

Addendum #01 for RFB 0919335117

Project Name: Hoover Building Elevator Modernization

RFP #: 0919335117

Date 3/26/19

The Addendum contains written information that modify, supplement, or replace information contained in the Project Specifications and Drawings issued March 6, 2019

Acknowledge receipt of this Addendum on the proposal response. Failure to do so may subject contractor to disqualification.

Addendum #1:

- Cover Page – Clarifications and Revisions (2 pages)
- Section 00 1113 Notice to Bidders (1 page)
- Section 004116 Bid Form (8 pages)
- Section 01 1200 Contract Summary (5 pages)
- Section 26 5100 Interior Lighting (5 pages)
- Section 26 5619 LED Exterior Lighting (6 pages)

Clarifications:

- 1) For the Capitol Complex Parking Garage, one floor of parking stalls will be blocked off at a time for construction. Work shall be complete on one floor prior to moving to the next. Drive lanes will need to remain accessible to traffic.
- 2) The pre-bid meeting will be held at **9:00 AM CST on Friday, March 29th** at the Oran Pape Building 215 East 7th Street, Des Moines, IA 50319.

- 3) **REVISION:** The Oran Pape Corridors 2nd – 6th have been changed to alternates. Base bid at the Oran Pape building will include the 1st Floor Corridor and all corridor restrooms.
- 4) **REVISION:** See new bid form for additional unit pricing being requested.
- 5) **REVISION:** Section 00 1113 Notice to Bidders was missing for the bid documents and has been included with this addendum.
- 6) **REVISION:** In Section 01 1202 Special Work Requirements, the foot section number should read 01 1202-x in lieu of 01 1200-x.
- 7) **REVISION:** Section 26 5100 Interior Lighting was missing for the bid documents and has been included with this addendum.
- 8) **REVISION:** Section 26 5619 LED Exterior Lighting was missing for the bid documents and has been included with this addendum.
- 9) **REVISION:** Detail 1 on page E2 of the Capitol Complex Parking Garage Re-Lighting drawings shall read "F1 LUMINAIRE BOTTOM EDGE MOUNTING HEIGHT ON EXISTING STEMS TO BE APPROXIMATELY LEVEL WITH CONCRETE DECK "T" VETERICAL WEBS OF FLOOR ABOVE."
- 10) **REPLACE:** Section 00 4116 Bid Form with the attached revised section.
- 11) **REPLACE:** Section 01 1200 Contract Summary with the attached revised section.
- 12) Sections 00 4116, 04116.01, 04116.02 are out of sequence in the project manual and for clarification should be in sequential order as 00 4116, 04116.01, 04116.02.
- 13) Example ConcensusDocs 260 Performance Bond and ConcensusDocs 261 Payment Bond should follow section 00 6000 Performance and Payment Bond in the project manual. Currently they precede this section.
- 14) The Construction Project Request for Notification and/or Services from Capitol Complex Maintenance (CCM) form should follow section 01 3100 Project Management and Coordination. Currently it precedes this section.

End of Addendum #1

SECTION 00 1113

NOTICE TO BIDDERS

RFB #0919335117

The Iowa Department of Administrative Services – Central Procurement Bureau, Hoover State Office Building, Level 3, 1305 East Walnut Street, Des Moines, Iowa 50319 will be receiving bids for the Oran Pape Building and Capitol Complex Parking Garage Re-Lighting at 628 East Grand Avenue, Des Moines, Iowa 50309.

The Iowa Department of Administrative Services anticipates construction to begin on May 3rd, 2019 and end on September 10th, 2019.

Bids must be received no later than **2:00 pm, local time, Thursday, April 11th, 2019**. Late bids will not be considered. Bids are to be delivered to the Office of the Department of Administrative Services – Central Procurement Bureau, Hoover State Office Building, Level 3, 1305 East Walnut Street, Des Moines, Iowa, 50319. Bids shall be submitted on the Bid Form and shall be accompanied by a Bid Security as set forth in the Instructions to Bidders in the amount of 5% of the total bid amount. Each bid shall be accompanied by a bid bond, cashier's check or a certified check drawn upon a solvent bank chartered under the laws of the United States of America.

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

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

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

An **optional** Pre-Bid meeting will be held on Friday, March 29th, 2019 at 9:00 AM at the Oran Pape Building, 215 East 7th Street, Des Moines. This meeting is not mandatory but is highly recommended.

Bidding Documents may be obtained from Beeline & Blue by visiting www.beelineandblue.com or by calling (515) 244-1611 on or after Wednesday, March 13th, 2019.

For further information regarding this project contact:
Steve Oberbroeckling – Issuing Officer
Iowa Department of Administrative Services – Central Procurement Bureau
1305 East Walnut Street
Des Moines, Iowa 50319
Phone: (515) 725-2090
E-Mail: steve.oberbroeckling@iowa.gov

END OF SECTION

SECTION 00 4116

BID FORM

RFB #0919335117

**BID FORM for CONSTRUCTION CONTRACT
for
Department of Administrative Services
109 SE 13th Street, Des Moines, IA 50319
Project 9043.00**

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

The following documents are to be completed and submitted with your bid.

1. Bid Proposal Form (Required)
2. Non Discrimination Clause Form
3. Contractor Targeted Small Business Enterprise Pre-Bid Contract Information Form
4. Bid Security – 5% of total Bid amount (Is to be submit in separate envelope) (Required)

Authorized Representative:

The undersigned Bidder, in response to your Request for Bid for construction of the above project, having examined the Drawings, Specifications, and other Bidding Documents dated March 6th, 2019, and Addenda issued and acknowledged below as received and being familiar with all the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, equipment and supplies to perform all work to construct the project in strict accordance with the proposed Contract Documents, within the time and at the prices stated below. Prices are to cover all expenses incurred in performing the work required under the proposed Contract Documents, of which this bid is a part.

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

Number _____

Dated _____

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

Dollars

(\$_____).

ALT 03 – Oran Pape 3rd Floor Corridor Re-Lighting

Description: Provide all labor, materials, and equipment to complete the lighting replacement of the 3rd Floor corridor of the Oran Pape building.

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

Dollars

(\$_____).

ALT 04 – Oran Pape 4th Floor Corridor Re-Lighting

Description: Provide all labor, materials, and equipment to complete the lighting replacement of the 4th Floor corridor of the Oran Pape building. Bidder proposes and agrees to perform all work as described in the Construction Documents for the sum of:

Dollars

(\$_____).

ALT 05 – Oran Pape 5th Floor Corridor Re-Lighting and 6th Floor Can Light Modifications

Description: Provide all labor, materials, and equipment to complete the lighting replacement of the 5th Floor corridor of the Oran Pape building.

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

Dollars

(\$_____).

UNIT PRICES:

UNIT 01 – Stem and Box Replacement

Description: Replacement per typical location of the stem and galvanized steel junction box with exterior rated cast aluminum threaded hub types.

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

_____ Dollars

(\$_____) per location.

UNIT 02 – EMT Conduit Replacement

Description: Replace 10' LF of EMT conduit, including (3) #12 THWN CU conductors, and conduit fittings similar to existing.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 03 – Oran Pape F1 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F1 type light fixtures as identified for the Oran Pape Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 04 – Oran Pape F2 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F2 type light fixtures as identified for the Oran Pape Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 05 – Oran Pape F3 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F3 type light fixtures as identified for the Oran Pape Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 06 – Capitol Complex Garage F1 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F1 type light fixtures as identified for the Capitol Complex Garage Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 07 – Capitol Complex Garage F2 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F2 type light fixtures as identified for the Capitol Complex Garage Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 08 – Capitol Complex Garage F3 Type Light fixture

Description: Provide an add/deductive unit price to supply additional F3 type light fixtures as identified for the Capitol Complex Garage Re-Lighting.

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

_____ Dollars

(\$_____) per ten linear feet.

UNIT 09 – Capitol Complex Garage X1 Type Exit Sign

Description: Provide an add/deductive unit price to supply additional X1 type exit sign as identified for the Capitol Complex Garage Re-Lighting.

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

_____ Dollars
(\$_____) per ten linear feet.

UNIT 10 – Capitol Complex Garage F2 Type Exit Sign

Description: Provide an add/deductive unit price to supply additional X2 type exit sign as identified for the Capitol Complex Garage Re-Lighting.

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

_____ Dollars
(\$_____) per ten linear feet.

Bidder hereby certifies that:

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

Subcontractors:

The Trade Contractor must identify all Subcontractors and Suppliers within 48 hours of the published date and time for which bids must be submitted, in accordance with Iowa Code Section 8A311, as amended by House File 646 in 2011. Subcontractors and suppliers may not be changed without the approval of the

Owner. Requests for changing a Subcontractor or supplier must identify the reason for the proposed change, the name of the new Subcontractor or supplier, and the change in the subcontractor or supplier price as a result of the change. Any reduction in subcontractor or supplier price as a result of the change, if the change is approved by the Owner, shall be deducted from the Trade Contract Price via a deductive Change Order. Any such changes, if approved by the Owner, which result in an increase in the Trade Contract Price shall be borne by the Trade Contractor.

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

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

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

Resident Bidder

☐

Name of Resident Bidder: _____

By: _____
Authorized Agent and Signatory of Resident Bidder

OR:

Nonresident Bidder

☐

Name of Nonresident Bidder: _____

Name of State or Foreign Country of Nonresident Bidder: _____

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

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

By: _____
Authorized Agent and Signatory of Nonresident Bidder

Bid Form shall be signed by an officer of the company with authority to bind in a contract.

Notice of acceptance of this bid, or request for additional information by the Department of Administrative Services, may be addressed to the undersigned at the address set forth below:

Legal Name of Firm: _____

Date: _____

Signature of Bidder: _____

Title: _____

Typed Name of Signatory: _____

Email: _____

Business Address:

Telephone Number: _____ Fax Number: _____

Federal Tax Identification Number: _____

Iowa Contractor Registration Number: _____

Bidder Safety Manager Name: _____

For an out-of-state Bidder, Bidder certifies that the Resident Preference given by the State or

Foreign Country of Bidder's residence, _____, is _____ %.

END OF SECTION

SECTION 01 1200

CONTRACT SUMMARY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project Information
- B. Project Summary
- C. Bid Scope Summary
- D. Work Hour Restrictions
- E. Access to Site
- F. Coordination with Occupants
- G. Rules for Construction Workers
- H. Bid Package Instructions

1.02 PROJECT INFORMATION

- A. Facility Name/Location: Oran Pape Building, 215 East 7th Street, Des Moines and Capitol Complex Parking Garage, 628 East Grand Avenue, Des Moines, IA 50309
- B. DAS Project #: 9035.00 & 9043.00
- C. Owner: State of Iowa, Department of Administrative Services, Hoover State Office Building, Level 3, 1305 East Walnut Street, Des Moines, IA 50319
- D. Owner's Representative: Jennifer Kleene, Iowa Department of Administrative Services, 109 SE 13th Street, Des Moines, IA 50319
- E. Construction Manager: Michael Steen, DCI Group, Inc. 220 SE 6th St., Suite 200, Des Moines, IA 50309

1.03 PROJECT SUMMARY

- A. The project includes the replacement of existing light fixtures, HID Luminaires, and exit signs with new LED fixtures at the Oran Pape building and Capitol Complex parking garage.
- B. Target date to provide substantial completion is August 19th, 2019 for Oran Pape Building and September 10th, 2019 for Capitol Complex Parking Garage

1.04 BID SCOPE SUMMARY

- A. Scope Applicable to All Bid Packages:
 - 1. See Section 01 1201 General Work Requirements
 - 2. See Section 01 1202 Special Work Requirements

1.05 WORK HOUR RESTRICTIONS

- A. Work hours are from 7:00 AM to 5:00 PM, Monday through Friday unless arrangements are made in advance.

1.06 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Provide access to and from site as required by law and Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permission of Owner and permit if required.

- C. Facility will be occupied at all times during duration of work. Contractor personnel shall conduct themselves in an agreeable manner at all times. Failure to do so may result in removal from the work site.

1.07 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.08 RULES FOR CONSTRUCTION WORKERS

- A. The staff of the State of Iowa has a responsibility to protect the public by providing a secure environment. All work site rules must be followed to the letter, at all times.
- B. All construction workers must have a background check completed prior to entering the campus to perform work.
- C. Hot Work Permit Processes and Fire Watch, when necessary, will be adhered to for this project.
- D. All State properties are tobacco free. No smoking will be permitted or tolerated on campus unless in designated areas.
- E. You are permitted access only to the work site and no other area of the institution.
- F. No drugs, alcohol, or firearms are allowed on the work site.
- G. Do not leave money, drugs, alcohol, or firearms in your personal vehicle.
- H. Company and personal vehicles are to be parked and locked in designated or authorized area of the work.
- I. Secure all tools at the end of the day.
- J. Maintain control of all tools, supplies, and debris at all times during the work.
- K. Never leave keys in any vehicle. If a security officer finds keys in a vehicle, they are under orders to turn them in to a security supervisor.
- L. All delivery vehicles must go directly to the job site. Provide 24-hour notice to the facility of deliveries.

1.09 BID PACKAGE INSTRUCTIONS

- A. **Bid Package #01** – Oran Pape Building & Parking Garage Re-Lighting: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
 - 1. Includes specification:
 - a. Division 0 Procurement and Contraction Requirements
 - b. Division 1 General Requirements
 - c. 26 0500 Common Results for Electrical
 - d. 26 0519 Low-Voltage Electrical Power Conductors and Cables
 - e. 26 0526 Grounding and Bonding for Electrical Systems
 - f. 26 0529 Hangers and Supports for Electrical Systems
 - g. 26 0533 Raceways and Boxes for Electrical Systems
 - h. 26 0553 Identification for Electrical Systems
 - i. 26 5100 Interior Lighting
 - j. 26 5619 LED Exterior Lighting
 - 2. General:
 - a. This project will be phased. Construction at the Capitol Parking Garage will not begin until after the 2019 Legislative Session is complete. One floor of parking stalls will be blocked off at a time for construction. Work shall be complete on

one floor prior to moving to the next. Driving lanes shall remain open at all times to allow traffic through to upper levels.

- b. This project will result in two separate contracts to one successful bidder for the purpose of tracking costs separately between the Oran Pape Building and the Capitol Complex Parking Garage. There will be a separate EADOC project for each projects and construction administration and closeout will need to be completed for both.

3. Demolition:

- a. This contractor shall be responsible for all demolition as identified in the contract documents or as required to accommodate the new installations.
- b. This contractor shall be responsible for the complete removal and disposal of the compact fluorescent recessed downlights at the Oran Pape Building. This shall include installation of blank-out cover and painting of covers to match color of ceiling.
- c. Contractor shall dispose of debris daily offsite.
- d. Contractor shall be responsible for the proper disposal of fixtures and equipment with hazardous materials as identified in the contract documents.
- e. Contractor is responsible for final cleaning of construction area prior to turnover to Owner

4. Electrical:

- a. This contractor shall be responsible for the procurement and installation of new equipment and fixtures as identified in the contract documents. This includes, but is not limited to, lighting fixtures, conductors, pathways, junction boxes, exit signs, mounts and mounting accessories.
- b. Base bid at the Oran Pape Building includes the 1st Floor Corridor and all corridor restroom lighting.
- c. It shall be the responsibility of the contractor to conduct all testing of new light fixtures and systems and to provide testing documentation to Owner prior to substantial completion.
- d. This contractor shall be responsible for the proper documentation and submittal of all documentation necessary for potential energy rebates.
- e. The Oran Pape and the Parking Ramp shall be provided with lighting at all time. Existing lighting shall be left in place until removal is necessary for new installation. Sufficient light levels shall be provided at all times. If temporary lighting is required to achieve this, it will be the responsibility of this contractor to provide.
- f. Contractor shall provide an allowance of \$5,000 for the replacement of stems, boxes, and existing EMT branch conduit. Actual costs will be based off of unit prices requested below.

B. **Alternate #01** – Replacement Drivers and LED Arrays: Trade Contractor shall include all of the following, but not limited to, as part of the contract:

- 1. Per each fixture type provide 3% of the total project quantity, or a minimum of (2), replacement drivers and field replaceable LED arrays where applicable for Owner's future maintenance requirements.
- 2. Alternate prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.

- C. **Alternate #02** – Oran Pape 2nd Floor Corridor Re-Lighting: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. All work associated with the replacement of lighting at the 2nd Floor corridor of the Oran Pape Building
 2. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 3. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 4. Execute accepted alternates under the same conditions as other work of the Contract.
- D. **Alternate #03** – Oran Pape 3rd Floor Corridor Re-Lighting: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. All work associated with the replacement of lighting at the 3rd Floor corridor of the Oran Pape Building
 2. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 3. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 4. Execute accepted alternates under the same conditions as other work of the Contract.
- E. **Alternate #04** – Oran Pape 4th Floor Corridor Re-Lighting: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. All work associated with the replacement of lighting at the 4th Floor corridor of the Oran Pape Building
 2. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 3. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 4. Execute accepted alternates under the same conditions as other work of the Contract.
- F. **Alternate #05** – Oran Pape 5th Floor Corridor Re-Lighting and 6th Floor Can Light Modifications: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. All work associated with the replacement of lighting at the 5th Floor corridor of the Oran Pape Building including revisions to existing can lights at the 5th Floor corridor ceiling.
 2. Work on the existing can lights on the 6th Floor will require a lift for access. Contractors shall be aware of a block glass inlay in the existing concrete floor that shall be protected. Contractor shall submit a lift plan to the construction manager and designer prior to starting work.
 3. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 4. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
 5. Execute accepted alternates under the same conditions as other work of the Contract.

- G. **Unit Price #01** – Stem and Box Replacement: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. Replacement per typical location of the stem and galvanized steel junction box with exterior rated cast aluminum threaded hub types.
 2. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
 3. Owner reserves the right to reject Contractor's measurements of work in place that involves use of established unit prices and to have this work measured, at the Owner's expense, by an independent surveyor acceptable to the Contractor.
- H. **Unit Price #02** – EMT Conduit Replacement: Trade Contractor shall include all of the following, but not limited to, as part of the contract:
1. Replace 10' LF of EMT conduit, including (3) #12 THWN CU conductors, and conduit fittings similar to existing.
 2. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
 3. Owner reserves the right to reject Contractor's measurements of work in place that involves use of established unit prices and to have this work measured, at the Owner's expense, by an independent surveyor acceptable to the Contractor.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

**SECTION 26 51 00
LIGHTING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exit signs.
 - 2. Lighting fixture supports.

1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color-rendering index.
- C. HID: High-intensity discharge.
- D. Lumen: Measured output of lamp and luminaire, or both.
- E. Luminaire: Complete lighting fixture, including ballast housing if provided.

1.4 ACTION SUBMITTALS

- A. Shop Drawings: For nonstandard or custom lighting fixtures. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Wiring Diagrams: For power, signal, and control wiring.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For lighting equipment and fixtures to include in emergency, operation, and maintenance manuals.
 - 1. Provide a list of all lamp types used on Project; use ANSI and manufacturers' codes.

1.6 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- C. FM Global Compliance: Lighting fixtures for hazardous locations shall be listed and labeled for indicated class and division of hazard by FM Global.

1.7 COORDINATION

- A. Coordinate layout and installation of lighting fixtures and suspension system with other construction that penetrates ceilings or is supported by them, including HVAC equipment, fire-suppression system, and partition assemblies.

1.8 WARRANTY

- A. Warranty Period: 5 year(s) from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product indicated on Drawings.

2.2 GENERAL REQUIREMENTS FOR LIGHTING FIXTURES AND COMPONENTS

- A. Recessed Fixtures: Comply with NEMA LE 4 for ceiling compatibility for recessed fixtures.
- B. Metal Parts: Free of burrs and sharp corners and edges.
- C. Sheet Metal Components: Steel unless otherwise indicated. Form and support to prevent warping and sagging.
- D. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.
- E. Diffusers and Globes:
 - 1. Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
 - a. Lens Thickness: At least 0.125 inch minimum unless otherwise indicated.
 - b. UV stabilized.

2. Glass: Annealed crystal glass unless otherwise indicated.
- F. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and ballasts. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.
1. Label shall include the following lamp and ballast characteristics:
 - a. "USE ONLY" and include specific lamp type.
 - b. Lamp diameter code (T-4, T-5, T-8, T-12, etc.), tube configuration (twin, quad, triple, etc.), base type, and nominal wattage for fluorescent and compact fluorescent luminaires.
 - c. Lamp type, wattage, bulb type (ED17, BD56, etc.) and coating (clear or coated) for HID luminaires.
 - d. Start type (preheat, rapid start, instant start, etc.) for fluorescent and compact fluorescent luminaires.
 - e. ANSI ballast type (M98, M57, etc.) for HID luminaires.
 - f. CCT and CRI for all luminaires.

2.3 EXIT SIGNS

- A. General Requirements for Exit Signs: Comply with UL 924; for sign colors, visibility, luminance, and lettering size, comply with authorities having jurisdiction.
- B. Internally Lighted Signs:
1. Lamps for AC Operation: Fluorescent, two for each fixture, 20,000 hours of rated lamp life.
 2. Lamps for AC Operation: LEDs, 50,000 hours minimum rated lamp life.
 3. Self-Powered Exit Signs (Battery Type): Integral automatic charger in a self-contained power pack.
 - a. Battery: Sealed, maintenance-free, nickel-cadmium type.
 - b. Charger: Fully automatic, solid-state type with sealed transfer relay.
 - c. Operation: Relay automatically energizes lamp from battery when circuit voltage drops to 80 percent of nominal voltage or below. When normal voltage is restored, relay disconnects lamps from battery, and battery is automatically recharged and floated on charger.
 - d. Test Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
 - e. LED Indicator Light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
 - f. Integral Self-Test: Factory-installed electronic device automatically initiates code-required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and a flashing red LED.

2.4 EMERGENCY LIGHTING UNITS

- A. General Requirements for Emergency Lighting Units: Self-contained units complying with UL 924.
1. Battery: Sealed, maintenance-free, lead-acid type.
 2. Charger: Fully automatic, solid-state type with sealed transfer relay.

3. Operation: Relay automatically turns lamp on when power-supply circuit voltage drops to 80 percent of nominal voltage or below. Lamp automatically disconnects from battery when voltage approaches deep-discharge level. When normal voltage is restored, relay disconnects lamps from battery, and battery is automatically recharged and floated on charger.
4. Test Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
5. LED Indicator Light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
6. Remote Test: Switch in hand-held remote device aimed in direction of tested unit initiates coded infrared signal. Signal reception by factory-installed infrared receiver in tested unit triggers simulation of loss of its normal power supply, providing visual confirmation of either proper or failed emergency response.
7. Integral Self-Test: Factory-installed electronic device automatically initiates code-required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and a flashing red LED.

2.5 LIGHTING FIXTURE SUPPORT COMPONENTS

- A. Comply with Section 26 05 29 "Hangers and Supports for Electrical Systems" for channel- and angle-iron supports and nonmetallic channel and angle supports.
- B. Rod Hangers: 3/16-inch minimum diameter, cadmium-plated, threaded steel rod.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Lighting fixtures:
 1. Set level, plumb, and square with ceilings and walls unless otherwise indicated.
 2. Install lamps in each luminaire.
- B. Temporary Lighting: If it is necessary, and approved by Architect, to use permanent luminaires for temporary lighting, install and energize the minimum number of luminaires necessary. When construction is sufficiently complete, remove the temporary luminaires, disassemble, clean thoroughly, install new lamps, and reinstall.
- C. Remote Mounting of Ballasts: Distance between the ballast and fixture shall not exceed that recommended by ballast manufacturer. Verify, with ballast manufacturers, maximum distance between ballast and luminaire.
- D. Lay-in Ceiling Lighting Fixtures Supports: Use grid as a support element.
 1. Install ceiling support system rods or wires, independent of the ceiling suspension devices, for each fixture. Locate not more than 6 inches from lighting fixture corners.
 2. Support Clips: Fasten to lighting fixtures and to ceiling grid members at or near each fixture corner with clips that are UL listed for the application.
 3. Fixtures of Sizes Less Than Ceiling Grid: Install as indicated on reflected ceiling plans or center in acoustical panel, and support fixtures independently with at least two 3/4-inch metal channels spanning and secured to ceiling tees.

E. Suspended Lighting Fixture Support:

1. Pendants and Rods: Where longer than 48 inches, brace to limit swinging.
2. Stem-Mounted, Single-Unit Fixtures: Suspend with twin-stem hangers.
3. Continuous Rows: Use tubing or stem for wiring at one point and tubing or rod for suspension for each unit length of fixture chassis, including one at each end.
4. Do not use grid as support for pendant luminaires. Connect support wires or rods to building structure.

F. Connect wiring according to Section 26 05 19 "Low-Voltage Electrical Power Conductors and Cables."

3.2 IDENTIFICATION

- A. Install labels with panel and circuit numbers on concealed junction and outlet boxes. Comply with requirements for identification specified in Section 26 05 53 "Identification for Electrical Systems."

3.3 ADJUSTING

- A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting aimable luminaires to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose. Some of this work may be required after dark.

1. Adjust aimable luminaires in the presence of Architect.

END OF SECTION

SECTION 265619 – LED EXTERIOR LIGHTING

GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior solid-state luminaires that are designed for and exclusively use LED lamp technology.
 - 2. Luminaire supports.

1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color rendering index.
- C. Fixture: See "Luminaire."
- D. IP: International Protection or Ingress Protection Rating.
- E. Lumen: Measured output of lamp and luminaire, or both.
- F. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of luminaire.
 - 1. Arrange in order of luminaire designation.
 - 2. Include data on features, accessories, and finishes.
 - 3. Include physical description and dimensions of luminaire.
 - 4. Lamps, include life, output (lumens, CCT, and CRI), and energy-efficiency data.
 - 5. Photometric data and adjustment factors based on laboratory tests, complying with IES Lighting Measurements Testing and Calculation Guides, of each luminaire type. The adjustment factors shall be for lamps and accessories identical to those indicated for the luminaire as applied in this Project IES LM-79.

- a. Manufacturer's Certified Data: Photometric data certified by manufacturer's laboratory with a current accreditation under the NVLAP for Energy Efficient Lighting Products.
 - b. Testing Agency Certified Data: For indicated luminaires, photometric data certified by a qualified independent testing agency. Photometric data for remaining luminaires shall be certified by manufacturer.
- 6. Wiring diagrams for power, control, and signal wiring.
- 7. Photoelectric relays.
- 8. Means of attaching luminaires to supports and indication that the attachment is suitable for components involved.
- B. Shop Drawings: For nonstandard or custom luminaires.
 - 1. Include plans, elevations, sections, and mounting and attachment details.
 - 2. Include details of luminaire assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Include diagrams for power, signal, and control wiring.
- C. Product Schedule: For luminaires and lamps. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified agencies providing photometric data for lighting fixtures.
- B. Field quality-control reports.
- C. Warranty: Sample of special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For luminaires to include in operation and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with IEEE C2, "National Electrical Safety Code."

- D. Comply with NFPA 70.

1.8 FIELD CONDITIONS

- A. Verify existing and proposed utility structures prior to the start of work associated with luminaire installation.
- B. Mark locations of exterior luminaires for approval by Architect prior to the start of luminaire installation.

1.9 WARRANTY

- A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires and poles that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures, including luminaire support components.
 - b. Faulty operation of luminaires and accessories.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs or alterations from special warranty coverage.
 - 2. Warranty Period: 5 year(s) from date of Substantial Completion.

PRODUCTS

1.10 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the products indicated on Drawings.

1.11 LUMINAIRE REQUIREMENTS

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.
- B. Lateral Light Distribution Patterns: Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.
- D. Sheet Metal Components: Corrosion-resistant aluminum unless otherwise indicated. Form and support to prevent warping and sagging.

- E. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- F. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses. Designed to disconnect ballast when door opens.
- G. Exposed Hardware Material: Stainless steel.
- H. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- I. Light Shields: Metal baffles, factory installed and field adjustable, arranged to block light distribution to indicated portion of normally illuminated area or field.
- J. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:
 - 1. White Surfaces: 85 percent.
 - 2. Specular Surfaces: 83 percent.
 - 3. Diffusing Specular Surfaces: 75 percent.
- K. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- L. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.
- M. Factory-Applied Finish for Aluminum Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Finish and color as specified in the drawings.
- N. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and ballasts. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.
 - 1. Label shall include the following lamp and ballast characteristics:
 - a. "USES ONLY" and include specific lamp type.
 - b. CCT and CRI for all luminaires.

1.12 GENERAL REQUIREMENTS FOR POLES AND SUPPORT COMPONENTS

- A. Structural Characteristics: Comply with AASHTO LTS-4-M.

1. Wind-Load Strength of Poles: Adequate at indicated heights above grade without failure, permanent deflection, or whipping in steady winds of speed indicated in "Structural Analysis Criteria for Pole Selection" Article.
 2. Strength Analysis: For each pole, multiply the actual equivalent projected area of luminaires and brackets by a factor of 1.1 to obtain the equivalent projected area to be used in pole selection strength analysis.
- B. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts unless otherwise indicated.
- C. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components.
1. Materials: Shall not cause galvanic action at contact points.
 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated.
 3. Anchor-Bolt Template: Plywood or steel.
- D. Handhole: Oval-shaped, with minimum clear opening of 2-1/2 by 5 inches, with cover secured by stainless-steel captive screws.

EXECUTION

1.13 LUMINAIRE INSTALLATION

- A. Install lamps in each luminaire.
- B. Fasten luminaire to indicated structural supports.
1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.
- C. Adjust luminaires that require field adjustment or aiming. Include adjustment of photoelectric device to prevent false operation of relay by artificial light sources, favoring a north orientation.

1.14 POLE INSTALLATION

- A. Alignment: Align poles for optimum directional alignment of luminaires and their mounting provisions on the pole.
- B. Clearances: Maintain the following minimum horizontal distances of poles from surface and underground features unless otherwise indicated on Drawings:
1. Fire Hydrants and Storm Drainage Piping: 60 inches.
 2. Water, Gas, Electric, Communication, and Sewer Lines: 10 feet.
 3. Trees: 15 feet from tree trunk.
 4. Walking Path: 2 feet minimum; 5 feet maximum.

- C. Embedded Poles with Tamped Earth Backfill: Set poles to depth below finished grade indicated on Drawings, but not less than one-sixth of pole height.
 - 1. Dig holes large enough to permit use of tampers in the full depth of hole.
 - 2. Backfill in 6-inch layers and thoroughly tamp each layer so compaction of backfill is equal to or greater than that of undisturbed earth.
 - 3. Verify that pole base and all backfill is level with grade.
- D. Raise and set poles using web fabric slings (not chain or cable).

1.15 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.
- B. Steel Conduits: Comply with Section 260533 "Raceways and Boxes for Electrical Systems." In concrete foundations, wrap conduit with 0.010-inch-thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

1.16 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.
 - 1. Verify operation of photoelectric controls.
- C. Illumination Tests:
 - 1. Measure light intensities at night. Use photometers with calibration referenced to NIST standards. Comply with the following IESNA testing guide(s):
 - a. IESNA LM-5, "Photometric Measurements of Area and Sports Lighting Installations."
 - b. IESNA LM-50, "Photometric Measurements of Roadway Lighting Installations."
 - c. IESNA LM-52, "Photometric Measurements of Roadway Sign Installations."
 - d. IESNA LM-64, "Photometric Measurements of Parking Areas."
 - e. IESNA LM-72, "Directional Positioning of Photometric Data."
- D. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

PART 2 - END OF SECTION 265619