

**OMAR N. BRADLEY AIRPORT (MBY)  
CITY OF MOBERLY, MISSOURI**

**MoDOT Project No. 19-034A-1**

**Base Bid**

**Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways  
Construct Parallel Taxiway Extension  
Install New Medium Intensity Runway Lighting (MIRL) System,  
Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,  
and Lighted Holding Position Signs**

**ADDENDUM NO. 1**

**June 1, 2020**



TO ALL PROSPECTIVE BIDDERS:

**A. You are hereby notified of the following amendments to the Contract Documents/Specifications for the subject project.**

1. Bid Documents & Technical Specifications Table of Contents. The page numbers for the Proposal Form section have been updated to reflect the revised total number of pages in the section resulting from this addendum.

**Revised Bid Documents & Technical Specifications Table of Contents is included with this addendum for reference.**

2. Section 1, Notice to Bidders. The location of the bid opening in the first paragraph on Page 1-1 has changed. Bids will be delivered and opened in different locations. This paragraph now reads:

“Sealed bids subject to the conditions and provisions presented herein will be received until **11:00 a.m. (CDT), Tuesday, June 9, 2020 at City Hall, 101 W. Reed Street, Moberly, MO 65270**, and then publicly opened and read at **11:15 a.m. (CDT), Tuesday, June 9, 2020 at the City of Moberly Municipal Building, 204 N. Clark Street, Moberly, MO 65270**, for furnishing all labor, materials, equipment and performing all work necessary to...”

The summary of quantities table on Page 1-3 has changed, specifically contract Items No. 62 through No. 67. These contract items now reflect the depicted amount of lights, as shown on the lighting plans, and no longer include the additional spare light fixtures and transformers. Contract Item No. 62 has been reduced from 18 to 16 lights; contract Item No. 63 has been reduced from 42 to 38 lights; contract Item No. 64 has been reduced from 11 to 10 lights; contract Item No. 65 has been reduced from 24 to 22 lights; contract Item No. 66 has been reduced from 5 to 4 lights; and contract Item No. 67 has been reduced from 34 to 31 lights. Contract Items No. 74 through No. 79 have been added to the project to account for the specific spare light fixtures and transformers that the Contractor is to furnish to the Owner as part of this project.

**Revised Section 1 Notice to Bidders is included with this addendum for reference.**

3. Section 34, Airport Underground Electrical Duct Banks and Conduits. Language in Section 110-3.3 has been revised to allow for the installation of electrical conduit by the plowing method.

**Revised Section 34, Airport Underground Electrical Duct Banks and Conduits is included with this addendum for reference.**

4. Section 36, Installation of Airport Lighting Systems. To account for the new contract Items No. 74 through No. 79, these have been added to Section 125-5.1. New contract items include:

Furnish M.I.R.L. (LED), (Red/Green Lens) - per each  
With Arctic Option for Base Mounted Connection  
(Fixture, Transformer, and Cover Plate)

Furnish M.I.R.L. (LED), (Yellow/Clear Lens) - per each  
With Arctic Option for Base Mounted Connection  
(Fixture, Transformer, and Cover Plate)

Furnish M.I.R.L. (LED), (Clear/Clear Lens) - per each  
With Arctic Option for Base Mounted Connection  
(Fixture, Transformer, and Cover Plate)

Furnish M.I.T.L. (LED), (Blue Lens) - per each  
With Arctic Option for Base Mounted Connection  
(Fixture, Transformer, and Cover Plate)

Furnish M.I.R.L. (LED), (Yellow/Clear Lens) - per each  
For Base Mounted Connection  
(Fixture, Transformer, and Cover Plate)

Furnish M.I.T.L. (LED), (Blue Lens) - per each  
For Stake Mounted Connection  
(Fixture and Transformer)



**Revised Section 36, Installation of Airport Lighting Systems is included with this addendum for reference.**

5. Proposal Form. The table containing the bid items has been revised to include the correct number of lights for contract Items No. 62 through No. 67 and to add the new contract Items No. 74 through No. 79, as previously described.

**Revised Proposal Form is included with this addendum for reference.**

- B. You are hereby notified of the following amendments to the OFFICIAL BID FORM for the subject project.** The Official Bid Form, specifically the table containing the bid items, has been revised to include the correct number of lights for contract Items No. 62 through No. 67 and to add new contract Items No. 74 through No. 79, as previously described. **Revised OFFICIAL BID FORM in its entirety is included with this addendum and shall be used for submitting a bid.**

**C. You are hereby notified of the following amendments to the Construction Plans for the subject project. Revised versions of the referenced Plan Sheets are included with this addendum for reference.**

1. Sheet No. 3 Safety Drawing Phase 1. The scope of work listed in bullet point No. 5 has been changed to add in that the Contractor can complete Runway Safety Area (RSA) grading and compaction up to Station 30+00 during Phase 1.

**Revised Sheet No. 3 Safety Drawing Phase 1 is included with this addendum for reference.**

2. Sheet No. 8 Summary of Quantities. The summary of quantities table has been revised to include the correct number of lights for contract Items No. 62 through No. 67 and to add new contract Items No. 74 through No. 79, as previously described.

“All light fixture quantities (Contract Items No. 62 through No. 67) represent the proposed light locations as shown on the Plans. Contract Items No. 74 through No. 79 account for the 10% of additional spares for each respective type of light. These additional light fixtures, transformers, and cover plates (if applicable) are to be provided to the Owner.

**Revised Sheet No. 8 Summary of Quantities is included with this addendum for reference.**

3. Sheet No. 56 Electrical Details. The details depicting base mounted lights and junction boxes have been revised to now reflect a nine-inch thick concrete backfill around the base cans. Additionally, the Contractor is to form the upper 4” of the concrete backfill, provide a troweled finish to the top surface of the concrete backfill, and slope the concrete to drain away from the light.

**Revised Sheet No. 56 Electrical Details is included with this addendum for reference.**

**D. A copy of the pre-bid meeting minutes and attendees list is included with this addendum.**

**E. All bidders must acknowledge receipt of this addendum in the space provided on page PF-6 of the Proposal Form within the revised Official Bid Form included with this addendum. Failure to acknowledge receipt of an addendum may be cause for rejection of the bid.**



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**SECTION 1  
NOTICE TO BIDDERS**

**CITY OF MOBERLY, MISSOURI  
OMAR N. BRADLEY AIRPORT  
State Block Grant Project No. 19-034A-1**

Sealed bids subject to the conditions and provisions presented herein will be received until **11:00 a.m. (CDT), Tuesday, June 9, 2020 at City Hall, 101 W. Reed Street, Moberly, MO 65270**, and then publicly opened and read at **11:15 a.m. (CDT), Tuesday, June 9, 2020 at the City of Moberly Municipal Building, 204 N. Clark Street, Moberly, MO 65270**, for furnishing all labor, materials, equipment and performing all work necessary to  
*(Revised per Addendum No. 1)*

**Base Bid**

**Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways  
Construct Parallel Taxiway Extension  
Install New Medium Intensity Runway Lighting (MIRL) System, Runway 13-31 4-Box PAPI Systems,  
Runway 13-31 REIL Systems, and Lighted Holding Position Signs**

Copies of the bid documents including project drawings and technical specifications are on file and may be inspected at:

**City Hall  
101 W. Reed Street  
Moberly, MO 65270**

**Lochner  
16105 W. 113<sup>th</sup> Street  
Suite 107  
Lenexa, KS 66219**

Drawings, specifications, official bid form and other related contract information may be ordered online at [www.drexeltech.com](http://www.drexeltech.com) or by contacting Drexel Technologies, Inc. at 10840 W. 86<sup>th</sup> Street, Lenexa, KS 66214, phone (913) 371-4430, fax (913) 371-7128. Checks shall be made payable to "Drexel Technologies" and mailing costs are the responsibility of the purchaser. Drawings, specifications, official bid form, any addenda and a plan holders list are available at [www.drexeltech.com](http://www.drexeltech.com) by clicking on "Enter Plan Room".

A prebid conference for this project will be held via **video conference at 1:30 p.m. (CDT), Wednesday, May 27, 2020**. To receive a calendar invitation via email with a link to access the video conference, please email your request to be added to the invitation to Ian Wright with Lochner at [iwright@hwlochner.com](mailto:iwright@hwlochner.com). In addition, Omar N. Bradley Airport will have a tour available to any Contractor wanting to make a site visit at **2:00 p.m. (CDT), Thursday, May 28, 2020**. Any Contractor that would like to attend the tour needs to meet at the airport prior to the scheduled time.

**Contract Work Items.** This project will involve the following work items and estimated quantities. Prospective bidders are hereby advised that the quantities indicated herein are approximate and are subject to change.

ITEM NO.	SPEC.	ITEM DESCRIPTION	QTY.	UNIT
<b>MODOT PROJECT NO. 19-034A-1</b>				
<b><u>BASE BID</u></b>				
<b>Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways Construct Parallel Taxiway Extension Install New Medium Intensity Runway Lighting (MIRL) System, Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems, and Lighted Holding Position Signs</b>				
1	C-100	Contractor Quality Control Program (CQCP)	1	L.S.
2	C-102	Erosion Control Barrier (Silt Fence)	1,020	L.F.
3	C-102	Erosion Control Barrier (Straw Wattle)	1,410	L.F.
4	C-105	Mobilization (NTE 10% of Total Bid Amount)	1	L.S.
5	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASE 1)	1	L.S.
6	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASES 2-3)	1	L.S.

7	P-101	Saw Cut	472	L.F.
8	P-101	Remove Existing Concrete Pavement and Aggregate Base	5,565	S.Y.
9	P-101	Remove Existing Asphalt Pavement and Aggregate Base	59,386	S.Y.
10	P-101	Remove Existing Drainage Pipes	345	L.F.
11	P-101	Remove Existing Underdrain System	1	L.S.
12	P-101	Remove Existing Lighting System, Signs, and NAVAIDS	1	L.S.
13	P-152	Embankment In Place	62,868	C.Y.
14	P-152	Unsuitable Subgrade Removal and Replacement	5,000	C.Y.
15	P-155 P-156 P-157 P-158	Treated Subgrade (12")	54,445	S.Y.
16	P-207 P-208 P-209 P-219	Aggregate Base Course (6")	54,445	S.Y.
17	P-501	P.C.C. Pavement (7")	47,885	S.Y.
18	P-501	P.C.C. Pavement (6")	2,793	S.Y.
19	P-620	Surface Preparation, Pavement Marking Removal	1,084	S.F.
20	P-620	Permanent ReflectORIZED Pavement Marking (White) (Solid)	14,672	S.F.
21	P-620	Permanent ReflectORIZED Pavement Marking (White) (Striated)	5,814	S.F.
22	P-620	Permanent ReflectORIZED Pavement Marking (Yellow)	2,289	S.F.
23	P-620	Permanent Non-ReflectORIZED Pavement Marking (Black)	9,905	S.F.
24	P-620	Temporary Non-ReflectORIZED Pavement Marking (White) (Solid)	14,672	S.F.
25	P-620	Temporary Non-ReflectORIZED Pavement Marking (White) (Striated)	5,814	S.F.
26	P-620	Temporary Non-ReflectORIZED Pavement Marking (Yellow)	2,289	S.F.
27	P-621	Saw-Cut Grooving	30,556	S.Y.
28	D-701	15" Drainage Pipe	115	L.F.
29	D-701	18" Drainage Pipe	132	L.F.
30	D-701	24" Drainage Pipe	867	L.F.
31	D-701	15" RCP End Section	2	Ea.
32	D-701	18" RCP End Section	2	Ea.
33	D-701	24" RCP End Section	8	Ea.
34	D-705	Perforated Underdrain (4")	11,858	L.F.
35	D-705	Non-Perforated Outlet Pipe (4")	720	L.F.
36	D-705	Non-Perforated Outlet Pipe (4") (Sch. 80)	405	L.F.
37	D-705	Underdrain Cleanout Riser	38	Ea.
38	D-705	Splash Pad	13	Ea.
39	TREC	Erosion Control Blanket, Type 2C	32,218	S.Y.
40	PTM	Permanent Transition Mat	384	S.F.
41	T-901	Permanent Seeding	28.7	Ac.
42	T-901	Temporary Seeding	28.7	Ac.
43	T-905	Placement of Topsoil (Obtained on Site)	1	L.S.
44	T-908	Hydro-Mulch	27.1	Ac.
45	L-108	Trenching for Direct Buried Cable	2,000	L.F.
46	L-108	Direct Buried Underground Cable (1/c, #8 AWG, 5 kV, L-824C)	4,000	L.F.
47	L-108	Install Cable in Duct (1/c, #8 AWG, 5 kV, L-824C)	18,500	L.F.
48	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C)	5,000	L.F.
49	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C Ground)	2,500	L.F.
50	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C)	9,200	L.F.
51	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C Ground)	4,600	L.F.
52	L-108	Bare Counterpoise Wire (#6 AWG)	16,200	L.F.
53	L-109	Furnish and Install 7.5 kW Constant Current Regulator	1	Ea.
54	L-109	Controls and Vault Modifications	1	L.S.
55	L-110	1" Electrical Duct and Trench	17,000	L.F.
56	L-110	1-2" PVC, Schedule 40, Concrete Encased Electrical Duct	212	L.F.
57	L-110	2-2" PVC, Schedule 40, Concrete Encased Electrical Duct	250	L.F.
58	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	170	L.F.



59	L-115	L-867 Junction Box	20	Ea.
60	L-125	Retroreflective Markers	16	Ea.
61	L-125	M.I.R.L. (LED), Semiflush Base Mounted (Yellow/Clear Lens) with Arctic Option	2	Ea.
62	L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens) with Arctic Option <i>(Revised per Addendum No. 1)</i>	16	Ea.
63	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) with Arctic Option <i>(Revised per Addendum No. 1)</i>	38	Ea.
64	L-125	M.I.R.L. (LED), Base Mounted (Clear/Clear Lens) with Arctic Option <i>(Revised per Addendum No. 1)</i>	10	Ea.
65	L-125	M.I.T.L. (LED), Base Mounted (Blue Lens) with Arctic Option <i>(Revised per Addendum No. 1)</i>	22	Ea.
66	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) <i>(Revised per Addendum No. 1)</i>	4	Ea.
67	L-125	M.I.T.L. (LED), Stake Mounted (Blue Lens) <i>(Revised per Addendum No. 1)</i>	31	Ea.
68	L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	2	Ea.
69	L-125	New 2 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1	Ea.
70	L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	4	Ea.
71	L-125	New 4 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1	Ea.
72	L-125	Install L-880(L) 4-Box PAPI System (Owner Furnished)	2	Ea.
73	L-125	Furnish and Install L-849I(L) REIL System	2	Ea.
74	L-125	<i>Furnish M.I.R.L. (LED), (Red/Green Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2	Ea.
75	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	4	Ea.
76	L-125	<i>Furnish M.I.R.L. (LED), (Clear/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1	Ea.
77	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2	Ea.
78	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) For Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1	Ea.
79	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) For Stake Mounted Connection (Fixture and Transformer) (Added per Addendum No. 1)</i>	3	Ea.

**Contract Time.** The owner has established a contract performance time of **two hundred thirty (230) calendar days** from the date of the Notice-to-Proceed – **thirty (30) calendar days for Phase 1; one hundred ninety-eight (198) calendar days for Phase 2A; sixty (60) calendar days for Phase 2B (concurrent with Phase 2A at the Contractor’s discretion); and two (2) calendar days for Phase 3.** All project work shall be substantially completed within the stated timeframe. **Shifting of contract time between phases will not be permitted.** This project is subject to liquidated damages as prescribed in the project manual.

**Bid Security.** No bid will be considered unless accompanied by a certified check or cashier’s check on any bank or trust company insured by the Federal Deposit Insurance Corporation, payable to **City of Moberly**, for not less than five (5) percent of the total amount of the bid, or by a bid bond secured by an approved surety or sureties, payable to the owner, for not less than five (5) percent of the total amount of the bid.

**Bonding Requirements.** The successful bidder will be required to furnish separate performance and payment bonds each in an amount equal to 100% of the contract price at the time of contract execution.

**Award of Contract.** All proposals submitted in accordance with the instructions presented herein will be subject to evaluation. Bids may be held by the **City of Moberly** for a period not to exceed **one hundred twenty (120) calendar days** from the date of the bid opening for the purpose of conducting the bid evaluation.

Award of contract will be based on the lowest aggregate sum proposal submitted from those bidders that are confirmed as being responsive and responsible. If more than one base bid is listed in the Proposal Form, the bidder may bid on Base Bid No. 1 and/or Base Bid No. 2. The owner reserves the right to select any one of the combinations of the base bid(s) and alternate bid(s), which in the judgment of the owner, best serves the owner's interest. The right is reserved, as the **City of Moberly** may require, to reject any bid and all bids.

Award of contract is contingent upon the owner receiving Federal-funding assistance under the State Block Grant Program.

#### **Notice-To-Proceed**

It is the intent of the Owner to issue the Notice-To-Proceed (NTP) as soon as practical after the Award of Contract. The anticipated NTP date for Phase 1 is **October 2020**, and the anticipated NTP date for Phases 2 and 3 is **March 2021**.

**Federal Provisions.** This project is subject to the following Federal provisions, statutes and regulations:

**Equal Employment Opportunity - Executive Order 11246 and 41 CFR Part 60:** The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions. The successful Bidder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin.

#### **Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity:**

1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

#### **Timetables**

Goals for minority participation for each trade: **4.0% (Randolph County)**

Goals for female participation in each trade: **6.9%.**

These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor is also subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

1. As used in this notice and in the contract resulting from this solicitation, the "covered area" is **City of Moberly, Randolph County, Missouri.**

**Certification of Nonsegregated Facilities – 41 CFR Part 60:** A certification of Nonsegregated Facilities must be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

Contractors receiving federally assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause. The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

**Disadvantaged Business Enterprise – 49 CFR Part 26:** The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of MoDOT and the City to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals regardless of their business size or ownership. Awards of this contract will be conditioned upon satisfying the requirements of this section. These requirements apply to all bidders, including those who qualify as a DBE. The owner's award of this contract is condition upon the bidder satisfying the good faith effort requirements of 49 CFR §26.53. A DBE contract goal of **8.00** percent has been established for this contract. The *non-DBE* bidder shall subcontract **8.00** percent of the dollar value of the base bid(s), excluding any additive alternates, to disadvantaged business enterprises (DBE) or make good faith efforts to meet the DBE contract goal. *The bidder and any subcontractor who qualifies as a DBE who subcontracts work to another non-DBE firm must subtract the amount of the non-DBE contract from the total DBE work counted toward the goal, as defined in 49 CFR Part 26.55.*

The apparent successful competitor will be required to submit the following information as a condition of bid responsiveness: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) written statement from bidder that attests their commitment to use the DBE firm(s) listed under (1) above to meet the owner's project goal; and (5) if the contract goal is not met, evidence of good faith efforts undertaken by the bidder, as described in Appendix A to 49 CFR Part 26.

The apparent successful competitor must provide written confirmation of participation from each of the DBE firms listed in their commitment with the proposal documents as a condition of bid responsiveness.

**Davis-Bacon Act, as amended – 29 CFR Part 5:** The Contractor is required to comply with wage and labor provisions and to pay minimum wages in accordance with the current schedule of wage rates established by the United States Department of Labor included in the supplementary provisions.

In addition, the contractor will also be required to comply with the wage and labor requirements and pay minimum wages in accordance with the schedule of wage rates established by the Missouri Division of Labor Standards included in the Supplementary Provisions.

The highest rate between the two (Federal and State) for each job classification shall be considered the prevailing wage.

**Debarment, Suspension, Ineligibility and Voluntary Exclusion – 49 CFR Part 29:** The bidder certifies, by submission of a proposal or acceptance of a contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

**Foreign Trade Restriction – 49 CFR Part 30:** The Bidder and Bidder's subcontractors, by submission of an offer and/or execution of a contract, is required to certify that it:

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list; or
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

**Buy American Certificate – Aviation Safety and Capacity Act of 1990:** This contract is subject to the "Buy American Preferences" of the Aviation Safety and Capacity Act of 1990. Prospective Bidders are required to certify that steel and manufactured products have been produced in the United States and to clearly identify those items produced or manufactured outside of the United States.

**Additional Provisions:**

Modification to the project documents may only be made by written addendum by the Owner or Owner's authorized Representative.

The proposal must be made on the official bid forms provided separate from the bound project manual. Bidders must supply all required information prior to the time of bid opening.

## SECTION 34

### ITEM L-110

#### AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS

##### DESCRIPTION

**110-1.1** This item shall consist of underground electrical conduits and duct banks (single or multiple conduits encased in concrete or buried in sand) installed per this specification at the locations and per the dimensions, designs, and details shown on the plans. This item shall include furnishing and installing of all underground electrical duct banks and individual and multiple underground conduits. It shall also include all turfing trenching, backfilling, removal, and restoration of any paved or turfed areas; concrete encasement, mandrelling, pulling lines, duct markers, plugging of conduits, and the testing of the installation as a completed system ready for installation of cables per the plans and specifications. This item shall also include furnishing and installing conduits and all incidentals for providing positive drainage of the system. Verification of existing ducts is incidental to the pay items provided in this specification.

##### EQUIPMENT AND MATERIALS

###### 110-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, that comply with these specifications, at the Contractor's cost.

c. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in project that accrue directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. **The Contractor's submittals shall be electronically submitted in pdf format.** The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes specified in this document.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least **twelve (12) months** from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**110-2.2 Steel conduit.** Rigid galvanized steel (RGS) conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standards 6, 514B, and 1242. All RGS conduits or RGS elbows installed below grade, in concrete, permanently wet locations or other similar environments shall be painted with a 10-mil thick coat of asphaltum sealer or shall have a factory-bonded polyvinyl chloride (PVC) cover. Any exposed galvanizing or steel shall be coated with 10 mils of asphaltum sealer. When using PVC coated RGS conduit, care shall be exercised not to damage the factory PVC coating. Damaged PVC coating shall be repaired per the manufacturer's written instructions. In lieu of PVC coated RGS, corrosion wrap tape shall be permitted to be used where RGS is in contact with direct earth."

**110-2.3 Plastic conduit.** Plastic conduit and fittings shall conform to the following requirements:

- UL 514B covers W-C-1094-Conduit fittings all types, classes 1 thru 3 and 6 thru 10.
- UL 514C covers W-C-1094- all types, Class 5 junction box and cover in plastic (PVC).
- UL 651 covers W-C-1094-Rigid PVC Conduit, types I and II, Class 4.
- UL 651A covers W-C-1094-Rigid PVC Conduit and high-density polyethylene (HDPE) Conduit type III and Class 4.

Underwriters Laboratories Standards UL-651 and Article 352 of the current National Electrical Code shall be one of the following, as shown on the plans:

a. Type I—Schedule 40 and Schedule 80 PVC suitable for underground use either direct-buried or encased in concrete.

b. Type II—Schedule 40 PVC suitable for either above ground or underground use.

c. Type III – Schedule 80 PVC suitable for either above ground or underground use either direct-buried or encased in concrete.

d. Type III –HDPE pipe, minimum standard dimensional ratio (SDR) 11, suitable for placement with directional boring under pavement.

The type of solvent cement shall be as recommended by the conduit/fitting manufacturer.

**110-2.4 Split conduit.** Split conduit shall be pre-manufactured for the intended purpose and shall be made of steel or plastic.

**110-2.5 Conduit spacers.** Conduit spacers shall be prefabricated interlocking units manufactured for the intended purpose. They shall be of double wall construction made of high grade, high density polyethylene complete with interlocking cap and base pads. They shall be designed to accept No. 4 reinforcing bars installed vertically.

**110-2.6 Concrete.** Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures or as noted on the Plans.

**110-2.7 Precast concrete structures.** Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another RPR approved third party certification program. Precast concrete structures shall conform to ASTM C478.

**110-2.8 Flowable backfill.** Flowable material used to back fill conduit and duct bank trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material.

**110-2.9 Detectable warning tape.** Plastic, detectable, American Public Works Association (APWA) red (electrical power lines, cables, conduit and lighting cable), orange (telephone/fiber optic cabling) with continuous legend magnetic tape shall be polyethylene film with a metallized foil core and shall be 3-6 inches (75-150 mm) wide. Detectable tape is incidental to the respective bid item.

## CONSTRUCTION METHODS

**110-3.1 General.** The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans. The RPR shall indicate specific locations as the work progresses, if required to differ from the plans. Duct banks and conduits shall be of the size, material, and type indicated on the plans or specifications. Where no size is indicated on the plans or in the specifications, conduits shall be not less than 2 inches (50 mm) inside diameter or comply with the National Electrical Code based on cable to be installed, whichever is larger. All duct bank and conduit lines shall be laid so as to grade toward access points and duct or conduit ends for drainage. Unless shown otherwise on the plans, grades shall be at least 3 inches (75 mm) per 100 feet (30 m). On runs where it is not practicable to maintain the grade all one way, the duct bank and conduit lines shall be graded from the center in both directions toward access points or conduit ends, with a drain into the storm drainage system. Pockets or traps where moisture may accumulate shall be avoided. Under pavement, the top of the duct bank shall not be less than 18 inches (0.5 m) below the subgrade; in other locations, the top of the duct bank or underground conduit shall be not less than 18 inches (0.5 m) below finished grade.

The Contractor shall mandrel each individual conduit whether the conduit is direct-buried or part of a duct bank. An iron-shod mandrel, not more than 1/4 inch (6 mm) smaller than the bore of the conduit shall be pulled or pushed through each conduit. The mandrel shall have a leather or rubber gasket slightly larger than the conduit hole.

The Contractor shall swab out all conduits/ducts and clean base can, manhole, pull boxes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed the light bases, manholes, pull boxes, etc., and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

For pulling the permanent wiring, each individual conduit, whether the conduit is direct-buried or part of a duct bank, shall be provided with a 200-pound (90 kg) test polypropylene pull rope. The ends shall be secured and sufficient length shall be left in access points to prevent it from slipping back into the conduit. Where spare conduits are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed for this purpose.

All conduits shall be securely fastened in place during construction and shall be plugged to prevent contaminants from entering the conduits. Any conduit section having a defective joint shall not be installed. Ducts shall be supported and spaced apart using approved spacers at intervals not to exceed 5 feet (1.5 m).

Unless otherwise shown on the plans, concrete encased duct banks shall be used when crossing under pavements expected to carry aircraft loads, such as runways, taxiways, taxilanes, ramps and aprons. When under paved shoulders and other paved areas, conduit and duct banks shall be encased using flowable fill for protection.

All conduits within concrete encasement of the duct banks shall terminate with female ends for ease in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored.

Trenches for conduits and duct banks may be excavated manually or with mechanical trenching equipment unless in pavement, in which case they shall be excavated with mechanical trenching

equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of graders shall not be used to excavate the trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 inches (75 mm) below the required conduit or duct bank depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4-inch (6.3 mm) sieve. Flowable backfill may alternatively be used.

Underground electrical warning (Caution) tape shall be installed in the trench above all underground duct banks and conduits in unpaved areas. Contractor shall submit a sample of the proposed warning tape for approval by the RPR. If not shown on the plans, the warning tape shall be located 6 inches above the duct/conduit or the counterpoise wire if present.

Joints in plastic conduit shall be prepared per the manufacturer's recommendations for the particular type of conduit. Plastic conduit shall be prepared by application of a plastic cleaner and brushing a plastic solvent on the outside of the conduit ends and on the inside of the couplings. The conduit fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly. Where more than one conduit is placed in a single trench, or in duct banks, joints in the conduit shall be staggered a minimum of 2 feet (60 cm).

Changes in direction of runs exceeding 10 degrees, either vertical or horizontal, shall be accomplished using manufactured sweep bends.

Whether or not specifically indicated on the drawings, where the soil encountered at established duct bank grade is an unsuitable material, as determined by the RPR, the unsuitable material shall be removed per Item P-152 and replaced with suitable material. Additional duct bank supports shall be installed, as approved by the RPR.

All excavation shall be unclassified and shall be considered incidental to Item L-110. Dewatering necessary for duct installation, and erosion per federal, state, and local requirements is incidental to Item L-110.

Unless otherwise specified, excavated materials that are deemed by the RPR to be unsuitable for use in backfill or embankments shall be removed and disposed of offsite.

Any excess excavation shall be filled with suitable material approved by the RPR and compacted per Item P-152.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall ensure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

- a. Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred

- b. Trenching, etc., in cable areas shall then proceed with approval of the RPR, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair.

**110-3.2 Duct banks.** Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 inches (0.5 m) below the bottom of the base or stabilized base course layers where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 inches (0.5 m) below finished grade where installed in unpaved areas.



Unless otherwise shown on the plans, duct banks under paved areas shall extend at least 3 feet (1 m) beyond the edges of the pavement or 3 feet (1 m) beyond any under drains that may be installed alongside the paved area. Trenches for duct banks shall be opened the complete length before concrete is placed so that if any obstructions are encountered, provisions can be made to avoid them. Unless otherwise shown on the plans, all duct banks shall be placed on a layer of concrete not less than 3 inches (75 mm) thick prior to its initial set. The Contractor shall space the conduits not less than 3 inches (75 mm) apart (measured from outside wall to outside wall). All such multiple conduits shall be placed using conduit spacers applicable to the type of conduit. As the conduit laying progresses, concrete shall be placed around and on top of the conduits not less than 3 inches (75 mm) thick unless otherwise shown on the plans. All conduits shall terminate with female ends for ease of access in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Conduits forming the duct bank shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches (150 mm) to anchor the assembly into the earth prior to placing the concrete encasement. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot (1.5-m) intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

When specified, the Contractor shall reinforce the bottom side and top of encasements with steel reinforcing mesh or fabric or other approved metal reinforcement. When directed, the Contractor shall supply additional supports where the ground is soft and boggy, where ducts cross under roadways, or where shown on the plans. Under such conditions, the complete duct structure shall be supported on reinforced concrete footings, piers, or piles located at approximately 5-foot (1.5-m) intervals.

All pavement surfaces that are to have ducts installed therein shall be neatly saw cut to form a vertical face. All excavation shall be included in the contract with price for the duct.

Install a plastic, detectable, color as noted, 3 to 6 inches (75 to 150 mm) wide tape, 8 inches (200 mm) minimum below grade above all underground conduit or duct lines not installed under pavement. Utilize the 3-inch (75-mm) wide tape only for single conduit runs. Utilize the 6-inch (150-mm) wide tape for multiple conduits and duct banks. For duct banks equal to or greater than 24 inches (600 mm) in width, utilize more than one tape for sufficient coverage and identification of the duct bank as required.

When existing cables are to be placed in split duct, encased in concrete, the cable shall be carefully located and exposed by hand tools. Prior to being placed in duct, the RPR shall be notified so that he may inspect the cable and determine that it is in good condition. Where required, split duct shall be installed as shown on the drawings or as required by the RPR.

**110-3.3 Conduits without concrete encasement.** Trenches for single-conduit lines shall be not less than 6 inches (150 mm) nor more than 12 inches (300 mm) wide. The trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length. ***Installation of conduit by plowing method is acceptable. (Added per Addendum No. 1)***

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 inches (100 mm) thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand or other fine fill, and it shall contain no particles that would be retained on a 1/4-inch (6.3 mm) sieve. The bedding material shall be tamped until firm. Flowable backfill may alternatively be used.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits within the Airport's secured area where trespassing is prohibited are at least 18 inches (0.5 m) below the finished grade. Conduits outside the Airport's secured area shall be installed so that the tops of the conduits are at least 24 inches (60 cm) below the finished grade per National Electric Code (NEC), Table 300.5.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 3 inches (75 mm) apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches (150 mm) apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall be placed not less than 3 inches (75 mm) apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches (150 mm) apart in a vertical direction.

***Unless the plowing method is used (Added per Addendum No. 1),*** Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

Conduits shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches (150 mm) to anchor the assembly into the earth while backfilling. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot (1.5-m) intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

**110-3.4 Markers.** The location of each end and of each change of direction of conduits and duct banks shall be marked by a concrete slab marker 2 feet (60 cm) square and 4 - 6 inches (100 - 150 mm) thick extending approximately one inch (25 mm) above the surface. The markers shall also be located directly above the ends of all conduits or duct banks, except where they terminate in a junction/access structure or building. Each cable or duct run from a line of lights and signs to the equipment vault must be marked at approximately every 200 feet (61 m) along the cable or duct run, with an additional marker at each change of direction of cable or duct run.

The Contractor shall impress the word "DUCT" or "CONDUIT" on each marker slab. Impression of letters shall be done in a manner, approved by the RPR, for a neat, professional appearance. All letters and words must be neatly stenciled. After placement, all markers shall be given one coat of high-visibility orange paint, as approved by the RPR. The Contractor shall also impress on the slab the number and size of conduits beneath the marker along with all other necessary information as determined by the RPR. The letters shall be 4 inches (100 mm) high and 3 inches (75 mm) wide with width of stroke 1/2 inch (12 mm) and 1/4 inch (6 mm) deep or as large as the available space permits. Furnishing and installation of duct markers is incidental to the respective duct pay item.

**110-3.5 Backfilling for conduits.** For conduits, 8 inches (200 mm) of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with hand tampers. The remaining trench shall then be backfilled and compacted per Item P-152 except that material used for back fill shall be select material not larger than 4 inches (100 mm) in diameter.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during back filling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

**110-3.6 Backfilling for duct banks.** After the concrete has cured, the remaining trench shall be backfilled and compacted per Item P-152 "Excavation and Embankment" except that the material used for backfill shall be select material not larger than 4 inches (100 mm) in diameter. In addition to the requirements of Item P-152, where duct banks are installed under pavement, one moisture/density test per

lift shall be made for each 250 linear feet (76 m) of duct bank or one work period's construction, whichever is less.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

**110-3.7 Restoration.** Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the work shall be restored to its original condition. The restoration shall include **seeding and mulching** shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item. Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

**110-3.8 Ownership of removed cable. Removed cables shall be disposed of off airport property.**

## **METHOD OF MEASUREMENT**

**110-4.1** Underground conduits and duct banks shall be measured by the linear feet (meter) of conduits and duct banks installed, including encasement, locator tape, trenching and backfill with designated material, and restoration, and for drain lines, the termination at the drainage structure, all measured in place, completed, and accepted. Separate measurement shall be made for the various types and sizes.

## **BASIS OF PAYMENT**

**110-5.1** Payment will be made at the contract unit price per linear foot for each type and size of conduit and duct bank completed and accepted, including trench and backfill with the designated material, and, for drain lines, the termination at the drainage structure. This price shall be full compensation for removal and disposal of existing duct banks and conduits as shown on the plans, furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item per the provisions and intent of the plans and specifications.

Payment will be made under:

<b>1" Electrical Duct and Trench</b>	<b>-- per linear foot</b>
<b>1-2" PVC, Schedule 40, Concrete Encased Electrical Duct</b>	<b>-- per linear foot</b>
<b>2-2" PVC, Schedule 40, Concrete Encased Electrical Duct</b>	<b>-- per linear foot</b>
<b>2-4" PVC, Schedule 40, Concrete Encased Electrical Duct</b>	<b>-- per linear foot</b>

## REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

### Advisory Circular (AC)

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program

### ASTM International (ASTM)

ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
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### National Fire Protection Association (NFPA)

NFPA-70	National Electrical Code (NEC)
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### Underwriters Laboratories (UL)

UL Standard 6	Electrical Rigid Metal Conduit - Steel
UL Standard 514B	Conduit, Tubing, and Cable Fittings
UL Standard 514C	Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
UL Standard 1242	Electrical Intermediate Metal Conduit Steel
UL Standard 651	Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings
UL Standard 651A	Type EB and A Rigid PVC Conduit and HDPE Conduit

**END OF ITEM L-110**

## SECTION 36

### ITEM L-125

## INSTALLATION OF AIRPORT LIGHTING SYSTEMS

### DESCRIPTION

**125-1.1** This item shall consist of airport lighting systems furnished and installed in accordance with this specification, the referenced specifications, and the applicable advisory circulars (ACs). The systems shall be installed at the locations and in accordance with the dimensions, design, and details shown in the plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the RPR.

### EQUIPMENT AND MATERIALS

#### 125-2.1 General.

- a.** Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.
- b.** Manufacturer's certifications shall not relieve the Contractor of their responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.
- c.** All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.
- d.** The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. **The Contractor's submittals shall be submitted to the Engineer in PDF format.** The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.
- e.** All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least **twelve (12) months** from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. **All LED light fixtures, with the exception of obstruction lighting (AC 150/5345-43) must be warranted by the manufacturer for a minimum of 4 years after date of installation inclusive of all electronics.**

## EQUIPMENT AND MATERIALS

**125-2.2 Conduit/Duct.** Conduit shall conform to Specification Item L-110 Airport Underground Electrical Duct Banks and Conduits.

**125-2.3 Cable and Counterpoise.** Cable and Counterpoise shall conform to Item L-108 Underground Power Cable for Airports.

**125-2.4 Tape.** Rubber and plastic electrical tapes shall be Scotch Electrical Tape Numbers 23 and 88 respectively, as manufactured by 3M Company or an approved equal.

**125-2.5 Cable Connections.** Cable Connections shall conform to Item L-108 Installation of Underground Cable for Airports.

**125-2.6 Retroreflective Markers.** Retroreflective markers shall be type L-853 and shall conform to the requirements of AC 150/5345-39.

**125-2.7 Runway and Taxiway Lights.** Runway and taxiway lights shall conform to the requirements of AC 150/5345-46. Lamps shall be of size and type indicated, or as required by fixture manufacturer for each lighting fixture required under this contract. Filters shall be of colors conforming to the specification for the light concerned or to the standard referenced.

### Lights

Type	Class	Mode	Style	Option	Base	Filter	Transformer	Notes
L-852D(L)	2	1	3	1	L-868	White/ Yellow	L-830	Arctic Option
L-861E(L)	---	1	---	4	L-867	Red/Green	L-830	Arctic Option
L-861(L)	---	1	---	4	L-867	White/Yellow	L-830	Arctic Option
L-861(L)	---	1	---	4	L-867	White	L-830	Arctic Option
L-861T(L)	---	1	---	4	L-867	Blue	L-830-17	Arctic Option
L-861(L)	---	1	---	4	L-867	White/Yellow	L-830	---
L-861T(L)	---	1	---	4	L-867	Blue	L-830-17	---

**125-2.8 Runway and Taxiway Signs.** Runway and Taxiway Guidance Signs should conform to the requirements of AC 150/5345-44.

### Signs

Type	Size	Style	Class	Mode	Notes
L-858R	1	2	2	2	1 Module
L-858Y	1	2	2	2	2 Module
L-858R	1	2	2	2	2 Module
L-858Y	1	2	2	2	4 Module

**125-2.9 Runway End Identifier Light (REIL).** The REIL fixtures shall meet the requirements of AC 150/5345-51, Type L-849I (L), Style A.

**125-2.10 Precision Approach Path Indicator (PAPI).** The light units for the PAPI shall meet the requirements of AC 150/5345-28, Type L-880 (L), Style A, Class I. The PAPI units shall be furnished by the Sponsor and installed by the Contractor.

**125-2.11 Circuit Selector Cabinet.** The circuit selector cabinet shall meet the requirements of AC 150/5345-5, Type L-847, as indicated on the plans.

**125-2.12 Light Base and Transformer Housings.** Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Light bases shall be Type L-867, Class 1A, Size B shall be provided as indicated or as required to accommodate the fixture or device installed thereon. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

**125-2.13 Isolation Transformers.** Isolation Transformers shall be Type L-830, size as required for each installation. Transformer shall conform to AC 150/5345-47.

### INSTALLATION

**125-3.1 Installation.** The Contractor shall furnish, install, connect and test all equipment, accessories, conduit, cables, wires, buses, grounds and support items necessary to ensure a complete and operable airport lighting system as specified here and shown in the plans.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and state and local code agencies having jurisdiction.

The Contractor shall install the specified equipment in accordance with the applicable advisory circulars and the details shown on the plans.

#### **Advisory Circular 150/5340-30.**

**125-3.2 Testing.** All lights shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator in each step not less than 10 times at the beginning and end of the 24-hour test. The fixtures shall illuminate properly during each portion of the test.

**125-3.3 Shipping and Storage.** Equipment shall be shipped in suitable packing material to prevent damage during shipping. Store and maintain equipment and materials in areas protected from weather and physical damage. Any equipment and materials, in the opinion of the RPR, damaged during construction or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired in accordance with the manufacturer's recommendations.

**125-3.4 Elevated and In-pavement Lights.** Water, debris, and other foreign substances shall be removed prior to installing fixture base and light.

A jig or holding device shall be used when installing each light fixture to ensure positioning to the proper elevation, alignment, level control, and azimuth control. Light fixtures shall be oriented with the light beams parallel to the runway or taxiway centerline and facing in the required direction. The outermost edge of fixture shall be level with the surrounding pavement. Surplus sealant or flexible embedding material shall be removed. The holding device shall remain in place until sealant has reached its initial set.

#### **METHOD OF MEASUREMENT**

**125-4.1** Reflective markers will be measured by the number installed as completed units in place, ready for operation, and accepted by the RPR. Runway and taxiway lights will be measured by the number of each type installed as completed units in place, ready for operation, and accepted by the RPR or by the number of each type furnished to the Owner as spares. Guidance signs will be measured by the number of each type and size installed as completed units, in place, ready for operation, and accepted by the RPR. Runway End Identifier Lights shall be measured by each system installed as a completed unit in place, ready for operation, and accepted by the RPR.

Precision Approach Path Indicator shall be measured by each system installed as a completed unit, in place, ready for operation, and accepted by the RPR. Abbreviated Precision Approach Path Indicator shall be measured by each system installed as a completed unit, in place, ready for operation, and accepted by the RPR.

#### **BASIS OF PAYMENT**

**125-5.1** Payment will be made at the Contract unit price for each complete runway or taxiway light, guidance sign, reflective marker, runway end identification light, precision approach path indicator, or abbreviated precision approach path indicator installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

<b>Retroreflective Markers</b>	<b>-- per each</b>
<b>M.I.R.L. (LED), Semiflush Base Mounted (Yellow/Clear Lens) with Arctic Option</b>	<b>-- per each</b>
<b>M.I.R.L. (LED), Base Mounted (Red/Green Lens) with Arctic Option</b>	<b>-- per each</b>
<b>M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) with Arctic Option</b>	<b>-- per each</b>
<b>M.I.R.L. (LED), Base Mounted (Clear/Clear Lens) with Arctic Option</b>	<b>-- per each</b>
<b>M.I.T.L. (LED), Base Mounted (Blue Lens) with Arctic Option</b>	<b>-- per each</b>
<b>M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens)</b>	<b>-- per each</b>
<b>M.I.T.L. (LED), Stake Mounted (Blue Lens)</b>	<b>-- per each</b>



<b>Furnish M.I.R.L. (LED), (Red/Green Lens)</b> <b>With Arctic Option for Base Mounted Connection</b> <b>(Fixture, Transformer, and Cover Plate)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>Furnish M.I.R.L. (LED), (Yellow/Clear Lens)</b> <b>With Arctic Option for Base Mounted Connection</b> <b>(Fixture, Transformer, and Cover Plate)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>Furnish M.I.R.L. (LED), (Clear/Clear Lens)</b> <b>With Arctic Option for Base Mounted Connection</b> <b>(Fixture, Transformer, and Cover Plate)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>Furnish M.I.T.L. (LED), (Blue Lens)</b> <b>With Arctic Option for Base Mounted Connection</b> <b>(Fixture, Transformer, and Cover Plate)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>Furnish M.I.R.L. (LED), (Yellow/Clear Lens)</b> <b>For Base Mounted Connection</b> <b>(Fixture, Transformer, and Cover Plate)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>Furnish M.I.T.L. (LED), (Blue Lens)</b> <b>For Stake Mounted Connection</b> <b>(Fixture and Transformer)</b> <i>(Added per Addendum No. 1)</i>	<b>- per each</b>
<b>New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2)</b> <b>and Foundation</b>	<b>-- per each</b>
<b>New 2 Module (LED) Lighted L-858Y Sign (Size 1, Style 2)</b> <b>and Foundation</b>	<b>-- per each</b>
<b>New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2)</b> <b>and Foundation</b>	<b>-- per each</b>
<b>New 4 Module (LED) Lighted L-858Y Sign (Size 1, Style 2)</b> <b>and Foundation</b>	<b>-- per each</b>
<b>Install L-880(L) 4-Box PAPI System (Owner Furnished)</b>	<b>-- per each</b>
<b>Furnish and Install L-849I(L) REIL System</b>	<b>-- per each</b>

## REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

### Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program

### Engineering Brief (EB)

EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures
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**END OF ITEM L-125**

**PROPOSAL FORM**  
**CITY OF MOBERLY, MISSOURI**  
**OMAR N. BRADLEY AIRPORT**  
**MoDOT Project No. 19-034A-1**

TO: City Clerk, City of Moberly

The undersigned, in compliance with the request for bids for construction of the following Project:

**Base Bid**

**Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways**

**Construct Parallel Taxiway Extension**

**Install New Medium Intensity Runway Lighting (MIRL) System, Runway 13-31 4-Box PAPI Systems,  
Runway 13-31 REIL Systems, and Lighted Holding Position Signs**

hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment to faithfully perform all work required for construction of the Project in accordance with the project manual, project drawings and issued Addenda within the specified time of performance for the following prices:

BID ITEM	FAA SPEC.	ITEM DESCRIPTION	APPROX. QTY. AND UNITS	UNIT PRICE		EXTENSION	
				DOLLARS	CTS	DOLLARS	CTS
<b>BASE BID</b>							
<b>Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways</b>							
<b>Construct Parallel Taxiway Extension</b>							
<b>Install New Medium Intensity Runway Lighting (MIRL) System,</b>							
<b>Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,</b>							
<b>and Lighted Holding Position Signs</b>							
1	C-100	Contractor Quality Control Program (CQCP)	1 L.S.				
2	C-102	Erosion Control Barrier (Silt Fence)	1,020 L.F.				
3	C-102	Erosion Control Barrier (Straw Wattle)	1,410 L.F.				
4	C-105	Mobilization (NTE 10% of Total Bid Amount)	1 L.S.				
5	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASE 1)	1 L.S.				
6	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASES 2-3)	1 L.S.				
7	P-101	Saw Cut	472 L.F.				
8	P-101	Remove Existing Concrete Pavement and Aggregate Base	5,565 S.Y.				
9	P-101	Remove Existing Asphalt Pavement and Aggregate Base	59,386 S.Y.				
10	P-101	Remove Existing Drainage Pipes	345 L.F.				
11	P-101	Remove Existing Underdrain System	1 L.S.				
12	P-101	Remove Existing Lighting System, Signs, and NAVAIDs	1 L.S.				
13	P-152	Embankment In Place	62,868 C.Y.				

14	P-152	Unsuitable Subgrade Removal and Replacement	5,000 C.Y.				
15	P-155 P-156 P-157 P-158	Treated Subgrade (12")	54,445 S.Y.				
16	P-207 P-208 P-209 P-219	Aggregate Base Course (6")	54,445 S.Y.				
17	P-501	P.C.C. Pavement (7")	47,885 S.Y.				
18	P-501	P.C.C. Pavement (6")	2,793 S.Y.				
19	P-620	Surface Preparation, Pavement Marking Removal	1,084 S.F.				
20	P-620	Permanent Reflectorized Pavement Marking (White) (Solid)	14,672 S.F.				
21	P-620	Permanent Reflectorized Pavement Marking (White) (Striated)	5,814 S.F.				
22	P-620	Permanent Reflectorized Pavement Marking (Yellow)	2,289 S.F.				
23	P-620	Permanent Non-Reflectorized Pavement Marking (Black)	9,905 S.F.				
24	P-620	Temporary Non-Reflectorized Pavement Marking (White) (Solid)	14,672 S.F.				
25	P-620	Temporary Non-Reflectorized Pavement Marking (White) (Striated)	5,814 S.F.				
26	P-620	Temporary Non-Reflectorized Pavement Marking (Yellow)	2,289 S.F.				
27	P-621	Saw-Cut Grooving	30,556 S.Y.				
28	D-701	15" Drainage Pipe	115 L.F.				
29	D-701	18" Drainage Pipe	132 L.F.				
30	D-701	24" Drainage Pipe	867 L.F.				
31	D-701	15" RCP End Section	2 Ea.				
32	D-701	18" RCP End Section	2 Ea.				
33	D-701	24" RCP End Section	8 Ea.				
34	D-705	Perforated Underdrain (4")	11,858 L.F.				
35	D-705	Non-Perforated Outlet Pipe (4")	720 L.F.				
36	D-705	Non-Perforated Outlet Pipe (4") (Sch. 80)	405 L.F.				
37	D-705	Underdrain Cleanout Riser	38 Ea.				
38	D-705	Splash Pad	13 Ea.				
39	TREC	Erosion Control Blanket, Type 2C	32,218 S.Y.				
40	PTM	Permanent Transition Mat	384 S.F.				

41	T-901	Permanent Seeding	28.7 Ac.				
42	T-901	Temporary Seeding	28.7 Ac.				
43	T-905	Placement of Topsoil (Obtained on Site)	1 L.S.				
44	T-908	Hydro-Mulch	27.1 Ac.				
45	L-108	Trenching for Direct Buried Cable	2,000 L.F.				
46	L-108	Direct Buried Underground Cable (1/c, #8 AWG, 5 kV, L-824C)	4,000 L.F.				
47	L-108	Install Cable in Duct (1/c, #8 AWG, 5 kV, L-824C)	18,500 L.F.				
48	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C)	5,000 L.F.				
49	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C Ground)	2,500 L.F.				
50	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C)	9,200 L.F.				
51	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C Ground)	4,600 L.F.				
52	L-108	Bare Counterpoise Wire (#6 AWG)	16,200 L.F.				
53	L-109	Furnish and Install 7.5 kW Constant Current Regulator	1 Ea.				
54	L-109	Controls and Vault Modifications	1 L.S.				
55	L-110	1" Electrical Duct and Trench	17,000 L.F.				
56	L-110	1-2" PVC, Schedule 40, Concrete Encased Electrical Duct	212 L.F.				
57	L-110	2-2" PVC, Schedule 40, Concrete Encased Electrical Duct	250 L.F.				
58	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	170 L.F.				
59	L-115	L-867 Junction Box	20 Ea.				
60	L-125	Retroreflective Markers	16 Ea.				
61	L-125	M.I.R.L. (LED), Semiflush Base Mounted (Yellow/Clear Lens) with Arctic Option	2 Ea.				
62	L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	<b>16</b> Ea.				
63	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	<b>38</b> Ea.				
64	L-125	M.I.R.L. (LED), Base Mounted (Clear/Clear Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	<b>10</b> Ea.				
65	L-125	M.I.T.L. (LED), Base Mounted (Blue Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	<b>22</b> Ea.				
66	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) <b>(Revised per Addendum No. 1)</b>	<b>4</b> Ea.				

67	L-125	M.I.T.L. (LED), Stake Mounted (Blue Lens) <i>(Revised per Addendum No. 1)</i>	31 Ea.				
68	L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	2 Ea.				
69	L-125	New 2 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1 Ea.				
70	L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	4 Ea.				
71	L-125	New 4 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1 Ea.				
72	L-125	Install L-880(L) 4-Box PAPI System (Owner Furnished)	2 Ea.				
73	L-125	Furnish and Install L-849I(L) REIL System	2 Ea.				
74	L-125	<i>Furnish M.I.R.L. (LED), (Red/Green Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2 Ea.				
75	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	4 Ea.				
76	L-125	<i>Furnish M.I.R.L. (LED), (Clear/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1 Ea.				
77	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2 Ea.				
78	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) For Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1 Ea.				
79	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) For Stake Mounted Connection (Fixture and Transformer) (Added per Addendum No. 1)</i>	3 Ea.				
<b>TOTAL BASE BID</b>							

#### **ACKNOWLEDGEMENTS BY BIDDER**

- a. By submittal of a proposal, the BIDDER acknowledges and accepts that the quantities established by the OWNER are an approximate estimate of the quantities required to fully complete the Project and that the estimated quantities are principally intended to serve as a basis for evaluation of bids. The BIDDER further acknowledges and accepts that payment under this contract will be made only for actual quantities and that quantities will vary in accordance with the General Provisions subsection entitled "Alteration of Work and Quantities".
- b. The BIDDER acknowledges and accepts that the Bid Documents are comprised of the documents identified within the General Provisions. The BIDDER further acknowledges that each the individual documents that comprise the Bid Documents are complementary to one another and together establishes the complete terms, conditions and obligations of the successful BIDDER.

- c. As evidence of good faith in submitting this proposal, the undersigned encloses a bid guaranty in the form of a certified check, cashier's check or bid bond in the amount of 5% of the bid price. The BIDDER acknowledges and accepts that refusal or failure to accept award and execute a contract within the terms and conditions established herein will result in forfeiture of the bid guaranty to the owner as a liquidated damage.
- d. The BIDDER acknowledges and accepts the OWNER'S right to reject any or all bids.
- e. The BIDDER acknowledges and accepts the OWNER'S right to hold all Proposals for purposes of review and evaluation and not issue a notice of award for a period not to exceed **one hundred twenty (120)** calendar days from the stated date for receipt of bids.
- f. The undersigned agrees that upon written notice of award of contract, he or she will execute the contract within thirty (30) days of the notice of award, and furthermore, and provide executed payment and performance bonds within fifteen (15) days from the date of contract execution. The undersigned accepts that failure to execute the contract and provide the required bonds within the stated timeframe shall result in forfeiture of the bid guaranty to the owner as a liquidated damage.
- g. Time of Performance: By submittal of this proposal, the undersigned acknowledges and agrees to commence work within ten (10) calendar days of the date specified in the written "Notice to Proceed" as issued by the OWNER. The undersigned further agrees to complete the Project within **two hundred thirty (230) calendar days** from the commencement date specified in the Notice to Proceed – **thirty (30) calendar days for Phase 1; one hundred ninety-eight (198) calendar days for Phase 2A; sixty (60) calendar days for Phase 2B (concurrent with Phase 2A at the Contractor's discretion); and two (2) calendar days for Phase 3. Shifting of contract time between phases will not be permitted.**
- h. The undersigned acknowledges and accepts that for each and every Calendar day the project remains incomplete beyond the contract time of performance, the Contractor shall pay the non-penal amount of **\$1,500** per Calendar day as a liquidated damage to the OWNER for the Total Project and Phase 2 construction.
- i. The undersigned prime contractor, if not a MoDOT certified DBE, hereby assures that they will subcontract **8.00** percent of the dollar value of the prime contract to DBE firms or make good faith efforts to meet the DBE contract goal. In addition, the prime contractor will include the DBE clauses (see Supplementary Provision No. 6 of the Federal and State Provisions) required by the DBE Program adopted by MoDOT and the Sponsor in all contracts and subcontracts relating to this project. The undersigned will complete the DBE Participation information included herein when a DBE goal has been established, including a demonstration of good faith efforts if the DBE goal is not met. If the undersigned prime contractor is a MoDOT certified DBE firm, then the prime contractor must perform at least thirty percent (30%) of the total contract value work with its own forces, and will receive DBE credit for all work which the prime contractor and any other MoDOT certified DBE firm performs directly.
- j. The BIDDER, by submission of a proposal, acknowledges that award of this contract is subject to the provisions of the Davis-Bacon Act and the Missouri Prevailing Wage Law. The BIDDER accepts the requirement to pay prevailing wages for each classification and type of worker as established in the attached wage rate determinations as issued by the United States Department of Labor and the Missouri Division of Labor Standards. The BIDDER further acknowledges and accepts their requirement to incorporate the provision to pay the established prevailing wages in every subcontract agreement entered into by the Bidder under this project. The highest rate between the two (Federal and State) for each job classification shall be considered the prevailing wage.

- k. Compliance Reports (41 CFR Part 60-1.7): Within 30 days after award of this contract, the Contractor/Subcontractor shall file a compliance report (Standard Form 100) if s/he has not submitted a complete compliance report within 12 months preceding the date of award. This report is required if the Contractor/Subcontractor meets all of the following conditions:
1. Contractors/Subcontractors are not exempt based on 41 CFR 60-1.5.
  2. Has 50 or more employees.
  3. Is a prime contractor or first tier subcontractor.
  4. There is a contract, subcontract, or purchase order amounting to \$50,000 or more
- l. The undersigned acknowledges receipt of the following addenda:

Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____

### **REPRESENTATIONS BY BIDDER**

By submittal of a proposal (bid), the BIDDER represents the following:

- a. The BIDDER has read and thoroughly examined the bid documents, including all authorized addenda.
- b. The BIDDER has a complete understanding of the terms and conditions required for the satisfactory performance of project work.
- c. The BIDDER has fully informed themselves of the project site, the project site conditions and the surrounding area.
- d. The BIDDER has familiarized themselves with the requirements of working on an operating airport and understands the conditions that may in any manner affect cost, progress or performance of the work.
- e. The BIDDER has correlated their observations with that of the project documents.
- f. The BIDDER has found no errors, conflicts, ambiguities or omissions in the project documents, except as previously submitted in writing to the owner that would affect cost, progress or performance of the work.
- g. The BIDDER is familiar with all applicable Federal, State and local laws, rules and regulations pertaining to execution of the contract and the project work.
- h. The BIDDER has complied with all requirements of these instructions and the associated project documents.

### **CERTIFICATIONS BY BIDDER**

- a. The undersigned hereby declares and certifies that the only parties interested in this proposal are named herein and that this proposal is made without collusion with any other person, firm or corporation. The undersigned further certifies that no member, officer or agent of OWNER'S has direct or indirect financial interest in this proposal.
- b. **Trade Restriction Certification (49 U.S.C. § 50104, 49 CFR Part 30)**  
The submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror:
  1. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (U.S.T.R.);



2. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R.; and
3. has not entered into any subcontract for any product to be used on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

1. who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
2. whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
3. who incorporates in the public works project any product of a foreign country on such U.S.T.R. list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R., unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

**c. Certification of Offeror/Bidder Regarding Debarment (2 CFR Part 180 (Subpart C), 2 CFR Part 1200, DOT Order 4200.5)**

By submitting a bid/proposal under this solicitation, the Bidder or Offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

**d. Certification of Lower Tier Contractors Regarding Debarment (2 CFR Part 180 (Subpart C), 2 CFR Part 1200, DOT Order 4200.5)**

The successful Bidder, by administering each lower tier subcontract that exceeds \$25,000 as a “covered transaction”, must verify each lower tier participant of a “covered transaction” under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>;
2. Collecting a certification statement similar to the Certificate of Offeror/Bidder Regarding Debarment and Suspension, above;
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the FAA and/or MoDOT later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA and/or MoDOT may pursue any available remedies, including suspension and debarment of the non-compliant participant.

**f. Certification Regarding Lobbying (31 U.S.C. § 1352, 2 CFR § 200 Appendix II(J), 49 CFR Part 20, Appendix A)**

The Bidder or Offer certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employer of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, United States Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for such failure.

**g. Buy American Certification: (Title 49 U.S.C. § 50101)**

The bidder agrees to comply with 49 U.S.C. § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP-funded projects are produced in the United States, unless the FAA has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued List.

A bidder or offeror must submit the appropriate Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

**Type of Certification is based on Type of Project:**

There are two types of Buy American certifications.

- For projects for a facility, the Certificate of Compliance Based on Total Facility (Terminal or Building Project) must be submitted.
- For all other projects, the Certificate of Compliance Based on Equipment and Materials Used on the Project (Non-building construction projects such as runway or roadway construction; or equipment acquisition projects) must be submitted.

**Certificate of Buy American Compliance for Manufactured Products**  
(Non-building construction projects, equipment acquisition projects)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e. not both) by inserting a checkmark (✓) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC 50101 by:
- a) Only installing steel and manufactured products produced in the United States;
  - b) Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
  - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
2. To faithfully comply with providing U.S. domestic product.
3. To furnish U.S. domestic product for any waiver request that the FAA rejects.
4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

- ☐ Bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
1. To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
  2. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination which may result in rejection of the proposal.
  3. To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
  4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

**Required Documentation**

**Type 3 Waiver** – The cost of the item components and subcomponents produced in the United States is more than 60% of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Listing of all product components and subcomponents that are not comprised of 100% U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- c) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly and at place of manufacture.

**Type 4 Waiver** – Total cost of project using U.S. domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a Type 4 waiver is:

- d) Detailed cost information for total project using U.S. domestic product.
- e) Detailed cost information for total project using non-domestic product.

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

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Date

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Signature

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Company Name

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Title

**h. Compliance with the Work Authorization Law (as required by Section 285.530, Revised Statutes of Missouri)**

For all contracts where the total bid amount is in excess of \$50,000 (local match in excess of \$5,000), the Bidder, by submission of an offer and by signing the Worker Eligibility Verification Affidavit for All Contract Agreements in Excess of \$50,000, certifies that it:

1. does not knowingly employ any person who is an unauthorized alien in connection with the contracted services;
2. has enrolled and actively participates in a federal work authorization program;

A general contractor or subcontractor of any tier shall not be liable under sections 285.525 to 285.550 when such general contractor or subcontractor contracts with its direct subcontractor who violates subsection 1 of this section, if the contract binding the contractor and subcontractor affirmatively states that the direct subcontractor is not knowingly in violation of subsection 1 of this section and shall not henceforth be in such violation and the contractor or subcontractor receives a sworn affidavit under the penalty of perjury attesting to the fact that the direct subcontractor's employees are lawfully present in the United States.

**WORKER ELIGIBILITY VERIFICATION AFFIDAVIT FOR ALL CONTRACT  
AGREEMENTS IN EXCESS OF \$50,000 (Local match in excess of \$5,000)**  
(for joint ventures, a separate affidavit is required for each business entity)

STATE OF \_\_\_\_\_ )  
 ) ss  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be a person whose name is subscribed to this affidavit, who being by me duly sworn, deposed as follows:

My name is \_\_\_\_\_, and I am of sound mind, capable of making this affidavit, and personally certify the facts herein stated, as required by Section 285.530, RSMo, to enter into any contract agreement with the state or any of its political subdivisions to perform any job, task, employment, labor, personal services, or any other activity for which compensation is provided, expected, or due, including but not limited to all activities conducted by business entities:

I am the \_\_\_\_\_ of \_\_\_\_\_, and I am duly authorized, directed, and/or empowered to act officially and properly on behalf of this business entity.  
(title) (business name)

I hereby affirm and warrant that the aforementioned business entity is enrolled in a federal work authorization program operated by the United States Department of Homeland Security, and the aforementioned business entity shall participate in said program to verify information (employment eligibility) of newly hired employees working in connection to work under the within contract agreement. I have attached documentation to this affidavit to evidence enrollment/participation by the aforementioned business entity in a federal work authorization program, as required by Section 285.530, RSMo.

In addition, I hereby affirm and warrant that the aforementioned business entity does not and shall not knowingly employ, in connection to work under the within contract agreement, any alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. § 1324a(h)(3).

I am aware and recognize that, unless certain contract and affidavit conditions are satisfied pursuant to Section 285.530, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for subcontractors that knowingly employ or continue to employ any unauthorized alien to work within the state of Missouri.

I acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and not under duress.

\_\_\_\_\_  
(Affiant Signature)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

My commission expires:

***[Documentation of enrollment/participation in a federal work authorization program is attached. Acceptable enrollment and participation documentation consists of the following two pages of the E-Verify Memorandum of Understanding: (1) A valid, completed copy of the first page identifying the business entity; and (2) A valid copy of the signature page completed and signed by the business entity, the Social Security Administration, and the Department of Homeland Security – Verification Division.]***

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION**

The information shown in this section must be completed when a DBE contract goal has been established. The percentage must equal or exceed the DBE contract goal. If the percentage is below the contract goal, then the bidder must submit complete written documentation of good faith efforts taken to meet the DBE contract goal.

- a. The undersigned submits the following list of DBEs to be used in accomplishing the work of this contract. The work, supplies or services, applicable value and percent of total federal contract each DBE is to perform or furnish is as follows:
- b. Joint venture with a DBE. The undersigned submits the following list of bid items the DBE prime is responsible for and any items that will be subcontracted out are noted with an asterisk or a similar notation. The work, applicable value and percentage of total federal contract the DBE prime is responsible for are as follows:

(A) DBE Name and Address	(B) Bid Item Number(s) Or Work Performed	(C) Dollar Value of DBE Work **	(D) Percent Applicable to DBE Goal (100%, 60%)	(E) Dollar Amount Applicable to DBE Goal (C x D)	(F) Percent of Total Contract (C / Total Contract Amount)
TOTAL DBE PARTICIPATION				\$	%

\*\*Cannot exceed contract amount for given item of work.

Trucking services credited at 100% if the DBE owns the trucks or is leasing from a DBE firm

Merchant wholesalers (supply) are credited at 60%.

Brokered services will only receive credit for fees.

(Please reproduce the above sheet if additional space is needed.)



<p><b>THE OFFICIAL PROPOSAL FORM MUST BE EXECUTED TO BE CONSIDERED RESPONSIVE AND RESPONSIBLE.</b></p>
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**SIGNATURE OF BIDDER**

The undersigned states that the correct LEGAL NAME AND ADDRESS of (1) the individual bidder, (2) each partner or joint venturer (whether individuals or corporations, and whether doing business under a fictitious name), or (3) the corporation (with the state in which it is incorporated) are shown below; that (if not signing with the intention to bind themselves to become responsible and sole bidder) they are the agent of, and they are signing and executing this (as indicated in the proper spaces below) as the bid of a

( ) sole individual                      ( ) partnership                      ( ) joint venture  
( ) corporation, incorporated under the laws of state of \_\_\_\_\_.

Executed by bidder this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Name of individual,  
all partners  
or joint venturers:

Address of each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

doing business under the name of:

Address of principal place of business in  
Missouri:

\_\_\_\_\_  
(If using a fictitious name, show this name  
above in addition to legal names)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(If a corporation, show its name above)

\_\_\_\_\_  
\_\_\_\_\_

ATTEST: (SEAL)

\_\_\_\_\_  
(Signature)

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

\_\_\_\_\_  
(Signature)

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

\_\_\_\_\_  
Please print name

\_\_\_\_\_  
Please print name

NOTE: If bidder is doing business under a fictitious name, the bid shall be executed in the legal name of the individual partners, joint ventures, or corporation, with the legal address shown, and registration of fictitious name filed with the secretary of state, as required by sections 417.200 to 417.230 RSMo. If the bidder is a corporation not organized under the laws of Missouri, it shall procure a certificate of authority to do business in Missouri, as required by section 351.572 et seq RSMo.

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
(REVISED PER ADDENDUM NO. 1) Page 1 of 15

**PROPOSAL FORM**  
**CITY OF MOBERLY, MISSOURI**  
**OMAR N. BRADLEY AIRPORT**  
**MoDOT Project No. 19-034A-1**

TO: City Clerk, City of Moberly

The undersigned, in compliance with the request for bids for construction of the following Project:

**Base Bid**

**Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways**

**Construct Parallel Taxiway Extension**

**Install New Medium Intensity Runway Lighting (MIRL) System, Runway 13-31 4-Box PAPI Systems,  
Runway 13-31 REIL Systems, and Lighted Holding Position Signs**

hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment to faithfully perform all work required for construction of the Project in accordance with the project manual, project drawings and issued Addenda within the specified time of performance for the following prices:

BID ITEM	FAA SPEC.	ITEM DESCRIPTION	APPROX. QTY. AND UNITS	UNIT PRICE		EXTENSION	
				DOLLARS	CTS	DOLLARS	CTS
<b><u>BASE BID</u></b>							
<b>Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways</b>							
<b>Construct Parallel Taxiway Extension</b>							
<b>Install New Medium Intensity Runway Lighting (MIRL) System,</b>							
<b>Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,</b>							
<b>and Lighted Holding Position Signs</b>							
1	C-100	Contractor Quality Control Program (CQCP)	1 L.S.				
2	C-102	Erosion Control Barrier (Silt Fence)	1,020 L.F.				
3	C-102	Erosion Control Barrier (Straw Wattle)	1,410 L.F.				
4	C-105	Mobilization (NTE 10% of Total Bid Amount)	1 L.S.				
5	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASE 1)	1 L.S.				
6	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASES 2-3)	1 L.S.				
7	P-101	Saw Cut	472 L.F.				
8	P-101	Remove Existing Concrete Pavement and Aggregate Base	5,565 S.Y.				
9	P-101	Remove Existing Asphalt Pavement and Aggregate Base	59,386 S.Y.				
10	P-101	Remove Existing Drainage Pipes	345 L.F.				
11	P-101	Remove Existing Underdrain System	1 L.S.				
12	P-101	Remove Existing Lighting System, Signs, and NAVAIDs	1 L.S.				
13	P-152	Embankment In Place	62,868 C.Y.				

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 2 of 15**

14	P-152	Unsuitable Subgrade Removal and Replacement	5,000 C.Y.				
15	P-155 P-156 P-157 P-158	Treated Subgrade (12")	54,445 S.Y.				
16	P-207 P-208 P-209 P-219	Aggregate Base Course (6")	54,445 S.Y.				
17	P-501	P.C.C. Pavement (7")	47,885 S.Y.				
18	P-501	P.C.C. Pavement (6")	2,793 S.Y.				
19	P-620	Surface Preparation, Pavement Marking Removal	1,084 S.F.				
20	P-620	Permanent Reflectorized Pavement Marking (White) (Solid)	14,672 S.F.				
21	P-620	Permanent Reflectorized Pavement Marking (White) (Striated)	5,814 S.F.				
22	P-620	Permanent Reflectorized Pavement Marking (Yellow)	2,289 S.F.				
23	P-620	Permanent Non-Reflectorized Pavement Marking (Black)	9,905 S.F.				
24	P-620	Temporary Non-Reflectorized Pavement Marking (White) (Solid)	14,672 S.F.				
25	P-620	Temporary Non-Reflectorized Pavement Marking (White) (Striated)	5,814 S.F.				
26	P-620	Temporary Non-Reflectorized Pavement Marking (Yellow)	2,289 S.F.				
27	P-621	Saw-Cut Grooving	30,556 S.Y.				
28	D-701	15" Drainage Pipe	115 L.F.				
29	D-701	18" Drainage Pipe	132 L.F.				
30	D-701	24" Drainage Pipe	867 L.F.				
31	D-701	15" RCP End Section	2 Ea.				
32	D-701	18" RCP End Section	2 Ea.				
33	D-701	24" RCP End Section	8 Ea.				
34	D-705	Perforated Underdrain (4")	11,858 L.F.				
35	D-705	Non-Perforated Outlet Pipe (4")	720 L.F.				
36	D-705	Non-Perforated Outlet Pipe (4") (Sch. 80)	405 L.F.				
37	D-705	Underdrain Cleanout Riser	38 Ea.				
38	D-705	Splash Pad	13 Ea.				
39	TREC	Erosion Control Blanket, Type 2C	32,218 S.Y.				
40	PTM	Permanent Transition Mat	384 S.F.				

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 3 of 15**

41	T-901	Permanent Seeding	28.7 Ac.				
42	T-901	Temporary Seeding	28.7 Ac.				
43	T-905	Placement of Topsoil (Obtained on Site)	1 L.S.				
44	T-908	Hydro-Mulch	27.1 Ac.				
45	L-108	Trenching for Direct Buried Cable	2,000 L.F.				
46	L-108	Direct Buried Underground Cable (1/c, #8 AWG, 5 kV, L-824C)	4,000 L.F.				
47	L-108	Install Cable in Duct (1/c, #8 AWG, 5 kV, L-824C)	18,500 L.F.				
48	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C)	5,000 L.F.				
49	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C Ground)	2,500 L.F.				
50	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C)	9,200 L.F.				
51	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C Ground)	4,600 L.F.				
52	L-108	Bare Counterpoise Wire (#6 AWG)	16,200 L.F.				
53	L-109	Furnish and Install 7.5 kW Constant Current Regulator	1 Ea.				
54	L-109	Controls and Vault Modifications	1 L.S.				
55	L-110	1" Electrical Duct and Trench	17,000 L.F.				
56	L-110	1-2" PVC, Schedule 40, Concrete Encased Electrical Duct	212 L.F.				
57	L-110	2-2" PVC, Schedule 40, Concrete Encased Electrical Duct	250 L.F.				
58	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	170 L.F.				
59	L-115	L-867 Junction Box	20 Ea.				
60	L-125	Retroreflective Markers	16 Ea.				
61	L-125	M.I.R.L. (LED), Semiflush Base Mounted (Yellow/Clear Lens) with Arctic Option	2 Ea.				
62	L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	16 Ea.				
63	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	38 Ea.				
64	L-125	M.I.R.L. (LED), Base Mounted (Clear/Clear Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	10 Ea.				
65	L-125	M.I.T.L. (LED), Base Mounted (Blue Lens) with Arctic Option <b>(Revised per Addendum No. 1)</b>	22 Ea.				
66	L-125	M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) <b>(Revised per Addendum No. 1)</b>	4 Ea.				

**\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\***  
**(REVISED PER ADDENDUM NO. 1) Page 4 of 15**

67	L-125	M.I.T.L. (LED), Stake Mounted (Blue Lens) <i>(Revised per Addendum No. 1)</i>	31 Ea.				
68	L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	2 Ea.				
69	L-125	New 2 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1 Ea.				
70	L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	4 Ea.				
71	L-125	New 4 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	1 Ea.				
72	L-125	Install L-880(L) 4-Box PAPI System (Owner Furnished)	2 Ea.				
73	L-125	Furnish and Install L-849I(L) REIL System	2 Ea.				
74	L-125	<i>Furnish M.I.R.L. (LED), (Red/Green Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2 Ea.				
75	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	4 Ea.				
76	L-125	<i>Furnish M.I.R.L. (LED), (Clear/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1 Ea.				
77	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	2 Ea.				
78	L-125	<i>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) For Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</i>	1 Ea.				
79	L-125	<i>Furnish M.I.T.L. (LED), (Blue Lens) For Stake Mounted Connection (Fixture and Transformer) (Added per Addendum No. 1)</i>	3 Ea.				
<b>TOTAL BASE BID</b>							

**ACKNOWLEDGEMENTS BY BIDDER**

- a. By submittal of a proposal, the BIDDER acknowledges and accepts that the quantities established by the OWNER are an approximate estimate of the quantities required to fully complete the Project and that the estimated quantities are principally intended to serve as a basis for evaluation of bids. The BIDDER further acknowledges and accepts that payment under this contract will be made only for actual quantities and that quantities will vary in accordance with the General Provisions subsection entitled "Alteration of Work and Quantities".
- b. The BIDDER acknowledges and accepts that the Bid Documents are comprised of the documents identified within the General Provisions. The BIDDER further acknowledges that each the individual documents that comprise the Bid Documents are complementary to one another and together establishes the complete terms, conditions and obligations of the successful BIDDER.

\*\*\*\*\* **OFFICIAL BID FORM** \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 5 of 15**

- c. As evidence of good faith in submitting this proposal, the undersigned encloses a bid guaranty in the form of a certified check, cashier's check or bid bond in the amount of 5% of the bid price. The BIDDER acknowledges and accepts that refusal or failure to accept award and execute a contract within the terms and conditions established herein will result in forfeiture of the bid guaranty to the owner as a liquidated damage.
- d. The BIDDER acknowledges and accepts the OWNER'S right to reject any or all bids.
- e. The BIDDER acknowledges and accepts the OWNER'S right to hold all Proposals for purposes of review and evaluation and not issue a notice of award for a period not to exceed **one hundred twenty (120) calendar days** from the stated date for receipt of bids.
- f. The undersigned agrees that upon written notice of award of contract, he or she will execute the contract within thirty (30) days of the notice of award, and furthermore, and provide executed payment and performance bonds within fifteen (15) days from the date of contract execution. The undersigned accepts that failure to execute the contract and provide the required bonds within the stated timeframe shall result in forfeiture of the bid guaranty to the owner as a liquidated damage.
- g. Time of Performance: By submittal of this proposal, the undersigned acknowledges and agrees to commence work within ten (10) calendar days of the date specified in the written "Notice to Proceed" as issued by the OWNER. The undersigned further agrees to complete the Project within **two hundred thirty (230) calendar days** from the commencement date specified in the Notice to Proceed – **thirty (30) calendar days for Phase 1; one hundred ninety-eight (198) calendar days for Phase 2A; sixty (60) calendar days for Phase 2B (concurrent with Phase 2A at the Contractor's discretion); and two (2) calendar days for Phase 3. Shifting of contract time between phases will not be permitted.**
- h. The undersigned acknowledges and accepts that for each and every Calendar day the project remains incomplete beyond the contract time of performance, the Contractor shall pay the non-penal amount of **\$1,500** per Calendar day as a liquidated damage to the OWNER for the Total Project and Phase 2 construction.
- i. The undersigned prime contractor, if not a MoDOT certified DBE, hereby assures that they will subcontract **8.00** percent of the dollar value of the prime contract to DBE firms or make good faith efforts to meet the DBE contract goal. In addition, the prime contractor will include the DBE clauses (see Supplementary Provision No. 6 of the Federal and State Provisions) required by the DBE Program adopted by MoDOT and the Sponsor in all contracts and subcontracts relating to this project. The undersigned will complete the DBE Participation information included herein when a DBE goal has been established, including a demonstration of good faith efforts if the DBE goal is not met. If the undersigned prime contractor is a MoDOT certified DBE firm, then the prime contractor must perform at least thirty percent (30%) of the total contract value work with its own forces, and will receive DBE credit for all work which the prime contractor and any other MoDOT certified DBE firm performs directly.
- j. The BIDDER, by submission of a proposal, acknowledges that award of this contract is subject to the provisions of the Davis-Bacon Act and the Missouri Prevailing Wage Law. The BIDDER accepts the requirement to pay prevailing wages for each classification and type of worker as established in the attached wage rate determinations as issued by the United States Department of Labor and the Missouri Division of Labor Standards. The BIDDER further acknowledges and accepts their requirement to incorporate the provision to pay the established prevailing wages in every subcontract agreement entered into by the Bidder under this project. The highest rate between the two (Federal and State) for each job classification shall be considered the prevailing wage.

\*\*\*\*\* **OFFICIAL BID FORM** \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 6 of 15**

- k. Compliance Reports (41 CFR Part 60-1.7): Within 30 days after award of this contract, the Contractor/Subcontractor shall file a compliance report (Standard Form 100) if s/he has not submitted a complete compliance report within 12 months preceding the date of award. This report is required if the Contractor/Subcontractor meets all of the following conditions:

1. Contractors/Subcontractors are not exempt based on 41 CFR 60-1.5.
2. Has 50 or more employees.
3. Is a prime contractor or first tier subcontractor.
4. There is a contract, subcontract, or purchase order amounting to \$50,000 or more

- l. The undersigned acknowledges receipt of the following addenda:

Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____
Addendum No. _____, dated _____	Date Received _____

**REPRESENTATIONS BY BIDDER**

By submittal of a proposal (bid), the BIDDER represents the following:

- a. The BIDDER has read and thoroughly examined the bid documents, including all authorized addenda.
- b. The BIDDER has a complete understanding of the terms and conditions required for the satisfactory performance of project work.
- c. The BIDDER has fully informed themselves of the project site, the project site conditions and the surrounding area.
- d. The BIDDER has familiarized themselves with the requirements of working on an operating airport and understands the conditions that may in any manner affect cost, progress or performance of the work.
- e. The BIDDER has correlated their observations with that of the project documents.
- f. The BIDDER has found no errors, conflicts, ambiguities or omissions in the project documents, except as previously submitted in writing to the owner that would affect cost, progress or performance of the work.
- g. The BIDDER is familiar with all applicable Federal, State and local laws, rules and regulations pertaining to execution of the contract and the project work.
- h. The BIDDER has complied with all requirements of these instructions and the associated project documents.

**CERTIFICATIONS BY BIDDER**

- a. The undersigned hereby declares and certifies that the only parties interested in this proposal are named herein and that this proposal is made without collusion with any other person, firm or corporation. The undersigned further certifies that no member, officer or agent of OWNER'S has direct or indirect financial interest in this proposal.
- b. **Trade Restriction Certification (49 U.S.C. § 50104, 49 CFR Part 30)**  
The submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror:
  1. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (U.S.T.R.);

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 7 of 15**

2. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R.; and
3. has not entered into any subcontract for any product to be used on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

1. who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
2. whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
3. who incorporates in the public works project any product of a foreign country on such U.S.T.R. list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R., unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

**c. Certification of Offeror/Bidder Regarding Debarment (2 CFR Part 180 (Subpart C), 2 CFR Part 1200, DOT Order 4200.5)**

By submitting a bid/proposal under this solicitation, the Bidder or Offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.



\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1) Page 8 of 15**

**d. Certification of Lower Tier Contractors Regarding Debarment (2 CFR Part 180 (Subpart C), 2 CFR Part 1200, DOT Order 4200.5)**

The successful Bidder, by administering each lower tier subcontract that exceeds \$25,000 as a “covered transaction”, must verify each lower tier participant of a “covered transaction” under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>;
2. Collecting a certification statement similar to the Certificate of Offeror/Bidder Regarding Debarment and Suspension, above;
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the FAA and/or MoDOT later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA and/or MoDOT may pursue any available remedies, including suspension and debarment of the non-compliant participant.

**f. Certification Regarding Lobbying (31 U.S.C. § 1352, 2 CFR § 200 Appendix II(J), 49 CFR Part 20, Appendix A)**

The Bidder or Offer certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employer of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, United States Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for such failure.

**g. Buy American Certification: (Title 49 U.S.C. § 50101)**

The bidder agrees to comply with 49 U.S.C. § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP-funded projects are produced in the United States, unless the FAA has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued List.

A bidder or offeror must submit the appropriate Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

**\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\***  
**(REVISED PER ADDENDUM NO. 1) Page 9 of 15**

**Type of Certification is based on Type of Project:**

There are two types of Buy American certifications.

- For projects for a facility, the Certificate of Compliance Based on Total Facility (Terminal or Building Project) must be submitted.
- For all other projects, the Certificate of Compliance Based on Equipment and Materials Used on the Project (Non-building construction projects such as runway or roadway construction; or equipment acquisition projects) must be submitted.

\*\*\*\*\* **OFFICIAL BID FORM** \*\*\*\*\*  
**(REVISED PER ADDENDUM NO. 1)Page 10 of 15**

**Certificate of Buy American Compliance for Manufactured Products**  
(Non-building construction projects, equipment acquisition projects)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e. not both) by inserting a checkmark (✓) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC 50101 by:
- a) Only installing steel and manufactured products produced in the United States;
  - b) Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
  - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
2. To faithfully comply with providing U.S. domestic product.
3. To furnish U.S. domestic product for any waiver request that the FAA rejects.
4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

- ☐ Bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
1. To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
  2. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination which may result in rejection of the proposal.
  3. To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
  4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

**Required Documentation**

**Type 3 Waiver** – The cost of the item components and subcomponents produced in the United States is more than 60% of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Listing of all product components and subcomponents that are not comprised of 100% U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- c) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly and at place of manufacture.

**Type 4 Waiver** – Total cost of project using U.S. domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a Type 4 waiver is:

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
(REVISED PER ADDENDUM NO. 1)Page 11 of 15

- d) Detailed cost information for total project using U.S. domestic product.
- e) Detailed cost information for total project using non-domestic product.

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Title

**\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\***  
**(REVISED PER ADDENDUM NO. 1)Page 12 of 15**

**h. Compliance with the Work Authorization Law (as required by Section 285.530, Revised Statutes of Missouri)**

For all contracts where the total bid amount is in excess of \$50,000 (local match in excess of \$5,000), the Bidder, by submission of an offer and by signing the Worker Eligibility Verification Affidavit for All Contract Agreements in Excess of \$50,000, certifies that it:

1. does not knowingly employ any person who is an unauthorized alien in connection with the contracted services;
2. has enrolled and actively participates in a federal work authorization program;

A general contractor or subcontractor of any tier shall not be liable under sections 285.525 to 285.550 when such general contractor or subcontractor contracts with its direct subcontractor who violates subsection 1 of this section, if the contract binding the contractor and subcontractor affirmatively states that the direct subcontractor is not knowingly in violation of subsection 1 of this section and shall not henceforth be in such violation and the contractor or subcontractor receives a sworn affidavit under the penalty of perjury attesting to the fact that the direct subcontractor's employees are lawfully present in the United States.

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
**REVISED PER ADDENDUM NO. 1 Page 13 of 15**

**WORKER ELIGIBILITY VERIFICATION AFFIDAVIT FOR ALL CONTRACT  
AGREEMENTS IN EXCESS OF \$50,000 (Local match in excess of \$5,000)**  
(for joint ventures, a separate affidavit is required for each business entity)

STATE OF \_\_\_\_\_ )  
 ) ss  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be a person whose name is subscribed to this affidavit, who being by me duly sworn, deposed as follows:

My name is \_\_\_\_\_, and I am of sound mind, capable of making this affidavit, and personally certify the facts herein stated, as required by Section 285.530, RSMo, to enter into any contract agreement with the state or any of its political subdivisions to perform any job, task, employment, labor, personal services, or any other activity for which compensation is provided, expected, or due, including but not limited to all activities conducted by business entities:

I am the \_\_\_\_\_ of \_\_\_\_\_, and I am duly authorized, directed, and/or empowered to act officially and properly on behalf of this business entity.  
(title) (business name)

I hereby affirm and warrant that the aforementioned business entity is enrolled in a federal work authorization program operated by the United States Department of Homeland Security, and the aforementioned business entity shall participate in said program to verify information (employment eligibility) of newly hired employees working in connection to work under the within contract agreement. I have attached documentation to this affidavit to evidence enrollment/participation by the aforementioned business entity in a federal work authorization program, as required by Section 285.530, RSMo.

In addition, I hereby affirm and warrant that the aforementioned business entity does not and shall not knowingly employ, in connection to work under the within contract agreement, any alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. § 1324a(h)(3).

I am aware and recognize that, unless certain contract and affidavit conditions are satisfied pursuant to Section 285.530, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for subcontractors that knowingly employ or continue to employ any unauthorized alien to work within the state of Missouri.

I acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and not under duress.

\_\_\_\_\_  
(Affiant Signature)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

My commission expires:

***[Documentation of enrollment/participation in a federal work authorization program is attached. Acceptable enrollment and participation documentation consists of the following two pages of the E-Verify Memorandum of Understanding: (1) A valid, completed copy of the first page identifying the business entity; and (2) A valid copy of the signature page completed and signed by the business entity, the Social Security Administration, and the Department of Homeland Security – Verification Division.]***

**\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\***  
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**DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION**

The information shown in this section must be completed when a DBE contract goal has been established. The percentage must equal or exceed the DBE contract goal. If the percentage is below the contract goal, then the bidder must submit complete written documentation of good faith efforts taken to meet the DBE contract goal.

- a. The undersigned submits the following list of DBEs to be used in accomplishing the work of this contract. The work, supplies or services, applicable value and percent of total federal contract each DBE is to perform or furnish is as follows:
  
- b. Joint venture with a DBE. The undersigned submits the following list of bid items the DBE prime is responsible for and any items that will be subcontracted out are noted with an asterisk or a similar notation. The work, applicable value and percentage of total federal contract the DBE prime is responsible for are as follows:

(A) DBE Name and Address	(B) Bid Item Number(s) Or Work Performed	(C) Dollar Value of DBE Work **	(D) Percent Applicable to DBE Goal (100%, 60%)	(E) Dollar Amount Applicable to DBE Goal (C x D)	(F) Percent of Total Contract (C / Total Contract Amount)
TOTAL DBE PARTICIPATION				\$	%

\*\*Cannot exceed contract amount for given item of work.

Trucking services credited at 100% if the DBE owns the trucks or is leasing from a DBE firm

Merchant wholesalers (supply) are credited at 60%.

Brokered services will only receive credit for fees.

(Please reproduce the above sheet if additional space is needed.)

\*\*\*\*\* OFFICIAL BID FORM \*\*\*\*\*  
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**THE OFFICIAL PROPOSAL FORM MUST BE EXECUTED TO BE  
CONSIDERED RESPONSIVE AND RESPONSIBLE.**

**SIGNATURE OF BIDDER**

The undersigned states that the correct LEGAL NAME AND ADDRESS of (1) the individual bidder, (2) each partner or joint venturer (whether individuals or corporations, and whether doing business under a fictitious name), or (3) the corporation (with the state in which it is incorporated) are shown below; that (if not signing with the intention to bind themselves to become responsible and sole bidder) they are the agent of, and they are signing and executing this (as indicated in the proper spaces below) as the bid of a

( ) sole individual                      ( ) partnership                      ( ) joint venture  
( ) corporation, incorporated under the laws of state of \_\_\_\_\_.

Executed by bidder this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Name of individual,  
all partners  
or joint venturers:

Address of each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

doing business under the name of:

Address of principal place of business in  
Missouri:

\_\_\_\_\_  
(If using a fictitious name, show this name  
above in addition to legal names)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(If a corporation, show its name above)

\_\_\_\_\_  
\_\_\_\_\_

ATTEST: (SEAL)

\_\_\_\_\_  
(Signature)

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

\_\_\_\_\_  
(Signature)

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

\_\_\_\_\_  
Please print name

\_\_\_\_\_  
Please print name

NOTE: If bidder is doing business under a fictitious name, the bid shall be executed in the legal name of the individual partners, joint ventures, or corporation, with the legal address shown, and registration of fictitious name filed with the secretary of state, as required by sections 417.200 to 417.230 RSMo. If the bidder is a corporation not organized under the laws of Missouri, it shall procure a certificate of authority to do business in Missouri, as required by section 351.572 et seq RSMo.

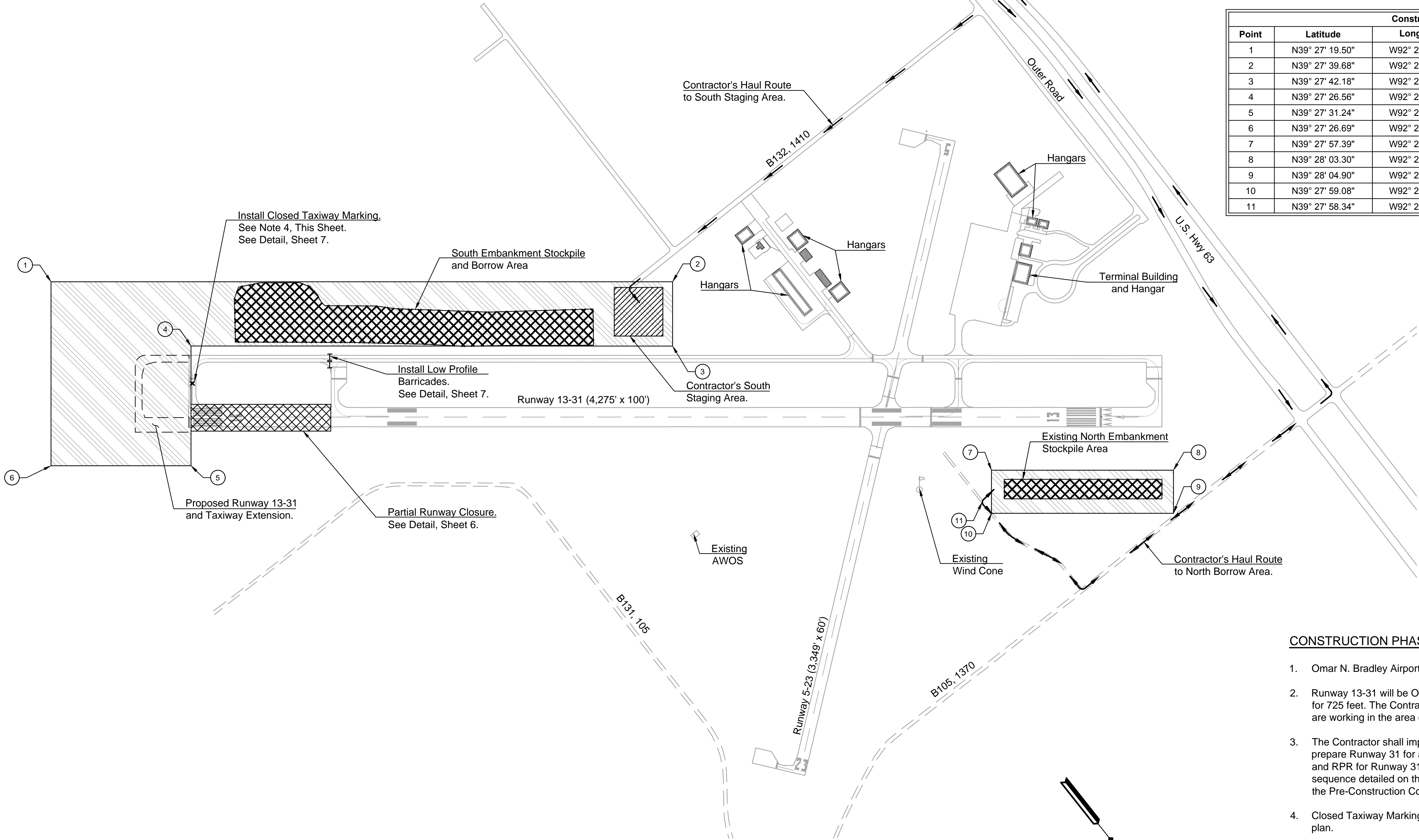


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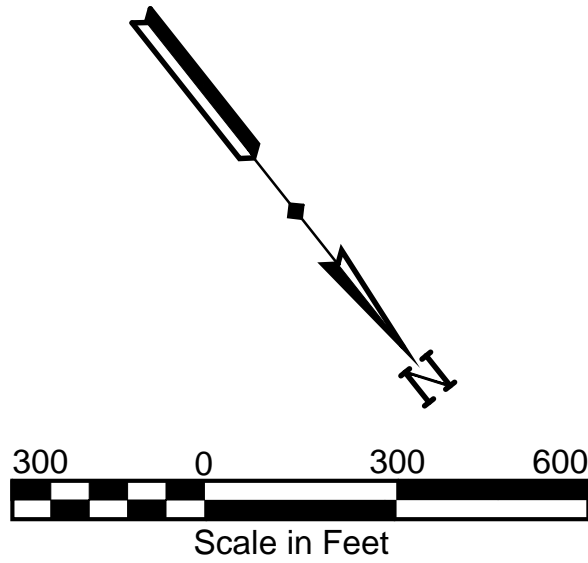
Layout Name: PHASE 1

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Construction Limits - Phase 1					
Point	Latitude	Longitude	Site Elev.	Object Ht.	Overall Elev.
1	N39° 27' 19.50"	W92° 25' 05.87"	836	25	861
2	N39° 27' 39.68"	W92° 25' 37.19"	862	25	887
3	N39° 27' 42.18"	W92° 25' 34.52"	861	25	886
4	N39° 27' 26.56"	W92° 25' 10.23"	850	25	875
5	N39° 27' 31.24"	W92° 25' 05.21"	855	25	880
6	N39° 27' 26.69"	W92° 24' 58.16"	855	25	880
7	N39° 27' 57.39"	W92° 25' 45.38"	862	25	887
8	N39° 28' 03.30"	W92° 25' 54.55"	862	25	887
9	N39° 28' 04.90"	W92° 25' 52.75"	862	25	887
10	N39° 27' 59.08"	W92° 25' 43.57"	863	25	888
11	N39° 27' 58.34"	W92° 25' 43.56"	863	25	888



LEGEND

- Contractor Haul Route
- Contractor Staging Area
- Construction Limits
- Partial Runway Closure
- Crossed Taxiway Marking
- Low Profile Barricades (Symbol does not Denote the Number of Barricades Required.)

Runway Protection	Runway 13-31 Partial Runway Closure	Runway 5-23
Runway Safety Area (RSA)	4,875' x 150'	4,230' x 120'
Object Free Area (OFA)	4,875' x 500'	4,230' x 400'
Obstacle Free Zone (OFZ)	4,675' x 400'	3,750' x 250'

CONSTRUCTION PHASE 1 (30 Calendar Days or Less)

- Omar N. Bradley Airport will be OPEN during Phase 1 Construction.
- Runway 13-31 will be OPEN with a Partial Runway Closure at the Runway 31 Threshold for 725 feet. The Contractor shall monitor Airport CTAF 122.7 at all times when vehicles are working in the area of the Runway 31 threshold.
- The Contractor shall implement the Safety Plan Compliance Document (SPCD) and prepare Runway 31 for a Partial Runway Closure. Coordinate with the Airport Manager and RPR for Runway 31 NAVAIDs and Edge Lighting to be removed from service in the sequence detailed on the Partial Runway Closure (Sheet 6), within the CSPP Report and the Pre-Construction Conference.
- Closed Taxiway Markings and Low Profile Barricades will be placed as shown on this plan.
- The following construction work shall be completed:
  - Complete all grading and compaction and installation of drainage structures for the Parallel Taxiway Extension and Connecting Taxiway to Proposed Runway 31 Threshold.
  - Complete Runway Safety Area (RSA) grading and compaction up to Station 30+00.
  - Complete temporary seeding, mulching, and erosion control to all disturbed areas during this phase.
- At the conclusion of construction, the Contractor shall prepare the pavement for reopening per the Construction Safety and Phasing Plan (CSPP). Remark Runway 31 Markings, return all edge lights and NAVAID's to their original operational condition, remove all Low Profile Barricades and Partial Runway Closure. Ensure a 1.5" edge drop from pavement to ground along disturbed pavement edges and that all FOD is removed from pavement.



LOCHNER

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P 816.945.5840 | www.hwlochner.com

CITY OF MOBERLY, MISSOURI

OMAR N. BRADLEY AIRPORT (MBY)

MOBERLY, MISSOURI

PROJECT NO.	000012366
DRAWN BY	BRE
CHECKED BY	MJJ
DESIGNED BY	BRE
ISSUE TO BID	05-13-2020

ADDENDUM 1	05-29-2020
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SAFETY DRAWING  
PHASE 1

3



SUMMARY OF QUANTITIES					
ITEM NO.	SPEC	ITEM DESCRIPTION	UNIT	QUANTITY	
				ESTIMATED	AS-CONST.
BASE BID					
Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways					
Construct Parallel Taxiway Extension					
Install New Medium Intensity Runway Lighting (MIRL) System,					
Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,					
and Lighted Holding Position Signs					
1	C-100	Contractor Quality Control Program (CQCP)	L.S.	1	
2	C-102	Erosion Control Barrier (Silt Fence)	L.F.	1,020	
3	C-102	Erosion Control Barrier (Straw Wattle)	L.F.	1,410	
4	C-105	Mobilization (NTE 10% of Total Bid Amount)	L.S.	1	
5	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASE 1)	L.S.	1	
6	TEMP	Temporary Marking, Traffic Control, Lighting, and Barricades (PHASES 2-3)	L.S.	1	
7	P-101	Saw Cut	L.F.	472	
8	P-101	Remove Existing Concrete Pavement and Aggregate Base	S.Y.	5,565	
9	P-101	Remove Existing Asphalt Pavement and Aggregate Base	S.Y.	59,386	
10	P-101	Remove Existing Drainage Pipes	L.F.	345	
11	P-101	Remove Existing Underdrain System	L.S.	1	
12	P-101	Remove Existing Lighting System, Signs, and NAVAIDS	L.S.	1	
13	P-152	Embankment In Place	C.Y.	62,868	
14	P-152	Unsuitable Subgrade Removal and Replacement	C.Y.	5,000	
15	P-155 P-156 P-157 P-158	Treated Subgrade (12")	S.Y.	54,445	
16	P-207 P-208 P-209 P-219	Aggregate Base Course (6")	S.Y.	54,445	
17	P-501	P.C.C. Pavement (7")	S.Y.	47,885	
18	P-501	P.C.C. Pavement (6")	S.Y.	2,793	
19	P-620	Surface Preparation, Pavement Marking Removal	S.F.	1,084	
20	P-620	Permanent ReflectORIZED Pavement Marking (White) (Solid)	S.F.	14,672	
21	P-620	Permanent ReflectORIZED Pavement Marking (White) (Striated)	S.F.	5,814	
22	P-620	Permanent ReflectORIZED Pavement Marking (Yellow)	S.F.	2,289	
23	P-620	Permanent Non-ReflectORIZED Pavement Marking (Black)	S.F.	9,905	
24	P-620	Temporary Non-ReflectORIZED Pavement Marking (White) (Solid)	S.F.	14,672	
25	P-620	Temporary Non-ReflectORIZED Pavement Marking (White) (Striated)	S.F.	5,814	
26	P-620	Temporary Non-ReflectORIZED Pavement Marking (Yellow)	S.F.	2,289	
27	P-621	Saw-Cut Grooving	S.Y.	30,556	
28	D-701	15" Drainage Pipe	L.F.	115	
29	D-701	18" Drainage Pipe	L.F.	132	
30	D-701	24" Drainage Pipe	L.F.	867	
31	D-701	15" RCP End Section	Ea.	2	
32	D-701	18" RCP End Section	Ea.	2	
33	D-701	24" RCP End Section	Ea.	8	
34	D-705	Perforated Underdrain (4")	L.F.	11,858	

EARTHWORK				
AREA	ON-SITE EXCAVATION CU. YDS. <sup>(1)</sup>		COMPACTED EMBANKMENT CU. YDS. <sup>(2)</sup>	
	UNCLASSIFIED EXCAVATION	REVISED	COMMON	REVISED
Project Grading Limits	9,388		62,868	
Borrow Excavation (Obtained on Site)	53,480		0	
Total	62,868		62,868	

1. The quantities for Unclassified Excavation were calculated based on the volume of material required between the existing surface with pavement and base removed and proposed datum surfaces.
2. No shrinkage allowance is included in this quantity.

**NOTE:**  
All light fixture quantities (Contract Items No. 62 through No. 67) represent the proposed light locations as shown on the Plans.

Contract Items No. 74 through No. 79 account for the 10% of additional spares for each respective type of light. These additional light fixtures, transformers, and cover plates (if applicable) are to be provided to the Owner.

SUMMARY OF QUANTITIES					
ITEM NO.	SPEC	ITEM DESCRIPTION	UNIT	QUANTITY	
				ESTIMATED	AS-CONST.
35	D-705	Non-Perforated Outlet Pipe (4")	L.F.	720	
36	D-705	Non-Perforated Outlet Pipe (4") (Sch. 80)	L.F.	405	
37	D-705	Underdrain Cleanout Riser	Ea.	38	
38	D-705	Splash Pad	Ea.	13	
39	TREC	Erosion Control Blanket, Type 2C	S.Y.	32,218	
40	PTM	Permanent Transition Mat	S.F.	384	
41	T-901	Permanent Seeding	Ac.	28.7	
42	T-901	Temporary Seeding	Ac.	28.7	
43	T-905	Placement of Topsoil (Obtained on Site)	L.S.	1	
44	T-908	Hydro-Mulch	Ac.	27.1	
45	L-108	Trenching for Direct Buried Cable	L.F.	2,000	
46	L-108	Direct Buried Underground Cable (1/c, #8 AWG, 5 kV, L-824C)	L.F.	4,000	
47	L-108	Install Cable in Duct (1/c, #8 AWG, 5 kV, L-824C)	L.F.	18,500	
48	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C)	L.F.	5,000	
49	L-108	Install Cable in Duct (1/c, #8 AWG, 600V, L-824C Ground)	L.F.	2,500	
50	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C)	L.F.	9,200	
51	L-108	Install Cable in Duct (1/c, #4 AWG, 600V, L-824C Ground)	L.F.	4,600	
52	L-108	Bare Counterpoise Wire (#6 AWG)	L.F.	16,200	
53	L-109	Furnish and Install 7.5 kW Constant Current Regulator	Ea.	1	
54	L-109	Controls and Vault Modifications	L.S.	1	
55	L-110	1" Electrical Duct and Trench	L.F.	17,000	
56	L-110	1-2" PVC, Schedule 40, Concrete Encased Electrical Duct	L.F.	212	
57	L-110	2-2" PVC, Schedule 40, Concrete Encased Electrical Duct	L.F.	250	
58	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	L.F.	170	
59	L-115	L-867 Junction Box	Ea.	20	
60	L-125	Retroreflective Markers	Ea.	16	
61	L-125	M.I.R.L. (LED), Semiflush Base Mounted (Yellow/Clear Lens) with Arctic Option	Ea.	2	
62	L-125	<b>M.I.R.L. (LED), Base Mounted (Red/Green Lens) with Arctic Option (Revised per Addendum No. 1)</b>	Ea.	<b>16</b>	
63	L-125	<b>M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) with Arctic Option (Revised per Addendum No. 1)</b>	Ea.	<b>38</b>	
64	L-125	<b>M.I.R.L. (LED), Base Mounted (Clear/Clear Lens) with Arctic Option (Revised per Addendum No. 1)</b>	Ea.	<b>10</b>	
65	L-125	<b>M.I.T.L. (LED), Base Mounted (Blue Lens) with Arctic Option (Revised per Addendum No. 1)</b>	Ea.	<b>22</b>	
66	L-125	<b>M.I.R.L. (LED), Base Mounted (Yellow/Clear Lens) (Revised per Addendum No. 1)</b>	Ea.	<b>4</b>	
67	L-125	<b>M.I.T.L. (LED), Stake Mounted (Blue Lens) (Revised per Addendum No. 1)</b>	Ea.	<b>31</b>	
68	L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	Ea.	2	
69	L-125	New 2 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	Ea.	1	
70	L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2) and Foundation	Ea.	4	
71	L-125	New 4 Module (LED) Lighted L-858Y Sign (Size 1, Style 2) and Foundation	Ea.	1	
72	L-125	Install L-880(L) 4-Box PAPI System (Owner Furnished)	Ea.	2	
73	L-125	Furnish and Install L-849(L) REIL System	Ea.	2	
74	L-125	<b>Furnish M.I.R.L. (LED), (Red/Green Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</b>	Ea.	<b>2</b>	
75	L-125	<b>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</b>	Ea.	<b>4</b>	
76	L-125	<b>Furnish M.I.R.L. (LED), (Clear/Clear Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</b>	Ea.	<b>1</b>	
77	L-125	<b>Furnish M.I.T.L. (LED), (Blue Lens) With Arctic Option for Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</b>	Ea.	<b>2</b>	
78	L-125	<b>Furnish M.I.R.L. (LED), (Yellow/Clear Lens) For Base Mounted Connection (Fixture, Transformer, and Cover Plate) (Added per Addendum No. 1)</b>	Ea.	<b>1</b>	
79	L-125	<b>Furnish M.I.T.L. (LED), (Blue Lens) For Stake Mounted Connection (Fixture and Transformer) (Added per Addendum No. 1)</b>	Ea.	<b>3</b>	

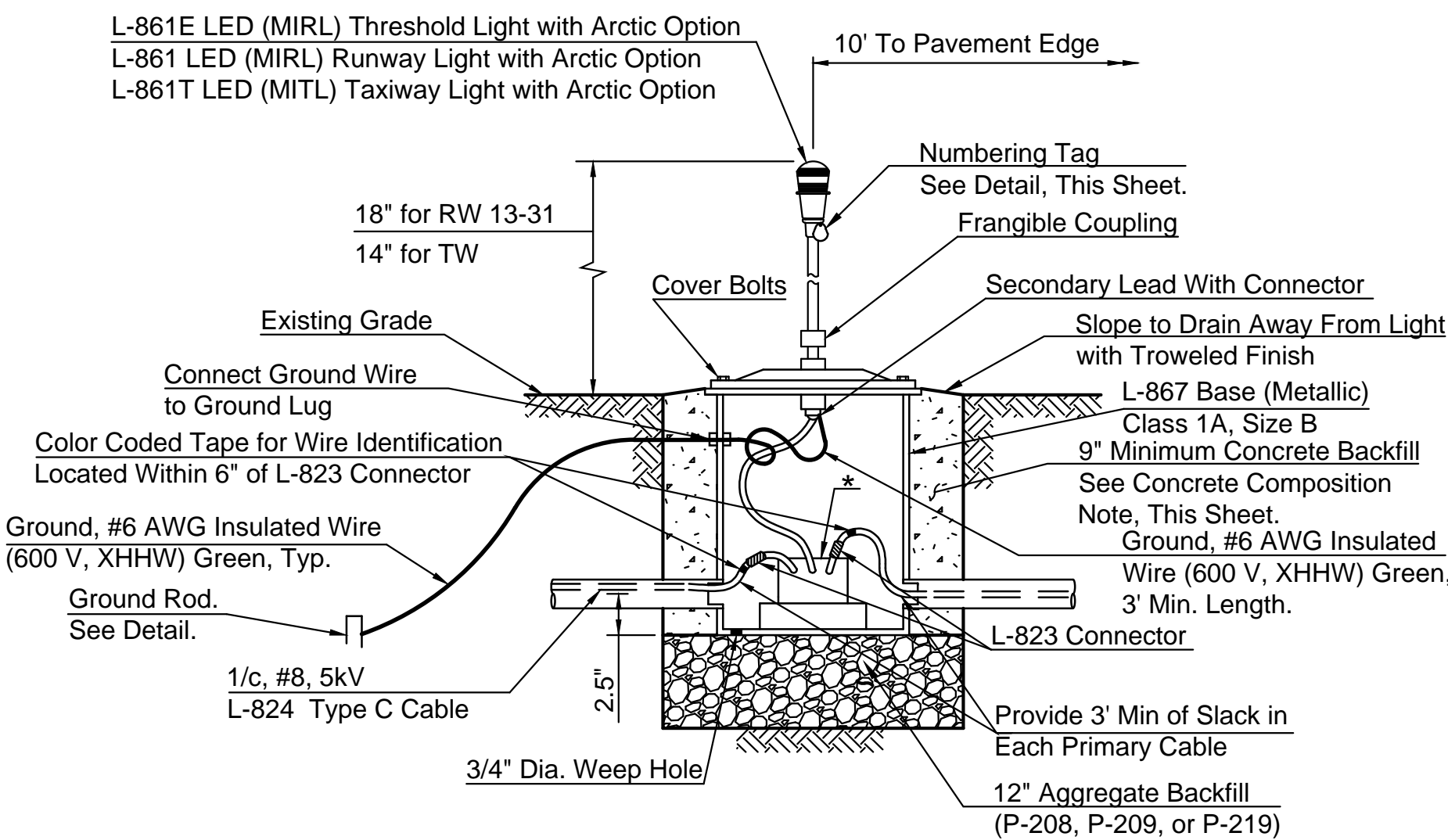


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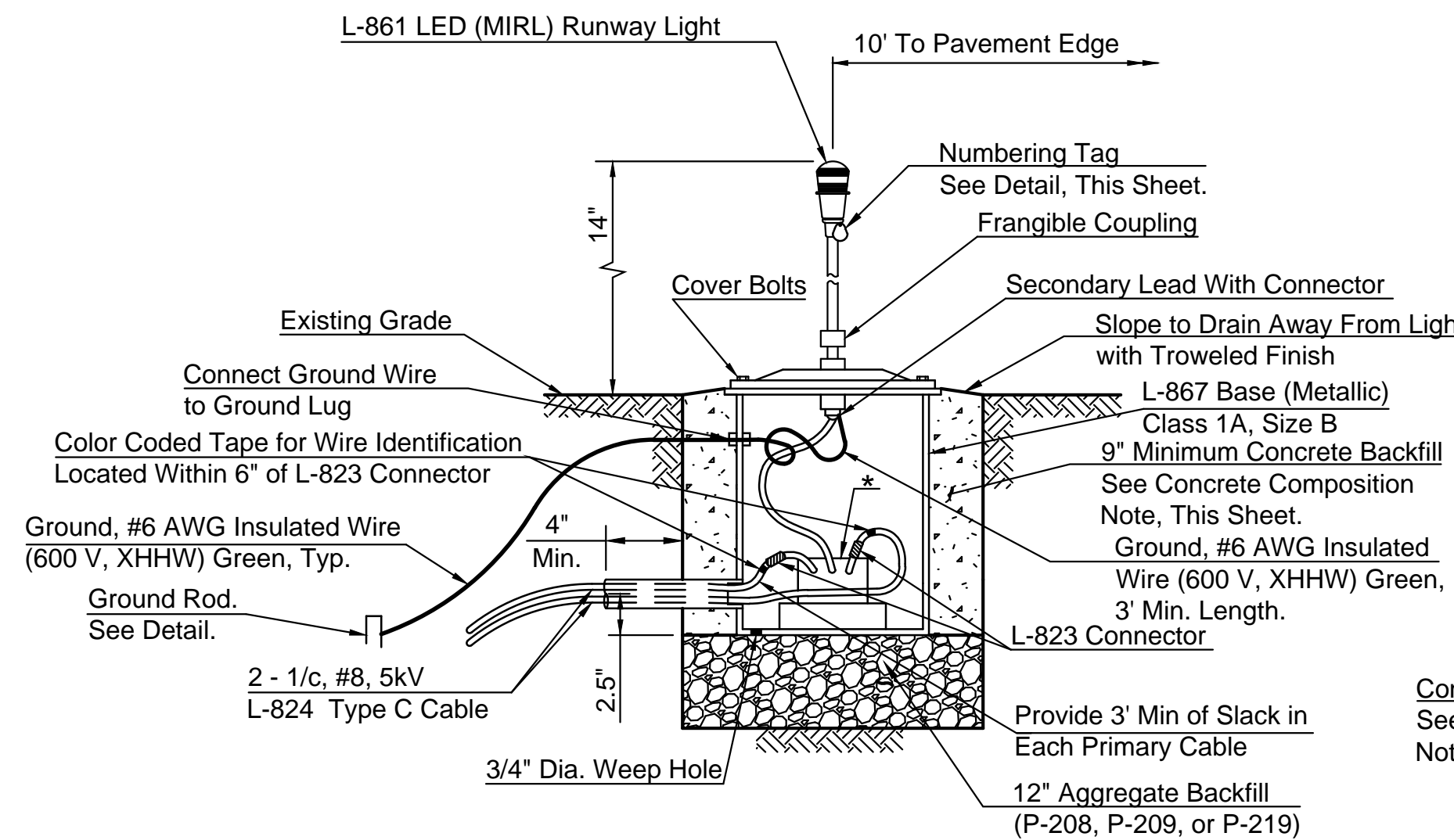
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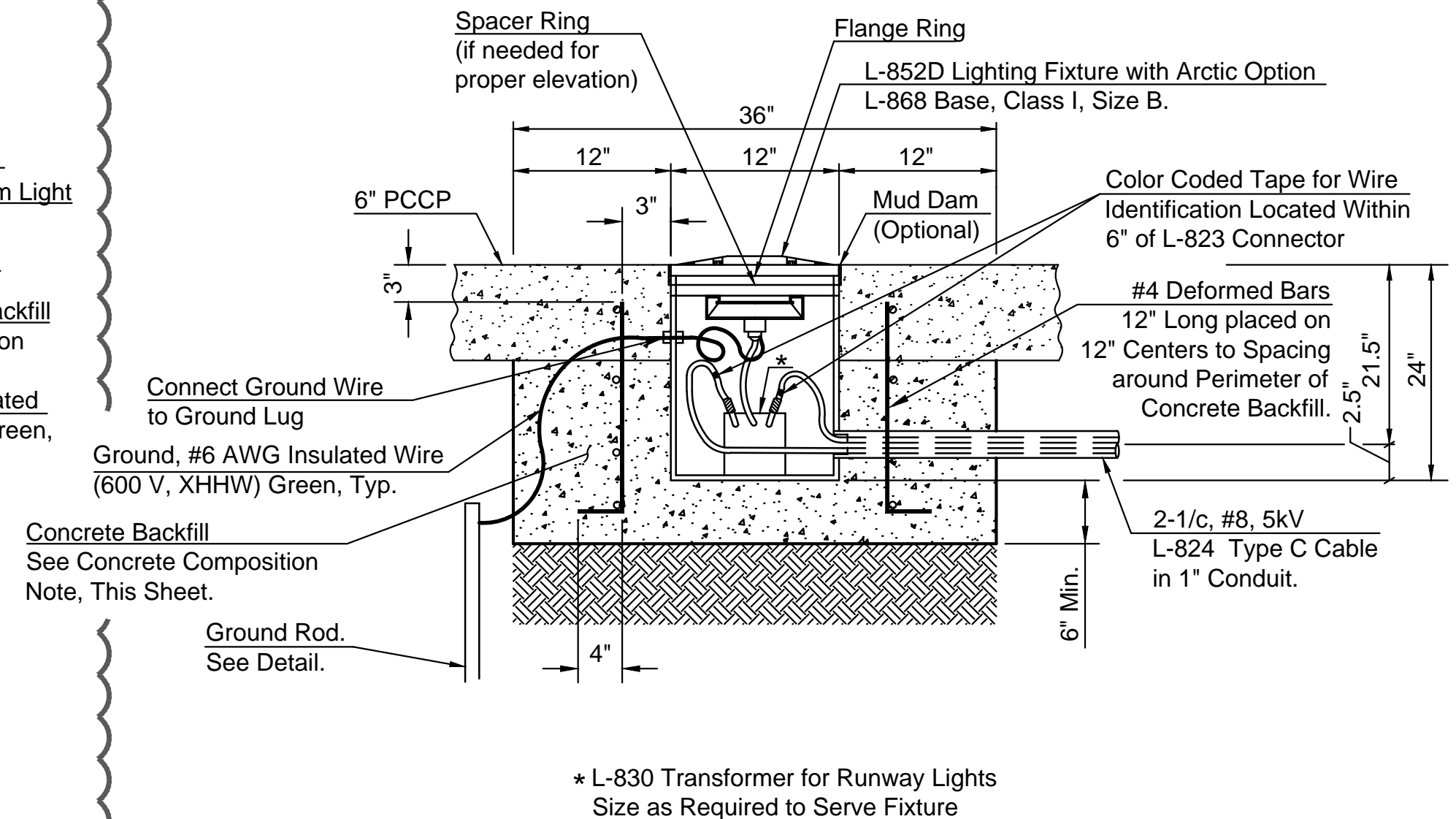
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**RUNWAY 13-31 L-861 & L-861E LED (MIRL) EDGE LIGHTS**  
**TAXIWAY L-861T LED (MITL) EDGE LIGHTS**  
**BASE MOUNTED**  
No Scale

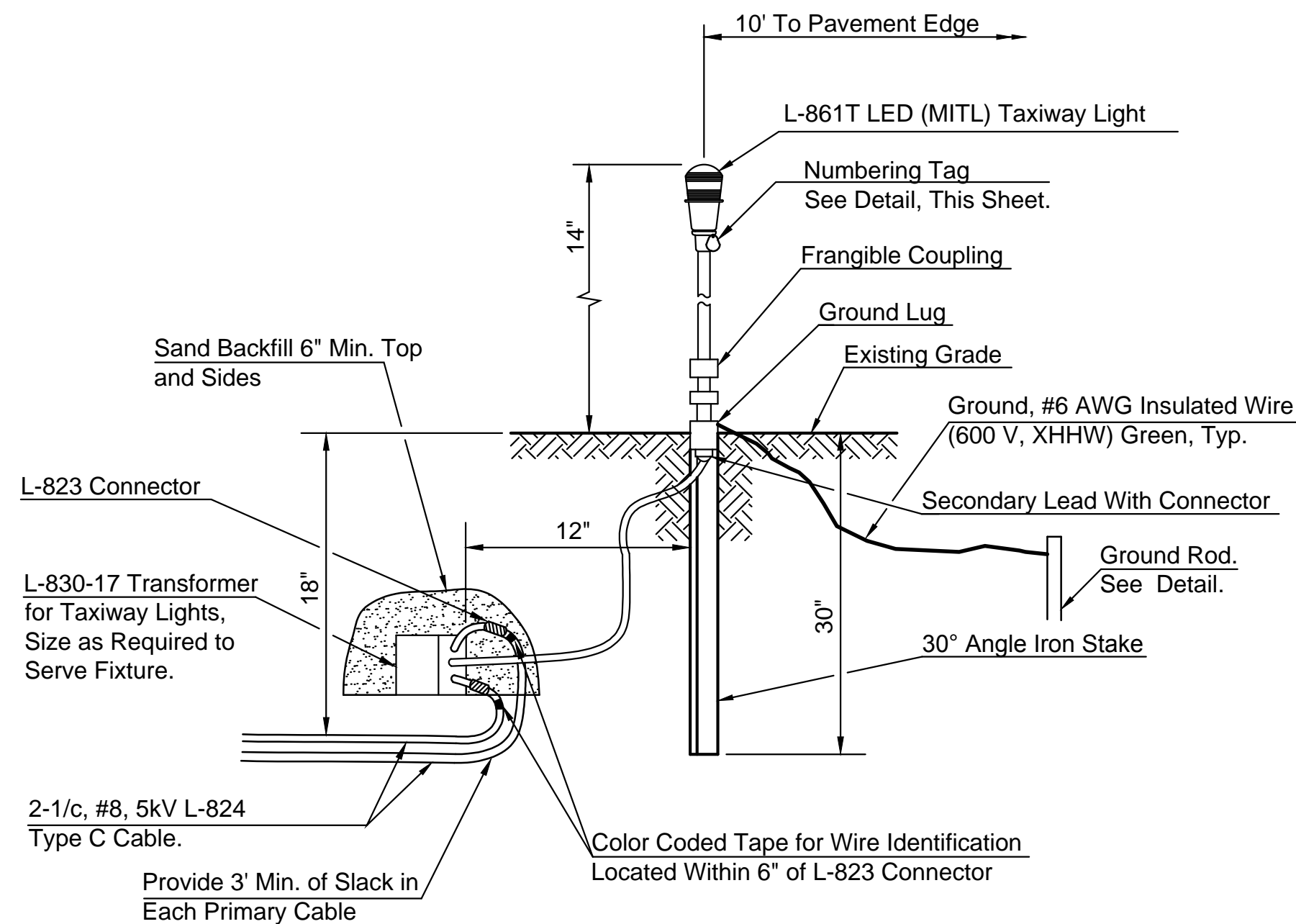


**RUNWAY 5-23 L-861 LED (MIRL) EDGE LIGHTS**  
**BASE MOUNTED**  
No Scale

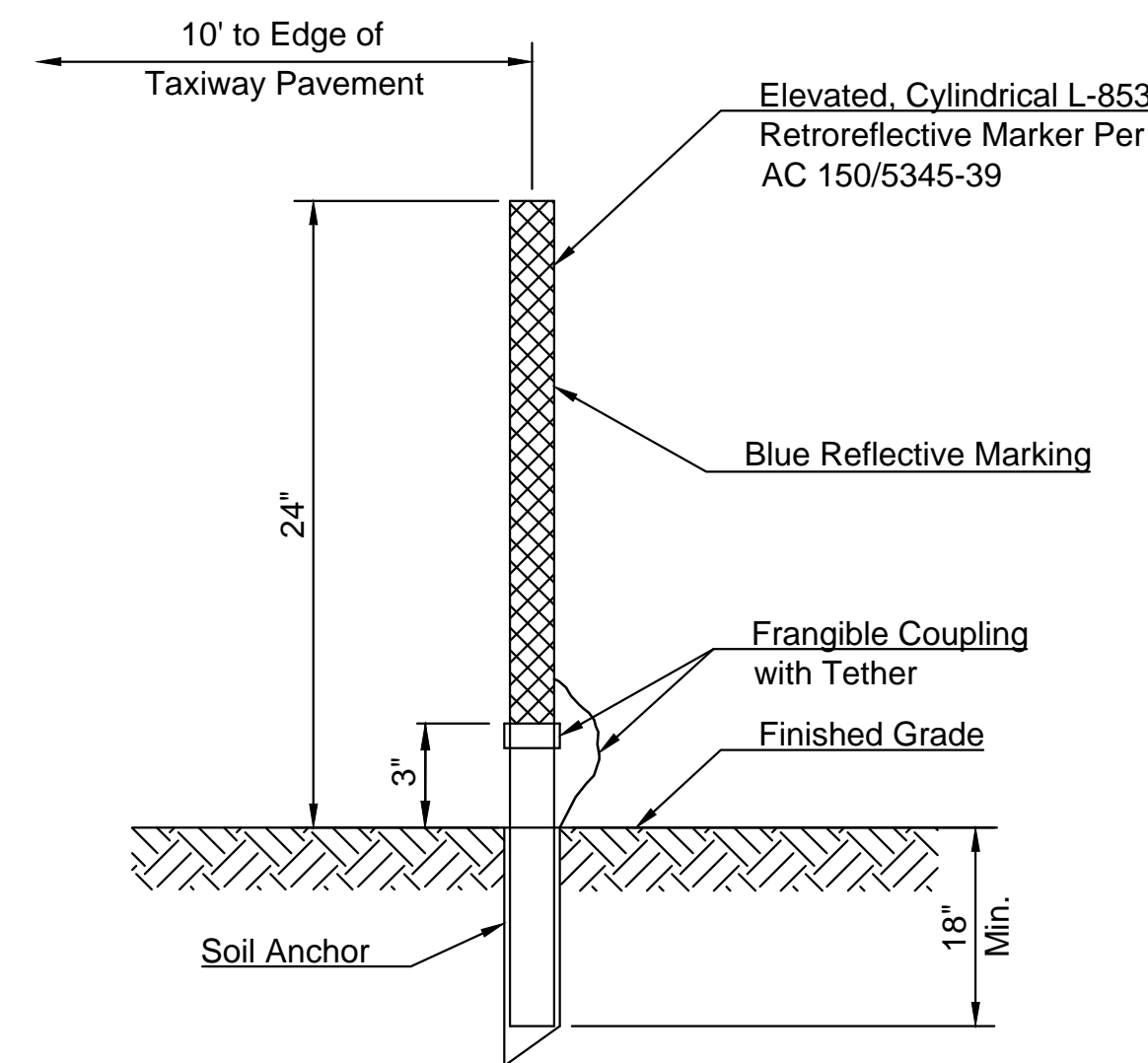


**RUNWAY 13-31 L-852D (LED) SEMIFLUSH**  
**IN-PAVEMENT BASE MOUNTED RUNWAY EDGE LIGHT**  
No Scale

**Concrete Composition** The concrete shall develop a compressive strength of 3,000 psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cement per cubic yard. The concrete shall contain 5% of entrained air,  $\pm 1\%$ , as determined by ASTM C231 and shall have a slump of not more than 4 inches as determined by ASTM C143.



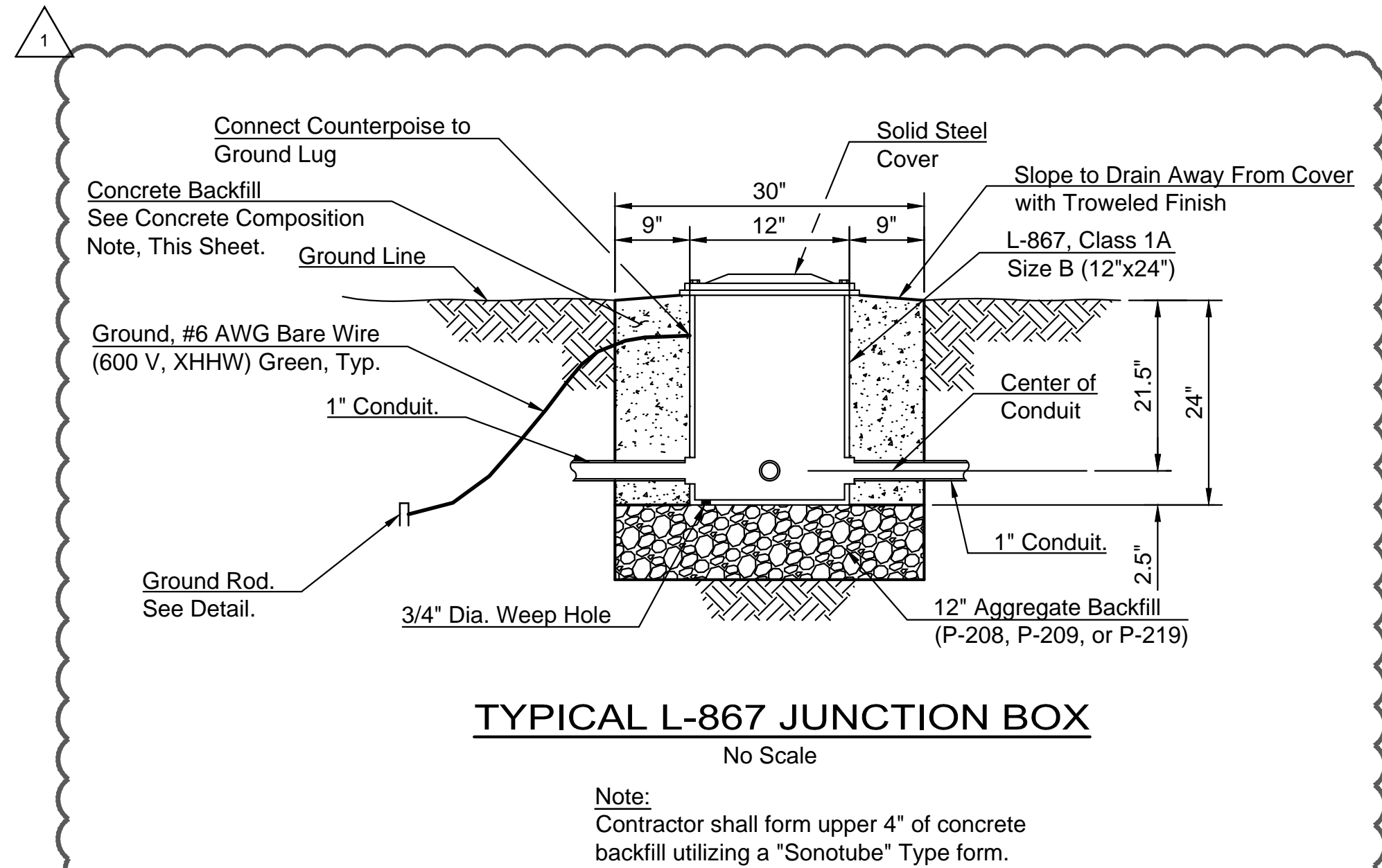
**TAXIWAY L-861T LED (MITL) EDGE LIGHT**  
**STAKE MOUNTED**  
No Scale



**SOIL MOUNTED RETROREFLECTIVE**  
**MARKER DETAIL**  
No Scale

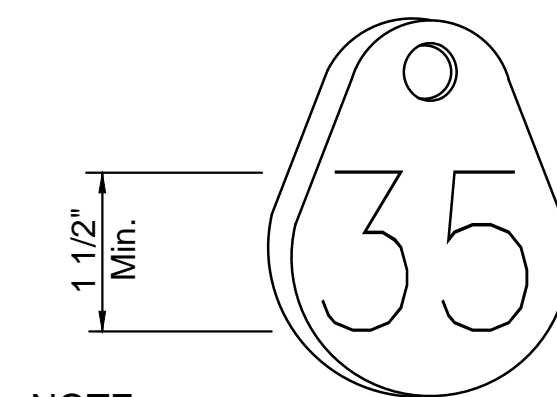
**NOTES:**

- The Retroreflective Marker Shall be Flexible or Mounted with a Frangible Fitting with a Breakaway Point of No More than 3 Inches Above Grade.
- If a Flexible Marker is Used the Blue Reflective Marking Must Extend to at Least 2 Inches Above Grade.



**TYPICAL L-867 JUNCTION BOX**  
No Scale

**Note:**  
Contractor shall form upper 4" of concrete backfill utilizing a "Sonotube" Type form.



**NOTE:**

Affix non-corrosive tag to fixture facing runway with set screw, wire tie, or metal band. Numerals shall be engraved for permanent readability. Contractor to coordinate with airport manager on numbering scheme.

**TAG DETAIL**  
No Scale



**LOCHNER**

16105 W. 113th Street | Suite 107 | Lenexa, Kansas 66219  
P 816.945.5840 | www.hwlochner.com

CITY OF MOBERLY, MISSOURI

OMAR N. BRADLEY AIRPORT (MBY)

MOBERLY, MISSOURI

PROJECT NO.	000012366
DRAWN BY	BRE
CHECKED BY	RMD
DESIGNED BY	BRE
ISSUE TO BID	05-13-2020

ADDENDUM 1	06-01-2020

ELECTRICAL  
DETAILS

56

# **OMAR N. BRADLEY AIRPORT (MBY) CITY OF MOBERLY, MISSOURI**

**Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways  
Construct Parallel Taxiway Extension  
Install New Medium Intensity Runway Lighting (MIRL) System,  
Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,  
and Lighted Holding Position Signs**

**MoDOT PROJECT NO. 19-034A-1  
LOCHNER JOB NO. 000012366**

## **PRE-BID VIDEO CONFERENCE MINUTES Wednesday, May 27<sup>th</sup>, 2020 at 1:30 P.M. (CDT)**

### **I. Introduction of Attendees:**

(Attendees list attached to these minutes for references)

### **II. Bidding Process:**

#### **A. Time and Location:**

1. Proposals will be received until **11:00 A.M. (CDT), Tuesday June 9<sup>th</sup>, 2020** at:

**City Hall  
101 W. Reed Street  
Moberly, MO 65270**

and then publicly opened and read at **11:15 A.M. (CDT), Tuesday, June 9<sup>th</sup>, 2020** at:

**City of Moberly Municipal Building  
204 N. Clark Street  
Moberly, MO 65270**

Bids received after this time will not be considered.

2. Bids may be held by the City of Moberly for a period not to exceed one hundred twenty (120) calendar days from the date of the bid opening. **Award of contract is contingent upon the City receiving Federal funding assistance from the Federal Aviation Administration (FAA) and Missouri Department of Transportation (MoDOT).**
3. The intentions are to execute contracts after receiving concurrence in award from the FAA. The anticipated Notice-to-Proceed (NTP) date for Phase 1 is October 2020. The anticipated NTP for Phases 2 and 3 is March 2021.
4. Envelopes containing bids must be sealed and addressed as shown on Page 2-1 in the Instructions To Bidders of the Contract Documents/Specifications.

B. Contract Provisions:

1. Mandatory contract provisions are identified in Section 3 and Section 4 of the Contract Documents.
2. The DBE goal for this project, as described on Page 1-4 and 1-5, is to subcontract 8.00% of the dollar value of the prime contract to DBEs. It is the responsibility of the Contractor to meet this 8.00% goal. **If the DBE goal is not met, there needs to be substantial documentation of good faith effort (as described on Pages 4-25 through 4-26) in attempts to attain the DBE goal.** The DBE Form is located within the Official Bid Form.
3. Sixty percent (60%) of the cost of materials or supplies purchased from a DBE regular dealer may be counted. If the materials or supplies are obtained from a DBE manufacturer, 100% of the cost may be counted toward the goal.
4. This contract is subject to the “Buy American Preferences” of the Aviation Safety and Capacity Act of 1990. Prospective Bidders are required to certify that steel and manufactured products have been produced in the United States per the certification included in the Proposal Section on Pages PF-9 through PF-10.
5. The Contractor and all Subcontractors will be required to pay minimum wage rates as established by the United States Department of Labor and Missouri Division of Labor Standards. Minimum wage requirements are identified on the current wage rates included at the end of Section 4. If there is a discrepancy between the two published wage rates, the higher of the two will be used as the requirement.
6. Proposers shall provide a statement of qualifications with their proposal of past similar work, a financial statement, and a statement of plant and equipment proposed for use on the project. In lieu of the financial statement, Contractors may provide evidence that they are pre-qualified with MoDOT for similar work and are on the current MoDOT bidders list.
7. The Contractor and his/her Subcontractors will be required to provide certificates of insurance for at least the minimum amounts specified in Section 4: Supplementary Provisions, Part C: Local Provisions.
8. As part of your proposal, you are required to complete the Worker Eligibility Verification Affidavit on Page PF-12. Note also that you are required to submit with your proposal a completed copy of the first page and a valid copy of the signature page of your E-Verify Memorandum of Understanding.
9. The Contractor is required to provide a 10-hour OSHA construction safety program for all employees who will be on-site at the Project as provided on Page 4-19 through 4-20.
10. Prior to procurement and upon the successful bidder’s request, the City of Moberly will provide the successful bidder a state tax exempt certification.
11. Per Section 80-01 Subletting of Contract of the General Provisions, the Prime Contractor shall perform, with their organization, an amount of work equal to at least 25% of the total contract cost.

C. Contract Proposal Forms:

1. Proposals must be submitted on the “OFFICIAL BID FORM” provided by Drexel Technologies for the submittal of bid.



2. When completing the Proposal Form, the unit price needs to be written in numerical form in the column under the header "Unit Price" and the extension (quantity x unit price) needs to be written in numerical form. All bidders submitting proposals must acknowledge receipt of all addendums issued in the space provided in the Proposal on Page PF-5. Page PF-14 needs to be completed and signed. If for some reason any of the pages of the Proposal Form are changed by addendum, the entire OFFICIAL BID FORM will be re-issued.
3. The bidder shall submit all required DBE information, as contained on the DBE form located on Page PF-13 of the Proposal Form with their bid.
4. A Bid Bond guarantee will be required with each bid as a certified check or a bid bond in the amount of five (5) percent of the total amount of the bid, made payable to the City of Moberly. Include the Bid Bond with your Proposal Form in the sealed envelope.
5. The successful bidder will be required to execute the Contract Agreement, the Performance Bond and the Payment Bond. The bonds will be in the amount of 100% of the contract price.

### III. Project Description:

The project consists of:

- **Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways**
  - **Construct Parallel Taxiway Extension**
  - **Install New Medium Intensity Runway Lighting (MIRL) System**
  - **Runway 13-31 4-Box PAPI Systems**
  - **Runway 13-31 REIL Systems**
  - **Install Lighted Holding Position Signs**
- A. The total contract period for construction is two hundred thirty (230) calendar days. Thirty (30) calendar days for Phase 1; one hundred ninety-eight (198) calendar days for Phase 2A; sixty (60) calendar days for Phase 2B (concurrent with Phase 2A at the Contractor's discretion); and two (2) calendar days for Phase 3. Shifting of contract time between phases will not be permitted. Liquidated damages are set at \$1,500.00 per calendar day for the Total Project. Delays due to weather and other factors out of the control of the Contractor **that are above and beyond a typical season** may be requested in writing as a reason for contract period extension. The request should be made as soon as the Contractor is aware of an issue with the construction period. The Contractor shall also make every attempt to make up any lost days by working extended periods during the day and/or weekends.
  - B. Lochner will provide Construction Observation and acceptance testing throughout the project. The Contractor shall provide Quality Control Measures as outlined in Specification C-100, Contractor Quality Control Program (CQCP). The requirements to be addressed in the CQCP program are listed in section 100-2.b on Page 5-2.
  - C. All bidders should carefully review the Construction Safety and Phasing Plan (CSPP) in the Appendix Book 2 of the project manual. **The Contractor shall submit a Safety Plan Compliance Document (SPCD) detailing how they will comply with the Construction Safety and Phasing Plan. This SPCD must be approved by the Engineer prior to the issuance of the notice to proceed.**
  - D. This project has been structured into three (3) phases. It is the intention to complete Phase 1 of this project in the Fall of 2020, contingent on receipt of grant funding and execution of the construction contract. Approximately 9,500 CY of embankment is estimated to be required for grading of the parallel taxiway extension and new connecting taxiway. This amount does not include any adjustment for shrink/swell, nor does it include the grading for the construction of the runway safety area extension. If the Contractor is not able to begin Phase 1 in 2020, then the project will begin with Phase 2 in the Spring of 2021, and the calendar days allotted for Phase 1 will not be utilized.

- E. Contractor's access roads, haul roads, and staging areas are shown on Plan sheets 3 through 5. The Contractor is responsible for restoring any access roads, haul roads, and staging areas to their original, pre-construction condition at no additional cost to the Owner.
- F. Closed Runway and Taxiway Markings and Low Profile Barricades shall be placed as shown on Safety Plan Sheets 3 through 5, prior to the start of any work. For Phase 1, the Contractor shall carefully review the requirements of removing existing pavement markings and applying temporary pavement markings and installing temporary runway lighting to denote the displaced threshold for Runway 31.
- G. All work and materials associated with following the Phase 1 CSPP requirements will be paid for under the Contract Bid Item "Temporary Marking, Traffic Control, Lighting, and Barricades (PHASE 1)". All work and materials associated with following the Phase 2 and Phase 3 CSPP requirements will be paid for under the Contract Bid Item "Temporary Marking, Traffic Control, Lighting, and Barricades (PHASES 2-3)".
- H. Extreme caution shall be used when working near underground electrical cable and other utilities. The Contractor shall notify Missouri One Call, (1-800-344-7483) a minimum of 48 hours prior to any construction activities to allow sufficient time to locate and mark any existing field cables or utility which might be affected by this project. Should damage occur to any of these items, they will be replaced immediately at the Contractor's expense to the satisfaction of the Engineer.

#### **IV. Demolition:**

- A. The existing asphalt runway pavement section is noted and detailed on the Boring Log located on Plan Sheet 9 of the Plans, as well as in the Appendix Book 2 section of the Project Manual.
- B. The Contractor has the option of utilizing the existing asphalt pavement and underlying aggregate base course as the proposed Runway 13-31 base course in accordance with Specification Item P-207 "In-Place Full Depth Reclamation (FDR) Recycled Asphalt Aggregate Base Course". This material was tested in the laboratory during the design phase and determined to be in compliance with the material specification requirements.
- C. All demolition and unused waste material, including any excess unused asphalt pavement and underlying aggregate base course, resulting from this project shall be disposed of off Airport property per General Note 6 on Sheet 2 of the Plans.
- D. The Contractor shall be cautious of the existing buried telephone line that is to remain. The telephone line, with caution notes, is located throughout the Plan Sheets.

#### **V. Grading and Paving Construction:**

- A. The Contractor is responsible for implementation of the Stormwater Pollution Prevention Plan (SWPPP) contained in the Appendix Book 2 of the Project Manual. Sheets 34 through 41 of the Plans show the erosion control measures necessary for the Project.
- B. Available south and north stockpile locations and south borrow area location are shown on Plan Sheet 2 and a typical section for borrow excavation is included on Plan sheet 41. The Contractor is responsible for determining the amount of available stockpiled material.
- C. Proposed typical pavement section for Runway 13-31 and Taxiways A, B, C, and D consists of:
  - PCC Pavement (7") (P-501)
  - Aggregate Base Course (6") (P-207, P-208, P-209 or P-219)
  - Treated Subgrade (12") (P-155, P-156, P-157, or P-158)

D. Proposed typical pavement section for Runway 5-23 consists of:

- PCC Pavement (6") (P-501)
- Aggregate Base Course (6") (P-207, P-208, P-209 or P-219)
- Treated Subgrade (12") (P-155, P-156, P-157, or P-158)

- E. The rate of application, listed in each respective spec's section, for Lime (P-155), Cement (P-156), Cement or Lime Kiln Dust (LKD) (P-157), or Fly Ash (P-158) are the suggested values. The Contractor shall apply a sufficient amount of material to lower the Plasticity Index to less than or equal to 20 and increase the CBR to greater than or equal to 10.
- F. The Contractor shall apply a sufficient amount of stabilizing agent to the mixture of asphalt millings and aggregate base course materials as specified in Item P-207 In-Place Full Depth Reclamation (FDR) Recycled Asphalt Aggregate Base Course, in order to achieve a minimum CBR value of 10. During the design phase, laboratory tests were completed at a 50/50 blend of millings and base course with 2% cement and 10% fly ash and CBR values of 67 and 26 were achieved. Reference the Geotechnical Report in the Appendix Book 2 for details and results.
- G. The main runway pavement shall be constructed with the use of acceptable slip form paving equipment. The main taxiway pavement shall be constructed with the use of acceptable slip form or side form paving equipment. Odd shaped irregular sections of pavement shall be considered hand pours and constructed with the use of side forms. The maximum cubic yard requirement allowing the use of fixed-forms is 5,000 cubic yards.
- H. Hard rock coarse aggregates shall be utilized for the concrete pavement as defined in Section 501-2.1c. of the specifications.
- I. If GPS controlled equipment is used to construct the subgrade, Contractor shall have the area surveyed and approved by the Engineer prior to placement of subbase course.
- J. The ¼" chamfer as shown on the Pavement Joint Details (Sheet 46) shall be constructed in order to protect the pavement joint during snow removal operations.
- K. Concrete incentive pay is available for this project based on strength and thickness up to 106% of each lot. This may be used to off-set lots requiring less than 100% pay for strength and thickness. However, the total product of the contract unit price and the total number of square yards of concrete shall not exceed **100% pay**. Payment in excess of 100% based on strength and thickness may not be used to offset reduction in payment due to smoothness.
- L. Access to water sources and rates shall be coordinated with the City of Moberly Utilities Department. The City of Moberly will provide a meter to the Contractor.
- M. Where the Contractor is utilizing the borrow area, as shown on Plan Sheets 40 and 41, Type 2C erosion control blanket shall be utilized along the newly created bottom of the ditch and south ditch backslope. All other disturbed areas within the borrow area shall be subject to Topsoiling only per specification Items P-152 and T-905 (i.e. no mulch since this is farm ground). Topsoil within the borrow area shall be spread to a minimum depth of 8". Seeding shall be completed per specification Item T-901 at locations as shown on the Plans.
- N. Type 2C erosion control blanket to be utilized adjacent to proposed pavement for a width of 12 feet and in the proposed ditch as shown on the Grading Plans in lieu of mulch material.

## VI. Pavement Marking Application:

- A. As noted on Plan Sheet 5, a separate pavement marking mobilization is required for Phase 3. The Contractor shall plan for the additional need for temporary marking, lighting, and barricade materials to complete Phase 3.



## **VII. Electrical Construction:**

- A. The Contractor shall have the option of installing the electrical counterpoise system by the Equipotential Method (in the same trench as the conduit) or the Isolation Method (in a separate trench from the conduit). If installed in the same trench as the conduit, the counterpoise wire shall be connected to the ground lug of each light base and ground rods installed at intervals not to exceed 500 feet. If the counterpoise is installed in a separate trench, with ground rods installed at intervals not to exceed 500 feet, then a ground rod shall also be installed at each light base.
- B. The new 4-Box LED PAPI systems will be purchased by the City of Moberly and provided to the Contractor to install. Installation of the 4-Box PAPI system for each end of the runway is encompassed into one pay item.
- C. Furnishing and installation of the REIL system for each end of the runway is encompassed into one pay item.
- D. The Contractor shall have a representative on site during the FAA flight check for the new PAPI and REIL systems.

## **VIII. Additional Notes:**

- A. Specification C-105, Mobilization, limits the mobilization value to 10% of the total original project bid amount.
- B. During construction, the first pay estimate shall be processed when necessary. All subsequent pay estimates will only be processed once the prime contractor has submitted lien releases from their subcontractors.
- C. A contractor furnished Engineer's Field Office is required.

## **IX. Proposed Addendum Items:**

- A. The construction work to be completed during Phase 1 will be revised to include the Runway Safety Area (RSA) grading and compaction up to Station 30+00.
- B. Installation of conduit by the plowing method will be added to Item L-110, Airport Underground Electrical Duct Banks and Conduits of the specifications.
- C. The FAA allows for 10% additional proposed lights on projects of this size to account for spare parts that may be needed for damaged lights. Lochner inadvertently added the 10% of spare lights to each respective light's quantity. The correct way to show this is to have a separate pay item for spare lights of each kind. To address this issue, Lochner will reduce the amount of runway and taxiway lights (Red / Green, Yellow / Clear, Clear / Clear, and Blue Lens) to the amount shown on the Electrical Plan Sheets. Four (4) new pay items will be added to the project, with each new pay item accounting for the additional spare lights and transformers for that respective type of light fixture.
- D. Bids will be received until 11:00 A.M. (CDT), Tuesday, June 9, 2020 at the City of Moberly City Hall, 101 W. Reed Street, Moberly, MO 65270. Shortly thereafter, bids will be publicly opened and read at 11:15 A.M. (CDT), Tuesday, June 9, 2020 at the City of Moberly Municipal Building 204 N. Clark Street, Moberly, MO 65270. The Municipal Building is located directly west of City Hall.

## **X. Optional Site Visit for Attendees.**

- A. Omar N. Bradley Airport will provide a tour to any Contractor wanting to make a site visit at 2:00 P.M. (CDT), Thursday, May 28<sup>th</sup>, 2020. Contractors that would like to attend the tour need to meet at the airport in the terminal building parking lot prior to the scheduled time. Questions related to the Plans or specifications for this project shall not be addressed to the City/Airport during the tour, and instead, shall be directed to the Engineer via email or phone call.

## **XI. Open Discussion.**

- A. The DBE goal for this project is 8%. The EEO goal for minority participation is 4.0% for Randolph County and 6.9% for female participation. These goals apply to the company's entire work force. To clarify, the Prime Contractor for this project shall sublet 8% or more of the total contract to a DBE approved firm. The Prime Contractor shall have at least 4.0% of their entire work force comprised of minorities and 6.9% of their entire work force comprised of females.
- B. Value engineering or cost reduction incentives will not be used on this project, as stated in the General Provisions, Section 50-17, Cost Reduction Incentive.
- C. Electronic files will not be distributed to prospective bidders. Only after the project has been awarded to the successful bidder will the electronic files be provided for their use during construction.
- D. The last date for questions regarding this project is Thursday, June 4, 2020. Otherwise, the project shall be bid as shown. Minor clarifications may be requested up to the bid opening.
- E. The estimated construction cost range for this project is \$4.5M-5.5M.

# OMAR N. BRADLEY AIRPORT (MBY) CITY OF MOBERLY, MISSOURI

Reconstruct Runway 13-31 (5,000' x 75') and Connecting Taxiways  
Construct Parallel Taxiway Extension  
Install New Medium Intensity Runway Lighting (MIRL) System,  
Runway 13-31 4-Box PAPI Systems, Runway 13-31 REIL Systems,  
and Lighted Holding Position Signs

MoDOT PROJECT NO. 19-034A-1  
LOCHNER JOB NO. 000012366

## ATTENDEES LIST FOR PRE-BID VIDEO CONFERENCE

Wednesday, May 27<sup>th</sup>, 2020 at 1:30 P.M. (CDT)

<u>NAME</u>	<u>REPRESENTING</u>	<u>PHONE</u>	<u>EMAIL</u>
<u>Matt Jacobs</u>	<u>Lochner</u>	<u>816.945.5840</u>	<u>mjacobs@hwlochner.com</u>
<u>Ian Wright</u>	<u>Lochner</u>	<u>816.945.5840</u>	<u>iwright@hwlochner.com</u>
<u>Chris Flageolle</u>	<u>Lochner</u>	<u>816.945.5840</u>	<u>cflageolle@hwlochner.com</u>
<u>Andrew Light</u>	<u>Contech, Inc.</u>	<u>918.259.1177</u>	<u>alight@contechinc.net</u>
<u>Chris Yarnell</u>	<u>Engineering Surveys &amp; Services</u>	<u>573.636.3303</u>	<u>cyarnell@ess-inc.com</u>
<u>Cody Phillips</u>	<u>Ideker, Inc.</u>	<u>816.364.3970</u>	<u>cody@ideker.net</u>
<u>Darren Woods</u>	<u>Emery Sapp &amp; Sons</u>	<u>573.445.8331</u>	<u>darren.woods@emerysapp.com</u>
<u>Thomas Breyfogle</u>	<u>Koss Construction</u>	<u>785.862.0511</u>	<u>tab@kossconstruction.com</u>
<u>Phil Raines</u>	<u>Phillips Hardy</u>	<u>573.447.8070 Ext. 2203</u>	<u>praines@phillipshardy.com</u>

<u>NAME</u>	<u>REPRESENTING</u>	<u>PHONE</u>	<u>EMAIL</u>
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<u>Kevin Jones</u>	<u>Capital Paving</u>	<u>573.635.6229</u>	<u>kjones@capitalpavingmo.com</u>
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<u>Kyle LePage</u>	<u>MoDOT</u>	<u>573.526.5571</u>	<u>kyle.lepage@modot.mo.gov</u>
<u>Timothy Devaney</u>	<u>McClure Engineering</u>	<u>573.234.2621</u>	<u>tdevaney@mecresults.com</u>
<u>Ryan Porter</u>	<u>Lehman Construction</u>	<u>573.796.8101 Ext. 1</u>	<u>ryan@lehmanconstructionllc.com</u>
<u>Tom Sanders</u>	<u>City of Moberly</u>	<u>660.269.8705</u>	<u>tsanders@cityofmoberly.com</u>
<u>Wayman Spangler</u>	<u>RS Electric Utility Services</u>	<u>800.540.1938</u>	<u>wayman@rselectricutility.com</u>