

**DESIGN PROFESSIONAL SERVICES
AMENDMENT NO. 11**

**PROJECT NO. 62190509 – RECONSTRUCT RUNWAY 1L-19R
KANSAS CITY INTERNATIONAL AIRPORT
FAA AIRPORT IMPROVEMENT PROGRAM (AIP) GRANT NO. 3-29-0040-077**

AVIATION DEPARTMENT

This amendment is between KANSAS CITY, MISSOURI, a constitutionally chartered municipal corporation (City), and HNTB Corporation (Design Professional). The parties amend the Agreement entered into on April 22, 2020 as follows:

A. Part 1, Section 1, Sec. 2, Scope of Services is amended by adding the following new section:

M. Supplemental Apron Lighting and Remain Overnight (RON) Lighting Design - This scope of services is for performing design, and bidding services for supplemental apron lighting around Concourses A & B and for new apron lighting at the north Remain Overnight (RON) area. The design shall be broken into two (2) design packages.

- Supplemental Apron Lighting for Concourses A & B
- New Apron Lighting for North RON Area

The Design Professional shall perform the following:

1. Project Management

- a. Perform internal contract administration and monthly workplan updates.
- b. Coordinate work and design with electrical design manufacturer (Musco) and FAA Airspace.
- c. Conduct bi-weekly internal project team design coordination meetings.
- d. Coordinate project with the KCAD and Airline Representatives and conduct interim design milestone meetings with an assumed maximum 10 meetings.
- e. Coordinate project with additional stakeholders (TSA, Airport Operations, Airport Maintenance, FAA ADO, FAA ATC, etc.), as required.
- f. Develop Project QA plan.

2. Design Phase

Project Kickoff

- a. Conduct remote and in person project kickoff meeting with stakeholders (KCAD, Airline Representatives, etc.).
- b. The kickoff meeting shall address both design packages for “Supplemental Apron Lighting for Concourses A & B” and “New Apron Lighting for North RON Area”.
- c. Conduct internal project QA program training for all project staff.

Field Investigation

- a. Coordinate and conduct a field investigation of existing Concourse A & B apron lighting. Coordination with the KCAD and Airport Operations includes:
 - 1) Investigation of loading on power distribution from lighting distribution panel up to main distribution panel.
 - 2) Select electrical lockout/tagout for existing lighting circuits.
 - 3) Open each lighting controller and determine all apron wire sizes.
 - 4) Field inspection of select apron lighting units.
 - 5) Excluded are Field measurements of the existing high mast light poles (foundations and outer diameter) assuming As-Built information is available.
 - 6) Provide badged escort.
- b. Coordinate field investigation for North RON lighting. Coordination with the KCAD and Airport Operations includes:
 - 1) Potential locations for light towers, lighting controller, and meter rack.
 - 2) Access, set back, and protective device requirements and preferences.
 - 3) Locate nearest utility feed locations

30% Design, Supplemental Apron Lighting for Concourses A & B

- a. Develop project design criteria in accordance with FAA AC, Illuminating Engineering Society (IES) Recommendations, and MCI standards.
- b. Review the structural design criteria for existing high mast light poles and develop the structural design criteria if none exists.
- c. Review Record Drawings of Concourse A & B As-Built information.
- d. Review soil borings and Geotechnical Report from Concourse A & B construction.
- e. Obtain and review the apron lighting calculations and shop drawing submittals, including structural shop drawings for the steel poles, concrete foundations, and connections to exterior egress stairs.
- f. Coordinate with Musco lighting on the proposed adjustments to the existing high mast light poles.
- g. Perform structural analysis to calculate additional loadings on the eight (8) existing high mast lights on concrete foundations and check the structural capacity of the existing light towers based on the As-Built information and structural shop drawings.
- h. Perform structural analysis to calculate additional loadings on the twenty-three (23) existing high mast lights mounted to the exterior egress stairs. Check the structural capacity of the existing light towers and stairs foundation.
- i. Perform analysis of key scope items and develop exhibits for stakeholder review and coordination. Scope analysis exhibits to include:
 - 1) Existing Concourses A & B electrical one-line diagrams.
 - 2) Photometric model of existing apron lighting.
 - 3) Preliminary photometric model of modified apron lighting.
 - 4) Summary of structural analysis findings
- j. Conduct remote and in-person concept design review meeting (KCAD, Airline Stakeholders):

- 1) Present existing and proposed photometric models.
 - 2) Present conceptual level before-and-after electrical plans, electrical one-line diagrams, and light tower elevation details.
 - 3) Discuss limits of available structural capacity on existing light towers to support proposed modified lighting solution.
 - 4) Present project phasing alternatives and durations.
 - 5) Includes preparation of meeting agenda and minutes.
- k. Prepare 30% preliminary project plans: cover, drawing list, general notes, airport site plan, safety and phasing plans, boring and coring plan (inserted from record drawings), electrical apron demolition plans, electrical apron proposed plans, concourse plans and plan details, single line diagrams, wiring schedule, lighting controller detail, and light tower details.
- l. Prepare and submit FAA 7460, Notice of Proposed Construction or Alteration.
- m. Submit 30% documents to the KCAD:
- 1) Preliminary Project Plans
 - 2) List of Technical Specifications
 - 3) Presentation Material from Concept Design Meeting
 - a. Exhibits/ PowerPoint Presentation
 - b. Meeting Minutes
 - 4) Quantities and Cost Estimate
 - 5) Quality Review Prior to Transmittal
- n. Conduct remote 30% design review meeting (KCAD, Airline Stakeholders).

30% Design, New Apron Lighting for North RON Area

- a. Develop project design criteria in accordance with FAA AC, IES recommendations, and MCI standards. Develop structural project design criteria in accordance with AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals and airport standards.
- b. Review Record Drawings of airfield utilities within project limits.
- c. Review existing soil boring data and Geotechnical Report as pertaining to project limits.
- d. Coordinate with utility for new metered service within the AOA fence. Effort includes:
 - 1) Determination of approximate electrical load.
 - 2) Preparation of a preliminary service request letter.
 - 3) On-site field meeting with utility representative.
- e. Perform structural design for reinforced concrete drilled shaft foundation and its connections to the new high mast light pole. Number of light poles to be determined and coordinated with the electrical design and limited to a maximum of 8.
- f. Perform analysis of key scope items and develop exhibits for stakeholder review and coordination. Scope analysis exhibits to include:
 - 1) Preliminary photometric model with proposed light towers.
 - 2) Analysis of existing soil borings and geotechnical report for applicability on this project. *Note, this scope assumes that the existing soil boring data and report are adequate, and it will not be necessary to obtain additional*

soil borings. If additional soil borings are determined to be needed, then that will be addressed as a future contract supplement.

- g. Conduct in-person concept design review meeting (KCAD, Airline Stakeholders):
 - 1) Present proposed photometric model.
 - 2) Present concept level proposed site plan and light tower elevation detail.
 - 3) Discuss limits of existing soil borings and geotechnical report for adequacy for this project. Discuss proposed concrete drilled shaft foundation.
 - 4) Discuss utility coordination findings.
 - 5) Present project phasing alternatives and durations.
- h. Prepare preliminary project plans: cover, general notes, airport site plan, safety and phasing plans, boring and coring plan (inserted from record drawings), proposed electrical plans, site plan detail for meter and lighting controller, proposed lighting control cabinet, proposed light tower and concrete drilled shaft foundation details, and applicable standard details for proposed electric service.
- i. Prepare and submit FAA 7460, Notice of Proposed Construction or Alteration.
- j. Submit 30% documents to the FAA and KCAD
 - 1) Preliminary Project Plans
 - 2) List of Technical Specifications
 - 3) Presentation Material from Concept Design Meeting
 - a. Exhibits/ PowerPoint Presentation
 - b. Meeting Minutes
 - 4) Quantities and Cost Estimate
 - 5) Quality Review Prior to Transmittal
- k. Conduct remote 30% design review meeting (KCAD, Airline Stakeholders)

90% Design; typical for both "Supplemental Apron Lighting for Concourses A & B" and "New Apron Lighting for North RON Area" contracts

- a. Finalize coordination with:
 - 1) The KCAD for actual loading of power distribution equipment supporting the existing concourse A & B apron lighting.
 - 2) The electric utility for new metered service requirements for New Apron Lighting for North RON Area.
 - 3) Resolve FAA comments on 7460 submittals for both contracts.
- b. Refine base files, plans, and detail to develop 90% design level.
- c. Prepare City Front End Specifications.
- d. Prepare Technical Specifications in accordance with the current FAA standards.
- e. Analyze project phasing alternatives and durations to review with stakeholders and refine based on 90% design development.
- f. Prepare 90% quantities and cost estimate/ budget and proposed funding division of work.
- g. Submit 90% documents to the FAA and KCAD:
 - 1) Project Plans.
 - 2) Front End Specifications.
 - 3) Technical Specifications.
 - 4) Construction Safety and Phasing Plan (CSPP).

- 5) Quantities and Cost Estimate.
- h. Conduct remote 90% design review meeting (KCAD, Airlines); includes preparation of meeting agenda and minutes.

Issued for Bid Submittal; typical for both "Supplemental Apron Lighting for Concourses A & B" and "New Apron Lighting for North RON Area" contracts:

- a. Update deliverables for Issued for Bid submittal.
- b. Submit Issued for Bid documents to the KCAD:
 - 1) Project Plans.
 - 2) Front End Specifications.
 - 3) Technical Specifications.
 - 4) Construction Safety and Phasing Plan (CSPP).
 - 5) Quantities and Cost Estimate.
- c. Submit KCAD File Updates to Standard files.

3. Bidding Services

Typical for both "Supplemental Apron Lighting for Concourses A & B" and "New Apron Lighting for North RON Area" contracts:

- a. Assist the KCAD with project advertisement.
- b. Attend pre-bid meeting.
- c. Respond to Contractor questions.
- d. Prepare two (2) bidding addenda, as necessary.
- e. Attend Bid Opening.
- f. Evaluate bid and prepare bid tabulation.
- g. Prepare and submit Recommendation of Award to the KCAD.
- h. Prepare Issued for Construction Plans/ Specifications.

4. Construction Services

Typical for both "Supplemental Apron Lighting for Concourses A & B" and "New Apron Lighting for North RON Area" contracts:

- a. No construction services are included.

Deliverables – The following is a list of submittals that will be delivered to the KCAD as part of the Supplemental Apron Lighting and Remain Overnight (RON) Lighting Design Project:

1. Kickoff meeting agenda and meeting minutes.
2. Concept design review meeting presentation material, agenda, and meeting minutes.
3. 30% submittal including preliminary project plans, list of technical specifications, report on concept review meeting, quantities, cost estimate.
4. 30% comment review meeting, including agenda and minutes.
5. Completed electric utility service request letter.
6. Completed FAA 7460 authorization.
7. 90% submittal including pre-final plans, front end specifications, technical specifications, construction safety and phasing plan, quantities, cost estimate.
8. 90% comment review meeting, including agenda and minutes.
9. Issued for Bid (IFB) submittal including pre-final plans, front end specifications, technical specifications, construction safety and phasing plan, quantities, cost estimate, and updated CAD files for KCAD.
10. Issued for Construction (IFC) submittal including final plans and technical specifications.

Assumptions – This scope of services is developed based on the following:

1. Scope shall be broken out into two (2) projects.
 - a. Concourse A & B Supplemental Apron Lighting
 - b. North RON area Apron Lighting
2. Minimum light levels around aircraft (nose to tail and wing tip to wing tip) shall be 1-2 foot candles. For both the Concourses A & B Apron and the North RON area.
3. Locations where the calculated illuminance levels at the apron level, near the aircraft tails, is already between 1 and 2 footcandles (ft-cd) do not need to be modified.
4. It is understood that ANSI/IES RP-37 provides recommended illumination criteria for apron level (horizontal illumination) and at a height 6'-6" above the apron (vertical illumination). The assumption is that the 1-2 ft-cd tail area criteria KCAD is requesting pertains to calculated illumination on the apron pavement.
5. It is understood that achieving a minimum illuminance level of 1-2 ft-cd at the apron level, near the aircraft tails, may require installation of luminaires with twice to three times the wattage of the existing luminaires. This will result in average illumination within the aircraft stand area (as defined in ANSI/IES RP-37, "Recommended Practice: Lighting Airport Outdoor Environments") much greater than the recommended average level of 2.0 ft-cd.
6. It is assumed that the existing Concourses A & B apron poles and foundations are to remain (31 total) if the structural analysis determines there is adequate

- structural capacity. However, new pole cross arms with more luminaires may be added to select poles, based on the capacity of the existing pole and foundation.
7. It is understood that the existing lighting design did not adhere to the ANSI/IES RP-37 recommended uniformity ratio of 4:1 for average illumination/minimum illumination. The proposed modifications to the existing lighting system will attempt to improve on the uniformity ratio; however, the recommended 4:1 uniformity ratio will not be used as a design criteria.
 8. The photometric calculations provided by Musco for the existing lighting design did not specify if a Light Loss Factor (LLF) was used. The proposed calculations shall specify a realistic LLF based on realistic dirt depreciation and the degradation of luminaire output overtime.
 9. Concourses A & B shall have a sole source lighting provider of Musco, and Musco shall provide lighting models for supplemental lighting at Concourse A&B. HNTB shall provide design criteria to Musco and shall review the supplemental lighting models for the desired foot candles requirement. HNTB will coordinate with Musco lighting on the structural aspects of the adjustments to the existing high mast light poles.
 10. North RON Area shall be open to any lighting manufacturer. HNTB shall provide a model using non-Musco fixtures on the North RON and shall request Musco also provide a model for the North RON.
 11. KCAD shall provide electricians for access to Concourse A & B for field investigation work including accessing ATS room and powering down and then opening all apron lighting controllers. Coordination also includes apron access to investigate one apron pole of each configuration.
 12. KCAD shall provide equipment for 30 Day load studies required for Concourse A & B supplemental lighting.
 13. KCAD shall support HNTB with coordination with electrical utility company (Eversource), including attending site visit for determining location of proposed power source for new meter service.
 14. Project design criteria shall utilize all current FAA AC design guidance.
 15. Project design criteria shall utilize the latest edition of the National Electrical Code (NEC) for design of electrical work.
 - a. North RON area **shall not** be considered hazardous locations for electrical design.
 16. Structural design criteria for the design and analysis of the high mast lights will be developed based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals if none currently exists.
 17. The Design Professional shall be entitled to rely on the accuracy and completeness of any data, documents or other materials provided by the City or FAA to the Design Professional.
 18. Assumes additional loading will be due to replacement of the existing luminaires with larger luminaires; on select poles new cross arms with additional luminaires may be installed, depending on analysis of the existing pole and foundation.
 19. Concourses A & B assumes a maximum of seven (7) high mast lighting types will be analyzed.

20. Assumes that no additional light towers will be installed for Concourse A & B apron lighting.
21. Assumes the KCAD will allow for a mix of Musco luminaire models on the Concourse A and B aprons.
22. North RON Area assumes that the existing soil borings are of sufficient depth for the design of the new light tower foundation and that the existing geotechnical report provides the required soil parameters. Otherwise, new soil borings may be needed to be drilled.
23. Assume the same type of high mast light pole will be used as the existing poles for Concourses A & B.
24. North RON Area assume design is limited to one type of light pole configuration.

Schedule

Week 0	HNTB Receives Notice to Proceed
Week 3	HNTB Host Kickoff Meeting
Week 5	Field Investigations
Week 8	Concept Design Meeting
Week 12	Transmit 30% Submittal
Week 14	KCAD 30% Comments Received
Week 16	Comment Review Meeting
Week 24	Transmit 90% Submittal
Week 26	KCAD 90% Comments Received
Week 28	Comment Review Meeting
Week 32	Transmit IFB Submittal

Owner Provided Information – This scope of services is developed assuming the following are provided to HNTB from the KCAD:

1. As-built plans for Concourses A & B
 - a. CAD files for Concourse A & B
2. MCI Airport CAD base files (Airport base map, marking, utility, etc.)
3. KCAD shall provide previous specification for Concourse A & B and other electrical applicable projects.
4. KCAD shall provide HNTB geotechnical investigation reports from the New Single Terminal Program.
5. Structural calculations and shop drawings for the high mast lights and exterior egress stairs for Concourses A & B
6. Soil borings and Geotechnical Report from Concourse A & B plus any other borings and reports in the vicinity of the North RON Area.

Exclusions – This scope of services is developed with the following exclusions:

1. Geotechnical investigation
2. Environmental Services
3. Stormwater Pollution Prevention Plan (SWPPP)
4. Construction Permits
5. On-site construction observation services
6. Consultant shall not perform direct photometric readings.
7. Consultant shall not open any enclosures themselves.
8. Consultant shall not provide or install any load monitoring equipment.
9. Consultant shall not provide structural design for Apron Lighting for Concourses A & B and will perform analysis of existing light towers only. Existing cross arms will be reused.

B. Sec. 4.A. Compensation and Reimbursables delete and replace with the following sections:

A. The maximum amount that City shall pay Design Professional under this Agreement is \$13,820,198.12 as follows:

1. A not-to-exceed lump sum amount of \$3,578,721.55 for Item A under the Agreement.
2. A not-to-exceed amount of \$2,338,719.85 for Item B under Amendment One (1).
3. A not-to-exceed lump sum amount of \$152,672.62, for Item C, Runway 9-27 Pavement Evaluation (Non-Eligible) under Amendment Two (2).
4. A not-to-exceed lump sum amount of \$119,255.54, for Item D, Taxiway E Pavement Evaluation (Non-Eligible) under Amendment Two (2).
5. A not-to-exceed lump sum amount of \$199,946.71, for Item E, Rehabilitation of Runway 9-27 (Non-Eligible) under Amendment Three (3).
6. A not-to-exceed amount of \$2,119,053.90 for Item F, Reconstruct Runway 1L-19R Phase 2 under Amendment Four (4).
7. A not-to-exceed amount of \$163,354.24 for Item G, Runway 9-27 Pavement Repairs (Non-Eligible) under Amendment Five (5).

8. A not-to-exceed lump sum amount \$2,414,617.94 for Item H, Runway 1L-19R High Speed Taxiway Design under Amendment Six (6).
9. A not-to-exceed lump sum amount of \$988,090.77 for Item I, Taxiway E and Taxiway J Rehabilitation under Amendment Seven (7).
10. A not-to-exceed sum amount of \$982,689.31 for Item J, Taxiway E and Taxiway J Rehabilitation under Amendment Eight (8).
11. A not-to-exceed sum amount of \$14,862.15 for Item K, Runway 1R-19L Drainage Investigation (Non-Eligible) under Amendment Nine (9).
12. A not-to-exceed lump sum amount of \$111,840.65 for Item L, Taxiway C Taper Rehabilitation (Non-Eligible) under Amendment Ten (10).
13. A not-to-exceed amount of \$636,372.89 for Item M, Supplemental Apron Lighting and Remain Overnight (RON) Lighting Design (Non-Eligible) under this amendment.

Sec. 3. Sections not Amended. All other sections of the Agreement shall remain in full force and effect.

Sec. 4. Authorization. If the amount of the original Agreement plus the amount of any amendments to the original Agreement total over \$400,000.00, then this amendment requires City Council or Park Board authorization. Notwithstanding the foregoing, City Council or Park Board authorization is not required if (1) the total amount of the original Agreement plus the amount of any amendments to the original Agreement are within ten percent (10%) of the maximum amount authorized by the City Council or the Park Board or (2) a previous ordinance or Resolution authorized amendments without further City Council or Park approval.

Sec. 5. Effectiveness Date. This amendment will become effective when the City's Director of Finance has signed it. The date this amendment is signed by the City's Director of Finance will be deemed the date of this amendment.

Each party is signing this amendment on the date stated opposite that party's signature.

Date: Nov 14, 2023

DESIGN PROFESSIONAL

I hereby certify that I have authority to execute this document on behalf of Design Professional

By: *[Signature]*

Title: Vice President

Date: 11/20/2023

KANSAS CITY, MISSOURI

By: *Melissa Cooper*

Title: Director of Aviation

Approved as to form:

DocuSigned by:
Charlotte Ferns

Assistant City Attorney

I hereby certify that there is a balance, otherwise unencumbered, to the credit of the appropriation to which the foregoing expenditure is to be charged, and a cash balance, otherwise unencumbered, in the Treasury, to the credit of the fund from which payment is to be made, each sufficient to meet the obligation hereby incurred.

DocuSigned by:
Eric Cleverger 11/30/2023

Director of Finance

Date