PUBLIC IMPROVEMENTS
CONTRACT DOCUMENTS

NORTH SIDE LIBRARY PARKING LOT EXPANSION

ACTIVITY ID                      PLAN FILE NO.
042021006                        641-232/264

LIBRARY APPROVAL

APPROVAL DATE                      LIBRARY BOARD RESOLUTION NO.
April 19, 2022

CONTRACT NO.

CONTRACTOR                      CONTRACT AMOUNT

ENGINEERING DEPARTMENT
Steven L. Naber, P.E.
Des Moines City Engineer

Funding Information
Object Code 542010
Organization No CO42LB
Project No LB063
ENGINEERING DEPARTMENT
CITY OF DES MOINES, IOWA

North Side Library Parking Lot Expansion

Activity ID 042021006

The following documents are part of this contract:

Document

Instructions to Bidders
Official Publications
Proposal
Bid Bond
Contract
Performance, Payment and Maintenance Bond
Addenda:

Special Provisions:

Bidding Requirements
Contractual Requirements
Technical Specifications

Supplemental Specifications:

General Supplemental Specifications to SUDAS, 2021 Edition May 24, 2021
Supplemental Specification for Tree Protection March 24, 2017
Supplemental Specification for Water Services April 1, 2014
Supplemental Specification for Traffic Signage September 20, 2021
Supplemental Specification for Tree Planting October 3, 2013

PROJECT ENGINEER: Brad Brockman, P.E.

Phone Number: (515) 283-4070
INSTRUCTIONS TO BIDDERS

Activity ID 042021006
Project Name North Side Library Parking Lot Expansion

The work comprising the above referenced project shall be constructed in accordance with the SUDAS Standard Specifications, 2021 Edition, and as further modified by the supplemental specifications and special provisions included in the contract documents. The Des Moines City Engineer is the Engineer. The terms used in the contract documents are defined in said SUDAS Standard Specifications. The Board of Trustees of the Des Moines Public Library is the Contracting Authority on this project and shall hereinafter be referred to as the "Jurisdiction". Before submitting your bid, please review the SUDAS Standard Specifications, in particular, Division 1 - General Provisions and Covenants, including the sections regarding proposal requirements, bonding, contract execution and insurance requirements. Please be certain that all documents have been properly completed and submit them to the City Clerk, 1st Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, 50309.

I. BID SECURITY
The bid security must be in the minimum amount of 10% of the total bid amount including all add alternates (do not deduct the amount of deduct-alternates). Bid security shall be as defined in Section 26.8 of the Iowa Code and shall be in the form of a cashier's check or certified check drawn on a state-chartered or federally chartered bank. or a certified share draft drawn on a state-chartered or federally chartered credit union, or a bid bond executed by a corporation authorized to contract as a surety in Iowa or satisfactory to the Jurisdiction. The bid bond must be submitted on the enclosed Bid Bond form (DSM Urban 04/20/98) as no other bid bond forms are acceptable. All signatures on the bid bond must be original signatures in ink; facsimile (fax) of any signature on the bid bond is not acceptable. Bid security other than said bid bond shall be made payable to the Board of Trustees of the Des Moines Public Library, "Miscellaneous Bank Checks", and personal checks, as well as "Money Orders" and "Traveler's Checks" issued by persons, firms or corporations licensed under Chapter 533B of the Iowa Code, are not acceptable bid security. NOTE: If the Bidder submits Bid Security in the form of a Bid Bond, and the Bidder wishes to have their Bid Bond returned to them after an approved contract and bond has been executed or after there is a rejection of all bids (in accordance with Iowa Code 26.10), the Bidder shall include a self-addressed envelope with the Bid Bond.

II. SUBMISSION OF THE PROPOSAL AND IDENTITY OF BIDDER
A. The proposal shall be sealed in an envelope, properly identified as the Proposal with the project title and the name and address of the bidder, and deposited with the Jurisdiction at or before the time and at the place provided in the Notice to Bidders. It is the sole responsibility of the bidder to see that its proposal is delivered to the Jurisdiction prior to the time for opening bids, along with the appropriate bid security sealed in the separate envelope identified as Bid Security and attached to the outside of the bid proposal envelope. Any proposal received after the scheduled time for the receiving of proposals will be returned to the bidder unopened and will not be considered. Bidders must either utilize the two envelopes provided with the Bidding documents, or Bidders provide their own two envelopes, for their proposals and bid security for submission of their bids.

Sales Tax: The bidder should not include sales tax in the bid pursuant to Iowa Code. A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

Accessibility for individuals with disabilities. The City of Des Moines is pleased to provide accommodations to individuals with disabilities or groups and encourages participation in City government. To better serve you, please notify us at least three business days in advance when possible at 515-283-4209, should special accommodations be required.
B. All pages of the Proposal must be returned. The following documents shall be completed, signed and returned in the Proposal envelope.

PROPOSAL - Complete each of the following parts:
- Part B - Acknowledgement of Addenda, if any have been issued;
- Part C - Bid Items, Quantities and Prices;
- Part F - Additional Requirements; The following proposal attachment documents must be completed and attached:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION OF ATTACHMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reciprocal Resident Bidder and Labor Force</td>
</tr>
<tr>
<td>2.</td>
<td>General</td>
</tr>
</tbody>
</table>

- Part G - Identity of Bidder.

The Bidder shall sign the proposal. The signature on the proposal and all proposal attachments must be an original signature in ink signed by the same individual who is the Company Owner or an authorized Officer of the Company; copies or facsimile of any signature will not be accepted. The Bidder Status Form (PROPOSAL Part F Item 2B), is required by the Iowa Labor Commissioner, pursuant to Iowa Admin. Code rule 875-156.2(1). The Bidder must complete and submit the Bidder Status Form, signed by an authorized representative of the Bidder, with their bid proposal. Under Iowa Admin. Code rule 875-156.2(1), failure to provide the Bidder Status Form with the bid may result in the bid being deemed non-responsive and may result in the bid being rejected. The Worksheet: Authorization to Transact Business from the Labor Commissioner is included on page 3 of 3 of the Instructons to Bidders, to assist Bidders in completing the Bidder Status Form.

C. Out-of-State Contractors:

1. Pursuant to Section 91C.7 of the Iowa Code, an out-of-state contractor, before commencing a contract in excess of five thousand dollars in value in Iowa, shall file a bond with the Division of Labor Services of the Iowa Department of Workforce Development. The contractor should contact 515-242-5871 for further information. Prior to contract execution, the City Engineer may forward a copy of this contract to the Iowa Department of Workforce Development as notification of pending construction work. It is the contractor's responsibility to comply with said Section 91C.7 before commencing this work.

2. Prior to entering into contract, the designated low bidder, if it be a corporation organized under the laws of a state other than Iowa, shall file with the Engineer a certificate from the Secretary of the State of Iowa showing that it has complied with all the provisions of Chapter 490 of the Code of Iowa, or as amended, governing foreign corporations. For further information contact the Iowa Secretary of State Office at 515-281-5204.

III. GENERAL

A. All bid documents must be submitted as printed. No alterations, additions, or deletions are permitted. If the Bidder notes a requirement in the contract documents that the Bidder believes will require a conditioned or unsolicited alternate bid, the Bidder must immediately notify the Engineer in writing. The Engineer will issue any necessary interpretation by an addendum.

B. Additional information regarding addenda, plan holders, bid tabulations, etc. can be found on the Engineering Department web site at <http://www.dm.gov/Departments/Engineering/Pages/BidsContracts.aspx>.

INSTRUCTION TO BIDDERS: Page 2 of 3
Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status Form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

Yes___ No___ My business is currently registered as a contractor with the Iowa Division of Labor.

Yes___ No___ My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.

Yes___ No___ My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.

Yes___ No___ My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.

Yes___ No___ My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.

Yes___ No___ My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.

Yes___ No___ My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.

Yes___ No___ My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.

Yes___ No___ My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.

Yes___ No___ My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.

Yes___ No___ My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

309-6001 02-14
NOTICE TO BIDDERS

BOARD OF TRUSTEES OF THE DES MOINES PUBLIC LIBRARY PUBLIC IMPROVEMENT PROJECT

Time and Place for Filing Sealed Proposals. Sealed bids for the work comprising each improvement as stated below must be filed at or before 11:00 a.m. on March 29, 2022, in the office of the City Clerk, 1st Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, 50309.

Accessibility for individuals with disabilities. The City of Des Moines is pleased to provide accommodations to individuals with disabilities or groups and encourages participation in City government. To better serve you, please notify us at least three business days in advance when possible at 515-283-4209, should special accommodations be required.

Time and Place Sealed Proposals Will be Opened and Considered. Sealed proposals will be opened and bids tabulated at 11:00 a.m., on March 29, 2022, in the City Council Chambers, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, for consideration by the Board of Trustees of the Des Moines Public Library (Library Board of Trustees) at its meeting on April 19, 2022. The Board of Trustees of the Des Moines Public Library (Jurisdiction) reserves the right to reject any and all bids.

Time for Commencement and Completion of Work. Work on each improvement shall be commenced upon approval of the contract by the Library Board of Trustees, and completed as stated below.

Bid Security. Each bidder shall accompany its bid with bid security as defined in Section 26.8 of the Iowa Code and as specified by the Jurisdiction.

Contract Documents. Copies of the contract documents will be available after March 15, 2022, from the City Engineer's Office, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa 50309, at no cost, phone (515-283-4573).

Preference for Iowa Products and Labor. By virtue of statutory authority, preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa statutes.

Sales Tax. The bidder should not include sales tax in the bid. A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

General Nature of Public Improvement.
North Side Library Parking Lot Expansion, 042021006

The improvement includes pavement removal, grading, milling, modified subbase, storm sewer installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA) Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/264, located at the North Side Library, 3516 5th Avcnuc, Des Moines, Iowa.

This project shall be fully completed not later than November 10, 2023.

Engineer's Construction Estimate. $730,000.00

Preletting Conference.
NOTICE OF PUBLIC HEARING
BOARD OF TRUSTEES OF THE DES MOINES PUBLIC LIBRARY PUBLIC IMPROVEMENT PROJECT

Public Hearing on Proposed Contract Documents and Estimated Costs for Improvement. A public hearing will be held by the Board of Trustees of the Des Moines Public Library on the proposed contract documents (plans, specifications and form of contract) on file in the City Engineer’s Office, and estimated cost for each improvement at its meeting on April 19, 2022, at 4:00 p.m., in the Central Library Board Room, Central Library Building, 1000 Grand Avenue, Des Moines, Iowa. Please check the posted agenda in advance of the April 19, 2022 meeting for any update on the manner in which the public hearing will be conducted to comply with COVID-19 social distancing and safety guidelines. The Board of Trustees of the Des Moines Public Library Meetings are open to all individuals regardless of disability. To better serve you, please notify the Library Board Secretary at least three business days in advance, when possible, should special accommodations be required.

General Nature of Public Improvement

North Side Library Parking Lot Expansion, 042021006

The improvement includes pavement removal, grading, milling, modified subbase, storm sewer installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA) Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/264, located at the North Side Library, 3516 5th Avenue, Des Moines, Iowa

Published in the Des Moines Register
March 30, 2022
PUBLIC NOTICE OF STORM WATER DISCHARGE

The City of Des Moines, or its Contractor for the following work, plans to submit a Notice of Intent to the Iowa Department of Natural Resources to be covered under NPDES General Permit No. 2 “Storm Water Discharge Associated with Industrial Activity for Construction Activities.” The storm water discharge will be from the construction of the North Side Library Parking Lot Expansion, Activity ID 04-2021-006.

located in ______ NE ¼ Sec. 27, T79N, R24W, Polk County

Storm water will be discharged from _____ point source and will be discharged to the following stream: ______ Des Moines River____.

Comments may be submitted to the Storm Water Discharge Coordinator, IOWA DEPARTMENT OF NATURAL RESOURCES, Environmental Protection Division, 502 E. 9th Street, Des Moines, IA, 50319-0034. The public may review the Notice of Intent from 8:00 a.m. to 4:30 p.m., Monday through Friday, at the above address after it has been received by the department.

Published in the ___ The Des Moines Register___
March 16, 2022
**ALL SECTIONS OF THE PROPOSAL MUST BE COMPLETED WHERE APPLICABLE AND ALL PAGES RETURNED, OR THE BID WILL NOT BE ACCEPTED.**

ENGINEERING DEPARTMENT  
CITY OF DES MOINES, ICWA

PROPOSAL

To the President and Members of the Board of Trustees of the Des Moines Public Library

PROPOSAL: PART A - SCOPE

The Board of Trustees of the Des Moines Public Library, hereinafter called the "Jurisdiction", has need of a qualified contractor to complete the work comprising the below referenced improvement. The undersigned Bidder hereby proposes to complete the work comprising the below referenced improvements or project as specified in the contract documents, which are officially on file with the Jurisdiction, in the Des Moines City Engineer's Office, at the prices hereinafter provided in Part C of this Proposal, for the following described improvements:

North Side Library Parking Lot Expansion, 042021006

The improvement includes pavement removal, grading, milling, modified subbase, storm sewer installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA) Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/264, located at the North Side Library, 3516 5th Avenue, Des Moines, Iowa

PROPOSAL: PART B - ACKNOWLEDGEMENT OF ADDENDA

The Bidder hereby acknowledges that all addenda become a part of the contract documents when issued, and that each such addendum has been received and utilized in the preparation of this bid. The Bidder hereby acknowledges receipt of the following addenda by inserting the number of each addendum in the blanks below:

ADDENDUM NUMBER __________ ADDENDUM NUMBER __________
ADDENDUM NUMBER __________ ADDENDUM NUMBER __________

and certifies that said addenda were utilized in the preparation of this bid.

PROPOSAL: PART C - BID ITEMS, QUANTITIES AND PRICES

UNIT BID PRICE CONTRACTS: The bidder must provide all unit prices, the amount, the total construction cost, any alternate price(s), and the total construction cost plus any add-alternates if there are alternates on the proposal on Proposal Attachment: Part C - Bid Items, Quantities, and Prices. The total construction cost plus any alternates selected by the Jurisdiction shall be used for comparison of bids. The total construction cost plus any add-alternates shall be used for determining the sufficiency of the bid security.
UNIT BID PRICE CONTRACTS: The bidder must provide all unit prices, the amount, the total construction cost, any alternate price(s), and the total construction cost plus any add-alternates if there are alternates on the proposal on Proposal Attachment: Part C - Bid Items, Quantities, and Prices. The total construction cost plus any alternates selected by the Jurisdiction shall be used for comparison of bids. The total construction cost plus any add-alternates shall be used for determining the sufficiency of the bid security.

BASE BID CONTRACTS: The bidder must provide any bid price(s), the total base bid price, any alternate price(s), and the total base bid plus any add-alternates if there are alternates on the proposal on Proposal Attachment: Part C - Bid Items, Quantities, and Prices. The total base bid plus any alternates selected by the Jurisdiction shall be used for comparison of bids. The total base bid plus any add-alternates shall be used for determining the sufficiency of the bid security.

PROPOSAL: PART D - GENERAL

The Bidder hereby acknowledges that the Jurisdiction, in advertising for public bids for this project, reserves the right to:

1. Reject any or all bids. Award of the contract, if any, to be to the lowest responsible, responsive bidder; and

2. Reject any or all alternates in determining the items to be included in the contract. Designation of the lowest responsible, responsive bidder to be based on comparison of the total bid plus any selected alternates; and

3. Make such alterations in the contract documents or in the proposal quantities as it determines necessary in accordance with the contract documents after execution of the contract. Such alterations shall not be considered a waiver of any conditions of the contract documents, and shall not invalidate any of the provisions thereof; and

The Bidder hereby agrees to:

1. Enter into a contract, if this proposal is selected, in the form approved by the Jurisdiction and provide the following documents:
   - Proof of registration with the Iowa Division of Labor in accordance with Chapter 91C of the Iowa Code by providing a valid Registration Number,
   - Proof of insurance by a Certificate(s) of Insurance,
   - A performance, maintenance, and payment bond; and

2. Forfeit bid security, not as a penalty but as liquidated damages, upon failure to enter into such contract and/or to furnish said documents and information as requested in Item 1 above acceptable to the Des Moines City Engineer; and

3. Commence the work on this project on or after the date a written Notice to Proceed is issued by the Jurisdiction, and to fully complete the project not later than November 10, 2023; and to pay liquidated damages for noncompliance with said completion provisions at the rate of Five Hundred and 00/100 ($500.00) for each calendar day thereafter that the work remains incomplete.

PROPOSAL: PART E - NON-COLLUSION AFFIDAVIT

The Bidder hereby certifies:
1. That this proposal is not affected by, contingent on, or dependent on any other proposal submitted for any improvement with the Jurisdiction; and

2. That no individual employed by the Bidder has employed any person to solicit or procure the work on this project, nor will any employee of the Bidder make any payment or agreement for payment of any compensation in connection with the procurement of this project; and

3. That no part of the bid price received by the Bidder was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the bid, other than the payment of their normal compensation to persons regularly employed by the Bidder whose services in connection with the construction of the project were in the regular course of their duties for the Bidder; and

4. That this proposal is genuine and not collusive or sham; that the Bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought, by agreement or collusion, or communication or conference, with any person, to fix the bid price of the Bidder or of any other bidder, and that all statements in this proposal are true; and

5. That the individual(s) executing this proposal have the authority to execute this proposal on behalf of the Bidder.

PROPOSAL: PART F - ADDITIONAL REQUIREMENTS

The Bidder hereby agrees to comply with the additional requirements listed below, which are included in this proposal and identified as proposal attachments:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION OF ATTACHMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reciprocal Resident Bidder and Labor Force</td>
</tr>
<tr>
<td>2.</td>
<td>General</td>
</tr>
</tbody>
</table>
PROPOSAL: PART G - IDENTITY OF BIDDER

The Bidder shall indicate whether the bid is submitted by a/an

☐ Individual, Sole Proprietorship
☐ Partnership
☐ Corporation
☐ Limited Liability Company
☐ Joint-venture: all parties must join-in and execute all documents
☐ Other

By

Bidder
Signature

Name (Print/Type)
Title

Street Address

City, State, Zip Code

Telephone Number / Email Address

A contract will not be executed until the apparent low Bidder is registered with the Iowa Commissioner of Labor pursuant to Section 91C.5 of the Iowa Code. The Bidder should contact 515-242-5871 for registration information.

Engineering Department Staff will contact the apparent low Bidder and obtain the name and title of the company's owner, president, CEO, etc. if a different person than entered above.

NOTE: The signature on this proposal must be an original signature in ink; copies or facsimile of any signature will not be accepted.
This is a unit bid price contract. The bidder must provide all unit prices, the amount, the total construction cost, any alternate price(s), and the total construction cost plus any add-alternates if there are alternates on the proposal. The total construction cost plus any alternates selected by the Jurisdiction shall be used for comparison of bids. The total construction cost plus any add-alternates shall be used for determining the sufficiency of the bid security.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ITEM CODE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 *</td>
<td>2010-D-3</td>
<td>TOPSOIL, OFF - SITE</td>
<td>CY</td>
<td>105.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2 *</td>
<td>2010-E</td>
<td>EXCAVATION, CLASS 10</td>
<td>LY</td>
<td>360.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>3 *</td>
<td>2010-G</td>
<td>SUBGRADE PREPARATION, 6 INCH</td>
<td>SY</td>
<td>1440.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>4 *</td>
<td>2010-I</td>
<td>SUBGRADE TREATMENT - GEOGRID, TYPE 2</td>
<td>SY</td>
<td>1440.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>5 *</td>
<td>2010-J</td>
<td>SUBBASE, MODIFIED, 6 INCH THICK</td>
<td>SY</td>
<td>1440.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>6 *</td>
<td>PLAN</td>
<td>SUBBASE, 3-INCH CLEAN, EXTRA DEPTH</td>
<td>TON</td>
<td>45.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>7</td>
<td>4020-A-1</td>
<td>STORM SEWER, TRENCHED, 15 INCH DIA.</td>
<td>LF</td>
<td>604.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>8</td>
<td>4020-A-1</td>
<td>STORM SEWER, TRENCHED, 36 INCH DIA.</td>
<td>LF</td>
<td>116.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>9 *</td>
<td>4020-D</td>
<td>REMOVAL OF STORM SEWER, 15 INCH RCP</td>
<td>LF</td>
<td>4.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>10</td>
<td>4040-A</td>
<td>SUBDRAIN, 6 INCH DIA.</td>
<td>LF</td>
<td>200.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>11</td>
<td>4040-B</td>
<td>FOOTING DRAIN COLLECTOR, 12 INCH DIA.</td>
<td>LF</td>
<td>317.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>12</td>
<td>4040-D</td>
<td>SUBDRAIN OUTLET, 6 INCH DIA.</td>
<td>EACH</td>
<td>2.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>13</td>
<td>6010-A</td>
<td>MANHOLE, SW-406, 48&quot;X48&quot;</td>
<td>EACH</td>
<td>2.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>14</td>
<td>6010-B</td>
<td>INTAKE, SW-50</td>
<td>EACH</td>
<td>2.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>15</td>
<td>6010-B</td>
<td>INTAKE, SW-505</td>
<td>EACH</td>
<td>1.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>16</td>
<td>6010-B</td>
<td>INTAKE, SW-508</td>
<td>EACH</td>
<td>2.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>17</td>
<td>6010-B</td>
<td>INTAKE, SW-510</td>
<td>EACH</td>
<td>1.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>18</td>
<td>6010-B</td>
<td>INTAKE, SW-512, 18 INCH DIA.</td>
<td>EACH</td>
<td>3.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>19</td>
<td>7010-A</td>
<td>PAVEMENT, PCC, 6 IN. PCC (PARKING LOT)</td>
<td>SY</td>
<td>1312.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>20</td>
<td>7010-A</td>
<td>PAVEMENT, PCC, 7 IN. PCC (PARKING LOT)</td>
<td>SY</td>
<td>41.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>21</td>
<td>7021-A</td>
<td>HIMA SURFACE COURSE, ST, PG 58-28H (1/2&quot; MIX)</td>
<td>TON</td>
<td>165.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>22 *</td>
<td>7030-A</td>
<td>REMOVAL OF SIDEWALK</td>
<td>SY</td>
<td>121.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>23 *</td>
<td>7030-A</td>
<td>REMOVAL OF DRIVEWAY</td>
<td>SY</td>
<td>63.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>24</td>
<td>7030-E</td>
<td>SIDEWALK, P.C CONCRETE, 4 IN.</td>
<td>SY</td>
<td>120.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>25</td>
<td>7030-E</td>
<td>SIDEWALK, P.C CONCRETE, 6 IN.</td>
<td>SY</td>
<td>11.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>26</td>
<td>7030-G</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>32.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>27</td>
<td>7030-H-1</td>
<td>DRIVEWAY, PAVED, P.C CONCRETE, 6 IN.</td>
<td>SY</td>
<td>51.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>28 *</td>
<td>7030-H-2</td>
<td>DRIVEWAY, GRANULAR</td>
<td>TON</td>
<td>45.00</td>
<td>$_________</td>
<td>$_________</td>
</tr>
</tbody>
</table>

PROPOSAL: North Side Library Parking Lot Expansion

RETURN WITH BID
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ITEM CODE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>7040-A</td>
<td>FULL DEPTH PATCHES</td>
<td>SY</td>
<td>645.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>7040-G</td>
<td>PAVEMENT MILLING</td>
<td>SY</td>
<td>1320.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>7040-H</td>
<td>PAVEMENT REMOVAL</td>
<td>SY</td>
<td>70.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>8020-B</td>
<td>PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE</td>
<td>STA</td>
<td>17.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>8020-G</td>
<td>PAINTED SYMBOLS AND LEGENDS</td>
<td>EACH</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>8030-A</td>
<td>TEMPORARY TRAFFIC CONTROL</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>9010-B</td>
<td>HYDRAULIC SEEDING, FERTILIZING AND MULCHING</td>
<td>ACRE</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>9030-C</td>
<td>LANDSCAPE PLANTS AND TREES</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>9040-D-1</td>
<td>FILTER SOCK, 6 IN. DIA.</td>
<td>LF</td>
<td>400.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>9040-D-2</td>
<td>FILTER SOCK, REMOVAL</td>
<td>LF</td>
<td>400.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>9040-T-1</td>
<td>INLET PROTECTION DEVICE</td>
<td>EACH</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>9060-999-A</td>
<td>FENCE, 3 FT HIGH, CUSTOM</td>
<td>LF</td>
<td>149.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>11,020-A</td>
<td>MOBILIZATION</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>11,030-A</td>
<td>MAINTENANCE OF POSTAL SERVICE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>11,030-B</td>
<td>MAINTENANCE OF SOLID WASTE COLLECTION</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>11,030-B</td>
<td>MAINTENANCE OF SOLID WASTE COLLECTION</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>SP</td>
<td>SIGN POST, PERFORATED SQUARE, STEEL TUBE POST</td>
<td>LF</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>SP</td>
<td>TYPE A SIGNS, SHEET ALUMINUM</td>
<td>SF</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>SP</td>
<td>TREE PROTECTION FENCE, 4 FT. HIGH</td>
<td>LF</td>
<td>90.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>PLAN</td>
<td>TRASH ENCLOSURE, COMPLETE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>PLAN</td>
<td>BICYCLE RACK</td>
<td>EACH</td>
<td>3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>PLAN</td>
<td>LIGHTING AND ELECTRICAL, COMPLETE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>PLAN</td>
<td>KNOXBOX</td>
<td>EACH</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>SP</td>
<td>RELOCATION OF WATER SERVICE</td>
<td>EACH</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>SP</td>
<td>NEW WATER SERVICE</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CONSTRUCTION COST $__________

*Item does not have to be included in 4-year maintenance bond but shall be covered by a 1-year maintenance bond.

NOTE: It is understood that the above quantities are estimated for the purpose of this bid. All quantities are subject to revision by the City. Quantity changes which amount to twenty (20) percent or less of the total bid shall not affect the unit bid price of that item.
PROPOSAL ATTACHMENT: PART F - ADDITIONAL REQUIREMENTS
ITEM 1 - RECIPROCAL RESIDENT BIDDER AND LABOR FORCE

Iowa Code section 73A.21 provides for a Reciprocal Resident Bidder and Labor Force preference.

Because of the nature of this project (i.e. Federal-aid participation), the Reciprocal Resident Bidder and Labor Force preference,

☐ shall not apply to this project, and the bidder need not complete the Resident Bidder Information below.

☒ shall apply to this project, and the bidder shall complete the Resident Bidder Information below.

To implement section 73A.21, the Iowa Labor Commissioner adopted chapter 156 of the Iowa Administrative Code, “Bidder Preferences in Government Contracting”. Iowa Admin. Code rule 875-156.2(1) requires each bidder to complete the attached Bidder Status Form. The Bidder must complete and submit the Bidder Status Form, signed by an authorized representative of the bidder, with their bid Proposal. Under Iowa Admin. Code rule 875-156.2(1), failure to provide the statement with the bid may result in the bid being deemed nonresponsive and may result in the bid being rejected.
Bidder Status Form

To be completed by all bidders

Please answer "Yes" or "No" for each of the following:

Yes___ No____ My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the "Worksheet: Authorization to Transact Business", on page 3 of the "Instructions to Bidders").

Yes___ No____ My company has an office to transact business in Iowa.
Yes___ No____ My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
Yes___ No____ My company has been conducting business in Iowa for at least 3 years prior to the first request for bids or this project.
Yes___ No____ My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: ___ / ___ / ___  Address: ____________________________

Dates: ___ / ___ / ___  Address: ____________________________

Dates: ___ / ___ / ___  Address: ____________________________

You may attach additional sheet(s) if needed.

To be completed by non-resident bidders

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to bidders who are residents? Yes___ No____

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: ____________________________

Signature: ____________________________  Date: ____________________________

You must submit the completed form to the governmental body requesting bids per 875 Iowa Administrative Code Chapter 156.

This form has been approved by the Iowa Labor Commissioner.

309-6001 02-14
PROPOSAL ATTACHMENT: PART F - ADDITIONAL REQUIREMENTS
ITEM 2 - GENERAL

1. The work under this proposal shall be constructed in accordance with the SUDAS Standard Specifications, 2021 Edition, and as further modified by the supplemental specifications and special provisions included in the contract documents.

   **Alternate Sales Tax:**
   Section 1020, 1.08, B, of the Supplemental Specifications shall apply. The bidder should not include sales tax in the bid. A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

2. The Bidder hereby acknowledges that the Board of Trustees of the Des Moines Public Library in advertising for public bids for this work reserves the right to give a limited notice to proceed of a duration not longer than three months. This limited notice to proceed shall be given where all necessary right-of-way has not yet been acquired. The limited notice to proceed will allow construction to proceed as far as possible and practical on the right-of-way, which has been acquired.

3. The Bidder hereby acknowledged and agrees:
   - To comply with the Equal Employment Opportunity Program included in the City of Des Moines Contract Compliance Program, which is available at the following website: [http://www.dmgov.org/Departments/Engineering/PDF/Contract%20Compliance%20Program%20(June%202017).pdf](http://www.dmgov.org/Departments/Engineering/PDF/Contract%20Compliance%20Program%20(June%202017).pdf)
   - or from the City Engineer’s Office.
   - To comply with any and all applicable provisions of the Des Moines Human Rights Ordinance, Chapter 62, of the Des Moines Municipal Code.
   - Not to discriminate against any employees, or applicants for employment, on the basis of age, race, religion, creed, color, sex, sexual orientation, national origin, ancestry, disability, familial status or gender identity.
   - To include this provision in all subcontracts for this project.

4. The City’s Overall Annual DBE/TSB Goal for calendar year 2021 is 6.03%, which represents a target that the City would like to achieve in including DBE/TSB participation on City contracts; and is not a mandatory goal for this project. The Certified Directory of DBEs is available at the following website: [https://secure.iowadot.gov/DBE/Directory/Index/](https://secure.iowadot.gov/DBE/Directory/Index/). The Certified Directory of TSBs is available at the following website: [https://iowaeda.dynamics365portals.us/tsb-search/](https://iowaeda.dynamics365portals.us/tsb-search/)
KNOW ALL BY THESE PRESENTS:

That we, ___________________________________________, as Principal, and
_____________________________________________________, as Surety, are held and firmly
bound unto the Board of Trustees of the Des Moines Public Library, as Obligee (hereinafter the
"Jurisdiction"), in the penal sum of

____________________________________________________ dollars

($)________________ lawful money of the United States, for which payment the Principal and Surety bind
themselves, their heirs, executors, administrators, successors, and assigns jointly and severally, firmly by
these presents.

The Principal has submitted to the Jurisdiction a proposal to enter into a contract in writing, for the following
described improvements:

North Side Library Parking Lot Expansion, 042021006

The improvement includes pavement removal, grading, milling, modified subbase, storm sewer
installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA)
Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work
including cleanup and restoration; all in accordance with the contract documents, including Plan File No.
641-232/264, located at the North Side Library, 3516 5th Avenue, Des Moines, Iowa

The Surety hereby stipulates and agrees that the obligations of the Surety and its Bond will be in no way
impaired or affected by any extension of the time within which the Jurisdiction may accept the Bid or execute
a Contract; and the Surety does hereby waive notice of any such extension.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the
venue will be Polk County, State of Iowa. If legal action is required by the Jurisdiction against the Surety or
Principal to enforce the provisions of this bond or to collect the monetary obligation accruing to the benefit of
the Jurisdiction, the Surety or Principal agrees to pay the Jurisdiction all outlay and expense incurred by the
Jurisdiction in enforcing any of the provisions of this Bond. All rights, powers, and remedies of the
Jurisdiction are cumulative and not alternative and are in addition to all rights, powers and remedies given to
the Jurisdiction by law. The Jurisdiction may proceed against the Surety for any amount guaranteed
hereunder whether action is brought against Principal or whether or not the Principal is joined in the action.
As used herein, the phrase “all outlay and expense” is not to be limited in any way, but includes the actual and
reasonable costs and expenses incurred by the Jurisdiction including interest, benefits and overhead where
applicable. Accordingly, "all outlay and expense" would include but not be limited to all contract or employee
expense, outside experts, attorneys fees (including overhead expenses of the Jurisdiction's staff attorneys), and
all costs and expenses of litigation as they are incurred by the Jurisdiction.
If the proposal by the Principal is accepted and the Principal enters into a contract with the Jurisdiction in accordance with the terms of the proposal, including the provision of insurance and bond as specified in the contract documents with good and sufficient surety for the faithful performance of the contract, for the prompt payment of labor and material furnished in the prosecution of the work, and for the maintenance of the improvements as may be required in the contract documents or, in the event the Principal does not enter into a contract and provide the required insurance and bonds, the Principal pays the penal sum to the Jurisdiction, then this obligation will become null and void; otherwise, the Surety shall pay to the Jurisdiction the full amount of the bid bond, together with court costs, attorney's fees, and any other expense of recovery.

Signed and sealed this __________ day of ________________________, 20________

<table>
<thead>
<tr>
<th>SURETY:</th>
<th>PRINCIPAL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________________________________________________</td>
<td>________________________________________________________________________</td>
</tr>
<tr>
<td>Surety Company</td>
<td>Bidder</td>
</tr>
<tr>
<td>By __________________________</td>
<td>By ______________________</td>
</tr>
<tr>
<td>Signature Attorney-in-Fact/Officer</td>
<td>Signature</td>
</tr>
<tr>
<td>Name of Attorney-in-Fact/Officer</td>
<td>Name</td>
</tr>
<tr>
<td>Company Name</td>
<td>Title</td>
</tr>
<tr>
<td>Company Address</td>
<td>Address</td>
</tr>
<tr>
<td>City, State Zip Code</td>
<td>City, State Zip Code</td>
</tr>
<tr>
<td>Company Telephone Number</td>
<td>Telephone Number</td>
</tr>
</tbody>
</table>

NOTE:

1. All signatures on this bid bond must be original signatures in ink; copies or facsimile of any signature will not be accepted.

2. This bond must be sealed with the Surety's raised, embossed seal.

3. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety's raised, embossing seal or security watermark.

4. The name and signature of the Surety's Attorney-in-Fact/Officer entered on this bond must be exactly as listed on the Certificate or Power of Attorney accompanying this bond.
CONTRACT

THIS CONTRACT, made and entered into at Des Moines, Iowa, on __________, by and between the Board of Trustees of the Des Moines Public Library, by its Library Board President, upon order of its Board of Trustees of the Des Moines Public Library, hereinafter the "Jurisdiction", and ________________, hereinafter the "Contractor".

WITNESSETH:

The Contractor hereby agrees to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Jurisdiction, in the Des Moines City Engineer's Office. This contract includes all contract documents. The work under this contract shall be constructed in accordance with the SUDAS Standard Specifications, 2021 Edition; and as further modified by the supplemental specifications and special provisions included in said contract documents, and the Contract Attachments attached hereto. The Des Moines City Engineer is the Engineer. The Contractor further agrees to complete the work in strict accordance with said contract documents, and to guarantee the work as required by law, for the time required in said contract documents, after its acceptance by the Jurisdiction.

This contract is awarded and executed for completion of the work specified in the contract documents for the bid prices shown on the Contract Attachment: Item 2: Bid Items, Quantities and Prices which were proposed by the Contractor in its proposal submitted in accordance with the Notice to Bidders for the following described improvements:

North Side Library Parking Lot Expansion, 042021006
The improvement includes pavement removal, grading, milling, modified subbase, storm sewer installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA) Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/264, located at the North Side Library, 3516 5th Avenue, Des Moines, Iowa

The Contractor agrees to perform said work for and in consideration of the Jurisdiction's payment of the bid amount of ________________________________ dollars ($______________) which amount shall constitute the required amount of the performance, payment, and maintenance bond. The Contractor hereby agrees to commence work under this contract on or after the date a written Notice to Proceed is issued by the Jurisdiction and to fully complete the project not later than November 10, 2023; and to pay liquidated damages for noncompliance with completion provision in the amount of Five Hundred and 00/100 dollars ($500.00), for each calendar day thereafter that the work remains incomplete.
IN WITNESS WHEREOF, the Parties hereto have executed this instrument, in triplicate on the date first shown written.

<table>
<thead>
<tr>
<th>JURISDICTION:</th>
<th>CONTRACTOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>By _________________</td>
<td>____________________</td>
</tr>
<tr>
<td>Dr. Isobel F. Osius, Library Board President</td>
<td>Contractor</td>
</tr>
<tr>
<td>(Seal)</td>
<td>By _________________</td>
</tr>
<tr>
<td>ATTEST:</td>
<td>Signature</td>
</tr>
<tr>
<td>Robert L. Mahaffey, Library Board Secretary</td>
<td>____________________</td>
</tr>
<tr>
<td>FORM APPROVED BY:</td>
<td>Title</td>
</tr>
<tr>
<td>____________________</td>
<td>____________________</td>
</tr>
<tr>
<td>Ann DiDonato, Assistant City Attorney</td>
<td>Street Address</td>
</tr>
<tr>
<td>____________________</td>
<td>____________________</td>
</tr>
<tr>
<td></td>
<td>City, State - Zip Code</td>
</tr>
<tr>
<td></td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Telephone Number / Email Address</td>
</tr>
</tbody>
</table>

CONTRACTCR PUBLIC REGISTRATION INFORMATION To Be Provided By:

1. **All Contractors:** The Contractor's Public Registration Number, issued by the Iowa Commissioner of Labor pursuant to Section 91C.5 of the Iowa Code, is as follows:
   Number

2. **Out-of-State Contractors:**

   A. Pursuant to Section 91C.7 of the Iowa Code, an out-of-state contractor, before commencing a contract in excess of five thousand dollars in value in Iowa, shall file a bond with the division of labor services of the department of workforce development. The contractor should contact 515-242-5871 for further information. Prior to contract execution, the City Engineer may forward a copy of this contract to the Iowa Department of Workforce Development as notification of pending construction work. It is the contractor’s responsibility to comply with said Section 91C.7 before commencing this work.

   B. Prior to entering into contract, the designated low bidder, if it be a corporation organized under the laws of a state other than Iowa, shall file with the Engineer a certificate from the Secretary of the State of Iowa showing that it has complied with all the provisions of Chapter 490 of the Code of Iowa, or as amended, governing foreign corporations. For further information contact the Iowa Secretary of State Office at 515-281-5204.

**NOTE:** All signatures on this contract must be original signatures in ink: copies or facsimile of any signature will not be accepted.
CORPORATE ACKNOWLEDGEMENT

State of ____________________________ ) SS
_________________________________ County )

On this __________ day of ________________, 20 ______, before me, the undersigned, a Notary Public in and for the State of __________, personally appeared ______________________ and ______________________, to me known, who, being by me duly sworn, did say that they are the ______________________, and ______________________, respectively, of the corporation executing the foregoing instrument; that (no seal has been procured by) (the seal affixed thereto is the seal of) the corporation; that said instrument was signed (and sealed) on behalf of the corporation by authority of this Board of Directors; and ______________________ acknowledged the execution of the instrument to be the voluntary act and deed of the corporation, by it and by them voluntarily executed.

_________________________________
Notary Public in and for the State ____________________________

My commission expires ____________________________
1. The Contractor acknowledges and agrees:
   • To comply with the Equal Employment Opportunity Program included in the City of Des Moines Contract Compliance Program, which is available at the following website <http://www.dmgov.org/Departments/Engineering/PDF/Contract%20Compliance%20Program%20(June%202017).pdf> or from the City Engineer’s Office.
   • To comply with any and all applicable provisions of the Des Moines Human Rights Ordinance, Chapter 62, of the Des Moines Municipal Code.
   • Not to discriminate against any employees, or applicants for employment, on the basis of age, race, religion, creed, color, sex, sexual orientation, national origin, ancestry, disability, familial status or gender identity.
   • To include this provision in all subcontracts for this project.

2. The Contractor agrees to comply with the requirements of the Board of Trustees of the Des Moines Public Library Contract Compliance Program as referenced in the proposal. Final acceptance of the project will not be made until the Contractor has submitted to the City Engineer a notarized summary of payments to and scope of work by all DBE/TSB subcontractors.

3. The City of Des Moines Master Construction Safety Packet (Safety Plan) is available at <http://www.dmgov.org/Departments/Engineering/PDF/MasterConstructionSafetyPacket.pdf> and is also available upon request from the Engineering Department. The Engineering Department will make available a copy of the City of Des Moines Safety Plan to the Contractor when the contract is awarded. The Contractor understands and agrees that said Safety Plan is for the Contractor’s information only and that it is the Contractor’s sole responsibility to provide, or make available, this safety information to all its Subcontractors.

4. The Contractor understands and agrees that the construction of the work included in this contract is by its nature dangerous work. The Contractor agrees:
   • That the Contractor should have a safety program; however, the Contractor need not submit a safety program to the Board of Trustees of the Des Moines Public Library, and Board of Trustees of the Des Moines Public Library staff will not review or approve the Contractor’s safety program. The Board of Trustees of the Des Moines Public Library assumes that the Contractor will maintain a safe worksite; however, Board of Trustees of the Des Moines Public Library staff will not intrude in the Contractor’s responsibility for safety issues.
   • That until the work is accepted by the Jurisdiction; the work shall be in the custody of and under the charge, care, and control of the Contractor.
   • That the Contractor is responsible for the project area or work site.
   • That the Contractor is solely responsible for the safety of everyone on its work site.
   • That it is the Contractor’s sole responsibility to provide as safe a working site as possible given the nature of the work.
   • That it is the Contractor’s responsibility to notify and advise its employees, subcontractors, suppliers, and everyone on the worksite of the dangers associated with the work, and provide them with appropriate safety information to protect them from those dangers.

5. The Contractor acknowledges and agrees that no contract shall be binding upon the Board of Trustees of the Des Moines Public Library until said contract has been executed by the Bidder, and shall have been approved by the Board of Trustees of the Des Moines Public Library and executed by the Library Board President and attested to by the Library Board Secretary.
6. The Contractor agrees that sixty (60) days shall constitute a reasonable time within which it shall be required to make progress payments or final payment to subcontractors after each subcontractor's satisfactory performance of its work, all as required by Section 573.12 2.b.(2) of the Code of Iowa.
This contract is awarded and executed 'or completion of the work specified in the contract documents for the bid price tabulated below as proposed by the contractor in its proposal submitted in accordance with notice to bidders and notice of public hearing. All quantities are subject to revision by the Jurisdiction. Quantity changes which amount to twenty (20) percent or less of the amount bid shall not affect the unit bid price of that item.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ITEM CODE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2010-D-3</td>
<td>TOPSOIL, OFF - SITE</td>
<td>CY</td>
<td>105.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2010-E</td>
<td>EXCAVATION, CLASS 10</td>
<td>CY</td>
<td>300.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2010-G</td>
<td>SUBGRADE PREPARATION, 6 INCH</td>
<td>SY</td>
<td>1440.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2010-I</td>
<td>SUBGRADE TREATMENT - GEOGRID, TYPE 2</td>
<td>SY</td>
<td>1440.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2010-J</td>
<td>SUBBASE, MODIFIED, 6 INCH THICK</td>
<td>SY</td>
<td>1440.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PLAN</td>
<td>SUBBASE, 3-INCH CLEAR, EXTRA DEPTH</td>
<td>TON</td>
<td>45.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>4020-A-1</td>
<td>STORM SEWER, TRENCHED, 15 INCH DIA.</td>
<td>LF</td>
<td>604.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4020-A-1</td>
<td>STORM SEWER, TRENCHED, 30 INCH DIA.</td>
<td>LF</td>
<td>716.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>4020-D</td>
<td>REMOVAL OF STORM SEWER, 15 INCH RCP</td>
<td>LF</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4040-A</td>
<td>SUBDRAIN, 6 INCH DIA.</td>
<td>LF</td>
<td>200.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>4040-B</td>
<td>FOOTING DRAIN COLLECTOR, 12 INCH DIA.</td>
<td>LF</td>
<td>631.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>4040-D</td>
<td>SUBDRAIN OUTLET, 6 INCH DIA.</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>6010-A</td>
<td>MANHOLE, SW-400, 48&quot;X48&quot;</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>6010-B</td>
<td>INTAKE, SW-501</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>6010-B</td>
<td>INTAKE, SW-505</td>
<td>EACH</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>6010-B</td>
<td>INTAKE, SW-506</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>6010-B</td>
<td>INTAKE, SW-510</td>
<td>EACH</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>6010-B</td>
<td>INTAKE, SW-512, 18 INCH DIA.</td>
<td>EACH</td>
<td>3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>7010-A</td>
<td>PAVEMENT, PCC 6 IN. PCC (PARKING LOT)</td>
<td>SY</td>
<td>1312.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>7010-A</td>
<td>PAVEMENT, PCC 7 IN. PCC (PARKING LOT)</td>
<td>SY</td>
<td>41.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>7021-A</td>
<td>HMA SURFACE COURSE, ST, PG 58-28H (1/2&quot; MIX)</td>
<td>TON</td>
<td>165.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>7030-A</td>
<td>REMOVAL OF SIDEWALK</td>
<td>SY</td>
<td>121.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>7030-A</td>
<td>REMOVAL OF DRIVEWAY</td>
<td>SY</td>
<td>63.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>7030-E</td>
<td>SIDEWALK, P.C. CONCRETE, 4 IN.</td>
<td>SY</td>
<td>120.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>7030-E</td>
<td>SIDEWALK, P.C. CONCRETE, 6 IN.</td>
<td>SY</td>
<td>11.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>7030-G</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>32.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>7030-H-1</td>
<td>DRIVEWAY, PAVED, P.C. CONCRETE, 6 IN.</td>
<td>SY</td>
<td>51.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>7030-H-2</td>
<td>DRIVEWAY, GRAVEL</td>
<td>TON</td>
<td>45.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
<td>ITEM CODE</td>
<td>DESCRIPTION</td>
<td>UNITS</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>AMOUNT</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
<td>--------------------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>29</td>
<td>7040-A</td>
<td>FULL DEPTH PATCHES</td>
<td>SY</td>
<td>645.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>7040-G</td>
<td>PAVEMENT MILLING</td>
<td>SY</td>
<td>1320.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>7040-H</td>
<td>PAVEMENT REMOVAL</td>
<td>SY</td>
<td>70.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>8020-B</td>
<td>PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE</td>
<td>STA</td>
<td>17.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>8020-G</td>
<td>PAINTED SYMBOLS AND LEGENDS</td>
<td>EACH</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>8030-A</td>
<td>TEMPORARY TRAFFIC CONTROL</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>9010-B</td>
<td>HYDRAULIC SEEDING, FERTILIZING AND MULCHING</td>
<td>ACRE</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>9030-C</td>
<td>LANDSCAPE PLANTS AND TREES</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>9040-D-1</td>
<td>FILTER SOCK, 9 IN. DIA.</td>
<td>LF</td>
<td>400.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>9040-D-2</td>
<td>FILTER SOCK, REMOVAL</td>
<td>LF</td>
<td>200.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>9040-T-1</td>
<td>INLET PROTECTION DEVICE</td>
<td>EACH</td>
<td>8.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>9080-999-A</td>
<td>FENCE, 3 FT HIGH, CUSTOM</td>
<td>LF</td>
<td>149.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>11,020-A</td>
<td>MOBILIZATION</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>11,030-A</td>
<td>MAINTENANCE OF POSTAL SERVICE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>11,030-B</td>
<td>MAINTENANCE OF SOLID WASTE COLLECTION</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>SP</td>
<td>SIGN POST, PERFORATED SQUARE, STEEL TUBE POST</td>
<td>LF</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>SP</td>
<td>TYPE A SIGNS, SHEET ALUMINUM</td>
<td>SP</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>SP</td>
<td>TREE PROTECTION FENCE, 4 FT. HIGH</td>
<td>LF</td>
<td>90.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>SP</td>
<td>TREE TRUNK PROTECTION</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>PLAN</td>
<td>TRASH ENCLOSURE, COMPLETE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>PLAN</td>
<td>BICYCLE RACK</td>
<td>EACH</td>
<td>3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>PLAN</td>
<td>LIGHTING AND ELECTRICAL, COMPLETE</td>
<td>LS</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>PLAN</td>
<td>KNOXBOX</td>
<td>EACH</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>SP</td>
<td>RELOCATION OF WATER SERVICE</td>
<td>EACH</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>SP</td>
<td>NEW WATER SERVICE</td>
<td>EACH</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CONSTRUCTION COST**

* Item does not have to be included in 4-year maintenance bond but shall be covered by a 1-year maintenance bond.

NOTE: It is understood that the above quantities are estimated for the purpose of this bid. All quantities are subject to revision by the City. Quantity changes which amount to twenty (20) percent or less of the total bid shall not affect the unit bid price of that item.
PERFORMANCE, PAYMENT & MAINTENANCE BOND

KNOW ALL BY THESE PRESENTS:

That we, ________________________________, as Principal (the "Contractor" or "Principal"), and ________________________________, as Surety, are held and firmly bound unto the Board of Trustees of the Des Moines Public Library, as Obligee (the "Jurisdiction"), and to all persons who may be injured by any breach of any of the conditions of this Bond in the penal sum of ________________________________ dollars ($__________________), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, legal representatives and assigns, jointly and severally, firmly by these presents.

The conditions of the above obligations are such that whereas the Contractor entered into a contract with the Jurisdiction, bearing the date of ________________ (the "Contract") wherein the Contractor undertakes and agrees to construct the following described improvements:

North Side Library Parking Lot Expansion, 042021006

The improvement includes pavement removal, grading, milling, modified subbase, storm sewer installation, intakes, manholes, Portland Cement Concrete (PCC) parking lot, Hot Mix Asphalt (HMA) Paving, pavement markings, landscape plants and trees, trash enclosure, lighting and associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/264, located at the North Side Library, 3516 5th Avenue, Des Moines, Iowa

and to faithfully perform all the terms and requirements of the Contract within the time specified, in a good and workmanlike manner, and in accordance with the Contract Documents. Provided however, that one year after the date of acceptance by the Jurisdiction as complete, of the work under the above referenced Contract, the maintenance portion of this Bond shall continue in force but the penal sum for maintenance shall be reduced to ________________________________ dollars ($__________________), which is the cost associated with those items shown on the Proposal and in the Contract which require a maintenance bond period in excess of one year.

It is expressly understood and agreed by the Contractor and Surety that the following provisions are a part of this Bond and are binding upon the Contractor and Surety, to-wit:

1. PERFORMANCE: The Contractor shall well and faithfully observe, perform, fulfill and abide by each and every covenant, condition and part of the Contract and Contract Documents, by reference made a part hereof, and shall indemnify and save harmless the Jurisdiction from all outlay and expense incurred by the Jurisdiction by reason of the Contractor's default or failure to perform as required. The Contractor shall also be responsible for the default or failure to perform as required under the Contract and Contract Documents by all its subcontractors, suppliers, agents, or employees furnishing materials or providing labor in the performance of the Contract.
2. **PAYMENT:** The Contractor and Surety on this bond hereby agree to pay all just claims submitted by persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the performance of the Contract, including but not limited to claims for all amounts due for labor, materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used by the Contractor or any subcontractor, wherein the same are not satisfied out of the portion of the contract price which the Jurisdiction is required to retain until completion of the improvement, but the Contractor and Surety shall not be liable unless the claims have been established as provided by law. The Contractor and Surety hereby bind themselves to the obligations and conditions set forth in Iowa Code Chapter 573.

3. **MAINTENANCE:** The Contractor and the Surety shall, at their own expense:
   A. Remedy any and all defects that may develop in or result from work to be performed under the Contract within the period of four (4) year(s) from the date of acceptance of the work under the Contract, by reason of defects in workmanship or materials used in construction of the work;
   B. Keep all work in continuous good repair; and
   C. Pay the Jurisdiction's reasonable costs of monitoring and inspecting to assure that any defects are remedied, and to repay the Jurisdiction all outlay and expense incurred as a result of Contractor's and Surety's failure to remedy any defect as required by this section.

Contractor's and Surety's obligation extends to defects in workmanship or materials not discovered or known to the Jurisdiction at the time the work was accepted.

4. **GENERAL:** Every Surety on this Bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:
   A. To consent without notice to any extension of time to the Contractor in which to perform the Contract;
   B. To consent without notice to any change in the Contract or Contract Documents, that increases the total contract price and the penal sum of this bond, provided that all such changes do not, in the aggregate, involve an increase of more than twenty percent of the total contract price, and that this Bond shall then be released as to such excess increase; and
   C. To consent without notice that this Bond shall remain in full force and effect until the contract is completed, whether completed within the specified contract period, within an extension thereof, or within a period of time after the contract period has elapsed and liquidated damages are being charged against the Contractor.

5. The Contractor and every Surety on this Bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:
   A. That no provision of this Bond or of any other contract shall be valid which limits to less than five years after the acceptance of the work under the Contract the right to sue on this Bond.
B. That as used herein, the phrase "all outlay and expense" is not to be limited in any way, but shall include the actual and reasonable costs and expenses incurred by the Jurisdiction including interest, benefits and overhead as applicable. Accordingly, "all outlay and expense" would include but not be limited to all contract or employee expense, all equipment usage or rental, materials, testing, outside experts, attorneys fees (including overhead expenses of the Jurisdiction's staff attorneys), and all costs and expenses of litigation as they are incurred by the Jurisdiction. It is intended the Contractor and Surety will defend and indemnify the Jurisdiction on all claims made against the Jurisdiction on account of Contractor's failure to perform as required in the Contract and Contract Documents, that all agreements and promises set forth in the Contract and Contract Documents, in approved change orders, and in this Bond will be fulfilled, and that the Jurisdiction will be fully indemnified so that it will be put into the position it would have been in had the Contract been performed in the first instance as required.

C. In the event the Jurisdiction incurs any "outlay and expense" in defending itself with respect to any claim to which the Contractor or Surety should have provided the defense, or in the enforcement of the promises given by the Contractor in the Contract, Contract Documents, or approved change orders, or in the enforcement of the promises given by the Contractor and Surety in this Bond, the Contractor and Surety agree that they will make the Jurisdiction whole for all such outlay and expense, provided that the Surety's obligation under this Bond shall not exceed 125% of the penal sum of this Bond.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be Polk County, State of Iowa. If legal action is required by the Jurisdiction to enforce the provisions of this Bond or to collect the monetary obligation accruing to the benefit of the Jurisdiction, the Contractor and Surety agree, jointly and severally, to pay the Jurisdiction all outlay and expense incurred by the Jurisdiction. All rights, powers, and remedies of the Jurisdiction hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Jurisdiction, by law. The Jurisdiction may proceed against the Surety for any amount guaranteed hereunder whether action is brought against the Contractor or whether or not the Contractor is joined in the action.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall faithfully perform all of the promises of the Principal, as set forth and provided in the Contract, in the Contract Documents, and in this Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

When a word, term, or phrase is used in this Bond, it shall be interpreted or construed first as defined in this Bond, the Contract, or the Contract Documents; second, if not defined in the Bond, Contract, or Contract Documents, it shall be interpreted or construed as defined in applicable provisions of the Iowa Code; third, if not defined in the Iowa Code, it shall be interpreted or construed according to its generally accepted meaning in the construction industry; and fourth, if it has no generally accepted meaning in the construction industry, it shall be interpreted or construed according to its common or customary usage.
Failure to specify or particularize shall not exclude terms or provisions not mentioned and shall not limit liability hereunder. The Contract and Contract Documents are hereby made a part of this Bond.

Witness our hands, in triplicate, this ______ day of ______________________ , 20____

PRINCIPAL:

________________________________________

Contractor

By ______________________________________

Signature

__________________________

Title

FORM APPROVED BY:

Ann DiDonato
Assistant City Attorney

SURETY:

________________________________________

Surety Company

By ______________________________________

Signature Attorney-in-Fact/Officer

__________________________

Name of Attorney-in-Fact/Officer

__________________________

Company Name

__________________________

Company Address

__________________________

City, State Zip Code

__________________________

Company Telephone Number

NOTE:

1. All signatures on this performance, payment & maintenance bond must be original signatures in ink; copies or facsimile of any signature will not be accepted.

2. This bond must be sealed with the Surety’s raised, embossed seal.

3. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety’s raised, embossing seal.

4. The name and signature of the Surety’s Attorney-in-Fact/Officer entered on this bond must be exactly as listed on the Certificate or Power of Attorney accompanying this bond.

5. This bond form must be utilized as printed; no additions/deletions/alterations are permitted, other than providing the required information.
This project will be constructed in accordance with the SUDAS Standard Specifications, 2021 Edition, which were adopted by the City of Des Moines on May 10, 2021, under Roll Call No. 21-0672, as amended by these City of Des Moines General Supplemental Specifications.

The SUDAS Standard Specifications, 2021 Edition, may be viewed at the Iowa SUDAS website https://iowasudas.org/manuals/specifications-manual/, or can be purchased online from the Iowa SUDAS website at https://iowasudas.org/order-the-manuals/.

Said SUDAS Standard Specifications are hereby amended as follows:

SECTION 1010 – DEFINITIONS

1010, 1.03 DEFINITIONS AND TERMS. Add the following new definition:

PRIVATE CONSTRUCTION CONTRACT: A contract awarded by a private agency or individual for construction of a publicly owned or privately-owned improvement, which by agreement of the parties is subject to these specifications.

SECTION 1020 – PROPOSAL REQUIREMENTS AND CONDITIONS

1020, 1.01 QUALIFICATION OF THE BIDDERS: Add the following new E.

E. The City of Des Moines may disqualify a Contractor from bidding on future work or from participating as a subcontractor for a period of up to 3 years in accordance with Section 94-198 of the Municipal Code of the City of Des Moines.

1020, 1.03 QUANTITIES AND UNIT PRICES: Delete B. and replace with the following new B.

B. When unit prices are requested in the proposal form, the quantities indicated on the proposal form are approximate only, and do not constitute a warranty or guarantee by the Jurisdiction as to the actual quantities involved in the work. Such quantities are to be used for the purpose of comparison of bids and determining the amount of bid security, contract, and performance, payment, and maintenance bond. In the event of discrepancies between unit prices and unit price extensions listed in a bidder’s proposal, unit prices shall govern and unit price extensions shall be corrected, as necessary, for agreement with unit prices; except in the case of an obvious, serious, clerical error where the Engineer is able to determine the bidder’s intent from the proposal; in which case, the Jurisdiction may waive irregularities that are in best interest of the Jurisdiction, as long as the integrity of the bid process can be maintained. The Jurisdiction expressly reserves the right to increase or decrease the quantities during construction as outlined in Section 1040, 1.06 - Increase or Decrease of Work, and to make reasonable changes in design, provided such changes do not materially change the intent of the contract. The amount of work to be paid for shall be based upon the actual quantities performed.

*This highlighted language and Section 94-198 of the Municipal Code of the City of Des Moines are not the current law of the State of Iowa and not applicable to the City’s current bidding process.*
1020, 1.09 PREPARATION OF THE PROPOSAL: Delete D. and replace with the following D:

D. When unit prices are requested, they shall be submitted on each and every item of work included for which bids are requested. The format for unit prices will be in dollars and whole cents only. In the case of discrepancy, the unit price shall govern; except in the case of an obvious, serious, clerical error where the Engineer is able to determine the bidder’s intent from the proposal; in which case, the Jurisdiction may waive irregularities that are in best interest of the Jurisdiction, as long as the integrity of the bid process can be maintained.

1020, 1.15 LIMITATION ON WITHDRAWAL OF PROPOSALS AFTER OPENING OF PROPOSALS: Add the following new C:

C. After bids are opened, if the low bidder claims that it has made a serious error in the preparation of its bid, and can support such a claim with evidence satisfactory to the Jurisdiction, said bidder shall be allowed to withdraw its bid and its bid security shall be returned; *provided however, as a condition for return of its bid security, said bidder shall be required to agree that it will not be allowed to again bid on the project, either as a prime bidder or as a subcontractor, if the project, or a substantial portion of the project, is rebid within six months of the first bid opening. Under no circumstances should said bidder be permitted to alter or adjust its bid, as this would undermine the entire system of competitive bidding and be an open invitation to abuse.

SECTION 1040 – SCOPE OF WORK

1040, 1.05 PLANS: Delete the 2nd paragraph and replace with the following:

Electronic support files, will not be provided prior to letting and may be provided to the low bidder and are for information only. Should there be a discrepancy between an electronic support file and a contract document, the contract documents shall govern. No guarantee is made that the data systems used by the Engineer will be directly compatible with the systems the Contractor uses.

1040, 1.07 CHANGE ORDERS, B. Written Orders: Add the following to the end of the section:

Formal approval by the Jurisdiction shall be defined as follows:
The authority of the Des Moines City Manager and the Engineer to approve change orders shall be limited to those change orders which will cost $50,000 or less. Change orders for work to cost more than $50,000 shall be approved by the City Council prior to the payment of the work provided for under the change order.

*This highlighted language is not the current law of the State of Iowa and not applicable to the City’s current bidding process.

1040, 1.09 CHANGED SITE CONDITIONS, A. Latent or Subsurface Conditions: Delete 1. and 2. in their entirety and replace with the following 1. and 2.; and add the following new 3.

1. If the Contractor encounters latent or subsurface conditions differing materially from those indicated in the contract documents which the Contractor could not have discovered by a reasonable site investigation and examination of the type customarily undertaken by prudent and competent contractors, and if these changed conditions are considered by the Contractor as a basis for compensation in addition to the contract price, the Contractor shall within three working days after discovery thereof notify the Engineer of its claim by written notice sent forth herein. Before disturbing the site at which the latent or subsurface condition is alleged to exist, the Contractor shall give the Engineer the opportunity to inspect the same.
a. For claims greater than $50,000 the Contractor shall notify the Engineer by written notice either (i) personally delivered, (ii) sent by certified mail, return receipt requested, or (iii) delivered by a nationally recognized prepaid overnight courier service (receipt requested), to the address below:

City of Des Moines
Engineering Department
400 Robert D. Ray Drive
Des Moines, IA 50309-1891
Attention: Steve Naber, P.E., City Engineer

Under no circumstance will an email, text message, verbal communication or any other informal communication, be considered acceptable or satisfactory written notice required by this section. The written notice shall:

1) Expressly state that it is a request for a contract change under Section 1040, 1.09;
2) Expressly identify the latent or subsurface conditions that the Contractor alleges differ materially from those indicated in the contract documents which the Contractor could not have discovered by a reasonable site investigation and examination of the type customarily undertaken by prudent and competent contractors;
3) Expressly state the reason the Contractor believes extra compensation is due;
4) Identify work that Contractor alleges will be impacted.

b. For claims less than $50,000 the Contractor shall notify the Project Engineer by written notice sent as set forth above or sent by email providing the same detail as identified in a.1) through 4) above. Under no circumstances will a text message, verbal communication or any other informal communication be considered acceptable or satisfactory written notice required by this section.

2. After inspection by the Engineer, the Jurisdiction may, in its discretion, authorize the Contractor to proceed with or abandon the work. The Contractor shall resume construction operations pending a decision regarding its claim by the Jurisdiction. Failure of the Contractor to give written notice within three working days of discovering the conditions and to give the Engineer full opportunity to inspect the condition before disturbing the site shall be deemed a waiver by the Contractor of all claims for extra compensation arising out of the alleged condition.

3. Latent or subsurface conditions that do not materially differ from those shown on the plans shall not form the basis for additional compensation. No additional compensation or extension of time shall be provided for conditions that do not materially differ, regardless of the nature of the condition encountered.

1040, 1.10 DISPUTED CLAIMS FOR EXTRA COMPENSATION: Delete 1.10 in its entirety and replace with the following:

A. Basis of Claim for Extra Compensation:

1. In any case where the Contractor believes extra compensation is due for work or material beyond the scope of the Work under the contract and not ordered by the Engineer as Extra Work as defined in Section 1010, 1.03, the Contractor shall provide written notice to the Engineer, as set forth herein, of its intention to make claim for such extra compensation within thirty (30) days of discovering the circumstances regarding the claim and before beginning the work on which the claim is based (hereinafter referred to as a “Claim”).

a. For claims greater than $50,000 the Contractor shall notify the Engineer by written notice either (i) personally delivered, (ii) sent by certified mail, return receipt requested, or (iii)
delivered by a nationally recognized prepaid overnight courier service (receipt requested) to the address below:

City of Des Moines
Engineering Department
400 Robert D. Ray Drive
Des Moines, IA 50309-1891
Attention: Steve Naber, P.E., City Engineer

Under no circumstance will an email, text message, verbal communication or any other informal communication, be considered acceptable or satisfactory written notice required by this section. The written notice shall:

1) Expressly state that it is a request for a contract change under Section 1040, 1.10;
2) Expressly state the reason the Contractor believes extra compensation is due;
3) Identify the underlying work or material that Contractor claims is beyond the scope of the Work under the contract and not ordered by the Engineer as Extra Work as defined in Section 1010, 1.03;
4) Identify any work that will be impacted.

b. For claims less than $50,000 the Contractor shall notify the Project Engineer by written notice sent as set forth above or sent by email providing the same detail as identified in a.1 through 4) above. Under no circumstances will a text message, verbal communication or any other informal communication be considered acceptable or satisfactory written notice required by this section.

The Contractor shall not proceed with that work until the Contractor and the Jurisdiction have executed a change order with respect to the Claim. The Contractor shall have no right to submit a Claim for any matter which is exclusively reserved to authority of the Engineer under the Contract Documents.

2. The Jurisdiction shall not be responsible for damages attributable to the performance, nonperformance, or delay, of any other contractor, governmental agency, utility agency, firm, corporation, or individual authorized to do work on the project, except if such damages result from negligence on the part of the Jurisdiction, its Engineer, or any of its officers or employees.

3. For any Claim, if such written notification is not given, or if after such written notification is given the Engineer is not allowed facilities for keeping strict account of actual costs as defined for force-account construction, the Contractor thereby agrees to waive the Claim for extra compensation for such work. Such written notice by the Contractor, and the fact the Engineer has kept account of the cost as aforesaid, shall not be construed as establishing the validity of the Claim.

4. The Claim, when filed, shall be in writing and in sufficient detail to permit auditing and an evaluation by the Jurisdiction. The Claim shall be supported by such documentary evidence as the Contractor has available and shall be verified by affidavit of the Contractor or other person having knowledge of the facts.

B. Presentation and Consideration of Claim: If the Contractor wishes an opportunity to present its Claim in person, the Claim shall be accompanied by a written request to do so. Where the Contractor asks an opportunity to present its Claim in person, the Jurisdiction, within thirty (30) calendar days of the filing of the Claim, shall fix a time and place for a meeting between the Contractor and the Jurisdiction or its designated representatives or representative. The Jurisdiction shall, within a reasonable time after the filing of the Claim or the meeting above referred to, whichever is later, rule upon the validity of the Claim and notify the Contractor, in writing, of its ruling together with the reasons therefore. In case the Claim is found to be just, in whole or in part, it shall be allowed and paid to the extent so found.
C. Request for Claim Review: In the event a Contractor’s Claim as outlined in the above procedure in Sections 1040, 1.10(A) and (B) has been disallowed, in whole or in part, the Contractor may, within thirty (30) calendar days from the date the ruling of the Jurisdiction is mailed, make a written request to the Jurisdiction that its Claim or Claims be submitted to a board of review. The written request shall be either (i) personally delivered, (ii) sent by certified mail, return receipt requested, or (iii) delivered by a nationally recognized prepaid overnight courier service (receipt requested) addressed as follows:

City of Des Moines
Engineering Department
400 Robert D. Ray Drive
Des Moines, IA 50309-1891
Attention: City Engineer

The Jurisdiction shall decide if the matter is subject to further review and shall, within thirty (30) calendar days of the receipt of the request for review, grant or deny the request for review. The Jurisdiction’s decision shall be final. In the event the Contractor fails to make a timely written demand for review of its Claim as provided by this Section 1040, 1.10(C), the decision of the Jurisdiction shall be deemed to be final and the Contractor shall have no right to pursue arbitration or litigation of its Claim.

D. Board of Review:

1. The Board shall have jurisdiction to pass upon questions involving compensation to the Contractor for work actually performed or materials furnished and upon claims for extra compensation that have not been allowed by the Jurisdiction. The Board’s jurisdiction shall not extend to matters exclusively reserved to the Engineer, to a determination of quality of workmanship or materials furnished, or to an interpretation of the intent of the Plans and Specifications except as to matters of compensation. Jurisdiction of the Board shall not extend to setting aside or modifying the terms or requirements of the contract.

2. Following the timely written demand for review of the Claim and the decision of the Jurisdiction to grant the request, a board of review shall be appointed to review the Claim. The board of review shall consist of three (3) members as follows: the Engineer, or designated representative; and two persons to be appointed by the Engineer (hereinafter the “Board”).

3. The Board shall set a date for the Contractor to present its Claim for review within sixty (60) days of the date the Jurisdiction issued its decision granting the Contractor’s request for review. The presentation before the Board shall not be in accordance with the Iowa rules of civil procedure and the Contractor shall not have the right to conduct discovery or compel the testimony of witnesses as part of the presentation. The Contractor shall submit three (3) copies of a written Claim summary and all documents it considers to be relevant to its Claim at least fourteen (14) days prior to the date set for the presentation before the Board. The presentation before the Board is intended to be an informal process to allow the Contractor to further explain its Claim and why it believes it is entitled to additional compensation. The Board reserves the right to impose such rules as it deems reasonably necessary to allow for a fair and efficient presentation.

4. Following the presentation before the Board, the Board shall render a written decision regarding the Claim within twenty (20) days of the presentation. In the event the Board renders a decision in favor of the Contractor for some or all of the Claim, the Contractor and the Jurisdiction shall promptly proceed in good faith to prepare a change order consistent with the decision of the Board. If the Board denies the Claim, in part or in full, the Contractor’s sole and exclusive remedy is to demand final resolution of the Claim that has been denied subject to the procedure provided below.
E. **Final Resolution by Binding Arbitration or Litigation:** For any Claim denied by the Board, the Jurisdiction shall have the sole and exclusive right to determine whether final resolution of the Claim shall be through Binding Arbitration or litigation. The Contractor shall not have the right to pursue final resolution of any Claim that the Contractor did not submit to the Board. The Contractor must make a written demand for final resolution of the Claim upon the Jurisdiction within thirty (30) days of the date when the Board rendered its decision or it will be deemed to have waived this right and the decision of the Board will be final. The written demand shall be either (i) personally delivered, (ii) sent by certified mail, return receipt requested, or (iii) delivered by a nationally recognized prepaid overnight courier service (receipt requested) addressed as follows:

City of Des Moines  
Engineering Department  
400 Robert D. Ray Drive  
Des Moines, IA  50309-1891  
Attention:  Steve Naber, P.E., City Engineer

The Jurisdiction shall notify the Contractor within thirty (30) days of the date of receiving the Contractor’s written demand for final resolution of the Claim, whether the Jurisdiction will elect to use binding arbitration or litigation to reach a final resolution of the Claim. The decision to pursue binding arbitration or litigation, shall be the sole and exclusive decision of the Jurisdiction. The decision of the Jurisdiction on whether to pursue binding arbitration or litigation is final.

1. **Arbitration.**

   (a) If the Jurisdiction elects to use binding arbitration for final resolution of the Claim, the sole and exclusive remedy for final resolution of the Claim shall be binding arbitration (the “Arbitration”). The Arbitration shall be submitted to a single arbitrator as is mutually agreed upon by the Contractor and Jurisdiction. If the Contractor and Jurisdiction cannot agree upon a single arbitrator within twenty-one (21) days of the date of the Jurisdiction’s notification to the Contractor of the Jurisdiction’s decision to pursue binding arbitration, the Arbitration shall be submitted to a three (3) member panel appointed as follows: the Contractor shall appoint one arbitrator; the Jurisdiction shall appoint one arbitrator; and the third arbitrator shall be chosen by the first two appointed arbitrators (for the sake of convenience, the arbitrator, or arbitrators as the case may be, shall be referred to hereinafter as the “Arbitrator”). The parties agree to work toward appointment of a three (3) member Arbitration panel within twenty-one (21) days after not being able to agree on a single arbitrator. The Arbitration shall be conducted in general accord with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect. The parties reserve the right to alter and amend the rules for the Arbitration as they may mutually agree in writing.

   (b) The Arbitrator shall have jurisdiction to pass upon questions involving compensation to the Contractor for work actually performed or materials furnished and upon claims for extra compensation that have not been allowed by the Jurisdiction. The Arbitrator’s jurisdiction shall not extend to matters exclusively reserved to the Engineer, to a determination of quality of workmanship or materials furnished, or to an interpretation of the intent of the Plans and Specifications, except as to matters of compensation. Jurisdiction of the Arbitrator shall not extend to setting aside or modifying the terms or requirements of the contract.

   (c) Subject to agreement of the parties and the Arbitrator, the parties shall work in good faith to schedule the Arbitration and allow for the decision of the Arbitrator within two hundred forty (240) days after appointment of the Arbitrator.
(d) The Arbitrator shall render a written decision within twenty (20) days after the Claim has been fully submitted. For Arbitrations before more than one arbitrator, the decision of a majority of the panel shall govern. The Arbitrator’s decision shall provide a basis for the findings and legal conclusions and shall determine how the cost of the proceedings shall be borne by the parties.

(e) The decision of the Arbitrator shall be binding and final. There shall be no further appeal or judicial review, except under the limited circumstances as allowed by Iowa law.

2. Litigation.

(a) If the Jurisdiction elects not to use arbitration as the means to reach final resolution of the claim, then the sole and exclusive remedy for final resolution of the Claim shall be litigation which must be brought in Iowa District Court in and for the County where the Jurisdiction is located or in the United Stated District Court in and for the District where the Jurisdiction is located.

(b) To the fullest extent permitted by law, Contractor and Jurisdiction hereto waive any right each may have to a trial by jury in respect of litigation directly or indirectly arising out of or in connection with this Agreement.

SECTION 1050 – CONTROL OF WORK

1050, 1.10 PROTECTION OF LINE AND GRADE STAKES: Add the following new D.

D. The Jurisdiction shall provide all construction survey staking on projects funded by the Jurisdiction unless otherwise indicated on the plans or in the Contract Documents. On Private Construction Contracts, the Owner, in accordance with the Private Construction Contract, shall hire a Licensed Surveyor for all survey work.

SECTION 1060 – CONTROL OF MATERIALS

1060, 1.03 SAMPLES AND TESTING: Add the following new D.

D. All on-site inspection and testing, as well as testing of materials, will be provided by the Jurisdiction unless otherwise indicated on the plans or by special provisions.

SECTION 1070 – LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

1070, 1.03 PERMITS AND LICENSES: Delete and replace with the following:

The Contractor shall procure and pay for all necessary permits and licenses for the construction of the work and for temporary excavations, obstructions, enclosures, and street openings arising from the construction and completion of the work described in the Contract Documents. The Contractor shall be responsible for all violations of the law for any cause in connection with the construction of the work or caused by the obstruction of roads, streets, highways or sidewalks, and shall give all requisite notices to the Jurisdiction or other public authorities in connection therewith.

1070, 2.02 CONVENIENCE AND SAFETY: E. Project Area or Work Site Safety: Add the following new 6.
6. The City of Des Moines, Engineering Department, Master Construction Safety Packet is available in the Forms and Documents section at the Engineering page on the City of Des Moines website at: https://www.dsm.city/document_center/Engineering%20and%20Traffic%20Forms%20and%20Documents/ENG-Publications/MasterConstructionSafetyPacket.pdf?pdf=Master%20Construction%20Safety%20Packet&t=1580921434169 and is also available upon request from the Engineering Department. The Engineering Department will make available a copy of the City of Des Moines Master Construction Safety Plan to the Contractor when the contract is awarded. Said Safety Plan is for the Contractor’s information only and is the Contractor’s sole responsibility to provide, or make available, this safety information to all its Subcontractors.

1070, 1.12, CONSENT TO JURISDICTION OF IOWA DISTRICT COURT OR FEDERAL DISTRICT COURT: Delete 1.12 in its entirety and replace with the following new 1.12:

1070, 1.12 DISPUTE RESOLUTION AND CONSENT TO JURISDICTION OF IOWA DISTRICT COURT OR FEDERAL DISTRICT COURT IN IOWA

A. The Contractor agrees any claims, disputes, causes of action that accrue to it, or which by subrogation or assignment accrue to its sureties or insurers, arising out of or connected with this contract, and that the Jurisdiction has determined in writing is not subject to Section 1040, 1.10, shall be resolved by arbitration or litigation as elected by the Jurisdiction. As to any such causes of action, Contractor shall provide written notice to Jurisdiction requesting that Jurisdiction make its election as to whether the dispute shall be settled by arbitration or litigation. The written notice shall be either (i) personally delivered, (ii) sent by certified mail, return receipt requested, or (iii) delivered by a nationally recognized prepaid overnight courier service (receipt requested) addressed as follows:

City of Des Moines
Engineering Department
400 Robert D. Ray Drive
Des Moines, IA 50309-1891
Attention: Steve Naber, P.E., City Engineer

Jurisdiction shall notify Contractor in writing as to its election within thirty (30) days of receipt of Contractor’s written notice requesting a determination by Jurisdiction.

1. Arbitration

(a) If the Jurisdiction elects to use binding arbitration for final resolution, the sole and exclusive remedy for final resolution of the dispute shall be binding arbitration (the “Arbitration”). The Arbitration shall be submitted to a single arbitrator as is mutually agreed upon by the Contractor and Jurisdiction. If the Contractor and Jurisdiction cannot agree upon a single arbitrator within twenty-one (21) days of the date of the Jurisdiction’s notification to the Contractor of the Jurisdiction’s decision to pursue binding arbitration, the Arbitration shall be submitted to a three (3) member panel appointed as follows: the Contractor shall appoint one arbitrator; the Jurisdiction shall appoint one arbitrator; and the third arbitrator shall be chosen by the first two appointed arbitrators (for the sake of convenience, the arbitrator, or arbitrators as the case may be, shall be referred to hereinafter as the “Arbitrator”). The parties agree to work toward appointment of a three (3) member Arbitration panel within twenty-one (21) days after not being able to agree on a single arbitrator. The Arbitration shall be conducted in general accord with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect. The parties reserve the right to alter and amend the rules for the Arbitration as they may mutually agree in writing.
(b) Jurisdiction of the Arbitrator shall not extend to setting aside or modifying the terms or requirements of the contract.

(c) Subject to agreement of the parties and the Arbitrator, the parties shall work in good faith to schedule the Arbitration and allow for the decision of the Arbitrator within two hundred forty (240) days after appointment of the Arbitrator.

(d) The Arbitrator shall render a written decision within twenty (20) days after the matter has been fully submitted. For Arbitrations before more than one arbitrator, the decision of a majority of the panel shall govern. The Arbitrator's decision shall provide a basis for the findings and legal conclusions and shall determine how the cost of the proceedings shall be borne by the parties.

(e) The decision of the Arbitrator shall be binding and final. There shall be no further appeal or judicial review, except under the limited circumstances as allowed by Iowa law.

2. Litigation.

(a) If the Jurisdiction elects not to use arbitration as the means to reach final resolution of the claim or fails to notify Contractor in writing within thirty (30) days of its election, then the sole and exclusive remedy for final resolution of the Claim shall be litigation which must be brought in Iowa District Court in and for the County where the Jurisdiction is located or in the United States District Court in and for the District where the Jurisdiction is located.

(b) To the fullest extent permitted by law, Contractor and Jurisdiction hereto waive any right each may have to a trial by jury in respect of litigation directly or indirectly arising out of or in connection with this Agreement.

B. Contractor further consents that it will require its subrogees and assigns to enter into an agreement to comply with the terms of Section, 1.12, and consent to the jurisdiction of either the Iowa District Court in and for the County where the Jurisdiction is located or the United States District Court in and for the District where the Jurisdiction is located, as to any causes of action brought against it arising out of this contract or any work performed under it by Contractor or its subcontractors, and further agrees, on behalf of itself, its subrogees and assigns, to waive any and all objections to the jurisdiction of said court as to any such cause of action. Contractor shall make such consent a condition of the retention of subrogees and assigns.

1070, 2.10 DUST CONTROL: Add the following paragraph:

The Contractor shall be responsible to remove any project-related construction materials deposited on a public street as well as related dust control measures. The Contractor shall employ all means necessary to prevent tracking soil, or loss of material, onto public streets; including but not limited to, rocking private access roads and removing excess material from equipment before leaving the construction site. The Contractor shall promptly remove any material deposited on a public street utilizing mechanical scraping and street sweeping, or other means as required by the Jurisdictional Engineer.
1070, 2.16 READY MIX CONCRETE WASTE: New Section - Add the following 2.16:

2.16 READY MIX CONCRETE WASTE

Concrete trucks will be allowed to washout or discharge excess concrete only in specifically designated areas which have been prepared to minimize contact between the concrete and storm water discharge from the site. The hardened product from the concrete washout areas will be disposed of by the Contractor as other non-hazardous waste materials or may be broken up and used on the site for other appropriate uses.

1070, 3.02 INSURANCE REQUIREMENTS, A: Delete A and replace them with the following A.

A. The contractor shall not purchase liability insurance in the name of the jurisdiction unless such purchase is allowed by special provision.

1070, 3.02 INSURANCE REQUIREMENTS, C, 2. Commercial General Liability Insurance: Revise the following limits on the Commercial General Liability Insurance:

- The Each Occurrence Limit shall be changed from $1,000,000 to $2,000,000.
- The Personal and Advertising Injury Limit, under Commercial General Liability, changed from $1,000,000 to $2,000,000.
- All other limits shall remain unchanged.

1070, 3.02 INSURANCE REQUIREMENTS, C, 3. Automobile Liability Insurance: Revise the following limits on the Automobile Liability Insurance:

- Minimum combined single limit per accident shall be changed from $1,000,000 to $2,000,000.

1070, 3.02 INSURANCE REQUIREMENTS, C: Add the following sentence at the end of 1, 2, 3, and 5: “Waiver of Subrogation in favor of Jurisdiction is required.”

1070, 3.02 INSURANCE REQUIREMENTS, C, 6. Additional Insured Endorsements: Replace “Except for Workers Compensation, the insurance specified shall:”, with “Except for Workers Compensation and Railroad Protective Liability Insurance, the insurance specified shall:”.

1070, 3.02 INSURANCE REQUIREMENTS, C: Add the following new 8.

8. WAIVER OF SUBROGATION: To the fullest extent permitted by law, Contractor hereby releases the Jurisdiction, including their respective elected and appointed officials, agents, employees and volunteers and others working on their behalf from and against any and all liability or responsibility to the Contractor or anyone claiming through or under the Contractor by way of subrogation or otherwise, for any loss arising out of liability or occupational injury without regard to the fault of the Jurisdiction or the type of loss involved. This provision shall be applicable and in full force and effect only with respect to loss or damage occurring during the time of this Agreement. The Contractor’s policies of insurance shall contain a clause or endorsement to the effect that such releases shall not adversely affect or impair such policies or prejudice the right of the Contractor to recover thereunder.

1070, 3.03 CONTRACTOR’S INDEMNITY – CONTRACTUAL LIABILITY INSURANCE: Delete B; and replace with the following B.

B. Except to the extent caused by or resulting from the negligent act or omission of the Jurisdiction or the Jurisdiction’s employees, consultants, agents or other for whom the Jurisdiction is responsible, to the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Jurisdiction and its officers, agents, employees, and consultants from and
against all claims, damages, losses, and expenses, including but not limited to, attorney's fees, arising out of or resulting from the performance or prosecution of the work by the Contractor, its subcontractors, agents, or employees; or arising from any neglect, default, or mismanagement or omissions by the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them in the performance of any duties imposed by the contract or by law; provided any such claim, damage, loss, or expense:

1. is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including economic damages and the loss of use resulting therefrom, and

2. is caused in whole or in part by any act or omission of the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them, or anyone for whose acts any of them may be liable.

Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any party or person described in this subsection.

1070, 3.04 CONTRACTORS INSURANCE FOR OTHER LOSSES; WAIVER OF SUBROGATION, B:
Delete B and replace with the following B.

B. Contractor shall cause each of its subcontractors, consultants, suppliers, third parties, or the agents of any of them, to carry insurance sufficient to cover all loss to such materials, tools, motor vehicles, and equipment. All insurance carried by the Contractor, or its subcontractors, consultants, suppliers, third parties or the agents of any of them, covering risk of loss or damage to materials, tools, motor vehicles, and equipment used in the performance of the Work, shall provide a waiver of subrogation against the Jurisdiction, as specified in Section 1070. 3.02 Insurance Requirements, C.8. To the extent that any subcontractors, consultants, suppliers, third parties or the agents of any of them, do not provide such coverage, any uninsured loss shall be the sole responsibility of the Contractor.

1070, 3.05 PROPERTY INSURANCE: Delete A, D, and M; and replace them with the following A, D, and M.

A. Property Insurance Required: The Contractor shall purchase and maintain property insurance, being either Builder’s Risk Insurance or an Installation Floater, for the period of the contract until final acceptance of the work by the Jurisdiction, on all construction contracts where a building, electrical, mechanical, or plumbing permit is required by the permitting entity.

1. Builder’s Risk Insurance by Contractor: On contracts for construction of new buildings or on contracts when Builder’s Risk Insurance is applicable to the contract by definition, the Contractor shall purchase and maintain Builder’s Risk Insurance for the duration of the contract; unless the Jurisdiction states by special provision that the Jurisdiction shall purchase and maintain the Builder’s Risk Insurance. This property insurance, Builder's Risk Insurance, provided by the Contractor shall be in the amount of the initial bid amount, or in an amount equal to the estimated value of actual building construction, whichever is less, as well as applicable modifications thereto for the entire work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final acceptance of the work by the Jurisdiction. The insurance shall include interests of the Jurisdiction, the Contractor, subcontractors, and sub-subcontractors in the work. If the Contractor’s property insurance covering the work has any deductible, the Contractor shall be responsible to pay the cost associated with the deductible. Flood and Earthquake Insurance shall be required as part of the Builder’s Risk Policy, and the minimum required policy limits shall be not less than 10% of the full amount of the contract. If Boiler and Machinery Insurance is required by the contract documents or by law, the Contractor shall purchase the Boiler and Machinery Insurance if the Contractor is required to purchase the Builder’s Risk Insurance. If Boiler and Machinery Insurance coverage is included in the
Contractor’s Builders Risk Insurance policy, it may be used to satisfy the Boiler and Machinery Insurance requirement to the extent such coverage specifically covers such objects during installation, testing, and until final acceptance by the Jurisdiction.

2. Builder’s Risk Insurance by the Jurisdiction: When stated in the special provisions, the Jurisdiction shall purchase and maintain property insurance, a.k.a. Builder’s Risk Insurance in the amount of the initial bid amount, or in an amount equal to the estimated value of actual building construction, whichever is less, as well as applicable modifications thereto for the entire work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final acceptance of the work by the Jurisdiction. The insurance shall include interests of the Jurisdiction, the Contractor, subcontractors, and sub-subcontractors in the work. The Jurisdiction will determine an appropriate deductible for the property insurance covering the work, however, the Contractor will be responsible for paying a deductible of up to $5,000 for each occurrence. Flood and Earthquake Insurance shall be required as part of the Builder’s Risk Policy, and the minimum required policy limits shall be not less than 10% of the full amount of the contract. If Boiler and Machinery Insurance is required by the contract documents or by law, the Jurisdiction shall purchase the Boiler and Machinery Insurance if the Jurisdiction is required to purchase the Builder’s Risk Insurance. If Boiler and Machinery Insurance coverage is included in the Jurisdiction’s Builders Risk Insurance policy, it may be used to satisfy the Boiler and Machinery Insurance requirement to the extent such coverage specifically covers such objects during installation, testing, and until final acceptance by the Jurisdiction.

3. Installation Floater: On the remainder of these contracts where Builder’s Risk Insurance is not applicable to a contract by definition and an Installation Floater is applicable by definition, the Contractor shall purchase and maintain an Installation Floater for the duration of the contract. This Installation Floater shall cover all materials, fixtures, equipment, and supplies provided for the job. Such insurance shall be on an “all risk” form in an amount equal to the maximum value of such materials, equipment, or supplies covered on the job site, off-premises at any temporary storage location, or in transit, and shall include coverage for hoisting and rigging. The Installation Floater shall be maintained until final acceptance of the work by the Jurisdiction. If the Contractor’s Installation Floater covering the equipment and work has any deductible, the Contractor shall be responsible to pay the cost associated with the deductible. If Boiler and Machinery Insurance is required by the contract or by law, the Contractor shall purchase the Boiler and Machinery Insurance; the Installation Floater may be used to satisfy this requirement to the extent the Boiler and Machinery Insurance coverage specifically covers such objects during installation, testing, and until final acceptance by the Jurisdiction.

D. Boiler and Machinery Insurance: When required by the contract documents or by law, Boiler and Machinery Insurance shall specifically cover such insured objects during installation, testing, and until final acceptance by the Jurisdiction; this insurance shall include interest of the Jurisdiction, Contractor, subcontractors, and sub-subcontractors in the work, and the Jurisdiction and Contractor shall be named insureds. A Builders Risk Insurance policy or an Installation Floater, when also required by the contract documents or by law, may satisfy this requirement as indicated in 1070, 3.05 A.1, 2. and 3. above. If Boiler and Machinery Insurance is required by the contract documents or by law, the Contractor shall purchase the Boiler and Machinery Insurance. However, if the contract, requires the Jurisdiction to purchase the Builder’s Risk Insurance, the Jurisdiction shall also purchase the Boiler and Machinery Insurance.

M. Installation Floater: See Section 1070, 3.05, A.3 above.

1070, 3.06 ENDORSEMENT NAMING JURISDICTION AS AN ADDITIONAL INSURED / CANCELLATION AND MATERIAL CHANGE/ GOVERNMENTAL IMMUNITIES
ENDORSEMENT: Under C. delete the first full paragraph regarding the Cancellation and Material Change Endorsement language and replace it with the following:

Thirty (30) days Advance Written Notice of Cancellation, ten (10) days Written Notification of Cancellation due to non-payment of premium and forty-five (45) days Advance Written Notification of Non-Renewal shall be sent to the Jurisdiction at the office and attention of the Certificate Holder. This endorsement supersedes the standard cancellation statement on the Certificate of Insurance to which this endorsement is attached.

1070, 3.06 ENDOREEMENT NAMING JURISDICTION AS AN ADDITIONAL INSURED / CANCELLATION AND MATERIAL CHANGE/ GOVERNMENTAL IMMUNITIES
ENDORSEMENT: Replace first sentence under E. with the following: If allowed, as specified in Section 1070, 3.02 Insurance Requirements A., all liability policies purchased in the Jurisdiction’s name shall include a Governmental Immunities Endorsement, pursuant to Iowa Code Section 670.4, which endorsement shall include the following provisions:

1070, 3.07 PROOF OF INSURANCE: Add the following sentence at the end of A: “Mail Certificate of Insurance to: Engineering Department, City of Des Moines, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa 50309.”

SECTION 1080 – PROSECUTION AND PROGRESS

1080, 1.03 WORK PROGRESS AND SCHEDULE: Add the following new D:

D. No person shall operate or permit the operation of any tools or equipment in construction, drilling or demolition work or in preventive maintenance work for public service utilities between the hours of 10:00 p.m. and 7:00 a.m. without the written permission of the Engineer.

1080, 1.09 EXTENSION OF TIME. B. – Request for Extension of Time: Add the following sentence before the last sentence in the first paragraph: “The request for an extension of time is the sole and exclusive remedy of the Contractor for the events listed below.

SECTION 1090 – MEASUREMENT AND PAYMENT

1090, 1.02 SCOPE OF PAYMENT, Add the following D.

D. If the Contractor fails to notify the Engineer or the Engineers representative prior to commencing work on various stages of work on the project, the work completed without notifying the City may not be compensated.

1090, 1.04 PAYMENT FOR CHANGE ORDERS, B: Add the following new 4:

4. Extra Work Performed by the Subcontractor: The maximum percentage of combined overhead, profit, and bond for changes in the work performed by the Contractor shall be 10%. If the changed work is performed by a Subcontractor, a maximum of 5% may be added by that Subcontractor on his work for combined overhead and profit and additional maximum of 5% may be added by the Prime Contractor for administration, coordination, and general conditions of said Subcontractor work.

1090, 1.05 PROGRESS PAYMENTS, B. Retainage: Delete B. in its entirety and replace with the following B.

B. Retainage: The Jurisdiction shall retain from each monthly progress payment 3% of the amount determined to be due according to the estimate of the Engineer. Early release of retained funds may be requested by the Contractor according to Iowa Code Section 573.28.
SECTION 2010 – EARTHWORK, SUBGRADE, AND SUBBASE

2010, 3.06 SUBGRADE PREPARATION, A. Uniform Composition: 1. Subgrade Compaction in Fill Sections: Add the following new e.

   e. Proof roll subgrade as specified in Section 3.06, B to locate soft or yielding areas prior to placement of top six-inch lift.

2010, 3.06 SUBGRADE PREPARATION, A. Uniform Composition: 2. Subgrade Compaction in Cut Sections: Add the following new d.

   d. Prior to scarify, mix, and re-compact the bottom six inches of subgrade (paragraph 2.b above), proof roll subgrade as specified in Section 3.06, B to locate soft or yielding areas.

SECTION 3010 – TRENCH EXCAVATION AND BACKFILL

3010, 3.02 ROCK OR UNSTABLE SOILS IN TRENCH BOTTOM: Delete B. and replace with the following new B.

   B. The Engineer will review the contractor's request for the need for over-excavation and trench foundation stabilization and authorize the work prior to installation of pipes and structures.

3010, 3.05 PIPE BEDDING AND BACKFILL, E. Final Trench Backfill: 3. Class I and Class II Backfill Material: Delete a. and replace with the following new a.

   a. Compact to at least 65% relative density within right-of-way or under any paved surface or within two feet thereof.

3010, 3.05 PIPE BEDDING AND BACKFILL, E. Final Trench Backfill: 4. Class III and Class IVA Backfill Material: Delete a. and replace with the following new a.

   a. Compact to at least 95% of Standard Proctor Density within right-of-way or under any paved surface or within two feet thereof.

SECTION 4010 – SANITARY SEWERS

4010, 3.06 SANITARY SEWER SERVICE STUBS, C: Add the following new 7:

   7. Mark the location of all sanitary sewer service stubs at the time of installation by a two-inch wide detectable marking tape installed at a depth of 18 inches to 24 inches below finished grade, directly over the service stub, for its entire length and brought up to the surface at the end of the service stub adjacent to the post marking the stub location. The tape shall be green in color and marked “Sanitary Sewer Service Stub Buried Below”.

4010, 3.10 SANITARY SEWER CLEANOUT: Delete in its entirety and replace with the following:

   Cleanouts are not allowed on sanitary sewer mains in the City of Des Moines. Figure 4010.203 shall apply to services only.
SECTION 4020 – STORM SEWERS

4020, 2.01 STORM SEWERS, Parts A-L: Reinforced Concrete Pipe or Polypropylene Pipe shall be required for storm sewer construction in the Right-Of-Way or Public Easement areas. Minimum size of storm sewer pipe in the Right-Of-Way and Public Easement areas shall be 15-inch minimum diameter.

SECTION 4030 – PIPE CULVERTS

4030, 2.01 Pipe Culverts, Parts A-D: Reinforced Concrete Pipe shall be required for pipe culvert construction in the Right-Of-Way or Public Easement areas. Minimum size of pipe culverts in the Right-Of-Way and Public Easement areas shall be 15-inch minimum diameter.

SECTION 4040 – SUBDRAINS AND FOOTING DRAIN COLLECTORS

4040, 2.01 FOOTING DRAIN COLLECTORS: Use material for pipe and fittings complying with the current Adopted Edition of the Uniform Plumbing Code (UPC). In addition to the materials identified in the UPC, the pipe shall comply with ASTM D 3034, SDR 23.5 pipe will be allowed.

4040, 2.02 TYPE 1 SUBDRAINS (LONGITUDINAL SUBDRAIN), C. Corrugated Polyethylene Tubing and Fittings (Corrugated PE): Delete Type C and Type CP. Only Type S or Type SP are allowed in the City of Des Moines.

4040, 2.03 TYPE 2 SUBDRAINS (COMBINATION SUBDRAIN/FOOTING DRAIN COLLECTOR), B.3. HDPE Pipe: Delete Type CP. Only Type SP is allowed in the City of Des Moines.

4040, 2.09 FOOTING DRAIN SERVICE STUBS - Add this new 2.09 and the following note: Use material for pipe and fittings complying with the current Adopted Edition of the Uniform Plumbing Code (UPC). In addition to the materials identified in the UPC, the use of SDR 23.5 pipe will be allowed.

4040, 3.02 FOOTING DRAIN COLLECTORS, C: Add the following new 3:

3. Type B cleanouts should be used for footing drain collectors less than 5 feet in depth in the City of Des Moines. Footing drain collectors greater than 5 feet deep, a Type A cleanout shall be used.

4040, 3.03 FOOTING DRAIN SERVICE STUBS: Add the following new D and E.

D. Mark the location of all footing drain service stubs at the time of installation by a two-inch wide detectable marking tape installed at a depth of 18 inches to 24 inches below finished grade, directly over the service stub, for its entire length and brought up to the surface at the end of the service stub adjacent to the post marking the stub location. The tape shall be green in color and marked “Footing Drain Service Stub Buried Below”.

E. ABS, PVC and SDR 23.5 pipe shall be installed with a minimum bedding of 4” below and up all side with 3/8” clean smooth gravel or a bedding product approved by the Engineer.

4040, FIGURE 4040.232. SUBDRAIN CLEANOUTS: Add the following new Note 7 to Figure 4040.232.

7. Type B cleanouts should be used for footing drain collectors or combination subdrain/footing drain collectors less than 5 feet in depth in the City of Des Moines. Footing drain collectors greater than 5 feet deep, a Type A cleanout shall be used.
SECTION 4060 – CLEANING, INSPECTION, AND TESTING OF SEWERS

4060, 3.03 VIDEO INSPECTION, A. General: Delete 1. and replace with the following new 1.

1. Conduct video inspection of all new and rehabilitated sanitary sewers, storm sewers, pipe culverts, and footing drain collectors after all backfill and compaction operations are completed, but prior to paving, unless otherwise specified in the contract documents.

SECTION 6010 – STRUCTURES FOR SANITARY AND STORM SEWERS

6010, PARTS 1, 2, 3, and Figures: Unless specifically noted as precast construction on the construction drawings, all square or rectangular shaped intakes and manholes shall be cast-in-place. Circular precast intakes and manholes are allowed in the City of Des Moines.

6010, 2.03, B. REINFORCEMENT: Add the following second sentence: All reinforcement for cast-in-place structures shall be epoxy coated.

6010, 2.09 MANHOLE OR INTAKE ADJUSTMENT RINGS (Grade Rings): Add the following new C.

C. Manhole adjustment rings are not required to have pre-formed or pre-drilled holes for the anchor bolts.

6010, 2.10 CASTINGS (Ring, Cover, Grate, and Extensions), D. Casting Types: 2. - Intakes: Delete b. and replace it with the following b.

b. Castings shall include design shown in this General Supplemental for lids on Type E, F, and G storm sewer castings shown for Figure 6101.602.

6010, 2.13 STEPS: Delete entire Section as manhole steps are not allowed in the City of Des Moines.

6010, 2.15 ANCHOR BOLTS AND WASHERS, B. Diameter: Delete B. and replace it with the following B.: Provide bolts and washers 1/8 inch smaller than hole or slot in the casting frame but not less than 7/8 inch diameter.

6010, 3.01 GENERAL REQUIREMENTS FOR INSTALLATION OF MANHOLES AND INTAKES, J. Castings: Delete J. and replace with the following J.: Install the type of casting specified in the contract documents and adjust to proper grade. Where a manhole or intake is to be in a paved area, adjust the casting to match the slope of the finished surface. When castings with a bolt down cover (Type C or D) are specified, attach casting frame to the structure with four anchor bolts.

6010, 3.03 ADDITIONAL REQUIREMENTS FOR PRECAST CONCRETE STRUCTURES, Add new F following:

F. Field Modification of Precast Structures: Significant modifications to precast structures to adjust elevations to field conditions will not be allowed. Significant modifications include, but are not limited to, excessive saw cutting of precast structures. Any field modifications to the precast structure shall be approved by the Engineer, or the Engineer’s representative, or the precast structure will not be accepted.

SECTION 7010 – PORTLAND CEMENT CONCRETE PAVEMENT

7010, 1.08 MEASUREMENT AND PAYMENT, Add new N following:

N. Cold Weather Protection: When any type of additional protection described in 7010.3.04.A is necessary, additional payment will be made as extra work at the rate of $1.00 per square yard of
surface protected. Payment will be limited to protection within the contract period. Protection necessary after November 15 will be paid only when the Engineer authorizes the work.

7010, 3.02 PAVEMENT CONSTRUCTION, E. Bar and Reinforcement Placement, 1. Tie Bars: Delete a. and replace it with the following a.

a. Place bars prior to vibration. Bars shall be supported by approved chairs. Placement in position by a machine is not allowed.

7010, 3.02 PAVEMENT CONSTRUCTION, E. Bar and Reinforcement Placement: Add the following new 5:

5. PCC pavement slabs with manhole castings, with or without boxouts, shall have reinforcement similar to PV-103 around the castings.

7010, 3.02 PAVEMENT CONSTRUCTION, F. Concrete Pavement Placement: Delete 1. and replace it with the following 1.

1. Use paving machine for all full-width paving, pavement widening, and pavement reconstruction 100 feet or more in length.

7010, 3.07 CURB AND GUTTER CONSTRUCTION: Delete B. and replace it with the following B.

B. Use curb and gutter machine for all curb and gutter construction 100 feet or more in length.

7010, 3.07 QUALITY CONTROL, D. Pavement Thickness: Add the following as the first sentences under 1: Coring of pavement will not be required by the City of Des Moines if depth checks of the plastic thickness of the pavement are within one-half inch of the design thickness. If the variance exceeds one-half inch this section shall apply.

7010, FIGURE 7010.101, JOINTS: On Sheet 2 of 8 under ‘C’ Joint in Curb add the following: The entire curb shall be sealed with Joint Sealant Material.

7010, FIGURE 7010.101, JOINTS: On Sheet 3 of 8 delete Note 11 and replace with the following Note 11.

11. Sawing and sealing of the joint is required. See Detail D-2. On Sheet 3 of 8 Joint Types KT-1, KT-2, and KT-3 shall not be used.

7010, FIGURE 7010.901, PCC PAVEMENT JOINTING: Add Note 6 with the following:

6. All new roadway pavements shall be a minimum width of 27 feet back to back with parking on one side and 33 feet with parking on two sides.

SECTION 7020 – HOT MIX ASPHALT PAVEMENT

7020, 3.01 HMA PAVEMENT, Add the following new H.:

H. The paver shall be capable of paving a minimum continuous width of twenty (20) foot wide strip without seam. Pavers in tandem will be acceptable; however, an adequate number of personnel shall be available to operate both pavers simultaneously.

7020, FIGURE 7020.901, HMA PAVEMENT: Add Note 3 with the following:

3. All new roadway pavements shall be a minimum width of 27 feet back to back with parking on one side and 33 feet with parking on two sides.

SECTION 7021 – HOT MIX ASPHALT OVERLAYS
7020, 3.01 HMA PAVEMENT, Add the following new C.:

C. The paver shall be capable of paving a minimum continuous width of twenty (20) foot wide strip without seam. Pavers in tandem will be acceptable; however, an adequate number of personnel shall be available to operate both pavers simultaneously.

SECTION 7030 – SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS

7010, 1.08 MEASUREMENT AND PAYMENT, Add new J following:

J. Cold Weather Protection: When any type of additional protection described in 7010.3.04.A is necessary, additional payment will be made as extra work at the rate of $1.00 per square yard of surface protected. Payment will be limited to protection within the contract period. Protection necessary after November 15 will be paid only when the Engineer authorizes the work.

7030, 2.07 DETECTABLE WARNINGS: Add the following sentence at the end: Only cast iron detectable warnings are allowed in the City of Des Moines.

7030, 3.04 PCC SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS, A. Form Setting: Add the following new 6:

6. The turning space for a sidewalk or shared use path shall be formed separately from the adjoining ramps and sidewalk or shared use path.

7030, 3.04 PCC SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS, B. Concrete Pavement Placement, 1. Shared Use Path: Add the following sentence at the end: “When the Portland Cement Concrete is delivered to the project on the prepared subgrade or subbase, the loads shall be limited to 5 tons for single axle vehicles or 10 tons for tandem axle or larger vehicles.”

7030, 3.04 PCC SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS, B. Concrete Pavement Placement, 2. Sidewalk: Add the following new g:

g. The turning space for a sidewalk or shared use path shall be placed separately from the adjoining ramps and sidewalk or shared use path.

7030, 3.04 PCC SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS, F. Jointing: 4. Isolation Joints: Delete b. and replace it with the following new b.

b. For a sidewalk constructed with a driveway, install a ½" expansion joint on the property side of the sidewalk and a ½" expansion joint on the street side of the sidewalk.

7030, 3.05 HMA SHARED USE PATHS AND DRIVEWAYS: Add the following second sentence: When Hot Mix Asphalt is delivered to the project on the prepared subgrade or subbase, the loads shall be limited to 5 tons for single axle vehicles or 10 tons for tandem axle or larger vehicles.

7030, FIGURE 7030.101, CONCRETE DRIVEWAY, TYPE A: Delete the references to “E Joint” on the property side of the sidewalk and “C or E Joint” on the street side of the sidewalk, and replace with “install a ½" expansion joint on the property side of the sidewalk and a ½" expansion joint on the street side of the sidewalk”. In addition, install a ½" expansion joint in the sidewalk at the extension of both edges of the driveway. Delete 7 and replace with the following 7; “Install a ½" expansion joint at the back of curb.”

7030, FIGURE 7030.102, CONCRETE DRIVEWAY, TYPE B: Delete the references to “E Joint” on the property side of the sidewalk and “C or E Joint” on the street side of the sidewalk, and replace with “install a ½" expansion joint on the property side of the sidewalk and a ½" expansion joint on the street side of
the sidewalk”. In addition, install a ½” expansion joint in the sidewalk at the extension of both edges of the driveway.

7030, FIGURE 7030.201, CLASSES OF SIDEWALKS: The detail for CLASS A SIDEWALK shall be revised to delete the “4” min.” thickness dimension of the sidewalk and replace with “5” min.”.

7030, FIGURE 7030.202, CURB DETAILS FOR CLASS A SIDEWALK: On Detail 3 delete the note “Sealed ‘E’ joint” and replace it with the following note “Sealed ‘B’ joint”. On Detail 1, 2, and 3 delete the “4 min.” thickness dimension of the sidewalk and replace with “5” min.”.

SECTION 9010 – SEEDING

9010, 3.02 – AREA OF SEEDING: Add A. and B.

A. Mobilize within 72 hours of a written order with sufficient labor, equipment, and materials to seeding work as ordered or approved by Engineer. Complete work within 7 calendar days of a written order.

B. Failure to mobilize and complete work within such time period, will result in a deduction of $750.00 per calendar day from payment due under the contract, except when Engineer extends such time period.

SECTION 9020 – SODDING

9020, 3.03 – SOD INSTALLATION: Delete A. and replace it with the following new A.

A. Do not install sod between the dates of June 1 and August 31, unless authorized by the Engineer.

B. Mobilize within 72 hours of a written order with sufficient labor, equipment, and materials to sod installation as ordered or approved by Engineer. Complete work within 7 calendar days of a written order.

C. Failure to mobilize and complete work within such time period, will result in a deduction of $750.00 per calendar day from payment due under the contract, except when Engineer extends such time period.

SECTION 9040 – EROSION AND SEDIMENT CONTROL

9040, 1.03 – SUBMITTALS: Add the following sentences: The Jurisdiction will not approve the contractor’s Stormwater Pollution Prevention Plan (SWPPP) or revisions to the SWPPP; instead, the Jurisdiction will only review and comment on the SWPPP and any revisions. The contractor shall submit to the Engineer a copy of the Iowa Department of Natural Resources authorization prior to the Jurisdiction’s issuance of the Notice to Proceed for the work.

9040, 1.08 – MEASUREMENT FOR PAYMENT, A. Stormwater Pollution Prevention Plan (SWPPP): Delete A. in its entirety and replace with the following A.

A. Stormwater Pollution Prevention: Item will be paid for as a lump sum for the project based on the following formula: 30% of the bid amount after review of the SWPPP by the Engineer and filing a Notice of Intent by the contractor, an additional 20% of the bid amount when 25% of the total original contract amount is earned, an additional 20% of the bid amount when 50% of the total original contract amount is earned, an additional 20% of the bid amount when 75% of the total original contract amount is earned, and the remaining 10% of the bid amount upon filing the Notice of Discontinuation by the contractor. Item shall include the following activities and work:

1. Stormwater Pollution Prevention Plan (SWPPP) Preparation: Item includes reviewing and preparation of any modifications necessary to the general SWPPP provided by the Jurisdiction based on the Contractor’s proposed scheduling and construction methods, filing a Notice of Intent for coverage of the project under the Iowa DNR NPDES General Permit No. 2, and payment of associated NPDES permit fees. The Jurisdiction will publish the Public Notice of
Storm Water Discharge and provide an affidavit of publication to the contractor.

2. **Management**: Item includes all work required to comply with the administrative provisions of the Iowa DNR NPDES General Permit No. 2; including record keeping, documentation, updating the SWPPP, filing the Notice of Discontinuation, etc. Item also includes weekly inspections required to satisfy the provisions of General Permit No. 2, unless otherwise stated in the contract documents.

3. **Inspection**: Item includes inspection of the disturbed areas, and erosion and sediment control measures performed by the contractor, at least once every seven (7) calendar days until the disturbed areas have been stabilized with a perennial vegetative cover of sufficient density to preclude erosion.

4. **Additional Erosion and Sediment Control Measures**: Item includes the cost of erosion and sediment control measures included in the contractor’s modifications to the general SWPPP provided by the Jurisdiction that are either not included as bid items on the proposal or exceed 20% of the proposal unit quantity for the measure, as well as replacement of these measures if needed. The contractor will be paid at the unit bid price for additional erosion and sediment control measures constructed that are included in the contractor’s modifications to the general SWPPP provided by the Jurisdiction when the quantity of these additional measures is less than or equal to 20% of the contract quantity for the measure.

**9040, 3.01 – SWPPP PREPARATION**: Delete in its entirety and replace with the following.

A. Review and prepare any modifications necessary to the general SWPPP provided by the Jurisdiction based on the Contractor’s proposed scheduling and construction methods. Prepare a Stormwater Pollution Prevention Plan (SWPPP) according to the requirements of the Iowa DNR NPDES General Permit No. 2.

B. Have the SWPPP prepared by an individual experienced in erosion and sediment control.

C. Ensure that controls utilized in the SWPPP conform to the type and quantity of erosion and sediment controls shown in the contract documents. See 9040, 1.08, 4 above for measurement for payment of any erosion and sediment control measure used that is not shown in the contract documents or exceeds 20% of the contract quantity for the measure.

D. Submit the completed SWPPP to the Engineer for review and comment prior to filing the Notice of Intent.

E. The Jurisdiction will publish the Public Notice of Storm Water Discharge, as required by the NPDES General Permit No. 2 and provide an affidavit of publication to the contractor.

F. File the Notice of Intent and fee, as required by the NPDES General Permit No. 2.

G. Prior to beginning grading, excavation, or clearing and grubbing operations, all erosion and sediment control measures identified in the SWPPP shall be installed or constructed.

**9040, 3.02 – SWPPP MANAGEMENT**: Delete C. in its entirety and replace with the following C.

C. Submit all SWPPP revisions to the Engineer for review and comment.

**SECTION 9080 – CONCRETE STEPS AND HANDRAIL**

**9080, 2.01 – MATERIALS, B. Reinforcing Steel**: Add the following sentence at the end: “All reinforcement shall be epoxy coated.”
LID SHALL BE USED FOR TYPE E, TYPE F, AND TYPE G APPLICATIONS AS REFERENCED BY SUDAS FIGURE 6010.502.

RAISED LETTERS FLUSH WITH TOP SURFACE

IT IS IN OUR HANDS

RAISED LETTERS FLUSH WITH TOP SURFACE

LETTERED "USA" OR "MADE IN USA"

PICKHOLES

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 358
FINISH: NO PAINT

STORM SEWER LID
FOR THE CITY OF DES MOINES, IOWA
SUPPLEMENTAL SPECIFICATION
FOR
TREE PROTECTION
Effective Date: March 24, 2017

This project will be constructed in accordance with the SUDAS Standard Specifications as referenced in the contract documents and as further revised by this Supplemental Specification.

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Installation of Tree Protection Measures

B. Damage to Protected Trees

C. Inspection and Documentation

1.02 DEFINITION OF TERMS AND ABBREVIATIONS

Work Zone Protected Tree
A tree of any size that is located within the project’s work zone and is to remain in place at the completion of the project.

Border Protected Tree
A tree of any size that is located outside the project work zone, but has branches extending over the work area, or whose trunk is located within 10’ of the edge of the work area.

Tree Protection Limit
The area around a tree, as defined in the Tree Protection Plan, in which no construction activity or materials storage is allowed. If the tree protection limit is not defined in the Tree Protection Plan, it shall be considered to be equal to the Critical Root Radius.

dbh: Diameter at breast height
The diameter of a tree trunk in inches measured at a height of 4.5 feet above the natural ground level.

CRR: Critical Root Radius
Expressed in feet equal to the dbh in inches. (The CRR of a tree with a 12” dbh is 12’) This is the desired distance from the tree trunk at which fencing is installed and no construction activity is allowed.
1.03 DESCRIPTION OF WORK

A. The Contractor shall not damage any trees and shrubs which are not part of the removal plan, regardless of whether installation of tree protection measures is required or not. The contract documents shall designate individual trees and/or areas of the project that require installation of tree protection measures as defined in this supplemental specification. The Engineer may add, delete or revise the areas that require tree protection at any time prior to or during the project construction period. This Section includes the deduction of payment to the Contractor for damage to a tree or unauthorized removal of a tree.

B. The Contractor shall install all tree protection measures before the commencement of any construction activities. Construction activity includes but is not limited to, driving on the site in any vehicle, grading, excavation, import and storage of materials.

1.04 MEASUREMENT AND PAYMENT

A. The Tree Protection Plan shall be included in the contract documents and management of the plan shall be incidental to the contract.

B. Tree Protection Fence: Tree protection fence shall be measured along the fence at the bottom of the mesh fabric. The Contractor shall be paid the contract unit price per linear foot of tree protection fence installed. The height of tree protection fencing shall be identified in the contract documents. This payment shall be full compensation for furnishing all materials, equipment, and labor to perform installation, maintenance, and removal of fencing. If other types of fence, such as silt fence for border trees, is installed and functions as tree protection fence, measurement and payment will not be made for this fence as tree protection fence.

C. Tree Trunk Protection: The Contractor shall be paid the contract unit price per each for tree trunk protection installed. This payment shall be full compensation for furnishing all materials, equipment, and labor to perform installation, maintenance, and removal of trunk protection.

D. For each occurrence of tree protection fencing not installed as per the approved Tree Protection Plan or not properly maintained as described in Section 3.02A, and for each occurrence of intrusion into the Tree Protection Zone, $600 per day shall be deducted from the amount due the Contractor:

The condition of any tree damaged by the Contractor will be evaluated by the City Forester. The Contractor shall be required to repair damage to the tree as directed by the City Forester. This could include, but not be limited to trimming and pruning of the branches and roots in accordance with the current edition of the American National Standards Institute (ANSI) A300 Standards for Tree Care Operations, Part 1, Pruning. In addition to repairing the damage, a price adjustment of $300 for a tree 6-inch or less in diameter, $500 for a 6 to 12-inch or less diameter tree; and $750 for a tree greater than 12-inches in diameter. The price adjustments are per tree damaged by the Contractor.
E. When the City Forester determines the damaged tree needs to be removed, the Contractor shall remove the tree and stump, and restore the sod area. Repair and removal of damaged trees shall be completed at no cost to the City. The Contractor shall also compensate the City for the replacement cost of any damaged tree that is removed, per the City Forester’s assessment. The Contractor shall also be liable to the owner of any tree located on private property that must be removed due to damage, for the full value of the tree. Documentation of such payment shall be provided to the City.

PART 2 – PRODUCTS

2.01 ORANGE MESH TREE PROTECTION FENCE

A. Fabric shall meet the following material requirements:

1. Height of 72” (±2 inches) or height of 48” (±2 inches) as specified in the bid item.
2. Remain flexible down to 0° F and constructed of orange plastic mesh containing ultraviolet stabilizers to prevent degradation.
3. Minimum tensile strength of 250 pounds per foot in the longitudinal direction and 150 pounds per foot in the vertical direction.
4. Maximum aperture opening of a nominal 4.5 square inches.
5. Maximum porosity of 55% for the safety fence surface area.
6. Available in rolls of at least 50 feet in length to minimize fence joints for an individual fence location.

B. Fence posts shall meet the following requirements:

1. Use T-section steel posts, 8’ length for 6’ high fence, or 6’ length for 4’ high fence.
2. Equip posts with lugs or other approved means to prevent the fence fabric from moving vertically.
3. Use posts that weigh no less than 1.3 pounds per foot, exclusive of anchor plate.
4. Provide each post with a steel anchor plat of adequate size, firmly attached.
5. Install at an 8’ maximum spacing for 6’ high fence, or 6’ maximum spacing for 4’ high fence, or as required to prevent fence fabric from sagging.

2.02 TREE TRUNK PROTECTION

A. When tree construction operations are required in close proximity to a tree, defined as any activity within the Critical Root Radius, the Contractor shall install tree trunk protection.
1. Wrap the tree trunk with dimensional lumber either 2” x 4, 6, 8, or 10 (actual thickness is 1.5”). Depending upon the trunk diameter, the tree length, and size of tree, dimensional lumber shall be approximately 8’ long, but necessary length will depend on the existing tree and associated construction activity.

2. Secure the lumber against the trunk with Metal, plastic, or polyester bands, a minimum 3/8” width, at a minimum or two locations to securely hold the protective dimensional lumber against the trunk of the tree. The bands shall be secured with a tensioner under slight pressure to ensure their long term positioning for the duration of the contract. The bands shall be stapled to the wooden uprights at several points around the circumference so they don’t slide down. If trees are protected for more than one year, an inspection is required to determine if the tree has begun pushing outward on the protection. If the bands are too tight they shall be replaced with new bands under the appropriate tension.

PART 3 – EXECUTION

3.01 TREE PROTECTION PLAN

A. The Contractor shall use the Tree Protection Plan in the contract documents or submit an alternate to the installation of tree protection, such as the installation of silt fencing along border trees, if such alternates provide acceptable tree protection. The Engineer shall have the sole authority for acceptance or rejection of alternates. Alternate plans may also take into consideration preliminary brush removal. No mechanical grading or vegetation removal may take place within 6’ of a tree trunk without approval of the Engineer and the City Forester.

3.02 INSTALLATION AND MAINTENANCE OF TREE PROTECTION MEASURES

A. After approval of the Tree Protection Plan by the Engineer, and prior to starting construction work, the Contractor shall install the tree protection fencing or other approved measures in accordance with the Tree Protection Plan. Install fence posts according to 2.01.A or as required to prevent sagging. Securely attach the fence so it is in a vertical position without sagging. Locate and place the fence supports so they are not a safety hazard. Clearly mark with paint the trees to be removed in accordance with the Tree Protection Plan. No construction activity shall commence until the tree protection fencing measures and the trees marked for removal have been reviewed on site by the Engineer or construction observer. Phasing of the installation of tree protection measures will only be allowed if shown on the approved Tree Protection Plan. Repair or replace any tree protection fence that is damaged, not in a vertical position or no longer providing the intended protection.
B. When specified by the contract, the Contractor shall construct tree trunk protection around each tree specified. These methods will be required in specific situations to protect a tree trunk.

3.03 DAMAGES TO TREES

A. Contractor shall notify the city of any damage to trees not designated for removal, including border protected trees. Damages include but are not limited to:

1. Scratched or gouged bark.
2. Broken branches.
3. Compaction of soil within the specified tree protection limits.
4. Storage of materials within a tree’s critical root radius.
5. Operation of equipment within the specified tree protection limits.
6. Parking of vehicles or equipment within a tree’s critical root radius.
7. Spilling of harmful substances around or within a tree’s critical root radius.

3.04 INSPECTION AND DOCUMENTATION

A. The Contractor shall periodically inspect the tree protection fencing, repair any deficiencies, and update the Tree Protection Plan. All updates shall be submitted to the Engineer for approval. A copy of the current Tree Protection Plan shall be available on the construction site.

B. If any tree not designated for removal is damaged or removed, the Contractor shall notify the construction observer or Engineer with 48 hours.
**TYPICAL TREE PROTECTION FENCING - WORK ZONE AREA**

**NOTE 1:** SPACING AS REQUIRED TO PREVENT SAGGING, 6' MAXIMUM

**INSTALL SIGNS AS FOLLOWS:**

FOR INDIVIDUAL TREE PROTECTION LOCATIONS:
INSTALL AT LEAST TWO SIGNS AT EACH LOCATION AND AT A MAXIMUM SPACING OF 10' ON CENTER.

FOR LINEAR TREE PROTECTION LOCATIONS:
INSTALL A SIGN AT EACH END OF THE TREE PROTECTION FENCE AND AT A MAXIMUM SPACING OF 50' ON CENTER.

**dbh =** DIAMETER AT BREAST HEIGHT, THE DIAMETER OF TREE TRUNK IN INCHES AT HEIGHT OF 4.5' ABOVE NATURAL GROUND.

**CRR =** CRITICAL ROOT RADIUS IS THE DISTANCE IN FEET EQUAL TO THE dbh IN INCHES. THIS IS THE DESIRED DISTANCE FROM THE TREE TRUNK AT WHICH FENCING IS INSTALLED.

**SIGN DETAIL**

MIN. SIGN DIMENSIONS:
LAMINATED CARDBOARD - 11" x 17"
METAL - 12" x 18"

**KEEP OUT TREE PROTECTION ZONE**
UP TO $600 PENALTY
BLACK LETTERS ON ORANGE BACKGROUND

KEEP OUT TREE PROTECTION ZONE
UP TO $600 PENALTY

SIGN DETAIL
MIN. SIGN DIMENSIONS:
LAMINATED CARDBOARD - 11" x 17" METAL - 12" x 18"

4' OR 6' ORANGE CONSTRUCTION FENCE TO PROTECT TREE OR GROUP OF TREES

DIAMETER AT BREAST HEIGHT, THE DIAMETER OF TREE TRUNK IN INCHES AT HEIGHT OF 4.5' ABOVE NATURAL GROUND.

CRR= CRITICAL ROOT RADIUS IS THE DISTANCE IN FEET EQUAL TO THE dbh IN INCHES. THIS IS THE DESIRED DISTANCE FROM THE TREE TRUNK AT WHICH FENCING IS INSTALLED.

FENCE SUPPORTS

NOTE 1: SPACING AS REQUIRED TO PREVENT SAGGING, 8' MAXIMUM

INSTALL SIGNS AS FOLLOWS:
FOR INDIVIDUAL TREE PROTECTION LOCATIONS:
INSTALL AT LEAST TWO SIGNS AT EACH LOCATION AND AT A MAXIMUM SPACING OF 10' ON CENTER.

FOR LINEAR TREE PROTECTION LOCATIONS:
INSTALL A SIGN AT EACH END OF THE TREE PROTECTION FENCE AND AT A MAXIMUM SPACING OF 60' ON CENTER.

TYPICAL TREE PROTECTION FENCING - BORDER AREA

FIGURE TP-2
This project will be constructed in accordance with the SUDAS Standard Specifications as referenced in the contract documents and as further revised by this Supplemental Specification.

INDEX

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Description</td>
</tr>
<tr>
<td>2</td>
<td>Materials</td>
</tr>
<tr>
<td>3</td>
<td>Construction</td>
</tr>
<tr>
<td>4</td>
<td>Method of Measurement</td>
</tr>
<tr>
<td>5</td>
<td>Basis of Payment</td>
</tr>
</tbody>
</table>

FIGURES

WS-1 Stop Box Relocation  
WS-2 Lower Water Service  
WS-3 Minimum Clearance Between Water Service and Structure  
WS-4 Relocate Water Service in Conflict with New Sewer  
WS-5 Adjusting Stop Box to New Grade

1. DESCRIPTION

This work shall consist of checking the depth, lowering, relocating and replacing water services and related items such as stop boxes, valves and taps.

2. MATERIALS

All materials used shall meet the requirements of the City of Des Moines plumbing code and the Des Moines Water Works Rules and Regulations.

3. CONSTRUCTION

A. Permits, Licenses, and Inspections.

1. All work shall comply with the requirements of the City of Des Moines Plumbing Code and the Des Moines Water Works Rules and Regulations. The Contractor shall obtain all permits, pay all fees, and schedule all plumbing inspections as required by the City of Des Moines Permit and Development Office. All work shall be done by a plumber licensed in the City of Des Moines.

2. Prior to starting any work on a project (preconstruction) and after all construction is complete (post construction) the Engineer shall arrange with Des Moines Water Works for an inspection of all water
service stop boxes within the project limits. The Contractor will be required to attend both inspections and assist with exposing the stop boxes. The preconstruction inspection will document defects to existing stop boxes. The post construction inspection will verify that the stop boxes have been installed/adjusted/protected to the requirements of this specification.

B. Water Service Tap:

1. A new water service tap is required if the existing tap is either 1/2" or 3/4" and not insulated.

2. Excavate and prepare the site in accordance with Des Moines Water Works Rules and Regulations.

3. Schedule Des Moines Water Works to install the service tap, and pay all Des Moines Water Works fees for the installation.

4. Backfill and compact the excavation site In accordance with Section 3.L.

C. Relocate Water Service Stop Box:

1. Relocate stop box, as shown in Figure WS-1, from its existing location to the new location shown on the plans or as designated by the Engineer.

2. When the existing stop box is not as indicated on the plans, the relocation shall be verified by the Engineer before proceeding with the work.

D. Check Depth of Water Service:

1. Excavate water service, measure and assure that existing water service is a minimum of 60 inches below the finished grade and not in conflict with proposed sewers, walls, and other structures.

2. If the depth of the service is not adequate, the service shall be lowered in accordance with the plans, and this specification.

E. Lower Water Service:

1. Lower existing water service that meets plumbing code standards to provide a minimum of 60 inches of earth cover and to provide minimum clearances at proposed sewers, walls, and structures as shown in Figures WS-2, WS-3, and WS-4.

2. Replace stop box and pipe and fittings if required.

F. Lower Water Service with New Copper:

1. Replace services that do not meet plumbing code standards with new 1-inch copper tubing from the water main to and including the
stop box. If the work area extends beyond the stop box, replace service to the limits of the work area.

2. Lower to provide a minimum of 60 inches earth cover and to provide minimum clearances at proposed sewers, walls, and structures as shown in Figures WS-2, WS-3 and WS-4.

G. New Water Service:

1. At locations where plumbing code standards require that the existing water service must be reconstructed in conjunction with relocating water services or relocating stop boxes, and in locations where a new water main is installed, a new water service shall be constructed from the water main to and including the stop box.

2. The new service shall be constructed to provide a minimum of 60 inches of earth cover and to provide minimum clearances at proposed sewers, walls, and structures as shown in Figures WS-2, WS-3, and WS-4.

3. Utilize the existing corporation tap on the water main if allowed (see water service tap) and provide all new materials required.

H. Relocate Water Service:

1. Relocate the existing water service that meets plumbing code standards when there is conflict with sewer construction as shown in Figure WS-4.

2. Relocate Stop Box if required.

I. Disconnect Water Service:

1. Disconnect abandoned water service or water service stubs.

2. Abandon in accordance with the requirements of the City of Des Moines Plumbing Code and Des Moines Water Works Rules and Regulations. The water services shall be cut at the corporation stop and the stop closed. The stop box consisting of the stem and riser shall be completely removed.

J. Adjust Stop Box to New Grade:

1. Adjust all stop boxes within the project limits to finish grade as per Figure WS-5.

2. Stop box caps that are located in a new PCC sidewalk or driveway shall be protected to prevent adhesion of the stop box cap to the new PCC sidewalk or driveway. A ½ inch thick, flexible, polyethylene, closed cell expansion joint material (zip strip or approved equal) shall be installed under the stop box cap to prevent adhesion to the bottom of the cap. The top of the stop box cap shall also be protected to prevent concrete adhesion. A permanent or temporary sleeve shall be placed on or around the stop box cap to prevent adhesion to the side of the stop box cap. After the new PCC
sidewalk or driveway has been placed, the contractor shall remove any temporary sleeves.

K. Flushing and Testing:

1. Flush and test the service in accordance with requirements of the City of Des Moines Plumbing Code and Des Moines Water Works Rules and Regulations.

L. Backfilling:

1. Place backfill in the trench immediately after water service work has been completed and inspected.

2. Within street right-of-way, compact each lift to at least 95% of maximum Standard Proctor Density, otherwise compact to at least 90%.

3. In areas 3 feet or more below pavement structure, place backfill in lifts no thicker than 8 inches.

4. In areas less than 3 feet below pavement structure, place backfill in lifts no thicker than 6 inches.

5. Terminate backfill at 8 inches below finish grade in areas to remain unpaved, and to subgrade elevation in areas to be paved. Place 8 inches of topsoil in unpaved areas.

6. Dispose of surplus and unsuitable materials.

7. Hydraulic compaction is not allowed.

4. METHOD OF MEASUREMENT

A. General

1. No separate measurement will be made for excavation, backfill and compaction, except as follows:


   b. Where excavated material is found to be unsuitable for backfill and cannot be made suitable in the opinion of Engineer, it shall be replaced with suitable backfill material. Suitable backfill replacement material located within the project limits will not be measured and paid separately. For replacement material furnished by the Contractor from outside the project limits, see Section 3010 of SUDAS Standard Specifications and General Supplemental Specifications.

B. Relocate Water Service Stop Box

1. The Engineer will count each separate Water Service Stop Box
relocated, except as described below.

2. Stop boxes relocated in conjunction with “New Water Service”, “Lower Water Service,” or “Lower Water Service with New Copper” will not be counted.

C. New Stop Box Housing and New Stop Box Rod.

1. The Engineer will count the number of each item completed as described in Figure WG-5.

D. Check Depth of Water Service

1. The Engineer will count the number of Check Depth Water Services as follows:
   a. Water services which are checked for depth and do not require lowering, relocation, replacement with a new service, or stop box relocation will be counted.
   b. Water services which are checked for depth and found to require lowering, relocation, replacement with a new service, or stop box relocation will not be counted.
   c. Water services checked for depth that are located in an individual trench will be counted individually.
   d. Multiple water services checked for depth that are located in one trench will be counted as one check depth (measurement will be made for first service checked and additional measurement will be not be made for subsequent services in the same trench).


1. The Engineer will count the number of each item completed for each size of water service as follows:
   a. Water services that are located in an individual trench will be counted individually.
   b. Multiple water services are located in one trench will be counted as 1 each for the first service and each additional water service located in the same trench shall be counted as ½ each.

5. BASIS OF PAYMENT

A. General

1. The cost of permits, fees, excavation, removal of unsuitable soil, backfill, testing and disinfection shall be considered incidental to this work.
B. Relocate Water Service Stop Box

1. Payment will be made at the unit bid price for each Relocate Water Service Stop Box completed. Bid price shall include all work and materials required to move the stop box from its existing location to its new location. The bid price shall assume the following:

   a. Existing ground key stop shall remain in place.
   b. New ground key stop with connections shall be installed.
   c. Where required, a new service box stem and rod shall be installed.

2. Stop boxes relocated in conjunction with "New Water Service", "Lower Water Service," or "Lower Water Service with New Copper" will be considered incidental to those items and not be counted for separate payment.

C. New Stop Box Housing and New Stop Box Rod

1. Payment will be made at the unit bid price for each item of work completed. Bid price shall include all work and materials required to complete the work.

D. Check Depth of Water Service

1. Payment will be made at the unit bid price for each Check Depth of Water Service completed. Bid price shall include all work and materials required to complete the work.

E. Lower Water Service, Lower Water Service with Copper, New Water Service

1. Payment will be made at the unit bid price for each item of work completed. Bid price shall include all work and materials required to complete the work. The bid price shall include a new stop box and any additional pipe and fittings required.

F. Relocate Water Service

1. Payment will be made at the unit bid price for Relocate Water Service completed. Bid price shall include all work and materials required to complete the work. The bid price shall include any additional pipe and fittings required.

G. Disconnect Water Service, Water Service Tap

1. Payment will be made at the unit bid price for each item completed. Bid price shall include all work and materials required to complete the specified work on the water service. Removal and replacement of the street pavement, sidewalks, and driveways are paid under separate bid items.
NOTES
1. THE STOP BOX LOCATION SHALL MEET THE FOLLOWING REQUIREMENTS:
   INSTALL BETWEEN 1' AND 6' FROM THE RIGHT-OF-WAY LINE.
   INSTALL A MINIMUM OF 24" AWAY FROM ANY FENCE OR WALL.
   DO NOT INSTALL IN A DRIVEWAY, SIDEWALK, OR AN ALTERNATE LOCATION
   UNLESS APPROVED BY THE ENGINEER.

WATER SERVICE STATUS | CONTRACTOR'S RESPONSIBILITY | COMPENSATION
1. STOP BOX DOES NOT REQUIRE RELOCATION. | ADJUST TO FINISH GRADE AS PER FIGURE WS-5. | SEE FIGURE WS-5
2. STOP BOX REQUIRES RELOCATION. SERVICE COMPLIES WITH THE PLUMBING CODE. | RELOCATE STOP BOX. | BID ITEM - “RELOCATE STOP BOX”
3. NEW STOP BOX REQUIRED IN CASE 2 ABOVE. | INSTALL NEW STOP BOX. | INCIDENTAL TO “RELOCATE STOP BOX”
4. STOP BOX REQUIRES RELOCATION OUT PLUMBING CODE STANDARDS WILL NOT ALLOW SIMPLE RELOCATION. | CONSTRUCT NEW WATER SERVICE AND INSTALL NEW STOP BOX AT SPECIFIED LOCATION. | BID ITEM - “NEW WATER SERVICE”
5. EXISTING TAP 1/2" OR 3/4" AND NOT INSULATED IN CASE 4 ABOVE. | PROVIDE NEW 1" TAP | BID ITEM - “WATER SERVICE TAP”

REV. DATE BY STOP BOX RELOCATION
01/03/12
DATE: 05-25-00

Supplemental Specifications for Water Services
SUPPLEMENTAL SPECIFICATIONS FOR WATER SERVICES

INDICATES MINIMUM LOCATIONS (ON CROSS-SECTIONS) WHERE DEPTH MUST BE CHECKED.
FINISH GRADE
EXISTING GRADE

WORK AREA

NOTE: WHEN WATER SERVICES ARE LOWERED, THEY SHALL BE LOWERED OR RELOCATED TO AVOID CONFLICT WITH PROPOSED SEWERS, WALLS AND OTHER STRUCTURES.

WATER SERVICE STATUS  CONTRACTOR'S RESPONSIBILITY  COMPENSATION

1. CHECK DEPTH-SERVICE HAS MINIMUM 6" OF EARTH COVER TO FINISH GRADE.
BACKFILL AND COMPACT INSPECTION EXCAVATION.
BID ITEM: "CHECK DEPTH OF WATER SERVICE"

2. CHECK DEPTH-SERVICE HAS LESS THAN 60" OF EARTH TO FINISH GRADE AND SERVICE COMPLIES WITH PLUMBING CODE.
LOWER SERVICE.
BID ITEM: "LOWER WATER SERVICE"

3. CHECK DEPTH-SERVICE HAS LESS THAN 60" OF EARTH COVER TO FINISH GRADE BUT PLUMBING CODE STANDARDS WILL NOT ALLOW EXISTING PIPE TO BE LOWERED OR REUSED.
LOWER SERVICE WITH NEW COPPER PIPE.
BID ITEM: "LOWER WATER SERVICE WITH NEW COPPER"

4. NEW STOP BOX REQUIRED IN CASE 2 OR 3 ABOVE
INSTALL NEW STOP BOX
INCIDENTAL TO APPLICABLE BID ITEM IN CASE 2 OR 3

5. EXISTING TAP 1/2" OR 3/4" AND NOT INSULATED IN CASE 3 ABOVE.
PROVIDE NEW 1" TAP
BID ITEM: "WATER SERVICE TAP"

01/03/12
REV. DATE BY
DATE: 05-25-00

LOWER WATER SERVICE

FIGURE: WS-2
SHEET 1 OF 1

Supplemental Specifications for Water Services
SUPPLEMENTAL SPECIFICATIONS FOR WATER SERVICES

LIMITS OF NEW SERVICE

STOP BOX

SPECIAL CONDITION

ZONE OF CONFLICT

STORM OR SANITARY SEWER

EXISTING SERVICE

WATER MAIN

ZONE OF CONFLICT DEFINED - AREA FROM 6" BELOW THE BOTTOM OF THE SPECIFIED BEDDING TO 12" ABOVE THE TOP OF PIPE.

ZONE OF CONFLICT 6" BELOW BOTTOM OF BEDDING

LIMITS OF RELOCATION

MIN. 18" CLEAR OF SERVICE

WATER SERVICE STATUS

1. SERVICE LOCATED OUTSIDE OF BOTH THE ZONE OF CONFLICT & SPECIAL CONDITION ZONE & HAS MORE THAN 60" OF OF EARTH COVER TO FINISH GRADE.

   PROVIDE PROTECTION, IF DAMAGED REPAIR IN COMPLIANCE WITH THE PLUMBING CODE.

   CONTRACTOR'S RESPONSIBILITY

   COMPENSATION

   INCIDENTAL TO OTHER WORK

2. SERVICE LOCATED IN ZONE OF CONFLICT, COMPLIES WITH THE PLUMBING CODE AND IS NOT SPECIFIED TO BE LOWERED.

   RELOCATE BELOW SEWER AS DETAILLED ABOVE.

   BID ITEM - "RELOCATION OF WATER SERVICE"

3. SERVICE LOCATED IN ZONE OF CONFLICT BUT PLUMBING CODE STANDARDS WILL NOT ALLOW SIMPLE RELOCATION THEREOF.

   CONSTRUCT NEW WATER SERVICE, PROVIDE MINIMUM CLEARANCE OF SEWER AS DETAILLED ABOVE.

   BID ITEM - "NEW WATER SERVICE"

4. SERVICE IS LOCATED IN SPECIAL CONDITION ZONE AND HAS MORE THAN 60" OF OF EARTH COVER TO FINISH GRADE.

   INSULATE SERVICE WITHIN THE TRENCH LIMITS

   INCIDENTAL TO OTHER WORK

5. SERVICE IS LOCATED ABOVE THE ZONE OF CONFLICT AND HAS LESS THAN 60" OF OF EARTH COVER TO FINISH GRADE.

   RELOCATE OR RECONSTRUCT AS SPECIFIED IN 2 AND 3 ABOVE WHICHEVER CASE APPLIES.

   AS IN 2 OR 3 ABOVE WHICHEVER APPLIES.

6. SERVICE IS IN CONFLICT WITH PROPOSED INTAKE, WALLS, OR OTHER STRUCTURES.

   RELOCATE AROUND STRUCTURE TO MINIMUM CLEARANCE.

   AS IN 2 OR 3 ABOVE WHICHEVER APPLIES.

   BID ITEM - "LOWER WATER SERVICE" OR "LOWER WATER SERVICE WITH NEW COPPER" WHICHEVER APPLIES.

   PROVIDE NEW 1" TAP

   BID ITEM - "WATER SERVICE TAP"

   CONDITIONS - EXISTING LINE IS LEAD, LESS THAN 1" DIA. OR GALVANIZED.

01/03/12

REV. DATE BY

RELOCATE WATER SERVICE IN CONFLICT WITH NEW SEWER

DATE: 05-25-00

FIGURE: WS-4

SHEET 1 OF 1
NOTES:
1. RAISING THE HOUSING IS ACCOMPLISHED BY REMOVING THE CAP, INSTALLING A PIPE COUPLING AND USING A PIPE NIPPLE (TBE) OF A PROPER LENGTH OR INSTALL CURB STOP BOX REPAIR COUPLING TO BRING THE CAP TO THE NEW GRADE.

2. TO LOWER THE HOUSING IT MAY BE NECESSARY TO CUT AND RETHREAD THE HOUSING AT THE NEW GRADE OR INSTALL CJRB STOP BOX REPAIR COUPLING AND REPLACE THE CAP. THE TOP OF THE ROD MUST BE A MINIMUM OF 12" BELOW THE TOP OF THE HOUSING.

STOP BOX STATUS
1. TOP OF EXISTING HOUSING MATCHES FINISHED GRADE. NO ADJUSTMENT REQUIRED.
2. EXISTING HOUSING NEEDS ADJUSTED ADJUST HOUSING TO FINISHED GRADE. HOUSING IS IN GRADE SUITABLE CONDITION TO ADJUST.
3. EXISTING HOUSING NEEDS ADJUSTED INSTALL NEW HOUSING AND TO FINISH GRADE. HOUSING IS TOO ADJUST TO FINISHED GRADE DETERIORATED TO ADJUST.
4. TOP OF EXISTING ROD IS NOT WITHIN SPECIFIED DISTANCE TO FINISHED GRADE IN EITHER CASE 2 OR 3 ABOVE.
5. NEW STOP BOX IS INSTALLED AS PART OF OTHER PLUMBING WORK.

CONTRACTOR'S RESPONSIBILITY
1. PROVIDE PROTECTION. REPLACE OR REPAIR IF DAMAGED BY CONSTRUCTION.
2. ADJUST HOUSING TO FINISHED GRADE.
3. INSTALL NEW HOUSING AND TO FINISH GRADE.
4. INSTALL NEW ROD SO THE TOP OF ROD IS WITHIN THE SPECIFIED DISTANCE TO FINISHED GRADE.
5. ADJUST HOUSING AND ROD TO THE REQUIREMENTS SHOWN IN THIS FIGURE.

COMPENSATION
INCIDENTAL TO OTHER WORK
INCIDENTAL TO OTHER WORK
BID ITEM: "NEW STOP BOX HOUSING"
BID ITEM: "NEW STOP BOX ROD"
INCIDENTAL TO INSTALLATION OF THE STOP BOX

03/18/14  ADJUSTING STOP BOX TO NEW GRADE
02-92  FIGURE: WS-5

Supplemental Specifications for Water Services
SUPPLEMENTAL SPECIFICATION
FOR
TRAFFIC SIGNAGE
Effective Date: September 20, 2021

This project will be constructed in accordance with the SUDAS Standard Specifications as referenced in the contract documents and as further revised by this Supplemental Specification.

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Traffic Signs and Sign Posts

1.02 DESCRIPTION OF WORK

Includes the requirements for the removal and installation of traffic control signs and sign posts.

1.03 SUBMITTALS

Comply with Division 1 – General Provisions and Covenants as well as the following:

A. Submit a list of sign sheeting materials, post materials, and associated hardware proposed for use on the project.

B. Submit all proposed sign layouts prior to manufacturing.

1.04 SUBSTITUTIONS

Comply with Division 1 – General Provisions and Covenants.

1.05 DELIVERY, STORAGE, AND HANDLING

Comply with Division 1 – General Provisions and Covenants.

1.06 SCHEDULING AND CONFLICTS

Comply with Division 1 – General Provisions and Covenants.

1.07 SPECIAL REQUIREMENTS

None.

1.08 MEASUREMENT AND PAYMENT

A. Remove and Reinstall Sign, as per plan:

1. Measurement: Each sign removed and reinstalled will be counted.

2. Payment: Payment will be at the unit price for each sign removed and reinstalled.
3. **Includes:** Unit price includes, but is not limited to, all material, equipment, and labor required to remove and reinstall existing sign and sign post.

**B. Removal of Sign and Sign Post:**

1. **Measurement:** Each sign and sign post removed will be counted.

2. **Payment:** Payment will be at the unit price for each sign and sign post removed.

3. **Includes:** Unit price includes, but is not limited to, all materials, equipment, and labor required to remove and salvage existing sign and sign post.

**C. Type A Signs, Sheet Aluminum:**

1. **Measurement:** Measurement will be in square feet of sheet aluminum signage installed.

2. **Payment:** Payment will be at the unit price per square feet of sheet aluminum signage installed.

3. **Includes:** Unit price includes, but is not limited to all materials, hardware, equipment, and labor required to manufacture and install traffic control signage per plans.

**D. Sign Post, Round, Steel Post:**

1. **Measurement:** Measurement will be in linear feet of round, steel sign post installed.

2. **Payment:** Payment will be at the unit price per linear feet of round, steel sign post installed.

3. **Includes:** Unit price includes, but is not limited to all materials, hardware, equipment, and labor required to install round, steel sign post per plans.

**E. Sign Post, Perforated Square, Steel Tube Post:**

1. **Measurement:** Measurement will be in linear feet of perforated, square steel tube post installed.

2. **Payment:** Payment will be at the unit price per linear feet of perforated, square steel tube post installed.

3. **Includes:** Unit price includes, but is not limited to materials, hardware, equipment, and labor required to install perforated, square steel tube post per plans.

**PART 2 – PRODUCTS**

**2.01 SIGN MATERIALS**

**A. General:**

All sign blanks shall be aluminum alloy 6061-T6 conversion coated with Alodine 1200. 5052-H38 alloy is an acceptable alternative.

1. All blanks shall be 0.080 inches thick will the following exceptions:
   a. If either the length or width dimension of a sign is 36 inches or greater, the blank shall be 0.125 inches thick.
b. Eighteen inch street name signs shall be 0.125 inches thick.

2. Blanks shall be finished free of any surface or edge burrs, cut marks, or other irregularities.

3. Standard signs shall be pre-drilled with standard hardware holes (0.375 inch diameter) and have no burrs or excess material retained in or around the hole. Holes placement and radii shall conform to the Standard Highway Signs Manual, current edition.

4. A diagram showing the location of holes for specialty signs will be provided prior to catalog cut submittal.

5. 18 inch and 24 inch street name signs shall not be pre-drilled. 8 inch and 12 inch signs shall be drilled as shown below in the Street Name Sign Hole Punch Detail.

Sign faces shall be firmly attached to the aluminum sign blanks, with no air bubbles, wrinkles, creases, tears or other surface blemishes. The faces shall be neatly trimmed to match the edge of the sign blank.

B. Sheetig Requirements:

All traffic control signs shall be made of ASTM D4956 Type XI (3M Diamond Grade DG3 or equal) reflective sheeting with a ten year performance warranty with the following exceptions:

1. Pedestrian pushbutton and parking prohibition signs (including no parking, loading zone, handicap, etc.) shall be made of ASTM D4956 Type I (3M Engineer Grade Prismatic or equal) reflective sheeting with a seven year performance warranty.

2. Construction signs shall be made of ASTM D4956 Type IV (3M High Intensity Prismatic or equal) reflective sheeting with a ten year performance warranty.

3. Material for specialty signs will be specified at the time of order.

All warning signs shall be made with fluorescent yellow sheeting unless otherwise specified. All pedestrian, bicycle and school crossing signs shall be fluorescent yellow-green sheeting unless otherwise specified.

C. Street Name Signs:

1. All street name signs shall be single-sided

2. The length of the street name sign shall be in 6 inch increments and will vary based on the legend.

3. Lettering shall be white and the background shall be blue or green transparent, acrylic film with pressure sensitive adhesive for application over reflective sheeting ("EC" film). The background color will be specified at the time of order.


5. All 18 inch and 12 inch signs shall have a white border as shown in the attached detail.

6. Letter size and spacing shall conform to the MUTCD and the attached details. In cases where descending lower-case letters (g, j, p, q, and y) cannot be accommodated on the
specified blank, the City will work with the manufacturer to modify the letter size or blank size.

7. A shop drawing showing the sign legend, sign length, letter heights and spacing shall be submitted for one 18 inch, 12 inch and 8 inch street name sign prior to making the sign.

8. 18 inch and 12 inch street name signs shall be made of ASTM D4956 Type XI (3M Diamond Grade or equal) reflective sheeting with a ten year performance warranty. Eight (8) inch street name signs shall be made of ASTM D4956 Type IV (3M High Intensity Prismatic or equal) reflective sheeting with a ten year performance warranty.

2.02 POST MATERIALS

A. Round, Steel Post: Steel posts shall be 2 inch round galvanized post, Schedule 40.

B. Perforated Square Tube Post: posts shall be 1 ¼ inch square, 14 gauge galvanized steel, perforated post.

PART 3 – EXECUTION

3.01 SIGN INSTALLATION

A. Mounting Height: The mounting height of the sign shall be seven feet to bottom of sign measured from top of grade. When multiple signs are located on one pole/post, the height to the bottom of the lowest sign must seven feet. Gap between signs must be one inch.

B. Lateral Offset: Signs posts shall be located so the minimum distance from the face of curb to the near edge of the sign is two feet. Lateral distance may be adjusted for utility conflicts. Sign shall not overhang the curb.

3.02 SIGN MOUNTING HARDWARE

A. Sign Installed on Square Posts: When signs are installed on square perforated posts, the following hardware shall be used as shown in the installation detail:

1. 5/16 inch zinc-plated, Grade A bolt, 2 ½ inches long.
2. 5/16 inch stainless steel flat washer, 0.75 inch outside diameter (OD).
3. 5/16 inch nylon washer with one inch outside diameter.
4. 5/16 inch zinc-plated nut.

B. Sign Installed on Round Posts: When signs are installed on round posts, the following hardware shall be used as shown in the installation detail:

1. 5/16 inch stainless steel flat washer, 0.75 inch outside diameter (OD).
2. 5/16 inch nylon washer with one inch outside diameter.
3. 5/16 inch zinc-plated nut.
4. Aluminum interlocking brackets for 2 3/8 inch OD posts with 1 ½ inch long zinc-plated, Grade A bolts, 5/16 inch diameter.
C. **Sign Installed on Wood Utility Pole:** When signs are installed on wood utility poles the following hardware shall be used as shown in the installation detail:

1. 5/16 inch zinc-plated, Grade A lag bolt, 2 ½ inches long.
2. 5/16 inch stainless steel flat washer, 0.75 inch outside diameter (OD).
3. 5/16 inch nylon washer with one inch outside diameter.

The use of banding on wood poles is not allowed.

D. **Sign Installed on Steel Streetlight Poles – Side of Pole Mounted:** When signs are side-of-pole mounted on steel streetlight poles the following hardware shall be used as shown in the installation detail:

1. Type 201 stainless banding, 5/8 inch wide and 0.030 inches thick.
2. Type 201 stainless steel buckles, 5/8 inch wide.
3. 5/16 inch stainless steel flat washer, 0.75 inch outside diameter (OD).
4. 5/16 inch nylon washer with one inch outside diameter.
5. Single bolt flared leg stainless steel bracket.
6. 5/16 inch hex head 18-8 stainless steel bolt, 5/8 inch long, fully threaded.

E. **Sign Installed on Traffic Signal/Sign Mast Arm:** When signs are installed on traffic signal or sign mast arm poles, the following hardware shall be used:

1. An articulated serrated bracket assembly that includes top, middle, and bottom sign mounting brackets and provides a rigid-mount for the traffic sign.
2. All necessary hardware for a complete installation on a mast arm shall be included.
3. The mounting assembly shall be of a cable type.
4. Approval of other bracket supports shall be based on specifications and/or test data about their physical properties and performance properties.

All pedestrian pushbutton signs shall be mounted to the signal pole using stainless steel bolts. Bolts shall be 5/16 inch flanged with plastic washer. Holes shall be drilled and tapped.

F. **Street Name Sign Installation on Posts:** When signs are post mounted signs should be mounted back-to-back as appropriate. The following hardware shall be used as shown in the installation detail:

1. 5/16 inch zinc-plated, Grade A bolt, 2 ½ inches long
2. 5/16 inch stainless steel flat washer, 0.75 inch outside diameter (OD)
3. 5/16 inch nylon washer with one inch outside diameter
4. 5/16 inch zinc-plated nut
5. 1/2 inch I.D. x 1-9/16 inch long CPVC Plastic Spacer

### 3.03 POST ASSEMBLIES AND INSTALLATION

A. **General:** Posts shall be of a length to meet the bury requirements identified in the plan details and to extend to the top of the highest mounted sign.
B. **Median Installation:** When sign posts are installed within concrete medians the following post and anchors shall be used and installed per the detail shown in the construction plans:

1. 1 ¾ inch square, 14 gauge galvanized steel, perforated post.
2. 2 inch square, 12 gauge galvanized steel, perforated breakaway anchor – 36 inch long.
3. 2 ¾ inch square, 12 gauge galvanized steel, perforated breakaway anchor – 36 inch long.

C. **Concrete Installation – Embedded:** When round posts are embedded in concrete the following post and Speed-E-Roc grout shall be used per the detail shown in the construction plans:

1. 2 inch round galvanized post, Schedule 40.
2. Grout.

D. **Concrete Installation – Plate-mounted:** Where posts are installed on bridge decks or in concrete areas where embedment is not possible, a 6 inch square, 3/8 inch thick steel plate shall be continuously welded to the bottom of the pole.

E. **Grass Installation:** When sign posts are installed within grass the following post and anchors shall be used and installed per the detail shown in the construction plans:

1. 1 ¾ inch square, 14 gauge galvanized steel, perforated post.
2. 2 inch square, 12 gauge galvanized steel, perforated breakaway anchor – 36 inch long.

Where round posts are specified for grass installation, a two inch round galvanized, schedule 40 post shall be used. An eight inch triangular gusset made of 14 gauge carbon steel shall be welded to the bottom of the pole per the detail shown in the construction plans.
12 INCH STREET NAME SIGN DETAILS

**Named Street Name Sign with Border and Descending Stroke**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>0.5</td>
<td>3.5</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>5.5</td>
<td>3.5 (MIN)</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M Diamond Grade (DG3) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film

**Named Street Name Sign with Border**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>0.5</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3.5 (MIN)</td>
<td>3</td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M Diamond Grade (DG3) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film

**Numbered Street Name Sign with Border**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>C</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>0.5</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3.5 (MIN)</td>
<td>3</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>0.75</td>
<td>3</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>8</td>
<td>9</td>
<td>4.75 (MIN)</td>
<td>4</td>
<td>1.375</td>
<td>5</td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M Diamond Grade (DG3) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film

Supplemental Specifications for Traffic Signage
8 INCH STREET NAME SIGN DETAILS

Named Street Name Sign without Border and Descending Stroke

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies in 4&quot; increments</td>
<td>8</td>
<td>2.5</td>
<td>4B</td>
<td>3B</td>
<td>1.5</td>
<td>2 (MIN)</td>
<td>2.5</td>
<td>1</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M High Intensity Prismatic (HIP) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film

Named Street Name Sign without Border

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies in 6&quot; increments</td>
<td>8</td>
<td>2</td>
<td>4B</td>
<td>3B</td>
<td>3</td>
<td>2 (MIN)</td>
<td>2.5</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M High Intensity Prismatic (HIP) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film

Numbered Street Name Sign without Border

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies in 6&quot; increments</td>
<td>8</td>
<td>2</td>
<td>4B</td>
<td>3B</td>
<td>3</td>
<td>2 (MIN)</td>
<td>2.5</td>
<td>1</td>
<td>2</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border: White, 3M High Intensity Prismatic (HIP) Sheeting
- Background: Green, 3M ElectroCut Film
- Background (Alternate): Blue or other specified, 3M ElectroCut Film
OVERHEAD STREET NAME SIGN DETAILS

Address Detail

Overhead Street Name Sign with Block Address and Descending Stroke

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>R</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies in 6&quot; Increments</td>
<td>26</td>
<td>1</td>
<td>7</td>
<td>12B</td>
<td>6B</td>
<td>7.75</td>
<td>5 (MIN)</td>
<td>4</td>
<td>2.25</td>
<td>5</td>
<td>1.25</td>
<td>4B</td>
<td>0.75</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Colors:
- Legend, Border
- Background
- Background (Alternate)
- White, 3M Diamond Grade (DG3) Sheeting
- Green, 3M ElectroCut Film
- Blue or other specified, 3M ElectroCut Film

Overhead Street Name Sign with Block Address

| A | B | C | D | E | F | G | H | J | K | M | N | P | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Varies in 6" Increments | 1B | 0.75 | 3 | 12B | 6B | 3.75 | 5 (MIN) | 4 | 1.075 | 1.25 | 4B | 0.75 | 6 | 2 |

Colors:
- Legend, Border
- Background
- Background (Alternate)
- White, 3M Diamond Grade (DG3) Sheeting
- Green, 3M ElectroCut Film
- Blue or other specified, 3M ElectroCut Film
SIGN DETAILS

Street Name Sign Hole Punch Detail

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies by 6&quot; increments (Min 24&quot;)</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0.75</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Varies by 9&quot; increments (Min 30&quot;)</td>
<td>12</td>
<td>1.5</td>
<td>9</td>
<td>1.5</td>
<td>1.5</td>
<td>6</td>
</tr>
</tbody>
</table>

NOTE: ALL FASTENERS TO BE STAINLESS STEEL

Supplemental Specifications for Traffic Signage
SUPPLEMENTAL SPECIFICATION
FOR
TREE PLANTING
Effective Date: October 3, 2013

This Supplemental Specification replaces Section 9030, Plant Material and Planting, of the SUDAS Standard Specifications. All tree planting work shall be done in accordance with this Supplemental Specification.

INDEX

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Products</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Execution</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Figures</td>
<td>12</td>
</tr>
</tbody>
</table>

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Plant Material and Planting

B. Tree Drainage Wells

C. Warranty for Plant Material

1.02 DESCRIPTION OF WORK

A. Furnishing and installing plant material.

B. Constructing tree drainage wells.

C. Maintaining and replacing plants for completed planting work.

1.03 SUBMITTALS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

A. Submit copy of current certification that the Supplier is an Iowa Department of Agriculture and Land Stewardship Certified Nursery Dealer or Grower prior to starting work.

B. Prior to final acceptance, submit written maintenance instructions recommending procedures for maintenance of all plant material types, including watering, insect and disease control, fertilizing, pruning, tree wrapping, and staking.

C. When requested, provide certification stating container-grown material has been grown in the container for no less than 1 year.

D. Provide a sample of the proposed mulch for approval by the Engineer.

E. When requested, submit a schedule of unit prices for each size and variety of tree specified in the contract documents.

1.04 SUBSTITUTIONS

Comply with Division 1 - General Provisions and Covenants, as well as the following:
Where evidence is submitted that a specified tree cannot be obtained, substitution may be made upon approval of the Engineer.

1.05 DELIVERY, STORAGE, AND HANDLING

Comply with Division 1 - General Provisions and Covenants, as well as the following:

A. Protect plant root systems during transportation and storage, as necessary, with wet straw, moss, or other suitable material that will ensure root systems are maintained in a moist, healthy condition.

B. Protect all plants with a tarpaulin when being transported in an open vehicle.

C. When approved by the Engineer, temporary storage of plants on the project site may be allowed. When temporary on-site storage is not approved, provide such facilities and location at no additional cost to the Contracting Authority.

D. During temporary storage, heel-in plants and maintain them by providing moist straw, moss, or other suitable material to protect root systems; watering; and protecting from excessive sun, wind, and inclement weather conditions. This will provide a healthy, vigorous plant when planted.

E. Fresh dug material is given preference over plant material held in storage. Plant material held in storage will be rejected if excessive growth or dieback of branches has occurred in storage.

F. During delivery, branches shall be tied with rope or twine only, and in such a manner that no damage will occur to the bark or branches.

G. During transportation of plant material, the Contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, the Municipal Arborist may reject the injured tree(s) and order them replaced.

H. Plants shall be protected at all times from sun or drying winds; those that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, covered with wood chips or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than 3 days after delivery without permission from the Municipal Arborist. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled with suitable support of the soil ball to avoid damaging it. Plants shall never be handled by the trunk or the branches.

1.06 SCHEDULING AND CONFLICTS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

Comply with the optimum planting dates specified in Section 3.01.
1.07 SPECIAL REQUIREMENTS

The Engineer reserves the right to accept or reject any tree based upon this specification. The point of contact for acceptance of plant material and tree planting will be:

David Jahn
Municipal Arborist
(515) 283-4105 office
(515) 208-0877 cell
dajahn@dmgov.org

1.08 MEASUREMENT AND PAYMENT

A. Trees, By Count:

1. **Measurement:** Each tree accepted in place will be counted.

2. **Payment:** Payment will be at the unit price for each tree. Payment will be made in increments according to the following schedule:
   a. 70% of unit price at acceptance.
   b. 30% of unit price at end of establishment period, upon installation of replacements.

3. **Includes:** Unit price includes, but is not limited to, delivery, excavation, installation, watering, placing backfill material, mulching, trunk protection, staking, herbicide, maintenance during the establishment period, and replacements.

B. Trees, By Count, With Warranty:

1. **Measurement:** Each tree accepted in place will be counted.

2. **Payment:** Payment will be at the unit price for each tree. Payment will be made in increments according to the following schedule:
   a. 70% of unit price at acceptance.
   b. 15% of unit price at end of 1 year establishment period, upon installation of replacements.
   c. 15% of unit price at end of 2 year warranty period, upon installation of replacements.

3. **Includes:** Unit price includes, but is not limited to, delivery, excavation, installation, watering, placing backfill material, mulching, trunk protection, staking, herbicide, maintenance during the establishment and warranty periods, and replacements.

C. Trees, Lump Sum:

1. **Measurement:** Lump sum item; no measurement will be made.

2. **Payment:** Payment will be at the lump sum price for trees. Payment will be made in increments according to the following schedule:
   a. 70% of lump sum price at acceptance.
   b. 30% of lump sum price at end of establishment period, upon installation of replacements.

3. **Includes:** Unit price includes, but is not limited to, delivery, excavation, installation, watering, placing backfill material, mulching, trunk protection, staking, herbicide, maintenance during the establishment period, and replacements.

D. Trees, Lump Sum, With Warranty:

1. **Measurement:** Lump sum item; no measurement will be made.
2. **Payment:** Payment will be at the lump sum price for plants. Payment will be made in increments according to the following schedule:
   a. 70% of unit price at acceptance.
   b. 15% of lump sum price at end of 1 year establishment period, upon installation of replacements.
   c. 15% of lump sum price at end of 2 year warranty period, upon installation of replacements.

3. **Includes:** Unit price includes, but is not limited to, delivery, excavation, installation, watering, placing backfill material, mulching, trunk protection, staking, herbicide, maintenance during the establishment and warranty period, and replacements.

**E. Tree Drainage Wells:**

1. **Measurement:** Each tree drainage well will be counted.

2. **Payment:** Payment will be at the unit price for each tree drainage well.

3. **Includes:** Unit price includes, but is not limited to, excavation, furnishing and placing rock, engineering fabric, and placing backfill material.

**PART 2 – PRODUCTS**

**2.01 PLANT MATERIALS**

**A. General:**

1. Ensure plant material meets the minimum requirements of size and grade as stated in the latest edition of American Standard for Nursery Stock, ANSI Z60.1.

2. Provide all plants true to name and tagged legibly as to name according to nursery standards of practice as recommended by the American Nursery and Landscape Association. Plant names indicated comply with the latest edition of "Standardized Plant Names" as adopted by the American Joint Committee of Horticultural Nomenclature.

3. Plants larger than those specified in the plant list with corresponding root system may be used upon approval of the Engineer.

4. Match plants planted in rows in form and size, unless otherwise specified in the contract documents.

5. Plant materials shall have been freshly dug (during the most recent favorable harvest season). Plants shall be so trained in development and appearance as to be unquestionably superior in form, compactness, and symmetry. Trees with multiple leaders, unless specified, will be rejected (this instruction overrides note on Planting Diagram regarding pruning multiple leaders). Root collar shall be apparent at the surface of ball. Caliper measurements shall be taken on the trunk 6 inches above the root collar for trees up to 4 inches in caliper. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to branch tip. Plants shall be measured when branches are in their normal position. If a range of size is given, no plant shall be less than the minimum size, and no less than 50 percent of the plants shall be as large as the maximum size specified. Plants that meet measurements but do not possess a normal balance between height and spread shall be rejected.

6. All plant materials, shipments, and deliveries shall comply with state and federal laws and regulations governing the inspection, shipping, selling, and handling of plant stock. A certificate of inspection, or a copy thereof, for injurious insects, plant diseases, and other plant pests shall accompany each shipment or delivery of plant material. The certificate shall bear the name and address of the source of the stock.
B. Plant Material Quality:

1. Provide nursery grown plants grown in the same climatic zone as the project.
2. One-sided branching plants from tightly planted nursery rows will be rejected.
3. Provide healthy specimens without objectionable deformities, voids, and open spaces, with well-developed branch and root systems. Ensure specimens are true to height, shape, and character of growth of the species or varieties. Provide plants showing appearance of good health and vigor.
4. Provide plants free of the following:
   a. Harmful insects, insect eggs, borers, and all forms of infestation
   b. Plant diseases and moldy or dried roots
   c. Damage to trunk, bark, branches, leaders, root systems, or cut-leaders
   d. Defects, disfiguring knots, sunscald injuries, and frost cracks
   e. Rodent damage to bark and buds
5. Plants with broken or cut back terminal leaders may be rejected.

C. Balled and Burlapped Plants:

1. Provide firm, moist, unbroken root balls of the specified size.
2. Broken or loose root balls will be rejected.
3. No manufactured or artificially produced or muddied-in root balls will be accepted.
4. A container grown plant, in lieu of a balled and burlapped root ball, will be accepted provided it meets the specified size, complies with American Standard for Nursery Stock (ANSI Z60.1), and meets criteria for container grown plants.

D. Container Grown Plants:

1. Grow plans in sufficiently sized container for a minimum of 1 year, with a root system developed to hold its soil together, firm, whole, and moist when taken from the container.
2. No loose root systems in the container, root-bound, or circling of the root system will be accepted.

E. Bare Root Plants (BR):

1. Only use where specified in the contract documents or as approved by Engineer.
2. Ensure plants have substantially all of the root system intact, with clean cuts on roots. Root system is to be packed in moisture-retaining material and bagged to protect the root system from drying out.
3. Prior to planting, properly prune and sweat according to the nursery source instructions.
4. Ensure plants are dormant or breaking bud if sweated at the time of planting.
5. Do not plant later than May 15.
2.02 MULCH

Provide hardwood or softwood mulch complying with the following:

A. Shredded bark and shredded wood mixture containing no more than 50% wood chips.
B. Produced by a mechanical debarker and chipping machine.
C. Reasonably free from leaves, twigs, dust, toxic substances, and any other foreign material.
D. Not in an excessively wet or decomposed condition.
E. Mulching material shall consist of aged or composted wood chips or shredded bark and shall be free of material injurious to plant growth. Wood chips shall be 1/8 inch nominal thickness with at least 50 percent having an area of not less than 1 square inch and no piece having an area of more than 6 square inches.

2.03 BACKFILL MATERIAL

A. Acquire backfill material for plantings from soil excavated from the planting pit.
B. Ensure backfill material is loose, friable, and free of clods and rocks 2 inches in diameter or larger. Do not use frozen or muddy soil as backfill material.

2.04 GUYING AND STAKING MATERIAL

A. Guying and staking materials: Use only if specified OR as required for unstable trees. Stakes shall be 2"-3" round hardwood (such as the Greenes 8' Treated tree stake/Lodge Pole, item #8005, model #RC80TR8 inserted 2' into the ground. Support ties shall be 3/8" or wider bands of polypropylene (ArborTie™ is an example). If guying is required in tree pits surrounded by steel grates, ground anchors shall be arrowhead shaped earth anchors of malleable iron castings, aluminum castings, or stamped steel, and support ties shall be as specified above. In all cases, hose and wire are not permitted.

2.05 THIS SECTION HAS BEEN DELETED

2.06 TREE GUARDS

Tree guards shall be 3 inch diameter, perforated, corrugated HDPE tubing with a white outer surface and black inner layer, A.M. Leonard Corrugated Tree Guard HG348, or approved equal.

2.07 WATER

Provide water and watering equipment such as hoses and sprinklers. Provide water free of substances harmful to plant growth.

2.08 TREE DRAINAGE WELLS

A. Porous Backfill Material: Comply with Iowa DOT Section 4131.
B. Engineering Fabric: Comply with Iowa DOT Article 4196.01.

2.09 HERBICIDE

Provide a granular pre-emergent herbicide as approved by the Engineer.

PART 3 – EXECUTION

3.01 ALLOWABLE PLANTING DATES
Install plant material during the following times:

A. **Spring Planting:** March 15 to May 1.

B. **Fall Planting:** September 15 to November 15.

C. **Variance from Allowable Planting Dates:** If special conditions exist that warrant a variance from the allowable planting dates, a written request shall be submitted to the Municipal Arborist stating the special conditions and proposed variance. Permission for the variance shall be granted at the discretion of the Municipal Arborist.

D. **Weather Restrictions:** Planting may be conducted under unseasonable conditions, except in weather below 32°F or above 90°F. No variance from plant warranty or other requirements will be given for plants installed outside the specified periods.

### 3.02 PREPARATION

A. Provide notice to the Engineer 3 days prior to planting.

B. All plants shall be inspected by the Municipal Arborist upon delivery and prior to planting. Plants may be inspected and approved at the place of growth by the Municipal Arborist for compliance with the specifications for quality, size, and variety. Such approval does not waive the right to reject any plant material after it has been delivered to the site and/or installed. The Contractor shall have a representative present at all inspections. The Municipal Arborist shall determine the acceptability of plant material at any time during the course of the contract.

C. Provide barriers or fencing as approved by the Engineer to protect the public from injury when planting installation is within the right-of-way.

### 3.03 LOCATION OF PLANTS

A. Mark the location of all plants with flags or lathe according to the contract documents. Mark trees individually. Stake the outline of bedded plants or shrub groups for the quantity on the plans without marking individual plants. The Engineer will approve the locations marked prior to excavation of planting pits and tree drainage wells.

B. Make field adjustments in plant locations where underground or overhead obstruction is encountered, or where changes have been made as approved by the Engineer.

### 3.04 EXCAVATION OF PLANTING PIT

A. Excavate the planting pit, centered at the location marks, with a surface diameter 3 times larger than the maximum diameter of the root ball, or root condition, with side slopes approximately 1 to 1 down to the flat or saucer-shaped planting pit bottom which shall have a diameter equal to the maximum diameter of the root ball. Excavate plant pit to a depth to match the nursery grade of the root crown for all balled and container root systems. Excavate plant pit to a depth 6 inches deeper for bare-rooted systems.

B. Scarify sides of excavated pit.

C. Following excavation of planting pit for all trees, fill the pit full of water; allow to stand (without adding water) for an 18 hour period to determine porosity of the soil.

D. If the Engineer determines the soils are too impervious, provide a planting well.

E. Notify the Engineer, in writing, of soil conditions or obstructions that are detrimental to tree growth.

### 3.05 TREE DRAINAGE WELLS
Install drainage wells when specified in the contract documents or when directed by the Engineer due to the presence of impervious soils.

A. Locate the drainage well at the edge of the excavated planting pit.

B. Auger an 8 inch to 12 inch diameter hole to existing pervious soil or to a maximum depth of 10 feet. If pervious soil is encountered, extend hole a minimum of 12 inches into the pervious layer.

C. Fill the excavated hole with porous backfill material and cover the aggregate with engineering fabric.

D. Following completion of drainage well, fill the pit full of water; allow to stand for an 10 hour period to verify sufficient drainage exists. The Engineer will determine if the drainage is sufficient.

3.06 PLANTING

A. Bare Root Plants:

1. Remove all ties, ribbons, wrap, and other items except plant identification from the branch system.

2. Remove all root packing and prune broken roots to sound wood with clean cuts.

3. Place a minimum of 6 inches of backfill material in the bottom of the planting pit.

4. Place the plant centered, upright, plumb, and with desired orientation in the planting pit, with the root crown matching existing grade.

5. Spread and arrange roots in their natural position. Do not mat roots together.

6. Carefully place and compact backfill material in layers, filling all voids and avoiding injury to the root system until two thirds of the planting pit is complete; fill the pit with water and allow the soil to settle.

7. Continue placing backfill material and form a 3 inch deep saucer around the plant.

8. Water the plant and surrounding area until thoroughly moist.

B. Balled and Burlapped and Container Plants:

1. Ensure root systems are moist at the time of planting.

2. Remove all ties and wrap from branch system, except plant identification.

3. Container Plants:

a. Remove plant root system carefully from container prior to planting without disturbance to root systems.

b. Inspect root system and cut any circled (girdled) roots.

c. Place plants centered, upright, plumb, and with desired orientation in planting pit with the root crown matching existing grade.
4. Ball and Burlapped Plants:
   
a. Place plants centered, upright, plumb, and with desired orientation in planting pit with the root crown matching existing grade.
   
b. After plant placement, cut and remove burlap from root ball.
   
5. Remove all burlap, twine, rope, wire and wire basket from the tree root ball completely. Cut and remove the bottom third of the burlap, twine, rope, wire, and wire basket from the root ball prior to placement in the planting pit. Set tree in planting pit and backfill to stabilize the root ball. Cut and remove the remaining burlap, twine, rope, wire, and wire basket from the root ball.
   
6. Carefully place backfill material in layers (do not step or tamp), filling all voids until two-thirds of the planting pit is complete. Fill pit with water and allow soil to settle.
   
7. After initial watering, carefully place backfill material in the remaining one-third of the planting pit. Form a 3-inch deep soil saucer at the outer edge of the root ball.

C. Planting on Slopes:
   
1. Place the top of the root crown at or slightly above the finished grade at the center of the planting pit.
   
2. For all plants planted on significant slope, form a saucer as a dam or shoulder on the downhill side to catch and hold water and to discourage erosion.

D. General Planting Operations:
   
1. Plants shall be protected from excessive vibrations. Plants shall not be thrown or bounced off a truck or loader to the ground. Plants shall not be dragged, lifted, or pulled by the trunk or foliage parts in a manner that will loosen the roots in the ball.
   
2. Plants shall be set with the top of the root collar at or slightly above finished grade. Plants shall be centered in the hole and set plumb. Plants shall be set so that they will be at the same depth 1 year after planting.

3.07 MULCHING
   
A. Dig edges of mulched areas to ensure the top of the mulch at the edge of the planting area matches the existing ground surface.
   
B. Place mulch 3 to 4 inches deep in the planting pit within 2 calendar days of planting.
   
C. Mulch the entire area of the tree planting pit and shrub branch lines.
   
D. Provide a continuous mulch area around plant groupings.
   
E. Following mulch placement, pull mulch back 3 to 6 inches from the base of all trees and shrubs to allow air circulation.
   
F. Thoroughly water mulched areas. Rake to a smooth finished surface.

3.08 TREE GUARDS
   
A. Trees shall have approved tree guards installed. Tree guards shall be installed with A.M. Leonard Corrugated Tree Guard Zipper, TPZ, in a manner so as not to restrict or damage the bark. Install tree guards in a single piece from the ground upwards to the first lower branch, maximum 48 inches in height. Remove tree guards at end of establishment period.
B. Tree trunks shall not be wrapped.

3.09 STAKING

A. General:

1. Maintain all plants in an upright and plumb condition.

2. Complete staking and guying only if specified or if required to support unstable trees.

3. Do not stake clump form plants and plants in paved pedestrian areas unless approved by the Engineer.

B. Staking:

1. Provide two stakes for each tree for trees 2 1/2 inches in diameter and smaller. Place one of the stakes on the southwest side of the tree, or as directed by the Engineer, and place the second stake directly opposite the first.

2. Provide three stakes for each tree for trees 2 1/2 to 4 inches in diameter. Locate one stake on the southwest side of the tree with remaining stakes equally spaced around the tree.

3. Locate stakes a uniform distance from the trunk of the tree, outside of the root ball.

4. Set posts vertically into unexcavated soil at a minimum 2 foot depth or until firm, providing a required post height above grade.

5. Attach tree tie material to trunk at a minimum of 4 feet above grade or between one-half and two-thirds distance from finished grade to the top of the tree.

6. Attach tree tie material loosely enough to allow a small amount of movement in the trunk. For dropping stems, ties shall be placed at the point on the stem at which the top can stand up on its own.

7. Install manufactured staking system according to manufacturer's published recommendations.

D. Removal:

1. Remove all staking and anchoring materials from all plants at the end of the establishment period and remove from site.

3.10 PRUNING

A. General:

1. Provide proper and sharp pruning tools to provide a clean cut without injuring the branch collar.

2. Prune in such a manner as to retain the natural shape of the plant. Do not prune the terminal leader of a plant. Leave no protruding stubs, and prune to the closest outward growing bud.

3. Plant materials incorrectly pruned will be rejected.

B. Deciduous Trees:

1. Prune broken, damaged or dead branches only. All other pruning shall not be allowed at the time of planting.

2. Pruning shall be completed in accordance with American National Standard for Tree Care Operations, ANSI A300.
3. Double leaders shall be rejected. Disregard note on Figures regarding pruning multiple leaders.

C. **Evergreen Trees**: Remove dead and broken branches.

### 3.11 CLEAN UP

A. Perform cleaning during installation and upon completion of work.

B. Remove all excess materials, trimmings, branches, soils, debris, and equipment from the site.

C. Repair any damage resulting from planting operations.

D. Clean all paved areas with a broom.

E. Remove all tags and labels from plants following acceptance by the Engineer.

### 3.12 ESTABLISHMENT AND WARRANTY PERIODS AND ACCEPTANCE

A. **Establishment Period**: The plant establishment period is 1 year after the installation is accepted by the Engineer. A plant inspection will be made by the Engineer prior to the expiration of the establishment period.

B. **Warranty Period**: If a plant warranty is specified in the contract documents, the 1 year warranty period begins immediately after the expiration of the 1 year establishment period. Inspection of plants will be made by Engineer at the end of the 1 year establishment period and again prior to the expiration of the warranty period.

C. **Maintenance**: Care for all plants during the establishment or warranty period as required to keep plants in a live, healthy growing condition.

   1. Prune plants to maintain a desirable shape.
   
   2. Remove weeds and grasses from planting beds and mulch areas. Apply herbicide to control weed growth when directed by the Engineer.
   
   3. Water as required to enhance early root growth and maintain a moist soil.
   
   4. Adjust stakes and ties to maintain plant in an upright and plumb condition.
   
   5. Re-set settled plants to proper grades and position. Restore planting saucer and mulch; add backfill material and mulch as may be required.
   
   6. Apply appropriate insecticides and fungicides necessary to maintain plants free of insects and disease.

D. **Plant Condition**: Ensure all plants are in a live, healthy, and growing condition both at the date of acceptance of the installation by the Engineer, at the end of the plant establishment period, and at the end of the warranty period.

E. **Replacement**: Replace all plants not found to be in a live, healthy, and growing condition during inspection at the 1 year establishment period and again at the warranty period (if specified) at no additional cost to the Contracting Authority.

   1. Upon notice from Engineer, remove rejected plants from the site and replace with plant material of the same species and size as originally specified. Install replacement plants complying with the contract documents.
   
   2. Plants damaged due to fire or flooding beyond the contractors control or ice storms, hail, tornados, or acts of vandalism do not require replacement.
PART 4 – FIGURES

1. The following figures are part of this Supplemental Specification:

   9030.101: Planting Pit
   9030.102: Tree Staking, Guying, and Wrapping
   9030.103: Tree Drainage Well
   PMP-1: Proper Tree Planting Diagram

2. In case of any discrepancy between Figures 9030.101 and 9030.102 and the text this
   Supplemental Specification, the text in this Supplemental Specification shall prevail, or govern,
   and the discrepancy in the figures shall be deleted and replaced with said text revisions.
1. Wrap trunk from ground line to first branch when specified in the contract documents.

STAKING PLAN
(Trees 2 1/2 inch diameter or smaller)

Place one stake to southwest.

STAKING PLAN
(Trees larger than 2 1/2 inch diameter)

Place one stake to southwest.
1) If pervious soil is encountered at a depth less than 10 feet, the drainage well may be terminated when the well extends a minimum of 17 inches into the pervious soil layer.
Proper Tree Planting Diagram

Remove transit guard
Remove all burlap, twine, rope, wire and wire basket from the tree root ball completely. Cut and remove the bottom third of the burlap, twine, rope, wire, and wire basket from the root ball prior to placement in the planting pit. Set tree in planting pit and backfill to stabilize the root ball. Cut and remove the remaining burlap, twine, rope, wire, and wire basket from the root ball.

2 - 4" of woody mulch: Aged wood chips, shredded bark, or similar mulch. Keep mulch 6" back from trunk.

Branching: Low branches are temporary, but help promote strong trunks.
Remove only dead or broken branches or double leaders at planting time.

Bud graft
Root collar shall be level or up to 1 - 2" above finished grade.
Remove excess soil from top of ball if needed.

Backfill: Use existing soil. Water thoroughly to eliminate air pockets. Do not tamp!

Soil under ball undisturbed to support root ball and reduce settling

3 times ball diameter

Break down sides of the hole when backfilling

Figure PMP-1, Proper Tree Planting Diagram
1) AWARD OF CONTRACT

The apparent low Bidder on this project will be required to furnish executed contract; Performance, Payment, and Maintenance Bond; Certificate of Insurance; and NPDES Certification Statements, if required, in substantial compliance with the contract documents to the Engineering Department before 12:00 noon on Friday, April 15, 2022. Completed documents in accordance with the contract documents and acceptable to the City of Des Moines Engineering and Legal Departments will be presented to the Library Board of Trustees for award of this contract on Tuesday, April 19, 2022. This would allow construction to begin upon issuance of the Notice to Proceed by the City Engineer.

By submission of a bid, the Bidder agrees that if the Bidder fails to furnish said executed contract; Performance, Payment, and Maintenance Bond; Certificate of Insurance; and NPDES Certification Statements, if required, in substantial compliance with the contract documents to the Engineering Department before 12:00 noon on Friday, April 15, 2022; the amount of the Bidder's bid security may become the property of the City and may be retained—not as a penalty but as liquidated damages. The award of the contract may then, at the discretion of the City, be made to the next-lowest responsible Bidder, or the work may be re-advertised or may be constructed by the City in any legal manner. Notice to Proceed will not be issued until the Contractor's insurance is in compliance with the specifications.

The Bidder is reminded that all subcontractors must be approved by the Library Board of Trustees. The Board policy is that subcontractors be approved at the time the contract is awarded, if possible. The Bidder should submit a letter requesting approval of any subcontractors along with the subcontractor's NPDES Certification Statement, if required, at the time its executed contracts are submitted for approval.

2) CONTRACT COMPLIANCE PROGRAM


a. EEO Program – Complaints of discrimination in violation of the Des Moines Human Rights Ordinance, or corresponding state or federal law, should still be filed with the appropriate city, state, or federal agency. If a Contractor is found by one of these agencies to be engaging in illegal discrimination, the Contractor will be in breach of its contract with the City of Des Moines and appropriate action will be taken.

b. DBE/TSB Program: Certification – The City of Des Moines' program is a DBE/TSB Program whereby both certified DBEs and certified TSBs are equally eligible under the
program. All DBEs shall be certified by the Iowa Department of Transportation (IDOT), and the Certified Directory of DBEs is available at the following website https://secure.iowadot.gov/DBE/Directory/Index/.

All TSBs shall be certified by the Iowa Economic Development Authority, and the Certified Directory of TSBs is available at the following website https://iowaeda.microsoftimportals.com/tsb-search/. The TSB website allows the user to search by name or other keyword. If the user enters the keyword "CONST" in the space next to Service Description and clicks SEARCH, the database will provide a listing of all TSBs that have identified various forms of construction as their type of work. The Directories will not be printed in the contract documents. Copies of the DBE and TSB Directories are available from the Engineering Department upon request.

c. DBE/TSB Program: Annual and Contract Goals – The City’s overall annual DBE/TSB goal will be based on the IDOT DBE overall annual goal established for the corresponding federal fiscal year as further adjusted and established by the Engineering Department to consider such factors as the current capacity of DBEs/TSBs to perform work, differences in the DBE versus TSB market, etc. By utilizing the IDOT overall annual DBE goal as the City’s overall annual DBE/TSB goal, the goal will be independently reviewed annually and updated regarding the availability of the DBEs that are ready, willing, and able to perform work. Many DBEs are also certified as TSBs and the availability is similar. The City’s overall annual DBE/TSB goal represents a target that the City would like to achieve by including DBE/TSB participation on City contracts; and is not a mandatory goal for this project. The Bidder is encouraged to use its best efforts to meet, and if possible exceed, the City’s overall annual DBE/TSB goal.

3) ALTERNATE SALES AND USE TAX

Section 1020, 1.08, B, of the General Supplemental Specifications shall apply to this contract. The Bidder should not include sales tax in the bid pursuant to Iowa Code. A sales tax exemption certificate will be available for all material purchased for incorporation in the project. Complete information on qualifying materials and supplies can be found at www.state.ia.us/tax, the Iowa Department of Revenue and Finance’s (IDRF) web site. Links are found in the Business Taxes and Local Government categories. Contact the IDRF at idrf@idrf.state.ia.us if you have questions on this requirement.
SPECIAL PROVISION
CONTRACTUAL REQUIREMENTS
FOR NPDES PERMIT REQUIREMENTS
ON
NORTH SIDE LIBRARY PARKING LOT EXPANSION
Activity ID 04-2021-006

INDEX

ITEM NO  DESCRIPTION                    PAGE
1.      General                          1-2
2.      Stormwater Pollution Prevention Plan  2-6
3.      Site Information                 7
4.      Public Notice of Storm Water Discharge  8
5.      NPDES Certification Statement    9-11

1. GENERAL

A. This project is subject to Section 402(b) of the Clean Water Act and Iowa Code Section 455B.174 and Iowa Administrative Code 567-64.4 (projects disturbing one or more total acres) and requires inclusion in the National Pollution Discharge Elimination System (NPDES) General Permit No. 2, or an individual NEDES Permit for stormwater (also storm water) discharge associated with industrial activity for construction activities. All Work shall be in accordance with Section 9040 – Erosion and Sediment Control of the SUDAS Standard Specifications and the General Supplemental Specifications. Measurement for payment shall be in accordance with the General Supplemental Specifications.

B. The City of Des Moines has caused a general Storm Water Pollution Prevention Plan (SWPPP) to be prepared which is included in these contract documents. Said general SWPPP is based upon general construction methods and does not include any information regarding the Contractor’s scheduling or specific construction methods. The Contractor shall be responsible to review said general SWPPP, complete the SWPPP by providing data and/or information as necessary, and propose any revisions necessary for compliance with the General Permit No. 2 based on the Contractor’s proposed scheduling and construction methods. The Contractor will be responsible for the preparation of any modifications to said general SWPPP. If necessary, the Contractor shall be responsible to retain or engage persons knowledgeable in the preparation of a SWPPP. The SWPPP shall be prepared in a manner that complies with all applicable requirements.

C. The City of Des Moines will be responsible for publishing the Public Notice of Storm Water Discharge, as required for General Permit No. 2, and will provide the Contractor with the affidavits of publication for said notices.

D. Except as specifically otherwise stated herein, the Contractor shall be responsible for any and all compliance with erosion control, stormwater discharge, the SWPPP and/or permit requirements regarding same, including all fees. The Contractor shall be the “operator” of the project for all compliance purposes, notwithstanding the status of the City as a co-permittee. The Contractor shall indemnify the City and hold the City harmless from any and all claims, including without limitation penalties, fines, attorney fees, consulting fees, and costs, arising out of the work at this project and/or the alleged violation of erosion control requirements, stormwater discharge and management, the SWPPP and/or permit requirements regarding same. The Contractor shall take prompt action to address and/or avoid any potential or real violation of same at their own cost.
E. The Contractor shall submit to the Engineer a copy of the Iowa Department of Natural Resources authorization prior to the City's issuance of the Notice to Proceed for the work.

F. The Contractor shall incorporate all erosion control features into the project at the earliest practicable time, as outlined in the SWPPP or work schedule. Stormwater Pollution Prevention measures shall be constructed at locations shown in the contract documents and as determined by the Contractor, at locations where conditions develop during construction that were unforeseen during design, or where needed to control water pollution that develops during normal construction practices.

G. The Contractor shall coordinate the required site inspections with the Engineer or the Engineer's representative so a City Employee can sign the site inspection report. The site inspection shall be distributed to the Prime Contractor to address deficiencies, the City of Des Moines MS4 coordinator, Justin D'Souza, the Engineer, and the Engineer's representative.

H. The weekly site inspections shall be completed each week in compliance with the Iowa Department of Natural Resources General Permit No. 2. Failure to perform and submit the inspections each week will result in a deduction of $750 per calendar day from payment due under the contract, except when Engineer extends such time period.

I. Failure to address the erosion control deficiencies within, 72 hours of the completion of the site inspection, will result in a deduction of $750 per calendar day from payment due under the contract, except when Engineer extends such time period.

J. The Engineer may suspend operations, without cost to the City of Des Moines, if the Contractor fails to provide adequate erosion control measures in a timely manner.

K. Contractor shall be responsible for submitting the Notice of Discontinuation to the IDNR upon site reaching final stabilization.

2. GENERAL STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. Erosion and Sediment Controls

Erosion and Sediment Controls are measures to be used for controlling erosion and sediment throughout the construction project and include stabilization measures for controlling erosion from disturbed areas and structural controls to divert runoff and remove sediment. Contractor/subcontractor is responsible for the implementation and management of control measures specific to this site. As work progresses, field investigation may indicate additional erosion control measures may be required as determined by the contractor, owner, engineer, city or other governmentally regulated agencies.

1. Stabilization
   a. Preserve existing vegetation in areas not disturbed during construction.
   b. Area of disturbed soil at any one time by construction operations shall be held to a minimum.
   c. Temporary Stabilization - areas where construction activity is not planned to occur for at least 14 days will be stabilized immediately by temporary erosion controls.
      • Topsoil stockpiles and disturbed portions of the site will be stabilized with temporary mulch.
      • Frequent watering during construction in dry weather shall minimize wind erosion from exposed soil.
   d. Permanent Stabilization - areas where construction activity has permanently ended will be stabilized immediately upon ceasing construction activities in that area.
      • Permanent seeding and mulch in all areas where final grading is complete.
• Permanently seed drainage swales immediately upon reaching final grade to facilitate sediment deposition in surface runoff.
e. Vegetative buffer strips
   • Where possible, existing vegetation strips should be left in place to increase infiltration and sediment deposition by reducing runoff velocity.
f. Protection of Trees and Natural Vegetation
   • Undisturbed areas will utilize existing vegetation as a natural buffer zone to increase infiltration and sediment deposition by reducing runoff velocity.
g. Dust Control
   • Utilize mulch or watering of surface to control wind erosion of susceptible soils during and/or immediately after mass site grading operations.
h. Stream Bank Stabilization
   • Stage the installation of any rip rap so that the time that the bank is disturbed is minimized.

2. Structural Controls
   a. At all areas where runoff can move offsite, silt fence or approved equal will be installed along the perimeter of the project downstream of disturbing activities. Also protect storm water discharge points prior to site clearing and grading operations as required and/or shown on the plans.
b. Temporary sediment basins provided at the rate of 3,600 cubic feet of storage per acre for disturbec areas over 10 acres. If not attainable, a combination of silt fences, multiple sediment traps, or equivalent sediment controls are required for all side slopes and down slope boundaries of the disturbed area.
c. Areas of 10 acres or less disturbed will require silt fence, sediment traps or equivalent measures for all side slopes and down slope boundaries of the disturbed area.
d. Silt fences and ditch checks should be installed along concentrated drainage ways to control sediment deposition.
e. Permanently seed all drainage swales immediately upon reaching final grade to facilitate sediment deposition in surface runoff. Use in conjunction with sediment traps, ditch checks, or other control measures to trap sediment.
f. Additional silt fences or other measures may be required on all embankments, stockpiles and other areas to ensure runoff control.

B. Other Controls

Undertake measures for controlling other sources of potential pollution that may exist on the construction site. During the course of construction, it is possible that situations may arise where unknown materials will be encountered. When such situations occur, they will be handled according to all applicable federal, state, and local regulations in effect at the time.

1. Waste materials
   a. Disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

2. Hazardous waste
   a. Hazardous waste materials will be disposed of in accordance with applicable local, state, and/or federal regulations.
   b. Equipment refueling and maintenance operations will be carried out in such a manner so as to prevent any spills and contamination to the soil and groundwater.
c. Potentially hazardous materials will be used with great care to prevent spillage in any volume.

3. Sanitary waste
   a. If a portable restroom facility is on the project site, wastes shall be collected and disposed of in complete compliance with local, state and federal regulations. This facility shall be located in an area where contact with the storm water discharge is minimal.

4. Vehicle tracking
   a. Stabilized construction entrances should be installed at all site access points to reduce vehicle tracking of sediment offsite.
   b. Paved streets adjacent to the site shall be inspected daily and cleaned as necessary to remove any excess mud, dirt or rock tracked from the site.
   c. Dump trucks hauling material shall be properly loaded or covered with a tarpaulin to prevent loss of material.
   d. Dust control measures should be utilized as necessary.

5. Non-storm water discharges
   a. Expected sources of non-storm water discharges from the site during construction could include:
      • Potable water sources including water line flushings, irrigation drainage and fire fighting activities.
      • Uncontaminated groundwater from de-watering excavation.
      • Natural springs, wetland, water sources.
   b. Non-storm water discharges should be directed to non-erosive areas prior to discharge offsite.

C. Implementation: State and Local Requirements

1. The storm water pollution prevention plan reflects the State of Iowa requirements for storm water management and erosion and sediment control, as established in 161A.64 Code of Iowa, State of Iowa Statutory Requirements Pertaining to Erosion Control Plans.
2. Prior to initiating a land disturbing activity, a person engaged in land disturbing activity shall file a signed affidavit with the soil and water conservation district that the project will not exceed the soil loss limits.
3. All work shall be done in accordance with Division 9 of the SUDAS Standard Specifications as referenced in the contract.
4. Code Compliance: The Contractor shall comply with the soil erosion control requirements of the Iowa Code, the Iowa DNR NPDES permit and all local ordinances.

D. Implementation: Timing of Controls/Measures

1. Install down-slope and side-slope perimeter silt fence prior to commencing land-disturbing activity.
2. Install construction entrance and vehicle tracking controls.
3. Construct sediment basins, ditch checks, or other erosion control measures at storm water discharge points.
4. Do not disturb an area until necessary for construction to proceed.
5. Install interrict silt fences, sediment traps, etc. as grading progresses.
6. Cover or stabilize disturbed areas immediately after ceasing construction for more than 14 days.
7. Construct riprap aprons at storm outlets and creek crossings that are disturbed by the construction.
8. Place swale control measures (erosion control mats, silt traps, ditch checks, seed & mulch) in drainage ways as soon as final grades are achieved.
9. As areas reach their final grade, provide additional silt fence, sediment traps, earthen dikes, and ditch checks as necessary.
10. Complete permanent stabilization seeding as soon as possible after work is complete.
11. Remove temporary sediment controls and accumulated sediment once entire site is stabilized. Re-seed any areas disturbed during removal.

E. Hazardous substance spill prevention and response

1. The Contractor is responsible for training all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or wastes will be allowed to come into contact with storm water discharges. If contact does occur, the storm water discharge will be contained onsite until appropriate measures in compliance with all federal, state, and local regulations are followed to dispose of the hazardous substance.

2. In addition to good housekeeping and material management practices, the following practices shall be done by the Contractor to minimize the potential for hazardous material spills and to reduce the risk of the spill coming in contact with storm water.
   • Manufacturer’s recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.
   • Materials and equipment necessary for spill control, containment and cleanup will be provided onsite in a material storage area.

3. In the event of a spill, the following procedures will be followed by the Contractor:
   • All spills will be cleaned up immediately following discovery.
   • The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substance.
   • Spill of toxic or hazardous material will be reported to the appropriate state or local governmental agency and to the project manager and engineer, regardless of the size of the spill.

4. In the event the construction site has a release of a hazardous substance or oil in an amount which exceeds a reportable quantity (RQ) as defined at 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 then the Contractor shall:
   • Have its person in charge of the site at the time of the spill immediately call the EPA National Response Center to report the spill (800-424-8802, or 202-426-2675).
   • Modify the Pollution Prevention Plan accordingly within 14 days of the spill including the items mentioned below.
   • Within 4 days of the release, submit a written description of the release including: a description of the release, type of material, estimated amount of spill, date of release, explanation of why the spill happened, and a description of the steps taken to prevent and control future releases.

F. Materials Management

Site sources of pollution generated as a result of this work related to silts and sediment which may be transported as a result of a storm event. However, this SWPPP provides conveyance for other (non-project related) operations. These other operations have storm water runoff, the regulation of which is beyond the control of this SWPPP.
1. Materials or substances expected to be present onsite during construction:
   a. Concrete
   b. Detergents
   c. Glue
   d. Tar
   e. Fertilizers
   f. Petroleum based additives
   g. Wood
   h. Solids and construction wastes

2. Material Management Practices – the following is a list of practices that will be used by the Contractor on site to minimize the risk of spills or other accidental exposure of materials and substances to storm water runoff.
   a. Good housekeeping
      • An effort will be made to store onsite only enough products required to complete the job.
      • All materials stored onsite will be kept in a neat, orderly manner and in their appropriate containers. If possible, products shall be kept under a roof or other enclosure.
      • Materials will be kept in their original containers with the original manufacturer’s label.
      • Substances will not be mixed with one another unless recommended by the manufacturer.
      • Whenever possible, all of a product will be used up before disposing of the container.
      • Manufacturer’s recommendations for proper use and disposal will be followed.
      • The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.
   b. Hazardous products
      • Products will be kept in their original containers with the original manufacturer’s label.
      • The original labels and material safety data sheets will be kept for each of the materials as they contain important product information.
      • Disposal of any excess product will be done in a manner that follows all manufacturers’, federal, local and state recommended methods for proper disposal.

3. Product Specific Practices – the following is a list of potential sources of pollution and specific practices to be used by the Contractor to reduce pollutant discharges from materials or sources expected to be present during construction.
   a. Petroleum Storage Tanks
      • All onsite vehicles shall be inspected and monitored for leaks and receive preventative maintenance to reduce the chance of leakage.
      • Steps will be taken by the Contractor to eliminate contaminants from storage tanks from entering ground soil. Any petroleum storage tanks kept onsite will be located with an impervious surface between the tank and the ground.
   b. Fertilizers – shall be applied in the amounts specified. It shall be worked into the soil as to minimize the contact with storm water discharge.
   c. Concrete wastes
      • Concrete trucks will be allowed to washout or discharge excess concrete only in specifically designated areas which have been prepared to minimize contact between the concrete and storm water discharge from the site.
      • The hardened product from the concrete washout areas will be disposed of by the Contractor as other non-hazardous waste materials or may be broken up and used on the site for other appropriate uses.
   d. Solid and construction wastes – All trash and construction debris shall be collected and disposed of onsite by the Contractor. No construction waste materials will be buried onsite.
3. SITE INFORMATION

<table>
<thead>
<tr>
<th>Project Name</th>
<th>North Side Library Parking Lot Expansion, Activity ID 04-2021-006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location (address, lat./long. or Section-T-R)</td>
<td>City of Des Moines, Polk County, Iowa  &lt;br&gt; Section 27, Township 79N, Range 24W</td>
</tr>
<tr>
<td>Owner Name</td>
<td>City of Des Moines</td>
</tr>
<tr>
<td>Representative</td>
<td>Brad Brockman</td>
</tr>
<tr>
<td>Owner Address/Phone</td>
<td>Engineering Department  &lt;br&gt; City Hall - 400 Robert D. Ray Drive  &lt;br&gt; Des Moines, Iowa  &lt;br&gt; Office Phone: 515-283-4070</td>
</tr>
<tr>
<td>Contractor Name</td>
<td></td>
</tr>
<tr>
<td>Representative</td>
<td></td>
</tr>
<tr>
<td>Contractor Address/Phone</td>
<td></td>
</tr>
<tr>
<td>Site Area</td>
<td>Approximately 1.00 Acres</td>
</tr>
<tr>
<td>Disturbed Area</td>
<td>Approximately 0.75 Acres</td>
</tr>
<tr>
<td>Final Runoff Coefficient</td>
<td>0.95</td>
</tr>
<tr>
<td>Soil type / characteristics</td>
<td>Sandy Loam</td>
</tr>
<tr>
<td>Receiving Waters</td>
<td>Des Moines River</td>
</tr>
</tbody>
</table>
| Description (purpose and types of soil disturbing activities) | This project or work involves following described improvement:  

The improvement includes pavement removal, milling, storm sewer installation, Portland Cement concrete (PCC) parking lot, HMA overlay, pavement markings, landscape plants and trees, trash enclosure, lighting and miscellaneous associated work including cleanup and restoration; all in accordance with the contract documents, including Plan File No. 641-232/267, located at North Side Library, 3516 5th Avenue, Des Moines, Iowa.  

Soil disturbing activities necessary to complete the work are clearing and grubbing, rough grading, final grading, and surface restoration. Site sources of pollution generated as a result of this project relate to silts and sediments that may be transported as a result of a stormwater event. |
| Expected Sequence of Major Construction Activities to be Completed by Contractor (subject to change; any deviations shall be noted on this plan) | |
4. PUBLIC NOTICE OF STORM WATER DISCHARGE

The City of Des Moines, or its Contractor for the following work, plans to submit a Notice of Intent to the Iowa Department of Natural Resources to be covered under NPDES General Permit No. 2 “Storm Water Discharge Associated with Industrial Activity for Construction Activities.” The storm water discharge will be from the construction of the North Side Library Parking Lot Expansion, Activity ID 04-2021-006, located in _____ NE ¼ Sec. 27, T79N, R24W, Polk County

Storm water will be discharged from _____ point source and will be discharged to the following stream: _____ Des Moines River_____.

Comments may be submitted to the Storm Water Discharge Coordinator, IOWA DEPARTMENT OF NATURAL RESOURCES, Environmental Protection Division, 502 E. 9th Street, Des Moines, IA, 50319-0034. The public may review the Notice of Intent from 8:00 a.m. to 4:30 p.m., Monday through Friday, at the above address after it has been received by the department.

Published in the ____ The Des Moines Register ____
_____ March 16, 2022 _______
5. NPDES CERTIFICATION STATEMENT

A. This project is subject to Section 402(b) of the Clean Water Act and Iowa Code Section 455E.174 and Iowa Administrative Code 567-64.4 (projects disturbing one or more total acres) and requires inclusion in the National Pollution Discharge Elimination System (NPDES) General Permit No. 2, or an individual NPDES Permit for stormwater (also storm water) discharge associated with industrial activity for construction activities. A general stormwater pollution prevention plan for this project is included in the contract documents. A copy of the stormwater pollution prevention plan must be kept at the construction site from the time construction begins until the site has reached final stabilization. The Contractor must sign the NPDES Certification Statement and submit it with the contract documents. By doing so the Contractor becomes a co-permittee with the City of Des Moines and other co-permittee contractors. The Contractor is solely responsible for the development and implementation of a specific stormwater pollution prevention plan for this project, as necessary and appropriate to comply with the law, and must identify any contracting entity charged with the development and/or implementation of any portion of the stormwater pollution prevention plan. The Contractor is the party responsible for maintaining compliance with the stormwater pollution prevention plan and NPDES Permit for the project.

B. All subcontractors, including short-term contractors and subcontractors, prior to approval, must sign the NPDES Certification Statement before conducting any work at the site. The certification must be signed in accordance with the signatory requirements found in the general permit; i.e., principal executive officer, vice president, general partner, proprietor, elector official, and will be incorporated into the Stormwater Pollution Prevention Plan (SWPPP).

C. Upon signing the certification and to the extent allowed by law, other contractors and sub-contractors become co-permittees with the City of Des Moines, the Contractor, and other co-permittees. In signing the plan, the authorized representative certifies that the information is true and assumes liability for the plan. Note that Section 309 of the Clean Water Act provides for significant penalties where information is false or the permittee violates, either knowingly or negligently, permit requirements.

D. All contractors/subcontractors shall conduct their operations in a manner that minimizes erosion and prevents erosion of sediment from the project site. The Contractor shall be responsible for compliance and implementation of the SWPPP for their entire contract. The Contractor is responsible for the identification, coordination and cooperation of all other contractors and subcontractors whose work is a likely source of potential pollution under the law, the NPDES permit and the SWPPP, and to develop and implement the SWPPP.

E. A copy of the NPDES Certification Statement of the Contractor and all subcontractors shall be filed with the City of Des Moines and shall also become a part of the project SWPPP.
NPDES CERTIFICATION STATEMENT
of Contractor or Subcontractor

"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 this NPDES permit.

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."

<table>
<thead>
<tr>
<th>Project Description</th>
<th>North Side Library Parking Lot Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Address</td>
<td>3516 5th Ave., Des Moines, Iowa</td>
</tr>
<tr>
<td>Contractor or Subcontractor</td>
<td></td>
</tr>
<tr>
<td>Name (Print/Type)</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>Street Address</td>
<td></td>
</tr>
<tr>
<td>City, State, Zip</td>
<td></td>
</tr>
<tr>
<td>Telephone Number</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Activity ID</td>
</tr>
</tbody>
</table>

NOTE:
1) The signature on this certification must be an original signature in ink; copies or facsimile of any signature will not be accepted.
2) The Contractor and all subcontractors must sign the NPDES certification statement and return it to the City Engineer before conducting any work at the site. The certification must be incorporated in the SWPPP.
3) The person who signs this certification for the Contractor or subcontractor shall be:
   a. Corporations. In the case of a corporation, a principal executive officer of at least the level of vice president.
   b. Partnerships. In the case of a partnership, a general partner.
   c. Sole proprietorships. In the case of a sole proprietorship, the proprietor.
CORPORATE ACKNOWLEDGMENT

STATE OF _____________) ) SS
                        ) ____________ COUNTY)

On this ____ day of _____________, 20 ___, before me, the undersigned, a Notary Public in and for the State of _____________, personally appeared ______________________ and ______________________, to me known, who, being by me duly sworn, did say that they are the ______________________, and ______________________, respectively, of the corporation executing the foregoing instrument; that (no seal has been procured by; the seal affixed thereto is the seal of) the corporation; that said instrument was signed (and sealed) on behalf of the corporation by authority of this Board of Directors; that ______________________ and ______________________ acknowledged the execution of the instrument to be the voluntary act and deed of the corporation, by it and by them voluntarily executed.

Notary Public in and for the State of _____________
My Commission expires _____________, 20 ___

PARTNERSHIP ACKNOWLEDGMENT

STATE OF _____________) ) SS
                        ) ____________ COUNTY)

On this ____ day of _____________, 20 ___, before me, the undersigned, a Notary Public in and for the State of _____________, personally appeared ______________________ to me personally known, who being by me duly sworn, did say that the person is one of the partners of ______________________, a partnership, and that the instrument was signed on behalf of the partnership by authority of the partners and the partner acknowledged the execution of the instrument to be the voluntary act and deed of the partnership by it and by the partner voluntarily executed.

Notary Public in and for the State of _____________
My commission expires _____________, 20 ___

LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT

STATE OF _____________) ) SS
                        ) ____________ COUNTY)

On this ____ day of _____________, 20 ___, before me the undersigned, a Notary Public in and for the State of _____________, personally appeared ______________________, to me personally known, who being by me duly sworn did say that person is ______________________ of said ______________________, that (the seal affixed to said instrument is the seal of said OR no seal has been procured by the said) ______________________, and that said instrument was signed and sealed on behalf of the said ______________________, by authority of its managers and the said ______________________ acknowledged the execution of said instrument to be the voluntary act and deed of said ______________________, by its voluntarily executed.

Notary Public in and for the State of _____________
My commission expires _____________, 20 ___.
## INDEX

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knox Box 3200 Specification Sheet</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>D-Series Size 1 LED Area Luminaire Specifications</td>
<td>8</td>
</tr>
</tbody>
</table>
The KnoxBox 3200 is the number one high-security key lock box trusted by first responders and property owners. Store up to 10 keys to quickly gain rapid access to commercial properties.

**FEATURES**
- Stores maximum 10 keys. Access cards and small entry items may also fit in interior compartment but will reduce max key quantity.
- Built Knox-Rugged and secure: UL 1037, UL 1610, UL 1332, UL 437
- Finished with Knox-Coat® to protect four times better than standard powder coat
- Weather-resistant door gasket
- Hinged door

**BENEFITS**
- Allows rapid property access
- Reduces property damage
- Prevents forced entry into buildings
- Minimizes first responder injury
- Compliant to National Fire Code (NFPA, IFC, IBC)

**OPTIONS**
- Knox Tamper Alert connects to building's alarm system for extra security
- Mount types: Recessed and Surface
- 3 color options: Black, Aluminum, Dark Bronze

**ACCESSORIES**
- Multi-Purpose Switch for use on electrical doors, gates and other electrical equipment
- Recess Mounting Kit for new concrete or masonry construction
- Public Safety Labels
- Tag-Out Tamper Seals
- Key Tags
- Key Rings

**ORDERING SPECIFICATIONS**
To insure procurement and delivery of the KnoxBox 3200, it is suggested that following specification paragraph is used:

KnoxBox surface/recessed mount with hinged door, with/without UL Listed Knox Tamper Alert. 1/8" plate steel housing, 1/8" thick steel door with interior gasket seal and stainless steel door hinge. Box and lock UL Listed. Lock has 1/8" thick stainless steel dust cover with tamper seal mounting capability.

**Exterior Dimensions:** Surface Mount Body - 4"H x 5"W x 3-7/8"D
Recessed Mount Flange - 7"H x 7"W

**Lock:** UL Listed. Double-action rotating tumblers and hardened steel pins accessed by a biased cut key.

**Finish:** Knox-Coat proprietary finishing process

**Color:** Black, Dark Bronze or Aluminum

**P/N:** KnoxBox 3200 (mfr's cat. ID)

**Mfr's Name:** KNOX COMPANY

1601 W. DEER VALLEY RD. PHOENIX, AZ 85027 | T. 800-552-5669 | F. 623-687-2290 | INFO@KNOXBOX.COM | KNOXBOX.COM

©Knox Company. All rights reserved.
GENERAL MOUNTING INSTRUCTIONS
Suggested minimum mounting height, 6 feet above ground.

ATTENTION: KnoxBox is a very strong device that MUST be mounted properly to ensure maximum security and resist physical attack.

RECESS MOUNTING KIT AND INSTALLATION INSTRUCTIONS
The Recess Mounting Kit (RMK) includes shell housing and mounting hardware, which may only be used for recessed models to cast-in-place within new concrete or masonry construction. The KnoxBox is mounted into the shell housing after construction is completed.

RECESS MOUNTING KIT DIMENSIONS
Rough-in Dimensions:
6-1/2"H x 6-1/2"W x 5"D

IMPORTANT:
Care should be taken to ensure the front of the Recess Mounting Kit (RMK) shell housing, including the cover plate and screw heads, is flush with the wall. The RMK must be plumbed to ensure vertical alignment of the box.

ABOUT KNOX COMPANY
Over forty years ago, a unique concept in rapid access for emergency response was born. The KnoxBox®, a high-security key lock box, was designed to provide rapid access for emergency responders to reduce response times, minimize injuries and protect property from forced entry.

Today, one revolutionary lock box has grown into a complete system providing rapid access for public safety agencies, industries, military, and property owners across the world. The Knox Company is trusted by over 14,000 fire departments, law enforcement agencies, and governmental entities.

KNOX COMPANY
1601 W. DEER VALLEY RD
PHOENIX, AZ 85027
T. 800.552.5669
F. 623.687.2290
KNOXBOX.COM
INFO@KNOXBOX.COM
D-Series Size 1
LED Area Luminaire

Specifications
- EPA: 1.01 ft² (0.09 m²)
- Length: 33" (838 mm)
- Width: 13" (330 mm)
- Height H1: 7-1/2" (191 mm)
- Height H2: 3-1/2"
- Weight (max): 27 lbs (12.2 kg)

Introduction
The modern styling of the D-Series is striking yet unobtrusive, making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

Example: DSX1 LED P7 40K T3M Mvolt SPA NLTAIR2 PIRH N DDBX D

Series | LEDs | Color Temperature | Distribution | Voltage | Mounting
--- | --- | --- | --- | --- | ---
DSX1 LED | Forward optics | 30K 40K 50K 1000K | T1S Type I short | MVOLT® 1000V (277V-480V) | Shipped included
P1, P2, P3 | | | T2S Type II short | | SPA - Square pole mounting
P7 | | | T2M Type II medium | | RPA - Round pole mounting
P8 | | | T2S Type II short | | WBA - Wall bracket
P9 | | | T2M Type II medium | | SPUNBA - Square pole universal mounting adaptor
P10, P11 | | | T2S Type II short | | RPUNBA - Round pole universal mounting adaptor
P12 | | | T2M Type II medium | | Shipped separately

Control options

- Shipped installed
  - NLTAIR2: nLight AIR generation 2 enabled
  - PIRH: Network, high/low motion/ambient sensor
  - PER: NEMA twist-lock receptacle only (controls ordered separately)
  - PERS: Five-pin receptacle only (controls ordered separately)
  - PBR: Seven-on receptacle only (controls ordered separately)
  - DMRG: 0-10V dimming wires pulled outside fixture (for use with an external dimming, ordered separately)
  - DS: Dual switching

- Other options
  - Shipped installed
    - HS: House-side shield
    - SF: Single fuse (20A, 277V, 347V)
    - DF: Double fuse (20A, 240V, 480V)
    - L90: Left rotated optics
    - R90: Right rotated optics
    - HA: 50% ambient operation 10
    - BAA: Buy America Act Compliant
    - Shipped separately
      - BS: Bird spikes
      - EES: External glare shield

- Finish (required)
  - DDBXD: Dark bronze
  - DBLXD: Black
  - DNDXD: Natural aluminum
  - DVAXD: White
  - DDBX0D: Textured bronze
  - DBX0D: Textured black
  - DNHXD: Textured natural aluminum
  - DWHD: Textured white

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-5ERV (7378) • www.lithonia.com
© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.
**Ordering Information**

<table>
<thead>
<tr>
<th>Accessory Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL1212P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td>For more control options, visit lithonia.com</td>
</tr>
<tr>
<td>DL1224P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td></td>
</tr>
<tr>
<td>DL1240P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td></td>
</tr>
<tr>
<td>DL1312P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td></td>
</tr>
<tr>
<td>DL1324P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td></td>
</tr>
<tr>
<td>DL1340P-1.5</td>
<td>1.5&quot; Flange Mount</td>
<td></td>
</tr>
</tbody>
</table>

**Options**

**EGR - External Glare Shield**

**Drilling**

**HANDHOLE ORIENTATION**

- **A** Handhole
- **B** Top of Pole
- **C** Template #8
- **D** 2.625" for aluminum poles
- **E** 2.25" for other pole types

**Tenon Mounting Slipfitter**

<table>
<thead>
<tr>
<th>Tenon B.B.</th>
<th>Mounting</th>
<th>Single Unit</th>
<th>2 @ 180</th>
<th>2 @ 90</th>
<th>3 @ 90</th>
<th>3 @ 120</th>
<th>4 @ 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3/8&quot;</td>
<td>RPA</td>
<td>AS3-196</td>
<td>AS5-196</td>
<td>AS3-290</td>
<td>AS5-290</td>
<td>AS3-390</td>
<td>AS3-490</td>
</tr>
<tr>
<td>4&quot;</td>
<td>RPA</td>
<td>AS3-196</td>
<td>AS5-196</td>
<td>AS5-290</td>
<td>AS5-290</td>
<td>AS3-390</td>
<td>AS3-490</td>
</tr>
</tbody>
</table>

**DSX1 Area Luminaire - EPA**

*Includes luminaire and mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

**Drilling**

**Template #8**

<table>
<thead>
<tr>
<th>Mounting Type</th>
<th>Single DM 19</th>
<th>2 @ 180 DM 28</th>
<th>2 @ 90 DM 39</th>
<th>3 @ 120 DM 32</th>
<th>1 @ 90 DM 49</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSX1 LED</td>
<td>1.633</td>
<td>2.025</td>
<td>1.945</td>
<td>3.038</td>
<td>2.850</td>
</tr>
<tr>
<td>RPA</td>
<td>#8</td>
<td>2-7/8&quot;</td>
<td>2-7/8&quot;</td>
<td>3.5&quot;</td>
<td>3.5&quot;</td>
</tr>
<tr>
<td>STEELMA</td>
<td>#8</td>
<td>2-7/8&quot;</td>
<td>2-7/8&quot;</td>
<td>3.5&quot;</td>
<td>3.5&quot;</td>
</tr>
<tr>
<td>REPLMA</td>
<td>#5</td>
<td>2-7/8&quot;</td>
<td>3&quot;</td>
<td>4&quot;</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.

One Lithonia Way, Conyers, Georgia 30012 • Phone: 1-800-705-SEVR (7378) • www.lithonia.com

DSX1-LED
Rev. 07/19/21
Page 2 of 8
Photometric Diagrams

To see complete photometric reports or download PDF files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25).

LEGEND
- 0.1 fc
- 0.5 fc
- 1.0 fc

Test No. T12321 tested in accordance with IESNA LM-79-08.

Test No. T12322 tested in accordance with IESNA LM-79-08.

Test No. T12323 tested in accordance with IESNA LM-79-08.

Test No. T12324 tested in accordance with IESNA LM-79-08.

Test No. T12325 tested in accordance with IESNA LM-79-08.

Test No. T12326 tested in accordance with IESNA LM-79-08.

Test No. T12327 tested in accordance with IESNA LM-79-08.

Test No. T12328 tested in accordance with IESNA LM-79-08.
**Performance Data**

**Lumen Ambient Temperature (LAT) Multipliers**

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

<table>
<thead>
<tr>
<th>Ambient</th>
<th>Lumen Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C</td>
<td>1.04</td>
</tr>
<tr>
<td>5°C</td>
<td>1.01</td>
</tr>
<tr>
<td>10°C</td>
<td>1.03</td>
</tr>
<tr>
<td>15°C</td>
<td>1.02</td>
</tr>
<tr>
<td>20°C</td>
<td>1.01</td>
</tr>
<tr>
<td>25°C</td>
<td>1.00</td>
</tr>
<tr>
<td>30°C</td>
<td>0.99</td>
</tr>
<tr>
<td>35°C</td>
<td>0.98</td>
</tr>
<tr>
<td>40°C</td>
<td>0.97</td>
</tr>
</tbody>
</table>

**Projected LED Lumen Maintenance**

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLE, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

<table>
<thead>
<tr>
<th>Operating Hours</th>
<th>Lumen Maintenance Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>25,000</td>
<td>0.96</td>
</tr>
<tr>
<td>50,000</td>
<td>0.92</td>
</tr>
<tr>
<td>100,000</td>
<td>0.85</td>
</tr>
</tbody>
</table>

**Motion Sensor Default Settings**

<table>
<thead>
<tr>
<th>Option</th>
<th>Dimmed State</th>
<th>High Level (when triggered)</th>
<th>Photocell Operation</th>
<th>Dwell Time</th>
<th>Ramp-up Time</th>
<th>Ramp-down Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIR or PIR1</td>
<td>3V (37V) Output</td>
<td>12V (100V) Output</td>
<td>Enabled @ 7FC</td>
<td>5min</td>
<td>3 sec</td>
<td>5 min</td>
</tr>
<tr>
<td><strong>PIR/TFC or PIR/TFC3V</strong></td>
<td>3V (37V) Output</td>
<td>12V (100V) Output</td>
<td>Enabled @ 17C</td>
<td>5min</td>
<td>3 sec</td>
<td>5 min</td>
</tr>
</tbody>
</table>

*For use when motion sensor is used as dusk to dawn control.

---

**Electrical Load**

<table>
<thead>
<tr>
<th>Performance Package</th>
<th>LED Count</th>
<th>Drive Current</th>
<th>Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>30</td>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>P2</td>
<td>30</td>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>P3</td>
<td>30</td>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>P4</td>
<td>30</td>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>P5</td>
<td>30</td>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>P6</td>
<td>40</td>
<td>125</td>
<td>63</td>
</tr>
<tr>
<td>P7</td>
<td>40</td>
<td>125</td>
<td>63</td>
</tr>
<tr>
<td>P8</td>
<td>50</td>
<td>125</td>
<td>87</td>
</tr>
<tr>
<td>P9</td>
<td>60</td>
<td>125</td>
<td>141</td>
</tr>
<tr>
<td>P10</td>
<td>60</td>
<td>125</td>
<td>141</td>
</tr>
<tr>
<td>P11</td>
<td>60</td>
<td>125</td>
<td>141</td>
</tr>
<tr>
<td>P12</td>
<td>60</td>
<td>125</td>
<td>141</td>
</tr>
<tr>
<td>P13</td>
<td>60</td>
<td>125</td>
<td>141</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current (A)</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
<th>0.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Optics</td>
<td>Non-Rotated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P10</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>P11</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>P12</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>P13</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
</tbody>
</table>

**Controls Options**

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Description</th>
<th>Functionality</th>
<th>Primary control device</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADT</td>
<td>Field adjustable output device installed inside the luminaire; wired to the driver; dimming leads.</td>
<td>Allows the luminaire to be manually dimmed, effectively turning the light output.</td>
<td>ADT device</td>
<td>Cannot be used with other control options that need the 0-10V leads.</td>
</tr>
<tr>
<td>BS</td>
<td>Drives wired independently for 50/50 luminaire operation.</td>
<td>The luminaire is wired to two separate circuits, allowing for 50/50 operation.</td>
<td>Independently wired drivers</td>
<td>Requires two separately switched circuits. Consider night light as a more cost effective alternative.</td>
</tr>
<tr>
<td>PERS or PER7</td>
<td>Two-way photocell receptacle.</td>
<td>Compatible with standard two-way photocells.</td>
<td>Two-way photocells such as ELL Elite or advanced control nodes such as RDM.</td>
<td>Pins 4 &amp; 5 are used for dimming and on/off.</td>
</tr>
<tr>
<td>PIR or PIRH</td>
<td>Motion sensor with integral photocell.</td>
<td>Motion sensors with integral photocell.</td>
<td>Acuity Controls SGR</td>
<td>Also available with PIR/TFC3V when the sensor is used as dusk to dawn operation.</td>
</tr>
<tr>
<td>NISTAIR PIR/IR</td>
<td>Motion sensor with integral photocell.</td>
<td>Motion and ambient light sensing with group response.</td>
<td>NISTAIR PIR/IR</td>
<td>NISTAIR PIR/IR sensors can be programmed and commissioned from the system using the CHARM app.</td>
</tr>
</tbody>
</table>

---

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.

DSX1-LED
Rev. 07/19/21
Page 4 of 8
## Performance Data

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

### Forward Optics

<table>
<thead>
<tr>
<th>LED Count</th>
<th>Drive Current</th>
<th>Power Package</th>
<th>System Watts</th>
<th>Dist. Type</th>
<th>LW</th>
<th>LPW</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>530</td>
<td>P1</td>
<td>5W</td>
<td>T15</td>
<td>6,437</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>700</td>
<td>P2</td>
<td>7W</td>
<td>T15</td>
<td>6,437</td>
<td>2</td>
</tr>
<tr>
<td>1000</td>
<td>120W</td>
<td>P3</td>
<td>100W</td>
<td>T15</td>
<td>6,437</td>
<td>2</td>
</tr>
<tr>
<td>1250</td>
<td>125W</td>
<td>P4</td>
<td>125W</td>
<td>T15</td>
<td>6,437</td>
<td>2</td>
</tr>
<tr>
<td>1400</td>
<td>138W</td>
<td>P5</td>
<td>138W</td>
<td>T15</td>
<td>6,437</td>
<td>2</td>
</tr>
</tbody>
</table>
## Performance Data

### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

<table>
<thead>
<tr>
<th>Forward Optics</th>
<th>LED Count</th>
<th>Drive Current</th>
<th>Power Package</th>
<th>System Watts</th>
<th>Dist. Type</th>
<th>S0W (3000 K, 70 CRI)</th>
<th>40K (4000 K, 70 CRI)</th>
<th>50K (5000 K, 70 CRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
<td>1250</td>
<td>P6</td>
<td>183W</td>
<td>T5S</td>
<td>17,674 3 0 3 108 19,058 3 0 3 117 19,175 3 0 3 118</td>
<td>17,558 5 0 3 118</td>
<td>18,411 3 0 3 115</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>1400</td>
<td>P7</td>
<td>183W</td>
<td>T2S</td>
<td>17,674 1 3 108 18,098 3 0 3 117 19,175 3 0 3 118</td>
<td>17,558 5 0 3 118</td>
<td>18,411 3 0 3 115</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>1010</td>
<td>P8</td>
<td>207W</td>
<td>T5S</td>
<td>17,674 3 0 3 108 19,058 3 0 3 117 19,175 3 0 3 118</td>
<td>17,558 5 0 3 118</td>
<td>18,411 3 0 3 115</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>1250</td>
<td>P9</td>
<td>241W</td>
<td>T5S</td>
<td>17,674 3 0 3 108 19,058 3 0 3 117 19,175 3 0 3 118</td>
<td>17,558 5 0 3 118</td>
<td>18,411 3 0 3 115</td>
</tr>
</tbody>
</table>
### Performance Data

**Lumen Output**

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lumens</td>
<td>B</td>
<td>U</td>
<td>G</td>
</tr>
<tr>
<td>T5S</td>
<td>60</td>
<td>530</td>
<td>P10</td>
<td>106W</td>
<td>13,042, 3, 0, 3, 123</td>
<td>13,669, 6, 0, 4, 122</td>
<td>13,081, 3, 0, 3, 123</td>
<td>14,000, 3, 0, 3, 133</td>
</tr>
<tr>
<td>T5D</td>
<td>60</td>
<td>700</td>
<td>P11</td>
<td>137W</td>
<td>16,841, 4, 0, 4, 120</td>
<td>16,759, 4, 0, 4, 120</td>
<td>16,844, 4, 0, 4, 120</td>
<td>17,762, 4, 0, 4, 120</td>
</tr>
<tr>
<td>T5S</td>
<td>60</td>
<td>1030</td>
<td>P12</td>
<td>207W</td>
<td>22,996, 4, 0, 4, 111</td>
<td>23,347, 4, 0, 4, 112</td>
<td>22,991, 4, 0, 4, 111</td>
<td>24,773, 4, 0, 4, 120</td>
</tr>
<tr>
<td>T5S</td>
<td>60</td>
<td>1250</td>
<td>P13</td>
<td>231W</td>
<td>13,116, 4, 0, 4, 66</td>
<td>13,911, 4, 0, 4, 110</td>
<td>13,116, 4, 0, 4, 66</td>
<td>14,787, 4, 0, 4, 71</td>
</tr>
</tbody>
</table>

### Lithonia Lighting

COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com

© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.
FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA 11.01 ft² for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplighting.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to 95,000,000 hours at 50°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10K surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized with optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful control platform provides out-of-the-box basic motion sensing and photocell functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY™ app, nLight AIR-equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor override can be achieved when used with the nLight Eclipse. Additional information about nLight AIR can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern template #8. NEMA photocontrol receptacle are also available.

LISTINGS
UL listed to meet U.S. and Canadian standards. UL listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN
Product with the BAA option is assembled in the USA and meets the Buy America(s) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25°C.
Specifications subject to change without notice.