during the work.
- J. Each trade shall familiarize themselves with the hazardous materials report created by Atlas dated 8/12/2025 and included in specification section 00 3216 Existing Hazardous Materials Information. Abatement of identified asbestos containing materials will be completed prior to the start of demolition. If any suspected hazardous materials are identified, it is the responsibility of each contractor to immediately stop work and notify the construction manager.

1.09 BID PACKAGE INSTRUCTIONS

- A. **Bid Package #01 – Abatement:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:
 - 1. Includes specification:
 - a. 02133 Asbestos Abatement
 - 2. General:
 - a. Contractor shall review and familiarize themselves with the Hazardous Building Materials Pre-Demolition Survey report prepared by Atlas Technical Consultants LLC, project ID 204BS08895.
 - b. If the contractor encounters suspected hazardous materials beyond what is currently identified in the report, the contractor shall protect the area and notify the construction manager and consultant immediately.
 - c. Shutdowns of electrical, fire alarm, communications, and technology systems shall be coordinated with the Construction Manager ten (10) business days in advance of work.
 - d. This Contractor shall be liable to protect all openings made to the existing buildings envelope, as required for this bid package work, for the entire time work is being conducted until the new work scope is completed. This protection shall include but is not limited to protection against; moisture, wind infiltration, and temperature fluctuations. This shall include securing the building from unauthorized persons. Contractor will maintain all weather protection provisions until permanent work is completed. All cost relating to damage incurred to existing facilities as a result of improper weather protection provisions will be borne by the Contractor.
 - e. This Contractor shall be responsible for all traffic control. This shall include personnel assisting vehicles entering and leaving the jobsite through the secured fence.
 - f. All reports, daily logs, and other relevant documentation shall be provided to Atlas as well as DCI Group for documentation.
 - g. This contractor shall provide dumpster services for all work by this bid package and will be responsible for the cost of emptying and maintaining.
 - h. Contractor shall be responsible to provide and maintain temporary restroom facilities for the duration of the project.
 - 3. Abatement:
 - a. It shall be the responsibility of this contractor to submit all necessary notifications and obtain all necessary permits prior to the start of abatement. This shall include the 10-day notification to the DNR for demolition/abatement activities. The contractor shall provide copies of all applications and permits to DCI Group for documentation.

- b. Contractor shall attend a kick-off meeting with DCI Group and Atlas prior to the start of abatement.
- c. This contractor shall provide the removal of asbestos-containing material listed in Table 1 of the Atlas 02 133 Asbestos Abatement Specification and the drawings prepared by Atlas, including pre-cleaning, establishing regulated areas, isolating the work areas, protection of adjacent areas, containment, construction curtain, cleanup and decontamination to the specified clearance levels, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- d. Quantities provided in Table 1 of the Atlas 02 133 Asbestos Abatement Specification are approximate. It shall be the responsibility of the contractor to verify actual quantities during pre-bid site visits. No additional compensation will be considered for quantities above those provided in Table 1 that could have been verified prior to bid.
- e. This contractor shall also be responsible for removing and properly disposing of the hazardous material elements of the materials identified in Table 5 of the Hazardous Materials Survey.
- f. It shall be the responsibility of this contractor to remove and properly dispose of the guard rail and garage door identified in Table 4 of the Hazardous Materials Survey as having a lead concentration great than 1%. Where removals leave an opening in the building envelope, this contractor shall provide temporary installations to maintain a weather tight building.
- g. This Contractor shall remove and dispose of all materials that may deter Contractor from removing hazardous containing material. This includes carpet, wall base, drywall, framing, VCT, ceiling tile, casework, and etc.
- h. This contractor shall review the lead survey reports provided by Atlas.
- i. Contractor shall be responsible for coordinating with Atlas technicians for reporting, monitoring, and clearances.
- j. Contractor shall coordinate exhaust venting locations with DCI Group prior to installation. No venting will be allowed through South or West elevation of building at ground level. Temporary removals required for ventilation will be the responsibility of this contractor. At the completion of the project, temporary protection shall be installed to ensure the building remains weather tight.

B. **Bid Package #02 – Demolition:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:

- 1. Includes specification:
 - a. 02133 Asbestos Abatement
 - b. 01 5723 Stormwater Pollution Prevention Plan
 - c. 01 5723.10 Stormwater Pollution Prevention Plan Certification
 - d. 01 5723.20 Stormwater Pollution Prevention Plan Inspection Report
 - e. 01 5723.30 Stormwater Pollution Prevention Plan Table of Contractors
 - f. 01 5723.40 Stormwater Pollution Prevention Plan Certification
 - g. 01 5723.50 Stormwater Pollution Prevention Plan Review and Revisions
 - h. 02 4100 Building Demolition
 - i. 02 4113 Site Selective Demolition
 - j. 31 2213 Earthwork and Rough Grading
 - k. 31 2316.13 Trench Excavation and Backfill
 - l. 31 2500 Erosion and Sediment Control
 - m. 32 1116.16 Aggregate Subbase Courses
 - n. 32 1313 Concrete Paving
 - o. 32 1313.10 Concrete Paving for Sidewalks and Shared Use Paths
 - p. 32 9112.13 Topsoil Placement and Grading
 - q. 32 9219 Seeding and Soil Supplements
 - r. 32 9223 Sodding

2. General:
 - a. This contractor shall be responsible for the installation, maintenance, and removal of all tree protection.
 - b. It shall be the responsibility of this contractor to install, maintain, and remove all temporary fencing and gates. Contractor shall provide combination locks for the gates and make codes accessible to DCI Group, the State, and all contractors.
 - c. This contractor shall provide and maintain temporary restroom facilities in sufficient quantities to meet the project needs and OSHA guidelines for ALL bid packages.
 - d. This contractor shall provide dumpster services for all work by this bid package and will be responsible for the cost of emptying and maintaining.
 - e. It shall be the responsibility of this contractor to install, maintain, and remove all temporary pedestrian and vehicle traffic signage and barricades. Prior to the start of work onsite, this contractor shall provide a signage and traffic control plan to DCI Group for approval.
 - f. This contractor shall be responsible for all lane and sidewalk closures. The contractor shall coordinate with the City of Des Moines and procure all necessary permits. Permits shall be provided to DCI Group for documentation.
 - g. This contractor shall be responsible for dewatering as necessary to complete this Contractor's scope.
 - h. Procurement, operation, and protection of a city water meter for use during this project will be the responsibility of this contractor.
 - i. This contractor shall protect existing hydrants to remain.
3. Erosion Control:
 - a. This contractor shall be responsible for the installation, maintenance, and removals of all erosion control and implementation of the Stormwater Pollution Prevention Plan (SWPPP). This shall include, but not be limited to:
 - 1) Intake protection
 - 2) Filter tubes
 - 3) Permeable ditch checks
 - 4) SWPPP documentation, inspections, and SWPPP mailbox.
 - 5) Spill kit
 - 6) Washout areas
 - 7) Staging area protection
 - 8) Vegetation
 - b. It shall be the responsibility of this contractor to prevent tracking off-site at all times for work performed by this contractor. All track off shall be immediately cleaned, including utilizing a mechanical sweeper truck.
 - c. Upon the completion of demolition and site fill, this contractor shall install temporary soil stabilization until final seeding or sodding can take place.
 - d. Upon the completion of work, this contractor shall be responsible for cleaning all intakes within the project site.
 - e. It shall be the responsibility of this contractor to develop and implement a dust control plan. Plans shall be submitted to the Construction Manager for review. Dust control measures may include, but not be limited to, water suppression, chemical treatments, enclosures and barriers, dust suppression equipment, d, and timing potential dust creating activities during low-wind conditions and off peak hours.
4. Demolition:
 - a. This contractor shall be responsible for all City of Des Moines coordination and permitting required for demolition and disconnects.
 - b. All site and building features, interior and exterior, not called to remain shall be the responsibility of this contractor to demolish and properly dispose of. This shall include, but not be limited to:
 - 1) Pavement
 - 2) Signage
 - 3) Foundations
 - 4) Existing Utilities Demolition and Capping

- 5) Site Electrical and Low Voltage
 - 6) Existing Fencing
 - 7) All building features; i.e. foundations, structure, finishes, furnishings, mechanical, electrical, technology, and plumbing.
 - 8) Where deep foundations are to remain, but be buried, this contractor shall provide GPS locations for the foundations and identify the exact location and depth on as-built drawings.
- c. It shall be the responsibility of this contractor to complete the removals and reinstallation of the pedestrian crossing fixture at Des Moines St. and Pennsylvania Ave. This shall include electric disconnect and reconnection. This contractor shall be responsible for storing the fixture until ready for reinstallation.
5. Sitework:
- a. This contractor shall complete all stripping, backfill, compaction, and site grading.
 - b. Contractor may stockpile topsoil on site if an acceptable location can be identified that does not interfere with construction activities. If no suitable area is agreed upon, this contractor shall export and import soil as needed.
 - c. Spreading of top soil shall be the responsibility of this contractor. Topsoil shall be suitable for new sod or seed installation and shall be placed to within 0.1 foot of final grade.
 - d. All removal and excavation to accommodate work shall be the responsibility of this contractor.
 - e. Where pavement is temporarily removed for utility disconnects, it shall be the responsibility of this contractor to properly backfill and repair. Pavement replacement at city street will be by the City of Des Moines, but this contractor shall backfill, compact base, and coordinate final pavement restoration with the City of Des Moines.
 - f. All site utility adjustments or new installations shall be the responsibility of this contractor.
 - g. This contractor shall provide unit pricing for addition import or export of soils per CY. Import of approximately 3,000 CY should be anticipated. If values significantly differ from the assumed amount, the contractor shall notify the construction manager prior to proceeding.
- C. **Bid Package #03 – Concrete Paving:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:
- 1. Includes specification:
 - a. 31 2213 Earthwork and Rough Grading
 - b. 31 2316.13 Trench Excavation and Backfill
 - c. 31 2500 Erosion and Sediment Control
 - d. 32 1116.16 Aggregate Subbase Courses
 - e. 32 1313 Concrete Paving
 - f. 32 1313.10 Concrete Paving for Sidewalks and Shared Use Paths
 - 2. General:
 - a. All new pavement and curbs shall be the responsibility of this contractor. This shall include, but not be limited to, detectable warning panels, curing, jointing, and striping.
 - b. Cold weather paving, if required to meet the schedule, shall be the responsibility of this contractor. BP03
 - c. This contractor shall provide dumpster services for all work by this bid package and will be responsible for the cost of emptying and maintaining.
- D. **Bid Package #04 – Seeding or Sodding:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:

1. Includes specification:
 - a. 31 2213 Earthwork and Rough Grading
 - b. 31 2316.13 Trench Excavation and Backfill
 - c. 31 2500 Erosion and Sediment Control
 - d. 32 9112.13 Topsoil Placement and Grading
 - e. 32 9219 Seeding and Soil Supplements
 - f. 32 9223 Sodding
 2. This contractor shall provide dumpster services for all work by this bid package and will be responsible for the cost of emptying and maintaining.
 3. This contractor shall be responsible for new sod and seed. This shall include fertilizing, mulching, watering, and maintenance per specifications. The contractor shall also install pigtail posts and ribbon around newly planted areas.
 4. Final seed or sodding shall take place once written approval is provided and within the proper planting window.
 5. Top soil will be placed by Bid Package #01 to within 0.1 foot of final grade. Any minor fine grading to be the responsibility of this contractor.
 6. Where sprinkler modifications are required, it shall be the responsibility of this contractor to complete modifications and test system.
- E. **Alternate #01 – Full Foundation Wall Removal:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. Contractor shall complete the full removal of the foundation walls identified in the construction documents in lieu of removing 2' below grade only.
 2. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 3. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 4. Execute accepted alternates under the same conditions as other work of the Contract.
- F. **Alternate #02 – 4" Topsoil and Sod:** Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. Bid Package #01 shall provide 4" of topsoil throughout all greenspace in lieu of 6".
 2. Bid Package #04 shall provide sod installation in all greenspace in lieu of seed and sod.
 3. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 4. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 5. Execute accepted alternates under the same conditions as other work of the Contract.
- G. **Work Performed by Others**
1. Third-party construction materials testing.
 2. Building fire alarm system disconnection from Capitol Complex fire alarm system.
 3. Building security system disconnection from the Capitol Complex security system.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 1201

SPECIAL WORK REQUIREMENTS

PART 1 - GENERAL

1.01 SCOPE

- A. Bidders are to hold their bids for a period of thirty (30) days after the bid.
- B. Profanity and unnecessary loud language will not be tolerated.
- C. The use of motorized scissor lifts will not be allowed except under special circumstances and must have prior approval from the Construction Manager.
- D. Owner will provide snow removal to all existing pavements on campus that are not under construction. See specific Contractor's responsibility under specific Bid Packages.
- E. Contractor includes complete cleanup and haul off to dumpster for all typical construction debris resulting from this scope of work. Each Prime Contractor shall be responsible for their own dumpster service and to provide brooms, shovels and other equipment for cleanup for their respective scope of work. Excess materials shall be removed from the site at the Contractor's expense. All primes shall remove debris on a daily basis.
- F. Contractor will be responsible to provide portable generators or an alternative power source for all tools and equipment that require a power source higher than 120 Volt.
- G. Contractors working on roofs are required to take appropriate precautionary measures to protect existing roofing from damage. Contractors are required to take all precautionary measures necessary to ensure that their items do not fall or blow off the roofs.
- H. Prior to performing work in areas with smoke and fire detection systems the Contractor shall coordinate with the CM precautionary measures to eliminate false alarms. If the fire alarm system is activated and there is not an emergency the Contractor responsible for the false activation shall be responsible to pay for all resulting owner incurred expenses such as Emergency Response fees.
- I. Contractors shall document existing conditions prior to start of work. All damage to existing pavements, landscaped areas, and all other existing property that will not be removed as part of future demolition, will be repaired by the responsible Contractor.
- J. The Prime Contractor's shall provide the Construction Manager detailed information as outlined below for the purpose of developing the Construction Schedule:

SUBMITTALS:

- Submittal Schedule: Prime Contractor shall submit a submittal schedule listing all required submittals, submittal "To CM" dates, procurement durations, and expected dates for materials to be on the jobsite. The submittal schedule shall be submitted to the CM within five (5) business days of receipt of Owner/Prime Contractor Agreement.
 - Format: Submittal Schedule shall be prepared in an Excel spreadsheet.
 - Materials & Long Lead Procurement: Prime Contractor shall identify any/all submittal items that require "field verifies" and also identify the dates when these field verifies can be taken.
- K. See preliminary construction schedule in section 00 3113. This schedule will aid the bidder(s) in understanding the preliminary scheduling and planning for the project. As the construction schedule is finalized the Prime Contractor and their Subcontractors shall participate in a meeting with the Construction Manager and other Prime Contractors for the purpose of presenting the overall Construction Schedule. These "Subcontractors" shall be any/all subcontractors who will be performing Work on the project.
 1. Per the preliminary construction schedule the bidder(s) acknowledges that there are multiple mobilizations, phases, sub-phases, material deliveries, and milestone completion dates required in order to complete the work.

2. The Owner owns the duration of the Owner schedule contingency as shown in the preliminary construction schedule in section 00 3113. The Construction Manager manages and will adjust the duration of the contingency to account for delays beyond the contractor's control. As days are not utilized the milestone dates shall be adjusted accordingly.
3. Expected work hours will be 7:00 AM to 5:00 PM Monday thru Friday (5 day work week). Contractors requiring working time other than these hours are to coordinate and receive approval in advance from the Construction Manager. The Contractor shall provide at his expense increased work crews and/or overtime necessary to meet the scheduled milestones. Contractor shall immediately notify the Construction Manager of any delays in the work.
4. After contract award bid the Contractor is required to attend a meeting with the Construction Manager to review bid package scopes.
5. Parking and material staging on site will be limited. All contractors shall coordinate one's parking and material staging with the DCI Group Project Manager, DCI Superintendent or DCI Designated Personnel.
6. The jobsite is on Public Property. Smoking or smokeless tobacco WILL NOT be allowed. Also, no shelled sunflower seeds are allowed inside the enclosed facility.
7. No radios or headsets are allowed in the construction areas.
8. Contractors shall maintain accurate as-built construction records and provide complete clean and legible copies to Construction Manager on completion of work. All Contractors will be required to provide electronic copies as well as hard copies of all O&M's and as-built drawings. See Project Manual for additional Closeout requirements.

END OF SECTION

SECTION 01 1202

GENERAL WORK REQUIREMENTS

PART 1 - GENERAL

1.01 BIDDING

- A. The Contractor shall include all applicable fees, permits, freight, hoisting, scaffolding, clean up, supervision, overhead, etc. to perform his work.
- B. Bidders to review ALL Bid Packages to fully understand the requirements of each package. Where two bid packages conflict, confirm with Construction Manager as to which package is to perform the work noted before bidding. After bidding, any conflict noted will be evaluated by the Construction Manager. The Construction Manager will then determine which package should perform the work and which package will credit the associated work's cost.
- C. Where conditions conflict in the project manual or project drawings with Construction Manager's general work requirements, special work requirements, or bid package conditions, contact the Construction Manager for clarification. When in doubt figure the more extensive requirement.
- D. Each contractor is responsible for the identification of alternates and how they relate to each bid package. If a bid package is affected in ANY way by ANY of the alternates, an add/deduct should be noted on the bid form. If there is no change in cost write zero dollars.
- E. The Contractor should visit the site of the Work to acquaint the firm with all local conditions affecting the Contract, including the structure of the ground, the obstacles which may be encountered, and all other conditions relative to the Work to be performed; and shall not be allowed any extra compensation by reason of any difficulties or obstacles which the Bidder could have discovered or reasonably anticipated prior to Bidding. The Contractor shall review Instructions to Bidders for coordination of site visits.
- F. On all project Drawings, figures take precedence over measurement by scale, and any scaling is done at the Contractor's own risk. The Design Professional shall decide on questions that may arise regarding the meaning and intent of the Project Drawings and Project Specifications. Should any details or figures have been omitted which are necessary to a clear understanding of the Work or should any error appear in either, or should discrepancies be found between the Project Drawings and Project Specifications, it shall be the duty of the Contractor to notify the Construction Manager of such omissions, errors, or discrepancies, and in no case proceed in uncertainty. Mistakes resulting from the Contractor's neglect to notify the Construction Manager in such matters shall be corrected at the expense of the Contractor. Bidders are responsible for all electronic documents and their use is at their risk.
- G. All Contractors are responsible for on-the-job supervision of their work, or any subcontracted work. An onsite Superintendent or lead foreman is required during any time that work is being performed to coordinate their work and work with other trades. No superintendent or lead foreman may be replaced without approval of the Owner and DCI Group. Any work necessary to be performed after the regular working hours shall be supervised and shall be done at no additional cost to the Owner.
- H. All food and drinks shall be confined to CM designated areas and a maintained covered trash container shall be provided by the contractor. Failure to comply with this rule may cause a need for extra cleaning efforts by others which will result in a back charge to the Contractor.
- I. Tools, materials, and equipment storage and security is the responsibility of each Contractor.
- J. All work shall comply with the applicable codes and standards adopted by the Authority having Jurisdiction.
- K. All Authorities having Jurisdiction inspections shall be requested by the responsible contractor and coordinated through the Construction Manager. Attendance by contractors is mandatory as applicable to the work being inspected.
- L. All contractors must have the appropriate licenses to perform work in the jurisdiction(s).
- M. Before ordering any materials or performing any Work, the Contractors shall verify all measurements at the Project Site for the particular Work and be responsible for the correctness

of same. No extra charge or compensation will be allowed to the Contractor on account of differences between actual dimensions and the measurements shown on the Project Drawings. Any noticeable discrepancy in this request shall be reported to the Construction Manager immediately for his consideration and decision. All the component parts of the Work shall be carefully checked and laid out in order that the structure as a whole shall conform to the intent of the Project Drawings and Project Manual.

- N. The Contractor shall have personnel attending regular project meetings. These meetings will be held at intervals established by the Construction Manager. Contractors must have representative attending when they are on the job or needed for coordination prior to having work start on the project. The representative attending must be able to adequately represent the Contractor and speak on the Contractors behalf providing valuable information to the meeting; specifically, things such as schedule, cost, production, manpower, etc. Anticipated meeting include:
 - a. Bi-weekly contractor coordination meeting
 - b. Bi-weekly OAC meeting
 - c. Daily stand-up with DCI Superintendent and onsite Foreman
 - d. Weekly workplan meeting
- O. The Contractor will be required to attend all pre-installation conferences before commencement of related work.
- P. The Contractor shall complete a daily log for each workday on site and submit to Construction Manager. Content of daily log will be directed by Construction Manager.

1.02 SAFETY

- A. The contractor shall comply with all local and federal, safety and health requirements.
 - 1. The contractor will provide a safety plan customized for the project to DCI Group.
 - 2. All prime contractors, subcontractors, and/or any second/third tier subcontractors must conduct weekly internal "toolbox safety" meetings and submit documentation of such to the Construction Manager.
 - 3. It is the contractor's responsibility to notify other contractors on the jobsite of any hazardous materials to which their employees may be exposed. This communication shall be defined as the ability to produce all material SDS information customized for the project. This documentation shall be available for the duration a prime contractor, subcontractor, and/or any second/third/etc. tier subcontractors are onsite.
 - 4. All Contractors shall inform their employees to immediately advise their supervisor of any unsafe conditions that are encountered. The supervisor shall promptly remediate such danger and/or contact the Construction Manager.
 - 5. Contractors performing hot work are to have a fire extinguisher in their work areas at all times as applicable.
 - 6. All Contractors are responsible for their own fall protection.
 - 7. Contractors are required to provide emergency phone numbers at the request of the Construction Manager. Emergency phone numbers are numbers where the Contractor can be reached during off hours.
 - 8. All floor edge, roof and similar openings, barricades, handrails, or cabling for fall protection will be installed by the Contractor that creates the hazard as part of that Contractor's scope of work. At no time shall an opening be left unprotected from fall hazard. All Contractors shall protect and maintain such devices per OSHA standards. When a device conflicts with the work of this bid package or when the work of this bid package replaces the need for such devices, this Contractor is responsible for removal. If the work of this Contractor requires additional holes/penetrations, this Contractor shall provide necessary protection until final materials are installed.
 - 9. No fire exit can be blocked at any time.

1.03 SITE MANAGEMENT

- A. All contractors are responsible for all their own utility locates. This shall include both public and private locates. All Contractors shall coordinate locates with One Call Services.
- B. When active services are encountered in the Work, protect, brace and support existing active sewers, gas, electric or other services, where required for proper execution of the Work. If existing active services are encountered that require relocation, make a request in writing for determination. Do not proceed with Work until written directions are received. Do not prevent or disturb the operation of active services that are to remain.
- C. All contractors are required to protect their work. Provide proper protection for all existing work performed by others when performing your work next to, or around, other materials. Repair or replacement of any damaged material will be the responsibility of the contractor who damaged it.
- D. All contractors/vendors are responsible for their own cutting and patching unless otherwise specified.
- E. All contractors are responsible for maintaining dust control during their work. Contractor will provide a dust control plan customized for the project to DCI Group.
- F. Contractors shall be responsible for maintaining traffic control coordination with the Owner, DCI Group, and the Authority Having Jurisdiction.
- G. Public and private roadways will be maintained and cleaned as required by the contractor leaving debris, mud, excess gravel, etc. on roadways at their expense as defined in bid packages.
- H. No steel track mounted equipment will be allowed on finished paved surfaces. Any damage to the finished paved surfaces will be repaired at the cost to the contractor causing such damage.
- I. Bridging of finished pavement will be the responsibility of the contractor. This includes bridging curbs, pavement, sidewalks, etc. Any damage to the aforementioned including pavement markings, will be repaired or replaced at the cost of the contractor causing such damage.
- J. Contractors that have work that requires equipment off of the existing roadways are required to locate and protect from damage all under and above ground existing features such as utilities, tunnels, landscaping, etc... The Contractor will be responsible to repair back to original condition any damages that occur, including but not limited to ruts and sod damage.
- K. Any areas disturbed or damaged by one's operation are to be repaired to Owner/Construction Manager's satisfaction.
- L. The Contractor shall clean their installed materials prior to the next successor activity.
- M. Any signs located on the jobsite must be approved by the Construction Manager. Signage will not be allowed in most cases unless it is required for safety or provides instructions.
- N. Receiving, unloading and handling of material provided by the bid package shall be included. Spotting location shall be coordinated with the Construction Manager. All deliveries shall be coordinated with other Contractors and Construction Manager in advance of the delivery. Provide freight to the jobsite for any material provided. If storage is not available onsite, each bid package shall include other means of secure storage. If the contractor is not onsite to unload delivery, the delivery will be rejected and will have to be re-scheduled at the contractor's expense. Materials must be stored off the ground, out of the mud and on a solid surface. As required or needed, material should be stored on dunnage or pallets in order to keep it off the ground or surface below. Special storage is the responsibility of the respective contractor.
- O. Contractors shall not store materials within construction designated locations without approval from Construction Manager. No materials storage will be allowed that may inhibit construction progress.

- P. The Contractors shall layout and correctly establish all lines, levels, grades, positions, walls, partitions, equipment and location of all Work on the Project and be responsible for their accuracy and proper correlation with control lines, monuments and data furnished. Such monuments and data shall be carefully preserved and, if displaced, reset at the expense of the persons displacing them.
- Q. All Contractors are responsible for the coordination of their work with the complete set of specifications, construction drawings, addenda, request for information (RFI's), Architect's Supplemental Instruction to Contractor (ITC/ASI), shop drawings, coordination drawings, and other contract modifications.
- R. The Contractor shall carefully inspect any work performed by others that is to receive, align, abut or similarly relate to the Contractor's work and shall immediately notify the Construction Manager in writing of any apparent defects or inconsistencies. The Contractor is responsible for coordinating and verifying the dimensions, measurements, and elevations at the project site relevant to the Contractor's work. If Contractor commences his work without such written notice, such commencement shall constitute acceptance of all such work performed by others and of all such field conditions, and all costs incurred in connection with the Contractor's work as a result thereof shall be borne by Contractor.
- S. Incorporate construction tolerances for the work of others into the design of the systems in this scope of work. Include field measurements of work by others and any necessary adjustments to systems prior to fabrication to accommodate such allowable tolerances, or accept all costs to correct materials, which do not fit job conditions.
- T. Any interior work that is scheduled to be completed while Owner is in normal operation must be sensitive to the Owners continued use of the building. No workers are allowed to be in areas of the building that are not directly related to their scope of work. Hallways and general access paths to construction areas must also be kept clean at all times. The Owner has the right at any time to shut down any construction activities that they deem to be too much of a distraction to the occupants of the building.
- U. All contractors are responsible for familiarizing themselves with the coordination and sequencing requirements related to Owner furnished equipment.
- V. If not already required by the contract documents and reasonably requested by the Construction Manager, the Contractor shall prepare coordinated drawings in areas of congestion specifically noting and advising the Construction Manager of potential conflicts between the Contractor's work and other work at the project. Even with such cooperative and coordinated efforts should a conflict occur the Construction Manager will determine how such conflicts should be resolved and its decision in that regard will be final. The Contractor agrees to abide by such decisions and make any changes required to eliminate such conflict without additional costs or expense to the Owner.

1.04 SCHEDULE MANAGEMENT

- A. Prior to the commencement of the construction for the Prime Contract Work, the Prime Contractor shall participate in a minimum of one (1) joint planning meeting with the Construction Manager and other Prime Contractors for the purpose of planning the overall Construction Schedule. A Preliminary Construction Schedule as developed by the Construction Manager will be used as the basis of the overall Construction Schedule. In consultation with the Prime Contractor, the Construction Manager shall incorporate the Prime Contract Work and work of other prime contractors into the overall Construction Schedule for the entire project. Critical Milestones and working hours as defined by the Construction Manager (as included in the bidding documents) will not be altered. The Prime Contractor shall on a weekly basis (at a minimum) provide the Construction Manager with scheduling information with regards to progress and work to be performed in the next 4 (four) weeks. The Prime Contractor shall be bound by the Construction schedule. Nothing in the Prime Contract Agreement shall relieve the Prime Contractor of any liability for any unexcused failure to comply with the agreed upon overall Construction Schedule or any completion dates. The Construction Manager shall have the right to coordinate the Prime Contractors, including the right, if necessary, to change the time, order and priority in which the

various portions of the Prime Contract Work and other work associated with the Project shall be performed.

- B. All prime contractors, subcontractors, and/or any second/third tier subcontractors onsite shall participate in daily coordination meetings with the Construction Manager as well as weekly work plan meetings as the project progresses.
- C. All Contractors shall cooperate with the Construction Manager and with other Contractors. The completion of the Work will depend upon a collective effort by all parties involved.

1.05 GENERAL HOUSEKEEPING

- A. Daily cleanup (broom clean) of dust and debris from construction operation is part of each contractor's scope of work. If any contractor fails to keep the site clean and organized on a continuous basis, the Construction Manager will notify the contractor in writing only once. The contractor will then have 24 hours to correct the situation. If the contractor fails to correct the situation, the Construction Manager will hire another party for cleaning and charge the said contractor. The Contractor shall submit prior to beginning work a plan to the Construction Manager defining manpower and methods for achieving daily cleanup. If Construction Manager deems necessary, each Contractor shall provide 1 employee for each 5 employees on the project to clean all work areas and/or staging areas to a broom clean condition. If the Contractor has less than 5 employees on site, the contractor will provide 1 employee to the necessary cleanup requirement. Cleanup duration will take as long as it takes to achieve the broom clean results.
- B. Daily cleanup shall include all applicable portions of a project including but not limited to the building, site, public streets, lay-down areas, and designated contractor parking areas.
- C. If rework is necessary to be performed by any contractor, that contractor shall be responsible for all associated cleanup and installation/removal of protection measures on all adjacent surfaces where rework took place including access to and from the area.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 2500

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Substitution Procedures
- B. Request for Substitution form

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Where the Bidding Documents stipulate a specific product be provided by naming one or more manufacturer and model, a substitute product will be considered when written request is received by the date and time identified in Section 00 1113 NOTICE TO BIDDERS. Substitution requests will be considered for all products, even if the specification does not include a statement such as “or equal,” “equal to,” “equivalent to,” or “basis of design,” unless noted otherwise.
- B. References in the Bidding Documents to brand or trade names are intended to illustrate the general characteristics of the item and not to limit competition unless noted otherwise.
- C. The written request shall be on the “Request for Substitution” form included in the Project Manual. If no such form is included, the request shall be provided on the letterhead of the company making the request.
- D. Substitution requests received after the specified date will be viewed in the context of a Change Order to the Contract, and consideration will only be given in the event a product becomes unavailable or not practical due to no fault of the Contractor, or the substitution is substantially to the Owner’s advantage (equal product for less cost or higher quality product at no change in Contract Sum).
- E. Document each substitution request with complete data substantiating compliance of the proposed substitution with the Bidding Documents. Each request shall identify the specified product for which the substitution is requested, and shall clearly describe the product for which approval is requested. The burden shall be on the requester to demonstrate the proposed substitute product’s suitability for use in the Work and its equivalency or superiority in function, appearance, quality, and performance with the product named in the Bidding Documents.
- F. A description of any changes to the Bidding Documents that the proposed substitution will require shall be included with the request. The requester shall affirm that dimensions shown on the Drawings will not be affected by the substitute product, and that it will have no adverse effect on other trades, the construction schedule, or specified warranty requirements. The request for use of a substitute product shall be signed by an authorized representative of the firm submitting the request, who shall state that the firm will pay for any changes to the building design, including Design Professional’s design, detailing, and construction cost caused by the requested substitution if the substitution is approved for use in the Work.
- G. All such substitute products approved for use in the Work during the established period of time before receipt of Bids will be identified in a subsequent Addendum to the Bidding Documents.

3.02 REQUEST FOR SUBSTITUTION FORM

- A. A Request for Substitution Form is attached following this page.
- B. Substitution requests shall be emailed to the Issuing Officer at the email address provided in Instructions to Bidders Section 1.04.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SUBSTITUTION REQUEST FORM

Project: _____ Substitution Request Number: _____

From: _____
To: _____ Date: _____

A/E Project Number: _____
Re: _____

Specification Title: _____ Description: _____
Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No.: _____

History: New product 2-5 years old 5-10 yrs old More than 10 years old

Differences between proposed substitution and specified product: _____

Point-by-point comparative data prepared by contractor and attached - REQUIRED BY A/E

Reason for not providing specified item: _____

Similar Installation:
Project: _____ Architect: _____
Address: _____ Owner: _____
_____ Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain _____

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST FORM

(Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 3300.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01 3300.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____

Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E _____

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 2600

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Change procedures

1.02 CHANGE PROCEDURES

- A. The Design Professional will advise of minor changes in the work not involving an adjustment to Contract Sum/Price or contract time as authorized.
- B. The Construction Manager may issue a Proposal Request that includes a detailed description of a proposed change with supplementary or revised drawings and specifications and a change in contract time for executing the change as provided by the Design Professional. The Trade Contractor will prepare and submit an estimate within 7 calendar days. Estimates shall be provided for the project at no cost, regardless of acceptance or rejection of proposal.
- C. The Trade Contractor may propose changes by submitting a Request for Information to the Construction Manager, describing the proposed change and its full effect on the work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and contract time with full documentation and a statement describing the effect on work by separate or other contractors. Document any requested substitutions in accordance with the specifications. Construction Manager will forward the Request for Information on to the Design Professional for their official response.
- D. Stipulated Sum/Price Change Order: Based on executed Change Order and contractor's fixed price quotation.
- E. Unit Price Change Order: The change order will be executed on a fixed unit price basis for pre-determined unit prices and quantities. Changes in contract price or contract time will be computed as specified for time and material change orders.
- F. Time and Material Change Order: The change order will be executed on a not to exceed basis. Design professional and Construction Manager will determine the not to exceed estimated cost based on contractor's proposal for hourly rates and material costs. Maintain detailed records of work done on time and material basis. Time and Material tickets must be submitted daily to the Construction Manager for verification. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the work. Submit itemized account and supporting data after completion of change. A final deductive change order will be issued to reconcile final cost to the initial change order.
- G. Change Order Forms: CONSENSUSDOC Forms provided by Owner.
- H. Execution of Change Orders: The Construction Manager will issue change orders for signature of parties as provided in the Conditions of the Contract.
- I. With respect to pricing change orders, the percentage mark-up for overhead and profit is subject to the following limits:
 - 1. Fifteen (15) percent maximum for work directly performed by employees of the Constructor, Subcontractor or Sub-subcontractor.
 - 2. Five (5) percent maximum for work performed or passed through by a Subcontractor and passed through to the Owner by the Constructor.
 - 3. Five (5) percent maximum Subcontractor's mark-up for Work performed by a Sub-Subcontractor and passed through to the Owner by the Subcontractor and Constructor.
 - 4. The maximum allowable mark-up shall be twenty-five (25) percent passed through to the Owner by the Constructor under any circumstances. Overhead and profit shall be shown separately for the Constructor and each Subcontractor of any tier performing the Change Order Work.
- J. Contractor and subcontractor agree to provide and require all suppliers to provide a detailed breakdown of labor, labor burden, materials, installation, rental, and fuel costs.

K. Please refer to Article 8 of **CONSENSUSDOCS 802- STANDARD FORM OR AGREEMENT BETWEEN OWNER AND TRADE CONTRACTOR** for additional Change Procedures.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

SECTION 01 2900

PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Schedule of values
- B. Application for payment

1.02 SCHEDULE OF VALUES

- A. Coordination: Trade Contractor will coordinate preparation of the Schedule of Values with preparation of the Construction Manager's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including Application for Payment forms with Continuation Sheets, Submittals Schedule, and Construction Manager's Construction Schedule.
 - 2. Submit original Schedule of Values in Procore within 14 days after date of Owner-Trade Contractor Agreement. Schedule of Values must be approved by Owner prior to submission for first application for payment.
- B. Format: Utilize the Table of Contents of this project manual. Identify each line item with number and title of the major specification section. Each major specification section should be further itemized by materials cost, labor cost and subcontractor cost for each building separately for the base bid and all accepted alternates. Identify site mobilization, bonds and insurance and include a line item for closeout paperwork for a value of no less than 1% of the total contract value or \$1,000, whichever is greater.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name and address of Owner, Trade Contractor, Construction Manager and Design Team.
 - c. DAS Project Number.
 - d. Date of Submittal.
 - 2. Revise the Schedule of Values to list approved Change Orders with each Application for Payment.

1.03 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications for payments as certified by the Design Professional and paid for by Owner.
 - 1. Application for Payment at time of Substantial Completion and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement. Progress payments shall be submitted to the Construction Manager. Any request for payment for work completed prior to June 30th of any year needs to be submitted by July 15th of the same calendar year.
- C. Payment Application Forms: Use AIA form G702 and G703 as the form for the Application for Payment or an equivalent approved by the owner.
- D. Include lien waiver forms required by the owner when applicable.
- E. Application Preparation: Complete every entry on form. Construction Manager will return incomplete applications without action.
 - 1. Include amounts of Change Orders issued before last day of construction period covered by application.

- F. Waivers of Mechanic's Lien: If requested by Owner with each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment when applicable.
 - 1. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 2. Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede submittal of first Application for Payment include the following:
 - 1. Schedule of Values
 - 2. Certificates of insurance and insurance policies.
 - 3. Lists of vendors and any subcontractors.
- H. Application for Payment at Substantial Completion: After the Certificate of Substantial Completion has been fully executed, submit an Application for Payment showing 100 percent completion for the portion of the Work claimed as substantially complete, not including the closeout paperwork line item.
 - 1. Include documentation supporting the claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - 6. AIA Document G707, "Consent of Surety to Final Payment."
 - 7. Letter of Notification to all sub-contractors and suppliers of application for release of retainage.
 - 8. Evidence that claims have been settled.
- J. Payments will be made to the extent of the value of the work performed in the previous month less a retainage amount of 3% of the value of the work performed. Upon substantial completion for the entire work, a sum sufficient to decrease the total retained to 3% of the contract sum, plus the full amount of the line item for closeout paperwork, plus such other retainage as the engineer shall determine for all incomplete work and unsettled claims will be authorized. The closeout paperwork line item may only be billed once the certificate of final completion has been fully executed.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

SECTION 01 3100

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination
- B. Pre-construction meeting
- C. Progress meetings
- D. Coordination Meetings
- E. Requests for Interpretation (RFIs)
- F. Notifications for Capitol Complex
- G. Utility Locates/Ground Penetrations for Capitol Complex
- H. Utility Locates/Ground Penetrations
- I. Fire Watch for Capitol Complex

1.02 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the project manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative procedures: The Trade Contractor will coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Trade Contractor's Construction Schedule.
 - 2. Provide updated information for Construction Manager's Construction Schedule.
 - 3. Preparation of Schedule of Values.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Pre-installation conferences.
 - 7. Project closeout activities
- C. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work, which are indicated diagrammatically on drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated conceal pipes and wiring within the construction. Coordinate locations of piping with finish elements.
- F. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion.
- G. After owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of owner's activities.
- H. During construction coordinate use of site and facilities through Construction Manager.

- I. Comply with Construction Manager and Owner's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- J. Make the following types of submittal to Architect through the Construction Manager via Procore:
 - 1. Request for Information/Interpretation.
 - 2. Request for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction punch list and final correction punch list for substantial completion
 - 11. Closeout submittals

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 PRE-CONSTRUCTION MEETING

- A. The Construction Manager and Owner will schedule a meeting after Notice of Award.
- B. Required: Design Professional, Owner, Construction Manager, Trade Contractor and any Sub Contractors.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties in Contract.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, change orders, RFIs and contract closeout procedures
 - 7. Tentative construction schedule.
 - 8. Critical work sequencing and long-lead items.
 - 9. Procedures for testing and inspecting.
 - 10. Preparation of Record Documents.
 - 11. Safety Procedures.
 - 12. Owner's requirements.
 - 13. Security and housekeeping procedures.
 - 14. Background Checks.
 - 15. Responsibility for temporary facilities and controls.
 - 16. Construction waste management.
 - 17. Logistics (use of premise, parking, work restrictions, maintain egress, etc.)
- D. The Construction Manager is to record minutes and distribute copies within two days after meeting to participants, with one copy to owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

- A. The Construction Manager shall schedule and administer meetings throughout progress of the work at weekly intervals.

- B. The Construction Manager is to make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings, record minutes and distribute copies within two days to those affected by decisions made.
- C. Attendees may include: Project superintendent, major subcontractors and suppliers, Owner, Construction Manager, Architect/Engineer, as appropriate to agenda topics for each meeting. All participants at the conference call shall be familiar with the Project and authorized to conclude matters relating to the Work.
- D. Agenda:
 1. Review minutes of previous meetings.
 2. Review the Construction Manager's Construction Schedule.
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of RFI's.
 7. Review of off-site fabrication and delivery schedules.
 8. Corrective measures to regain projected schedules.
 9. Planned progress during succeeding work period.
 10. Coordination of projected progress.
 11. Maintenance of quality and work standards.
 12. Effect of proposed changes on progress schedule and coordination.
 13. Other business relating to work.
 14. Access, temporary facilities and controls, housekeeping and progress cleaning.
 15. Safety.
 16. Status of proposal requests, pending changes, official Change Orders.
- E. Minutes:
 1. Following the meeting, the meeting minutes will be published in Procore by the Construction Manager for all parties.

3.03 COORDINATION MEETINGS

- A. Coordination meetings will be held at the discretion of the construction manager.

3.04 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, prepare and submit an RFI in Procore.
 1. RFIs shall originate with Trade Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in the Work.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 1. Specification Section number and title and related paragraphs, as appropriate.
 2. Drawing number and detail references, as appropriate.
 3. Field dimensions and conditions, as appropriate.
 4. Trade Contractor's suggested solution(s). If Trade Contractor's solution(s) impact the Contract Time or the Contract Sum, Trade Contractor shall state impact in the RFI.
 5. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
- C. Design Professional's Action: Design Professional will review each RFI, determine action required, and return it. Allow seven (7) working days for Design Professional's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day. The following RFIs will be returned without action:
 1. Requests for approval of submittals.
 2. Requests for approval of substitutions.
 3. Requests for coordination information already indicated in the Contract Documents.

4. Requests for adjustments in the Contract Time or the Contract Sum.
 5. Requests for interpretation of Design Professional's actions on submittals.
 6. Incomplete RFIs or RFIs with numerous errors.
 7. Design Professional's action may include a request for additional information, in which case Design Professional's time for response will start again.
- D. Design Professional's action on RFIs that may result in a change to the Contract Time or the Contract Sum/Price.
1. If Trade Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Construction Manager in writing within ten (10) days of receipt of the RFI response.
- E. On receipt of Design Professional's response in Procore, review the response and notify Design Professional within seven (7) days if Trade Contractor disagrees with response.

3.05 NOTIFICATIONS FOR CAPITOL COMPLEX

- A. For work on Capitol Complex, notification requests must be provided to Construction Manager for work affecting the following:
1. Parking Access
 2. Excessive Noise
 3. Odors
 4. Disruption of Equipment
 5. Excessive Dust
 6. Fire Alarm
 7. HVAC System/Controls
 8. Plumbing/Restrooms
 9. Lighting
 10. Power/Electrical
- B. Information must be received on form following this section
1. Notice for tunnel repairs must be received by the Construction Manager for forward to Owner's Representative a minimum of ten (10) working days before the work is to occur (for tunnel shut downs).
 2. All other notices must be received by the Construction Manager for forward to Owner's Representative a minimum of three (3) working days prior to the work occurring.

3.06 UTILITY LOCATES/GROUND PENETRATIONS FOR CAPITOL COMPLEX

- A. Call Iowa One Call at 800-292-8989 to request a Joint Meeting Locate.
1. Requests must be least five (5) working days prior to ground penetration.
 2. A representative from the requesting group and DAS must be present for the Joint Meeting Locate.
- B. Complete the Capitol Complex Digging Application online at <https://das.iowa.gov/general-services/capitol-complex-events/digging-application-form>.
- C. Requesting groups will mark the area(s) intended to be penetrated with white spray paint or mark with white flags.
- D. One Call and/or Vanguard must place their locate flags appropriately in the areas.
- E. Contractor requesting the locate will be responsible for the locate charge.
- F. Ground penetration on Capitol Complex is not allowed until the steps listed above have been taken and locations have been approved.

3.07 UTILITY LOCATES/GROUND PENETRATIONS

- A. Call Iowa One Call at 800-292-8989 to request a locate
1. Requests must be least five (5) working days prior to ground penetration.

3.08 FIRE WATCH FOR CAPITOL COMPLEX

- A. Fire watch is to be performed any time the fire alarm is disabled for more than four hours. This includes both when the system is in bypass and when any detectors are disabled by removal or covering.
- B. When fire alarm is disabled for four hours or less it will be at the discretion of Owner to determine if fire watch must be provided.
- C. Written notice must be received two (2) working days prior to scheduling of fire watch.

**CONSTRUCTION PROJECT REQUEST FOR NOTIFICATION AND/OR SERVICES
FROM CAPITOL COMPLEX MAINTENANCE (CCM)**

Notifications must be provided to Owner's Representative to forward to CCM Plant Operations Manager. Information must be received by Owner's Representative in email format. Notice for tunnel repairs must be received 11 days before the work is to occur (for tunnel shut downs). All other notices must be received by the Owners Representative 4 working days prior to the work occurring.

DAS Project Number:

Brief Description of Work:

Building: _____

Affected Locations within Building: _____

Dates of Work: _____

Hours of Work: _____

Impact: Parking Noise Odors Equipment
 Other disruption Dust Fire Alarm
 HVAC Plumbing/Restroom Power/Electrical
 Lighting Private/Public Utility Locate _____

Escort: Required Not Required Need assistance to determine

Additional Information: (or attached map/drawing of affected area/impact)

END OF SECTION

SECTION 01 3100.01

WEB BASED CONSTRUCTION MANAGEMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Owner and Contractor shall utilize **Procore Technologies, Inc. Procore** system for electronic submittal of all data and documents (unless specified otherwise by the owner's representative) throughout the duration of the Contract. **Procore** is a web-based electronic media site that is hosted by **Procore Technologies, Inc.**, utilizing their **Procore** web solution. **Procore** will be made available to all contractors' project personnel, subcontractor personnel, suppliers, consultants and the Designer of Record. The joint use of this system is to facilitate; electronic exchange of information, automation of key processes, and overall management of the contract. **Procore** shall be the primary means of project information submission and management. When required by the Owners representative, paper documents will also be provided. In the event of discrepancy between the electronic version and paper documents, the paper documents will govern. **Procore** is a registered trademark of **Procore Technologies, Inc.**

1.02 USER ACCESS LIMITATIONS

- A. The Owner's Representative/Construction Manager will control the Contractor's access to **Procore** by allowing access and assigning user profiles to accepted Contractor personnel. User profiles will define levels of access into the system, determine assigned function-based authorizations (determines what can be seen) and user privileges (determines what they can do). Sub-contractors and suppliers will be given access to **Procore** through the Contractor. Entry of information exchanged and transferred between the Contractor and its sub-contractors and suppliers on **Procore** shall be the responsibility of the Contractor.
1. Joint Ownership of Data: Data entered in a collaborative mode (entered with the intent to share as determined by permissions and workflows within the **Procore** system) by the Owner's Representative and the Contractor will be jointly owned.

1.03 AUTOMATED SYSTEM NOTIFICATION AND AUDIT LOG TRACKING

- A. Review comments made (or lack thereof) by the Owner on Contractor submitted documentation shall not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor is responsible for managing, tracking, and documenting the Work to comply with the requirements of the Contract Documents. Owner's acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute validation of the Contractor's submitted information.

1.04 SUBMITTALS

- A. See Section 01 3300 SUBMITTAL PROCEDURES:
- B. Preconstruction Submittals
1. List of Contractor's key **Procore** personnel. Include descriptions of key personnel's roles and responsibilities for this project. Contractor should also identify their organization's administrator on the list.

1.05 COMPUTER REQUIREMENTS

- A. The Contractor shall use computer hardware and software that meets the requirements of the **Procore** system as recommended by **Procore Technologies, Inc.** to access and utilize

Procore. As recommendations are modified by **Procore**, the Contractor will upgrade their system(s) to meet the recommendations or better. Upgrading of the Contractor's computer systems will not be justification for a cost or time modification to the Contract. The contractor will ensure that connectivity to the **Procore** system (whether at the home office or job site) is accomplished through DSL, cable, T-1 or wireless communications systems. The minimum bandwidth requirement for using the system is 128kb/s. It is recommended a faster connection be used when uploading pictures and files into the system. **Procore** supports the current and prior two major versions of Chrome, Firefox, Internet Explorer, and Safari.

- B. The Contractor shall be responsible for the validity of their information placed in **Procore** and for the abilities of their personnel. Accepted users shall be knowledgeable in the use of computers, including Internet Browsers, email programs, cad drawing applications, and Adobe Portable Document Format (PDF) document distribution program. The Contractor shall utilize the existing forms in **Procore** to the maximum extent possible. If a form does not exist in **Procore** the Contractor must include a form of their own or provided by the Owner representative as an attachment to a submittal. Adobe PDF documents will be created through electronic conversion rather than optically scanned whenever possible. The Contractor is responsible for the training of their personnel in the use of **Procore** (outside what is provided by the owner) and the other programs indicated above as needed.
- C. User Access Administration: Provide a list of Contractor's key **Procore** personnel for the Owner's Representative acceptance. Contractor is responsible for adding and removing users from the system. The Owners Representative reserves the right to perform a security check on all potential users. The Contractor will be allowed to add additional personnel and sub-contractors to **Procore**.

1.06 CONNECTIVITY PROBLEMS

- A. **Procore** is a web-based environment and therefore subject to the inherent speed and connectivity problems of the Internet. The Contractor is responsible for its own connectivity to the Internet. **Procore** response time is dependent on the Contractor's equipment, including processor speed, Internet access speed, etc. and current traffic on the Internet. The Owner will not be liable for any delays associated from the usage of **Procore** including, but not limited to: slow response time, down time periods, connectivity problems, or loss of information. The contractor will ensure that connectivity to the **Procore** system (whether at the home office or job site) is accomplished through DSL, cable, T-1 or wireless communications systems. The minimum bandwidth requirement for using the system is 128kb/s. It is recommended a faster connection be used when uploading pictures and files into the system. Under no circumstances shall the usage of the **Procore** be grounds for a time extension or cost adjustment to the contract.

1.07 TRAINING

- A. The Construction Manager shall provide the necessary training to the Prime Contractor.

PART 2 - PRODUCTS

2.01 DESCRIPTION

- A. **Procore** project management application (no equal) Provided by Procore Technologies, Inc. www.Procore.com

PART 3 - EXECUTION

3.01 PROCORE UTILIZATION

- A. **Procore** shall be utilized in connection with submittal preparation and information management required by Sections:
1. PROJECT MANAGEMENT AND COORDINATION
 2. CONSTRUCTION PROGRESS DOCUMENTATION
 3. SUBMITTAL PROCEDURES
 4. QUALITY REQUIREMENTS
 5. Other Division One sections.
 6. Requirements of this section are in addition to requirements of all other sections of the specifications.
- B. Design Document Submittals
1. All design drawings and specifications shall be submitted as cad .dwg files or PDF attachments to the **Procore** submittal work flow process and form.
- C. Shop Drawings
1. Shop drawing and design data documents shall be submitted as cad .dwg files or PDF attachments to the **Procore** submittal work flow process and form. Examples of shop drawings include, but are not limited to:
 2. Standard manufacturer installation drawings.
 3. Drawings prepared to illustrate portions of the work designed or developed by the Contractor.
 4. Steel fabrication, piece, and erection drawings.
- D. Product Data
1. Product catalog data and manufacturer's instructions shall be submitted as
 2. PDF attachments to the **Procore** submittal work flow process and form. Examples of product data include, but are not limited to:
 3. Manufacturer's printed literature.
 4. Preprinted product specification data and installation instructions.
- E. Samples
1. Sample submittals shall be physically submitted as specified in Section 01 3300 SUBMITTAL PROCEDURES. Contractor shall enter submittal data information into **Procore** with a copy of the submittal form(s) attached to the sample. Examples of samples include, but are not limited to:
 2. Product finishes and color selection samples.
 3. Product finishes and color verification samples.
 4. Finish/color boards.
 5. Physical samples of materials.
- F. Administrative Submittals
1. All correspondence and pre-construction submittals shall be submitted using **Procore**. Examples of administrative submittals include, but are not limited to:
 2. Digging permits and notices for excavation.
 3. List of product substitutions
 4. List of contact personnel.
 5. Notices for roadway interruption, work outside regular hours, and utility cut overs.
 6. Requests for Information (RFI).
 7. Construction progress Schedules and associated reports and updates.
 - a. Each schedule submittal specified in CONSTRUCTION PROGRESS DOCUMENTATION shall be submitted as a native backed-up file (.PRX or .STX) of the scheduling program being used. The schedule will also be posted as a PDF

- file in the format.
8. Plans for safety, demolition, environmental protection, and similar activities.
 9. Quality Control Plan(s), Testing Plan and Log, Quality Control Reports, Production Reports, Quality Control Specialist Reports, Preparatory Phase Checklist, Initial Phase Checklist, Field Test reports, Summary reports, Rework Items List, etc.
 10. Meeting minutes for quality control meetings, progress meetings, pre-installation meetings, etc.
 11. Any general correspondence submitted.
- G. Compliance Submittals
1. Test reports, certificates, and manufacture field report submittals shall be submitted on **Procore** as PDF attachments. Examples of compliance submittals include, but are not limited to:
 - a. Field test reports.
 - b. Quality Control certifications.
 - c. Manufacturer's documentation and certifications for quality of products and materials provided.
- H. Record and Closeout Submittals
1. Operation and maintenance data and closeout submittals shall be submitted on **Procore** as PDF documents during the approval and review stage as specified, with actual set of documents submitted for final. Examples of record submittals include, but are not limited to:
 - a. Operation and Maintenance Manuals: Final documents shall be submitted as specified.
 - b. As-built Drawings: Final documents shall be submitted as specified.
 - c. Extra Materials, Spare Stock, etc.: Submittal forms shall indicate when actual materials are submitted.
- I. Financial Submittals
1. Schedule of Value, Pay Applications and Change Request Proposals shall be submitted on **Procore**. Supporting material for Pay Applications and Change Requests shall be submitted on **Procore** as PDF attachments. Examples of compliance submittals include, but are not limited to:
 - a. Contractors Schedule of Values
 - b. Contractors Monthly Progress Payment Requests
 - c. Contract Change proposals requested by the project owner

END OF SECTION

SECTION 01 3200

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Construction Progress Schedule
- B. Construction Manager's Construction Schedule
- C. Submittal Schedule
- D. Daily Construction Reports
- E. Progress Photographs

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 CONSTRUCTION MANAGER'S MASTER CONSTRUCTION SCHEDULE

- A. Upon award of package, Contractor agrees to accept and meet or improve upon the schedule proposed in section **00 3113 PRELIMINARY SCHEDULE** with intermediate handoffs. Each package contractor will be required to participate in schedule coordination meetings with the Construction Manager.
- B. If the bid package contractor does not meet the handoff milestones in the master construction schedule, the bid package contractor shall take measures to increase work forces, increase work hours, initiate revisions to means and methods of construction, and/or other similar measures as required to make up lost time and complete the work in accordance with the construction schedule and remain consistent with project progress and overall construction schedule. Such measures shall be at no additional cost to the Owner. The Construction Manager shall have sole discretion on decisions to accelerate work.
- C. Updating the master construction schedule – Contractors are required to attend and participate in schedule coordination update meetings with the Construction Manager. This will be an opportunity for contractors to further define their scheduled scope of work in conjunction with other trades on site.
- D. Acceptance of revised master construction schedule – After an updated master construction schedule has been issued via Procore, Contractors will have 48 hours to dispute the new schedule. All contractors will be held to the last fully accepted master construction schedule.

3.02 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit preliminary outline to the Construction Manager no later than 48 hours prior to the pre-construction meeting for coordination with Owner's requirements.
- B. Submit revised progress schedule with each application for payment.
- C. Schedules will be electronically submitted through Procore.
- D. Distribute copies of reviewed schedules to project site file, subcontractors, suppliers, and other concerned parties.
- E. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- F. Submit computer generated horizontal bar chart with separate line for each major portion of work or operation, identifying the first day of each week.
- G. Show complete sequence of construction activity, identifying work of separate stages and other

logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.

- H. Indicate estimated percentage of completion for each item of work at each submission.
- I. Participate in joint review and evaluation of schedule with Construction Manager.
- J. Revisions to schedules:
 - 1. Indicate progress of each activity to date of submittal and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipate delays, and impact on schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

3.03 **SUBMITTAL SCHEDULE**

- A. Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrications, and delivery when establishing dates.
 - 1. Coordinate submittal schedule with list of subcontractors, the schedule of values, and construction schedule.
 - 2. Submit concurrently with first complete submittal of contractor's construction schedule.

3.04 **DAILY CONSTRUCTION REPORTS**

- A. Daily Construction Reports: Submitted at weekly intervals.
 - 1. Daily Construction Reports will be submitted to Construction Manager.
- B. Prepare a daily construction report recording the following information concerning events at project site:
 - 1. Count of personnel at Project site
 - 2. Equipment at Project site
 - 3. Material Deliveries
 - 4. High and low temperatures and general weather conditions, including presence of rain or snow
 - 5. Accidents
 - 6. Meetings and significant decisions
 - 7. Unusual events
 - 8. Stoppages, delays, shortages, and losses
 - 9. Meter readings and similar recordings
 - 10. Emergency procedures
 - 11. Orders and requests of authorities having jurisdiction
 - 12. Change orders received and implemented
 - 13. Services connected and disconnected
 - 14. Equipment or system tests and startups
 - 15. Partial completions and occupancies
 - 16. Substantial completions authorized

3.05 **PROGRESS PHOTOGRAPHS**

- A. Progress photographs will be electronically submitted through Procore.
- B. Preconstruction Photographs: Before starting construction, take photographs of project site and surrounding properties, including existing items to remain during construction, from different

vantage points, as directed by Construction manager.

1. Take additional photographs as required to record existing damage to site, structure, equipment, or finishes.
- C. Periodic Construction Photographs: Take photographs at regular intervals. Select vantage points to show status of construction and progress since last photographs were taken.
- D. Field Completion Construction Photographs: Take photographs after date of Substantial Completion for submission as project record documents. Construction manager will inform of desired vantage points.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Submittals for Review
- B. Submittals for Information
- C. Submittal Procedures
- D. Samples

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product Data
 - 2. Shop Drawings
 - 3. Samples for Selection
 - 4. Samples for Verification
- B. Submit to Construction Manager to forward to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record document purposes.

3.02 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Construction Manager, Architect, and Owner's knowledge. No action will be taken.

3.03 SUBMITTAL PROCEDURES

- A. Submittals will be electronically submitted through Procore. Contractor will be invited to join web based program after issue of Notice of Intent to award.
- B. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
 - 2. Do not reproduce the Contract Documents to create shop drawings.

3. Generic, non-project specific information submitted as shop drawings do not meet the requirements for shop drawings.
- C. Transmit each submittal with a copy of approved submittal form.
- D. Sequentially number the submittal form. Revise submittals with original number and a sequential numeric suffix.
- E. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
- G. Schedule submittals to expedite the project and coordinate submission of related items.
- H. For each submittal review, allow 15 days excluding delivery time to and from the contractor.
- I. Identify variations from the Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
- J. When revised for resubmission, identify all changes made since previous submission.
- K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- L. Submittals not requested will not be recognized or processed.

3.04 **SAMPLES**

- A. Submit to Construction Manager to forward to Architect/Engineer for review for limited purpose for checking conformance with information given and design concept expressed in the Contract Documents.
- B. Samples for selection as specified in product sections:
 1. Submit to Construction Manager to forward to Architect/Engineer for aesthetic, color, or finish selections.
 2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns to Construction Manager to forward to Architect/Engineer for selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full project information.
- E. Submit number of samples specified in individual specification sections.
- F. Photograph of submitted samples, along with transmittal sheet, shall be uploaded as a submittal in Procore.

END OF SECTION

SECTION 01 4000

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. References
- B. Quality assurance and control of installation
- C. Tolerances
- D. Defect Assessment
- E. Inspection and testing laboratory services
- F. Manufacturer's field services and reports

1.02 REFERENCES

- A. Conform to reference standard in effect at date of contract.
- B. When required by contract documents, obtain copies of standards.
- C. Should specified reference standards conflict with contract documents request clarification from engineer before proceeding.
- D. The contractual relationship of the parties to the contract shall not be altered from the contract documents by mention or inference otherwise in any reference document.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce work of specified quality.
- B. Comply fully with manufacturer's instructions, including each step in sequence.
- C. Should manufacturer's instructions conflict with contract documents, request clarification from the engineer prior to proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stress, vibration, physical distortion, or disfiguration.

3.02 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with contract documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.03 DEFECT ASSESSMENT

- A. Replace work or portions of work not conforming to specified requirements.

- B. If, in the option of the Owner, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or recommend adjusted payment.

3.04 INSPECTION AND TESTING

- A. Owner shall include and pay for all required special inspections and testing required by IBC Section 1705, if applicable. This does not include inspections and testing required by other specification sections in this Project Manual. Copies of all testing and inspection reports shall be submitted to the Construction Manager and Design Professional by the testing and inspection agency.
- B. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect, Construction Manager, and contractor in performance of services.
 - 2. Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of contract documents.
 - 4. Immediately notify the Construction Manager and contractor of observed irregularities or non-conformance of work or products.
 - 5. Perform additional testing and inspections required by the Owner
- C. Limits on Testing Agency/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirement of contract documents.
 - 2. Agency may not approve or accept any portion of the work.
 - 3. Agency may not assume any duties of the contractor.
 - 4. Agency has no authority to stop the work.
- D. Contractor responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the work and to manufacturer's facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of products to be tested/inspected.
 - c. To facilitate test/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Construction Manager and laboratory 24 hours prior to expected time for operations requiring testing/inspection.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same testing agency on instruction by Architect/Construction Manager.
- F. Re-testing required because of non-conformance to specified requirements shall be paid for by the Contractor.

3.05 MANUFACTURER'S FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start up of equipment, test, adjust and balance of equipment as applicable and to initiate instructions when necessary.
- B. Individuals are to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to the manufacturers' written instructions.
- C. Submit report in duplicate within 30 days of observation to Construction Manager for review.

END OF SECTION

SECTION 01 5000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities
- B. Temporary Sanitary Facilities
- C. Telephone Service
- D. Removal of Utilities, Facilities, and Controls
- E. Temporary Facilities
- F. Equipment
- G. Vehicular Access and Parking
- H. Traffic Regulation
- I. Barriers
- J. Enclosures and Fencing
- K. Waste Removal

1.02 TEMPORARY UTILITIES

- A. The Contractor shall pay for installation, maintenance, and removal of temporary utilities. Temporary utilities shall not disrupt the Facility's need for continuous service.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.04 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field or use a cellular telephone.

1.05 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

- A. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 - PRODUCTS

2.01 TEMPORARY FACILITIES

- A. Field Offices: Coordinate with Construction Manager and Owner if applicable.

2.02 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated, with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.01 VEHICULAR ACCESS AND PARKING

- A. Use designated existing on-site roads for construction traffic.
- B. Parking is as directed by Owner.

- C. When site space is not adequate, provide additional off-site parking.
- D. Use of designated existing on-site streets and driveways used for construction traffic is permitted. Track vehicles not allowed on paved areas.
- E. Use of designated areas of existing parking facilities used by construction personnel as permitted.
- F. Do not allow heavy vehicles or construction equipment in parking areas.
- G. Provide and maintain access to fire hydrants, free of obstructions.
- H. Provide means of removing mud from vehicle wheels before entering streets.

3.02 TRAFFIC REGULATION

- A. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.
- B. Flares and lights: Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- C. Haul Routes:
 1. Consult with authority having jurisdiction, establish public thoroughfares to be used for haul routes and site access.
- D. Removal:
 1. Remove equipment and devices when no longer required.
 2. Repair damage caused by demolition.

3.03 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage during construction operations.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

3.04 ENCLOSURES AND FENCING

- A. Provide temporary enclosure and fences as necessary to protect the public and secure the site.
- B. Provide fence around construction site; equip with vehicular and pedestrian gates with locks. See construction drawings for more details.
- C. Provide security and facilities to protect work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

3.05 WASTE REMOVAL

- A. 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 or incinerator acceptable to authorities having jurisdiction.
 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Waste Disposal Facilities: Provide waste collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.

END OF SECTION

SECTION 01 57 23
STORMWATER POLLUTION PREVENTION PLAN

PART 1 GENERAL

1.1 DESCRIPTION

- A. This Stormwater Pollution Prevention Plan (SWPPP) has been prepared to satisfy the requirements of the Iowa Department of Natural Resources (Iowa DNR), General Permit No. 2, for "Stormwater Discharges Associated with Industrial Activity for Construction Activities." Refer to the Iowa Department of Natural Resources website for General Permit No. 2:
<http://www.iowadnr.gov/InsideDNR/RegulatoryWater/NPDESStormWater.aspx>.
- B. Contractor shall be responsible for implementation of the SWPPP within the contract limits identified on the Stormwater Pollution Prevention Plan.
- C. In addition to the requirements of this Section, Contractor shall comply with all requirements of the General Permit No. 2 and with applicable Iowa DNR and US EPA regulations.

1.2 SITE DESCRIPTION

- A. See Cover Sheet of Drawings for general location map.
- B. The site is located in the SW Quarter of Section 3, Township 78 North, Range 24, West of the 5th Principal Meridian, Polk County, Des Moines, Iowa. The site consists primarily of infrastructure development.
- C. The activity at this site will consist of building demolition construction.
- D. The Stormwater Pollution Prevention Plan shows the following:
 - 1. Drainage patterns.
 - 2. Approximate slopes after major grading.
 - 3. Areas of soil disturbance.
 - 4. Locations of structural controls.
 - 5. Locations of non-structural controls.
 - 6. Locations of areas to be stabilized.
 - 7. Surface drainageways.
 - 8. Stormwater discharge locations.
- E. Stormwater runoff from the site will discharge to the storm sewer and will ultimately discharge to the Des Moines River.
- F. No runoff water quality data is available for this site.

1.3 FEDERAL CONSTRUCTION AND DEVELOPMENT EFFLUENT GUIDELINES

- A. All sites and activities required to be authorized under this permit shall comply with the following federal effluent guidelines:

- B. Erosion and Sediment Controls
 - 1. Major soil disturbing activities at the site will consist of excavation and backfill for building and utility demolition and site grading. For these activities, the erosion/sediment control measures required, both structural and non-structural, and implementation of these controls is described herein or is shown on the Drawings.
 - 2. Controls are required to regulate stormwater volume and velocity in order to minimize soil erosion and pollutant discharge.
 - 3. Reduction in peak flow rate and total stormwater volume minimizes channel and streambank erosion and scour in the immediate vicinity of discharge points.
 - 4. Minimize the amount of exposed soil during construction activity.
 - 5. Minimize the disturbance of steep slopes.
 - 6. Minimize sediment discharges from the site.
 - 7. Provide and maintain natural buffers around Waters of the United States. Stormwater shall be directed to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless feasible.

- C. Soil Compaction and Topsoil Preservation
 - 1. Practices to minimize soil compaction and preserve topsoil shall be implemented.
 - 2. Project shall be phased to prevent unnecessary compaction of soil.

- D. Soil Stabilization
 - 1. Stabilization of disturbed areas must, at a minimum, be initiated immediately once earth disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days.

- E. Dewatering
 - 1. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.
 - 2. Receiving waters or downstream landowners must not be adversely affected by dewatering operations.
 - 3. Dewatering activities shall be inspected daily. A record of estimated volume and visual characteristics (including color, odor, sheen and turbidity) shall be recorded as an amendment to the weekly inspection report.
 - 4. Dewatering is limited to stormwater and ground water that may collect on site, and the following allowable non-stormwater sources, fire-fighting, fire hydrant flushing, potable water line flushing, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.
 - 5. Non-stormwater discharge sources may be discharged so long as there are no impacts to existing water quality.

- F. Pollution Prevention Measures
 - 1. Effective pollution prevention measures shall be installed, implemented and maintained to:
 - a. Minimize the discharge of pollutants from equipment and vehicle washing.

- b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and stormwater.
 - c. Minimize the discharge of pollutants from spills and leaks.
- G. Prohibited Discharges
- 1. Wastewater from washout and cleanout of stucco, paint, from release oil, curing compounds and other construction materials.
 - 2. Fuels, oil or other pollutants used in vehicle and equipment operation and maintenance.
 - 3. Soaps or solvents used in vehicle and equipment washing.
- H. Surface Outlets
- 1. When discharging from basins and impoundments, utilize outlet structures and withdraw water from the surface, unless feasible.

1.4 POST-DEVELOPMENT STORMWATER MANAGEMENT PLAN

- A. The post-development stormwater management plan consists of maintaining the system of storm sewers, intakes, and vegetative cover. It is anticipated that this plan will achieve the goal of 80 percent removal of total suspended solids.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 GENERAL EROSION/SEDIMENT CONTROL MEASURES

- A. During construction activities, the following practices will be observed:
- 1. A sign or other notice must be posted near the main entrance of the construction site or at a safe, publicly accessible location in close proximity to the construction site. The sign must be visible from a public road that is nearest to the active part of the construction site and use a font large enough to be readily viewed from a public right-of-way. The sign or notice must contain the following information:
 - a. Project Name and IDNR Authorization number.
 - b. Designated Person's contact name and phone number.
 - c. The current location of the SWPPP.
 - 2. For linear projects, the sign or notice must be posted at a publicly accessible location near the active part of the construction site.
 - 3. Ensure proper disposal of construction site waste materials. No waste materials will be disposed of on site. The Contractor shall comply with all applicable local, state, and federal requirements regarding the disposal of excess and waste materials. Contractor shall provide to the Owner the locations where waste materials will be disposed of.

4. Prevent off-site tracking of sediment and generation of dust. Stabilized construction entrances or vehicle washing racks should be installed at locations where vehicles leave the site. Tracked sediment will be removed from the surrounding roads, drives, and parking lots by the Contractor. Identify all locations of stabilized construction entrances on the Drawings. Implement dust control measures where dust is generated. Frequent watering of the site, sprinkling/irrigation, vegetative cover, mulch, wind breaks, tillage, stone, and spray-on chemical soil treatments (palliatives) are possible dust control measures. If the dust control is not acceptable it shall be changed as directed by the Owner's Representative.
5. Treat or dispose of sanitary waste generated on site in accordance with state and local waste disposal, sanitary sewer, or septic regulations. Identify all locations of portable restroom facilities on the Drawings. Portable restroom facilities must not be located near drainageways.
6. Prevent contamination of allowable non-stormwater discharges. Identify on the Drawings all locations of allowable non-stormwater discharges. Allowable non-stormwater discharges include, but are not limited to, water flushed from water lines, pavement and equipment washing (where no spills or leaks have occurred, unless the spilled material has been cleaned up) where no detergents or other surfactants are used, and uncontaminated groundwater (dewatering).
7. Identify all locations of stockpiled material on the Drawings. Contractor shall provide all erosion/sediment controls as necessary to contain material on site.
8. Identify all locations of concrete, paint, and grout washout areas on the Drawings. These areas shall be protected at all times. Contractor shall haul off all waste material on site. Contractor is required to install a sign that designates the washout area.
9. Identify locations of contractor laydown/equipment storage. Contractor shall provide all erosion/sediment controls as necessary to contain materials on site.

3.2 DESCRIPTION OF CONTROLS

- A. Minimum erosion/sediment control devices are shown on the Drawings. It is the Contractor's responsibility to control erosion and sediment on the site. Additional controls shall be installed as needed to satisfy this requirement.
- B. Erosion Controls. All controls shall be in accordance with Section 31 25 00 - *Erosion and Sediment Control*.
- C. Sediment Controls. All controls shall be in accordance with Section 31 25 00 - *Erosion and Sediment Control*.

3.3 SEQUENCE OF MAJOR ACTIVITIES

- A. Contractor shall incorporate all temporary stabilizing and permanent erosion/sediment control features into the project at the earliest practicable time and according to the following guidelines:
 1. Install intake protection, down slope and side slope perimeter controls before the land disturbing activity occurs.
 2. Do not disturb an area until it is necessary for construction to proceed.
 3. Cover or stabilize disturbed areas as soon as possible.

4. Time construction activities to limit impact from seasonal climate changes or weather events.
5. Delay construction of infiltration measures until the end of the construction project when upstream drainage areas have been stabilized.
6. Do not remove temporary perimeter controls until after all upstream areas are finally stabilized.

3.4 POTENTIAL SOURCES OF POLLUTION

- A. The following activities are potential sources of sediment to stormwater runoff:
1. Demolition operations
 2. Grading and site excavation operations
 3. Vehicle tracking
 4. Landscape materials
 5. Dust
- B. The following activities are potential pollution sources, other than sediment, to stormwater runoff:
1. Demolition and excavation area – dust, vehicle equipment refueling activities, minor equipment maintenance, sanitary facilities
 2. Excavation and storage of contaminated soils
 3. Materials storage area – general building materials, building products, solvents/detergents, adhesives, paving materials, paints, aggregates, trash etc.
 4. Construction activity – concrete paving/mortar/stucco and building construction waste
 5. Concrete washout area – concrete slurry
 6. Pesticides – Insecticides, fungicides, herbicides and rodenticides
 7. Fertilizer

C. Potential Pollution Sources on site:

Material/Chemical	Physical Description	Stormwater Pollutants	Location
Hydraulic oil/fluids	Brown, oily petroleum hydrocarbon	Mineral Oil	Leaks or Broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil and grease, naphthalene, xylenes	Secondary containment/staging area
Kerosene	Pale yellow liquid, petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment/staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary facilities	Various colored liquids	Bacteria, parasites, viruses	Building construction and staging area
Plaster/Drywall	White granules or powder	Calcium sulphate, calcium carbonate, sulfuric acid	General interior construction
Cleaning solvents	Colorless, blue or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Building construction, concrete release agents
Glue/adhesives	White or yellow liquid	Polymers, epoxies	Building construction
Paints	Various colored liquid	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Building construction
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Curing compounds	Creamy white liquid	Naphtha	Concrete pours, curb and gutter
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Pesticides used for insect, fungus, weed and rodent control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorus	Newly seeded areas

3.5 MAINTENANCE

- A. Maintenance and repairs of erosion and sediment controls shall be in accordance with Section 31 25 00 - *Erosion and Sediment Control*.
- B. The Contractor will be required to maintain all erosion and sediment controls in proper working order, including cleaning, repairing, or replacing the controls until final stabilization.
- C. Refer to Section 31 25 00 - *Erosion and Sediment Control* for sediment cleaning from controls requirement. If not specified, cleaning of sediment controls will begin when the controls have lost 50% of their capacity.
- D. The inspection reports can be used to record scheduled maintenance.
- E. The Contractor will maintain records of the construction activity on the site. These records will be used to make sure that areas, where there is no construction activity, will be stabilized within the required time frame. The SWPPP will be updated to include, at minimum, the following information:
 - 1. The dates when major grading activities occur in a particular area.
 - 2. The dates when construction activities cease in an area, temporarily or permanently.
 - 3. The dates when an area is stabilized, temporarily or permanently.
 - 4. The dates when erosion/sediment controls are installed and removed.
- F. For the SWPPP to be effective, the plan must accurately reflect the construction site features and operations. When the Contractor observes deficiencies in the plan or that the plan is not effective in minimizing pollutant discharge from the site, the plan must be updated and changed. Any changes that may be required to correct deficiencies in the SWPPP, noted during an inspection, should be made as soon as practical after an inspection, but in no case later than seventy-two (72) hours after the inspection. In addition, the SWPPP will be updated to:
 - 1. Include contractors identified after the submittal of the Notice of Intent. These contractors will certify the plan and be identified as co-permittees.
 - 2. Identify any change in ownership or transference of the permit and permit responsibilities.

3.6 SPILL PREVENTION AND CLEANUP MEASURES

- A. The Contractor must include in the SWPPP the Safety Data Sheets (SDS) for all waste materials expected to be stored on site, with updates as appropriate.
- B. The Contractor is required to furnish and install a spill kit. The spill kit shall be in a sealed storage shed located near the construction trailer or fueling area. The spill kit shall be relocated as necessary for construction. The spill kit shall be readily available and highly visible in areas with the highest potential for spills. At a minimum, the spill kit shall contain, but not be limited to the following items:
 - 1. Garbage can
 - 2. Gloves
 - 3. Safety goggles
 - 4. Broom and dustpan
 - 5. Oil absorbent clay chips or pads

- C. The spill kit shall be restocked as supplies are used.
- D. The Contractor is required to install a sign that designates the spill kit. The location of the spill kit shall be identified on the Drawings.
- E. The Contractor will be required to report any spills of substances that may create a hazardous condition to the Owner's Representative. Iowa law requires that as soon as possible, but not more than six (6) hours after the onset of a hazardous condition the IDNR and local sheriff's office or the office of the sheriff of the affected county be notified by the Owner.
- F. The Contractor must modify the SWPPP within seven (7) calendar days of a hazardous condition. The SWPPP shall describe the release and the circumstances leading to the release as well as the date that the release occurred. Steps to prevent the reoccurrence of such releases are to be identified in the plan and implemented.

3.7 INSPECTIONS

- A. The Contractor shall designate one qualified person to be the Stormwater Coordinator. This person will be required to provide inspections for the Contractor as well as maintain the SWPPP and all required documentation.
- B. Inspections shall be provided by the Contractor who shall inspect disturbed areas of the construction site that have not been fully stabilized at least once every seven (7) calendar days. The SWPPP Inspection Report form in Section 01 57 23.20 - *Stormwater Pollution Prevention Plan - Inspection Report* shall be completed for all inspections. All inspection reports shall be uploaded to the Operator's submittal software platform.
- C. Disturbed areas and areas used for the storage of materials that are exposed to precipitation shall be observed for evidence of, or the potential for, pollutants entering the drainage system.
- D. Sediment control measures shall be observed to ensure that they are operating correctly.
- E. Accessible discharge locations shall be observed to determine effectiveness in preventing significant impacts to receiving waters.
- F. Locations where vehicles enter or exit the site shall be observed for evidence of off-site sediment tracking.
- G. The Contractor will prepare an inspection report of the pollution control measures. The report will: report the scope of the inspection; provide the name(s) and qualifications of personnel making the inspection; include the date(s) of the inspection; identify any damages or deficiencies in the control measures; identify what actions will be taken to modify pollution control practices; and certified by signature. The SWPPP Inspection Report form will be completed for all inspections.
- H. Based on the results of these inspections, the Contractor shall make revisions as required to protect receiving waters within seventy two (72) hours of the date of such inspection.

- I. Results of these inspections shall be recorded on copies of the inspection form provided or other standard format and kept in the Contractor's field office until the project is completed.
- J. Contractor is required to provide inspections until the site has reached final stabilization and the Notice of Discontinuation (NOD) has been filed by the Owner's Representative.
- K. Section 01 57 23.50 - *Stormwater Pollution Prevention Plan – Plan Review and Revisions* shall be completed for all plan amendments.

3.8 IMPLEMENTATION

- A. The Owner is responsible for submitting the Public Notice of Stormwater Discharge, the Notice of Intent and the Notice of Discontinuation.
- B. The Owner is responsible for paying the fees for publishing the Public Notices and for submitting the Notice of Intent.
- C. The Owner is responsible for resubmitting for an extension if necessary. All resubmittal fees will be paid by the Owner.
- D. The Contractor is responsible for keeping the NPDES permit up to date.
- E. The Contractor is responsible for the implementation and maintenance of all measures identified in this SWPPP.
- F. The Contractor and all subcontractors coming on site to perform soil disturbing activities or implementing erosion/sediment control measures are required to certify the SWPPP by signing the certification statement in Section 01 57 23.10 - *Stormwater Pollution Prevention Plan - Contractor/Subcontractor Certification* one (1) week prior to start of construction. The SWPPP Certification Statement form at the end of this Section shall be completed by all subcontractors, throughout the duration of the project, before conducting any work at the site. The signed copies shall be kept with this SWPPP in the Contractor's field office until the project is completed.
- G. The Contractor/Subcontractors implementing erosion/sediment controls on site are required to sign the Table of Contractor/Subcontractors Implementing Erosion Control Measures located in Section 01 57 23.30 - *Stormwater Pollution Prevention Plan - Table of Contractor/Subcontractor Implementing Erosion/Sediment Control Measures*.
- H. Upon review of the SWPPP, the Owner shall sign the Owner Certification, Section 01 57 23.40 - *Stormwater Pollution Prevention Plan - Owner Certification*.

3.9 RETENTION OF RECORDS

- A. A copy of this SWPPP, including all reports and certifications required by the SWPPP shall be maintained at the construction site by the Contractor from the date of project initiation to the date of final stabilization.

- B. A copy of this SWPPP, including all reports and certifications required by the SWPPP and records of all data used to complete the Notice of Intent to be covered by the permit, will be kept for a period of at least three (3) years from the date that the site is finally stabilized.
- C. A copy of the Notice of Intent must be included in the SWPPP.
- D. All SWPPP plans and associated records must be made available to the Department of Natural Resources and the operator of the municipal separate storm sewer system (MS4) upon request.
- E. Provide a copy of any modifications to the Stormwater Pollution Prevention Plan, all SWPPP Certification Statement forms, all SWPPP Inspection Reports and the Table of Contractor/Subcontractors Implementing Erosion Control Measures to the Owner's Representative as they are prepared.

3.10 FINAL STABILIZATION

- A. Final stabilization is reached once all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70%, sufficient to preclude erosion, for the entire disturbed area of the permitted project has been established or equivalent stabilization measures have been employed or which has been returned to agricultural production.
- B. Final stabilization must be approved by the Owner's Representative.
- C. Upon approval by the Owner's Representative, the Contractor is required to remove all temporary erosion/sediment controls.
- D. Within thirty (30) days after all temporary erosion/sediment controls have been removed, the Contractor shall notify the Owner to submit the Notice of Discontinuation (NOD) form to the IDNR.

END OF SECTION

**DOCUMENT 01 57 23.10
STORMWATER POLLUTION PREVENTION PLAN
CONTRACTOR/SUBCONTRACTOR CERTIFICATION**

PROJECT NAME: IA DAS – Fleet Building Demolition

Certification Statement

I certify under penalty of law that I understand the terms and conditions of the General National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site as part of this certification. Further, by my signature, I understand that I am becoming a co-permittee, along with the Owner(s) and other contractors and subcontractors signing such certifications, to the Iowa Department of Natural Resources NPDES General Permit No. 2 for "Storm Water Discharge Associated with Industrial Activity for Construction Activities" at the identified site. As a co-permittee, I understand that I, and my company, are legally required under the Clean Water Act and the Code of Iowa, to ensure compliance with the terms and conditions of the Storm Water Pollution Prevention Plan developed under this NPDES permit and the terms of the NPDES permit.

DESCRIPTION OF CONSTRUCTION ACTIVITY PERFORMED BY THE FOLLOWING
CONTRACTOR/SUBCONTRACTOR

NAME

TITLE

COMPANY NAME

TELEPHONE NO.

COMPANY ADDRESS

SIGNATURE

DATE

KEEP A COPY OF THIS SIGNED CERTIFICATION WITH THE STORMWATER POLLUTION PREVENTION PLAN ON THE JOB SITE.

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**DOCUMENT 01 57 23.20
STORMWATER POLLUTION PREVENTION PLAN
INSPECTION REPORT**

Project Name: IA DAS – Fleet Building Demolition	Date:	Time:
IDNR Authorization Number:	Designated Person's Name & Phone #:	
Inspector Name and Title:	Reason for Inspection:	
SWPPP Sign On Site: YES / NO	SWPPP Plan Location:	
Spill Kit Installed: YES / NO	Concrete, Paint and Grout Washout Installed with Sign: YES / NO	
Implementation of Dust Control Measures: YES / NO	Topsoil Stockpiles On Site: YES / NO	

<u>Observed</u>	<u>Erosion/Sediment Control Measure</u>	<u>Clean-up Required?</u>	<u>Change in Control Type Required?</u>
Erosion Control Measure			
<input type="checkbox"/>	Stabilizing Crop - Temporary Seeding, Fertilizer and Mulching – Type 4	Yes / No	Yes / No
<input type="checkbox"/>	Permanent Seeding	Yes / No	Yes / No
<input type="checkbox"/>	Sodding	Yes / No	Yes / No
<input type="checkbox"/>	Hydraulic Erosion Control	Yes / No	Yes / No
Sediment Control Measure			
<input type="checkbox"/>	Compost Filter Tube	Yes / No	Yes / No
<input type="checkbox"/>	Inlet Protection – Grated Curb Intake	Yes / No	Yes / No
<input type="checkbox"/>	Stabilized Construction Entrance/ Contractor Staging and Laydown Area	Yes / No	
<input type="checkbox"/>	Clean-up of Roadways/Parking Lots/ Driveways	Yes / No	

Observations of Discharge Locations _____

Observations of Erosion/Sediment Control Measures _____

Is uncontained sediment leaving the site? If yes, describe where and what changes will be made to erosion/sediment control devices.

Recommended Revisions to the SWPPP _____

Inspection Report Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector's Signature

Date

KEEP A COPY OF THIS CERTIFIED REPORT WITH THE STORMWATER POLLUTION PREVENTION PLAN ON THE JOB SITE.

**DOCUMENT 01 57 23.30
STORMWATER POLLUTION PREVENTION PLAN
TABLE OF CONTRACTOR/SUBCONTRACTORS
IMPLEMENTING EROSION/SEDIMENT CONTROL MEASURES**

PROJECT NAME: IA DAS – Fleet Building Demolition

On the following chart indicate the name of each Contractor or Subcontractor who will implement erosion/sediment control measures and which measure they will implement.

<u>Name of Contractor/Subcontractor</u>	<u>Erosion/Sediment Control Measure</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

KEEP A COPY OF THIS TABLE WITH THE STORMWATER POLLUTION PREVENTION PLAN ON THE JOB SITE.

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**DOCUMENT 01 57 23.40
STORMWATER POLLUTION PREVENTION PLAN
OWNER CERTIFICATION**

PROJECT NAME: IA DAS – Fleet Building Demolition

Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Fleet Building – 215 E. 7th Street, Des Moines, IA 50319
ADDRESS/DESCRIPTION OF THE SITE

NAME

TITLE

COMPANY NAME

TELEPHONE NO.

COMPANY ADDRESS

SIGNATURE

DATE

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 6000

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General product requirements
- B. Product options
- C. Maintenance materials
- D. Transportation and handling
- E. Storage and protections

PART 2 - PRODUCTS

2.01 GENERAL PRODUCT REQUIREMENTS

- A. Provide new products unless specifically required or permitted by the contract documents.
- B. Do not use products having any of the following characteristics:
 - 1. Made using or containing CFC's or HCFC's
 - 2. Made of wood from newly cut old growth timber.
- C. Where all other criteria are met, contractor shall give preference to products that:
 - 1. If used on interior, have lower emissions
 - 2. If wet-applied, have lower VOC content
 - 3. Are extracted, harvested, and/or manufactured closer to the location of the project
 - 4. Have longer documented life span under normal used
 - 5. Result in less construction waste
 - 6. Are made of vegetable materials that are rapidly renewable

2.02 PRODUCT OPTIONS

- 1. Products specified by reference standards or by description only: Use of any product meeting those standards or description.
- 2. Products specified by naming one or more manufacturers, with or without a provision for substitutions: Use a product of one of the manufacturers named and meeting specifications or submit a request for substitution for any manufacturer not named by the date specified in this project manual. Substitution requests shall be emailed to the Issuing Officer at the email address provided in Instructions to Bidders Section 1.04.

2.03 MAINTENANCE MATERIALS

- 1. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- 2. Deliver to project site; obtain receipt prior to final payment.

PART 3 - EXECUTION

3.01 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.02 STORAGE AND PROTECTIONS

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to the product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturers' warranty conditions, if any.
- H. Cover product subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 01 7300

EXECUTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures
- B. Alteration project procedures
- C. Cutting and patching
- D. Cleaning and protection
- E. Adjusting

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 EXAMINATION, PREPARATION, AND GENERAL INSTALLATION PROCEDURES

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misproduction.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to cutting: Examine existing conditions prior to commencing work; include elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.
- G. Clean substrate surfaces prior to applying next material or substance.
- H. Seal cracks or openings of substrate prior to applying next material or substance.
- I. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.
- J. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- K. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- L. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- M. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- N. Make neat transitions between different surfaces, maintaining texture and appearance.

3.02 ALTERATION PROJECT PROCEDURES

- A. Materials: As specified in product sections match existing products and work for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished work.
- E. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finished to original condition.

- F. Remove debris and abandoned items from area and from concealed spaces.
- G. Refinish visible existing surfaces to remain in renovated rooms and spaces to specified condition for each material with a neat transition to adjacent finishes.
- H. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work to match existing adjacent work in texture and appearance.
- I. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line of division and make recommendation to the Construction Manager. Prior to cutting get the Owner's approval.
- J. Where change of plane of ¼ inch or more occurs, submit recommendation for providing smooth transition to the Construction Manager for review.

3.03 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements which affect:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete work, and to:
 - 1. Fit the several parts together, to integrate with other work.
 - 2. Uncover work to install or correct ill-timed work.
 - 3. Remove and replace defective and non-conforming work.
 - 4. Remove samples of installed work for testing.
 - 5. Provide openings in elements of work for penetrations of mechanical and electrical work.
- D. Execute work by methods to avoid damage to other work and which will provide proper surfaces to receive patching and finishing.
- E. Cut rigid materials using masonry saw or core drill.
- F. Cut masonry and concrete materials using masonry saw or core drill.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work tight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- I. Maintain integrity of wall, ceiling or floor construction; completely seal voids.
- J. Refinish surfaces to match adjacent finishes. Refinish to nearest intersection for continuous surfaces. Refinish entire unit for continuous surfaces for an assembly.
- K. Identify hazardous substances or conditions exposed during the work to the engineer for decision or remedy.

3.04 CLEANING AND PROTECTION

- A. Progress cleaning
 - 1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
 - 2. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.
- B. Protection of installed work
 - 1. Protect installed work from damage by construction operations.
 - 2. Provide special protection where specified in individual specification sections.
 - 3. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
 - 4. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.
 - 5. Prohibit traffic from landscaped areas.

3.05 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

SECTION 01 7700

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Inspections
- B. Substantial Completion
- C. Project Record Documents
- D. Warranties
- E. Operations and Maintenance Manuals
- F. Operations and Maintenance Data for Materials and Finishes
- G. Operations and Maintenance Data for Equipment and Systems
- H. Training
- I. Final Completion
- J. Maintenance

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 INSPECTIONS

- A. Ensure all state inspections have been completed by the authority having jurisdiction.
- B. Upload documentation of all test/inspections to Procore.
- C. Submit a written request for inspection of Substantial Completion. On receipt of request, The Design Professional will either proceed with inspection or notify contractor of unfulfilled requirements. The Design Professional will prepare the Certificate of Substantial Completion after inspection or will notify contractor of items, either on contractor's list or additional items identified by architect that must be completed or corrected before certificate will be issued.
 - 1. Re-inspection: Request re inspection when the work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for Final Completion.

3.02 SUBSTANTIAL COMPLETION

- A. A substantial completion checklist is attached for reference following this specification section.
- B. Make submittals that are required by governing or other authorities.
 - 1. Provide copies to the Construction Manager through upload to Procore.
- C. Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Submit written certification that contract documents have been reviewed, work has been inspected, and that work is completed in accordance with contract documents and ready for review
 - 2. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the work has not been completed.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Make final changeover of permanent locks and deliver key to the owner. Advise owner's personnel of changeover in security provisions.
 - 5. Complete startup testing of systems.
 - 6. Submit test/adjust, balance records.
 - 7. Terminate and remove temporary facilities from project site, along with mockups, construction tools, and similar elements.

8. Advise owner of changeover in heat and other utilities.
9. Submit changeover information related to owner's occupancy, use, operation, and maintenance.
10. Complete final cleaning requirements, including touch up painting.
11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

3.03 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the work:
 1. Drawings
 2. Specifications
 3. Addenda
 4. Change orders and other modifications to the contract
 5. Reviewed shop drawings, product data, and samples
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alterations utilized.
 3. Changes made by Addenda and modifications.
- F. Record Drawings:
 1. Measured depths of foundations in relation to finish first floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 4. Field changes of dimension and detail.
 5. Details not on original contract drawings.
- G. Record Drawings shall be uploaded to Procore in pdf format.

3.04 WARRANTIES

- A. Submit written warranties for designated portions of the work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Submit properly executed warranties in Procore prior to Final Completion.
- C. Verify that documents are in proper form, contain full information, and are notarized.
- D. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- E. Include warranties in operation and maintenance manuals.
- F. Items of work delayed beyond date of Substantial Completion, provide updated submittal after acceptance by Owner, listing date of acceptance as start of warranty period

3.05 OPERATIONS AND MAINTENANCE MANUALS

- A. Format: Submit operations and maintenance manuals in the following format:
 1. Portable Document Format (PDF) electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Owner and upload to Procore.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.

2. Assemble with data arranged in the same sequence as, and identified by the specification sections. Where systems involve more than one specification section, provide separate index for each system.
 3. Include project directory listing title and address of project, names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
 4. Include Table of Contents listing every item separated by index and specification section.
- B. Source Data: For each product or system, list names, addresses, and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
 - C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
 - D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use project record documents as maintenance drawings.
 - E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.06 OPERATIONS AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For each product, applied material, and finish:
 1. Product data, with catalog number, size, composition, and color and texture designations.
 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specified products.

3.07 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For each item of equipment and each system:
 1. Description of unit or system, and component parts
 2. Identify function, normal operating characteristics, and limiting conditions
 3. Include performance curves, with engineering data and tests
 4. Complete nomenclature and model number of replacement parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specified products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Include color coded wiring diagrams as installed.
- E. Operating procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- F. Maintenance requirements: Include routine procedure and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- G. Provide servicing and lubrication schedule and list of lubricants required.
- H. Include manufacturer's printed operation and maintenance instructions.
- I. Include sequence of operation by controls manufacturer.

- J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- K. Provide control diagrams by controls manufacturer as installed.
- L. Provide contractor's coordination drawings, with color coded piping diagrams as installed.
- M. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- N. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- O. Include test and balancing reports.
- P. Additional requirements: As specified in individual specification sections.

3.08 TRAINING

- A. Demonstrate operations of systems, subsystems, and equipment.
- B. Train in operation and maintenance of systems, subsystems, and equipment
- C. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- D. Submit written agenda to Construction Manager for approval prior to scheduling training.
- E. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.

3.09 FINAL COMPLETION

- A. A final completion checklist is attached for reference following this specification section.
- B. Before requesting final inspection for determining date of Final Completion, complete the following:
 - 1. Complete punch list items.
 - 2. Prepare and submit project record documents, operation and maintenance manuals, damage or settlement surveys, and similar final record information.
 - 3. Deliver tools, spare parts, extra materials, and similar items to location designated by owner. Label with manufacturer's name and model number where applicable.
 - 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 - 5. All trailers, construction signs, unused, broken or demolition materials have been removed from the site and the premises returned to the original condition in the opinion of the Owner and Design Professional.
 - 6. Submit a final Application for Payment (retainage).
- C. Upon receipt of final payment complete final completion certificate in Procore.

END OF SECTION

Substantial Completion Project Checklist

Date: _____

DAS Project Number: _____

Project Title: _____

Location: _____

Contractor: _____

In order to process the 99% payment (100% pay app less closeout and retainage) on a Capital Project, the Department of Administrative Services needs the following information. Please complete this form and obtain the necessary documents.

Have all state inspections been completed and documentation uploaded to Procore?
(Including but not limited to the following inspections)

Boiler Inspection Yes No N/A

Water Heater Inspection Yes No N/A

Energy Code Inspection Yes No N/A

Building Code Inspection Yes No N/A

Electrical Inspection Yes No N/A

Elevator Inspection Yes No N/A

Other: _____ Yes No N/A

Occupancy Permit if applicable

Test and Balance has been performed

Certificate of Substantial Completion in Procore (Consensus Docs 814)

Are there any disputes with the above mentioned vendor which need resolution?

Yes (provide description below) No

Can payment (less closeout and retainage) be released? Yes No

Final Completion Project Checklist

Date: _____

DAS Project Number: _____

Project Title: _____

Location: _____

Contractor: _____

In order to process the 100% payment and Retainage payment on a Capital Project, the Department of Administrative Services needs the following information. Please complete this form and obtain the necessary documents.

Have all Warranties been received? Yes No

Have the Operations and Maintenance Manuals been received? Yes No

Who is in possession of the O & M Manuals? _____

Has all training been completed? Yes No

Have all as-built drawings been scanned and uploaded into Procore? Yes No

Have electronic drawing/specification files been transferred to DAS? Yes No

Have all Test & Balance reports been received? Yes No

Have all punchlist items been corrected? Yes No

573 Notification (*To be obtained from the general contractor*): Copy of general contractor's notification of application for retainage to all subcontractors and suppliers. General contractor must follow IAC 26 section 23.13.2.

AIA Form G706 – Contractor's Affidavit of Payment of Debts and Claims

AIA Form G706A – Contractor's Affidavit of Release of Liens

AIA Form G707 – Consent of Surety Company to Final Payment

Certificate of Final Completion in Procore (Consensus Docs 815)

Are there any disputes with the above mentioned vendor which need resolution?

Yes (provide description below) No

Can 100% payment and retainage payment be released? Yes No

**SECTION 02 41 00
BUILDING DEMOLITION**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Building demolition.

1.2 RELATED REQUIREMENTS

- A. Section 02 41 13 – Selective Site Demolition: Removal of utilities, site features, and plants.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.4 REFERENCE STANDARDS

- A. 29 CFR 1926 – U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 – Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.5 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fill Material: As specified in Section 31 22 13 – Earthwork and Rough Grading.

PART 3 EXECUTION

3.1 SCOPE

- A. Remove the entire building, floor slabs, foundation walls and footings, and subgrade utilities, as designated on the Drawings.
- B. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 22 13.

3.2 It is the intent that the demolition called for be complete and adequate for the intended purpose and all necessary work, in addition to the specifically listed, shall be included, whether or not indicated on the plans or detailed in these specifications.

3.3 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.
- D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. If hazardous materials are discovered during removal operations, Constructor shall properly and safely remove hazardous materials from the project site. Hazardous materials include, but are not limited to: cleaning supplies, lead, PCB's, and mercury. Hazardous materials identified on site have been listed on plan sheet C302.
- F. If asbestos containing materials or materials believed to contain asbestos are found, stop work and notify the Owner. All asbestos removal will be completed by the Owner.
- G. The Contractor is responsible for the removal and disposal of all elevator hydraulic fluid per Iowa DNR requirements.
- H. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers in place.
- I. Contractor to refer to the Owner's Requirements for hot work requirements.

3.4 EXISTING UTILITIES

- A. Also refer to Section 02 41 13 – Selective Site Demolition.

- B. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting.
- C. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- D. Protect existing utilities to remain from damage.
- E. Do not disrupt utilities to remain.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

3.5 SALVAGE

- A. Items to be salvaged by the Owner will be salvaged prior to the project commencing. No items to be salvaged by the Contractor.

3.6 DEMOLITION

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as shown.
 - 2. Report discrepancies to Design Professional before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
- C. Remove all foundations for building, stairs, fire escapes, equipment, etc. in their entirety.
- D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, and Electrical): Remove existing systems and equipment as indicated.
 - 1. Remove abandoned pipe, ducts, conduits, and equipment; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- E. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Patch as specified for patching new work.

3.7 DEMOLITION BY MECHANICAL MEANS

- A. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.

- B. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 - 1. Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.

- C. Below-Grade Construction: Demolish foundation walls and other below-grade construction.
 - 1. Remove below-grade construction, including basements, foundation walls, and footings, completely.
 - 2. Caisson's to have location surveyed and provided to Owner. Abandon caisson's in place.

- D. Existing Utilities: Demolish and remove existing utilities and below-grade utility structures.
 - 1. Piping: Disconnect piping at unions, flanges, valves, or fittings.

3.8 SITE RESTORATION

- A. Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials according to backfill requirements in Division 31.

- B. Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.

3.9 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.

- B. Leave site in clean condition, ready for subsequent work.

- C. Clean up spillage and wind-blown debris from public and private lands.

- D. The Contractor is responsible for the removal and disposal of all elevator hydraulic fluid per Iowa DNR requirements.

END OF SECTION

**SECTION 02 41 13
SELECTIVE SITE DEMOLITION**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Removal of all minor site structures, pavements, surfacing, and base contours of all types, curb and gutter, sidewalks, steps, retaining walls, foundation walls, catch basins, manholes, utility pipes, trees, stumps, roots or other objects or structures, and other existing improvements which conflict with the work and are not designated to remain in place. No listing of items to be removed will be made.
- B. All items identified for removal shall be legally disposed of by the Contractor away from the site of work.
- C. It is the intent that the demolition called for be complete and adequate for the intended purpose and all necessary work, in addition to the specifically listed, shall be included, whether or not indicated on the plans or detailed in these specifications.

1.2 PERMITS

- A. Contractor shall comply with all applicable local, state, and federal requirements regarding materials, methods of work, and disposal of excess and waste materials.
- B. Contractor shall obtain and pay for all required inspections, sampling, analytical costs, permits, and fees. Provide notices required by governmental authorities. The following site and utility demolition permits and approvals are anticipated for the project. This list is for informational purposes only and is not intended to list all permits and approvals that may be required.
 - 1. City of Des Moines Right-of-Way (ROW) Obstruction Permits will be required for all work within the City of Des Moines ROW and any lane or street closures.
 - 2. City of Des Moines Plumbing Disconnect Permits and inspections will be required for storm sewer and sanitary sewer disconnections.
 - 3. City of Des Moines Excavation Permits will be required for work within the City of Des Moines ROW.
 - 4. City of Des Moines Sidewalk and Approach Permits will be required for work effecting sidewalks and driveway approaches within the City of Des Moines ROW. City of Des Moines will waive all fees associated with these permits at the contractors' request.
 - 5. City of Des Moines Grading Permit (One Acre or Larger). Fee is \$140 for an estimated 1.3 acres of disturbance. Actual affected area to be determined during permit submittal.
 - 6. Des Moines Water Works will require water service disconnection approvals and retirement charges for all service connections. Des Moines Water Works has estimated retirement charges for this project to be \$3,500.00. The contractor shall provide allowance to project for the above listed amount to cover DMWW retirement charges only. Contractor shall confirm all additional charges and fees and shall be responsible for actual fees required by the project.

1.3 SUBMITTALS

- A. The Contractor shall submit utility service termination certificates, copies of demolition notices, and permits to the Owner's Representative prior to removal.

- B. The Contractor shall submit demolition procedures and operational sequence for review and acceptance by the Owner's Representative.
- C. Schedule indicating proposed sequence of operations for selective demolition work to Owner's Representative for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services as required, together with details for dust and noise control protection.
- D. Record drawings of utility disconnection locations.

1.4 JOB CONDITIONS

- A. Phasing of Work:
 - 1. All site demolition shall be phased as shown in the Construction Drawings.
- B. Protection:
 - 1. Erect barriers, fences, guard rails, enclosures, chutes, and shoring to protect personnel, structures, and utilities remaining intact.
 - 2. Protect on-site trees and plants noted on Plans and all off-site trees and plants from damage.
 - 3. Protect existing objects designated to remain, and in the event of damage, immediately make repairs or replacements necessary to the approval of the Owner's Representative at no additional cost to the Owner.
- C. Maintaining Traffic:
 - 1. Minimize interference with streets, driveways, sidewalks, and adjacent facilities.
 - 2. Close streets and sidewalks as per the phasing plans.
 - 3. Do not close or obstruct streets or sidewalks without permission from authorities having jurisdiction.
 - 4. If closure is permitted, provide signage indicating closure and signage to direct traffic to alternate route as per Plans.
- D. Dust Control:
 - 1. Moisten surfaces as required to prevent dust from being a nuisance to the public, neighbors, and concurrent performance of other work on the site.
 - 2. All concrete sawcutting will be required to be wet sawed.
 - 3. Surrounding buildings will be occupied during construction. Dust shall not be allowed to enter buildings.
- E. Interruptions to Building Occupants:
 - 1. Surrounding buildings will be occupied during construction. All noise and vibration generating activities and utility outages shall be coordinated with the Owner.

1.5 PROJECT RECORD DOCUMENTS

- A. Accurately record locations of capped utilities and subsurface obstructions on the Contractor's record drawing set.
- B. The Contractor shall provide an as-built topographical survey of the project site upon completion of construction. Survey shall verify that all site grades conform to the tolerances specified in the contract documents.

PART 2 MATERIALS

2.1 TRAFFIC CONTROL SIGNAGE

- A. Signs shall be constructed of marine grade plywood or metal and conform to the latest edition of Manual of Uniform Traffic Control Devices (MUTCD).

PART 3 EXECUTION

3.1 PREPARATION

- A. Notification: Provide the Owner's Representative a minimum of seven (7) calendar days' notice prior to commencing the work of this section. Schedule sidewalk and roadway closures a minimum of 48 hours in advance with the City of Des Moines.
- B. Site Inspection: Prior to work under this section, the Contractor shall carefully inspect the entire site and verify all objects designated to be removed or to be preserved.
- C. Protection of Utilities: The Contractor shall locate existing utility lines and services traversing the site and determine the requirements for their protection. The Contractor shall preserve in operating condition all active utilities traversing the site and designated to remain.
- D. Disconnection of Utilities: Before starting site operations, the Contractor shall disconnect or arrange for the disconnection of all utility services designated to be removed, performing all such work in accordance with the requirements of the utility company or agency involved.
- E. Cover and protect facilities to remain from soiling or damage when demolition work is performed.
- F. Provide appropriate temporary signage including signage for exit or building egress.

3.2 PAVEMENTS

- A. In removing pavement, curb and gutter, sidewalks, and other similar improvements, and where a portion of such improvements are to be left in place, they shall be removed to an existing joint or to a joint sawed to full depth with a true line and a vertical face. Sufficient removal shall be made to provide for proper grade and connections in the new work regardless of any limits which may be indicated on the Plans.
- B. All removals and replacements in the City Right-of-Way shall meet City of Des Moines Standards and requirements.

3.3 SEWERS

- A. All existing sewers, drainage pipe roof drains, and floor drains which have been or are to be abandoned shall be permanently sealed at the ends with bulkheads constructed of concrete, having a minimum thickness of 3 feet or by other engineer pre-approved methods. No direct payment will be made for blocking abandoned pipe and conduit.

3.4 BLASTING

- A. Blasting is not permitted.

3.5 DISPOSAL

- A. All debris shall be disposed of off-site.
- B. If off-site disposal of debris is required in the Plans or Specifications, the Contractor shall remove demolition debris and grindings as soon as practicable.
- C. Do not store or burn materials on site.
- D. All asphalt materials shall be disposed off site.
- E. Contractor may retain and remove from the premises items considered of salvageable value.
- F. Remove all other materials from demolition operations, including debris and rubbish, from the building site. Transport and legally dispose of materials off site.
- G. Remove and promptly dispose of contaminated, vermin-infested, or dangerous materials encountered. If hazardous materials, as defined by the EPA, are encountered, stop work and immediately notify the Owner's Representative.
- H. Burning of materials will not be permitted on the project site.

3.6 CONSTRUCTION LIMITS

- A. The Contractor's operations shall be restricted to those areas inside the construction limits as indicated on the Plans. If limits are not indicated the Contractor shall be restricted to the Owner's property or easement and public rights-of-way. Work within public rights-of-way shall be completed under the permission of the governing agency. Restoration and site repair within the construction limits will be included in the base bid. Damage, site restoration, etc., necessary outside the construction limits, shall be repaired by the Contractor at no additional expense to the Owner.

3.7 UTILITY ADJUSTMENT

- A. Contractor is responsible for the adjustment of all vents, manholes, castings, valves, and fire hydrants to match the new surface. Adjustments shall be coordinated with the utility companies and the cost for all adjustments shall be incidental to construction. Any damage to said structures and appurtenances, that occurs during construction, shall be repaired by the Contractor at no additional cost to the Owner.

3.8 EXISTING SIGNAGE

- A. Carefully remove traffic signs as designated on the Plans or in conflict with the work and within the project limits. Protect from damage. Temporarily store and reinstall in the same fashion as their original installation.
- B. Damaged signs shall be replaced by the Contractor, or otherwise will be replaced by the Owner at the Contractor's expense.

3.9 BACKFILL

- A. Any voids resulting from the removal of any object shall be backfilled and compacted in accordance with Specification Section 31 22 13 - Earthwork and Rough Grading.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 31 22 13
EARTHWORK AND ROUGH GRADING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Provide labor, materials, equipment, and supervision necessary to complete the following:
 - 1. Remove topsoil and stockpile on site for later use.
 - 2. Grade subsoil and reform to grades, contours, and levels.
 - 3. Rough grade for roadways, walks, curbs, gutters, parking areas, and landscaped areas.
 - 4. Scarifying and recompaction.
 - 5. Import and compaction of fill materials and disposal of excess material required to bring the final grade into conformance with the lines and grades indicated on the Drawings.

1.2 EXISTING CONDITIONS

- A. Known underground, surface and aerial utility lines, and buried objects are indicated on the Drawings.

1.3 PROTECTION

- A. Existing Utilities
 - 1. Iowa One Call shall be notified for utility locates 48 hours prior to any digging. All locates shall be "Joint Locates."
- B. Protect trees, shrubs and lawn, and other features remaining as part of final landscaping.
- C. Protect benchmarks and existing structures, fences, roads, sidewalks, paving, and curbs against damage from equipment and vehicular traffic.
- D. Protect aerial, surface, or underground utility lines or appurtenances which are to remain.
- E. Repair damage.

1.4 REFERENCES

- A. Definitions
 - 1. Excavation consists of the removal of material encountered to subgrade elevations and the reuse or disposal of materials removed.
 - 2. Subgrade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
 - 3. Borrow: Soil material obtained off-site when sufficient approved soil material is not available from excavations.
 - 4. Subbase Course: The layer placed between the subgrade and base course in a paving system or the layer placed between the subgrade and surface of a pavement or walk.
 - 5. Base Course: The layer placed between the subbase and surface pavement in a paving system.

6. Drainage Fill: Course of washed granular material supporting slab-on-grade placed to cut off upward capillary flow of pore water.
7. Unauthorized excavation consists of removing materials beyond indicated subgrade elevations or dimensions without direction by the Owner's Representative. Unauthorized excavation, as well as remedial work directed by the Owner's Representative, shall be at the Contractor's expense.
8. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.
9. Utilities include on-site underground pipe, conduits, ducts, and cables, as well as underground services within building lines.

1.5 SITE COMPACTION TESTING

- A. Testing of compacted fill materials and soil evaluations may be performed by a Testing Agency retained by the Owner.
- B. The Contractor shall notify the Testing Agency no less than 48 hours prior to when each section of work is ready for on-site testing. Do not proceed with additional portions of work until results have been verified.
- C. If, during progress of work, tests indicated that compacted materials do not meet specified requirements, remove defective work, replace and retest at no cost to Owner.
- D. Ensure compacted fills are tested before proceeding with placement of surface materials.

1.6 SUBMITTALS

- A. Submit to testing agency minimum ten-pound (4.5kg) samples of each type of fill material to be used. Provide samples to appointed testing laboratory, packed tightly in containers to prevent contamination. If recent test results are available for fill materials to be used, disregard samples submission and submit such test results to the testing laboratory. Such test results are to clearly indicate types of materials and composition, hardness, compactibility, and suitability for proposed usage.

1.7 JOB CONDITIONS

- A. Construction Limits:
 1. All construction activities will be contained within construction boundaries indicated on the Drawings. Specified excavation requirements, precautions, and protective systems shall be observed at all times.
- B. Soil and Dust Control:
 1. Use all means necessary to prevent dust from leaving the project site and to control dust on public or private streets used as haul loads.
 2. Prevent soils from leaving the site by cleaning tires prior to vehicles leaving the site. Continuously clean dirt and mud from public or private streets used as haul roads. Maintain all erosion control measures as referred to in the Storm Water Pollution Prevention Plan (SWPPP) on the Drawings and in Specification Sections.

- C. Protection:
 - 1. Protect materials of this section before, during, and after installation and protect all objects designated to remain. This includes erosion control.
 - 2. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative and at no additional cost to the Owner.

- D. Adjustment of Utilities:
 - 1. Adjust all new and existing valve boxes, hydrants, castings, pull boxes, etc. to match finished grade elevations indicated on the Drawings. All rim elevations within paved areas shall be adjusted to match finished paving.
 - 2. All adjustment rings for manholes or intakes shall be concrete.
 - 3. Owner shall be notified a minimum of 24-hours prior to the establishment of the rough grade to allow the opportunity for hand holes, valve covers, manholes, and other surface fixtures to be located and reviewed.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. All fill materials shall be subject to approval of the Testing Agency.

- B. Fill Material within 4' of Finished Grade: Excavated or borrowed material free from roots, broken concrete, broken asphalt, rocks larger than 3" in size, and building debris that meets compaction requirements.

- C. Fill Material below 4' of Finished Grade: All fill material shall be soil or soil rock mixture which is free from organic matter and other deleterious substance. It shall contain no rocks or lumps over 6" (150mm) in greatest dimension and not more than 15% of the rocks or lumps shall be larger than 2-1/2" (63mm) in greatest dimension and shall meet compaction requirements.

- D. Additional Fill Material: AASHTO Designation M145, soil classification group.

- E. Fill under Landscaped Areas: Free from alkali, salt, and petroleum products. Use subsoil excavated from site only if conforming to specified requirements.

PART 3 EXECUTION

3.1 SAFETY

- A. The Contractor is required to understand and implement all OSHA requirements for earthwork activities.

3.2 GENERAL

- A. Familiarization:
 - 1. Prior to all work of this section, become thoroughly familiar with the site, the site conditions, and all portions of the work falling within this section.
 - 2. Establish and identify required lines, levels, contours, and datum.
 - 3. Maintain benchmarks, monuments, and other reference points. Re-establish if disturbed or destroyed, at no cost to Owner.

- 4. Before start of grading, establish the location and extent of utilities in the work areas. Notify utilities to remove and relocate lines which are in the way of construction.
 - B. Backfilling Prior to Approvals:
 - 1. Do not allow or cause any of the work performed or installed to be covered up or enclosed by work of this section prior to all required inspections, tests, and approvals.
 - 2. Should any of the work be so enclosed or covered up before it has been approved, uncover all such work at no additional cost to the Owner.
 - C. Before excavation has begun, strip and stockpile all existing topsoil.
- 3.3 TOPSOIL EXCAVATION
- A. Remove topsoil of horticultural value from areas to be excavated, regraded and paved, and stockpile on site in designated areas indicated on the Drawings.
 - B. Do not permit topsoil to be mixed with subsoil.
 - C. Do not strip topsoil when wet.
 - D. Do not stockpile topsoil to depths exceeding 10'-0". Do not drive heavy equipment over stockpiled topsoil.
- 3.4 EXCAVATION
- A. Depressions Resulting from Removal of Obstruction:
 - 1. Where depressions result from, or have resulted from, the removal of surface or subsurface obstructions, open the depression to equipment working width and remove all debris and soft material as directed by the Owner's Representative.
 - B. Other Areas:
 - 1. Excavate to grades shown on the Drawings.
 - 2. Where excavation grades are not shown on the Drawings, excavate as required to accommodate the installation.
 - C. Overexcavation:
 - 1. Backfill and compact all overexcavated areas as specified for fill (Article 3.5) at no additional cost to the Owner.
- 3.5 FILLING
- A. Fill areas to contours and elevations with unfrozen materials.
 - B. Compaction:
 - 1. Granular Fill: Place and compact materials in continuous layers not exceeding 8" (200mm) in compacted depth, per ASTM 0698 at frequency of one test per 500 square yards.
 - a. Granular fill is not allowed within 18" of finished grade in landscape areas.
 - b. Under pavement and undercut structures, compact backfill to 98% of maximum Standard Proctor Density.

2. Subsoil Fill: Place and compact material in continuous layers not exceeding 8" (200mm) in compacted depth, compacted to 95% of maximum Standard Proctor Density unless otherwise shown on the Drawings, per ASTM D698 at frequency of one test per 500 square yards.
 - a. Under landscaped and lawn areas from below uncompacted backfill to 30" below finished surface elevation, compact suitable excavated material to 90% of maximum Standard Proctor Density.
 - b. Under landscaped and lawn areas, provide 6" of uncompacted suitable excavated material under topsoil or planting soil.
 - c. Refer to Planting Soil and Topsoil specifications.
- C. Maintain optimum moisture content of fill materials to attain required compaction density. The geotechnical report offers a range of desirable moisture content for compaction. In general, low-plasticity cohesive soils shall be within -2% and +3% of optimum moisture content. Granular materials shall be within -3% and +3% of optimum moisture content. If on-site native or imported materials cannot be conditioned to suitable moisture content because of a lack of suitable drying weather, sufficient space on site for soil conditioning or any other reason, the Contractor shall import suitable material at no additional cost to the Owner.
- D. Make grade changes gradual. Blend slope into level areas.
- E. Remove surplus fill materials from site.
- F. Refer to Section 32 11 16.16 – *Aggregate Subbase Courses* for proofrolling requirements for pavement subgrade.
- G. Bench fill material on all existing grades steeper than 4H:1V.

3.6 EXCESS WATER CONTROL

- A. Unfavorable Weather:
 1. Do not place, spread, or roll any fill material during unfavorable weather conditions.
 2. Do not resume operations until moisture content and fill density are satisfactory.
- B. Flooding:
 1. Provide dikes or channels to prevent flooding of subgrade; promptly remove all water collecting in depressions.
- C. Softened Subgrade:
 1. Where soil has been softened or eroded by flooding or placement during unfavorable weather, remove all damaged areas and recompact as specified for fill and compaction below.
- D. Dewatering :
 1. Provide and maintain at all times during construction ample means and devices with which to promptly remove and dispose of all water from every source entering the excavations or other parts of the work.
 2. Dewater by means that will ensure dry excavations and the preservation of the final lines and grades of bottoms of excavations.

3. Dewatering shall meet requirements of the Stormwater Pollution Prevention Plan (SWPPP). Drilling and boring waste to be disposed of at the local wastewater treatment plant.

E. Drainage:

1. The Contractor shall use all means necessary to maintain positive drainage on site during and after completion of construction. Provide all temporary grading and drainage measures required to prevent ponding on subgrades and to prevent discharge of site drainage to surrounding properties except in compliance with the project SWPP Plan.

3.7 SCARIFY AND RECOMPACT

- A. Scarify all areas beneath the proposed pavement to a depth of 12". Compact scarified areas to 98% standard proctor density.

3.8 WASTE EXCAVATION

- A. Excess material waste or unsuitable materials will be removed from the site and legally disposed of by the Contractor at no additional cost to the Owner. There shall be no disposal of such materials on the project site.

3.9 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 0.1 foot (30mm).

3.10 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed.
- B. Tests and analysis of fill material will be performed in accordance with ASTM D698.
- C. Compaction testing will be performed in accordance with ASTM D698.
- D. If tests indicate work does not meet specified requirements, remove work, replace, and retest at no cost to Owner. The Contractor shall coordinate with the Testing Agency when non-compliant work is ready for re-testing. The Contractor shall be responsible for all costs related to re-testing.

END OF SECTION

**SECTION 31 23 16.13
TRENCH EXCAVATION AND BACKFILL**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This section encompasses the work required for excavation of trenches, appurtenances, bedding, overexcavation of unsuitable material, and backfilling for the installation of utilities.
- B. Definitions
1. Maximum Density: Maximum dry weight in pounds per cubic foot (kilogram per cubic meter) of a specific material, as determined by ASTM D698, Standard Proctor Density.
 2. Optimum Moisture: Percentage of water at maximum density.
 3. Rubble: Buried concrete foundations, beams, walls, and other material which requires blasting or jackhammering for its practical and effective removal.
 4. Earth Excavation: Earth excavation will include all material not otherwise classified. Decomposed or disintegrated shale which can be effectively plowed, spaded, or removed with power drive excavation equipment, and gravel base will be classified as earth excavation.
 5. Overexcavation of Unsuitable Material: Overexcavation of unsuitable material is the removal of material that is too soft to provide adequate support as determined by the Owner's Quality Control Special Inspection and Testing Company for pipe being placed in the bottom of the trench.
 6. Granular Material Backfill and Bedding: Shall consist of coarse sand, crushed rock or gravel, and shall be free from dust, clay, organics, and other undesirable materials.
 7. Suitable Native Backfill: Excavated material free from roots, broken concrete, broken asphalt, rocks larger than 3" in size, and building debris or AASHTO Designation M145, soil classification group. Soils must reach suitable moisture content (refer to paragraph 3.06C) without impacting project schedule and meet compaction requirements (refer to paragraph 3.05G).

1.2 SUBMITTALS

- A. Submit to testing agency 10-lb. samples of each bedding and backfill material to be used, packed tightly in containers to prevent contamination. If recent test results are available for fill materials to be used, disregard samples submission and submit such test results to the testing agency. Such test results are to clearly indicate types of materials and composition, hardness, compactability, and suitability for proposed usage.
- B. Flowable mortar mix design.
- C. Shoring/sheeting design if required.

1.3 JOB CONDITIONS

- A. Length of Open Trench:
1. The maximum length of open trench shall be 200' (60m) in public right-of-way and 100' (30m) max. elsewhere.
 2. The Contractor shall not leave open trench unattended without fencing.

- B. Protection of Existing Underground Utilities:
1. Iowa One Call shall be notified for utility locates 48 hours prior to any digging. All locates shall be "Joint Locates."
 2. The location of existing utilities are shown on the plans based upon information and data supplied to the Owner or Design Professional by the owner of the utility. The utilities are shown on the plans for information only and are not guaranteed to be either complete or accurate. It is the Contractor's responsibility to contact all utilities and obtain utility staking prior to construction.
 3. Any damage caused to existing utilities shall be reported to the utility and repaired in accordance with the utilities' standards.
 4. The cost of repairs to damaged utilities shall be borne by the Contractor.
 5. If utility service must be interrupted to complete a construction operation, it shall be the Contractor's responsibility to obtain permission from the utility. The Owner shall be given at least 14 calendar days advance notice of the time of interruption and the expected duration of the interruption. If standby service is required by the utility, it shall be provided at the Contractor's expense.
 6. If a non-scheduled interruption of utility service results from accidental damage, the Contractor shall take immediate steps as necessary to notify the utility and restore service. The Contractor's personnel shall not leave the site until the interruption has been restored.
 7. All existing utilities crossing through the excavation trench shall be shored/supported as required to protect the utility. Some non-reinforced concrete encased ductbanks may exist on site that will require special support/shoring. All shoring/support systems are subject to approval by the Owner. The Contractor shall be responsible for repairing all damage to utilities caused by construction activities.
- C. Work Within City Street or Utility Right-of-Way:
1. When the Contractor is performing work within the right-of-way of other jurisdictions such as city street or utilities, such work shall comply with applicable permits or regulations of such jurisdiction.
- D. Scheduling:
1. Cleanup shall be performed promptly following utility installation backfill.
 2. Repair of trench settlement shall be performed promptly.
- E. Erosion/Sedimentation Control:
1. The Contractor shall comply with Plans, Specifications, and all applicable Federal, State, or Local erosion control regulations.
 2. The Contractor shall perform regular maintenance of all erosion/sedimentation control devices until time of final acceptance.
- F. Maintenance:
1. The Contractor is responsible for repair of any trench settlement up to the level of the adjacent grade that occurs during construction, as well as during the warranty period. This shall include restoration of the finish surface as appropriate.
- G. Removal of Existing Abandoned Utilities in Conflict with Work:
1. If abandoned utilities are found in conflict with the work, notify the Owner for direction.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Backfill:
1. Backfill in City and State R.O.W. to be IDOT Grad 11 Class A Roadstone.
 2. Backfill around vaults and tunnels to be IDOT Grad 12A or 29. Refer to plan details for limits of porous backfill. Backfill beneath pavement subbase to 6" above vault/tunnel roof to be IDOT Grad 11 Class A Roadstone. In greenspace, backfill from 6" above vault/tunnel roof to within 8" off surface to be suitable native fill or imported suitable fill compacted to 95% standard proctor density.
 3. Backfill around subdrains shall be gradation 29.
 4. All Class A Roadstone shall be pre-wetted to within $\pm 3\%$ of optimum moisture content before delivery to project site.
- B. Excavatable Flowable Fill (Controlled Low Strength Material):
1. Where compaction activities cannot take place, low strength flowable fill shall be used. Flowable fill shall have a max. compressive strength not to exceed 90 psi.

PART 3 EXECUTION

3.1 GENERAL

- A. Restore obstructions removed to accommodate construction equipment or to facilitate excavation.
- B. Exercise care in operating equipment beneath the drip line or adjacent to trees to prevent damage. If damage occurs, the Contractor shall retain a professional arborist at the Contractor's expenses to repair the damage.
- C. Pile excavated material suitable for backfill in an orderly manner a sufficient distance from the edge of excavation to avoid rollbacks, slides, or cave-ins.
- D. Excavate by open-cut method for utilities and structures except as noted on Plans.
- E. The Contractor shall be responsible for providing barricades and protection around excavation and work areas.

3.2 SHEETING, SHORING, AND BRACING

- A. Construct sheeting, shoring, and bracing required to hold walls of excavation and to provide safety for workers. Install sheeting, shoring, and bracing to protect existing utilities and structures and to provide dry conditions during construction installations.
- B. Sheeting may be wood or steel.
- C. Wood Sheeting Driven below Level of Pipe: Leave in place to a level of 5' (1.5m) below finish grade.
- D. Pull all sheeting.

- E. When moveable trench box is used below spring line of pipe, it shall be lifted prior to any forward movement to avoid pipe displacement.
- F. Sheeting, shoring, and bracing shall not be paid for as a separate pay item, but shall be considered incidental to the project.
- G. Sheeting and shoring shall be in accordance with OSHA and other applicable governmental regulations. The Contractor shall be solely responsible for complying with the regulations.
- H. Provide the Owner's Representative with shop drawings of proposed sheeting or shoring, signed and sealed by a registered professional engineer licensed to practice in the state which the project is in.

3.3 PREPARATION

- A. Clearing:
 - 1. Remove vegetative material and obstructions as necessary for construction.
 - 2. Material removed shall be disposed of properly by the Contractor off the project site.

3.4 PERFORMANCE

- A. General:
 - 1. General: Surplus and rejected unsuitable excavated material becomes property of the Contractor for disposal.
- B. Excavation For Structures:
 - 1. Topsoil shall be removed from the site and stockpiled for later distribution on the finished grade.
 - 2. Rubble or rock shall be removed to 1' (300mm) below the bottom of the foundation and 1' (300mm) horizontally from any vertical surface.
 - 3. Subgrade: The subgrade below each major portion of a utility structure shall be inspected by the Testing Agency prior to placing stone backfill or placing reinforcing bars.
- C. Trench Excavation:
 - 1. Excavated material shall be stored in such a manner as to avoid property damage. If damage does result, it shall be repaired at the Contractor's expense.
 - 2. The base of the trench shall be excavated so as to provide a uniform and continuous bearing and support on solid and undisturbed material.
 - 3. The minimum trench width shall be sufficient to allow space for jointing and bedding. The maximum allowable trench width at a point 12" (300mm) above the top of the pipe (pipe envelope) shall be as follows: 30" (750mm) for pipes 6-10" (150-250mm) in diameter. For pipes 12" (300mm) in diameter or larger, the maximum trench width shall be the outside diameter plus 24" (600mm). For elliptical pipes, it shall be the outside dimension at the spring line plus 24" (600mm).
 - 4. If rubble or rock is encountered, the trench shall be excavated to provide clearance of at least 6" (150mm) below and 12" (300mm) on each side of the utility line and fittings.

5. Overexcavation of Unsuitable Material: When the Contractor encounters material that is not suitable for supporting the pipe line or structure being constructed, the Contractor shall notify the Owner's Representative and Testing Agency to obtain written instructions on how to proceed. Material removed prior to written authorization of the Owner's Representative will not be eligible for payment.
- D. Dewatering:
1. Excavation, installation of bedding, pipes, structures, and backfilling shall be done in dry conditions. If the subgrade is saturated or standing water exists, the work area shall be dewatered prior to installation or backfilling operations.
 2. The Contractor shall make provisions to handle water encountered during construction. The Contractor shall notify the Owner of the proposed method of dewatering.
 3. The Contractor shall prevent surface water from flowing into the excavated area. Stream flow shall be diverted around or pumped past the area of construction. Water accumulating in the area of construction shall be removed.
 4. Do not pump water onto adjacent property without approval of the Owner's Representative and adjacent property owner.
 5. All required dewatering activities shall be considered incidental to the project and no additional compensation will be provided for required project dewatering.
- E. Backfill for Structures:
1. Contractor shall contact the Testing Agency not less than two (2) business days prior to backfilling for testing.
 2. Backfill shall not be placed adjacent to concrete structures until the concrete has achieved at least 75% of its design strength.
 3. Backfill simultaneously on all sides of structures; protect structures from damage at all times.
 4. Place and compact fill materials in continuous layers not exceeding six inches loose depth. Use a method so as not to disturb or damage structure waterproofing.
 5. Compact backfill areas to 98% of maximum Standard Proctor Density (ASTM D4253) for clean granular material and sand backfill.
 6. Contractor shall notify Testing Agency to conduct visual inspections of backfill and compaction of porous backfill such as IDOT Gradation 12A 29 material.

3.5 WASTE EXCAVATION

- A. Excess material, waste or unsuitable materials shall be removed from the site and legally disposed of by the Contractor at no additional cost to the Owner. There shall be no disposal of such materials on the project site.

3.6 FIELD QUALITY CONTROL

- A. The Contractor shall furnish and provide equipment and personnel to provide access for the Owner's Representative to any test location and test depth that is necessary, in the Owner's Representative's opinion, to properly evaluate compactive effort.
- B. If specified compaction rates are not attained, the Owner's Representative may require the Contractor to utilize different compaction methods or lift thickness.

- C. Compaction Testing:
 - 1. The moisture density relation to be used in establishing compaction will be ASTM D698 (Standard Proctor) or ASTM D4253 (Relative Density).
 - 2. Compactive effort may be evaluated by the use of any of the following standard test methods:
 - a. ASTM D-6938 (nuclear).
 - b. Other ASTM test methods may be used with approval by the Design Professional.
 - 3. Compaction Testing Frequency shall be based on the following:
 - a. 1 test per 100 linear feet (30.5m) per 8" (200mm) lift.

END OF SECTION

**SECTION 31 25 00
EROSION AND SEDIMENT CONTROL**

PART 1 GENERAL

1.1 DESCRIPTION

- A. Work Included:
1. This section encompasses the work necessary to install temporary stormwater pollution control measures which shall be required of the Contractor. This work shall consist of furnishing, installing, maintaining, and removing temporary control measures as needed to prevent the discharge of silty or polluted stormwater from the construction site, or as ordered by the Owner's Representative. The control of stormwater pollution through the use of erosion/sediment control devices shall be in accordance with these specifications and the Iowa Department of Natural Resources National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 for Stormwater Discharge Associated with Construction Activities.
- B. Stormwater Detention Basins
1. Conflict with federal, state or local laws, rules or regulations.
 - a. In the event of conflict between these requirements and pollution control laws, rules, or regulations of federal, state, or local agencies, the more restrictive laws, rules or regulations shall apply.
- C. Method of Measurement and Basis of Payment:
1. No measurement of any facility shall be made. All labor and material to construct, maintain, and remove erosion/sediment control facilities shall be included in the lump sum bid price for erosion/sediment control.

1.2 SUBMITTALS

- A. Submit manufacturer's catalog data and installation instructions for all applicable erosion/sediment control products.
- B. Certification and Sampling: The Owner's Representative reserves the right to sample and test any material offered for use. Acceptance shall be based on the certification and the results of any tests the Owner's Representative may perform.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Erosion Control:
1. Disturbed areas of the construction site that will not be redisturbed for fourteen (14) days or more must initiate temporary or permanent erosion control measures immediately, except as precluded by snow cover. In the event of snow cover, erosion control measures must be initiated as soon as practical thereafter. The following erosion controls may be used on the site.

- a. Stabilizing Crop - Temporary Seeding, Fertilizer and Mulching – Type 4
 - 1) Shall be in accordance with the Urban Standard Specifications for Public Improvements Manual (SUDAS), Division 9 – Site Work and Landscaping, Section 9010 – Seeding.
 - 2) Type 4 seed mixture (Urban Temporary Erosion Control Mixture): Short lived (6 to 8 months) mix for erosion control.

Common Name	Application Rate lb/acre
<i>SPRING</i> – March 1 – May 20	
Oats	65
Annual ryegrass	40
<i>SUMMER</i> – May 21 – August 14	
Oats	95
Annual ryegrass	50
<i>FALL</i> – August 15 – September 30	
Grain rye	65
Annual ryegrass	40

- 3) Apply a 6-24-24 commercial fertilizer at a rate of 300 lbs/ac.
- 4) Temporary mulching for conventional seeding
 - a) Shall be dry cereal straw free from noxious weeds.
 - b) Application rate: 1-1/2 tons per acre; 70 pounds per 1,000 sq ft. Application by machine or hand, anchored to the soil with a mulching tiller.

- b. Permanent Seeding:
 - 1) Shall be in accordance with Section 32 92 19 - *Seeding and Soil Supplements*.

- c. Sodding:
 - 1) Shall be in accordance with Section 32 92 23 - *Sodding*.

- d. Hydraulic Erosion Control:
 - 1) Shall be Flexterra High Performance Flexible Growth Medium (HP-FGM) by Profile Products, LLC or approved equal.

- 2. All temporary erosion controls shall be removed and disposed of as needed to accommodate final site restoration.

B. Sediment Control

- 1. Practices used on the construction site to divert flows away from disturbed areas, to store flows, or to limit the discharge of pollutants from the site to the degree attainable.
 - a. Compost Filter Tube:
 - 1) Shall be in accordance with the Urban Standard Specifications for Public Improvements Manual (SUDAS), Division 9 – Site Work and Landscaping, Section 9040 and meet all the requirements of this Section.
 - 2) Flow rates: AASHTO M 288-96.

- 3) Strength: Material strength shall be sufficient to prevent tearing, ripping, or other significant damage throughout the intended period of use.
- 4) Biodegradability: The tube shall be made of natural materials that are biodegradable. Products shall begin to break down in approximately six months.
- 5) Filter Material:
 - a) Use material derived from wood, bark, or other non-toxic vegetative feedstocks.
 - b) Use material with no visible admixture of refuse or other physical contaminants, nor any material toxic to plant growth.
 - c) Use material meeting the following particle sizes:

Sieve Size	Percent Passing
2"	100
1"	90-100
3/8"	0-30

- b. Stabilized Construction Entrance / Contractor Staging and Laydown Area:
 - 1) Maintain existing pavement or provide 6" thick layer of 3" clean macadam stone.
 - 2) Install TenCate Marafi RS380i geotextile filter fabric below stone or approved equal.
 - c. Intake Protection – Grated Curb Intake:
 - 1) Shall be Dandy Curb Bag by Dandy Products, Grate Gator Type B by ACF Environmental, Inc. or approved equal.
2. All temporary sediment controls shall be removed and disposed of as needed to accommodate final site restoration. Once final stabilization is complete, all sediment controls shall be removed by the Contractor.

PART 3 EXECUTION

3.1 GENERAL EROSION AND SEDIMENT CONTROL REQUIREMENTS

- A. General:
 - 1. Qualified personnel (provided by the Contractor) shall inspect disturbed areas of the construction site that have not reached "final stabilization" at least once every seven (7) calendar days.
 - 2. Contractor shall limit the surface area of erodible earth. The Contractor shall provide immediate permanent or temporary erosion/sediment control measures to prevent contamination of adjacent streams of other watercourses, lakes, ponds, or other areas of water impoundment.
 - 3. Contractor shall incorporate all permanent erosion/sediment control features into the project at the earliest practicable time.
 - 4. Minimum erosion/sediment control devices are shown on the Drawings. It is the Contractor's responsibility to control erosion and sediment on the site. Additional controls shall be installed as required to satisfy this requirement.

- B. Limitation of Area Disturbed:
 - 1. The surface area of erodible earth material exposed at one time by clearing and grubbing, by excavating, by fill, or by borrow shall be minimized at all times without written approval of the Owner's Representative.
 - 2. The maximum quantity of exposed area may be increased or decreased based on weather conditions, construction procedures or site conditions by Owner's Representative.
- C. Rivers, Streams, and Impoundments:
 - 1. Construction operations in rivers, streams, and impoundments shall be restricted to those areas which must be entered for the construction of temporary or permanent structures.
 - 2. Frequent fording of live streams with construction equipment shall be minimized.
- D. Borrow and Waste Areas:
 - 1. All on-site borrow and waste areas, shall meet the requirements of the erosion and sediment controls as identified in the Drawings. Contractor shall provide all erosion/sediment controls as necessary to contain material on site.

3.2 STABILIZING CROP – TEMPORARY SEEDING, FERTILIZER AND MULCHING – TYPE 4

- A. Shall be in accordance with the Urban Standard Specifications for Public Improvements Manual (SUDAS), Division 9 – Site Work and Landscaping, Section 9010 - Seeding.
 - 1. Fertilizer: Apply fertilizer immediately prior to seedbed preparation. Incorporate fertilizer into the top 2 to 3 inches of topsoil.
 - 2. Seedbed Preparation: Till the soil to a minimum depth of 5 inches with a disk, harrow or field cultivator.
 - 3. Seed Application: Sow seed with an endgate cyclone seeder or a hand-operated cyclone seeder. Cover the seed and lightly till with a disk, rigid harrow, spring tooth harrow or field cultivator.
 - 4. Mulching: Mulch all seeded areas the same day the seed is sown. Work the mulch into the soil with mulch anchoring equipment.

3.3 PERMANENT SEEDING

- A. Installation procedures shall be in accordance with Section 32 92 19 - *Seeding and Soil Supplements*.

3.4 SODDING

- A. Installation procedures shall be in accordance with Section 32 92 23 - *Sodding*.

3.5 HYDRAULIC EROSION CONTROL

- A. Installation shall be in accordance with the manufacturer's specifications and details.
- B. Apply at a minimum rate of 3500 lbs/acre dry weight.

3.6 COMPOST FILTER TUBE

- A. Conditions Where Applicable:
 - 1. Slopes less than 10% grade.

- B. Construction Requirements:
1. Pneumatically fill mesh filter tube of size and length as indicated on the Drawings.
 2. Excess tube material shall be tied off and staked at both ends.
 3. Maximum compost filter tube spacing:

Slope	Tube Diameter (Ft)	
	8"	12" or Greater
0-2%	75'	125'
2-5%	50'	75'
5-10%	30'	50'

4. Do not use in areas of concentrated flow. Compost filter tubes are only intended to control and filter sheet flow.
5. Compost filter tubes should be placed using "smiles" and j-hooks.
6. In order to prevent water flowing around the ends of compost filter tubes, point the ends upslope to place at a higher elevation.

- C. Maintenance:
1. Any deficiencies shall be immediately corrected.
 2. Sediment shall be removed when the control has lost 33% of its capacity.
 3. Upon final stabilization, remove and dispose of any excess silt accumulations, grade and dress the area to the satisfaction of the Owner's Representative and establish vegetation on all bare areas in accordance with the contract requirements.

3.7 STABILIZED CONSTRUCTION ENTRANCE / STAGING AND LAYDOWN AREA

- A. Maintenance:
1. Condition of the aggregate shall be monitored daily to prevent tracking or flow of mud onto the surrounding roads, drives, and parking lots.
 2. Accumulation of mud must be removed, and more aggregate added as needed.

3.8 INTAKE PROTECTION – GRATED CURB INTAKE

- A. Conditions where applicable: for use with flat curb intake frame and grates.
- B. Construction Requirements:
1. Installation shall be in accordance with the manufacturer's specifications and details.
 2. Install as shown on the Drawings and at other locations as directed by the Owner's Representative.
- C. Maintenance:
1. Remove all accumulated sediment and debris as required.
 2. Inspect for cuts, abrasions, and proper installation. Replace or reposition as necessary.
 3. Discontinue use if it creates a traffic hazard.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 32 11 16.16
AGGREGATE SUBBASE COURSES**

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Granular subbase to be placed under paved areas.

1.2 SUBMITTALS

A. Submit rock gradation.

B. Submit to testing agency minimum ten-pound (4.5kg) samples of each type of fill material to be used. Provide samples to appointed testing laboratory, packed tightly in containers to prevent contamination.

C. If recent test results are available for fill materials to be used, disregard samples submission and submit such test results to the testing laboratory. Such test results are to clearly indicate types of materials and composition, hardness, compactibility, and suitability for proposed usage.

PART 2 PRODUCTS

2.1 GRANULAR SUBBASE

A. Abrasion: Less than 45, AASHTO T96.

B. Mud Balls: 4% maximum.

C. Gradation:

IDOT Gradation No. 14; 10% fines for normal pavement.

Sieve Size	Percent Passing
1.5 in.	100%
0.75 in.	70-90%
No. 8	10-40%
No. 200	3-10%

PART 3 EXECUTION

3.1 PREPARATION

A. Proofroll prepared subgrade prior to placing granular subbase. Pass/drive a loaded, 20-ton tandem dump truck over the prepared subgrade soil with a maximum allowable displacement of 1". Any areas that displace more than 1" shall be compacted until this criterion is met or those areas may be overexcavated and backfilled with Type 1 aggregate to 98% Standard Proctor Density at the Testing Agency's direction. All proofrolling shall be performed in the presence of the Owner's Representative. Do not begin granular subbase work until unsuitable subgrade conditions have been corrected.

- B. For areas too small for a tandem dump truck to access, nuclear density testing of soil subgrade will be required.

3.2 GRANULAR SUBBASE

- A. Check subgrade for conformity with elevations and sections immediately before placing aggregate subbase material. Subgrade shall have been prepared in accordance with Section 31 22 13 - Earthwork and Rough Grading.
- B. Refer to Plan Details for subbase cross-section.
- C. Granular subbase material shall be uniformly moist prior to, and during compaction. Material shall be pre-wetted to within $\pm 3\%$ of optimum moisture content prior to being delivered to the project site.
- D. Place subbase material in compacted layers not more than 6 in. (150mm) thick to within ± 1 in. (25mm) tolerance of top of finished subbase elevation.
- E. Spread, shape, and compact all aggregate base material deposited on the subgrade during the same day.
- F. Compact material to not less than 98% of maximum standard proctor density: ASTM D698.

3.3 IN-PLACE FIELD DENSITY TESTS

- A. All testing will be provided by Owner.
- B. Minimum field density testing requirement is one test per 2,000 square feet (185.5m²) per lift.

END OF SECTION

**SECTION 32 13 13
CONCRETE PAVING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Section shall be used for all paving work unless local entities with jurisdictional authority have alternative requirements.
- B. Pavement.
- C. Curb and Gutter.

1.2 SUBMITTALS

- A. Paving mix design for each different source of aggregate to be used. Mix designs shall be approved by the Iowa Department of Transportation or an independent testing laboratory.
- B. Maturity Curves for paving mixes and maturity reading results.
- C. Manufacturer's certification according to Table 7010.02.
- D. Closeout Submittals:
 - 1. Ready-mix delivery tickets, ASTM C94.

1.3 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Aggregate Storage: Comply with Iowa DOT Article 2301.02, C.
- B. Cement and Fly Ash: Comply with Iowa DOT Article 2301.02, C.
- C. Admixtures: Store in suitable weather tight enclosures which will preserve quality.
- D. Reinforcing Steel: Store off ground on timbers or other supports.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cement: Meet the requirements of Iowa DOT Section 4101 and Materials I.M. 401, including Type I and Type II cements and blended hydraulic cements Type 1P, Type 1S, and Type 1L.
- B. Supplementary Cementitious Materials (SCM):
 - 1. Fly Ash: Comply with Iowa DOT Section 4108.
 - 2. Ground Granulated Blast Furnace Slag (GGBFS): Comply with Iowa DOT Section 4108.
 - 3. Limestone: Comply with Iowa DOT Materials I.M. 401.
- C. Fine Aggregate for Concrete:
 - 1. Meet the requirements of Iowa DOT Section 4110 and Materials I.M. 409, Source Approvals for Aggregates.

2. Comply with the following gradation:

Sieve Size	Percent Passing
3/8"	100
No. 4	90 to 100
No. 8	70 to 100
No. 30	10 to 60
No. 200	0 to 1.5
Iowa DOT Article 4109.02, Gradation No. 1 in the Aggregate Gradation Table.	

D. Coarse Aggregate for Concrete:

1. Crushed stone particles with Class 2 durability complying with Iowa DOT Section 4115 and Materials I.M. 409, Source Approvals for Aggregates.
2. Comply with one of the following gradations:

Sieve Size	Gradation No. 3 Percent Passing	Gradation No. 4 Percent Passing	Gradation No. 5 Percent Passing
1 1/2"	100	100	-----
1"	95 to 100	50 to 100	100
3/4"	-----	30 to 100	90 to 100
1/2"	25 to 60	20 to 75	-----
3/8"	-----	5 to 55	20 to 55
No. 4	0 to 10	0 to 10	0 to 10
No. 8	0 to 5	0 to 5	0 to 5
No. 200	0 to 1.5	0 to 1.5	0 to 1.5
Iowa DOT Article 4109.02, Gradation No. 3, 4, and 5 in the Aggregate Gradation Table.			

3. The Design Professional may authorize a change in gradation, subject to materials available locally at the time of construction.

- E. Water Requirements: Comply with Iowa DOT Section 4102. Potable water obtained from a municipal supply, suitable for drinking, may be accepted without testing.
- F. Admixtures: Meet the requirements for the liquid admixtures shown below. Other admixtures may be used subject to the approval of the Design Professional.
1. Air Entrainment Admixture: Comply with Iowa DOT Section 4103.
 2. Retarding and Water Reducing Admixtures: Comply with Iowa DOT Section 4103.
 3. Accelerating admixtures (calcium chloride): Comply with Iowa DOT Article 2529.02.
- G. Bars: Comply with Iowa DOT Section 4151 for tie bars and dowel bars. Meet the tie bar requirements for bar mats. All bars and tie wires must be epoxy coated.
- H. Expansion Tubes: Comply with Iowa DOT Section 4191.
- I. Metal Keyways: Comply with Iowa DOT Section 4191.

- J. Supports for Bars: Comply with Iowa DOT Materials I.M. 451.01.
- K. Joint Fillers and Sealers:
 - 1. Joint Sealers: Comply with Iowa DOT Article 4136.02.
 - 2. Preformed Expansion Joint Fillers and Sealers: Use the following types of preformed materials for filling expansion joints that comply with Iowa DOT Article 4136.03. When the type is not specified, use a resilient filler.
 - a. Resilient filler.
 - b. Flexible foam expansion joint filler.
 - c. Tire buffings expansion joint filler.
 - d. Elastomeric joint seals.
- L. Liquid Curing Compound: Comply with Iowa DOT Section 4105.
- M. Covering:
 - 1. Burlap: Comply with Iowa DOT Section 4104.
 - 2. Plastic Film: Comply with Iowa DOT Section 4106.
 - 3. Insulating Cover: Comply with Iowa DOT Section 4106.

2.2 CONCRETE MIXES

- A. Mix Design:
 - 1. Comply with Iowa DOT Class C meeting the requirements of Materials I.M. 529. If higher durability mixes are specified, use C-SUD or CV-SUD mixes. Concrete pavement within City of Iowa City R.O.W. to be C-SUD mix.
 - 2. Ensure compatibility of all material combinations. If the concrete materials are not producing a workable concrete mixture, a change in the material may be required. Changes will be at no additional cost to the Owner.
 - 3. Seven-day compressive strength of moist-cured laboratory samples: 2,400 psi min. (16,462 kPa). See table for minimum compressive strength to reach prior to opening to traffic.
 - 4. Twenty-eight day compressive strength of moist-cured laboratory samples: 4,000 psi min.(27,436 kPa).
- B. Consistency and Workability:
 - 1. Slump:
 - a. Use an amount of mixing water that will produce workable concrete of uniform consistency. Unless specifically modified by the Design Professional, ensure slump, measured according to Iowa DOT Materials I.M. 317, is no less than 1/2 inch or no more than 2 1/2 inches for machine finish and no less than 1/2 inch and no more than 4 inches for hand finish.
 - b. If it is not possible to produce concrete having the required consistency without exceeding the maximum allowable water to cement ratio specified, the cement content may be increased or water reducing admixture may be added. Obtain the Design Professional's approval. Do not exceed the maximum water to cement ratio. Additional cement or water reducer will be added with no additional cost to the Owner.

- c. The basic absolute volume of water per unit volume of concrete is based on average conditions. If material characteristics require that the total quantity of water used to secure the required consistency reduces the batch yield (computed on the basis of absolute volumes of the batch quantities used) by more than 2.0%, the Design Professional may adjust the proportions to correct the yield. This adjustment will not be a basis for adjustment of the contract unit price.
 2. Air Content: Use an approved air entraining agent.
 - a. For machine-placed pavement, use a target air content of 8% with a tolerance of plus or minus 2% when measured on the grade just prior to consolidation, as determined by Iowa DOT Materials I.M. 318. The target air content may be adjusted by the Design Professional based on random tests of the consolidated concrete behind the paving machine. These additional tests will be used to consider the need for a target value change and will not be used in the acceptance decision.
 - b. For hand-placed pavement, use a target content for hand finish of 7% with a tolerance of plus or minus 1.5% when measured on the grade and just prior to consolidation, as determined by Iowa DOT Materials I.M. 318.
- C. Use of Fly Ash and Ground Granulated Blast Furnace Slag (GGBFS) as Supplementary Cementitious Materials:
 1. Mix proportions for the various mixes using fly ash and GGBFS are included in Iowa DOT Materials I.M. 529. The maximum allowable fly ash substitution rate is 20%. Do not use a GGBFS substitution rate of more than 35% by weight (mass). The total supplementary cementitious material substitution rate is not to exceed 40%.
 2. If C-SUD or CV-SUD mixes are specified, the maximum allowable Class F fly ash substitution rate is 25% and the maximum Class C fly ash substitution rate is 35%. The maximum combination rate is 20% Class C fly ash and 20% GGBFS.
 3. When Type IP or IS cement is used in the concrete mixture, only fly ash substitution will be allowed. Between October 16 and March 15, supplementary cementitious materials will be allowed only when maturity method is used to determine time of opening. Transport, store, haul, and batch fly ash and GGBFS in such a manner to keep it dry.

PART 3 EXECUTION

3.1 EQUIPMENT

- A. Batching and Mixing Equipment:
 1. General:
 - a. Weighing and Proportioning Equipment: Comply with Iowa DOT Article 2001.20.
 - b. Mixing Equipment: Comply with Iowa DOT Article 2001.21.
 - c. Material Bins: Involves any structure in which materials are stored. Each part of any bin, including foundations and supports, must be adequate to withstand any stress to which it might be subjected to while in use.

2. Batching:
 - a. Ensure the batching plant is Iowa DOT calibrated and approved. Provide copy of current calibrations and approvals.
 - b. Coordinate the batch plant operation and batch trucks with the paving operation in order to ensure a steady supply of materials.
 - c. Operate the batch plant and trucks to minimize dust, noise, or truck nuisances.

3. Mixing:
 - a. Construction or Stationary Mixer:
 - 1) Ensure the concrete is uniform in composition and consistency. If this condition is not produced because of the size of the batch, the size of the batch may be reduced or the mixing time increased, or both, until this result is obtained. If non-uniform, corrective action must be taken.
 - 2) Ensure the methods of delivering and handling the concrete are such that objectionable segregation or damage to the concrete will not occur, and they will facilitate placing with a minimum of handling.

 - b. Ready Mixed Concrete:
 - 1) Ensure the concrete is uniform in composition and consistency. If non-uniform, concrete producers must take corrective action.
 - 2) Ready mixed concrete is defined as concrete proportioned in a central plant and mixed in a stationary mixer for transportation in trucks without agitation, proportioned at a central plant, and only partially mixed in a stationary mixer for transportation and finish mixing in a transit mixer, or proportioned at a central plant, and then mixed in a transit mixer prior to or during transit.
 - 3) When necessary to add additional mixing water at the site of placement, mix the batch at least an additional 30 revolutions of the drum at mixing speed.
 - 4) Ensure each vehicle in which concrete will be delivered is capable of discharging concrete having a slump not over 2 inches at an overall rate for its entire load of not less than 1.25 cubic yards per minute. Ensure the concrete is delivered at a rate sufficient to maintain a sustained rate of progress of not less than 100 feet per hour for the width and depth of pavement to be placed.

 - c. All Methods: Identify each truck load by a plant charge ticket showing plant name, contractor, project data, quantity, class, time batched, and water added at site.

- B. Concrete Placement Equipment:
 1. General:
 - a. In handling concrete from the mixer to the place of deposit, take care to avoid segregation.

- b. When concrete is deposited through a chute, slope the chute to allow concrete to flow slowly without segregation. Place the delivery point of the chute as close as possible to the point of deposit. Keep chutes and spouts clean. Thoroughly flush them with water before and after each run. Discharge the water outside the paving area in an approved concrete washout area.
 - c. Provide alternate plan for concrete delivery in event of equipment failure.
 - d. Take concrete samples from material placed on the subgrade or subbase.
 2. Concrete Transfer Equipment:
 - a. Utilize placers, conveyors, buckets, or buggies designed specifically for transporting concrete.
 - b. Do not allow concrete to free fall into or out of transfer equipment.
 - c. Meet the requirements of Section 7010, 2.02, B, 2 for air entrainment of the concrete mix and testing for compliance.
 3. Concrete Pumps:
 - a. Do not pump concrete through aluminum conduit or tubing.
 - b. Use the concrete pump to deliver the material as close to horizontal as possible, keep restrictions and drops to a minimum, and avoid free fall.
 - c. Meet the requirements of Section 7010, 2.02, B, 2 for air entrainment of the concrete mix and testing for compliance.
 - d. Sample the first load after pumping a minimum of 3 cubic yards. Sample after each significant change in boom angle.
 - e. Sample before and after the pump to determine if any changes in the slump and other significant mixture characteristics occur.
 - f. When sampling at the end of the placement line, take care to ensure that the sample is representative of the concrete being placed from the pipeline. Note: Changes to the placement rate or boom configuration can result in changes in the concrete properties. Typically, the vertical position of the boom results in the greatest potential for air loss while the horizontal position of the boom has the least potential. Location of pumping equipment should be determined so that it is possible to maintain a consistent, low boom angle as much as possible during placement.
 - g. If air test shows that air entrainment is outside of the allowed range, follow procedure as outlined in Section 3.7.E.
 - h. Leaks in the line or pump hydraulics, which would allow air to be added to the concrete, are prohibited.
- C. Consolidating and Finishing Equipment:
 1. Consolidating and Finishing Equipment: Use a paving machine that meets all of the following:
 - a. Is designed for the specific purpose of placing, consolidating, and finishing concrete pavement.
 - b. Develops vertical edges on the pavement.
 - c. Is self-propelled and equipped with a means for spreading the concrete to a uniform depth before it enters the throat.

- d. Vibrates the concrete to the full width and depth being placed in a single passage. Use vibrating tubes or arms working in the concrete or a vibrating pan operating on the surface of the concrete.
 - e. Produces a surface reasonably free of voids and tears.
 - f. When the paver is operated on previously placed concrete, prevent damage to the pavement surface.
 - g. For slip form pavers, use a paver equipped with automatic horizontal and vertical grade controls.
 - h. Hand methods utilizing air screeds and vibrating screeds may be used for short pavement runs, cul-de-sacs, driveways, and some intersections.
 - i. Use a laser guided screed that meets all of the following:
 - 1) Designed for the specific purpose of placing and finishing of concrete pavement using a 3-dimensional surface model.
 - 2) All equipment for laser guided screed, including the guidance system, will meet the project design model tolerances.
 - 3) Will provide consolidation to full width and full depth of concrete placement. Provide intermediate consolidation by using external handheld vibrators.
 - 4) Produces a surface reasonably free of voids and tears.
 - 5) Provide boom-style screed (drive-in screeds are not allowed) with an auger boom, placement head (water spray mechanism not allowed), guidance equipment, and software to produce 3-dimensional surface.
 - 6) Produces pavement smoothness as specified in part 3.7.F.
2. Vibrators for Machine Paving:
- a. Consolidate, with a single pass of an approved internal or surface vibrator, the full width and depth of concrete requiring a finishing machine. Operate internal vibrators within a frequency range of 4,000 to 8,000 vibrations per minute. The Design Professional may authorize the minimum vibration frequency to be lowered to 3,500 vibrations per minute for particular sections of paving, such as superelevations. Operate surface vibrators within a frequency range of 3,500 to 6,000 vibrations per minute.
 - b. Avoid operating vibrators in a manner to cause a separation of the mix ingredients, either a downward displacement of large aggregate particles or an accumulation of laitance on the surface of the concrete. When forward motion of the paver is reduced, vibrator frequency may need to be reduced to avoid separation of the mix.
 - c. If a vibrator fails to operate within the specifications, repair or change the vibrator before the paving begins:
 - 1) The following day, or;
 - 2) The same day if the continuous paving that day is stopped at a header or at the end of a session.
 - d. If two adjacent vibrators fail to operate within the specifications, stop the paving operation and repair or replace the vibrators.
 - e. Stop vibrators whenever forward motion of the paver is stopped.
 - f. Set the internal vibrator penetration depth into the concrete pavement to mid slab or as deep as possible while passing above reinforcing steel. Provide an operating position locking device so that no part of the vibrating unit can be lowered to the extent that it will come in contact with reinforcing steel or tie bars while paving.

- g. Do not exceed the manufacturer's recommendations for vibrator horizontal spacing. Do not exceed 16 inches from center to center.
 - h. Mount the longitudinal axis of the vibrator body approximately parallel to the direction of paving. Tilt the trailing end of each vibrator downward to an approximate slope of 15 degrees below horizontal.
 - i. Use vibrators that meet or exceed the following specifications at the manufacturer's design frequency of 10,000 vpm:
 - 1) Amplitude (peak to peak) 0.070 inches.
 - 2) Centrifugal force 1,200 pounds.
3. Vibrators for Hand Methods: Use a vibration rate between 3,500 to 6,000 vibrations per minute, and use an amplitude sufficient to be perceptible on the surface of the concrete more than 12 inches from the vibrating unit.
4. Hand Finishing Equipment: Provide all finishing tools necessary for proper finishing of the concrete including straightedges for checking and correcting finished concrete surfaces.
5. Forms:
- a. Rigid Forms: Steel, minimum thickness of 5 gage, height at least equal to design thickness of pavement with base width at least 6 inches.
 - 1) Minimum section length of 10 feet, joint connections designed to allow horizontal and vertical adjustment with locking device to hold abutting sections firmly in alignment.
 - 2) Bracing, support, and staking must prevent deflection or movement of forms.
 - b. Flexible Forms: Use steel or wood flexible forms for curves with a radius less than 100 feet.
 - 1) Bracing, support, and staking must prevent deflection or movement of forms.
 - 2) Ensure that forms used to shape back of curbs at returns have height at least equal to design thickness of pavement and curb height.
 - 3) Forms must be free from scale and surface irregularities.
6. Curing Equipment: Use pressure sprayer capable of applying a continuous uniform film of curing compound. Use equipment with a shield if wind conditions do not allow proper coverage.
7. Concrete Saws: Use power operated concrete saws capable of cutting hardened concrete neatly.
8. Joint Sealing Equipment: Use equipment capable of cleaning the joint and heating and installing sealant in joints according to manufacturer's recommendations.

3.2 PAVEMENT CONSTRUCTION

- A. Removal of Pavement:
- 1. Sawcut pavement to full depth at the edges of removal. A second saw cut, 2 inches inside the initial saw cut, may be required to prevent damage to adjacent pavement.
 - 2. Do not damage pavement that is to remain. Do not use heavy equipment adjacent to new concrete until the opening strength is achieved.

- B. Final Subgrade/Subbase Preparation:
1. General:
 - a. Meet the requirements of Section 32 11 16.16 for subgrade construction, subgrade treatment, and subbase construction.
 - b. Trim the subgrade or subbase to the final grade for placement of concrete.
 - c. Unless otherwise ordered by the Design Professional, the subgrade or subbase, at time of placing concrete for concrete pavement, must be in a uniformly moist but not muddy condition to a depth of not less than 1 inch.
 2. Subgrade and Subbase Loading:
 - a. Concrete trucks may drive over the subbase as long as this does not rut, pump or tear the finished rock surface. The Contractor shall provide other means of concrete placement if this causes any damage to the subbase.
 - b. Enter and exit from side streets to minimize repetitive loading on the subgrade or subbase by concrete trucks.
 - c. Do not allow loads in excess of the legal axle load on the completed subgrade or subbase.
 - d. Partially loaded trucks may be required.
 - e. If subgrade or subbase failure occurs, coordinate the repair with the Owner.
 3. Paving Suspended:
 - a. Suspend the paving operation where subgrade or subbase stability has been lost.
 - b. Do not place concrete on a subgrade or subbase that has become unstable, bears ruts or tire marks of equipment, or that is excessively softened by rain until such subgrade or subbase has been reconsolidated and reshaped to correct the objectionable condition.
 - c. If necessary, scarify to a minimum depth of 6 inches, aerating, and recompacting at no additional cost to the Owner. Meet the compaction requirements of Section 32 11 16.16 and the details in the construction documents.
 4. Maintenance of Subgrade or Subbase: Maintain the completed subgrade or subbase during subsequent construction activities.
- C. Surface Fixture Adjustment:
1. Adjust manhole frames and other fixtures within area to be paved to conform to finished surface.
 2. Clean outside of fixture to depth of pavement before concrete placement.
 3. Construct boxouts where allowed for later adjustment of fixtures.
- D. Setting of Forms: When forms are used, meet the following requirements.
1. Ensure forms have sufficient strength to support paving operations being used.
 2. Set base of forms at or below subgrade elevation with top of forms at pavement surface elevation. With Design Professional approval, extra height forms may be used to shape the back of integral curb and edge of pavement; set base at or below subgrade elevation with top of form at top of curb elevation.

3. Place and secure forms to required grade and alignment. Do not vary the top face of the form from a true plane by more than 1/8 inch in 10 feet, and do not vary the vertical face from a true plane by more than 1/4 inch in 10 feet.
 4. If the soil supporting the forms is softened by rain or standing water so that the forms are inadequately supported, or if voids occur under the forms, remove forms. Rework subgrade to proper elevation and density, and reinstall forms.
 5. Ensure forms are free of latent concrete and coated with release agent before concrete is placed.
- E. Bar and Reinforcement Placement: Ensure bars are clean, straight, free from distortion and rust, and are firmly secured in position as specified in the contract documents. Place all bars in approved storage to prevent damage; do not distribute along the work site except as needed to avoid delay in paving.
1. Tie Bars:
 - a. Place bars prior to vibration. For slip form paving, tie bars may be installed after vibration, provided the concrete is consolidated around the bars. Bars may be supported by approved chairs or may be placed in position by a machine or method approved by the Design Professional.
 - b. Use approved continuous bolsters with runners to support reinforcement for bridge approach sections. Place the supports transversely across the approach and space them longitudinally no greater than 4 feet. For double reinforced approach sections the top layer of reinforcing may be chaired off the bottom layer of reinforcing using approved continuous high chairs with runners, provided they are positioned directly above the continuous bolsters with runners supporting the bottom layer of reinforcing. Hold epoxy coated reinforcing steel in place with epoxy or plastic coated bar supports and epoxy or plastic coated tie wires.
 2. Dowel Bar Assemblies:
 - a. When dowel bar assemblies are required in the contract documents, accurately place these assemblies as shown. To prevent their movement during subsequent concrete paving operations, securely stake or fasten to the base to line and grade.
 - b. Do not use assemblies that are damaged prior to placement. If assemblies are damaged after placement, replace prior to paving. Ensure horizontal and vertical alignment of the load transfer bars does not exceed 1/4 inch from parallel to line and grade. Place each assembly so the bars are in a horizontal plane at $T/2 \pm 1/2$ inch.
 - c. Check the placement of each assembly and the position of the bars within the assembly using a suitable template or other device approved by the Design Professional. If the assembly is found to be placed outside of the above tolerances, correct the placement.
 - d. Cutting the tie wires of the load transfer assemblies is optional.
 3. Bar Mats for Reinforced Pavement:
 - a. When reinforced pavement is specified, assemble bar mats accordingly and firmly fastened together at all bar intersections.
 - b. Place, secure, latch, and tie bar mats for a continuous mat as specified in the contract documents. Displacement during concrete placement operations is not allowed.

- c. Use chairs to ensure proper placement of bar mats.
4. Tie Bars and Dowel Bars in Existing Pavement:
- a. When anchoring in existing concrete, use a grout system according to the manufacturer's instructions. Obtain the Design Professional's approval for the grout system.
 - b. For horizontal installations, use either a pressure injection system with mechanical proportioning and mixing, or use encapsulated chemical anchors. Install as follows:
 - 1) Ensure drilled holes to receive the grout match the dimensions and spacing specified in the contract documents. When not specified in the contract documents, the maximum nominal diameter of the hole must be 1/8 inch larger than the outside diameter of the dowel or bar, or as recommended by the manufacturer. Drill holes for tie bars and dowel bars into the face of the existing pavement at midpoint. To ensure proper horizontal alignment, do not allow any hole misalignments to exceed 1/4 inch in the vertical or horizontal plane. Clean the hole with compressed air immediately prior to placing the grout.
 - 2) Use a polymer grout to secure the dowels in the existing pavement. Inject the grout into the rear of the hole with pressure. Use sufficient grout so that when the bar to be grouted is placed in position, excess grout will be forced out the front of the hole. Rotate the bar during the insertion process to ensure complete coating with the grouting material. Hand proportioning and mixing is not allowed.
 - 3) If using grout with approved encapsulated anchors, install according to the manufacturer's recommendations.
 - 4) Use horizontal installation procedures for vertical or angled installations; however, pourable grouts may be used. Pourable grouts must be mechanically mixed.
- F. Concrete Pavement Placement:
- 1. All pavement shall be placed such that the surface has positive drainage. It is the Contractor's responsibility to check grades after forms are set to verify positive drainage prior to pouring concrete. Contractor shall notify Owner's Representative if any potential drainage issues exist. Owner's Representative will direct the Contractor how to modify grades and proceed. Any areas of concrete that do not drain shall be removed and replaced in full panels until positive drainage can be obtained. Any costs associated with replacing panels to obtain positive drainage shall be paid for by the Contractor.
 - 2. Use paving machine for all uniform width pavements 8 1/2 feet or more in width and 250 feet or more in length, unless alternate methods are approved by the Design Professional. Screeds may be used on short pavement runs up to 250 feet.
 - 3. Place, consolidate, and finish the concrete to the full depth and width conforming to the specified crown and cross-section in a single operation.
 - 4. Keep a uniform pile of concrete in front of the paving machine, up to a maximum of 6 to 8 inches above the design surface elevation. Distribute and spread the concrete as soon as placed. A mechanical concrete spreader may be used.
 - 5. Deposit the concrete upon the in-place bars keeping segregation to a minimum.

6. Use shovels, not rakes, to do necessary hand spreading and spading.
 7. Do not allow the edges of pavement, including all longitudinal construction joints, to deviate from the line shown on the plans by more than 1/2 inch at any point.
 8. If the paving machine operates on adjacent pavement, protect pavement from damage.
 9. When placing by hand methods, consolidate the concrete by using vibrating units. Use a definite system or pattern in the operation of the vibrator so the full width of concrete in each linear foot of lane will receive adequate and uniform consolidation. The system and methods of vibrating is subject to approval of the Design Professional. Do not use vibrating equipment as a tool for moving concrete laterally.
- G. Integral Curbs: All curbs shall be integral. Integral curbs are placed with the pavement in a single paving machine operation; however, hand methods may be allowed for radius, returns, and sections of curb and gutter 100 feet or less in length or in other special sections where mechanical equipment cannot be used.
1. Pave, edge, protect, saw, and cure curb in same manner as pavement.
 2. Finish curb as rapidly as finishing operations on pavement permit. Maximum distance behind paving machine is 100 feet.
 3. Complete final finish on curbs by hand methods, including the use of a 6 foot straightedge.
 4. Check surfaces of curb and gutter with 10 foot straightedge; correct variations greater than 1/8 inch.
 5. For drop curb at driveways and where sidewalks intersect streets, use forms to shape the backs of such curbs.
 6. When using hand methods for building curb, the following additional requirements will apply:
 - a. Remove free water, latency, dust, leaves, or other foreign matter from the slab prior to placing concrete for curb.
 - b. Use freshly mixed concrete; do not store concrete in receptacles at side of pavement for use in curb at a later time; do not use concrete requiring rettempering.
 - c. Consolidate curb concrete to obtain adequate bond with the pavement slab and to eliminate honeycomb in the curb. Avoid disturbing the alignment of forms or the gutter flow line.
- H. Finishing:
1. Grade and Crown: Promptly after concrete has been placed and vibrated, strike off the surface to the true section by the screed. Finish the surface true to crown and grade.
 2. Watering the Surface: The practice of lubricating the pavement surface by sprinkling water by spray, brush, or other methods to afford greater ease in finishing operation is not allowed.
 3. Floats: Finish surface with wood or magnesium floats; finish from both sides simultaneously if pavement is placed to full width with one pass of paving machine.
 4. Straightedging:
 - a. After the longitudinal floating has been completed and the excess water has been removed, and while the concrete is still plastic, test the pavement surface for trueness.
 - b. Immediately fill any depressions found with freshly mixed concrete, struck off, consolidated, and refinished.

- c. Check surface longitudinally while concrete is still plastic; correct any surface deviations greater than 1/8 inch in 10 feet.
5. Surface Treatment:
- a. Drag Surface Treatment: Unless otherwise specified, texture the finished surface with an artificial turf or burlap drag treatment.
 - 1) Pull the artificial turf or burlap drag longitudinally over the finished surface to produce a tight, uniform, textured surface, and round the edges in a workmanlike manner.
 - 2) Remove the artificial turf or burlap drag from the pavement surface at regular intervals and clean with water to remove accumulated concrete from the fabric in order to maintain a consistent finished texture.
 - 3) When the desired texture is not attained, the Design Professional may require the final finish be a broom finish.
 - b. Surface Tining: When surface tining is specified, use a longitudinal tining. Under special circumstances, when specified in the contract documents, transverse tining may be required.
 - 1) Longitudinal:
 - a) Complete longitudinal surface tining using a machine with a wire broom or comb. For small or irregular areas, or during equipment breakdown, hand methods may be used. Use a broom or comb with a single row of tines 1/8 inch (+/- 1/64 inch) in width and uniformly spaced at 3/4 inch intervals. The depth of the grooves must be a minimum of 1/8 inch to a maximum of 3/16 inch in the plastic concrete.
 - b) Use equipment with horizontal and vertical string line controls to ensure straight grooves.
 - c) Conduct this operation at such time and in such manner that the desired surface texture will be achieved while minimizing displacement of the larger aggregate particles and before the surface permanently sets.
 - d) At longitudinal joints, leave a 2 to 3 inch wide strip of pavement surface (centered along the joint) that is not grooved for the length of the joint.
 - 2) Transverse:
 - a) If transverse surface tining is required or allowed, use a machine with a wire broom or comb. For small or irregular areas, or during equipment breakdown, hand methods may be used. Use a broom or comb with a single row of tines 1/8 inch (+/- 1/64 inch) in width and randomly spaced from 3/8 inch to 1 5/8 inch with no more than 50% of the spacing exceeding 1 inch. The depth of the grooves must be a minimum of 1/8 inch to a maximum of approximately 3/16 inch in the plastic concrete.

- b) Conduct this operation at such time and in such manner that the desired surface texture will be achieved while minimizing displacement of the larger aggregate particles and before the surface permanently sets.
 - c) Where abutting pavement is to be placed, the tining should extend as close to the edge as possible without damaging the edge.
 - d) If abutting pavement is not to be placed, do not tine the 6 inch area nearest the edge or 1 foot from the face of the curb.
 6. Edge Finish: Before the concrete has taken its initial set, finish all edges of the pavement with an 1/8 inch radius edging tool.
- I. Surface Curing:
1. Apply liquid curing compound in a fine spray to form a continuous, uniform film on the horizontal surface and vertical edges of pavement, curbs, and back of curbs immediately after surface moisture has disappeared, but no later than 30 minutes after finishing. With approval of the Design Professional, the timing of cure application may be adjusted due to varying weather conditions and concrete mix properties to ensure acceptable macrotexture is achieved.
 - a. Use a white pigment liquid curing compound for concrete not receiving an asphalt overlay. When specified in the contract documents, use a linseed oil solution.
 2. Apply compound with power sprayer; rate of application not less than 15 square yards per gallon (0.067 gallon per square yard); do not dilute compound. For concrete receiving an asphalt overlay, use a minimum rate for dark-colored cure of 12.5 square yards per gallon (0.08 gallon per square yards).
 3. Ensure liquid curing materials are well agitated in the supply drum or tank immediately before transfer to the sprayer. Keep curing materials well agitated during application.
 4. Hand operated sprayers may be used for small and irregular areas.
 5. If forms are used, apply to pavement edges and back of curbs within 30 minutes after forms are removed.
 6. If, due to other operations, the coating is damaged within 72 hours after being applied, immediately re-coat the affected areas. Coating of the sawed surface with curing compound will not be allowed on joints that are to be sealed. When pavement is opened to traffic prior to 72 hours after application of the curing coating, a re-coating will not be required.
- J. Construction of Joints:
1. General:
 - a. Construct joints of the type, dimensions, and at the locations specified in the contract documents.
 - b. Place longitudinal joints coincident with or parallel to the pavement centerline.
 - c. Place all transverse joints at right angles to the centerline and extend the full width of the pavement.

- d. Place all joints perpendicular to the finished grade of the pavement and do not allow the alignment across the joint to vary from a straight line by more than 1 inch.
 - e. Exercise care in placing, consolidating, and finishing the concrete at all joints.
2. Saw Joints:
- a. Mark joint locations with a string line before sawing.
 - b. Begin transverse joint sawing as soon as the concrete has hardened sufficiently to allow sawing without raveling or moving of aggregate. Saw joints before uncontrolled cracking takes place.
 - c. Saw all joints in a single cutting operation for a specific joint. Make saw cuts true to line and to the dimensions specified in the contract documents.
 - d. Discontinue sawing a joint if a crack develops ahead of the saw.
 - e. Saw joints within 24 hours of the concrete being placed.
 - f. If necessary, continue the sawing operations both day and night.
 - g. The concrete must be capable of supporting the sawing operations to allow the use of an early green concrete saw.
 - h. Repair or replace pavement with uncontrolled or random cracking at no additional cost to the Owner. Use repair methods approved by the Design Professional. Repair or replace at the direction of the Design Professional.
 - i. Use wet sawing for dust control.
3. Construction Joints:
- a. Place longitudinal and transverse construction joints where specified in the contract documents, at boxouts, and at headers.
 - b. Locate and place forms for boxouts on grade prior to paving.
 - c. If concrete placement is delayed for more than 30 minutes or at the end of each day, construct a Days Work (DW) or a Rigid Tie (RT) transverse construction joint within 5 feet of a planned transverse contraction joint.
 - d. Finish the edges of the pavement at construction joints with a 1/8 inch radius edging tool.
4. Expansion Joints:
- a. Install expansion joints as specified in the contract documents.
 - b. Prevent movement of or damage to joint assembly when placing concrete; set joint material low enough to clear the finish machine.
 - c. Construct double width expansion joint in curb over expansion joint in pavement. The backside of the joint must be clear of concrete.
 - d. Align the expansion joint straight and true. After the mechanical finishing equipment has passed over the joint, check the joint for movement. If movement in excess of 1/2 inch has occurred, immediately correct the installation to its intended position.
 - e. If joint fillers are assembled in sections, or if joints as a whole are constructed in sections, do not allow offsets between adjacent fillers.
 - f. Where more than one section is used in a joint, securely lace or clip the sections together.
 - g. Supplemental vibration equipment is required for proper consolidation of the concrete.
 - h. After the surface finishing has been completed, finish the edge of the joint with a 1/8 inch edging tool.

5. Joint Sealing:
- a. Timing:
- 1) Unless otherwise allowed or approved by the Design Professional, before any portion of the pavement is opened to the Contractor's equipment or to general traffic, clean and seal joints that require sealing.
 - 2) The Design Professional may limit the wheel loads and axle loads of equipment operating on the pavement during this operation, if prior to the age and strength specified in Part 3.06, Use of Pavement. Additional tests to determine the pavement strength may be required.
- b. Cleaning:
- 1) For those joints that are not to be sealed, cleaning is not required.
 - 2) Within 3 hours after a joint has been wet sawed to the finished dimension, flush the wet sawing residue away from the sawed faces using a high pressure water blast operating with a minimum pressure of 1,000 pounds per square inch. Within 3 hours after a joint has been dry sawed to the finished dimension, blow the dry sawing residue from the joint using air compressors that provide moisture and oil free compressed air.
 - 3) Immediately prior to installation of sealant, clean joints with an air blast. Do not perform sealing until visual examination verifies the joint surfaces appear dry, in addition to being clear of dust and contamination.
- c. Sealing:
- 1) Prepare and install joint sealer in the joint and to the proper level specified in the contract documents and as recommended by the manufacturer.
 - 2) Heat hot-poured sealers in a thermostatically controlled heating kettle; heat the material to the temperature required for use, but not above that recommended by the manufacturer. After sealing, remove excess sealer from the pavement surface.
 - 3) Seal joints the same day they are cleaned. Apply sealant only when the joint surfaces appear dry by visual examination.
 - 4) Place joint sealer only when the pavement and ambient air temperatures are 40°F or above. When near this minimum, additional air blasting or drying time, or both, may be necessary to ensure a satisfactory bond to the joint faces. When this sealer cannot be properly placed due to late fall work, submit a joint construction plan and sealing details to the Design Professional for approval before commencing paving. Delay the cleaning, sealing, and, if required, resawing of joints until the following spring. This delay requires the Design Professional's approval.

- 5) When surface correction is required, repair seals damaged from the corrective work. Joint preparation, cleaning, and sealing may be delayed until after corrective work, provided the pavement is not opened to traffic before corrective work is performed.

- K. Pavement Backfill: Following slipform paving operations, place backfill material along the pavement within 48 hours of pavement attaining opening strength or as directed by the Design Professional to prevent flow of water and any subsequent damage caused by undermining of the pavement. Prior to placement of full backfill material, construct check dams or other protection as appropriate to ensure no damage to the subgrade and/or subbase occurs.

- L. Form Removal:
 - 1. Timing:
 - a. Remove forms after the initial set of the concrete has taken place.
 - b. Remove stakes and forms with care to prevent cracking, spalling, or over stressing concrete. If damage does occur, repairs will be made as required by the Design Professional.

 - 2. Honeycomb Repair:
 - a. When the forms are removed, fill honeycombs with mortar composed of 1 part cement and 2 parts fine aggregate by weight.
 - b. If the honeycombing is to the degree and nature that it is considered by the Design Professional as defective work, remove and replace at no additional cost to the Owner.

 - 3. Paving Protection: In the area adjacent to the curbs and pavement edge, immediately place backfill after the forms are removed. Construct dams or other protection to ensure that no saturation or erosion of the subgrade under or near the pavement occurs. This may include check dams, pumping, etc.

3.3 CURB AND GUTTER CONSTRUCTION

- A. Complete the construction of curb and gutter separate from pavement in the same manner as for pavement in Section 32 13 13, paragraph 3.2.

- B. Use a paving machine for curb and gutter. For curb and gutter sections less than 250 feet, hand finish methods may be used.

3.4 PAVEMENT PROTECTION

- A. Weather Conditions: Do not place concrete when stormy or inclement weather or temperature prevents good workmanship. Temperature restrictions and protection requirements may be modified by the Design Professional under unusual conditions.
 - 1. Cold Weather:
 - a. Paving: Do not place aggregates containing frozen lumps, and do not place concrete on a frozen subgrade or subbase. Take all necessary actions to prevent the pavement from freezing.
 - 1) Concrete mixing and placement may be started, if weather conditions are favorable, when the air temperature is at least 34°F and rising. At the time of placement, concrete must have a temperature of at least 40°F.

- 2) Stop mixing and placing when the air temperature is 38°F or less and falling or if the temperature stops rising and does not reach 38°F.
- b. Protection: Prior to applying protection, cure all concrete pavement and curb/gutters, including exposed edges of the pavement and curb. In addition, protect concrete less than 36 hours old as follows:

Night Temperature Forecast	Type of Protection*
35°F to 32°F	One layer of burlap for concrete.
31°F to 25°F	Two layers of burlap or one layer of plastic on one layer of burlap
Below 25°F	Four layers of burlap between layers of 4 mil plastic or equivalent commercial insulating material approved by the Engineer

*Keep protection in place until one of the following conditions is met:

- 1) The pavement is 5 calendar days old.
 - 2) Opening strength is attained.
 - 3) Forecasted low temperatures exceed 35°F for the next 48 hours.
 - 4) Forecasted high temperatures exceed 55°F for the next 24 hours and subgrade temperatures are above 40°F.
 - a) Shut down paving operations in time to comply with protection requirements outlined above. During cold weather, allow more time for finishing and protection. Perform all finishing and covering operations prior to darkness. Temperature restrictions and protection requirements may be modified by the Design Professional.
 - b) Equivalent commercial insulating material approved by the Engineer may be used. This material must be waterproof and have a minimum R value of 1.0. If initial set has not yet occurred, place a layer of burlap on top of concrete prior to placing insulating blankets.
 - c) Use a method of protection and materials that will maintain the concrete temperature above 40°F.
2. Hot Weather: When climatic or other conditions are such that there is high ambient temperature, high concrete temperature, low relative humidity, or high wind speed at the time of delivery to the work site, during placement or during the first 24 hours after placement, concrete shall be mixed, placed and protected in accordance with ACI Standard 305, "Guide to Hot Weather Concreting."
3. Rain Protection:
- a. Have materials available, near the work site, for proper protection of the edges and surface of concrete. Protective material may consist of sheets of burlap or plastic film. Also have planks or other material with suitable stakes that can be used as temporary forms available.
 - b. If initial set has not occurred, take every precaution necessary to protect the surface texture of the concrete.

- c. If so determined by the Design Professional, failure to properly protect concrete will constitute cause for removal and replacement of defective pavement.

- B. Night Conditions: Perform all finishing and covering operations prior to darkness (half an hour after sunset). Do not commence construction until half an hour before sunrise. Do not place or finish concrete under artificial light, unless approved by the Design Professional.

- C. Protection from Traffic:
 - 1. General:
 - a. Protect the new pavement and its appurtenances from traffic, both public and that caused by the Contractor's own employees and agents, at no additional cost to the Owner. This includes the erection and maintenance of warning signs, lights, barricades, watchmen to direct traffic, and pavement bridges or crossovers.
 - b. Do not operate equipment with metal tracks, metal bucket blades, or metal motor patrol blades directly on new paving. Do not unload soil or granular materials, including base rock for storage and future reloading directly onto new paving.

 - 2. End of Day's Run:
 - a. At the end of each day's run, erect and maintain safety barriers and fencing as necessary to protect the pavement from damage.
 - b. Install safety fences after completion of finishing and curing operations. Leave fences in place and maintained until the concrete has attained the minimum strength or age.
 - c. Intermediate safety fences may be required for the purpose of opening the pavement for access to a side road, side street, or entrance.

 - 3. Repair of Damages: At the discretion of the Design Professional, and at no additional cost to the Owner, repair or replace any part of the pavement damaged by traffic or other causes occurring prior to final acceptance of the pavement.

3.5 USE OF PAVEMENT

Time for opening pavement for use may be determined by maturity method complying with Iowa DOT Materials I.M. 383 or age and test results. The minimum age and test results needed for opening are shown in Table 7010.01.

Table 7010.01: Minimum Age and Tested Strength of Pavement Before Opening

Class of Mix	Type of Cement	Minimum Age For Opening*	Minimum Compressive Strength (psi)	Minimum Flexural Strength Center Point (psi)
C	Type I	7 Days**	3,000	575
M	Type I	48 Hours	3,000	575

* Opening without testing only allowed upon approval of Design Professional

** Five calendar days for concrete 9 inches thick or more.

3.6 TRANSPORTATION RESTRICTIONS

- A. Do not use concrete transported with continuous agitation when the cement has been in contact with the aggregate more than 90 minutes before it is placed. With the approval of the Design Professional, an approved retarding admixture may be used at the rates required in Iowa DOT Materials I.M. 403.
- B. Do not use concrete transported without continuous agitation if the period elapsed between the time the concrete is mixed and the time it is placed is greater than 30 minutes. With the approval of the Design Professional, an approved retarding admixture may be used at the rates required in Iowa DOT Materials I.M. 403 and the mixed-to-placed time may be extended.
- C. Ensure the methods of delivering and handling the concrete are such that objectionable segregation or damage to the concrete will not occur, and concrete placing will occur with a minimum of rehandling.
- D. Thoroughly clean the truck compartment in which concrete is transported and flush with water to ensure that hardened concrete will not accumulate. Discharge the flushing water from the truck compartment to the designated discharge point before it is charged with the next batch.

3.7 QUALITY CONTROL

- A. Workmanship: The Contractor is responsible for correction of concrete work which does not conform to the specified requirements, including strength, tolerances, and finishes.
- B. Tests for Concrete Materials:
 - 1. Materials and installed work may require testing and retesting, as directed by the Design Professional, at any time during the process of the work. Allow free access to material stockpiles and facilities at all times. Tests, not specifically indicated to be done at the Owner's expense, including the retesting of rejected materials and installed work, shall be done at the Contractor's expense.
 - 2. Report test results in writing to the Owner's Representative on the same day that tests are made. Reports of compressive strength tests shall obtain the project identification name and number, date of concrete placement, name of Contractor, name of concrete supplier and truck number, name of concrete testing service, concrete type and class, location of concrete batch in the structure, design compressive strength at 28 days, concrete mix proportions and materials; compressive breaking strength, and type of break for both seven day tests and 28-day tests.
 - 3. Additional Tests: Additional tests of in-place concrete will be required when test results indicate the specified concrete strengths and other characteristics have not been attained in the structure, as directed by the Owner. Tests to determine the adequacy of the concrete shall be by cored cylinders complying with ASTM C42, or by other methods as directed. Contractor shall pay for such tests conducted and any other additional testing as may be required when acceptable concrete is verified.

- C. Concrete Quality Control Testing During Construction:
1. An independent testing laboratory will be retained by the Owner to perform all quality control tests and to submit test reports to the Owner's Representative.
 - a. The independent testing laboratory will perform inspections, tests, and other services specified and as required by the Owner's Representative.
 - b. Reports will be submitted by the independent testing laboratory to the Owner's Representative indicating observations and results of tests and indicating compliance or non-compliance with contract documents.
 - c. The Contractor shall cooperate with the independent testing laboratory; furnish samples of materials, design mix, equipment, tools storage and assistance as requested.
 - 1) Notify the independent testing laboratory 48 hours prior to expected time for operations requiring services.
 - 2) Make arrangements with the independent testing laboratory and pay for additional samples and test required for Contractor's use.
 - d. Retesting required because of non-conformance to specified requirements shall be performed by the independent testing laboratory on instructions by the Owner's Representative. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the Contract Sum/Price.
- D. Testing: Provide the following material certifications and testing required to be performed by the following:

Table 7010.02: Material Certifications and Testing

Material or Construction Item	Tests	Applicable Standard*	Methods of Acceptance of Sampling and Testing	Field Sampling and Testing	
				Frequency (minimum)	Responsible Party
Fine Aggregates	Gradation	I.M. 302, 306, 336	Cert. Plant Insp.**	1/250 CY or min 1/day	Supplier/ Contractor
	Moisture	I.M. 308, 527	Cert. Plant Insp.**	1 per 1/2 day	
	Specific Gravity	I.M. 307	Cert. Plant Insp.**	1/250 CY or min 1/day	
	Quality	I.M. 209	Approved Source	Prior to use	
Coarse Aggregates	Gradation	I.M. 302, 306, 336	Cert. Plant Insp.**	1/250 CY or min 1/day	
	Moisture	I.M. 308, 527	Cert. Plant Insp.**	1 per 1/2 day	
	Specific Gravity	I.M. 307	Cert. Plant Insp.**	1/250 CY or min 1/day	
	Quality	I.M. 209	Approved Source	Prior to use	
Portland Cement	Quality	I.M. 401	Approved Source	Prior to use	

**IA DAS-Fleet Building Demolition
IDAS Project #9479.00
Project # 2250010450**

Fly Ash	Quality	I.M. 491.17	Approved Source	Prior to use	
GGBFS	Quality	I.M. 491.14	Approved Source	Prior to use	
Curing Compound	Quality	Iowa DOT Section 4105	Approved Source	Prior to use	
Joint Sealer	Quality	I.M. 436.01	Approved Source	Prior to use	
Epoxy Dowel Bars and Assemblies	Quality	I.M. 451.03B	Approved Source	Prior to use	
Tie Bars	Quality	I.M. 451	Approved Source	Prior to use	
Plastic Concrete	Air Content	I.M 318, 327	Field Test	1/200 CY or min. 1/day	Owner/Testing Agency
	Slump	I.M. 317	Field Test	1/200 CY or min. 1/day	
	Cylinders 4"	I.M. 315	Field Test	Set of 6/200 CY or one set/day	
	Thickness	-----	Field Test	1/200 CY	
Hardened Concrete	Strength	I.M. 383	Maturity Tests***	Prior to placement	Owner/Testing Agency
	Smoothness	Part 3.7, Quality Control	Field Test - Straightedge	Project length	Contractor
	Smoothness	Part 3.7, Quality Control	Field Test - Profilograph	Project length	

- * Refers to the Iowa DOT Materials (Instructional Memorandums) I.M.s, Iowa DOT Standard Specifications, or SUDAS Standard Specifications.
- ** Certified plant inspection per Iowa DOT Materials I.M. 527.
- *** The Contractor is responsible for developing the maturity curve for the specified mix, taking maturity readings, and delivering a copy of the results to the Design Professional.

- E. Air Content:
1. Air content of the concrete will be evaluated according to Iowa DOT Materials I.M. 318 and 327.
 2. When a test result is outside the tolerance for the target air content, the contractor will be notified immediately. An air test will then be immediately run behind the paver to aid in identifying the limits of the non-complying air. A test result between 5% and 8% behind the paver will be considered complying. This test will represent all concrete from the back of the paver back to the last documented complying test. Make immediate adjustments to the mix production and placement process to bring the air content back within tolerance. Do not use succeeding loads below the lower target air content tolerance by more than 0.5%. Each subsequent load will be tested until air content is within tolerance for two consecutive loads. For all incorporated, non-complying concrete that is out of tolerance, the Design Professional will determine if removal and replacement is required.

- F. Pavement Smoothness: Evaluate pavement smoothness for all PCC pavement and overlay surfaces.
 - 1. Straightedge: The contractor shall check PCC pavement surfaces with a 10 foot straightedge placed parallel to the centerline. Areas showing high spots of more than 1/4 of an inch in 10 feet will be marked. Complete surface corrections according to the procedures in Iowa DOT Section 2316 to an elevation where the area or spot will not show surface deviations in excess of 1/8 inch when tested with a 10 foot straightedge. Surface corrections will be completed at the direction of the Design Professional with no additional cost to the Owner.

- G. Defects or Deficiencies: Remove and replace or repair pavement containing excessive cracks, fractures, spalls, or other defects at no additional cost to the Owner. The method of replacement or repair will be determined by the Design Professional.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 32 13 13.10
CONCRETE PAVING FOR SIDEWALKS AND SHARED USE PATHS**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Installation of Sidewalks.

1.2 DESCRIPTION OF WORK

- A. Install sidewalk.

1.3 SUBMITTALS

- A. PCC mix design.
- B. Submit type and color of detectable warnings.
- C. Closeout Submittals:
 - 1. Results of required testing.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Portland Cement Concrete: See Section 32 13 13.

PART 2 - PRODUCTS

2.1 PORTLAND CEMENT CONCRETE

- A. Class B or C concrete with materials complying with Section 32 13 13. Use coarse aggregate of Class 2 durability or better.
- B. Comply with the following for PCC mixes for sidewalks unless otherwise approved by the Design Professional.

Table 7030.01: PCC Mixes		
	Machine Finish	Hand Finish
Type of Concrete	Class B or C	Class B or C
Slump Minimum	1/2 in.	1/2 in.
Slump Maximum	2 1/2 in.	4 in.
Percent Air Content		
• Target	7%	7%
• Minimum	6%	6%
• Maximum	8 1/2%	8 1/2%

- C. Liquid Curing Compound: Comply with Iowa DOT Section 4105.

- D. Pavement Sealant: All paving placed between September 1 and March 31 shall be sealed to protect from de-icing agents with one of the following products, or approved equal:
 - 1. Hydrozo 40 Silane. Note that this product requires a 28-day cure prior to application. Pavement must be power-washed prior to application.
 - 2. Consolideck Singlestep.
 - 3. Lin-Seal by W.R. Meadows.
- E. Covering:
 - 1. Burlap: Comply with Iowa DOT Section 4104.
 - 2. Plastic Film: Comply with Iowa DOT Section 4106.
 - 3. Insulating Cover: Comply with Iowa DOT Section 4106.
- F. Pavement subdrain piping shall conform to SUDAS Standard Specifications Division 4 – Sewers and Drains Section 4040 – Subdrains and Collectors.

2.2 DETECTABLE WARNINGS

- A. Use manufactured detectable warning panels with a non-slip surface and raised truncated domes. Detectable warning plates shall be cast iron, factory powder coated “brick red”. Comply with the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (also known as PROWAG) for contrast and dimension requirements.

2.3 ISOLATION AND EXPANSION JOINT SEALANT

- A. Use a 2-part polyurethane, self-leveling sealant complying with ASTM C 920. Application temperature range of 40 to 120°F. Minimum elongation 700%. SL-2 by Sonneborn, Sikaflex-2c SL by Sika, or approved equivalent. Color - concrete grey.

2.4 SIDEWALK EXPANSION JOINT MATERIAL

- A. Full depth, preformed, asphaltic or polyurethane foam joint filler. See construction documents for thickness.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

- A. Sidewalks:
 - 1. Remove all vegetation and roots from ground surface.
 - 2. Construct grade to final subgrade elevation.
 - a. Cut area: Remove all material that will be displaced by the sidewalk.
 - b. Fill area: Scarify the surface to be covered with embankment to a depth of at least 6 inches and compact. Construct embankment in lifts of 6 inches or less and compact each lift. Tamp surface with a mechanical tamper until firm and unyielding.
 - 3. Remove all soft, spongy, or yielding spots and fill the void with suitable backfill material.

3.2 ADJUSTMENT OF FIXTURES

- A. Adjust fixtures to conform to the finished pavement surface. Cooperate and coordinate with the utility agency to ensure proper fixture adjustment.

3.3 PCC SIDEWALKS

- A. Form Setting: Comply with Section 32 13 13 with the following additional requirements and exceptions.
 - 1. Slip form paving equipment may be allowed in lieu of setting forms, if approved by the Design Professional.
 - 2. Wood forms are allowed.
 - 3. Use of an automated subgrade trimmer is not required.
 - 4. Set forms true to line and grade and hold them rigidly in place by stakes placed outside the forms and flush with or below the top edge of the forms.

- B. Concrete Pavement Placement:
 - 1. Sidewalk:
 - a. Maintain moist subgrade in front of paving operation
 - b. Deposit concrete on the subgrade as required to minimize rehandling to prevent segregation.
 - c. Hand spread with shovels, not rakes.
 - d. Place concrete as required to slightly overfill the space between the forms.
 - e. Consolidate with vibrators and smooth by use of a straightedge.
 - f. Do not contaminate freshly mixed concrete with earth or other foreign materials.

- C. Finishing:
 - 1. Sidewalks:
 - a. Use a wood float to depress the large aggregate and create a dense surface.
 - b. Allow concrete to set until all shine has disappeared from the surface.
 - c. Smooth with a metal trowel until surface is free from defects and blemishes.
 - d. Construct joints by sawing or by using a jointer or groover tool.
 - e. Finish edges of sidewalk or driveway with an edging tool having a radius of approximately 1/2 inch. Ensure tool marks do not appear on the finished surface.
 - f. Brush with a medium broom perpendicular to the direction of travel to provide a non-skid surface.

- D. Curing: When curing is specified in the contract documents, comply with Section 32 13 13.

- E. Form Removal: Comply with Section 32 13 13 – Concrete Paving.

- F. Pavement Protection: Refer to Section 32 13 13 – Concrete Paving.

- G. Use of Pavement: Refer to Section 32 13 13 – Concrete Paving.

- H. Jointing:
 - 1. Construction Joints:
 - a. Locate construction joints to provide uniform joint spacing.
 - b. Place a construction joint at the close of each day's work or when depositing of concrete is stopped for 45 minutes or more.
 - c. Form construction joint by using a header board. Set perpendicular to the surface and at right angles to the centerline.

2. Transverse Contraction Joints:
 - a. Sidewalks:
 - 1) Space sidewalk contraction joints equal to the width of the sidewalk.
 - 2) Form transverse contraction joints to a depth of 1 1/4 inches with a pointed trowel or jointing tool. In lieu of forming, joints may be sawed within 12 hours of placement with a 1/8 inch blade saw to a depth of 1/3 the pavement thickness. Use a straightedge if joints are sawed with a hand-held saw.
3. Longitudinal Contraction Joints:
 - a. Sidewalks: Saw joint to 1/8 inch wide and to a depth of 1/3 the pavement thickness.
4. Isolation Joints:
 - a. Install isolation joints where sidewalks abut roadway pavement, parking lots, buildings, and structures.
 - b. For a sidewalk constructed with a tol, install an isolation joint on the property side of the sidewalk and a 'C' or 'E' joint on the street side of the sidewalk.
 - c. Install a 1/2 inch or 3/4 inch thick strip of preformed resilient joint material, according to Section 32 13 13, to the full depth of concrete. Trim any isolation joint material protruding above the finished work to the level of the abutting concrete.
 - d. If the isolation joint is to be sealed, place the preformed material 1/2 inch below the level of the abutting concrete.
5. Joint Sealing:
 - a. Do not seal construction or contraction joints in sidewalks or driveways.
 - b. If sealing of expansion or isolation joints is specified in the contract documents, trim preformed joint material to a depth of 1/2 inch below the concrete surface. Ensure the joint is clean and dry. Install joint sealant per manufacturer's recommendations.

3.4 DETECTABLE WARNING INSTALLATION

- A. Manufactured Panels:
 1. Comply with details in construction documents.
 2. Install according to manufacturer's recommendations.
 3. Set panels in fresh concrete.

3.5 TOLERANCES

- A. Check finished surface with a 10 foot straightedge placed parallel to the centerline.
- B. Ensure the cross-section and profile of the pavement is constructed to within a tolerance of 1/4 inch in 10 feet (0.2%) of the design grades. This does not allow maximum slopes to be exceeded.
- C. Mark areas showing bumps of more than 1/4 inch in 10 feet and grind down with an approved grinding tool to an elevation where the area will not show deviations in excess of 1/8 inch.

3.6 CLEANING

- A. Remove all litter and construction materials or tools immediately after the end of the curing period.

- B. Remove excess dirt from the site.
- C. Broom clean completed sidewalks.

3.7 TESTING

- A. General: Concrete testing shall comply with section 32 13 13.
- B. Concrete Compression Tests: When the concrete volume placed on a single day exceeds 5 cubic yards, comply with the following test requirements. When deficiencies are encountered, comply with Section 32 13 13.
 - 1. Prepare at least four 4"X8" test cylinders per day.
 - 2. If the concrete volume placed on a single day exceeds 100 cubic yards, prepare one test cylinders for each 100 cubic yards placed.
 - 3. Provide 7 and 28 calendar day tests according to ASTM C 39. Minimum compressive strength is 2,000 psi at 7 days and 4,000 psi at 28 days.

3.8 SIDEWALK AND CURB RAMP COMPLIANCE

- A. Compliance with cross slopes and grades, as well as all other elements, for sidewalks and curb ramps is crucial. If the construction cannot be completed as specified in the contract documents, it may be necessary to adjust slopes within the accepted legal limitations. Contact the Design Professional prior to placement of the concrete if changes from the values specified in the contract documents are being made.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 32 91 12.13
TOPSOIL PLACEMENT AND GRADING**

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Finish grade subsoil.
- B. Place, level, and compact topsoil.

1.2 SUBMITTALS

- A. Submit topsoil and compost source.
- B. Submit 10-lb. (4.5kg) sample of topsoil mix to Owner.
- C. Submit 10-lb. (4.5kg) sample of imported subsoil fill to testing laboratory in air tight containers.
- D. If recent test results are available for fill materials to be used, disregard samples submission and submit such test results to the testing laboratory. Such test results are to clearly indicate types of materials and composition, hardness, compactibility, and suitability for proposed usage.

1.3 PROTECTION

- A. Protect landscaping and other features remaining as final work.
- B. Protect existing structures, fences, roads, sidewalks, paving and curbs.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Topsoil: Reused as approved by the Owner.
- B. Topsoil: Imported, friable loam; free of subsoil, roots, grass, excessive amount of weeds, stone, and foreign matter; acidity range (pH) of 5.5 to 7.5; containing a minimum of 4% and a maximum of 25% organic matter. All topsoil is to be approved by the Owner prior to spreading. Topsoil with large amounts of sand may not be approved.
- C. Testing:
 - 1. Contractor shall have a sample of topsoil tested by AgSource Laboratories (1701 Detroit St., PO Box 247, Ellsworth, IA 50075). Topsoil shall be analyzed for each type of planting on site such as lawn, flower beds, or tree and shrub beds. The results of the soil analysis shall be provided to Owner prior to incorporation of the topsoil.
 - 2. Results must fall within the Testing Lab's recommended ranges for each type of planting. Submit results to Owner for review.
 - 3. Schedule test a minimum of 6 weeks prior to allow for processing and review by Owner.

PART 3 EXECUTION

3.1 INSPECTION

- A. Verify site conditions and note irregularities affecting work of this Section.
- B. Beginning work of this Section means acceptance of existing conditions.
- C. Prior to topsoil arriving on site, Owner shall approve the physical soil samples.

3.2 SUBSOIL PREPARATION

- A. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, in excess of 1/2" (12mm) in size. Remove subsoil contaminated with petroleum products.
- B. Tilling:
 - 1. In areas excavated during construction, the Contractor shall till 2 to 3 inches of topsoil into the top 8 to 12 inches of subsoil. Subsoil shall be tilled and blended with topsoil layer to avoid sharp transitions in the soil profile. Then place the depth of topsoil called out in paragraph 3.5 on top of the tilled area.
 - 2. In areas that have not been excavated during construction but are to be planted or seeded, till the subsoil to a depth of 4 to 6 inches before incorporating topsoil or other amendments. Then place the depth of topsoil called out in paragraph 3.5 on top of the tilled area.
 - 3. Do not till within the drip line of existing trees.

3.3 PLACING TOPSOIL

- A. Place topsoil in areas where seeding or sodding is scheduled.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.
- D. Remove stone, roots, grass, weeds, debris and foreign material while spreading.
- E. Manually spread topsoil around trees, plants, and buildings to prevent damage.
- F. Lightly compact placed topsoil.
- G. Remove surplus subsoil and topsoil from site.
- H. Final grade of planting beds and small turf areas shall be done by hand to avoid compaction and ensure all debris and clods over 1 inch are removed. Large scale seeding or sodding projects may be graded using small tractors, gills, etc.
- I. Leave stockpile area and site clean and raked, ready to receive landscaping.
- J. Notify Owner upon completion of final grade. Contractor shall not install planting material or turf until final grade has been approved by Owner.

3.4 TOLERANCES

- A. Top of Topsoil: Plus or minus 1/2 inch (12mm).

3.5 SCHEDULE OF LOCATIONS

- A. See paragraph 3.2B, Tilling, for subsoil preparation and additional topsoil requirements.
- B. The following paragraphs identify compacted topsoil thicknesses for various locations:
1. Seeded Grass: 6 in. (150mm).
 2. Sod: 4 in. (100mm).

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**

**SECTION 32 92 19
SEEDING AND SOIL SUPPLEMENTS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This part of the Specifications includes providing labor, materials, equipment, and supervision required to provide seeding.

1.2 QUALITY ASSURANCE

- A. Seeding is to be installed by a single firm specializing in seeding as specified.
- B. Source Quality Control: Ship seeding materials with certificates of inspection required by governing authorities. Comply with regulations applicable to seeding materials.
- C. Do not make substitutions. If specified material is not obtainable, submit proof of non-availability to Owner's Representative, together with proposal for use of equivalent material.
- D. Analysis and Standards: Package standard products with manufacturer's certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.

1.3 SUBMITTALS

- A. Manufacturer's or vendor's certified analysis of fertilizer.
- B. Seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentages by weight, and percentages of purity, germination, and weed seed for each grass seed species.
- C. Planting Schedule: Proposed seeding schedule, indicating dates for seeding work during normal seasons. Once accepted, revise dates only as approved by Owner's Representative in writing, after documentation of reasons for delays.
- Preferred season for this work is as follows: April 15 – June 15
- For projects requiring fall planting, obtain approval for planting dates with Owner. General planting dates for fall are August 15 – October 15.
- D. Any deviations from this schedule must be approved by the Owner's Representative. Maintenance and warranty conditions may be impacted by such deviation.
- E. Closeout Submittals:
1. Furnish detailed written recommended maintenance program to the Owner with a copy to the Owner's Representative, prior to final inspection of the seeding.

1.4 DELIVERY, STORAGE AND HANDLING

- A. If seed is mixed prior to delivery on the site, it shall be tagged showing a guaranteed statement of composition of mixture and percentage of purity and germination of each variety.
- B. If seed is to be mixed at the site, it shall be delivered in original containers bearing producers certification of germination and purity.
- C. Tags shall show producers or dealers Iowa Permit Number and date of testing; test date shall be no more than 90 days previous to time of use.
- D. Fertilizers shall conform to State of Iowa laws and regulations. If delivered in bulk, bills of lading or other labels shall be furnished to the Design Professional or labels indicating analysis and weight information from each container shall be preserved and furnished to the Design Professional within twenty-four (24) hours of application.
- E. Handling of materials as recommended by manufacturer.
- F. Store all packaged materials off ground and protect from moisture.
- G. Storage of all materials in locations designated and approved by Owner's Representative.

1.5 JOB CONDITIONS

- A. Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required.
- B. Grade Stakes: Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.
- C. Protection: Protect existing irrigation system, structures, utilities, sidewalks, pavements, and other facilities during seeding operations. Repair any damage at no cost to the Owner.

1.6 SEQUENCING AND SCHEDULING

- A. Planting Time: Proceed with, and complete seeding as rapidly as portions of site become available, working within seasonal limitations for each kind of seed required.
- B. Chronological procedure for seeding is to remove any existing vegetation, disc, fertilize, prepare the seed bed, seed, and then mulch. See Part 3 Site Grading regarding treatment of vegetation.

1.7 SPECIAL PROJECT WARRANTY

- A. Warranty lawns to provide germination as specified and for seed emergence.

- B. Replacement cost shall be borne by Contractor except for possible replacements resulting from loss or damage due to occupancy at project in any part, vandalism, civil disobedience, acts of neglect on the part of others, physical damage by animals, vehicles, fire, or losses due to curtailment of water by local authority, or to "Acts of God". Droughts, floods, tornadoes, winds of hurricane force, and hail are not normal and the damage they do cannot be calculated in a bid.

1.8 GUARANTEE

- A. If less than 70% of seed fails to become established and survive to the next season in any given area three (3) square feet or larger, the Contractor shall be responsible for preparing the seedbed as specified in Part 3 and reseeding at the rate specified in Part 3.

PART 2 PRODUCTS

2.1 EQUIPMENT

- A. Hydraulic Seeder: Use hydraulic seeding equipment with a pump rated at no less than 100 gallons per minute. The equipment must have a suitable working pressure and a nozzle adapted to the type of work. Supply tanks must have a means of agitation. Calibrate tanks and provide them with a calibration stick or other approved device to indicate the volume used or remaining in the tank.

2.2 SOIL AMENDMENTS

- A. Apply a 6-24-24 commercial fertilizer or the equivalent units of nitrogen, phosphate, and potash at the rate of 300 pounds per acre.

2.3 SEEDING MATERIALS

- A. Grass Seed: Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. All seed shall be Blue Tag Certified. Certified Blue Tag and Analysis Tag shall be on every bag. All bagged seed mixtures shall have a Certified Blue Mixture Tag on each bag.

- B. Seed Mixes

- 1. The seed shall be purchased from an established seed dealer or certified seed grower, shall meet the requirements of the Iowa Department of Agriculture regulations, and shall be labeled accordingly.
- 2. Residential lawn mix.
 - a. Sunny locations:

	<u>Pure Live Seed</u> <u>% by Weight</u>	<u>Purity</u>	<u>Germination</u>
Kentucky Bluegrass	70	95	85
Creeping Red			
Fescue	20	98	85
Perennial Ryegrass	10	95	90

2.4 HYDRAULIC MULCH

- A. Shall be Flexterra High Performance Flexible Growth Medium (HP-FGM) by Profile Products LLC or approved equal.

2.5 WATER

- A. Water used in the work shall be suitable for irrigation and free from ingredients harmful to plant life. Hose and other water equipment required for the work shall be furnished by the Contractor.

PART 3 EXECUTION

3.1 PREPARATION FOR SEEDING

- A. Limit preparation of seedbed to areas that will be seeded immediately upon completion.
- B. Work areas accessible to field equipment to a depth of no less than 3 inches. Use mechanical rotary tillage equipment for the preparation of seedbed. Where weed growth has developed extensively, they may be disked into the ground. If weed growth develops sufficiently to interfere with proper seedbed preparation, mow the weeds and remove them from the project at no additional cost to the Owner.
- C. Use crawler type or dual-wheeled tractors for seedbed preparation. Operation equipment in a manner to minimize displacement of soil and disturbance of the design cross-section. Harrow ridging in excess of 4 inches due to operation of tillage equipment prior to rolling with the cultipacker. Roll the area with no less than one pass of the cultipacker prior to permanent seeding.
- D. Shape and fine grade to remove rills or gullies, water pockets, undesirable vegetation, and irregularities to provide a smooth, firm, and even surface true to grade and cross-section. Prepare to a fine texture and without soil lumps. Till parallel to the contours.
- E. Smooth the seedbed with a cultivator-type tillage tool having a rake bar or a rock rake. Pick up and remove all debris, such as rocks, stones, concrete larger than 2 inches (1/2 inch maximum for lawn seeding), or roots and other objectionable material that will interfere with the seeding operation. A spring tooth cultivator may be used in lieu of a rock picker. Remove the rock by hand after each use of the cultivator; repeat the process until the soil is relatively free of rocks.
- F. Choose equipment to minimize soil compaction. Operate equipment in a manner to minimize displacement of soil and disturbance of the design cross-section. Roll the area with at least one pass of the cultipacker. Remove ruts that develop during the sequence of operations before subsequent operations are performed.
- G. Repair erosion or other damage which occurs during seed bed preparation.
- H. Apply commercial fertilizer at the rate specified in 2.2.
- I. Apply fertilizer prior to seeding and drag or till into the top one inch (1") of the soil surface.

- J. Seedbed Preparation for Temporary Seed: Till the soil to a minimum depth of 5 inches with a disk, harrow, or field cultivator.

3.2 SEEDING

- A. Do not use wet seed or seed that is moldy or otherwise damaged in transit or storage.
- B. Sow seed uniformly using a drill type seeder. Each application of seed shall overlap the previous application by one-half (1/2) the application width to insure double coverage.
- C. Sow seed mix in at the rate specified in 2.3.
- D. After seeding, firm the seed bed using a cultipacker or roller.

3.3 HYDRAULIC MULCHING FOR SEEDING

- A. Place mulch in hydraulic mulching equipment specifically manufactured for hydraulic seeding.
- B. Mix materials with fresh potable water using a combination of both recirculation through the equipment's pump, and mechanical agitation to form a homogenous slurry.
- C. Apply mixture within 1 hour after materials are placed in the hydraulic seeder.
- D. If necessary, dampen dry, dusty soil, to prevent balling of the material during application.
- E. Apply the slurry evenly over all specified areas at a minimum application rate of 3,500 lb/acre dry weight.
- F. Retain and count empty bags of mulch to ensure final application rate.

3.4 WATER

- A. The Contractor will be required to water all lawn areas that are seeded within seven (7) calendar days after seed is spread. The Contractor shall provide all necessary water maintenance as required by weather conditions for the first sixty (60) calendar days after installation or to Substantial Completion of the Project, whichever is later.

3.5 MAINTENANCE

- A. Begin immediately following installation.
- B. All maintenance including mowing and weeding shall be performed by the Contractor for the first sixty (60) calendar days after installation or until Substantial Completion of the Project, whichever is later.
- C. To include:
 - 1. Repair of eroded areas prior to acceptance.
 - 2. Maintenance of a uniform mulch cover until initial acceptance.

- D. Until initial acceptance and approval is received, reseed or overseed, using seed mix originally specified, all seeded areas to produce uniformity.
- E. The Contractor shall be required to mow and maintain vegetation between 2 and 4 inches in height, except for natural prairie grass and wildflower. Not more than 1/3 of the grass lead shall be cut in any mowing.
- F. The Contractor will be required to remove weeds and repair or replace, or both, all seeding and mulching that is defective or becomes damaged. When seeding is approved and accomplished out of season and all other work on the contract has been satisfactorily completed but a determination cannot be made as to whether or not an established stand of grass has or may result, then payment for the areas seeded out of season will be withheld until such time as this requirement has been met.

3.6 REPAIR OF LAWN AREAS DISTURBED BY THIS CONTRACT

- A. Repair disturbed areas for seeding by tilling, shaping, and raking as required.

3.7 CLEANUP AND PROTECTION

- A. During seeding work, keep pavements clean and work area in an orderly condition.
- B. Upon completion of job, clean-up all debris, caused by work, and excess material and leave area within contract limits in a neat and clean condition.

3.8 INSPECTION AND ACCEPTANCE

- A. Upon completion of the work and fulfillment of the requirements of this Section, notify the Owner's Representative in writing that the work is ready for final inspection.
- B. Request a definite date for final inspection.
- C. Notify the Owner's Representative seven (7) calendar days prior to the requested final inspection date.
- D. Reseed and maintain all seeded lawn areas which do not meet the requirements of this Section at the time of final inspection.
- E. Replacement work shall be as specified for original seeding.
- F. Replacement work shall be reinspected before acceptance.

END OF SECTION

**SECTION 32 92 23
SODDING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sodding of designated areas.

1.2 SUBMITTALS

- A. Growers Certification: Grass species and location of field from which sod is cut.
- B. Planting Schedule: Propose sodding schedule, indicating dates for sodding work during normal seasons. Once accepted, revise dates only as approved by Owner's Representative in writing, after documentation of reasons for delays.

Preferred season for this work is as follows:
April 15 – June 15

For projects requiring planting outside his range, obtain approval for planting dates with Owner.

- C. Watering Schedule.

1.3 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Protect root system from exposure to wind or sun.
- B. Protect sod from dehydration, contamination, and heating during transportation, and delivery.
- C. Do not deliver more sod that can be installed in the same day.
- D. Do not tear, stretch, or drop sod.

1.4 JOB CONDITIONS

- A. Begin installation of sod after preceding related work is accepted by the Owner.
- B. Protection: Erect signs and barriers against vehicular traffic.

PART 2 PRODUCTS

2.1 SOIL CONDITIONERS

- A. Fertilizer nutrients by weight: Nitrogen 6%; Potassium Peroxide 24%; Phosphoric Anhydride 12%.

2.2 SOD

- A. Grass Species: Comply with SUDAS Section 9020 2.01.
- B. Grade: Field grown

- C. Uniformly mowed height when harvested 1-1/2 in. to 2-1/2 in. (37mm to 63mm).
- D. Weeds: Free of Bermuda grass, quack grass, Johnson grass, poison ivy, nut sedge, nimble will, Canada thistle, bindweed, bent grass, wild garlic, ground ivy, perennial sorrel, and brome grass.
- E. Uniform in color, leaf texture, and density.
- F. Sod should be approved by the Owner's Representative prior to placement.
- G. Peat sod is not allowed.

2.3 WATER

- A. Free of substances harmful to plant growth.

PART 3 EXECUTION

3.1 INSPECTION

- A. Owner must review and approve finish grades by the Contractor before sodding can begin.
- B. Verify that soil preparation and related preceding work have been complete.
- C. Do not start work until conditions are satisfactory.

3.2 PREPARATION

- A. Scarify soil to depth of 2 in. (50mm) in compacted areas.
- B. Apply soil conditioners.
- C. Water dry soil to depth of 4 in. (100mm) 48 hours before sodding.

3.3 INSTALLATION

- A. Transplant sod within 24 hours after harvesting.
- B. Begin sodding at bottom of slopes.
- C. Lay first row of sod in straight line with long dimension of pads parallel to slope contours.
- D. Butt side and end joints.
- E. Stagger end joints in adjacent rows.
- F. Do not stretch or overlap sod.
- G. Peg sod on slope ratio of 1 in 3 or greater with minimum of two stakes per square yard.

- H. Sprinkle sod immediately after transplanting.
- I. Roll sod, except on pegged areas, with roller weighing not more than 150 lbs. per ft. of roller width (223kg/m).
- J. Water sod and soil to depth of 4 in. (100mm) within four hours after rolling.
- K. Resod areas larger than 1 sq. ft. (93mm²) not having uniform stand of grass.

3.4 PROTECTION

- A. Erect temporary barricades if necessary.
- B. Provide compost filter tubes or silt fence to protect slopes from erosion.

3.5 LAWN ESTABLISHMENT

- A. Watering: The Contractor shall provide all necessary water maintenance as required by weather conditions for the first sixty (60) calendar days after installation or to Substantial Completion of the Project, whichever is later.

3.6 CLEANING

- A. Immediately clean spills from paved and finished surface areas.
- B. Remove debris and excess materials from project site.

3.7 MAINTENANCE AND GUARANTEE

- A. Begin immediately following installation of sodding and continue for the first sixty (60) calendar days after installation or until Substantial Completion, whichever is later.
- B. Include weeding, rolling, mowing, replacing bare spots, resetting to proper grades and other related operations.
- C. The Contractor shall be required to mow and maintain vegetation between 2 and 4 inches in height, except for natural prairie grass and wildflower. Not more than 1/3 of the grass stand shall be cut in any mowing.
- D. The Contractor will be required to remove weeds and repair or replace, or both, all seeding and mulching that is defective or becomes damaged. When seeding is approved and accomplished out of season and all other work on the contract has been satisfactorily completed but a determination cannot be made as to whether or not an established stand of grass has or may result, then payment for the areas seeded out of season will be withheld until such time as this requirement has been met.
- E. All sod shall be guaranteed to be in vigorous growing conditions in one growing season.

END OF SECTION

**THIS PAGE
INTENTIONALLY
LEFT BLANK**