

# PROJECT MANUAL

Advertisement for Bid Proposals, Instructions to Bidders,  
Bid Proposal, Contract Requirements,  
and Technical Specifications

## REQUEST FOR BIDS

for

Procurement, Installation and Construction of

### Provisions for Standby Docking Stations and Related Improvements

#### MCGHEE TYSON AIRPORT ALCOA, TENNESSEE

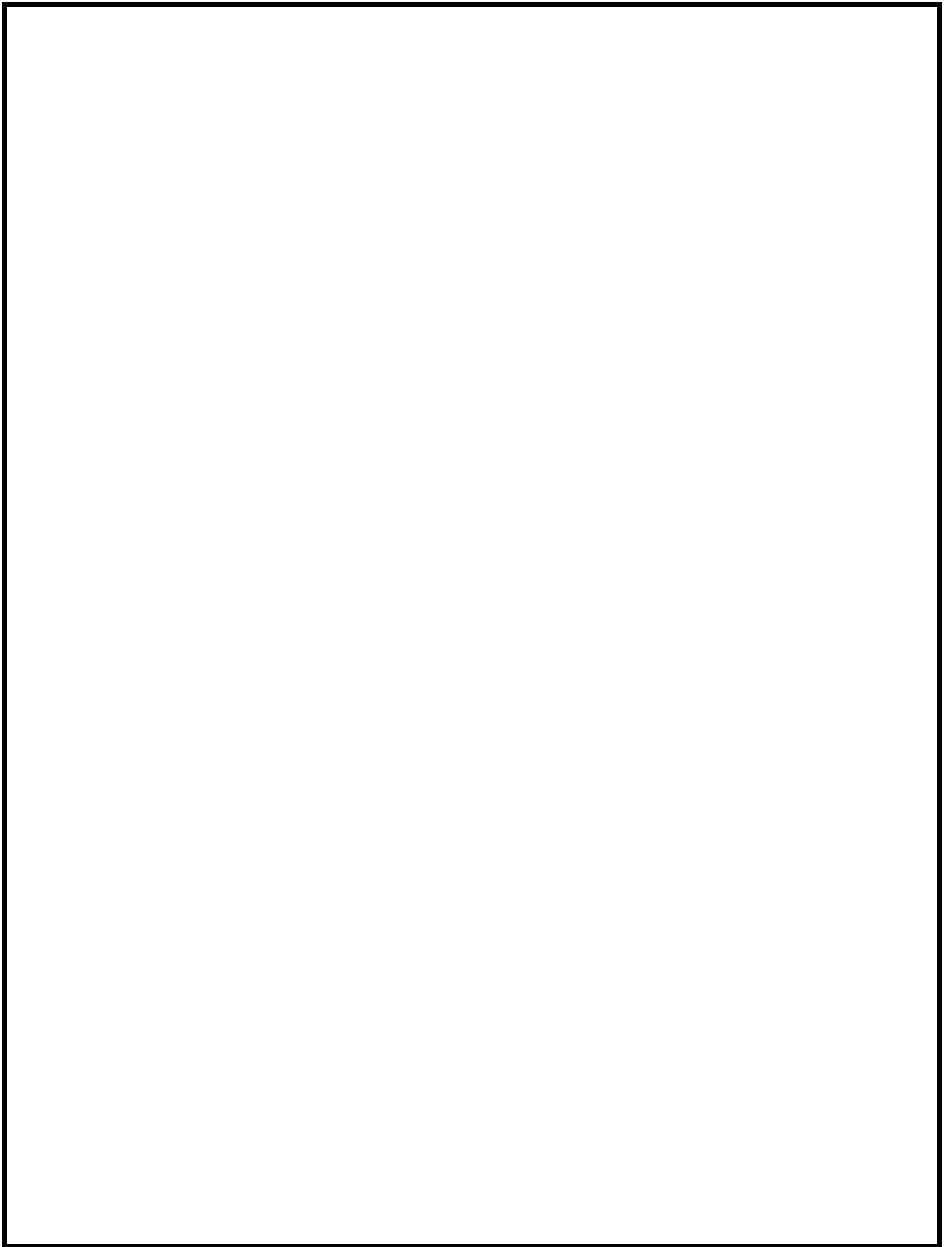
Prepared for:



METROPOLITAN  
KNOXVILLE  
AIRPORT  
AUTHORITY

ISSUED FOR BID  
April 9, 2024





## PROJECT TEAM DIRECTORY

The Bid Proposal Documents for "PROVISION FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS" referred to as "Project" herein; Advertisement for Bid, Instructions to Bidders, the Bid Forms, Proposal Schedules and Proposal Attachments, Contract Forms, General Provisions, Special Provisions, Technical and Supplemental Technical Specifications, Appendices, Drawings, Addenda and all ensuing referenced material issued by the Owner and/or Prime Consultant for the purpose of obtaining Bid Proposals for all the Work are prepared by the following Team:

### OWNER:

Metropolitan Knoxville Airport Authority  
McGhee Tyson Airport  
2055 Alcoa Highway, Suite I  
Alcoa, Tennessee 37701

Vice President of Engineering and Planning: Mr. Bryan D. White, PE, Phone: (865) 342-3000,  
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Facility Manager: Chris Grubb, MBA, CM, Phone: (86) 342-3330,  
Email: chris.grubb@tys.org

### Prime Consultant

CHA Solutions  
3008 Topside Business Park Drive, Suite E  
Louisville, TN 37777

Principal-In-Charge: W. Bill Barley, PE, Phone: (856) 245-9661  
Email: wbarley@chasolutions.com

Project Manager / Owner's Representative: J. Larry Kalousek, RA, AIA NCARB, Phone: (856) 245-9661  
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END PROJECT DIRECTORY

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## **BIDDING REQUIREMENTS**

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## ADVERTISEMENT FOR BID PROPOSALS

The METROPOLITAN KNOXVILLE AIRPORT AUTHORITY (Owner) shall receive Bid Proposals for the Procurement, Installation and Construction of:

PROVISIONS OF STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS  
at  
MCGHEE TYSON AIRPORT (TYS)

Bid Proposals will be received until 2:00 PM local time, Tuesday, May 7, 2024, for the PROVISIONS OF STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS. The bids will be received via email to [bids@tys.org](mailto:bids@tys.org) or delivered to the Airport Authority Administrative Offices, Third Floor of the Terminal Building, McGhee Tyson Airport, or submitted by mail to the Metropolitan Knoxville Airport Authority, 2055 Alcoa Hwy, Suite I, Alcoa, TN 37701 by the time indicated for receipt of Bids. Bids received after the stated deadline for submission will not be accepted. All Bid Proposals received will be time and date stamped for authenticity of timely receipt. All work shall be performed in strict accordance with the Contract Documents. Each Bid Proposal meeting the requirements to be considered will be publicly opened and read aloud at 2:00 PM EST, Wednesday, May 8, 2024 in the Airport Authority Administrative Offices, Third Floor of the Terminal Building, McGhee Tyson Airport, in the Board Room.

The work includes, but is not limited to, the furnishing of all labor, materials, equipment, incidentals, and tools, and miscellaneous services required for the final design, installation, construction, and completion of the Project; and submission of shop drawings, samples, product data material submittals, forms, applications, equipment warranties/registration and other documents, as required by the Project requirements, and by applicable regulatory authorities.

### ABBREVIATED WORK SCOPE

Abbreviated Work elements to provide, include, but not limited to, for this Project are:

1. Terminal Generator Docking Station
2. ARFF Fenced-off Outdoor Generator Area Docking Station
3. AOC Fenced-off Outdoor Generator Area Docking Station
4. Permitting for Installation and Construction
5. Incidental Work

A mandatory Pre-Proposal Conference will begin at 2:00 PM local time, Thursday, April 18, 2024, at the Airport Operations Center, 100 Cirrus Landing, Alcoa, TN 37701. A site visit will immediately follow the meeting.

### CONTRACT TIME

The Project shall be Substantial Complete within the contractually bound consecutive calendar days proposed by the Bidder and effected by the issuance of the Notice-to-Proceed to the Bidder from the Owner.

### BID PROPOSAL REQUIREMENTS

All entities submitting a Proposal for consideration shall be licensed contractors as required by the "CONTRACTOR'S LICENSING ACT OF 1994", Tennessee Code Annotated (TCA), Section 62-6-101, et seq.

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Proposer/Bidder's attention is directed to section 62-6-119, Tennessee Code Annotated (TCA). Proposals received that are not in compliance with TCA will not be considered.

All bid proposals submitted shall include a Bid Proposal Form with the required accompanying documents, acceptable Bid Security, and additional technical and performance as mandated for evaluation of each Bid Proposal. Any Bid Proposal not accompanied by the required items shall be deemed non-responsive and no further action taken.

Bid security in the form of a bid bond equal to 5% of the total price is required. Contract security in the form of 100% Performance and Payment bonds will also be required.

The Project is not Federal funded in whole or in part. No prevailing wage rates are requirement.

Contractors shall pay any and/or all sales and use taxes required for the Project.

No Proposal may be withdrawn, and all pricing shall remain open after closing time for the receipt of proposals for a period of one hundred eighty (180) calendar days. A contract will be awarded to the most responsive, and responsible Bidder evaluated to be in the best interest of the Metropolitan Knoxville Airport Authority. Award of a contract is dependent on the funds available for the Project.

#### AVAILABILITY OF DOCUMENTS

A complete set of bid documents will be available for download on Tuesday, April 9, 2024, and can be obtained at [www.flyknoxville.com](http://www.flyknoxville.com) under the "Do Business @ TYS" tab or by emailing a written request to Michael Giles at [Michael.Giles@tys.org](mailto:Michael.Giles@tys.org).

#### DISADVANTAGED BUSINESS ENTERPRISE

This project is subject to the requirements of the MKAA Disadvantaged Business Enterprise Program. The Owner has established a contract goal of 6.8% participation for small business concerns owned and controlled by qualified disadvantaged business enterprises (DBE). The bidder shall make and document good faith efforts, as defined in Appendix A of 49 CFR Part 26, to meet the established goal.

#### CIVIL RIGHTS AND NON-DISCRIMINATION

The Metropolitan Knoxville Airport Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

#### ISSUANCE OF PROPOSALS

The Owner reserves the right to refuse to issue a Bid Proposal to a prospective Bidder should Bidder be in default for any of the following reasons:

- 1) Failure to comply with any pre-qualification regulations of the Owner, if such regulations are cited or otherwise included, in the proposal as a requirement for submitting a Bid Proposal.
- 2) Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force (with the Owner) at the time the Owner issues the proposal to a prospective Bidder.
- 3) Contractor default under previous contracts with the Owner;



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- 4) Unsatisfactory work on previous contracts with the Owner..

AWARD OF CONTRACTS

The Owner reserves the right to: 1) reject any or all Bid Proposals; 2) waive any informalities in connection herewith; 3) accept any Bid Proposal, either in part or in full, deemed advantageous to it; and 4) reject any or all Proposals or to award or refrain from awarding the contracts for the work, whichever is deemed to be in the Owner's best interests.

The Owner reserves the right to reject any Bid Proposal submitted by a contractor which has claims or litigation pending against the Owner, or in which a contractor which has claims or litigation pending against the Owner is named as a potential subcontractor.

Bryan D. White, PE  
Vice President of Engineering and Planning  
METROPOLITAN KNOXVILLE AIRPORT AUTHORITY

Advertisement Date: April 7, 2024

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## INSTRUCTIONS TO BIDDERS

### 1. DEFINED TERMS

- 1.1 Terms used in these INSTRUCTIONS TO BIDDERS are defined in the General Provisions, and the Special Provisions of the Construction Contract and shall have the intent and meaning assigned them therein. Terms defined in the General Provisions being redefined by modification in the Special Provisions shall have the intent and meaning assigned them in the Special Provisions.
- 1.2 The term "Successful Bidder" means the most qualified, responsible, responsive Bidder to whom Owner (based on Owner's evaluation as hereinafter provided) offers the best benefit and makes an award communicated by a prior issued "Intent-to-Award" notice from the Owner to a Bid Proposer.
- 1.3 The term "Bid Proposal Documents" means these Instructions to Bidders, the Advertisement to Bid, the Bid Forms, Schedules, Attachments, Contract Forms, General Provisions, Special Provisions, Technical and Supplemental Technical Specifications, Appendices, Drawings, Addenda and all ensuing referenced material issued by the Owner for the purpose of obtaining Bid Proposals for all the Work.
- 1.3.1 The term "Bid Proposal Documents" may be referred to as "Bidding Documents" in the context for this "Request for Bid." For purposes of this Request for Bids and related documents, the terms "Bid Proposal Documents" and "Bidding Documents" are interchangeable in their meaning, and one and the same.
- 1.4 The term "Prime Contractor" means the entity submitting and signing a Bid Proposal for consideration, and whom a Contract Agreement would be enter into with the Owner, if selected.
- 1.5 The term "Owners Representative" means a person designated by the Owner, and a resource of the Prime Consultant authorized to act on issues and items to administer the Project and Contract as defined herein.

### 2. PROJECT DEFINITION

- 2.1 The METROPOLITAN KNOXVILLE AIRPORT AUTHORITY seeks Proposals for the PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS at McGhee Tyson Airport, herein referred to as the "Project".
- 2.1.1 Generator docking stations shall be installed at three (3) locations: Terminal generator room, ARFF fenced-off outdoor generator area, AOC fenced-off outdoor generator area.
- 2.2 The Work Scope defined and present in the Proposal Document can best be summarized as:

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- 2.2.1 Terminal Generator Docking Station
    - a. Indoor generator docking station to be provided in terminal generator room.
    - b. Conduit and wiring between generator and docking station. Surface mount to walls and ceiling.
  - 2.2.2 ARFF Fenced-off Outdoor Generator Area Docking Station
    - a. Outdoor generator docking station to be provided within fenced-off area.
    - b. Conduit and wiring between generator and docking station. Installed underground. Cut, trench, and backfill.
  - 2.2.3 AOC Fenced-off Outdoor Generator Area Docking Station
    - a. Outdoor generator docking station to be provided within fenced-off area.
    - b. Conduit and wiring between generator and docking station. Installed underground. Cut, trench, and backfill.
  - 2.2.4 Incidental Work
  - 2.2.5 All other Work for 100-percent completion of PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS to Work Scope Items 2.2.1 through 2.2.4
  - 2.3 All costs for the preparation and submittal of a Bid Proposal by each Bidder shall be borne by each Bidder.
  - 3. BID PROPOSAL DOCUMENTS
    - 3.1 Complete sets of Bidding Documents are available as indicated in the Advertisement for Bids, and prospective Bidders shall be used in preparing proposals; the Owner does not assume any responsibility for errors or misinterpretations resulting from use of incomplete sets of Proposal Documents.
    - 3.2 Bidding Documents available on the above terms, are only for the purpose of obtaining Bid Proposals on the Work and does not confer a license or grant for any other use.
  - 4. PRE-BID PROPOSAL MEETING
    - 4.1 A mandatory Pre-Bid Proposal Conference is required. See the Advertisement for Bids for date, time and place at the McGhee Tyson Airport in Knoxville, TN.
  - 5. PROPOSAL SUBMITTAL DEADLINE TO MKAA
    - 5.1 See the Advertise for Bids for submittal requirements, date, time, and place of Bid Proposal opening at the McGhee Tyson Airport in Knoxville, TN.
  - 6. QUALIFICATIONS OF BID PROPOSERS

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- 6.1 Each Bidder shall submit his/her Bid Proposal, on the prescribed documents and forms and submittals as required by Article 14 – BID PROPOSAL FORM, BID PRICE SCHEDULES, ATTACHMENTS, ETC.; which be the basis for the Owner to determine if the Bidder is responsive and qualified to be awarded the Work required for the Project.
7. EXAMINATION OF BID PROPOSAL DOCUMENTS, CONTRACT DOCUMENTS, SITE AND SITE INVESTIGATIONS AND TESTING PRIOR TO SUBMISSION OF BID PROPOSAL
- 7.1 Before submitting a Bid Proposal, each Bidder must (a) examine the Bid Proposal Documents thoroughly; (b) visit the site to familiarize himself/herself with local conditions that may in any manner affect cost, progress or performance of the Work; (c) familiarize himself/herself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; (d) study and carefully correlate Bidder's observations with the Drawings and Specifications; and (e) notify Owner of all conflicts, errors or discrepancies.
- 7.2 Each Bidder shall be aware that other construction MAY be in progress on the airport, throughout the duration of this project. Full cooperation regarding any matters of coordination and airport operations is required.
- 7.3 Before submitting a Bid Proposal, each Bidder may, at his/her own expense and assuming all risks, make such additional investigations and tests as the Bidder may deem necessary to determine his/her Proposal for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents. On request in advance, Owner may provide each Bidder access to the site to conduct such explorations inspections and tests as each Bidder deems necessary for submission of a Bid Proposal. Bidder shall repair, cleanup and restore the site to its former condition upon completion of such explorations, Bidder shall indemnify, defend, hold harmless Owner's Commissioners, officers, employees, Engineer, and Owner's Representatives from any and all loss, damage and costs, including attorney's fees, suffered or incurred as a result of the exercise of the rights of investigation provided herein to Bidder, not limited to, any damages resulting from the negligence of Bidder or Bidder's agency. Bidder shall provide evidence of Insurance prior to access to the site.
- 7.4 The submission of a Bid Proposal will constitute an incontrovertible representation by the Bidder that he/she has complied with every requirement of this Article 7 and that the Bid Proposal Documents and Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.
8. ADDENDA AND INTERPRETATIONS
- 8.1 All questions about the meaning or intent of the Bidding Documents and/or Contract Documents shall be submitted to Owner's Representative via email at least seven (7) days prior to the date and time Proposals are to be received. Replies will be issued formally by Addenda, via [www.flyknoxville.com](http://www.flyknoxville.com) under the "Do Business @ TYS" tab or by emailing a written request to Michael Giles at [Michael.Giles@tys.org](mailto:Michael.Giles@tys.org).

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Failure of any Bidder to receive any such Addendum or interpretation, or acknowledge said addenda on the Bid Proposal Form shall not relieve the Bidder from any obligation under this Proposal as submitted. All questions shall be submitted via email to:

J. Larry Kalousek  
Designated Owner's Representative  
CHA Consulting, Inc.  
Email: [jkalousek@chasolutions.com](mailto:jkalousek@chasolutions.com)  
Phone: 208-869-3308

- 8.2 Questions asked by the Bidder (Questions, Request for Information, Clarifications, etc.) within the stipulated time frame in Paragraph 8.1 to the Owner shall be submitted on the Form for such Questions at the end of the Instructions to Proposers.
- 8.3 Questions received less than seven (7) days prior to the scheduled date for receipt of Bid Proposals will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 8.4 Addenda will not be issued less than four (4) days before date and time to receive Bid Proposals unless such addendum changes the date and time for receipt of Bid Proposals too.

## 9. BID SECURITY

- 9.1 Each Proposal must be accompanied by Bid Security made payable to Owner, in an amount of five percent (5%) of the Bidder's maximum Bid Proposal Price (including all Proposal Items) as indicated in the Pricing Schedule in the form of a Bid Bond prepared on the Form of Bid Bond included in the Bid, duly executed by the Bidder as principal and issued by a surety meeting the requirements of the General Provisions and Supplementary Conditions thereto.
  - 9.1.1 Each separate Bid proposal shall be accompanied by a bid bond, certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral shall be made payable to METROPOLITAN KNOXVILLE AIRPORT AUTHORITY.
- 9.2 Attorneys-in-fact who sign the Bid Bonds or Contract Bonds must file with each bond a certified and effectively and currently dated copy of their power-of-attorney.
- 9.3 The Bid Security of the Successful Bidder for each contract will be retained until such Bidder has executed the Agreement and furnished the required Contract Security and Insurance Certificates, whereupon it will be returned; if the Successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security and Insurance Certificates within thirty (30) days of Intent-to-Award, Owner may annul the Intent-to-Award and the Bid Security of the Bidder will be forfeited to Owner as liquidated damages for such withdrawal, failure or refusal. The Bid Security of any Bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the seventh day after the "effective day of the Agreement" by Owner to Contractor and the

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required Contract Security and Insurance Certificates are furnished, or until the conclusion of the time period for withdrawal of bids specified in the "Advertisement for Proposals" contained in these documents. Bid Security of other Bidders may be released within seven (7) days after the schedule receipt of Proposals.

10. CONTRACT TIME

10.1 The Contract Time for completion of the Project is indicated in the Bid Proposal Form.

10.1.2 Contract Time begins with the issuance of the Notice-to-Proceed to the Contractor setting the beginning of the Contract Time.

11. LIQUIDATED DAMAGES

11.1 Provisions for Liquidated Damages are set forth in the Bid Proposal Form and General Provisions.

12. SUBSTITUTE REQUESTS FOR MATERIAL AND EQUIPMENT PRIOR TO RECEIPT OF PROPOSALS

12.1 Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted prior to receipt of Bid Proposals.

12.1.1 Substitution Requests Procedures after Award : Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Technical Specification, Section 01 25 00 - "Substitution Procedures" for conditions under which Substitution requests will be considered following Contract award.

12.2 Substitutions Requests, General: By submitting a Bid Proposal, the Bidder represents that its Bid Proposal is based on materials and equipment described in the Bid Proposal Documents, and Contracting Documents, including Addenda. Bidders are allowed to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.

12.3 Substitution Requests will be received and considered by Owner's Representative when the following conditions are satisfied, as determined by Owner, or Owner's Representative; otherwise, requests will be returned without action:

12.3.1 Extensive revisions to the Contract Documents are not required.

12.3.2 Proposed changes are in keeping with the general intent of the Bid Proposal and Contract Documents, including the level of quality of the Work represented by the requirements therein.

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- 12.3.3 The request is fully documented and properly submitted.
- 12.4 Substitution Request: Submit to Owner's Representative. Substitution Request must be made in by Prime Contractor only in compliance with the following requirements:
- 12.4.1 Requests for substitution of materials and equipment will be considered if received no later than ten (10) days prior to date of proposal/bid opening.
- 12.4.2 Submittal Format: Submit one electronic copy via email of each written Substitution Request, using form "Substitution Request During Bidding" at the end of the Instructions to Bidders. Submit to:
- J. Larry Kalousek  
Designated Owner's Representative  
CHA Consulting, Inc.  
Email: [jkalousek@chasolutions.com](mailto:jkalousek@chasolutions.com)  
Phone: 208-869-3308
- 12.4.3 Identify the product or the fabrication or installation method to be replaced in each request. Include related Specifications Sections and drawing numbers.
- 12.4.5 Provide complete documentation on both the product specified and the proposed substitute, including the following information as appropriate:
- a) Point-by-point comparison of specified and proposed substitute product data, fabrication drawings, and installation procedures.
  - b) Copies of current, independent third-party test data of salient product or system characteristics.
  - c) Samples where applicable or when requested by Owner, or Owner's Representative.
  - d) Detailed comparison of significant qualities of the proposed substitute with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated.
  - e) Indicate deviations, if any, from the Work specified.
  - f) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - g) Coordination information, including a list of changes or modifications Needed to other parts of the Work and to construction performed by Owner and separate contractors, which will become necessary to accommodate the proposed substitute.
- 12.4.6 Provide certification by manufacturer that the substitute proposed is equal to or superior to that required by the Proposal and Contracting Documents, and that its in-place performance will be equal to or superior to the product or equipment specified in the application indicated.,



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12.4.7 Bidder, in submitting the Substitution Request, waives the right to additional payment or an extension of Contract Time because of the failure of the substitute to perform as represented in the Substitution Request.

12.4.8 Evaluation criteria shall include, but not limited to:

- a) Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product,
- b) Same warranty will be furnished for proposed substitution as for specified product,
- c) Same maintenance service and source of replacement parts is available,
- d) Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule,
- e) Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- f) Proposed substitution does not affect dimensions and functional clearances.
- g) Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- h) Coordination, installation, and changes in the Work as necessary for accepted request.

12.5 Owner or Owner's Representatives Action: The Owner, or Owner's Representative may request additional information or documentation necessary for evaluation of the Substitution Request. The Owner, or Owner's Representative will notify all Bidders of acceptance of the proposed substitute by means of an Addendum.

12.6 The Owner, or Owner's Representative approval of a substitute during proposal/bidding period does not relieve Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents.

### 13. SUBCONTRACTORS, ETC.

13.1 All Bidders shall submit as part of their Bid Proposal on the prescribed schedules a list of all subcontractors and other persons and organizations (including those who are to furnish principal items of material and equipment) proposed for those portions of the Work as to which such identification is required. If Owner, after due investigation, has reasonable objection to any proposed subcontractor, other person or organization, the Owner may before issuing the Intent-to-Award require the apparent Bidder to submit an acceptable substitute subcontractor without an increase in Price. If the apparent Successful Bidder declines to make any such substitution, the Contract shall not be awarded to such Bidder, but his/her declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any subcontractor, other person, or organization so listed and to whom the Owner does not make written objection prior to giving the Intent-to-Award will be deemed acceptable to Owner.

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- 13.2 No Contractor shall be required to employ any subcontractor, other person, or organization against which he has reasonable objection.
14. BID PROPOSAL FORM, BID PRICING SCHEDULES, ATTACHMENTS, ETC.
- 14.1 Bid Proposal Forms, Bid Pricing Schedule, Attachments, Etc., for submittal instructions and consideration are provided as separate, documents and available to the Bidders by downloading in PDF formats as referenced in the Advertisement for Bids.
- 14.1.1 Each Bidder, shall submit the Bid Pricing requested and amounts on the forms provided. Any errors that the Bidder makes in preparing the Bid Price Schedule may be grounds for rejecting the bid. All other documents and required submittal attachments of the proposal as provided to all Bidders are required.
- 14.1.2 Bid Proposal Forms, Bid Pricing Schedules, Attachments, Etc., must be type written, or printed in ink and submitted as indicated in the Advertisement for Bid. Each Bid proposal and required forms must be submitted on the prescribed forms. All blank spaces and Bid Prices must be filled in for the Bid Proposal to be accepted.
- 14.1.3 The firm, corporation, or individual name of the Bidder must be signed in ink in the space provided for the signatures on the Bid Proposal Form. Bid Proposals by corporation must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign), and the corporate seal must be affixed and attested by the secretary or assistant secretary of the corporation. The corporate address and state of incorporation shall be shown in the space provided.
- 14.1.4 Bid Proposals by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 14.1.5 Bid Proposals by individuals must be signed by the individual Owner and the terms "doing business as" or "sole Owner" must appear under the signature, as appropriate.
- 14.1.6 Bid Proposals by limited liability company must be executed in the limited liability company name by the president, vice-president, chief manager (or other limited liability company officer accompanied by evidence of authority to sign) and the Proposal must be attested by the secretary or assistant secretary of the limited liability company. The limited liability company address, and state of organization shall be shown in the space provided.
- 14.1.7 The Bidder must state in his/her Bid Proposal Form the name and address of each person or corporation interested therein.

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- 14.1.8 The numbers of all addenda and the date each was received shall be filled in the space provided on the Bid Proposal Form.
- 14.1.9 The Bidder shall adhere to the proposed Contract Time for completion of the Project in the Bid Proposal Form.
- 14.1.10 The address to which communications regarding the Bid Proposals are to be directed must be shown on the Bid Proposal Form.
- 14.1.11 Attachments: Each Bidder is required to duly execute all the required attachment to submit with the Bid Proposal Form.
- (a) Attachments to Bid Proposal Form and Bid Pricing Schedule are indicated in Article 15 – “SUBMISSION OF RESPONSIBLE AND RESPONSIVE BID PROPOSALS”
- 14.1.12 All names must be typed or printed in ink below the signature.
- 14.1.13 All Bid Proposal information, including any modifications of a previously submitted bid proposal as referenced in Article 16. MODIFICATIONS AND WITHDRAWAL OF BID PROPOSALS must be in the spaces provided in the prescribed Proposal Form. Any such information not in the appropriate spaces will be disregarded.
- 14.2 The requirements for the Bid Proposal submission and instructions are available to the Bidders by downloading in PDF formats as referenced in the Advertisement for Bids.
- 14.2.1 Documents for the Bidder to submit a proposal will be available to Bidders on the as a downloadable in PDF formats as referenced in the Advertisement for Bids.
- 14.2.2 The requirements are indicated in Article 15 – “SUBMISSION OF RESPONSIBLE AND RESPONSIVE PROPOSALS”
- 14.2.2 Bidders wishing to receive other or additional electronic documents should submit a completed and signed “Agreement for Release of Electronic Files” found at the end of Technical Specifications, Division 01 – “Submittal Procedures” by email to:
- J. Larry Kalousek  
Designated Owner’s Representative  
CHA Consulting, Inc.  
Email: [jkalousek@chasolutions.com](mailto:jkalousek@chasolutions.com)  
Phone: 208-869-3308
- 14.2.3 Once the signed form as been received, instructions will be forwarded regarding how to obtain the files.

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15. SUBMISSION OF RESPONSIBLE AND RESPONSIVE BID PROPOSALS

Bid Proposals shall be submitted at the time and place indicated in the Advertisement for Bids. Each Bid Proposal shall be submitted as follows to be considered responsive:

- 15.1. The requirements for the Bid Proposal submission and instructions are available to the Bidders by downloading in PDF formats as referenced in the Advertisement for Bids, and as indicated herein. Bidders must be licensed contractors as required by the "CONTRACTOR'S LICENSING ACT OF 1994", Tennessee Code Annotated, Section 62-6-101, et seq. The Proposer/Bidder's attention is directed to Tennessee Code Annotated, Section 62-6-119, and its requirements. Section 62-6-119, and its requirements further states the requirement that the following information be provided with the Bid Proposal: The Prime Contractor's license number, expiration date of the license and the license classification of (a) the contractor applying to bid for the prime contract; (b) the contractor applying to bid for the masonry contract, if the total cost of the masonry portion of the contract exceeds \$100,000; or (c) the contractor applying to bid for the electrical, plumbing, heating, ventilation or air conditioning contracts, if that portion of the project cost exceeds \$25,000. The contractors who are to perform the masonry portion of the project (cost exceeding \$100,000) or the electrical, plumbing, heating, ventilation or air conditioning or the geothermal heating and cooling must be so designated. Only one contractor in each of the listed classifications shall be written on the submitted Proposal/Bid. Any bid submitted without furnishing the required information shall be void and shall not be considered.

The Owner will accept only those Bid Proposals properly executed on physical forms provided by the Owner. The Bidder shall state the price (written in ink or typed) on the Bid Pricing schedule both in words and numerals which they propose for each item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The Bid Proposal Submittal shall be as follows:

- (a) Bid Proposal Form and Bid Pricing Schedule
- (b) Attachments to Bid Proposal Form and Bid Pricing Schedule
  - i. Bid Bond – *Attachment No. 1*
  - ii. Form of Non-collusion Affidavit – *Attachment No. 2*
  - iii. Equal Opportunity Report Statement – *Attachment No. 3*
  - iv. DBE Objectives and Policy Statement – *Attachment No. 4*
  - v. DBE Program Proposal Conditions – *Attachment No. 5*
  - vi. Certification of Nonsegregated Facilities – *Attachment No. 6*
  - vii. Identification of Principals – *Attachment No. 7*
  - viii. Subcontractor Solicitation Information – *Attachment No. 8*
  - ix. Drug Free Workplace Affidavit – *Attachment No. 9*
  - x. Statement of Compliance Certificate Illegal Immigrants – *Attachment No. 10*
  - xi. Certification Against all Debarment and Suspension Debarment – *Attachment No. 11*
  - xii. Contractor Licenses – *Attachment No. 12*

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15.2 If received prior to the date and time of receipt, Bid Proposals meeting the requirements will be read aloud at the time and place designated in the Advertisement for Bids.

16. MODIFICATIONS AND WITHDRAWAL OF BID PROPOSALS

16.1 Submitted Bid Proposals may be modified or withdrawn at any time prior to the schedule receipt of Bid Proposals.

16.2 A Bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the Bidder's request for withdrawal is received by the Owner before the time specified for opening bids. Revised bid proposals must be received as specified in the Advertisement for Bids before the date time specified for receipt to be accepted.

16.3 If within twenty-four (24) hours after the time Bid Proposals are opened and read aloud, any Bidder may file a duly signed written notice with the Owner to the address below and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a material and substantial mistake in the preparation of his Bid Proposal, that Bidder may withdraw his Bid Proposal, and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work for MKAA.

Metropolitan Knoxville Airport Authority (MKAA)  
McGhee Tyson Airport  
Attn: Mr. Bryan D. White, PE  
Vice President of Engineering and Planning  
2055 Alcoa Highway, Suite I  
Alcoa, Tennessee 37701

17. READING OF BID PROPOSALS

17.1 Bid Proposals will be read aloud publicly at the place and time indicated in the Advertisement for Bids.

17.1.1 Bidders, their authorized agents, and other interested persons are invited to attend.

17.1.2 Bid Proposals that have been withdrawn or received after the time specified for opening bids shall not be considered.

17.1.3 An abstract of the amounts of the Bid Pricing will be made available after award is made by Owner.

18. BIDS TO REMAIN OPEN SUBJECT TO ACCEPTANCE

18.1 The Bid Pricing for the Project shall remain open and validate for the Bidder to honor from when bids are received until the time specified in the Advertisement for Proposals.

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18.2 The Owner may, in its sole discretion, return the Bid Security prior to the expiration of the period related to the receipt of Bid Proposals.

19. IRREGULAR BID PROPOSALS

19.1 Bid Proposals shall be considered irregular for the following reasons:

19.1.1 If the Bid Proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered.

19.1.2 If there are unauthorized additions, conditional or alternate pricing items on the Proposal Form or Pricing Schedule, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.

19.1.3 If the proposal does not contain a bid price for each item listed in the Bid Proposal, for which the Bidder is required to price.

19.1.4 If the Bid Proposal contains bid pricing that are obviously unbalanced.

19.1.5 If the Bid Proposal is not accompanied by the proposal/bid guaranty specified by the Owner.

19.1.6 If the applicable Disadvantaged Business Enterprise information is incomplete.

19.2 The Owner reserves the right to reject any irregular Bid Proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

20. DISQUALIFICATION OF BIDDERS

20.1 Prior to the opening of Bid Proposals, the Owner reserves the right to conduct investigations into the qualifications and experience of any or all persons or organizations wishing to submit a Bid Proposal for the Project.

20.1.1 Based upon the findings of such investigations, the Owner reserves the right to deny any or all persons or organizations the opportunity to submit a Bid Proposal for the Project.

20.2 In evaluating Bid Proposals after Bid Proposals are received and reviewed, and prior to Award of Contract, the Owner shall consider the qualifications of the Bidders, the performance of the Bidders on any previous projects with the Owner, whether the Bid Proposal comply with the prescribed Bid Proposal requirements.

20.2.1 After Bid Proposals are received and reviewed, and prior to Award of Contract the Owner may ask for each Bidder to furnish satisfactory evidence their financial

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responsibility. Evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the Bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the Bidder shall further certify whether their financial responsibility is approximately the same as stated or reported by the public accountant. If the Bidder's financial responsibility has changed, the Bidder shall qualify the public accountant's statement or report to reflect the Bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.

20.2.2 Unless otherwise specified, a Bidder may submit evidence that they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

20.3 The Owner reserves the right to disqualify Bid Proposals before or after receiving, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.

20.4 The Owner reserves the right to disqualify Bid Proposals before or after receiving, upon evidence of more than one bid proposal from the same partnership, firm, or corporation under the same or different name being submitted.

20.5 The Owner reserves the right to disqualify Bid Proposals before or after receiving, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.

20.6 The Owner reserves the right to reject the Bid Proposal of any Bidder who does not pass any such evaluation to the Owner's satisfaction.

## 21. NOTICE OF INTENT-TO-AWARD CONTRACT & AWARD OF CONTRACT

21.1 If a Contract or contracts are to be awarded, they will be awarded to the most responsible and responsive Bidder whose evaluation by the Owner indicates that the Award will be in the best interest of the Owner. Evaluation Criteria and weighing and ranking of evaluation criteria is indicated in the General Provisions, Section 20 – "Evaluation of Submitted Bid Proposals Accepted in the Proposal Documents.

21.1.1 The Award and final Contract Documents shall be the Bid Proposal Documents and the accepted Bid Proposal – Bid Proposal Form, Bid Pricing Schedule, Attachments, Etc.

21.1.1 If after the submittal date and time, interviews are held prior to issuance of Intent-to-Award, the final Awarded Contract Documents shall be the Bid Proposal

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Documents, - Bid Proposal Form, Bid Pricing Schedule, Attachments, Etc., with any mutually agreed upon changes to the Bid Proposal after the interview process, and not effecting or changing the Pricing, Contract Time, or Schedule.

21.2 The Owner may conduct such investigations as deemed necessary to assist in the evaluation of any Bid Proposal and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

21.2.1 After the date and time for receipt of Bid Proposals and before issuance of an Intent-to-Award to a Bidder, if may be determined by the Owner a formal interview process is required to finalize decision to determine the most responsible and responsive Bid Proposer. Each Bidder is hereby given notice that an on-site, in-person interview or virtual interview with the Owner. Selected subcontractors and/or team members may be required by one, or more Bid Proposers after the date and time for receipt of Bid Proposals and before issuance of an Intent-to-Award.

21.2.2 Furthermore, the Successful Bidder must, prior to the insurance of an Intent to award or award of the Contract, be prepared to discuss in detail all matters relating to any special features of the Work with the end view of obtaining high-grade workmanship and proper performance of the Contract.

21.3 The Owner reserves the right to reject all submitted Bid Proposals, to waive any informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive, or conditional Bid Proposals. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

## 22. BONDS, CONTRACT SECURITY AND INSURANCE

22.1 The Contract Form and Special Provisions set forth Owner's requirements as to Bonds and Insurance, respectively. When the Successful Bidder delivers the executed Agreement to the Owner it shall be accompanied by the required Contract Security and Insurance Certificates and Policies.

22.2 All Bonds (Bid, Payment, and Performance) must be signed or countersigned by the Surety Company's proper agent authorized to do business in the State of Tennessee, on whom service can be made in the event of litigation.

## 23. SIGNING OF AGREEMENT

23.1 The Contract between the Owner and the Contractor (the "Agreement") shall be executed on original forms consistent with the Sample Contract Forms included herein, as it may be



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modified by addendum, and will be subject to all requirements of the Contract Documents and shall form a binding contract between the contracting parties.

- 23.2 When Owner gives an Intent-to-Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement and all other required Contract Documents. Within fifteen (15) calendar days following the effective date of "Award", Contractor shall sign and deliver all executed counterparts of the Agreement to the Owner with all other Contract Documents including insurance certificates and executed bonds attached thereto. Owner will identify those portions of the Contract Documents not fully signed by the Contractor and such identification shall be binding on all parties.

## 24. SPECIAL REQUIREMENTS AND INSTRUCTIONS

- 24.1 Laws and Regulations: The Bidder's attention is directed to the fact that applicable state laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project, including the Owner's, shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though therein written out in full.

24.1.1 Where Federal, State, and local laws, municipal ordinances and the rules and regulations are required, or referenced, the most stringent requirement shall apply.

- 24.2 Permits: The Contractor is responsible for obtaining all permits as required by local, state, or federal agencies for the construction of this Project, except as otherwise noted. Within the limits of the Owner's knowledge, the Owner may provide pertinent permitting data and information to assist the Contractor in completing all necessary applications for the permits.

## 25. MISCELLANEOUS REQUIREMENTS

- 25.1 All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with manufacturer's instructions.

- 25.2 Contractors must comply with the requirement that siltation and erosion are to be held to the absolute minimum during construction.

- 25.3 Employment Practices: (1) Contractor shall, to the greatest extent practicable, follow hiring and employment practices for work on the Project which will provide new job opportunities for the unemployed and underemployed, and (2) insert or cause to be inserted the same provision in each construction subcontract.

- 25.4 Affirmative Action Requirements: The Bidder's attention is called to the Notice of Requirement for Affirmative Action to Insure Equal Employment Opportunity.

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25.5 Equal Employment Opportunity Requirements:

- a) The Metropolitan Knoxville Airport Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and its regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, complies with the Civil Rights act of 1964 and disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.
- b) Bidders must comply with the President's Executive Order No. 11246 which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.
- c) Each Bidder shall complete, sign, and include in his/her Proposal the Equal Opportunity Report Statement. When a determination has been made to award a contract to a specific Contractor, such Contractor shall, prior to award, after award or both, furnish such other pertinent information regarding his own employment policies and practices as well as those of his proposed subcontractors as the Owner, or the Secretary of Labor may require. All such information required of a subcontractor shall be furnished by the Contractor.
- d) Notice of Affirmative Action: Specific goals for minority and female participation expressed in percentage terms are specified in the General Provisions.
- e) Disadvantaged Business Enterprise Program: The Owner has established goals for DBE participation on this Project, in accordance with 49 CFR, Part 26. The Bidder's attention is directed to the Disadvantaged Business Enterprise Program section of the (Sample) Proposal Forms Attachments for the specific goal for this project.

25.6 Wage Rates: No prevailing wage rates apply.

25.7 DBE Participations: The Metropolitan Knoxville Airport Authority has developed an Objectives and Policy Statement for the DBE program in compliance with Code of Federal Regulations 49CFR PART 26. That document is included herein and shall be included as an attachment to the Proposal Form.

25.7.1 The Contractor is required to submit monthly reports of DBE utilization on this project. The DBE Participation Report, contained herein, shall be completed, and submitted with each application for payment.

25.8 IRS Form W-9: The Contractor shall complete Form W-9, Request for Taxpayer Identification Number and Certification, and submit to the Owner as a part of the contracting process. Form W-9 is contained herein, and shall be included as an attachment to the Proposal Form.

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25.9 Indemnification: MKAA cannot indemnify the Selected Company in any resulting Agreement from this Invitation to Proposers with respect to any matters.

25.10 Confidentiality: MKAA cannot agree to confidentiality provisions in any resulting Agreement from this Invitation to Proposers due to open records laws.

26. DISCREPANCIES AND OMISSIONS

23.6 A Bidder who discovers discrepancies or omissions with the project proposal/bid documents shall immediately notify the Owner's Representative of the matter. A Proposer/bidder that has doubt as to the actual intent of a project requirement may submit to the Owner's Representative a written request for interpretation no later than seven (7) days prior to bid opening in accordance with Paragraph 8.1 of the Instructions to Proposers.

23.6 Any interpretation of the project proposal/bid documents by the Owner's Representative will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications, or interpretations of the bidding documents in any manner other than written addendum.

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SUBSTITUTION REQUESTS DURING BIDDING PERIOD FORM

*(Bidders shall use this form for submitting substitution requests during Bidding Period. Other forms of substitution requests will not be considered. This form must be received by Owner, or Owner's Representative not later than ten (10) calendar days prior to Bid Opening Date)*

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Project: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS  
Substitution Request Number: \_\_\_\_\_  
Re: \_\_\_\_\_

To: CHA Consulting, Inc.  
Attn: J. Larry Kalousek, PM  
Email: [jkalousek@chasolutions.com](mailto:jkalousek@chasolutions.com)  
From: \_\_\_\_\_  
\_\_\_\_\_

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Division or Document Title : \_\_\_\_\_ Section: \_\_\_\_\_

Description: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_

Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

History:  New Product  1 – 4 years old  5 – 10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Point by Point comparative data attached – REQUIRED FOR EVALUATION

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_

Address: \_\_\_\_\_ Owner: \_\_\_\_\_

\_\_\_\_\_ Date Installed: \_\_\_\_\_

---

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_)

Proposed substitution changes Contract Time: \_\_\_ No \_\_\_ Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached:

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The Undersigned Certifies:

Drawings    Product Data    Samples    Tests    Reports    \_\_\_\_\_

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

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Submitted By: \_\_\_\_\_ Signed By: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_ Website: \_\_\_\_\_

Attachments: \_\_\_\_\_

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OWNER, OR OWNER'S REPRESENTATIVES Review and Action (to be filled-in by Owner, or Owner's Representative)

- Substitution Approved
- Substitution Approved as Noted
- Substitution Rejected
- Substitution Request Received Too Late

Signed By: \_\_\_\_\_ Date: \_\_\_\_\_

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Additional Comments:

Contractor    Subcontractor    Supplier    Manufacturer    A/E    \_\_\_\_\_

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

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END SUBSTITUTION REQUESTS DURING BIDDING PERIOD FORM

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REQUEST FOR INFORMATION, CLARIFICATIONS, OR INTERPRETATION DURING BIDDING PERIOD FORM

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*(Bidders shall use this form for submitting Requests for Information, Clarifications, or Interpretations during Bidding Period. This form must be received by not later than seven (7) calendar days prior to Bid Opening Date)*

Project: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS From: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
To: CHA Consulting, Inc. Date Submitted: \_\_\_\_\_  
Attn: J. Larry Kalousek, PM  
Email: [jkalousek@chasolutions.com](mailto:jkalousek@chasolutions.com)

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Spécification or Document Title: \_\_\_\_\_ Section: \_\_\_\_\_  
Description: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

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Requested Information, Clarification, or Interpretation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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Submitted By: \_\_\_\_\_ Signed By: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Attachments: \_\_\_\_\_

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Response, See Response  Below Request  Received Too Late

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Response: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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By: \_\_\_\_\_ Company \_\_\_\_\_ Date: \_\_\_\_\_

By CHA Consultation, Inc.: \_\_\_\_\_ Date: \_\_\_\_\_

END OF REQUEST FOR INFORMATION, CLARIFICATIONS, OR INTERPETATION DURING BIDDING PERIOD FORM

*END OF INSTRUCTIONS TO BIDDERS*

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**BID PROPOSAL PACKET WITH ATTACHMENTS**

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BID PROPOSAL FORM

(Failure to furnish all requested data will be cause for considering Bidder non-responsive and may render this Bid Proposal invalid on that basis.)

PROPOSAL FOR: MCGHEE TYSON AIRPORT

PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

SUBMITTED TO: METROPOLITAN KNOXVILLE AIRPORT AUTHORITY

2055 Alcoa Highway, Suite I  
Alcoa, Tennessee 37701

SUBMITTED BY: \_\_\_\_\_

Bidder's Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
Fax No.

BID PRICING SUMMARY

CONTRACTOR'S NAME: \_\_\_\_\_

Sum of Bid Pricing Items 1 through 3 (in words) \_\_\_\_\_

\_\_\_\_\_  
(dollars) \_\_\_\_\_

1. The undersigned, hereinafter called Bidder, in compliance with the "Advertisement for Bids," accepting all of the terms and conditions of the "Instructions to Bidders," including without limitation, those dealing with the disposition of Bid Security; proposes and agrees, if awarded the Contract, to enter into an Agreement with the Owner in the form of Agreement included in the Contract Documents, to furnish all materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the work to be performed under this Contract within the Contract Time indicated in this Bid Proposal, in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents, to the full and entire satisfaction of the Owner, for the amounts contained in the Bid Pricing Schedules.

- 
2. The Bid Proposal will remain open one hundred eighty (180) calendar days from the date of the bid opening; provided however, that this time may be extended as agreed to between the Bidder and the Owner. If awarded a contract, Bidder will sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within 30 days after the date indicated in Owner's Intent-to-Award.
  
  3. In submitting this Bid, Bidder represents that:
    - (a) Bidder has become thoroughly familiar with the terms and conditions of the proposed Contract Documents accepting the same as sufficient to indicate and convey understanding of all the conditions and requirements under the Contract, which will be executed for the Work.
    - (b) Bidder has examined the site and locality where the Work is to be performed, the legal requirements (federal, state, and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.
    - (c) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Owner.
    - (d) That no commissioner of the Owner or other officers or employees of said Owner is interested directly or indirectly in the Bid or in any portion of the Bid nor in the Contract or any part of the Contract which may be awarded the undersigned based on such Bid.
    - (e) It is a condition of this Bid and any subsequent contract entered into pursuant to this Bid, and it shall be made a condition of each subcontract entered into pursuant to the prime contract that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsatisfactory, hazardous, or dangerous to his health or safety, as determined under Construction Safety and Health Standards, Title 29, CFR, Part 1518 36FR7340, promulgated by the U.S. Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, 83, Stat. 96; that it is a further condition of this Bid that he shall be solely responsible for the enforcement of such Construction and Health Standards, and that he definitely understands that the Owner and his authorized representatives will not assume any liability resulting from his failure to police and enforce all such standards.
    - (f) The description for each Work item, being briefly stated, implies, although it does not mention, all incidentals and that the prices submitted by the Bidder will be considered by the Owner to cover all such work, equipment costs, and incidentals as constitute Bidder's obligations as described in the Contract Documents.

- 
- (g) The Prices bid includes all applicable taxes and fees. Bids shall also include appropriate provisions for price escalation for materials and labors including but not limited to increase in federal, state, or local sales taxes and income or FICA taxes.

4. Contract Time: Bidder agrees that:

- (a) The Work will be completed in accordance with the bidder proposed schedule outlined in the plans, Special Provisions, and the Contract (Agreement).
- (b) The Contractor will commence work with an adequate force, equipment and materials at the time stated in the Notice-to-Proceed (NTP), which will establish the Contract Time, and substantially complete all Work in accordance with the Contract Documents within:

Bidder's Contract Time to achieve Substantial Completion for all the Work.

200 consecutive calendar days from the date stated in said NTP.
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- 5. Liquidated Damages:-Bidder agrees to pay to the Owner the sum of Five Hundred and 00/100 dollars (\$500.00) for each consecutive calendar past the establish substantial completion date. See Section "80 Execution and Progress", Paragraph "80-08 Failure to Complete on Time" of the GENERAL PROVISIONS.
- 6. Bid Pricing Schedules: See attached Bid Pricing Schedule at the end of the Bid Proposal Form.
- 7. Execution of Contract: Bidder agrees that:
  - (a) In case of failure on his/her part to execute the said Contract and Bonds within 30 days after the date indicated in the "Intent-ot-Award", the check or bid bond accompanying this Bid, and the money payable thereon, shall be paid to the OWNER as liquidated damages for such failure; otherwise, the Bid Bond or check accompanying this Bid shall be returned to the undersigned.

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8. Bid Documentation: The following documents are attached to and made a part of this Bid:

- (a) Bid Proposal Form (PF-1 to PF-6)
- (b) Bid Pricing Schedule (PF-7 to PF-8)
- (c) Attachments to Bid Proposal Form and Bid Pricing Schedule
  - i. Bid Bond – *Attachment No. 1* (Page PF-9)
  - ii. Form of Non-collusion Affidavit – *Attachment No. 2* (Page PF-11)
  - iii. Equal Opportunity Report Statement – *Attachment No. 3* (Page PF-13)
  - iv. DBE Objectives and Policy Statement – *Attachment No. 4* (Page PF-15)
  - v. DBE Program Proposal Conditions – *Attachment No. 5* (Page PF-17)
  - vi. Certification of Nonsegregated Facilities – *Attachment No. 6* (Page PF-35)
  - vii. Identification of Principals – *Attachment No. 7* (Page PF-37)
  - viii. Subcontractor Solicitation Information – *Attachment No. 8* (Page PF-39)
  - ix. Drug Free Workplace Affidavit – *Attachment No. 9* (Page PF-41)
  - x. Statement of Compliance Certificate Illegal Immigrants – *Attachment No. 10* (Page PF-43)
  - xi. Certification Against All Debarment – *Attachment No. 11* (Page PF-45)
  - xii. Contractor Licenses – *Attachment No. 12* (Page PF-47)

9. Name and business address (mailing and street) of Bidder to which all formal Notices shall be sent:

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10. The terms used in this Bid which are defined in the General Provisions of the Construction Contract included as a part of the Contract Documents have the meanings assigned to them in the General Provisions.

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11. Bidder hereby acknowledges receipt of the following addenda:

Addendum No.	Date	Initial & Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

---

12. The Bidder shall state on the line below, if a corporation or limited liability company, the name of state in which organized and the date of said organization.

\_\_\_\_\_

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2024

\_\_\_\_\_  
Contractor

Attest: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of individual,  
partner or officer signing  
the Bid)

License Number \_\_\_\_\_

- NOTE:
1. If Contractor is a Corporation, Secretary should attest and seal.
  2. If Contractor is a Partnership, all partners shall execute the Bid (add spaces as required).
  3. If the Contractor is a Limited Liability Company, Secretary should attest.



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Bid Pricing Schedule

Bidder agrees to perform all the Work described in the Bid Proposal Documents, Contracts Documents, and all related documents, and all cost for improvements proposed with submission of Bid Proposal for the Prices INDICATED BELOW FOR EACH BID PRICE ITEM:

BID PRICE ITEM NO. 1: TERMINAL GENERATOR DOCKING STATION	
_____ Dollars (\$_____)	
(Words)	(Figures)

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

BID PRICE ITEM NO. 2: ARFF FENCED-OFF OUTDOOR GENERATOR AREA DOCKING STATION	
_____ Dollars (\$_____)	
(Words)	(Figures)

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

BID PRICE ITEM NO. 3: AOC FENCED-OFF OUTDOOR GENERATOR AREA DOCKING STATION	
_____ Dollars (\$_____)	
(Words)	(Figures)

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

The TOTAL CONTRACT PRICE SUM is calculated and determined by adding together Price Items No. 1 through No. 3. Therefore, the TOTAL CONTRACT PRICE SUM is

<u>TOTAL CONTRACT PRICE SUM = BID PRICE ITEMS NO. 1 THROUGH NO. 3:</u> Add All Bid Price Items Together For Total Contract Price Sum	
_____ Dollars (\$_____)	
(Words)	(Figures)

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

All other Work for 100-percent completion of all PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS incidental to the completion of the Work shall be included as part of Bid Price Items 1 through 3.

---

Indicate the TOTAL CONTRACT PRICE SUM in the BID PRICING SUMMARY of the Bid Proposal Form.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informality in the pricing.

No submitted bids may be withdrawn, and all bids shall remain open and valid after receipt of bids for a period of one hundred eighty (180) consecutive calendar days.

Required with BID PROPOSAL FORM is the bid guaranty on the BID BOND form submitted to the Owner in the amount of:

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_ USD)  
(Words) (Figures)

AND in accordance to the requirements of the Instructions to Proposer, which Bid Bond is subject to the conditions and provisions thereof.

END PRICING SCHEDULE

BID BOND  
*Attachment No. 1*

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned

\_\_\_\_\_ as Principal, and

\_\_\_\_\_ as Surety, are hereby

held and firmly bound unto \_\_\_\_\_ OWNER

in the penal sum of

\_\_\_\_\_

for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

The conditions of the above obligation is such that whereas the Principal has submitted to the Metropolitan Knoxville Airport Authority and certain BID, attached hereto and hereby made a part hereof to enter into a Contract in writing for the PROVISIONS FOR **STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS** at MCGHEE TYSON AIRPORT

NOW THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Agreement attached hereto (properly completed in accordance with said Bid and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates, and agrees that obligations of said Surety and its Bonds shall be in no way impaired or affected by any extension of the time within which the Owner may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(SEAL)

- (1) Bond must be signed or countersigned by the Surety's proper Tennessee Resident Agent. Date of Power-of-Attorney shall be same date as date of Bond.
- (2) If Partnership, all partners shall execute Bond.

FORM OF NON-COLLUSION AFFIDAVIT

*Attachment No. 2*

STATE OF \_\_\_\_\_ )

) SS.

COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ being first duly sworn,  
deposes and says that he is

\_\_\_\_\_ (Sole owner, a partner,  
president, secretary, etc.)

of \_\_\_\_\_ the party making the foregoing PROPOSAL or BID that such PROPOSAL or BID is genuine and not collusive or sham; that said PROPOSER/BIDDER has not colluded, conspired, connived, or agreed, directly or indirectly, with any PROPOSER/BIDDER or person, to put in a sham PROPOSAL or BID, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the PROPOSAL and/or BID Pricing of affiant or any other PROPOSER/BIDDER, or to fix any overhead, profit or cost element of said PROPOSAL and/or BID Pricing, or of that of any other PROPOSER/BIDDER, or to secure any advantage against OWNER for any person interested in the proposed Contract; and that all statements in said Proposal or Bid are true; and further, that such PROPOSER/BIDDER has not, directly or indirectly submitted this PROPOSAL or BID, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

\_\_\_\_\_  
(Proposer/Bidder)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_ County \_\_\_\_\_

My Commission expires \_\_\_\_\_, 20\_\_.

(SEAL)

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EQUAL OPPORTUNITY REPORT STATEMENT  
AS REQUIRED BY 41 CFR 60-1.7(b)  
*Attachment No. 3*

The Bidder (Proposer) shall complete the following statement by checking the appropriate blanks. Failure to complete these blanks may be grounds for rejection of bid:

1. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ developed and has on file at each establishment affirmative action programs pursuant to 41 CFR 60-1.40 and 41 CFR 60-2.
2. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ participated in any previous contract or subcontract subject to the equal opportunity clause prescribed by Executive Order 11246, as amended.
3. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ filed with the Joint Reporting Committee the annual compliance report on Standard Form 100 (EEO-1 Report).
4. The Bidder (Proposer) does \_\_\_\_\_ does not \_\_\_\_\_ employ fifty (50) or more employees.

NAME OF BIDDER (PROPOSER): \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

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THE  
METROPOLITAN KNOXVILLE AIRPORT AUTHORITY  
DISADVANTAGED BUSINESS ENTERPRISE PROGRAM  
IN COMPLIANCE WITH  
49 CFR PART 26  
*Attachment No. 4*  
Objectives and Policy Statement  
(26.1, 26.23)

The Metropolitan Knoxville Airport Authority (the "Authority") has established a Disadvantaged Business Enterprise (DBE) Program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26, Exhibit A. The Authority has received Federal financial assistance from the Department of Transportation, and anticipates continuing to receive at least \$250,000 in assistance. As a condition of receiving this assistance, the Authority has signed an assurance statement that complies with 49 CFR Part 26.

It is the policy of the Authority to ensure that DBEs, as defined in CFR 49 Part 26, have an equal opportunity to receive and participate in DOT- assisted contracts. It is also our policy:

- To ensure nondiscrimination in the award and administration of DOT assisted contracts;
- To create a level playing field on which DBEs can compete fairly for DOT assisted contracts;
- To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
- To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
- To help remove barriers to the participation of DBEs in DOT assisted contracts; and
- To assist with the development of firms that can compete for DOT contracts with the aspiration that they can successfully compete in the market place outside the DBE Program.

Alan Jones, the Authority's Manager of Administration, has been designated as the DBE Liaison Officer. In that capacity, Mr. Jones is responsible for implementing all aspects of the DBE program. Implementation of the DBE program is accorded the same priority as compliance with all other legal obligations agreed upon by the Authority in its financial assistance agreements with the Department of Transportation.

The Authority has disseminated this policy statement to the nine members of the Authority's Board of Commissioners, and all the components of our organization. The Authority has distributed this statement to DBE and non-DBE business communities that perform work for us on DOT- assisted contracts. A copy of this policy statement is enclosed in all bid and contract documents for federally assisted projects.

\_\_\_\_\_  
Chair  
Board of Commissioners

\_\_\_\_\_  
Date

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MCGHEE TYSON AIRPORT

Metropolitan Knoxville Airport Authority

**PROVISIONS FOR STANDBY GENERATOR DOCKING  
STATIONS AND RELATED IMPROVEMENTS**

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

PPOPOSAL/BID CONDITIONS

*Attachment No. 5*

The following bid conditions apply to this Department of Transportation (DOT) assisted contract. Submission of a bid/proposal by a prospective Contractor shall constitute full acceptance of these bid conditions.

- (1) DEFINITION – Disadvantaged Business Enterprise (DBE) as used in this Contract shall have the same meaning as defined in Paragraph 23.62 of Subpart D to 49 CFR Part 26.
- (2) POLICY - It is the policy of DOT that DBE's as defined in 49 CFR Part 26 shall have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds. The Runway 5L-23R Reconstruction – NAVAIDs Installation will be funded through the Federal Aviation Administration. Therefore, the DBE requirements of 49 CFR Part 26 applies to this contract.
- (3) DBE OBLIGATION – The Contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds, and through other funding sources specified by the Metropolitan Knoxville Airport Authority. In this regard, all Contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that DBE's have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin, disability or sex in the award and performance of DOT assisted contracts, or other contracts defined by the Owner.
- (4) COMPLIANCE - All bidders, potential Contractors, or subcontractors for this DOT assisted contract are hereby notified that failure to carry out the DOT policy, the Airport Authority policy, and the DBE obligation, as set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the Owner.
- (5) SUBCONTRACT CLAUSE – All bidders and potential Contractors hereby assure that they will include the above clauses in all subcontracts which offer further subcontracting opportunities.
- (6) RACE-CONSCIOUS – Measure or program is one that is focused specifically on assisting only DBE's, including women-owned DBE's (as defined in 49 CFR Part 26.5).

- (7) RACE-NEUTRAL – Measure or program is one that is, or can be, used to assist all small business. For the purposes of this part, race-neutral includes gender-neutrality (as defined in 49 CFR Part 26.5).
- (8) CONTRACT AWARD - Bidders are hereby advised that meeting DBE subcontract goals or making an acceptable good faith effort to meet such goals are conditions of being award a DOT assisted contract or other contract defined by the Owner.

The Owner proposes to award the contract to the lowest responsive and responsible bidder submitting a reasonable bid provided the bidder has met the goals for DBE participation or, if failing to meet the goals, the bidder has made an acceptable good faith effort to meet the established goals for the DBE participation. Bidder is advised that the Owner reserves the right to reject any or all bids submitted, and to award or refrain from awarding a contract for the work, whichever is deemed to be in the Owner's best interest.

- (9) DBE PARTICIPATION GOAL - The attainment of goals established for this contract are to be measured as a percentage of the total dollar value of specific portions of the contract. The application of the DBE goal is required for all of the work associated with this project.

The DBE goal for this project as awarded, regardless of the bid elements included is:

The achievement of the DBE goals shall address two categories as outlined in 49 CFR Part 26:

- |  |             |
|--|-------------|
| 1. Race Conscious – Minimum participation requirement: | <u>6.8%</u> |
| 2. Race Neutral – Balance of participation goal:       | <u>0.0%</u> |
| Total Participation:                                   | <u>6.8%</u> |

RACE CONSCIOUS – Measure or program is one that is focused specifically on assisting only DBE's, including women-owned DBE's (as defined in 49 CFR Part 26.5).

RACE NEUTRAL – Measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality (as defined in 49 CFR Part 26.5).

The determination of the proposed DBE participation for the project shall be made as follows:

Total DBE Amount Bid  
Total Proposal/Bid Pricing Amounts

- (10) AVAILABLE DBE'S – The Metropolitan Knoxville Airport Authority is a member of the Tennessee Uniform Certification Program (TNUCP). The Metropolitan Knoxville Airport Authority continues to certify DBE construction contractors, suppliers, and manufacturers, and relies solely on the certified

list of DBE companies as prepared by the Tennessee Department of Transportation. The internet link to this document is: [http: www.tdot.state.tn.us/dbedirectinternet/ Vendor.aspx](http://www.tdot.state.tn.us/dbedirectinternet/ Vendor.aspx)

(Note: pop-up blocker must be disabled to view report)

Proposers/Bidders are encouraged to contact the Metropolitan Knoxville Airport Authority in their pursuit of locating DBE's for the work. At the Proposer's/Bidder's request, the Metropolitan Knoxville Airport Authority will provide a list of DBE contractors who are currently certified with the TNUCP.

Credit toward the DBE goal will not be counted unless the companies to be used to satisfy the goal is (are) certified as a DBE by the TNUCP prior to the bid date.

(11) CATEGORIES FOR OBTAINING DBE PARTICIPATION – DBE participation can be achieved from any combination of the following categories. Note the percentage amount paid to the DBE company that will be allowed for credit toward DBE participation:

- Subcontractor 100%
- Manufacturer 100%
- Supplier 60%

(12) CONTRACTOR'S REQUIRED SUBMISSION – The Owner requires the submission of the following information with the bid. Certain other DBE information may also be required.

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DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
PROGRAM SPECIFICATIONS  
Exhibit 1

BID SCHEDULE \_\_\_\_  
DBE PARTICIPATION SCHEDULE  
FORM A (2 pages)

(Provide a separate sheet(s) for each Base Bid, Bid Additive and Bid Alternate)

(1) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage:  %
(2) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage:  %
(3) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage:  %

(4) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage: %
(5) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage: %
(6) DBE Name of Firm:	DOT/TYPE: <input type="checkbox"/> *Minority <input type="checkbox"/> Women <input type="checkbox"/> Other
Address:	Telephone:
Owner/Contact Name(s):	Email Address:
<input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Consultant <input type="checkbox"/> Dealer/Supplier <input type="checkbox"/> Hauler – Number of DBE Owned Trucks _____ (Must provide VIN Numbers for DBE owned trucks to be used at Post Bid Meeting).	Area of Work to be performed:
	DBE Bid Amount: \$
	DBE Goal Percentage: %

\*(Black, Hispanic, Asian American, American Indian and other Economically Disadvantaged)

The undersigned will enter formal agreements with subcontractors or suppliers names in this document, if awarded a contract by Owner. Failure to do so may constitute a breach of contract, with the Owner.

Bidders Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_ Title: \_\_\_\_\_



DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
PROGRAM SPECIFICATIONS

Exhibit 2

BID SCHEDULE \_\_\_\_

UTILIZATION STATEMENT

Form B

(Provide a separate sheet for each Base Bid, Bid Additive and Bid Alternate)

The undersigned bidder has satisfied the requirements of the bid specification in the following manner. *(Please mark the appropriate box).*

- The bidder is committed to a minimum of \_\_\_\_\_% DBE utilization on this contract.
- The bidder, while unable to meet the DBE goal of \_\_\_\_\_, hereby commits to a minimum of \_\_\_\_\_% DBE utilization on this contract and also submits documentation, as an attachment demonstrating good faith efforts (GFE).

The undersigned hereby further assures that the information included herein is true and correct, and that the DBE firm(s) listed herein have agreed to perform a commercially useful function in the work items noted for each firm. The undersigned further understands that no changes to this statement may be made without prior approval from the Civil Right Staff of the Federal Aviation Administration.

Name of Prime Contractor: \_\_\_\_\_

Project Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

<u>DBE UTILIZATION SUMMARY</u>		
		<input type="checkbox"/> Base Bid <input type="checkbox"/> Bid Additive No. _____ <input type="checkbox"/> Bid Alternate No. _____
	<u>Contract Amount</u>	<u>DBE Amount</u>
DBE Prime Contractor	\$ _____ x1.00 =	\$ _____
DBE Subcontractor	\$ _____ x1.00 =	\$ _____
DBE Dealer/Supplier	\$ _____ x0.60 =	\$ _____
DBE Manufacturer	\$ _____ x1.00 =	\$ _____
Total Amount DBE \$		\$ _____
Prime Contractor Bid		\$ _____
DBE Anticipated Goal (Total DBE \$/Prime Contractor Bid x 100 = TOTAL DBE %)		_____ %

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If the Contractor fails to meet the DBE subcontract goals established in paragraph 9 above, the following information must be submitted prior to contract award to assist the Owner in determining whether or not the contractor made acceptable good faith efforts to meet the contract goal. This information (when applicable), as well as the DBE information, should be submitted as specified in Paragraph 12 above.

Suggested guidance for use in determining if good faith efforts were made by a contractor are included in Appendix A 49 CFR Part 26, subpart 23.45(h).

A list of efforts that a contractor may make and the Owner may use in making a determination as to the acceptability of a contractor's efforts to meet the goal as included in Appendix A 49 CFR Part 26, Subpart 23.45(h) are as follows:

- a. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by the recipient to inform DBE's of contracting and subcontracting opportunities;
- b. Whether the contractor advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;
- c. Whether the contractor provided written notice to a reasonable number of specific DBE's that their interest in the contract was being solicited in sufficient time to allow the DBE's to participate effectively;
- d. Whether the contractor followed up initial solicitations of interest by contracting DBE's to determine with certainty whether DBE's were interested;
- e. Whether the contractor selected portions of work to be performed by DBE's in order to increase the likelihood of meeting the DBE goal (including, where appropriate, breaking down contracts into economically feasible units to facilitate DBE participation);
- f. Whether the contractor provided interested DBE's with adequate information about the plans specifications, and requirements of the contract;
- g. Whether the contractor negotiated in good faith with interested DBE's, not rejecting DBE's as unqualified without sound reasons based on a thorough investigation of their capabilities;
- h. Whether the contractor made efforts to assist interested DBE's in obtaining bonding, lines of credit, or insurance required by the recipient or contractor; and
- i. Whether the contractor effectively used the services of available minority community organizations; minority contractors' groups; local and state Federal Minority Business Assistance Offices; and other organizations that provide assistance in the recruitment and placement of DBE's.

NOTE: The efforts set forth above, a – l, are merely suggested criteria and the Owner may specify that you submit information on certain other actions a contractor took to secure DBE participation in an effort to meet the goals. A contractor may also submit to the Owner other information on efforts to meet the goals.

(13) CONTRACTOR ASSURANCES –

- a. The bidder hereby assures that he/she will comply with the following statement and include in all subcontracts:

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
  - (2) Assessing sanctions;
  - (3) Liquidated damages; and/or
  - (4) Disqualifying the contractor from future bidding as non-responsible.
- b. The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the Owner's written consent as provided for in 49 CFR 26.53 (f).
- c. Without the Owner's written consent as provided for under 49 CFR 26.53 (f), the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Bidder also assures to comply with the following goals:

- a. The DBE participation goal as established in Paragraph 9 above.
- b. The calculated DBE participation percentage as shown in Paragraph 12, which was submitted as a condition of contract award.

Agreements between bidder/proposer and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders/proposers are prohibited. The bidder shall make a good faith effort to replace a DBE subcontract that is unable to perform successfully with another DBE subcontractor. Substitution must be coordinated and approved by the Owner.

The Bidder shall establish and maintain records and submit regular reports, as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE affirmative action efforts.

Name of BIDDER: \_\_\_\_\_

IRS Number: \_\_\_\_\_ By: \_\_\_\_\_

Date: \_\_\_\_\_ Title: \_\_\_\_\_

END DBE PROGRAM

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DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
PROGRAM SPECIFICATIONS

Exhibit 3

BID SCHEDULE \_\_\_\_

DBE CONTACT SHEET  
Form C  
(Multiple Copies Can Be Made)

\*Prime Contractor to complete and submit along with bid/proposal or within TWO (2) business days of Bid Submission with "Good Faith Effort Documentation."

\* Submit information regarding all DBE subcontractors contacted

Bid Opening Date \_\_\_\_/\_\_\_\_/\_\_\_\_, Time: \_\_\_\_\_

Name of Prime Contractor: \_\_\_\_\_ Bid Number: \_\_\_\_\_

Date Contacted	Name of Firm	Person Contacted	Telephone Number	Subcontractor Response
	Work Item to be Performed		Price Quoted	<input type="checkbox"/> MBE (Minority) <input type="checkbox"/> WBE (Woman)
Date Contacted	Name of Firm	Person Contacted	Telephone Number	Subcontractor Response
	Work Item to be Performed		Price Quoted	<input type="checkbox"/> MBE (Minority) <input type="checkbox"/> WBE (Woman)
Date Contacted	Name of Firm	Person Contacted	Telephone Number	Subcontractor Response
	Work Item to be Performed		Price Quoted	<input type="checkbox"/> MBE (Minority) <input type="checkbox"/> WBE (Woman)
Date Contacted	Name of Firm	Person Contacted	Telephone Number	Subcontractor Response
	Work Item to be Performed		Price Quoted	<input type="checkbox"/> MBE (Minority) <input type="checkbox"/> WBE (Woman)

I hereby certify that the subcontractors listed above were contacted by my firm and requested to submit quotes on the above-referenced project. All interested subcontractors were negotiated with in good faith efforts.

Signed: \_\_\_\_\_ Title: \_\_\_\_\_

Print Name: \_\_\_\_\_ Telephone: \_\_\_\_\_

DBE PROGRAM

(Initial \_\_\_\_)

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DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
PROGRAM SPECIFICATIONS

Exhibit 4

BID SCHEDULE \_\_\_\_  
AFFIDAVIT OF DBE  
Form D  
(Provide a separate sheet(s) for each DBE Contractor)

Name of DBE Contractor: \_\_\_\_\_

Project Name: \_\_\_\_\_

Check All that Apply:

- Base Bid
- Bid Additive No(s). \_\_\_\_\_
- Bid Alternate No(s). \_\_\_\_\_

I hereby declare and affirm that I am an officer or person duly authorized to represent the below named firm.

I declare and affirm that I am a Disadvantaged Business Enterprise as defined in USDOT/TNDOT (49CFR, part 26) and am listed in the DBE Directory in good standing. I also declare that I am certified for the work area that we are being hired to perform. I have provided a copy of our TN Uniform Certification Program Certificate. I am a citizen of the United States.

I do solemnly declare and affirm under the penalties of perjury that the contents of the foregoing document are true and correct and that I am authorized, on behalf of the named firm to sign this affidavit.

_____ (DBE SIGNATURE) _____ (DATE)
_____ (PRINTED NAME)
STATE OF _____ COUNTY OF _____
ON THIS _____ (DAY) OF _____ (MONTH), _____ (YEAR)
The person described in the foregoing affidavit acknowledges that he/she executed the same in the capacity therein stated and for the purposes therein contained.
In witness thereof, I here unto set my official seal:
_____ Notary Public Signature
_____ My Commission Expires

DBE PROGRAM

(Initial\_\_\_\_)

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DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
PROGRAM SPECIFICATIONS

Exhibit 5

BID SCHEDULE \_\_\_\_  
INTENT TO PERFORM AS A SUBCONTRACTOR  
Form E  
(Provide a separate sheet(s) for each DBE Contractor)

TO: \_\_\_\_\_ Bid Number: \_\_\_\_\_  
(Name of Prime Contractor)

Project Name: \_\_\_\_\_

(Check One):

An Individual  A Corporation  A Partnership  A Joint Venture

(Check One):

Contractor  Subcontractor  Manufacturer  Consultant  Dealer/Supplier

The DBE status of the undersigned is confirmed on the Affidavit of Disadvantaged Business Enterprise.

The undersigned is prepared to perform the following described work in connection with the above- referenced project:

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

DBE CONTRACTED PRICE: \$ \_\_\_\_\_

The Prime Contractor has projected the following commencement date for such work, and the undersigned projects completion of such work as follows:

Project Commencement Date \_\_\_\_\_ Project Completion Date \_\_\_\_\_

With respect to the proposed subcontract described above, \_\_\_\_% of the dollar value of such subcontract will be sublet and/or awarded to NON-DBE Contractors and/or Non-DBE Suppliers.

The undersigned will enter into a formal agreement for the above work with the  Contractor  Subcontractor. As a DBE Contractor, I will cooperate with the certificate and monitoring process set forth by \_\_\_\_\_ for the referenced project.

\_\_\_\_\_  
Signature of DBE

Date

\_\_\_\_\_  
Name of DBE Firm

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Type Title

\_\_\_\_\_  
Telephone Number

DBE Program

(Initial\_\_\_\_)

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SUBCONTRACTS EXCEEDING \$10,000 WHICH ARE NOT  
EXEMPT FROM THE EQUAL OPPORTUNITY CLAUSE

Certification of Non-segregated Facilities

*Attachment No. 6*

The federally assisted construction Contractor certifies that he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction Contractor certifies that he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction Contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment area, transportation, and housing facilities provided for employees which are segregated by explicit directives or are in fact segregated on the basis or race, color, religion, or national origin because of habit, local custom, or any other reason. The federally assisted construction Contractor agrees that (except where he has obtained identical certifications from proposed Subcontractors for specific time periods) he will obtain identical certifications from proposed Subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause and that he will retain such certifications in his files.

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Signature of Proposer/Bidder

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Title

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IDENTIFICATION OF PRINCIPALS  
*Attachment No. 7*  
for

**PROVISIONS FOR STANDBY GENERATOR DOCKING  
STATIONS AND RELATED IMPROVEMENTS**

Following are the names of all persons, firms and corporations interested in the above Proposal and/or Bid as principals. If none, state that "No person or party other than the proposer/bidder is interested in this Proposal".

NAME

ADDRESS

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Date: \_\_\_\_\_ Signed: \_\_\_\_\_

PROPOSER/BIDDER

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SUBCONTRACTOR SOLICITATION INFORMATION  
(This page shall be submitted for each Subcontractor)  
Attachment No. 8

The PROPOSER/BIDDER hereby states that he/she obtained bids or quotes from the following list of potential Subcontractors, during the development of this bid. This information is being collected to satisfy the 49 CFR, Part 26, Subtitle A, which requires recipients of Airport funds authorized by 49 U.S.C. 47101, et seq. to.

Firm Name: \_\_\_\_\_ DBE Status: DBE  Non-DBE

Address: \_\_\_\_\_

Area of Performance: \_\_\_\_\_ Years in Business: \_\_\_\_\_

Annual Gross Receipts:  Less than \$500,000  \$500,000-\$1M  \$1M-2M  
 \$2M-\$5M  \$5M-10M  Greater than \$10M

Firm Name: \_\_\_\_\_ DBE Status: DBE  Non-DBE

Address: \_\_\_\_\_

Area of Performance: \_\_\_\_\_ Years in Business: \_\_\_\_\_

Annual Gross Receipts:  Less than \$500,000  \$500,000-\$1M  \$1M-2M  
 \$2M-\$5M  \$5M-10M  Greater than \$10M

Firm Name: \_\_\_\_\_ DBE Status: DBE  Non-DBE

Address: \_\_\_\_\_

Area of Performance: \_\_\_\_\_ Years in Business: \_\_\_\_\_

Annual Gross Receipts:  Less than \$500,000  \$500,000-\$1M  \$1M-2M  
 \$2M-\$5M  \$5M-10M  Greater than \$10M

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DRUG FREE WORKPLACE AFFIDAVIT  
*Attachment No. 9*

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn, deposes and says as follows:

1. The undersigned is a principal officer of \_\_\_\_\_ hereinafter referred to as the "Company", and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. Section 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code Annotated.
3. The company is in compliance with T.C.A. Section 50-9-113.

Further affiant saith not.

\_\_\_\_\_  
Principal Officer

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Before me personally appeared \_\_\_\_\_, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who acknowledged that he/she is the \_\_\_\_\_ of the Company a \_\_\_\_\_ and that he/she, being authorized so to do, executed this affidavit for the purposes therein contained, by signing the name of the Company by himself/herself as \_\_\_\_\_.

Witness my hand and seal at office this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_

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STATEMENT OF COMPLIANCE CERTIFICATE ILLEGAL IMMIGRANTS  
*Attachment No. 10*

EACH CONTRACTOR SUBMITTING A PROPOSAL/BID SHALL FILL IN AND SIGN THE FOLLOWING

This is to certify that \_\_\_\_\_ have fully complied with all the requirements of Chapter No. 878 (House Bill No. 111 and Senate Bill No. 411) which serves to amend Tennessee Code Annotated Title 12, Chapter 4, Part I, attached herein for reference.

All Proposers/Bidders for construction services on this project shall be required to submit an affidavit (by executing this compliance document) as part of their bid that attests that such Proposer/Bidder shall comply with requirements of Chapter no. 878.

Signed: \_\_\_\_\_

State \_\_\_\_\_  
of \_\_\_\_\_  
County of \_\_\_\_\_)

Personally appeared before me, \_\_\_\_\_ the undersigned Notary Public, \_\_\_\_\_, the within named bargainer, with whom I am personally acquainted, and known to me to be the President/Owner/Partner (as applicable) of the \_\_\_\_\_, Corporation, Partnership, Sole Proprietorship (as applicable) and acknowledged to me that he executed the foregoing document for the purposes recited therein.

Witness my hand, at office, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

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CERTIFICATION AGAINST ALL DEBARMENT AND SUSPENSION  
*Attachment No. 11*

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the proposer/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.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful proposer/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 any 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 Certification of Offerer /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration 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 may pursue any available remedies, including suspension and debarment of the non-compliant participant.

Execution of this proposal on the signature portion thereof shall constitute also signature of this certification as permitted by Title 28 United States Code, Section 1746.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

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CONTRACTOR LICENSE FORM  
TENNESSEE CODE ANNOTATED, SECTION 62-6-119  
*Attachment No. 12*

That statute requires that the following information be written on the outside of the sealed proposal and/or bid envelope containing their bid or provided within the electronic bid document: The name, license number, expiration date of the license and the license classification of (a) the contractor applying to bid for the prime contract; (b) the contractor applying to bid for the masonry contract, if the total cost of the masonry portion of the contract exceeds \$100,000; or (c) the contractor applying to bid for the electrical, plumbing, heating, ventilation or air conditioning contracts, if that portion of the project cost exceeds \$25,000. Prime contractor bidders who are to perform the masonry portion of the project (cost exceeding \$100,000) or the electrical, plumbing, heating, ventilation or air conditioning or the geothermal heating and cooling must be so designated. Only one contractor in each of the listed classifications shall be written on the bid envelope. Any proposal/bid submitted without furnishing the required information shall be void, and shall not be considered.

<u>NAME</u>	<u>LICENSE NUMBER</u>	<u>EXPIRATION DATE</u>	<u>CLASSIFICATION</u>
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## **CONTRACT FORMS**

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## CONTRACT FORM

This Agreement is dated as of the \_\_\_\_\_, 2024 by and between Metropolitan Knoxville Airport Authority, a public corporation of the state of Tennessee, Owner and Operator of the McGhee Tyson Airport, Alcoa, Tennessee (hereinafter called Owner) and CONTRACTOR. (hereinafter called Contractor). Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### Article 1. WORK.

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as **PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS** at the McGhee Tyson Airport, including:

#### 1. TO BE COMPLETED PRIOR TO EXECUTION

### Article 2. PRIME CONSULTANT

The Project has been designed by:

CHA Consulting, Inc.  
3008 Topside Business Park Drive  
Suite E  
Louisville, TN 37777  
(865) 980-8056

who is hereinafter called “Engineer” who is to act, and/or be designated as the Owner's Representative, to assume all duties and responsibilities and have the rights and authority assigned to Engineer or Owner’s Representative in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### Article 3. CONTRACT TIME

3.1 The Work will be completed and ready for Final Inspection in accordance with the phasing/sequencing schedule outlined in the Contract Documents and in accordance with paragraph 50-15 of General Provisions Section 50 as follows:

Contract Time And Liquidated Damages:

The following contract time and liquidated damage schedule has been established for this project:

Schedule	Liquidated Damages Cost	Allowed Construction Time
All Work	\$500	200 days

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**NOTES:**

1. The contract time begins on the effective date of the Construction Notice-To-Proceed.
  2. Owner's Benefit Use is defined as the time the Project is substantially complete whereas the improvements can be used for their intended uses and benefits the Owner.
- 3.2 Liquidated Damages. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not substantially complete within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Paragraph 80-07 of the General Provisions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner the amounts stipulated above for each calendar day that expires after the time specified in paragraph 3.1 for Substantial and Final Completion.
- 3.3 Contractor understands and hereby expressly agrees, in addition to liquidated damages specified in Article 3.2 above, to pay the Owner the actual costs to Owner for any inspector or inspectors necessarily employed by Owner on the Work and the actual costs to Owner for the Engineer's observation of construction and project representative services including all travel and subsistence expenses after the date specified for completion until the Work is completed and ready for final payment. Further, the Contractor agrees that the sums to be paid the Owner may be deducted from the sum due the Contractor for work performed as provided in Section 90 of the General Provisions.

Article 4. CONTRACT PRICE/PERFORMANCE AND PAYMENT BONDS

- 4.1 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, and in accordance with the prices submitted on May 9, 2024 and per attached Pricing Schedule, with the sum of all items in the Pricing Schedule forming the basis for the total Contract amount:
- ADD SCHEDULE OF PRICING AMOUNT INFORMATION*
- 4.2 Requirements for Performance and Payment Bonds are contained in the General Provisions, and Instructions to Bidders.

---

Article 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Section 90 of the General Provisions. Applications for Payment will be

5.1.1. Partial payments will be made in an amount equal to the work completed and accepted by the owner ~~percentage indicated below, but, in each case,~~ less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with Section 90 of the General Provisions.

~~1. 95% of Work completed as determined by Engineer.~~

~~2. 95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in paragraph 90-07 of the General Provisions).~~

5.1.2 With each Application for Payment, the Contractor shall submit his DBE expenditures for the month as well as a total-to-date. The expenditure report shall include the name, date, and amounts paid to each DBE subcontractor.

5.1.3 With each Application for Payment, the Contractor shall submit an updated CPM schedule delineating activities completed and those remain to be completed. Additionally, he needs to identify any logic changes made since submission of his first (baseline) CPM schedule. Detailed Bar Chart, Network Diagram and Standard Report for all activities are required and shall be submitted on both hard (paper) copies as well as the electronic files.

5.1.4 The Contractor is advised that the certified payroll for his organization as well as all of his subcontractors must be current within 14 days of the requested Application for Payment.

5.1.5 Contractor's failure to submit an acceptable DBE expenditure report or CPM schedule update, or not meeting the requirements for the certified payroll submission schedule, as outlined in 5.1.2, 5.1.3 and 5.1.4 above, will result in withholding of his partial payment by the Owner until these requirements are satisfied.

- 
- 5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with Section 50 of the General Provisions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in paragraph 90-09, titled Acceptance and Final Payment.

Article 6. CONTRACTOR'S REPRESENTATIONS

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

- 6.1 Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 6.2 ~~Contractor has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including the General Provisions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.~~
- 6.3 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing conditions where the Work is to be performed and all contiguous or adjoining areas which may be impacted as a result of said Work. Additional examinations, investigations, explorations, tests, reports, studies or similar information in respect to the installation of the Work shall be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.
- 6.4 Contractor has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents.
- 6.5 Contractor has given Engineer written notice of all conflicts, error, or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor.



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Article 7. CONTRACT DOCUMENTS

The Contract Documents, which comprise the entire agreement between Owner and Contractor concerning the Work (the Contract), consist of the following:

- 7.1 Proposal Requirements including Advertisement for Proposals (pages AP-1 through AP-3 inclusive), and Instructions to Bidders (pages IP-1 through IP-21 inclusive).
- 7.2 Proposal Forms, Pricing Schedule, Proposal Attachments (pages B-1 through B-48 inclusive) as completed and submitted by the Bidder.
- 7.3 Addendums (\_\_\_\_\_ through \_\_\_\_\_)
- 7.4 Contract Form, Appendices and Contract Attachments
- 7.5 General Provisions, Section 10 through Section 90 (pages 10-1 through 90-53 inclusive).
- 7.6 Special Provisions
- 7.7 ~~FAA Technical Specifications~~
- 7.8 Supplemental Technical Specifications
- 7.9 Attachments
- 7.10 Drawings

- E-001 ELECTRICAL LEGEND, SYMBOLS & ABBREVIATIONS**
- E-100 ELECTRICAL OVERALL POWER PLAN**
- E-101 ELECTRICAL POWER PLAN - TERMINAL**
- E-102 ELECTRICAL POWER PLAN - ARFF**
- E-103 ELECTRICAL POWER PLAN - AOC**
- E-601 ELECTRICAL ONE-LINES & DETAILS**

Article 8. MISCELLANEOUS

- 8.1 Terms used in this Agreement, which are defined in Section 10 of the General Provisions, will have the meanings indicated in the General Provisions.
- 8.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

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8.3 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

8.4

8.5 Jurisdiction and Venue

This Contract has been executed by, delivered to, and accepted by the Owner in the State of Tennessee, and the provisions hereof shall be governed by the laws of Tennessee; and any disputes arising out of or related to this Contract shall be resolved in accordance with said laws.

The parties agree that any action or legal proceeding arising out of or related to this Contract shall be brought in the state courts of Knox County, Tennessee, or in the federal court of the district where the Airport is located; and the parties hereby consent to and waive any objection to jurisdiction or venue in said courts.

8.5 Entire Contract; Amendment

This Contract, together with the Contract Documents listed in Article 7, comprise the entire contract between the parties; and any amendment to be effective must be in writing and signed by both parties.

~~8.6 Federal Aviation Administration Provisions.~~

~~The Selected Bidder must agree to comply with Civil Rights provisions and any other applicable Federal Aviation Administration requirements in any resulting Agreement from this Invitation to Bid.~~

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Article 9. OTHER PROVISIONS

In Witness Whereof, Owner and Contractor have signed this Agreement in triplicate, or caused it to be signed by their respective duly authorized officers. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or by Engineer on their behalf.

This agreement will be effective on \_\_\_\_\_.

Owner:

Contractor:

METROPOLITAN KNOXVILLE  
AIRPORT AUTHORITY

\_\_\_\_\_

By: \_\_\_\_\_  
(Chairman)

By: \_\_\_\_\_  
(Corporate Seal)

Attest:

Its: \_\_\_\_\_  
Attest:

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Secretary)

Approved as to Form and Legality:

\_\_\_\_\_  
Legal Counsel

Address for giving notices:

Address for giving notices:

P.O. Box 15600  
Knoxville, Tennessee 37901

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

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**CERTIFICATE OF SECRETARY**

*Attachment No. 1*

AS TO RESOLUTION ADOPTED BY BOARD OF DIRECTORS

ON this \_\_\_\_\_ day of \_\_\_\_\_, 2024

I, \_\_\_\_\_, hereby certify that I am the duly authorized Secretary of \_\_\_\_\_, charged with keeping the records and the seal of said Corporation, and that the following is a true and correct copy of a resolution adopted at a meeting of the Board of Directors of the Corporation duly held on \_\_\_\_\_, which resolution is now in full force and effect.

RESOLVED, that \_\_\_\_\_, (President, Vice President) of \_\_\_\_\_, is hereby authorized to execute contracts, performance bonds and labor and materials bonds on behalf of the Corporation.

WITNESS my hand as Secretary, and the seal of the Corporation  
this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Secretary

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public for \_\_\_\_\_ County

My Commission Expires: \_\_\_\_\_

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**ATTESTATION REGARDING PERSONNEL USED IN CONTRACT  
PERFORMANCE**  
*Attachment No. 2*

<b>SUBJECT CONTRACT NUMBER:</b>	
<b>CONTRACTOR LEGAL ENTITY NAME:</b>	
<b>FEDERAL EMPLOYER IDENTIFICATION NUMBER:</b> (or Social Security Number)	

**The Contractor, identified above, does hereby attest, certify, warrant, and assure that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract.**

**SIGNATURE & DATE:**

\_\_\_\_\_  
NOTICE: This attestation MUST be signed by an individual empowered to contractually bind the Contractor. If said individual is not the chief executive or president, this document

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**ENVIRONMENTAL LAW COMPLIANCE CERTIFICATE  
AND INDEMNITY AGREEMENT**

*Attachment No. 3*

Re: Contract for Work between Metropolitan Knoxville Airport Authority and \_\_\_\_\_ ("Contractor")

For: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS,  
AND RELATED IMPROVEMENTS ("Contract")

In connection with the Contract, \_\_\_\_\_ ("Contractor") hereby certifies and covenants with Metropolitan Alcoa Airport Authority (the "Authority") as follows:

1. Contractor has read and is familiar with all terms and conditions of the Contract, particularly those terms and conditions dealing with Contractor's compliance with Applicable Environmental Laws as defined hereinbelow. Contractor has taken all steps necessary to ensure that the work under the Contract will be conducted by Contractor and its subcontractors and materialmen in a manner that will fully comply with the Applicable Environmental Laws.
2. Contractor will be solely responsible for all violations, claims, damages, fines, penalties, expenses and other costs incurred by Contractor for which Contractor is responsible under the Contract.
3. Contractor agrees to indemnify and hold free and harmless the Authority and its Commissioners, officers and employees from any and all liabilities, damages, claims, penalties, fines, settlements, causes of action, costs or expense, including reasonable attorneys' fees, environmental consultant and laboratory fees and the costs and expense of investigation and defending any claims or proceedings, resulting from or attributable to (a) the presence, disposal, release or threatened release of any Hazardous Material that is on, from or affecting the Authority's property including the soil, water, vegetation, buildings, personal property, persons, animals, or otherwise; (b) any personal injury (including wrongful death) or property damage (real or personal) arising out of or relating to the Hazardous Material; (c) any lawsuits or administrative order relating to the Hazardous Material; or (d) any violation of any laws applicable to the Hazardous Material. The terms of this paragraph shall apply only to Hazardous Material for which Contractor is responsible under the Contract.
4. If Contractor recognizes Hazardous Material on Authority's property for which Contractor is not responsible under the Contract, the Contractor shall immediately stop the Work and notify Authority, in writing, before the Hazardous Material is disturbed. Authority shall promptly investigate such conditions and take any action necessary including, but not limited to, obtaining governmental authorization required to remediate such conditions and permit Contractor to resume the Work. Contractor shall continue to suspend such Work until otherwise notified by Authority but shall continue with all other Work that does not affect the Hazardous

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Material discovery. Requests for adjustments in the Contract Sum and Contract Time arising from the discovery of such Hazardous Material may be made as provided in the Contract.

Hazardous Material for which Contractor is responsible under the Contract means any Hazardous Material brought to Authority's property by Contractor, a subcontractor, Supplier or anyone else for whom Contractor is responsible, unless such materials are required by the Contract Documents. The Authority shall be responsible for Hazardous Material required by the Contract Documents, except to the extent of Contractor's fault or negligence in the use and handling of such Hazardous Material. Contractor is responsible for compliance with any requirements under Applicable Environmental Law regarding Hazardous Material required by the Contract Documents or that Contractor brings to Authority's Property. Applicable Environmental Law means all applicable local, state and federal environmental laws, regulations, rules, guidelines, ordinances and administrative and judicial orders and rulings relating to the generation, recycling, use, reuse, sale, storage, handling, transport, treatment and disposal of any Hazardous Materials, including but not limited to the Tennessee Hazardous Waste Management Act, as amended, T.C.A. §§ 68-46-101 et seq., the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, et seq., the Hazardous Materials Transportation Act, as amended, 49 U.S.C. §§ 1801, et seq., the Resource Conservation and Recovery Act, as amended, 42 U.S.C. §§ 6901, et seq., the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq., the Clean Water Act of 1977, as amended, 33 U.S.C. §§ 1251 et seq., and the publications, rules and regulations adopted and/or promulgated pursuant to said laws.

As used in this certificate, "Hazardous Materials" means gasoline, motor oil, fuel oil, waste oil, other petroleum or petroleum-based products, asbestos, polychlorinated biphenyl's ("PCBs") and any chemical, material, waste or substance to which exposure is prohibited, limited, or regulated by any federal, state, county, local or regional authority, or which, even if not so regulated, is known to pose a hazard to health and safety, including but not limited to substances and materials defined or designated as "hazardous substances," "hazardous materials" or "toxic substances" under Applicable Environmental Laws.

IN WITNESS WHEREOF the undersigned has executed this Certificate as of the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

By: \_\_\_\_\_

Title: \_\_\_\_\_

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REMOVE THIS PAGE AND INSERT  
CERTIFICATE OF INSURANCE

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EXECUTED W-9 REQUEST FOR TAXPAYER  
IDENTIFICATION AND CERTIFICATION

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**Construction Performance Bond**  
*Attachment No. 6*

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

**CONTRACTOR** (Name and Address):

**SURETY** (Name and Principal Place of Business):

**OWNER** (Name and address):

Name, Address, Telephone # and Fax # of contact person for this bond:

Metropolitan Knoxville Airport Authority  
P.O. Box 15600  
Knoxville, TN 37901

**CONSTRUCTION CONTRACT**

Project Name: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS,  
AND RELATED IMPROVEMENTS ("Contract") at McGhee Tyson Airport

Date:

**BOND**

Date (Not earlier than Construction Contract Date):

Contract Amount:

Modifications to this Bond Form:

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_ (Corp. Seal)

**SURETY**

Company: \_\_\_\_\_ (Corp. Seal)

Signature: \_\_\_\_\_  
Name and Title

Signature: \_\_\_\_\_  
Name and Title

EJDC No. 1910-28A(1984Edition)

Prepared through the joint efforts of the Surety Association of America, Engineers' Joint Contract Document committee, The Associated General Contractors of America, and the American Institute of Architect.

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**Construction Payment Bond**  
*Attachment No. 7*

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

**CONTRACTOR** (Name and Address):

**SURETY** (Name and Principal Place of Business):

**OWNER** (Name and address):

Name, Address, Telephone # and Fax #  
of contact person for this bond:

Metropolitan Knoxville Airport Authority  
P.O. Box 15600  
Knoxville, TN 37901

**CONSTRUCTION CONTRACT**

Project Name: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS,  
AND RELATED IMPROVEMENTS ("Contract") at McGhee Tyson Airport

Date:

**BOND**

Date (Not earlier than Construction Contract Date):

Contract Amount:

Modifications to this Bond Form:

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_ (Corp. Seal)

**SURETY**

Company: \_\_\_\_\_ (Corp. Seal)

Signature: \_\_\_\_\_  
Name and Title

Signature: \_\_\_\_\_  
Name and Title

EJDC No. 1910-28B(1984Edition)

Prepared through the joint efforts of the Surety Association of America, Engineers' Joint Contract Document committee, The Associated General Contractors of America, American Institute of Architect, American Subcontractors Association, and the Associated Specialty Contractors

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## **GENERAL PROVISIONS**

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General Provisions

Section 10 Definition of Terms

When the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be defined as follows:

Paragraph Number	Term	Definition
10-01	Advertisement	A public announcement, as required by local law, inviting proposals and/or bids for work to be performed and materials to be furnished.
10-02	Airport	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-03	APGS	An acronym or abbreviation for Automated Parking Guidance System.
10-04	ASTM International (ASTM)	Formerly known as the American Society for Testing and Materials (ASTM).
10-05	Award	The Owner's notice to the successful proposer/bidder of the acceptance of the submitted bid.
10-06	Bidder/Proposer	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

Paragraph Number	Term	Definition
10-07	Bridging Documents	The Proposal Documents contain Technical Specifications and Bridging Documents (Drawings) for the Work. The Bridging Documents indicate the intent of the design for the Proposer/Bidder to understand the elements for the Project for a complete and fully operational automated parking guidance system (APGS) and related improvements. The Bridging Documents are the basis of understanding for the Proposed/Bidder to submit a Proposal in accordance with the Instruction to Proposers which may deviate or modify the Proposal Bridging Documents.
10-08	Building Area	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
10-09	Calendar Day	Every day shown on the calendar.
10-10	Change Order	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project
10-11	Construction Change Directive	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected as indicated in the Construction Change Directive
10-12	Contract	<p>A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment.</p> <p>The awarded contract includes but may not be limited to: Advertisement, Proposal Form, Proposal, Performance Bond, Payment Bond, General Provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference, addenda, and any or all or the items proposal by the Bidder/Proposal in his/her Proposal Submittal consisting of the Proposal Forms, Pricing Schedule and Attachments, and the Qualifications and Technical Proposal</p>



Paragraph Number	Term	Definition
10-13	Contract Time	The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.
10-14	Contractor	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
10-15	DDC	An acronym or abbreviation for Direct Digital Controls, and associated most often with Mechanical and HVAC Work requirements.
10-16	Equipment	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
10-17	Extra Work	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Representative to be necessary to complete the work within the intended scope of the contract as previously modified.
10-18	FAA	An acronym or abbreviation for Federal Aviation Administration
10-19	Force Account	a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis typically issued as a Construction Change Directive  b. Owner Force Account - Work performed for the project by the Owner's employees.
10-20	IDF	An acronym or abbreviation for Intermediate Distribution Frame, and associated most often with Information Technologies Work requirements.

Paragraph Number	Term	Definition
10-21	Integrator	A separate Contractor engaged by the Owner to provided assess, coordination, quality control and assurance as an additional resource and interface for the Contractor to use for the IT Work.
10-22	Intent-to-Award	After the reviews, evaluation, interviews, and scoring of the Proposal Evaluation Matrix, the Proposal receiving the most total points will be judged, and determined to be the most responsible and responsive Proposal, offering the best benefit and value to MKAA. Following this determination, the Owner will issue an Intent-to-Award to the Successful Proposer/Bidder. It will be accompanied by the required number of unsigned counterparts of the Agreement and all other required Contract Documents. Within fifteen (15) calendar days following the effective date of "Award", Contractor shall sign and deliver all executed counterparts of the Agreement to the Owner with all other Contract Documents including insurance certificates and executed bonds attached thereto.
10-23	Intention of Terms	Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Owner's Representative is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Owner's Representative subject in each case to the final determination of the Owner.
10-24	ISP	An acronym or abbreviation for Internet Service Provider and associated most often with Information Technologies Work requirements.
10-25	LED	An acronym or abbreviation for Light Emitting Diode as an illumination source for a fixture or piece of equipment.
10-26	IT	An acronym or abbreviation for Information Technology, or Information Technologies.
10-27	LPR	An acronym or abbreviation for License Plate Recognition and a feature or functionality of an APGS

Paragraph Number	Term	Definition
10-28	Liquidated Damages	The sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety.
10-29	Materials	Any substance specified for use in the construction of the contract work.
10-30	MKAA	An acronym or abbreviation for METROPOLITAN KNOXVILLE AIRPORT AUTHORITY, also referred to as Owner.
10-31	MPOE	An acronym or abbreviation for Main Point of Entry, and associated most often with Information Technologies Work requirements.
10-32	Notice-to-Proceed	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice-to-Proceed shall state the date on which the contract time begins.
10-33	NTP	An acronym or abbreviation for Notice-to-Proceed.
10-34	Owner	The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is Metropolitan Knoxville Airport Authority.
10-35	Owner's Representative	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for inspection, and/or observation of the contract work and acting directly or through an authorized representative.
10-36	Payment bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-37	Performance bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.

Paragraph Number	Term	Definition
10-38	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.
10-39	Prime Contractor	The term "Prime Contractor" means the entity submitting and signing a Proposal for consideration, and whom a Contract Agreement would be enter into with the Owner, if selected.
10-40	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-41	Proposal	The written offer of the proposer/bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
10-42	Proposal Documents	The term "Proposal Documents" means these Instructions to Proposal, the Pricing Forms, Proposal Schedules, and Proposal Attachments, Contract Forms, General Provisions, Special Provisions, Technical and Supplemental Technical Specifications, Appendices, Bridging Plans and Drawings, Addenda and all ensuing referenced material issued by the Owner for the purpose of obtaining Proposals for all the Work.
10-43	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
10-44	Proposal Request	An Owner initiated process to request a proposal from the Contractor for additional Work, or changed conditions.
10-45	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-46	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.

GENERAL PROVISIONS

Section 10 Definition of Terms

PROVISIONS FOR GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

Paragraph Number	Term	Definition
10-47	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
10-48	Structures	Airport facilities such as buildings, parking garages, bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
10-49	Substantial Completion	General: Substantial Completion refers to the time and stage of a construction or building project or a designated portion of the project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose or use.
10-50	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Owner, or Owner's Representatives, and who shall supervise and direct the construction.
10-51	Supplemental Agreement	See Construction Change Directive
10-52	Supplemental Instructions	Written instructions to the Contract from the Owner's Representative providing information, instructions, or clarification for the Work, but not typical a changed condition to the Work.
10-53	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-54	TYS	The Federal Aviation Administration's call code for McGhee Tyson Airport.
10-54	TOR	An acronym or abbreviation for Top of Rack, and associated most often with Information Technologies Work requirements.

Paragraph Number	Term	Definition
10-56	Work	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
10-57	Working day	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.
10-58	Owner Defined terms	None

END OF SECTION 10

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## Section 20 Evaluation of Submitted Bid Proposals Accepted

20-01 Responsive and Responsible Bidder. A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for Bid. It is the Owner's responsibility to decide if the exceptions, omission, and/or deviations taken by a bidder to the solicitation are material or not and the extent the Owner is willing and lawfully able to accept.

20-02 Determination to Consider a Submitted Bid Proposal as Responsible and Responsive. The Owner, representatives, and/or agents will initially review Proposals opened to verify, and investigate as required that the Bid Proposal meets *compulsory* requirements to warrant further review evaluation considerations.

The initial review will be based on the documents required and set forth in Article 15 - SUBMISSION OF RESPONSIBLE AND RESPONSIVE PROPOSALS in the Instructions to Proposers for the Bid Proposal Form, Bid Pricing Schedule, Attachments, etc., to the Bid Proposal Form.

Bidder submittal competency and actions that may cause the Owner to deem a bid proposal irregular and/or determine grounds for disqualification of a Bidder in accordance with Article 19 - IRREGULAR PROPOSALS and Article 20 - DISQUALIFICATION OF BIDDERS, respectfully, in the Instructions to Bidders.

20-03 Evidence of Financial Responsibility. After Bid Proposals are opened and prior to Award of Contract the Owner may ask for each bidder to furnish satisfactory evidence their financial responsibility. Evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether their financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect the bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.

Unless otherwise specified, a bidder may submit evidence that they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

20-04 Pre-Award Interview Process. After the date and time for receipt of Proposals and before issuance of an Intent-to-Award to a Bidder, if may be determined by the Owner a formal interview process is required to finalize decision to determine the most responsible and responsive Proposer. Each Bidder is hereby given notice that an on-site, in-person interview or virtual interview with the Owner. Selected subcontractors and/or team members may be required by one, or more Bidders after the date and time for receipt of Bid Proposals and before issuance of an Intent-to-Award.

The Notice of Intent to Award Form is at the end of Section 20 of the General Provisions.

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NOTICE-OF-INTENT TO AWARD CONTRACT

DATE:

TO: Prime Contractor to be Determined

PROJECT: PROVISIONS FOR GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

The Owner has reviewed the Bidder's submitted Proposal for the Work in connection with the above-described Project in response to the Proposal and Contractor Documents, all as modified during the Proposal, and Proposal Evaluation processes.

You are hereby notified that your Bid is being considered for acceptance for the Project for a total Contract Price of:

Amount of \$ \_\_\_\_\_ USD subject to the availability funds.

You are required by the Instructions to Bidders and General Provisions to execute the enclosed copies of the Contract Agreement and Contract Documents and furnish the required Contractor's Performance Bond, Payment Bond, evidence of all required insurance coverage and authority to execute plus satisfactory evidence of compliance with the Bid within fifteen (15) Calendar Days after the date of this Notice-of-Intent to Award Contract.

If you fail to execute said Contract Documents and to furnish said Bonds and other required documents and information within fifteen (15) Calendar Days after the date of this Notice of Intent to Award Contract, the Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Intent-to-Award Contract to the Owner within five (5) Calendar Days after the date hereof.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Owner: Metropolitan Knoxville Airport Authority

By: \_\_\_\_\_

(Name)

Title: \_\_\_\_\_

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ACCEPTANCE OF NOTICE

Receipt of the above Notice-of-Intent to Award Contract is hereby acknowledged by the undersigned this the \_\_\_\_\_ day of \_\_, 20 \_\_\_\_.

Contractor: Prime Contractor to be Determined.

By: \_\_\_\_\_  
(Name)

Title: \_\_\_\_\_

END OF NOTICE-OF-INTENT TO AWARD CONTRACT

END OF SECTION 20

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## Section 30 Award and Execution of Contract

30-01 Consideration of proposals. After the proposals are publicly opened and read, they will be compared review and evaluated as indicated in Section 20 Evaluation of Submitted Proposals Accepted to determine a Proposer/Bidder to issue a Notice-of-Award.

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

a. If the proposal is irregular as specified in Article 19 - IRREGULAR PROPOSALS in the Instructions to Proposers.

b. If the bidder is disqualified for any of the reasons specified in Article 20 - DISQUALIFICATION OF PROPOSERS/BIDDERS, respectfully, in the Instructions to Proposers

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

30-02 Award of contract. The award of a contract, if it is to be awarded, shall be made within 180 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible Proposer/bidder whose proposal/bid, conforming with all the material terms and conditions of the Proposal Documents, is in the best interest of MKAA.

30-03 Cancellation of award. The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with paragraph 30-07 *Approval of Contract*.

30-04 Return of proposal guaranty. The Bid Security of any Proposer/Bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the seventh day after the "effective day of the Agreement" by Owner to Contractor and the required Contract Security and Insurance Certificates are furnished, or until the conclusion of the time period for withdrawal of bids specified in the "Advertisement for Proposals" contained in these documents. Bid Security of other Proposer/Bidders may be released within seven (7) days after the schedule receipt of Proposals.

The successful proposer/bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in paragraph 30-05, *Requirements of Contract Bonds*.

30-05 Requirements of contract bonds. At the time of the execution of the contract, the successful proposer/bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the proposer/bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

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30-06 Execution of contract. The successful proposer/bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in paragraph 30-05, *Requirements of Contract Bonds*, of this section, within 15 calendar days from the date mailed or otherwise delivered to the successful bidder.

30-07 Approval of contract. Upon receipt of the contract and contract bond or bonds that have been executed by the successful proposer/bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful proposer/bidder's proposal and the terms of the contract.

30-08 Failure to execute contract. Failure of the successful proposer/bidder to execute the contract and furnish an acceptable surety bond or bonds within the period specified in paragraph 30-06, *Execution of Contract*, of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidated damages to the Owner.

END OF SECTION 30

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## Section 40 Scope of Work

40-01 Intent of contract. The intent of the contract is to provide for construction and completion, in every intent, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

40-02 Alteration of work and quantities. The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner or Owner Representative shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work as a changed condition to the Contract.

Should the change condition to the Contract, should the alter the Cost of the Work, a Change Order to the Contract documentation will be issued and agreed upon by both the Owner and Contractor. Changes to the Contract cost shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a cost for any contract change that requires a Change Order, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion, or issue to the Contractor Construction Change Directive documentation for Contract Force Account completion of the changed conditions.

40-03 Omitted items. The Owner, or Owner's Representation may provide written notice to the Contractor to omit from the work any item. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Omitted Items will be considered an alteration of Work and qualities and administered as a changed condition to the Contract and considered a change to the contract by Change Order or Construction Change Directive.

40-04 Extra work. Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the Owner, or Owner's Representative's opinion, is necessary for completion of the extra work.

When determined by the Owner's best interest, a Construction Change Directive maybe issued to the Contractor to proceed with extra work. as provided in Section 90, paragraph 90-05, *Payment for Extra Work*.

If extra work is essential to maintaining the project critical path, the Owner may also issue a Construction Change Directive to the Contractor to commence the extra work under a Time and Material agreement. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order for the extra work.

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Any claim for payment of extra work that is not covered by written agreement (Change Order or Construction Change Directive agreement) shall be rejected by the Owner.

40-05 Maintenance of traffic. It is the explicit intention of the contract that the safety of the public as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed as follows:

a. With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the public, fire-rescue equipment, or maintenance vehicles at the airport.

c. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (<http://mutcd.fhwa.dot.gov/>), for all work where vehicle traffic is present, unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the Contractor will not be required to furnish snow removal for such existing road, street, or highway.

40-06 Final cleanup. Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees.

In addition, comply with the requirements of Technical Specification, Division 01, Section – "Close-out Procedures."

END OF SECTION 40

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## Section 50 Control of Work

50-01 Authority of the Owner's Representative. The Owner's Representative has final authority regarding the interpretation of project specification requirements. The Owner's Representative shall determine acceptability of the quality of materials and construction furnished, and method of performance of work performed. The Owner's Representative does not have the authority to accept work that does not conform to specification requirements.

50-02 Conformity with plans and specifications. All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross-sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans, or specifications.

If the Owner, or Owner's Representative finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications, but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the Owner, or Owner's Representative will advise the Owner, or Owner of their determination that the affected work be accepted and remain in place. The Owner's Representative will document the determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. Changes in the contract price must be covered by contract Change Order or Construction Change Directive, as applicable.

If the Owner, or Owner's Representative finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the Owner's, or Owner's Representative responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the Owner, or Owner's Representative opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the Owner, or Owner's Representative with the authority, after consultation with the Owner, to use sound judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

The Owner, or Owner's Representative will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

50-03 Coordination of contract, plans, and specifications. The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended

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to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans; contract general provisions shall govern over plans. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately notify the Owner or the designated representative in writing requesting their written interpretation and decision.

50-04 List of General Provisions, Special Provisions and Technical Specifications. Refer to the Table of Contents for a complete list of the Provisions and Technical Specifications.

50-05 Cooperation of Contractor. The Contractor shall be supplied with an electronic PDF of the plans and technical specification. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the Owner, or Owner's Representative and their inspectors and with other Contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as their agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Owner, or Owner's Representative or their authorized representative.

In addition, the Contractor shall at all times plan and coordinate their work with the Owner in such a manner as to ensure safety and a minimum hindrance to the parking garage operations, and impacted areas. It shall be the responsibility of the Contractor to keep the Owner advised of his/her schedule of operations.

The Contractor shall also assume all risk and liability for any inconvenience, delay or expense that may be occasioned by him by such cooperation, installations, or relocations with the limits of the proposed improvements, and shall do no work which will injure or damage such property until arrangement has been made with the Owner for his protection.

50-06 Cooperation between Contractors. The Owner will engage a separate Contractor referred to as the "Network Integrator". The Network Integrator will provide configuration services for all networking equipment, oversight, quality assurances and control, and provide connectivity to the Owners Information Technology network for all system requirements in the execution of the Work to provide a complete and fully operational Automated Parking Guidance System, and all related improvements.

Coordination and cooperations between the Contractor and Network Integrator is required for the Contractor to complete the Work.

50-07 Construction layout and stakes. The Contractor shall establish necessary horizontal and vertical control for construction, and installation. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be borne by the Contractor. Referenced Technical Specifications, Division 01 – "Execution Requirements".

50-08 Authority and duties of Quality Assurance (QA) inspectors. QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as a supervisor for the Contractor.



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QA Inspectors are authorized to notify the Contractor or their representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the Owner, or Owner's Representative for a decision.

50-09 Inspection of the work. All materials and each part or detail of the work shall be subject to inspection. The Owner, or Owner's Representative shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

50-10 Removal of unacceptable and unauthorized work. All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the Owner, or Owner's Representative as provided in Section 50, paragraph 50-02, *Conformity with Plans and Specifications*.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

Upon failure on the part of the Contractor to comply with any order of the Owner, or Owner's Representative made under the provisions of this subsection, the Owner, or Owner's Representative will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against the Contractor.

50-11 Load restrictions. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work

50-12 Maintenance during construction. The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

50-13 Failure to maintain the work. Should the Contractor at any time fail to maintain the work as provided in Section 50, paragraph 50-12, *Maintenance during Construction*, the Owner, or Owner's Representative shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

50-14 Partial acceptance. If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the Owner, or Owner's Representative to make final inspection of that complete Work. If the Owner's Representative finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the Owner, or Owner's Representative may accept it as being complete, and the Contractor may be relieved of further responsibility for that Work area. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

50-15 Final acceptance. Upon due notice from the Contractor of presumptive completion of the entire project, the Owner's Representative and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The Owner, or Owner's Representative shall notify the Contractor of final acceptance as of the date of the final inspection.

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If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Owner, or Owner's Representative will notify the Contractor and the Contractor shall correct the unsatisfactory work. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the Owner, or Owner's Representative will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

50-16 Claims for adjustment and disputes. If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the Owner, or Owner's Representative in writing of their intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the Owner, or Owner's Representative is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the Owner, or Owner's Representative has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within ten (10) calendar days, submit a written claim to the Owner, or Owner's Representative who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

END OF SECTION 50

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## Section 60 Control of Materials

60-01 Materials and products. The materials and products used in the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

60-02 Approval of materials and products. All materials products used in the work shall be subject to approved by the required submittal process before incorporation in the work unless otherwise designated. Any work (materials and products) used without submittal review process, approval or written permission shall be performed at the Contractor's risk. Materials (materials and products) installed without approval and found to be unacceptable and unauthorized will not be paid for and, shall

60-03 Unacceptable materials. Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the RPR has approved its use in the work.

60-04 Owner furnished materials. The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the pricing item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material.

END OF SECTION 60

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## Section 70 Legal Regulations and Responsibility to Public

70-01 Laws to be observed. The Contractor shall keep fully informed of all federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner and all their officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees.

70-02 Permits, licenses, and taxes. The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful execution of the work.

70-03 Patented devices, materials, and processes. If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the Patentee or Owner. The Contractor and the surety shall indemnify and hold harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the execution or after the completion of the work.

70-04 NOT USED

70-05 Federal Participation. No Federal Funds utilized for this Project.

70-06 Sanitary, health, and safety provisions. The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

70-07 Public convenience and safety. The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at daily intervals, or upon the order of the Owner, or Owner's Representative. If the Owner, or Owner's Representative determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the Owner, or Owner's Representative reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

70-08 NOT USED

70-09 Use of explosives. The use of explosives is not permitted on this project.

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### GENERAL PROVISIONS

Section 70 Legal Regulations and Responsibility to Public

PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

70-23

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70-10 Protection and restoration of property and landscape. The Contractor shall be responsible for the preservation of all public and private property.

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore, at their expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

70-11 Responsibility for damage claims. The Contractor shall indemnify and hold harmless the Owner and their officers, agents, employees and Owner's Representatives from all suits, actions, or claims, of any character, brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of their own contract considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, their own surety may be held until such suits, actions, or claims for injuries or damages shall have been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he or she is adequately protected by public liability and property damage insurance.

70-12 Third party beneficiary clause. It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create for the public or any member thereof, a third-party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

70-13 Opening sections of the work prior to substantial completion of the Project.. If it is necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract. Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

70-14 Contractor's responsibility for work. Until the Owner's or Owner's Representative final issues written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor,

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including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their own expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

70-15 NOT USED

70-16 NOT USED

70-17 Personal liability of public officials. In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Owner, or Owner Representatives, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

70-18 No waiver of legal rights. Upon completion of the Work, the Owner will make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any quality, accounting of payment processes, or certificate made before or after completion of the Work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

70-19 Environmental protection. The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

70-20 NOT USED

70-21 Insurance Requirements.

70-21A Insurance The Contractor shall not commence any work until he obtains, at his own expense, all required insurance. Such insurance must have the approval of the Owner as to limit, form, and amount. The Contractor will not permit any subcontractor to commence work on this project until the same insurance requirements have been complied with by such subcontractor.

- a. Types - The types of insurance the Contractor is required to obtain and maintain for the full period of the contract will be: Worker's Compensation Insurance, and Comprehensive General Liability Insurance, as detailed in the following portions of this specification.

- b. Evidence - As evidence of specified insurance coverage, the Owner may, in lieu of actual policies, accept certificates issued by the insurance carrier showing such policies in force for the specified period. Each policy or certificate will bear an endorsement or statement waiving right of cancellation or reduction in coverage without ten (10) days' notice in writing to be delivered by registered mail to the Owner. Should any policy be canceled before final payment to the Contractor and the Contractor fails immediately to procure other insurance as specified, the Owner reserves the right to procure such insurance and to deduct the cost thereof from any sum due the Contractor under this Contract.
- c. Adequacy of Performance - Any insurance bearing on adequacy of performance shall be maintained after completion of the project for the full guaranty period. Should such insurance be canceled before the end of the guaranty period and the Contractor fails immediately to procure other insurance as specified, the Owner reserves the right to procure such insurance and charge the cost thereof to the Contractor.
- d. Payment of Damages - Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operations under this Contract.
- e. The Contractor shall provide a waiver of subrogation. Specifically, the Contractor shall waive all rights against the Owner and CHA and their respective agents, partners, officers, directors and employees for recovery of damages to the extent such damages are covered by Comprehensive General Liability (CGL), Automobile Liability (AL), Umbrella Liability (UL), Worker's Compensation (WC) or Employer's Liability (EL) insurance maintained by the Contractor.
- f. The costs of all insurance shall be included in the various items of the contract and no additional compensation will be allowed.

70-21B Workmen's Compensation Insurance. Before the Agreement between the Owner and the Contractor is entered into, the Contractor shall submit written evidence that he and all subcontractors have obtained, for the period of the Contract, full Worker's Compensation Insurance coverage for all persons whom they employ or may employ in carrying out the work under this Contract. This insurance shall be in strict accordance with the requirements of the most current and applicable state Worker's Compensation Insurance Laws.

COVERAGE TYPE	MINIMUM LIMIT REQUIREMENT	
Workers' Compensation	Statutory	Statutory
Employers' Liability	\$500,000	Each Accident
Employers' Liability	\$500,000	Disease Per Policy
Employers' Liability	\$500,000	Disease Per Employee

70-21C Comprehensive General and Umbrella Liability Insurance. The Contractor, prior to execution of the contract, shall file with the Owner copies of complete certificates of insurance, as evidence that he carries adequate insurance, satisfactory to the Owner, to afford protection against all claims for damages to public or private property, and injuries to persons arising out of and during the progress of the proposal, similar insurance to protect the Owner of the premises on or near which construction operations are to be performed.



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- a. Such insurance shall include, but not be limited to, coverage for: (a) Underground damage to facilities due to drilling and excavating with mechanical equipment; and (b) collapse or structural injury to structures due to blasting or explosion, excavation, tunneling, pile driving, cofferdam work, or building moving or demolition.
  - b. Owner's Protective Liability - Bodily injury and property damage protection shall include as Additional Named Insureds: the Owner, Owner's Representatives, the Engineer and his consultants, each of their officers, employees and agents, and any other persons with an insurable interest designated by the Owner as an Additional Named Insured.

COMPREHENSIVE GENERAL LIABILITY

COVERAGE TYPE	MINIMUM LIMIT REQUIREMENT	
General Aggregate	\$2,000,000	Aggregate
Premises & Operations and Products & Completed	\$1,000,000	Per Occurrence
Products & Completed Operations	\$2,000,000	Aggregate
Personal & Advertising Injury	\$1,000,000	Aggregate
Fire Damage Legal Liability	\$100,000	Any One Fire
Medical Expense	\$10,000	Any One Person

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UMBRELLA LIABILITY

COVERAGE TYPE	MINIMUM LIMIT REQUIREMENT	
Umbrella Liability – Occurrence Form	\$10,000,000	Per Occurrence
Umbrella Liability – Occurrence Form	\$10,000,000	Aggregate
Umbrella Liability – Occurrence Form	\$10,000	Self-Insured Retention

- c. Bodily Injury Liability and Property Damage Liability Automobiles - Unless otherwise specifically required by provisions in the proposal, the minimum limits of bodily injury liability and property damage liability shall be:

COVERAGE TYPE	MINIMUM LIMIT REQUIREMENT	
Owned Autos	\$1,000,000	Combined Single Limit
Non-Owned Autos	\$1,000,000	Combined Single Limit
Hired Autos	\$1,000,000	Combined Single Limit

- d. Indemnity - Included in such insurance will be contractual coverage sufficiently broad to ensure the provisions of Paragraph 70-21A.

END OF SECTION 70

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## Section 80 Execution and Progress

80-01 Subletting of contract. The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Owner and/or Owner's Representative.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

The Contractor shall provide copies of all subcontracts to the Owner fourteen (14) days prior to being utilized on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

80-02 Notice-to-Proceed (NTP). The Owner's Notice-to-Proceed will state the date on which contract time commences and the Work shall commence. The Contractor is expected to commence project operations within ten (10) days of the NTP date. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

The Notice-to-Proceed Form is at the end of Section 80 of the General Provisions.

80-03 Execution and progress. Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the Owner or Owner's Representative to review and acceptance in accordance with Division 01 – "Construction Progress Documentation". The Contractor's progress schedule, once accepted, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The Owner or Owner's Representative will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the Owner or Owner's Representative request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor

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shall notify the Owner or Owner's Representative at least twenty-four (24) hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The project schedule shall be prepared as a network diagram in Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), or other format, or as otherwise specified. It shall include information on the sequence of work activities, milestone dates, and activity duration. The schedule shall show all work items identified in the project proposal for each work area and shall include the project start date and end date.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a monthly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

80-04 Limitation of operations. The Contractor will be installing and constructing the APGS in a fully operational and occupied parking garage. The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of public vehicle in the parking garage and surrounding impacted areas. It is most desired, or beneficial no closures or shut down of areas are required due the installation and construction the APGS. There are no time restrictions (work hours) for Contractor activities imposed on this Project. Night time work is encouraged if the Contractor's operations and the operations of their subcontractors and all suppliers impede the free and unobstructed movement of public vehicle, or impact safety in the parking garage and surrounding impacted areas.

When the Work requires the Contractor to request closure of an area in the parking garage, the Contractor shall provide advance notice to Owner or Owner's Representative to enable the remove of parked cars and restrict access to the area for parking which may be impacted by the Work to be performed in the closed area. Furthermore, the Contractor shall indicated the area to be closed, the routing of traffic due to the closure, the time duration the closure will encompass, and the Work to be performed.

80-04.1 Operational safety during installation and construction. The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the all safety requirements and that they implement and maintain all necessary measures.

80-05 Character of workers, methods, and equipment. The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, does not perform his/her work in a proper and skillful manner or is intemperate or disorderly shall be removed at the request of the Owner, or Owner's Representative or by the

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Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the Owner, or Owner's Representative.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

80-06 Temporary suspension of the work. The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the Owner and/or Owner's Representative within the time period stated in the Owner and/or Owner's Representative order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

80-07 Determination and extension of contract time. The number of calendar days for completion of the work shall be stated in the Proposal Form and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

80-07.1 Contract time based on calendar days. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time established by the Notice-to-Proceed and substantial completion date (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Sequence	Liquidated Damages Cost	Contract Time from Notice-to-Proceed
All Work	\$500 per calendar day	200 Consecutive Calendar Days

The maximum construction time allowed to achieve substantial completion of the project is not all of the Work under this Contract, unless modified as allowed for partial substantial completion. The time after substantial completion to Owner's Final Acceptance of the Project in no way construed as a waiver on the part of the Owner of any of its rights under the contract.

80-09 Default and termination of contract. The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of ten (10) days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the Owner of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

80-10 Termination for national emergencies. The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct

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GENERAL PROVISIONS

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result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

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NOTICE-TO-PROCEED

DATE: \_\_\_\_\_

TO: \_\_\_\_\_

PROJECT: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

You are hereby given notice to commence Work in accordance with the Contract Agreement and Contract Documents dated \_\_\_\_\_, 20\_\_\_\_ on or before \_\_\_\_\_ 20\_\_\_\_ (“Commencement Date”).

This Notice-to-Proceed and Commencement Date executed by the parties sets forth the Contract Time as enumerated below”

The Contract acknowledges the Contract Time; \_\_\_\_\_ CONSECUTIVE CALENDAR DAYS for the PROJECT, and the actual date of substantial completion will be on, or before (month)\_\_\_\_\_ (day)\_\_\_\_\_ (year)\_\_\_\_\_.

Contractor shall return an acknowledged copy of this Notice-to-Proceed to the Owner on or before the Commencement Date.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Metropolitan Knoxville Airport Authority

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

ACCEPTANCE OF NOTICE-TO-PROCEED AND COMMENCEMENT DATE

Receipt of the above Notice of Intent to Award Contract is hereby acknowledged by the undersigned this day of (month)\_\_\_\_\_ (day)\_\_\_\_\_ 20\_\_\_\_\_.

Contractor: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

END NOTICE-TO-PROCEED

END OF SECTION 80

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GENERAL PROVISIONS

Section 80 Execution and Progress

PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

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## Section 90 Measurement and Payment

90-01 Measurement of quantities. The Work is to be completed under a "lump sum" Contract Agreement for Work Item amounts indicated in the Pricing Schedule. Payment will be made to the Contractor under this "Lump Sum" (LS) Agreement on a per monthly basis to the Contractor for Work completed in place, and for materials store on-site. Materials stored off-site meeting the Owners requirements for proper storage facilities and insurance may be paid.

90-02 Scope of payment. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the to the cut-off day for Work accepted in-place or stored in an acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*. For additional requirements for Payment procedures, reference Technical Specifications, Division 01 – "Payment Procedures".

90-03 Compensation for altered quantities. When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, *Alteration of Work and Quantities*, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

90-04 Payment for omitted items. As specified in Section 40, paragraph 40-03, *Omitted Items*, the Owner, or Owner's Representative shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the Owner, or Owner's Representative omit or order nonperformance of a Work item or portion of such item from the work, the Contractor shall accept payment in full for any work actually completed and acceptable prior to the Owner, or Owner's Representative order to omit or non-perform such Work.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the Owner, or Owner's Representative order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the Owner, or Owner's Representative order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs. Reference Technical Specifications, Division 01 – "Payment Procedures" and "Contract Modification Procedures for administering changed conditions to the Contract.

90-05 Payment for extra work. Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the Change Order or Construction Change Directive authorizing the extra work.

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90-06 Partial payments. Partial payments will be made to the Contractor each month until substantial completion as the work progresses. Said payments approved by the Owner, or Owner's Representative will be based on the percent of completed Work and of the value of the work in the Contractor's Schedule of Values. Such monthly payments may also include for stored materials in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

- a. Retainage will not be withheld on this project. No retainage will be withheld by the Owner from progress payments due the prime Contractor. Retainage by the prime or subcontractors is prohibited, and no retainage will be held by the prime from progress due subcontractors.
- b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than thirty (30) days after the Contractor has received a partial payment. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment for work in excess of those provided in the proposal or covered by approved change orders or other change documents, except when such excess Work have been determined by the Owner, or Owner's Representative to be a part of the final payment for 100-percent completed Work.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in Section 90, paragraph, 90-09, *Acceptance and Final Payment*.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

90-07 Stored materials. Payments may be made for stored materials not installed provided that such materials meet the requirements of the contract, plans, and specifications and are stored on acceptable facilities on the airport property or at other off-site site facilities in the vicinity meeting the following conditions:

- a. The materials are stored in a manner acceptable to the Owner, or Owner's Representative at or on an approved site.
- b. The Contractor has furnished the Owner, or Owner's Representative with acceptable evidence of the quantity and quality of such stored materials.
- c. The Contractor has furnished the Owner, or Owner's Representative with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.

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e. The Contractor has furnished the Owner evidence that the material stored is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

The Contractor shall bear all costs associated with the payment of stored materials in accordance with the provisions of this paragraph.

90-08 Payment of withheld funds. At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in Section 90, paragraph 90-06 *Partial Payments*, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

90-09 Acceptance and final payment. When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the Owner, or Owner's Representative will notify the Contractor that application for Final Payment can be made. The Contractor and the Owner, or Owner's Representative will resolve all disputes and claim (if any) between the Owner and the Contractor in the final payment within thirty (30) calendar days of any claims made. If, after such 30-day period, a dispute still exists, the Contractor may approve the under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the accounting for Final Payment, and after the Owner, or Owner's Representative receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire amount, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior payments shall be subject to correction in the Final Payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

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90-10 Construction warranty.

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession. However, this will not relieve the Contractor from corrective items required by the final acceptance of the project work.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

e. The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within fourteen (14) days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

90-11 Contractor Final Project Documentation. Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the Owner approves the Contractor's final submittal. The Contractor shall:

a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

c. Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.

d. Complete all punch list items identified during the Final Inspection.

e. Provide complete release of all claims for labor and material arising out of the Contract.

f. Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.

g. When applicable per state requirements, return copies of sales tax completion forms.

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GENERAL PROVISIONS

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- h. Manufacturer's certifications for all items incorporated in the work.
  - i. All required record drawings, as-built drawings or as-constructed drawings.
  - j. Project Operation and Maintenance (O&M) Manual(s).
  - k. Equipment commissioning documentation submitted, if required.
  - l. Waiver of Lien from Prime Contractor
  - m. Unconditional Waiver of Liens from all subcontractors & material suppliers.
  - n. Executed Final Change Order.
  - o. Copies of all Testing Reports and Certifications.
  - p. Special warranties.
  - q. Warranty Letter.
  - r. Spare parts and/or attic stock.
- 90-12 Project Close-out Forms: Required documents to be submitted as part of the close-of procedures and prior to final acceptance and payment include, but not limited to:
1. AFFIDAVIT OF FINAL PAYMENT
  2. AFFIDAVIT OF RELEASE OF LIENS
  3. CONSENT OF SURETY – For Final Payment
  4. CONTRACTOR WARRANTY FORM
  5. FINAL WAIVER OF LIENS

These forms and referenced forms for inclusion are located at the end of Section 90 of the General Provisions.

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AFFIDAVIT OF FINAL PAYMENT

To All Whom It May Concern:

Whereas, the undersigned has been employed by (A) \_\_\_\_\_

to furnish labor and materials for (B) \_\_\_\_\_

work under a contract (C) \_\_\_\_\_

for the improvement of the premises described as (D) \_\_\_\_\_

in the (City or Town) of \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_

of which \_\_\_\_\_ is the Owner.

NOW, THEREFORE, this \_\_\_\_\_ day of \_\_\_\_\_, 20-----;

The undersigned, as the Contractor for the above referenced Contract, pursuant to the conditions of the Contract, hereby certifies that, except as noted below, he/she has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "NONE". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception).

ATTACHMENTS:

1. Consent of Surety to Final Payment. (Whenever Surety is involved, Consent of Surety is required.)
2. Separate Releases or Waivers of Liens conditional upon receipt of final payment.
3. Separate Releases or Waivers of Liens from subcontractors, and material and equipment suppliers.
4. Contractor's Affidavit of Release of Liens

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(Affix Corporate Seal here)

\_\_\_\_\_(SEAL)

CONTRACTOR (Name of sole ownership, corporation, or partnership)

\_\_\_\_\_(SEAL)

Signature of Authorized Representative

TITLE: \_\_\_\_\_

END OF AFFIDAVIT OF FINAL PAYMENT

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AFFIDAVIT OF RELEASE OF LIENS

To All Whom It May Concern:

Whereas, the undersigned has been employed by (A) \_\_\_\_\_

to furnish labor and materials for (B) \_\_\_\_\_

work under a contract (C) \_\_\_\_\_

for the improvement of the premises described as (D) \_\_\_\_\_

in the (City or Town) of \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_

of which \_\_\_\_\_ is the Owner.

NOW, THEREFORE, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_;

The undersigned, as the Contractor for the above referenced Contract, pursuant to the conditions of the Contract, hereby certifies to the best of his/her knowledge, information, and belief, the Releases or Waivers of Lien attached hereto include the Contractor, Subcontractors, all suppliers of material and equipment, and all performers of Work, labor or services, who have or may have liens against any property of the Owner arising in any manner out of performance of the Contract referenced above.

EXCEPTIONS: (If none, write "NONE". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception).

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ATTACHMENTS:

1. Contractor's Release of Liens, conditioned upon receipt of final payment.
2. Separate Releases or Waivers from subcontractors, and material and equipment suppliers.

partnership)  
(Affix Corporate Seal here)

\_\_\_\_\_(SEAL)

CONTRACTOR (Name of sole ownership, corporation, or

\_\_\_\_\_(SEAL)

Signature of Authorized Representative

TITLE: \_\_\_\_\_

AFFIDAVIT OF RELEASE OF LIENS

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CONSENT OF SURETY - For Final Payment

Project Name \_\_\_\_\_

Location \_\_\_\_\_

Project No. \_\_\_\_\_ Contract No. \_\_\_\_\_

Type of Contract \_\_\_\_\_

Amount of Contract \_\_\_\_\_

In accordance with the provisions of above-named contract between the Owner and the Contractor, the following named surety:

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

on the Payment Bond of the following named Contractor:

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

hereby approves of final payment to the Contractor and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the following named Owner: as set forth in said Surety Company's bond:

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

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IN WITNESS WHEREOF,

The Surety Company has hereunto set its hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Name of Surety Company)

(Affix Corporate Seal here)

\_\_\_\_\_  
(Signature of Authorized Representative)

TITLE: \_\_\_\_\_

If signed by Attorney-In- Fact, Power of Attorney must be attached.

END CONSENT OF SURETY – For Final Payment

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## CONTRACTOR WARRANTY FORM

PROJECT:

LOCATION:

OWNER:

We \_\_\_\_\_  
(Company Name)

Contractor for the above-referenced project, do hereby warrant all labor and materials furnished and work performed are in accordance with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials and workmanship for a period of one year from Date of Substantial Completion.

This warranty commences on \_\_\_\_\_  
Date of Substantial Completion

and expires on \_\_\_\_\_

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This warranty covers that portion of the project described below:

Should any defect develop during the warranty period due improper materials, workmanship, or arrangement, the defect shall, upon written notice by the Owner, be made good by the undersigned at no expense to the owner.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Owner.

DATE: \_\_\_\_\_

FOR: \_\_\_\_\_

(Company Name)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_



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FINAL WAIVER OF LIEN

To All Whom It May Concern:

Whereas, the undersigned has been employed by (A) \_\_\_\_\_

to furnish labor and materials for (B) \_\_\_\_\_

work under a contract (C) \_\_\_\_\_

for the improvement of the premises described as (D) \_\_\_\_\_

in the (City or Town) of \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_

of which \_\_\_\_\_ is the Owner.

NOW, THEREFORE, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_;

For and in consideration of the sum of (E) \_\_\_\_\_ Dollars

paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does waive and release any lien rights to, or claim of lien with respect to and on said above described premises, and the improvements thereon, and on the moneys or other considerations due or to become due from the owner, on account of labor, services, material, fixtures, apparatus, or machinery hereto or which may hereafter be furnished by the undersigned to or for the above described premises by virtue of said contract.

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(Affix Corporate Seal here)

(F) \_\_\_\_\_ (SEAL)

Name of sole ownership, corporation, or partnership

\_\_\_\_\_  
(SEAL)

Signature of Authorized Representative

TITLE: \_\_\_\_\_

INSTRUCTIONS FOR FINAL WAIVER:

- (A) Person or firm with whom you agree to furnish either labor, or services, or materials, or all.
- (B) Fill in nature and extent of work; strike the word labor or the word materials if not in your contract.
- (C) If you have more than one contract on the same premises, describe the contract by number if available, date, and extent of work.
- (D) Furnish an accurate enough description of the improvement and location of the premises so that it can be distinguished from any other property.
- (E) Amount shown should be the amount actually received, and equal to the total amount of the contract as adjusted.
- (F) If waiver is for a corporation, the corporate name should be used, the corporate seal affixed, and the title of the officer signing waiver should be set forth; if  
waiver is for a partnership, the partnership name should be used, partner should sign and designate himself as partner.

Source: Construction Industry Affairs Committee of Chicago

## **SPECIAL PROVISIONS**

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## SPECIAL PROVISIONS

- SP-1 SCOPE OF WORK. The Contractor shall, upon receipt of the Notice-to-Proceed issued by METROPOLITAN KNOXVILLE AIRPORT AUTHORITY (Owner), complete all the Work for the entire automated parking guidance system to be fully operation and beneficial use to the Owner. The Contractor shall provide a final design, and furnish all the labor, necessary tools, incidentals, expendable equipment, and materials, and all utility and transportation services required for THE PROVISIONS FOR GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS Project at McGhee Tyson Airport. CHA Consulting, Inc. is the Owner's Representative and in preparing the Proposal Documents will be administering Request for Bid process as a representative of MKAA. The requirements for this Contract, shall be in strict compliance with the Bid Proposal Documents, the Bidder's accepted Proposal and other contract documents herein mentioned which are a part of this contract.
- SP-2 BID SCHEDULES. Proposals shall be prepared and submitted as directed in the Instructions to Bidders.
- SP-3 PREVAILING WAGE RATES. No prevailing Wage rates for this project apply.
- SP-4 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION. The Metropolitan Knoxville Airport Authority (MKAA) places a very high priority on diversity and inclusion, not just for the Airport itself, but for all companies that the MKAA does business with as well. The MKAA strongly encourages all companies to maximize DBE and/ or minority participation wherever possible. This includes the maximum opportunity to compete and perform under any contract associated with this Agreement. The successful proposer/bidder shall not discriminate based on race, color, national origin, or sex, in the award and performance of contracts.

No part of the project is Federally funded in part or whole. No prevailing wage rates apply. Even though DBE participation is not federally mandated, the Metropolitan Knoxville Airport Authority has developed an Objectives and Policy Statement for the DBE program in compliance with Code of Federal Regulations 49CFR PART 26 for participation of qualified and certified DBEs and is in full force for this Project. The Project goals are included in the Proposal Attachments. The goals shall for participation shall be adhered to, or an approved documented good faith effort to achieve the goal is provided. Whereas the strict compliance under the Code of Federal Regulations is not enforced, the Contractor is required to submit monthly reports of DBE utilization on this Project. The DBE Participation Report, contained herein in the Proposal Attachments, shall be completed, and submitted with each application for payment.

DBE Expenditure Reports: With each application for payment, the Contractor shall submit his DBE expenditure report indicating the name, date and amount disbursed to his DBE subcontractors for the period as well as for the project to date expenditure.

- SP-5 DAMAGE CLAIMS/INSURANCE.

INSURANCE: In accordance with General Provision 70-11, the Contractor shall purchase and maintain such commercial general liability with a designated construction project general aggregate limit endorsement, comprehensive automobile liability, pollution liability, and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the

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Work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

- Claims under workers' or workmen's compensation, disability benefits and other similar employee benefit acts;
- Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- Claims for damages insured by personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (b) by any other person for any other reason;
- Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;
- Claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property;
- Claims for damages because of bodily injury or death of any person or property damage arising out of the Ownership, maintenance, or use of any motor vehicle;
- Claims for bodily injury and property damage as a result of a pollution incident; and
- Claims for remediation costs as a result of pollution incidents resulting from Contractor's operations.

The insurance required by this paragraph shall include the specific coverages and be written for no less than the limits of liability and coverages specified in this section or required by law, whichever is greater. The commercial general liability insurance shall include completed operations insurance. All Contractor policies must include a Waiver of Subrogation in favor of Owner. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner and Engineer by certified mail. All such insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with the General Provisions paragraph 50-18. In addition, Contractor shall maintain such completed operations insurance for at least two years after final payment and furnish Owner with evidence of continuation of such insurance at final payment and one year thereafter.

**IDEMNIFICATION:** Contractor shall protect, defend, indemnify and hold harmless the Owner and its Commissioners, officers and employees from and against any and all liabilities, losses, suits, claims, judgments, fines or demands arising by reason of injury or death of any person or damage to any property or of the alleged violation of any laws or ordinances, including all reasonable costs for investigation and defense thereof (including but not limited to attorney fees, court costs and expert fees) of any nature whatsoever arising out of or incident to the Contract Documents and/or the use or occupancy of the Airport by, or out of the acts or omissions of, Contractor's officers, employees, subcontractors, contractors, any person, or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of where the injury, death or damage may occur, unless such injury, death or damage is



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caused predominantly by the negligence of the agents, servants, or employees of the Owner. The Owner shall give to Contractor prompt and timely notice of any such claim or action against it. The Owner shall be entitled to choose counsel to represent it at Contractor's expense in connection with matters covered by the provisions of this section and said provision shall survive the expiration or earlier termination of this Agreement. Contractor and its insurer, or either of them, shall have the right to compromise and defend all claims, actions, suits, or proceedings to the extent of Contractor's interest therein; and in connection therewith the parties hereto agree to cooperate fully with each other and with Contractor's insurer in the defense thereof.

In any and all claims against Owner, its Commissioners, officers, employees, agents, Engineers and authorized Owner's Representatives or any of their consultants, agents or employees by any employee of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under this section above shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

COVERAGES: The limits of liability for the insurance required shall provide coverage for not less than the following amounts or greater where required by law:

- A. Workers' Compensation, etc.:
  - (1) State: Statutory
  - (2) Applicable Federal (e.g. Longshoreman's) Statutory
  - (3) Employer's Liability \$1,000,000
- B. Commercial General Liability with a designated construction project general aggregate limit endorsement for the Project:
  - (1) Bodily Injury and Property Damage: \$15,000,000  
Combined Single Limit (per Occurrence)
  - (2) The Contractor's General Liability insurance shall provide coverage for the following: (1) Premises - Operations, (2) Independent Contractors, (3) products/Completed Operations Hazard, (5) Underground Hazard, (6) Broad Form Property Damage, (7) Where applicable, Explosion and Collapse Hazard, and (8) Personal Injury.
- C. Comprehensive Automobile Liability:
  - (1) Bodily Injury and Property Damage: \$5,000,000  
Combined Single Limit (per Occurrence)
  - (2) The Contractor's Comprehensive Automobile Liability insurance shall provide coverage for Bodily Injury and Property Damage Per Occurrence for owned, hired and non-owned vehicles.
  - (3) If privately owned vehicles (P.O.V.) are used in Air Operation Area (A.O.A.), the certificate of insurance shall state that employees' P.O.V. are covered under this policy.

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D. Contractor's Pollution Liability:

(1) Bodily Injury, Property Damage and Remediation: \$1,000,000

(2) Contractors Pollution Liability shall provide coverage for third party claims for bodily injury, property damage, and remediation costs as a result of pollution incidents resulting from Contractor's operations.

E. The Metropolitan Knoxville Airport Authority, its Commissioners, Officers, and Employees; and CHA, its staff and consultants shall be named as additional insured with respect to the above policies (excluding Worker's Compensation) with right of notice in the policy.

Contractor shall purchase and maintain such Protective and Contractual Bodily Injury Liability Insurance and such Protective and Contractual Property Damage Liability Insurance as shall be required by any public bodies or utility companies whose property, facilities, or right-of-way may be affected by the Work to be done under this Contract.

Contractor will provide such additional information in respect of insurance provided by him/her as the Owner may reasonably request. Failure by Owner to give any such notice of objection within the time provided shall constitute an acceptance of such insurance purchased by Contractor as complying with the Contract Documents.

CERTIFICATES: Certificates in triplicate from the insurance carrier stating the limits of liability and expiration date shall be filed with Owner before operations are begun. Certificates shall not merely name the types of policy provided but shall specifically refer to this Contract and shall contain a separate express statement of compliance with each of the requirements as set forth in this Article. The certificates shall, in addition to the information relative to the insurance required, contain the following:

- (a) Inception and expiration dates of insurance policy.
- (b) Limits of liability provided (Public Liability and Property Damage).
- (c) Coverage provided, including special hazards if required.
- (d) Name of insurance company.
- (e) Policy Number.
- (f) Additional interests covered.
- (g) Statement that the Explosion, Collapse, and Underground exclusions do not apply.
- (h) Certificate shall reflect self-insured retention applicable to any Contract of insurance.
- (i) Excess liability certified Contracts must state underlying insurance requirements.
- (j) Project number and nature of work.

No certificate will be accepted which exculpates the issuer or reduces any rights conferred on the Owner by the above certificates, nor will they be accepted unless the certificates bear a live signature of a direct representative of a company authorized to do business in Tennessee.

No certificate will be accepted unless the person signing the certificate certifies, in a separate letter, his exact relationship with the insurance carrier or carriers indicated in the certificate.

The Owner may, at his discretion, modify or waive any of the foregoing requirements.

No Contract of insurance containing a "claims made" insuring agreement will be acceptable unless the Contractor offering such insurance to fulfill the requirements of this Contract agrees that each such Contract of insurance shall be renewed for the entire existence of the Contractor, their successors or assigns; and that on termination of such coverage which is not replaced by a similar Contract with the required limits of liability, a "tail policy" will be purchased with limits not less than those required by this Contract.

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SP-6 CONTRACT AWARD. An award of one or multiple contracts will depend on available funding. If an award has not been made within the 180-calendar day period after the receipt of Proposals, a Proposer, or multiple Proposers may be asked to continue honoring their proposals until funds become available.

SP-7 SCHEDULE OF WORK. This contract requires the contractor to prepare and maintain a detailed project schedule. Scheduling requirements for the Project are included in the Technical Specifications under Division 01 – “Construction Progress Documentation.”

SP-8 PRECONSTRUCTION CONFERENCE. The Contractor shall attend a preconstruction conference prior to beginning work. Requirements for the preconstruction conference are included in under Special Provisions SP-14 – “Project Coordination and the Technical Specifications under Division 01 – “Construction Progress Documentation”. The Contractor shall also attend any job meetings called by the Owner’s Representative.

All other meeting requirements for the progress and execution of the Work are included under Special Provisions SP-14 – “Project Coordination” and the Technical Specifications under Division 01 – “Construction Progress Documentation”. The Contractor shall also attend any job meetings called by the Owner, or Owner’s Representative.

SP-9 SUBMITTAL PROCEDURES. Required submittals for the Project include, but not limited to: Shop Drawings, Product Data, Samples, Product List, Product Schedule, Coordination Drawings, Contractors Construction Schedules, Application for Payment, and Schedule of Values. Maintenance Data, Certificates, Reports, etc. Reference the Technical Specifications under Division 01 – “Submittal Procedures.”

Where Delegated-Design Services are required for the Project which requires the Contractor to finalize design for installation and construction and prepare any documentation (drawings and specifications) to submit and obtain the necessary permits to begin construction activities, the Contractor shall engage at their costs a professional architect and/or engineer as required to provide these Delegated-Design Services and Pre-Installation and Construction Services. Reference the Instructions to Bidder, the Technical Specifications under Division 01 – “Submittal Procedures”, and Special Provisions SP-12 – “Permits.”

SP-10 PRODUCTS LIST, SUBSTITUTIONS AND OPTIONS:

A. Products List:

1. Contractor shall submit a complete list of products in accordance with Division 01 – “Product Requirements” to be incorporated into the work within twenty (20) days after the commencement of the Work, or the beginning of the Contract Time.

B. Contractor's Options:

1. For products specified only by reference standard, select any product meeting that standard.
2. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named, which complies with the specifications.

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C. Product Substitutions After Award:

1. Contractor shall submit within twenty (20) days after commencement of the Work, or the beginning of the Contract Time all requests for product substitutions. No requests for substitutions will be accepted from manufacturers or suppliers.
2. Product substitution changes, including, materials, equipment, and methods of construction changes from those required by the Contract Documents shall be submitted in accordance with Technical Specifications, Division 01 – “Substitution Procedures”.

SP-11 MANUFACTURER'S INSTRUCTIONS:

- A. Printed Instructions: When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, Contractor shall obtain and distribute copies of such instructions to parties involved in the installation, including copies to the Owner's Representative.
1. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Strict Compliance: Handle, install, connect, clean, condition, and adjust products in strict accord with such instructions and in conformity with specified requirements.
1. Should job conditions or specified requirements conflict with manufacturer's instruction, consult with Engineer for further instructions.
  2. Do not proceed with work without clear instructions.
- C. Complete Compliance: Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

SP-12 PERMITS. The Contractor shall be responsible for obtaining all necessary permits from the affected agencies unless otherwise stated herein. This also includes the preparing and providing all documentation (plans, drawings, and specifications, signed and sealed as required by a licensed professional architect and/or engineer in the State of Tennessee to submit to the City of Knoxville to obtain a permit. Do not start on-site construction and installation activities until all permits are obtained and submitted to the Owner's Representative.

SP-13 NOTICE TO PROCEED. The Notice-to-Proceed will be issued by the Owner to the Contractor. The Notice-to-Proceed shall establish the required commencement for the Work to begin and the Contract Time.

SP-14 PROJECT COORDINATION.

Preconstruction Conference: A Preconstruction Conference will be scheduled after award of Contract and prior to issuance of a Notice to Proceed. Key Project personnel representing the Prime Contractor and all major Subcontractors will be required to attend this Conference. Reference Technical Specifications, Division 01 – “Project Management and Coordination” for the requirements of the Preconstruction Conference.

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Coordination Meetings: The Contractor shall hold General Project Coordination Meetings at regularly scheduled times, and as required for all parties involved. These meetings may be as often as weekly if required. These meetings are in addition to specified meetings held for other purposes, such as special Pre-installation Meetings, Preconstruction Conference, and Progress Meetings. . Reference Technical Specifications, Division 01 – “Project Management and Coordination” for the requirements of the Coordination Meetings.

1. The Contractor shall conduct daily coordination meetings with the Owner, or Owner’s Representative, to coordinate daily construction limits, safety, and airport operations.

Progress Meetings: Conduct Progress Meetings at the project site monthly. Coordinate dates of meetings with preparation of the payment request. . Reference Technical Specifications, Division 01 – “Project Management and Coordination” for the requirements of the Progress Meetings.

SP-15 AIRPORT CONSTRUCTION SAFETY PHASING PLAN (CSPP). The Contractor’s special attention is directed to the Airport Safety Requirements section of the specifications and the Safety Plan sheets of the plans, which shall be strictly enforced. Contractor shall submit a Safety Compliance Document (SPDC) in accordance with FAA Advisory Circular 150/5370-2, prior to the start of construction for approval. Contractor will not be allowed to start construction until the SPCD has been approved by the Engineer and Owner.

SP-16 MKAA SECURITY BADGE INFORMATION. All persons in the employment of the Contractor and his Sub-Contractors, who will be working at the site, may be required to have an Airport Issued identification badge. Issuance of each badge requires a \$53.00 deposit of which \$35.00 will be refunded upon return of all badges to the McGhee Tyson Pass and ID Office. Loss of any badge will result in a \$50.00 replacement cost whether lost or stolen. Applications that are processed but do not result in issuance of a badge will be assessed a \$28.00 non-issuance fee.

All persons working in the Security Identification Display Area (SIDA) will be required to attend a security training class and successfully complete a written test prior to obtaining the identification badge. There is no charge for the class. There is a \$53.00 cost for fingerprinting for SIDA prior to class and the results must be returned with no criminal history.

Any person applying for a Driver's Badge must attend a driver training class. Requests for all badges must be coordinated with the Airport's Project Manager.

SP-17 CONSTRUCTION VEHICLES. Contractor's vehicles operating in the Work areas must be identified with the company's logo and flashing beacon light. The logo must be made of 4" high lettering. The logo must have a high contrast between letters and background, shall be commercially produced, not hand lettered, and may be permanent or magnetic. Furthermore, the logo shall have been approved by MKAA. Logos shall be displayed on both sides of all vehicles.

Only vehicles covered by the Contractor’s insurance will be allowed within the construction area. No personally owned vehicles will be allowed within the construction area, except that construction employee parking will be allowed within the Contractor’s staging area.

SP-18 PROTECTION OF EXISTING PROPERTY. The Contractor shall take all necessary precautions and perform the work in such a manner as to adequately protect and safeguard the existing properties

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including structures, utilities, etc., pavements, from any damage due to their operations. The Contractor shall be responsible for the cost of any repairs or replacement of any property, as directed by the Owner's Representative, damaged by the Contractor's operations.

SP-19 NOT USED

SP-20 NOT USED

SP-21 COOPERATION WITH PUBLIC UTILITIES. The plans show all known utilities located within the limits of this project according to information obtained from various utility companies. The accuracy of the plans in this respect is not guaranteed. The Contractor will be required to cooperate and coordinate his work with all utility companies within the limits of this project as directed by the Owner's Representative.

SP-22 UTILITY LOCATE PROCESS Tennessee State Law TCA 65-31 requires anyone about to engage in either digging, excavation, moving of earth, demolition, or any type of activity that disturbs the earth and therefore possibly involving a danger to damaging underground utility lines, to notify Tennessee One Call of their intent to dig. Tennessee One Call will then notify the member utilities of your proposed work. The utility company locator will then have 72 hours, excluding holidays and weekends, to locate those underground facilities. The Contractor shall notify Tennessee One Call at least three (3) business days in advance of any activities at telephone number 811 or by internet at [www.tnonecall.com](http://www.tnonecall.com) or [www.tennessee811.com](http://www.tennessee811.com).

In addition, the Contractor is required to contact each of the following non-member entities a minimum of 10 business days prior to starting any construction activities to request utility and cable locates. These non-member entities are not under any obligation to locate utilities within a certain time frame. Therefore, the Contractor shall coordinate the necessary advance notice with each entity.

Federal Aviation Administration	(865) 980-3052
Tennessee Air National Guard	(865) 336-4219
National Weather Service	(432) 586-4067

Once all locates have been completed and prior to the start of Construction, the Contractor shall provide written confirmation to MKAA from Tennessee One Call and each of the non-member entities listed above confirming the conclusion of the locate service.

SP-23 WEATHER DELAYS. If the basis exists for an extension of time in accordance with General Provisions 80-07, an extension of time based on weather may be granted only for the number of Weather Delay Days in excess of the number of days listed as the Standard Baseline for the entire duration of the project as a whole.

The Owner, or Owner's Representative has reviewed weather data available from the National Oceanic and Atmospheric Administration and determined a Standard Baseline of average climatic range for McGhee Tyson Airport in Knoxville, Tennessee.

Standard Baseline shall be regarded as the normal and anticipatable number of calendar days for each month during which construction activity shall be expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number of days each month as listed in the Standard Baseline is included in the Work and is not eligible for extension of Contract Time.

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Standard Baseline established for this contract is as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7	7	8	7	7	7	7	6	5	5	7	8

Adverse Weather is defined as the occurrence of one or more of the following conditions which prevents exterior construction activity or access to the site within twenty-four (24) hours:

1. Precipitation (rain, snow, or ice) more than one tenth inch (0.10") liquid measure.
2. Temperatures which do not rise above 32 degrees F by 10:00 AM.
3. Temperatures which do not rise above that specified for the day's construction activity by 10:00 AM, if any is specified.
4. Sustained wind more than twenty-five (25) mph.
5. Standing snow more than one inch (1.00").
6. Any day that the Owner has requested no work to be performed.

Adverse Weather may include "dry-out" or "mud" days, as determined by the Engineer such as:

1. For rain days above the Standard Baseline;
2. Only if there is a hindrance to site access or sitework, such as excavation, backfill, and footings; and,
3. At a rate no greater than 1 make-up day for each day or consecutive days of rain beyond the Standard Baseline that total 1.0 inch or more, liquid measure, unless specifically recommended otherwise by the Owner, or Owner's Representative.

A Weather Delay Day may be counted if adverse weather prevents work on the project for fifty percent (50%) or more of the Contractor's scheduled workday, including a weekend day or holiday if Contractor has scheduled construction activity that day.

The Owner, or Owner's Representative will compile monthly weather data from the National Weather Service. The determination of Contractor's entitlement for any Weather Delay Days, as defined herein above, will be based on the entire duration of the project in lieu of a month-by-month consideration. The entitlements will consider those months that conditions are better or worse than the Standard Baseline for this contract.

SP-24 NOT USED

SP-25 PROJECT CLOSE-OUT – RECORD DOCUMENTS

GENERAL REQUIREMENTS:

- A. Contractor shall maintain as specified herein for the Owner or Owner's Representative one record copy of:
1. Drawings.
  2. Specifications.
  3. Addenda.

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4. Change orders and other modifications.
  5. Field orders or written instructions.
  6. Approved shop drawings, product data and samples.
  7. Field test records.
  8. Laboratory test records.

EXECUTION:

- A. Store record documents and samples apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by the Owner, or Owner's Representative.

RECORDING:

- A. During daily progress of the work, the Contractor shall record information concurrently with construction progress.
  1. Do not conceal any work until required information is recorded.
- B. Drawings: Legibly mark to record actual construction in color codes designated by the Owner, or Owner's Representative.
- C. CAD files in .dwg format, version 2021 or most current version.
- D. Record Information includes but is not limited to the following:
  1. Controllers, cabinets, signing
  2. Wiring diagrams
  4. Electrical upgrades and or changes to existing systems
  6. Field changes of dimension and detail.
  7. Changes made by field order or by change order.
  8. Details not on original contract drawings.
  9. Any other changes in the plans.
- E. Specifications and addenda: Legibly mark each section to record:
  1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment installed or provided.
  2. Changes made by change directive, or by change order.

SUBMITTAL:

- A. At the close of the job and prior to receipt of final payment, the Contractor shall deliver to the Owner's Representative for the Owner one complete set of Record Documents. The drawing markups submitted as a part of this package will be used by the Owner's Representative in preparing final As-Built drawings to the Owner.



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- B. Accompany submittal with transmittal letter containing:
1. Date.
  2. Project title and number.
  3. Contractor's name and address.
  4. Title and number of each record document.
  5. Signature of Contractor or his authorized representative.

SP-26 ATTIC STOCK AND/OR EXTRA AND/OR SPARE PARTS. All attic stock and/or extra and/or spare parts stock shall be submitted as part of the Project Close-out procedures. Deliver all product to the Owner's Representative.

SP-27 MAINTENANCE AGREEMENTS. Execute all post-Final Acceptance maintenance agreements as a separate contract agreement with MKAA. Deliver all Maintenance Agreements to the Owner's Representative as part of the Project Close-out procedures.

SP-28 OPERATION AND MAINTENANCE MANUALS. Submit all instructions for operation and maintenance for all system installed. Deliver to the Owner's Representative as part of the Project Close-out procedures.

SP-29 RESTORATION OF CONSTRUCTION AREAS. All work necessary and incidental to the constructing, maintaining, and restoration to original or acceptable condition of Work areas, staging areas, waste areas, and store areas shall be considered incidental to the project and not paid for directly.

SP-30 WAIVER OF LIENS. Prior to the Owner making final payment and releasing retainage, the Contractor shall furnish an unconditional waiver of lien from all subcontractors and suppliers providing materials stating they have been paid all money to which they are due. The Contractor shall also agree and warrant to the Owner that no liens shall be attached to the project by virtue of the Contractor's default in paying his employees or any subcontractor or in paying material suppliers. Should such a lien be filed, payments otherwise due the Contractor shall not be due until the Contractor has delivered to the Owner a complete release of such lien or a bond satisfactory to the Owner indemnifying the Owner against such lien.

END OF SPECIAL PROVISIONS

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## **TECHNICAL SPECIFICATIONS**

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## SECTION 01 10 00 – SUMMARY

### PART 1 – GENERAL

#### 1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project consists of the installation for PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS.
  - 1. Project Location: McGhee Tyson Airport, , 2055 Alcoa Highway, Alcoa, TN 37701.
  - 2. Owner: Metropolitan Knoxville Airport Authority, McGhee Tyson Airport, 2055 Alcoa Highway, Suite I, Alcoa, TN 37701.
- B. Request for Bids, Owner's Representative: The Bid Proposal Documents, and all related documents as of the Request for Bids issuance date were prepared for the Project by CHA Consulting, Inc.
- C. The abbreviated Work consists of:
  - 1. Docking stations at (3)-three different standby generators at (3)-three different locations on the Airport property.
  - 2. See "Instructions to Bidders" for more detailed Work description.

#### 1.2 CONTRACT

- A. Project will be constructed by a single Prime Contractor under a stipulated Lump Sum Price Construction Contract in strict compliance with the requirements.

#### 1.3 WORK SEQUENCE

- A. The Work shall be conducted as a single Project in multiple phases at three different venues at the Airport Site to allow the least disruptions to Airport operations in the fully occupied and operational facilities.
- B. Work Phases: The Contractor shall provide to the Owner prior to on-site activities a phased approach to accomplish the Work for the PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS, installation, and construction, of the which will allow a sensible and workable solution (to limit the Work disruptions to Airport operations).
  - 1. All incremental phasing and phases shall be substantially complete and ready for the Owner's beneficial use within specified number of consecutive calendar days (Contract Time) to achieve substantial completion as proposed and indicated in the Proposal Form. The Contract Time shall begin with the Owner issued Notice-to-Proceed to the Contractor setting the beginning date of the Contract Time, and subsequently all Work activities and requirements.
  - 2. Provisions for Liquidated Damages for failure to complete substantial completion set forth in the Bid Proposal Form and General Provisions.

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#### 1.4 USE OF SITE AND PREMISES

- A. General: The Contractor shall have use of premises for installation and construction operations, with limits set forth for the requirement to limit the Work disruptions to Airport operations. The Contractor's use of premises is also limited only by Owner's right to perform work or to retain other contractors on portions of Project. Reference Division 01 - "Temporary Facilities" for further definition, limitations, and requirements of the Contractors use of the site and premises.
- B. The Contractor will be required to compliance with the requirements of the Airport for having access to the SIDA or Secure Identification Display Area where the Work is to be conducted. This is the area in which security background check and clearance is required. The Contractor and their personal will need to file an application at the Airport and attend training courses for both the SIDA badge for access, but also for driving vehicles within an active aircraft operations area and attend training for driving privileges.
- C. Electrical Power Shutdowns: The Contractor shall provide advance notice to the Airport for any type of power shutdowns required in the execution of the Work. Preferably these shutdowns will be schedule between the hours of 11:00- PM and 4:40 AM for the terminal Work. Power shutdowns for the ARFF and AOC Work shall be scheduled at night.
- D. The Contractors "laydown" yard will be provided at Building 520 at the AOC.

#### 1.5 WORK UNDER OTHER CONTRACTS

- A. Separate Contractors: Owner may engage a Separate Contract and Contractors for performance of certain construction and installation operations related to this Project.

#### 1.6 ELECTRONIC DOCUMENT SUBMITTAL PROCEDURES

- A. Provided an Internet-based submittal service at Contractor's expense. See Specification Section 00 30 00 – "Project Management and Coordination" for requirements.

#### 1.7 TECHNICAL SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Technical Specifications Division (not including General Provisions or Special Provisions) are organized into Divisions and Sections using the 48-division format and CSI/CSC's "MasterFormat" numbering system.
  - 1. Section Identification: The Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in situations. These conventions are as follows:

- 
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
    - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

#### 1.8 MISCELLANEOUS PROVISIONS

- A. "Bid Proposal Documents" and/or "Contract Documents" means the Advertisement for Bids, Instructions to Bidders, the Bid Pricing Forms, Schedules and Attachments, Contract Forms, General Provisions, Special Provisions, Technical and Supplemental Technical Specifications, Appendices, and Drawings, Addenda and all ensuing referenced material issued by the Owner for the purpose defining all the requirements within the Contract Documents and Contract.
  1. These CSI/CSC's "MasterFormat" Technical Specifications shall not be interpreted as singular documents where applicable as the context of the intent and requirements for all the Contract Documents indicates. All defined Proposal Documents and/or Contract Documents apply as the requirements to complete the Work and Project.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 10 00

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## SECTION 01 19 60 – REQUEST FOR INFORMATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Requests for Information (RFI) after Award of Contract is made.
  - 1. For all administrative and procedural requirements for handling and processing Requests for Information (RFI) during the Proposal submission, refer to the Instructions to Proposers.

#### 1.2 PROCEDURES

- A. Contractor Initiated Requests: When the Contractor cannot readily derive certain information from within the Contract Documents, or the documents state "Coordinate with "Owner", Owner's Representative", "Engineer" or similar terminology, the Contractor may request this information by submitting an RFI to the Owner. When submitting an RFI provide the following:
  - 2. Include a clear and concise statement outlining the request for information.
    - a. Include a clear and concise statement of the Contractor's suggested response if available as an option for the Architect to consider.
  - 3. Indicate which particular document the request is based upon:
    - a. Drawing and detail number.
    - b. Specification section, include page and subsection number.
  - 4. Indicate the date and originator of the request.
  - 4. Submit via an Internet-based submittal service. See Division 01, Technical Specification Section 01 31 00 – "Project Management and Coordination" for requirements.
- B. Responses: The Owner shall issue a written response to the RFI, as the proper response is known. The Contractor shall make every effort to prepare the RFI at the earliest point the request is discovered.
  - 1. The maximum time allotted to respond to an RFI shall be five (5) calendar days after receipt of completed RFI Form(s). No time delays may be claimed on the critical path during this period of time.

- 
- C. Limitation: A response to an RFI is not an authorization to proceed with work involving additional costs and/or time. Notification must be given in accordance with the Contract Documents if any response causes any changes to the Contract Documents.
    - 1. Reference to Technical Specifications, Division 01, Section - "Contract Modification Procedures" for contractual changes.
  
  - D. Form: The Contractor shall utilize the form attached or another previously agreed upon form. Incomplete RFI forms shall be returned without response at the Owner's discretion.
    - 1. Forms shall be sequentially numbered. Once a number is used, do not reuse this number. The number shall be in the form of "RFI-XXX", "X" being the sequential number.
    - 2. Use REQUEST FOR INFORMATION FORM at end of this Section.
  
  - E. Non-Contractor requests: Subcontractors, vendors and alike shall submit their Requests for Information directly to the Contractor who shall immediately review the request. If the request cannot be responded to by the Contractor through his own efforts, the request shall follow the RFI processes outlined herein.

#### 1.1 QUALITY OF INFORMATION

- A. Contractor Requests: The request shall be formulated as a direct question or Request for Information. All pertinent information known to the Contractor shall be included with the RFI form. Leading or incomplete questions shall be returned to the Contractor without response.
  - 1. Fill out the forms in type written format or black or blue ink.
  - 2. Nonconforming questions shall not be the basis for time extension claims.
  - 3. A returned RFI with no response as indicated herein, shall not be the basis for time extension claims.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

---

REQUEST FOR INFORMATION FORM

*(Contractor shall use this form for submitting Requests for Information after Award.)*

Project: PROVISIONS FOR GENERATOR  
STANDBY DOCKING STATIONS AND  
RELATED IMPROVEMENTS

From: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To: (To be determined)

Date Submitted: \_\_\_\_\_

Submit via an Internet-based submittal service. See Specification Section 01 31 00 – “Project Management and Coordination” for requirements.

---

Specification or Document Title: \_\_\_\_\_ Section: \_\_\_\_\_

Description: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

---

Requested Information, Clarification, or Interpretation: \_\_\_\_\_

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

---

Submitted By: \_\_\_\_\_ Signed By: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Attachments: \_\_\_\_\_

---

A/E's Response See  Response Below  Request Received Too Late

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Response: \_\_\_\_\_

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

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By: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

By: (To be Determined) \_\_\_\_\_ Date: \_\_\_\_\_

END OF REQUEST FOR INFORMATION FORM

END OF SECTION 01 19 60

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## SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

#### 1.2 MINOR CHANGES IN THE WORK

- A. The Owner will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on Supplemental Instructions (SI). Sample Form at end of this section.

#### 1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: The Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Proposal Requests issued by Owner are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
  - 2. Within 7 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Include applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.
- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a Change Order Request (COR).
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

- 
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  4. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

C. Proposal Request Form: AIA Document G709, Proposal Request, or other form approved by the Owner, Owner's Representative, Architect or Engineer. Sample Form at the end of this section.

1. Submit via an Internet-based submittal service. See Specification Section 01 30 00 – "Project Management and Coordination" for requirements.

#### 1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, the Owner will issue a Change Order for signatures of Owner and Contractor on the Change Order (CO) form included at the of this section

B. Change Order Form: AIA Document G701, Change Order, or other form approved by the Owner, Owner's Representative, Architect or Engineer. Sample Form at the end of this section.

1. Submit via an Internet-based submittal service. See Specification Section 01 30 00 – "Project Management and Coordination" for requirements.

#### 1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: The Owner may issue a Construction Change Directive on the Construction Change Directive (CCD) form included at the end of this section. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

---

C. Construction Change Directive Form: AIA Document G714, Construction Change Directive, or other form approved by the Owner, Owner's Representative, Architect or Engineer. Sample Form at the end of this section.

1. Submit via an Internet-based submittal service. See Specification Section 01 30 00 – "Project Management and Coordination" for requirements.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

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SAMPLE FORM - SUPPLEMENTAL INSTRUCTIONS

SUPPLEMENTAL INSTRUCTIONS NO. _____	Owner	[ ]
	Contractor	[ ]
	Engineer	[ ]
	Consultant	[ ]
	Field	[ ]
	Other	[ ]

---

PROJECT: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements  
McGhee Tyson Airport

DATE OF ISSUANCE: \_\_\_\_\_  
PROJECT NO.: (To be determined)

OWNER: Metropolitan Knoxville Airport Authority  
TO: (To be determined)

CONTRACT FOR: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements

CONTRACT DATED: (To be determined)

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*The work shall be carried out in accordance with the Supplemental Instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in Contract Sum or Contract Time.*

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DISCRIPTION:

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ATTACHMENTS:  
*(Insert list of documents that supports description)*

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ISSUED BY: (To be determined)

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SAMPLE FORM - PROPOSAL REQUEST

PROPOSAL REQUEST  
NO. \_\_\_\_\_

Owner [ ]  
Contractor [ ]  
Engineer [ ]  
Consultant [ ]  
Field [ ]  
Other [ ]

---

PROJECT: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements  
McGhee Tyson Airport

DATE OF ISSUANCE: \_\_\_\_\_  
PROJECT NO.: (To be determined)

OWNER: Metropolitan Knoxville Airport Authority  
TO: (To be determined)

CONTRACT FOR: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements

CONTRACT DATED: (To be determined)

---

*Please submit an itemized proposal for changes to the Contract Sum or Contract Time for proposed modifications to the Contract Documents herein. Submit proposal within (7)-seven consecutive calendar days from Date of Issuance, or notify Owner of the date you anticipate submitting your proposal.*  
THIS IS NOT A CHANGE ORDER, CONSTRUCTION CHANGE DIRECTIVE OR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED IN THE PROPOSED MODIFICATIONS.

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DISCRIPTION:

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ATTACHMENTS:

*(Insert list of documents that supports description)*

---

REQUESTED BY: (To be determined)

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SAMPLE FORM - CHANGE ORDER

CHANGE ORDER  
NO. \_\_\_\_\_

Owner [ ]  
Contractor [ ]  
Engineer [ ]  
Consultant [ ]  
Field [ ]  
Other [ ]

PROJECT: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements  
McGhee Tyson Airport

DATE OF ISSUANCE: \_\_\_\_\_  
PROJECT NO.: (To be determined)

OWNER: Metropolitan Knoxville Airport Authority  
TO: (To be determined)

CONTRACT FOR: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements

CONTRACT DATED: (To be determined)

The Contract is changed as follows:

The original Contract Sum Contingency Amount was..... \$ 00.00  
Net change by previously authorized Change Orders..... \$ 00.00  
The Contract Sum Contingency Amount prior to this Change Order was.....\$ 00.00  
The Contract Sum Contingency Amount will be (Increased) (Decreased)  
(Unchanged) by this Change Order in the amount of..... \$ (00.00)  
The new Contract Sum including this Change Order will be..... \$ 00.00

NOTE: This summary does not reflect changes in the Contract Sum, Contract Time or Guaranteed maximum Price which have been authorized by Construction Change Directive.

OWNER  
Metropolitan Knoxville Airport Authority

CONTRACTOR  
(To be determined)

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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SAMPLE FORM - CONSTRUCTION CHANGE DIRECTIVE

CONSTRUCTION CHANGE DIRECTIVE  
NO. \_\_\_\_\_

Owner [ ]  
Contractor [ ]  
Engineer [ ]  
Consultant [ ]  
Field [ ]  
Other [ ]

PROJECT: PROVISIONS FOR STANDBY GENERATOR DOCKIGN STATIONS & Related Improvements  
McGhee Tyson Airport

DATE OF ISSUANCE: \_\_\_\_\_  
PROJECT NO.: (To be determined)

OWNER: Metropolitan Knoxville Airport Authority  
TO: (To be determined)

CONTRACT FOR: PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS & Related Improvements  
CONTRACT DATED: (To be determined)

You are hereby directed to make the following change(s) in this Contract:

PROPOSED ADJUSTMENTS

- The proposed basis of adjustment to the Contract Sum is:
  - lump Sum (Increase) (Decrease) of
  - Unit Price of \$ \_\_\_\_\_ per \_\_\_\_\_
  - as provided by force account
  - as follows:
- The Contract Time is proposed to (be Adjusted) (Remain Unchanged). The proposed adjustment, if any, is (an increase of days) (a decrease of days).

When signed by the Owner and received by the Contractor, this Document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above

OWNER  
Metropolitan Knoxville Airport Authority

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Signature by the Contractor indicates the Contractor's Agreement with the proposed adjustments in Contract Sum and Contract Time set forth in this Construction Change Directive**

CONTRACTOR  
(To be determined)

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

END OF SECTION 01 26 00

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## SECTION 01 29 00 – PAYMENT PROCEDURES

### PART 1 – GENERAL

#### 1.1 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

#### 1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - a. Contractor's progress schedule.
    - b. Application for Payment form.
    - c. List of subcontractors.
    - d. Schedule of alternates.
    - e. List of products.
    - f. List of principal suppliers and fabricators.
    - g. Schedule of submittals.
  - 2. Submit the Schedule of Values to the Owner, or Owner's Representative at earliest possible date but no later than twenty-one (21) days before the date scheduled for submittal of initial Applications for Payment.
  - 3. Sub schedules: Where the Work is separated into phases requiring separately phased payments, provide sub schedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Manual table of contents and Pricing Schedule as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the Schedule of Values:
    - a. Project name and location.
    - b. Project number.
    - c. Contractor's name and address.
    - d. Date of submittal.
  - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - a. Generic Name
    - b. Pricing Schedule Item
    - c. Related Specification Section or Division.
    - d. Description of the Work.

- 
- e. Name of subcontractor.
  - f. Name of manufacturer or fabricator.
  - g. Name of supplier.
  - h. Change Orders (numbers) that affect value.
  - i. Dollar value:
    - 1) Percentage of the Contract Sum to nearest one-hundredth percent adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts where appropriate.
  4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.
  6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
  7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be either shown as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
  8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

### 1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by Owner.
  1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The cutoff date for Work to be paid with each monthly application for payment is the 27th day of each month. The period covered by each Application for Payment starts on the day following the monthly cutoff date.
- C. Payment Application Forms: Use forms provided by Owner for Applications for Payment, and Schedule of Values, or other approved forms for use. An example of an acceptable format and forms are at the end of this Section.

- 
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. The Owner, or Owner's Representative will return incomplete applications without action:
1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit notarized original copies of each Application for Payment to the Owner, or Owner's Representative by a method ensuring receipt within 24 hours. Application for Payments shall include waivers of lien and similar attachments if required:
1. Submit Application for Payment and supporting documents via an Internet-based submittal service at Contractor's expense. See Specification Section 00 30 00 – "Project Management and Coordination" for requirements.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application:
1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
  2. When an application shows completion of an item, submit final or full waivers.
  3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Waiver Delays: Submit each Application for Payment with Contractor's waiver of mechanic's lien for construction period covered by the application.
    - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  5. Waiver Forms: Submit waivers of lien on forms executed in a manner acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of Values.
  3. Contractor's Construction Schedule (preliminary if not final).
  4. Products List and Schedule.
  5. Submittals Schedule (preliminary if not final).
  6. List of Contractor's staff assignments.
  7. List of Contractor's principal consultants.
  8. Copies of building permits.
  9. Report of preconstruction conference.

- 
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Compliance with the General Provisions of the Contract:
    - a. Section 90-09 Acceptance and final payment
    - b. Section 90-10 Construction Warranty
    - c. Section 90-11 Constructor final Project Documentation

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 29 00

# CONTRACTOR'S APPLICATION FOR PAYMENT

PAGE ONE OF \_\_\_\_\_ PAGES

TO OWNER: Metropolitan Knoxville Airport Authority PROJECT: \_\_\_\_\_

PAYMENT APPLICATION NO. \_\_\_\_\_

PERIOD TO: \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

CONTRACT DATE: \_\_\_\_\_

Distribution to:  
 CONTRACTOR  
 OWNER  
 OWNER'S REPRESENTATIVE  
 ENGINEER  
 OTHER

CONTRACT FOR: Installation of AUTOMATED PARKING GUIDANCE SYSTEM and Related Improvements

CONTRACTOR'S APPLICATION FOR PAYMENT Application for Payment is made as shown below in connection with the Contract.

SCHEDULE OF VALUES CONTINUATION SHEET is attached

1. ORIGINAL CONTRACT AMOUNT \$ \_\_\_\_\_
2. Net Change, by Change Orders \$ \_\_\_\_\_
3. CONTRACT SUM TO DATE (Line 1 + Line 2) \$ \_\_\_\_\_
4. TOTAL COMPLETED AND STORED TO DATE (Column G on Schedule of Values) \$ \_\_\_\_\_
5. RETAINAGE
  - a. 0% (zero percent) of Completed Work (Column D + E on Schedule of Values) \$ \_\_\_\_\_
  - b. 0% (zero percent) of Stored Material (Column F on Schedule of Values) \$ \_\_\_\_\_

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

**CONTRACTOR:**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

State of: \_\_\_\_\_ County of: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public: \_\_\_\_\_

My Commission expires: \_\_\_\_\_

**OWNER CERTIFICATION FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Owner certifies that to the best of the Owner's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the CURRENT PAYMENT DUE AMOUNT (Line 8): \$ \_\_\_\_\_.

**OWNER:**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Insurance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

<b>1. ORIGINAL CONTRACT AMOUNT</b>	\$	
<b>2. Net Change, by Change Orders</b>	\$	
<b>3. CONTRACT SUM TO DATE (Line 1 + Line 2)</b>	\$	
<b>4. TOTAL COMPLETED AND STORED TO DATE (Column G on Schedule of Values)</b>	\$	
<b>5. RETAINAGE</b>		
a. 0% (zero percent) of Completed Work (Column D + E on Schedule of Values)	\$	
b. 0% (zero percent) of Stored Material (Column F on Schedule of Values)	\$	
<b>TOTAL RETAINAGE (Lines 5a + 5b or Total in Column I on Schedule of Values)</b>	\$	
<b>6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)</b>	\$	
<b>7. LESS PREVIOUS CERTIFICATION FOR PAYMENT (Line 6 From Prior Certifications)</b>	\$	
<b>8. CURRENT PAYMENT DUE (Line 3 Less Line 7 Total)</b>	\$	
<b>9. BALANCE TO FINISH, LESS RETAINAGE (Line 3 Less Line 6 Total)</b>	\$	

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total Changes Approved In Previous Months By Owner		
Total Changes Approved This Month		
<b>TOTALS</b>	\$0.00	\$0.00
<b>NET CHANGES By Change Orders</b>	\$0.00	

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## SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. Digital project management procedures.
  - 4. Internet-Based Submittal Services and Project management software package.
  - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

#### 1.2 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities, list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

#### 1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.

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1. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.
  9. Train and Demonstration

#### 1.4 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
    - b. Coordinate the addition of trade-specific information to coordination drawings in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.

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- c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, electrical systems and special systems (automated parking guidance system and information technologies)
  - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
  - e. Indicate required installation sequences.
  - f. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to the Owner, or Owner's Representative indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
2. Review: The Owner, or Owner's Representative will review coordination drawings to confirm that, in general, the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If the Owner, or Owner's Representative determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Owner, or Owner's Representative will so inform Contractor, who shall make suitable modifications and resubmit.
  3. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 01 33 00 "Submittal Procedures."
- B. Coordination Drawing Process: Prepare coordination drawings in the following manner:
1. Contractor shall perform the final coordination review. As each coordination drawing is completed, Contractor will meet with the Owner, or Owner's Representative to review and resolve conflicts on the coordination drawings.
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format:
    - a. Same digital data software program, version, and operating system as original Drawings.
    - b. File Submittal Format: Submit or post coordination drawing files using PDF format.
    - c. Submittals shall be made via an Internet-based submittal service. See Technical Specification Division 01, Section 10 31 00 – "Project Management and Coordination" for requirements.
- 1.5 DIGITAL PROJECT MANAGEMENT PROCEDURES
- A. Use of the Owner's Digital Data Files: Digital data files of the Owner's will be provided for Contractor's use during pre and preconstruction project requirements with the following limitations:

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1. Contractor shall execute a data licensing agreement in the form of for those files identified available for the Contractor's use in the Technical Specifications, Division 01 – "Submittal Procedures."
  2. The following digital data files will be furnished for each appropriate discipline:
    - a. Base Floor Plans.
- B. Internet-based Submittal Service Software Package: Contractor shall provided and host web-based Project management software package for purposes of hosting and managing Project submittals, communication, and documentation until Final Completion.
1. Web-based Project management software includes, at a minimum, the following features:
    - a. Compilation of Project data, including Contractor, subcontractors, Owner, and other entities involved in Project. Include names of individuals and contact information.
    - b. Access control for each entity for each workflow process, to determine entity's digital rights to create, modify, view, and print documents.
    - c. Document workflow planning, allowing customization of workflow between project entities.
    - d. Creation, logging, tracking, and notification for Project communications required in other Specification Sections, including, but not limited to, RFIs, submittals, Minor Changes in the Work, Construction Change Directives, and Change Orders.
    - e. Track status of each Project communication in real time, and log time and date when responses are provided.
    - f. Procedures for handling PDFs or similar file formats, allowing markups by each entity. Provide security features to lock markups against changes once submitted.
    - g. Processing and tracking of payment applications.
    - h. Processing and tracking of contract modifications.
    - i. Creating and distributing meeting minutes.
    - j. Document management for Drawings, Specifications, and coordination drawings, including revision control.
    - k. Management of construction progress photographs.
  2. Provide up to seven (7) Project management software user licenses for use by the of Owner, and Owner's Representatives. Provide up to four (4) hours of software training conducted on-line and virtually for web-based Project software users.
  3. At completion of Project, provide digital archive in format that is readable by common desktop software applications in format acceptable to Owner. Provide data in locked format to prevent further changes.
  4. Provide the following Products:
    - a. Vendor and/or Service Provider: Procore: [www.procore.com](http://www.procore.com)
    - b. Other Vendor and/or Service providers may be considered for use by the Owner and Owner's Representative only if approved as a Substitution.
    - c. Submit Substitution Request for consideration in accordance with Specification Section 01 25 00 – "Substitution Procedures" or Special Provision SP-9 – "Submittal Procedures" prior to Award of Contract.

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- d. Cost: The cost of the service is to be paid by Contractor; include the cost of the service in the Contract Pricing Sum.
  - e. Subcontractors, suppliers, Owner, and Owner's Representatives consultants are to be permitted to use the service at no extra charge.
- C. PDF Document Preparation: Where PDFs are required to be submitted to Owner, prepare as follows:
- 1. Assemble complete submittal package into a single indexed file, incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  - 2. Name file with submittal number or other unique identifier, including revision identifier.
  - 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

## 1.6 PROJECT MEETINGS

- A. General: The Contractor will schedule and conduct meetings and conferences at Project site unless otherwise indicated.
- 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Owner's Representatives of scheduled meeting prior to meeting.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Owner's Representatives within five (5) days after the meeting.
- B. Preconstruction Conference: Owner, or Owner's Representative will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than fifteen (15) days after execution of the Agreement.
- 1. Attendees: Authorized representatives of Owner; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Responsibilities and personnel assignments.
    - b. Coordination and engagement of the Network Integrator.
    - c. Tentative construction schedule.
    - d. Phasing.
    - e. Critical work sequencing and long lead items.
    - f. Designation of key personnel and their duties.
    - g. Lines of communications.
    - h. Use of web-based Project software.

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- i. Procedures for processing field decisions and Change Orders.
  - j. Procedures for RFIs.
  - k. Procedures for testing and inspecting.
  - l. Procedures for processing Applications for Payment.
  - m. Distribution of the Contract Documents.
  - n. Submittal procedures.
  - o. Building permit procurement
  - p. Preparation of Record Documents.
  - q. Use of the premises and existing buildings.
  - r. Work restrictions.
  - s. Working hours.
  - t. Owner's occupancy requirements.
  - u. Responsibility for temporary facilities and controls.
  - v. Procedures for moisture and mold control.
  - w. Procedures for disruptions and shutdowns.
  - x. Construction waste management and recycling.
  - y. Parking availability.
  - z. Office, work, and storage areas.
  - aa. Equipment deliveries and priorities.
  - bb. First aid.
  - cc. Security.
  - dd. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
  4. Attendees: Authorized representatives of Owner; Contractor and its superintendent and major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  5. Agenda: Discuss items of significance that could affect meeting sustainable design requirements, including the following:
  6. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other Sections and when required for coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Owner, and Owner's Representative of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

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- a. Contract Documents.
  - b. Options.
  - c. Related RFIs.
  - d. Related Change Orders.
  - e. Purchases.
  - f. Deliveries.
  - g. Submittals.
  - h. Review of mockups.
  - i. Possible conflicts.
  - j. Compatibility requirements.
  - k. Time schedules.
  - l. Weather limitations.
  - m. Manufacturer's written instructions.
  - n. Warranty requirements.
  - o. Compatibility of materials.
  - p. Acceptability of substrates.
  - q. Temporary facilities and controls.
  - r. Space and access limitations.
  - s. Regulations of authorities having jurisdiction.
  - t. Testing and inspecting requirements.
  - u. Installation procedures.
  - v. Coordination with other work.
  - w. Required performance results.
  - x. Protection of adjacent work.
  - y. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner, but no later than fifteen (15) days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
  2. Attendees: Authorized representatives of Owner; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:

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- a. Preparation of Record Documents.
  - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
  - c. Procedures for completing and archiving web-based Project software site data files.
  - d. Submittal of written warranties.
  - e. Requirements for preparing operations and maintenance data.
  - f. Requirements for delivery of material samples, attic stock, and spare parts.
  - g. Requirements for demonstration and training.
  - h. Preparation of Contractor's punch list.
  - i. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
  - j. Submittal procedures.
  - k. Coordination of separate contracts.
  - l. Owner's partial occupancy requirements.
  - m. Responsibility for removing temporary facilities and controls.
  - n. Post-construction Maintenance agreements pending approval.
4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: progress meetings at least once monthly.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: In addition to representatives of Owner, and Owner's Representative, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Coordination and engagement of the Network Integrator.
      - 3) Sequence of operations.
      - 4) Status of submittals.
      - 5) Deliveries.



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- 6) Off-site fabrication.
  - 7) Access.
  - 8) Site use.
  - 9) Temporary facilities and controls.
  - 10) Progress cleaning.
  - 11) Quality and work standards.
  - 12) Status of correction of deficient items.
  - 13) Field observations.
  - 14) Status of RFIs.
  - 15) Status of Proposal Requests.
  - 16) Pending changes.
  - 17) Status of Change Orders.
  - 18) Pending claims and disputes.
  - 19) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- F. Coordination Meetings: Conduct Project coordination meetings at regular intervals, and as required. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
1. Attendees: In addition to representatives of Owner, and Owner's Representative, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
    - c. Review present and future needs of each contractor present, including the following:

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- 1) Interface requirements.
  - 2) Coordination and engagement of the Network Integrator.
  - 3) Sequence of operations.
  - 4) Status of submittals.
  - 5) Deliveries.
  - 6) Access.
  - 7) Site use.
  - 8) Temporary facilities and controls.
  - 9) Progress cleaning.
  - 10) Quality and work standards.
  - 11) Status of correction of deficient items.
  - 12) Field observations.
  - 13) Status of RFIs.
  - 14) Status of Proposal Requests.
  - 15) Pending changes.
  - 16) Status of Change Orders.

3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00

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## SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Preliminary Construction Schedule.
  - 2. Contractor's Construction Schedule.
  - 3. Submittals Schedule.
  - 4. Special reports.
  - 5. Field Condition Reports.
  - 6. Construction photographs.

#### 1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
  - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
  - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
  - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.

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- G. Major Area: A story of construction, a separate building, or a similar significant construction element.
  - H. Milestone: A key or critical point in time for reference or measurement.
  - I. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.

### 1.3 SUBMITTALS

- A. Submittals Schedule: Submit copies of schedule. Arrange the following information in a tabular format:
  - 1. Scheduled date for first submittal.
  - 2. Specification Section number and title.
  - 3. Submittal category (action or informational).
  - 4. Name of subcontractor.
  - 5. Description of the Work covered.
  - 6. Scheduled date for the Owner, or Owner's Representatives final release or approval.
- B. Preliminary Construction Schedule: Submit copy; one a single sheet of reproducible media, and one a print.
- C. Preliminary Network Diagram: Submit copies; one a single sheet of reproducible media, and one a print; large enough to show entire network for entire construction period.
- D. Contractor's Construction Schedule: Submit electronic copies of initial schedule, to show entire schedule for entire construction period.
  - 1. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – "Project Management and Coordination" for requirements.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following computer-generated reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float.
  - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
  - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
  - 3. Total Float Report: List of all activities sorted in ascending order of total float.
  - 4. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – "Project Management and Coordination" for requirements.
- F. Construction Photographs and Video: Submit a digital photos and/or video within seven (7) days of taking photographs or filming.

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1. Format: **Digital JPG image with minimum resolution of 2584x1936 and image quality set to fine/high or better.**
  2. Identification: A photo-log shall be provided containing a record for each submitted photo with the following information:
    - a. File Name of Photo.
    - b. Name of Project.
    - c. Name and address of photographer.
    - d. Name of Owner.
    - e. Name of Contractor.
    - f. Date photograph was taken.
    - g. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
  3. Photo-logs may be scanned hard-copy forms, though digital formats such as MS Word, MS Excel or MS Access are preferred. If the delivery method for the photos is via an online file management system, photo-log records should be entered into that system provided it supports entering the above information.
    - a. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – “Project Management and Coordination” for requirements.
- G. Special Reports: Submit copies at time of unusual event.
- H. Field Condition Reports: Submit copies at time of discovery of differing conditions.

#### 1.4 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting.
- B. Prescheduling Conference: Scheduled and conduct a prescheduling conference as required to comply with requirements in Section "Project Management and Coordination." Review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction Schedule, including, but not limited to, the following:
  1. Review software limitations and content and format for reports.
  2. Verify availability of qualified personnel needed to develop and update schedule.
  3. Discuss constraints, including phasing, work, stages, interim milestones, and partial Owner occupancy.
  4. Review time required for review of submittals and resubmittals.
  5. Review time required for completion and startup procedures.
  6. Review and finalize list of construction activities to be included in schedule.
  7. Review submittal requirements and procedures.
  8. Review procedures for updating schedule.

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## 1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from parties involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.
- C. Auxiliary Services: Cooperate with photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities including temporary lighting.

## PART 2 – PRODUCTS

### 2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
  - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
  - 2. Initial Submittal: Submit concurrently with preliminary network diagram. Include submittals required during the first thirty (30) days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
    - a. At Contractor's option, show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.
  - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.
  - 4. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – "Project Management and Coordination" for requirements.

### 2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for commencement of the Work and/or the Notice to Proceed to date of Substantial Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

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- C. Activities: Numbered activity for each principal element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than forty-five (45) days, unless specifically allowed by the Owner, or Owner's Representative.
  2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  3. Submittal Review Time: Include review and resubmittal times indicated in Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
  4. Startup and Testing Time: Include not less than fourteen (14) days for startup and testing.
  5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for the Owner, or Owner's Representative to administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
  2. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Limitations of continued occupancies.
    - c. Uninterruptible services.
    - d. Partial occupancy before Substantial Completion.
    - e. Use of premises restrictions.
    - f. Provisions for future construction.
    - g. Seasonal variations.
    - h. Environmental control.
  3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
    - a. Subcontract awards.
    - b. Submittals.
    - c. Purchases.
    - d. Mockups.
    - e. Fabrication.
    - f. Sample testing.
    - g. Deliveries.
    - h. Installation.
    - i. Tests and inspections.
    - j. Adjusting.
    - k. Curing.
    - l. Startup and placement into final use and operation.

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- 4. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
    - a. Completion of automated parking guidance system installation.
    - b. Partial Substantial Completions.
  - E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to the Notice to Proceed, Substantial Completion, and Final Completion.
  - F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.
  - G. Computer Software: Prepare schedules using a program that has been developed specifically to manage construction schedules.

### 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Preliminary Network Diagram: Submit diagram within fourteen (14) days of date established for commencement of the Work and/or the Notice to Proceed. Outline significant construction activities for the first sixty (60) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's Construction Schedule using a CPM network analysis diagram.
  - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than thirty (30) days after date established for the commencement of the Work and/or the Notice to Proceed and prior to the Contractor's first application for payment, whatever occurs first.
  - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
  - 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
  - 4. Use "one workday" as the unit of time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary network diagram, prepare a skeleton network to identify probable critical paths.
  - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.



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- b. Purchase of materials.
  - c. Delivery.
  - d. Fabrication.
  - e. Installation.
2. Processing: Process data to produce output data or a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
  3. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Initial Issue of Schedule: Prepare initial network diagram from a list of straight "early start-total float" sort. Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Principal events of activity.
  4. Immediate preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
- F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
  2. Changes in early and late start dates.
  3. Changes in early and late finish dates.
  4. Changes in activity durations in workdays.
  5. Changes in the critical path.
  6. Changes in total float or slack time.
  7. Changes in the Contract Time.

## 2.4 REPORTS

- A. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information to the Owner, or Owners Representative. Include a detailed description of the differing conditions, together with recommendations any corrective action needed.

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## 2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

## PART 3 – EXECUTION

### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, coinciding with the Contractor's monthly application for payment update schedule to reflect actual construction progress and activities. Issue schedule before each regularly scheduled progress meeting.
  - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Owner, Owner's Representatives, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
  - 1. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – "Project Management and Coordination" for requirements.
  - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

### 3.2 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified commercial photographer to take construction photographs.
- B. Date Stamp: Unless otherwise indicated, date and time stamp each photograph as it is being taken so stamp is integral to photograph.
- C. Preconstruction Photographs: Before starting construction, take photographs and/or video of Project site and surrounding properties from different vantage points.

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- D. Periodic Construction Photographs and/or Video: Take color photographs or video monthly, coinciding with cutoff date associated with each Application for Payment. Photographer shall select vantage points to best show status of construction and progress since last photographs were taken.
  - E. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 30 00 – “Project Management and Coordination” for requirements.

END OF SECTION 01 32 000

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## SECTION 01 33 00 – SUBMITTAL PROCEDURES

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

#### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires the Owner, or Owner's Representative's, or Engineer's responsive action.
- B. Informational Submittals: Written information that does not require the Owner, Owner's Representative's, or Engineer's approval. Submittals may be rejected for not complying with requirements.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
  - 1. Submittals shall be made via an Internet-based submittal service. See Specification Section 10 31 00 – "Project Management and Coordination" for requirements.
  - 2. Those parties having access to the internet-based submittal service include, but not limited to:
    - a. Contractors
    - b. Owner
    - c. Owner's Representatives
    - d. Owner's design consultants
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

#### 1.3 SUBMITTAL ADMINISTRATIVE REQUIREMENTS:

- A. Digital Data Files: Electronic AutoCAD digital data files of the Proposal and Contract Drawings will be provided by Owner, or Owner's Representative for Contractor's use in preparing submittals.
  - 1. The Owner, or Owner's Representative may furnish Contractor digital data drawing files of the Base Floor Plans for use in preparing Shop Drawings, Building Department Permit application documents, and Project Record Documents.

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- a. The Owner, or Owner's Representatives makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
  - b. Digital Drawing Software Program: The Base Floor Plans are available in AutoCAD Release 2017 or current.
  - c. Contractor shall execute data hold-harmless and/or licensing agreement.
    - 1) Contractors wishing to receive electronic documents should submit a completed and signed "Agreement for Release of Electronic Files" found at the end of Technical Specifications, Division 01 – "Submittal Procedures."

#### 1.4 SUBMITTAL REQUIREMENTS

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
  4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. The Owner, or Owner's Representatives reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on the Owner, or Owner's Representative receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. The Owner, or Owner's Representative will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
  4. Sequential Review: Where sequential review of submittals by the Owner, or Owner's Representative, or other parties is indicated, allow twenty-one (21) days for initial review of each submittal.
  5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to the Owner, or Owner's Representative. Allow fifteen (15) days for review of each submittal. Submittal will be returned to the Owner, or Owner's Representative before being returned to Contractor.

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- C. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form.
  2. Name file with submittal number or other unique identifier, including revision identifier.
    - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
  3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by the Owner, or Owner's Representative .
  4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software or electronic form acceptable to the Owner, or Owner's Representative, containing the following information:
    - a. Project name.
    - b. Date.
    - c. Name and address of Owner.
    - d. Name of Owner's Representatives.
    - e. Name of Contractor.
    - f. Name of firm or entity that prepared submittal.
    - g. Names of subcontractor, manufacturer, and supplier.
    - h. Category and type of submittal.
    - i. Submittal purpose and description.
    - j. Specification Section number and title.
    - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
    - l. Drawing number and detail references, as appropriate.
    - m. Location(s) where product is to be installed, as appropriate.
    - n. Related physical samples submitted directly.
    - o. Indication of full or partial submittal.
    - p. Transmittal number, numbered consecutively.
    - q. Submittal and transmittal distribution record.
    - r. Other necessary identification.
    - s. Remarks.
- D. Options: Identify options requiring selection by Engineer.
- E. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by the Owner, or Owner's Representative on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

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- F. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
    - 1. Note date and content of previous submittal.
    - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
    - 3. Resubmit submittals until they are marked with approval notation from the Owner, or Owner's Representative.
  - G. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
  - H. Use for Construction: Retain access to submittals for review and reference on Project site. Use only final action submittals that are marked with approval notation from the Owner, or Owner's Representative action stamp.

## PART 2 – PRODUCTS

### 2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
  - 1. Post electronic submittals as PDF electronic files directly to Project Web site specifically established for Project.
  - 2. Submit electronic submittals via email as PDF electronic files.
    - a. All submittals shall be made via Internet-based submittal service at Contractor's expense. See Specification Section 00 30 00 – "Project Management and Coordination" for requirements.
  - 3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:



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- a. Manufacturer's catalog cuts.
  - b. Manufacturer's product specifications.
  - c. Standard color charts.
  - d. Statement of compliance with specified referenced standards.
  - e. Testing by recognized testing agency.
  - f. Application of testing agency labels and seals.
  - g. Notation of coordination requirements.
  - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams showing factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.
    - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
  5. Submit Product Data before or concurrent with Samples.
  6. Submit Product Data in the following format:
    - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based on digital data drawing files is otherwise permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on large document printable sheets to scale at 30 by 42 inches (750 by 1067 mm).
  3. Submit Shop Drawings in the following format:
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.

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- b. Product name and name of manufacturer.
  - c. Sample source.
  - d. Number and title of applicable Specification Section.
  - e. Specification paragraph number and generic name of each item.
3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
  4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit one (1) full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. The Owner, or Owner's Representative will return submittal with options selected.
  6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
    - a. Number of Samples: Submit three (3) sets of Samples. The Owner, or Owner's Representative Engineer will retain two (2) Sample sets; remainder will be returned.
      - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  2. Manufacturer and product name, and model number if applicable.

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3. Number and name of room or space.
  4. Location within room or space.
  5. Submit product schedule in the following format:
    - a. PDF electronic file.
- 
- F. Coordination Drawing Submittals: Comply with requirements specified in Technical Specifications, Division 01 Section "Project Management and Coordination."
  - G. Contractor's Construction Schedule: Comply with requirements specified in Technical Specifications, Division 01 Section "Construction Progress Documentation."
  - H. Application for Payment and Schedule of Values: Comply with requirements specified in Technical Specifications, Division 01 Section "Payment Procedures."
  - I. Closeout Submittals: Comply with requirements specified in Technical Specifications, Division 01 Section "Closeout Procedures."
  - J. Maintenance Data Submittals: Comply with requirements specified in Technical Specifications, Division 01 Section "Operation and Maintenance Data."
  - K. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  - L. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
  - M. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
  - N. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
  - O. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
  - P. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
  - Q. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
    1. Name of evaluation organization.

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2. Date of evaluation.
  3. Time period when report is in effect.
  4. Product and manufacturers' names.
  5. Description of product.
  6. Test procedures and results.
  7. Limitations of use.
- R. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- S. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- T. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- U. Construction Photographs and Videotapes: Comply with requirements in Technical Specifications, Division 01 Section "Construction Progress Documentation."

## 2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, finalize the design, complete the shop drawings, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to the Owner, or Owner's Representative.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
1. The Project requires the Contractor to prepare the documentation (drawings and specifications) to submit and obtain the necessary permits to begin construction activities on-site. Where a professional architect or engineer is required to prepare, sign and seal documents for permit applications, the Contractor shall engage these entities and provide these Pre-Installation and Construction Services.
    - a. Reference Section 24 - "Special Requirements and Instructions" of the Instructions to Proposers.

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## 2.3 CONTRACTOR'S PROJECT HEALTH & SAFETY PLAN

- A. No later than the Pre-construction meeting, the Contractor shall submit to the Owner, or Owner's representative a written Project Health & Safety Plan, which states the Contractor's company policy relative to safety. The plan must also address specific health and safety concerns, which are expected to be encountered on the project. As a minimum this plan shall include:
  - 1. Listing of project and company safety officers.
  - 2. Specific company safety policies.
  - 3. Employee Safety Training Program.
  - 4. Administrative procedures to handle employee health & safety concerns.
  - 5. Procedures for insuring worker compliance with health and safety requirements.
- B. The Contractor shall be responsible to ensure that each Subcontractor employed on the project complies with the requirements of this section either by submitting a copy of the subcontractor's Project Health & Safety Plan or by submitting a letter from the Subcontractor stating that they will comply with the provisions of the Contractor's Project Health & Safety Plan.
- C. Submission of the required Project Health & Safety Plan by the Contractor is primarily for information or record purposes and shall not be construed to imply approval by the Owner, or Owner's Representative to relieve the Contractor from the responsibility to adequately protect the health & safety of all workers involved in the project.

## PART 3 – EXECUTION

### 3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to the Owner, or Owner's Representative.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

### 3.2 OWNER, OR OWNER'S REPRESENTATIVE ACTION

- A. General: The Owner, or Owner's Representative will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: The Owner, or Owner's Representative will review each submittal, make marks to indicate corrections or modifications required, and return it. The Owner, or Owner's

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Representative will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

1. Final Unrestricted Release: Where submittals are marked "No Exceptions Taken," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  2. Final-But-Restricted Release: When submittals are marked "Make Corrections Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  3. Returned for Resubmittal: When submittal is marked "Revise and Resubmit," "Rejected," or "Submit Specified Item," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
    - a. Do not permit submittals marked "Revise and Resubmit," "Rejected," or "Submit Specified Item" to be used at the Project site, or elsewhere where Work is in progress.
  4. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required."
- C. Informational Submittals: The Owner, or Owner's Representative will review each submittal and will not return it or will reject and return it if it does not comply with requirements. The Owner, or Owner's Representative Engineer will forward each submittal to appropriate party.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

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AGREEMENT FOR RELEASE OF ELECTRONIC FILES

{Date}

{Name and Address of Party  
Receiving files}

Re: *Agreement for Release of Electronic Files*

{Project #}

Dear Sir or Madam:

CHA ("CHA" as used herein shall be deemed to include both CHA Consulting, Inc. and its affiliate Clough, Harbour & Associates LLP) as the Owner's Representative in preparing the Proposal Documents, will deliver the following file: (list files) on electronic media as requested by {Name of party receiving files}.

These files were generated using AutoCAD release 2017, or more current, operating on a Windows XP Pro or Windows 7 PC. {Name of party receiving files} may, at its own risk, attempt to use the files on other systems and/or with other software packages by converting the .dwg files from AutoCAD to a neutral file that can be translated to be run by your system hardware and software. CHA, however, does not certify that the translation software will deliver a complete and compatible file for use on your system. Any verification of such adaptation by {Name of party receiving files} will entitle CHA to additional compensation at CHA's current hourly rates for the personnel involved.

These AutoCAD files, and any information contained therein, are provided solely for the convenience of {Name of party receiving files}. {Name of party receiving files} acknowledges that the information contained in the AutoCAD files may differ from the Construction Documents in material respects. Delivery of the AutoCAD files to {Name of party receiving files} does not in any manner relieve {Name of party receiving files} from the requirements of the Contract Documents. Specifications developed by CHA for the project require that the work and coordinated shop drawings reflect actual field verified conditions for all equipment, utilities, ductwork, site elements and other items. Further, {Name of party receiving files} acknowledges that data stored on electronic media can deteriorate undetected or can be modified without CHA's knowledge. Accordingly, {Name of party receiving files} agrees that CHA will not be held liable for the completeness or correctness of the AutoCAD files, and that {Name of party receiving files} may only justifiably rely upon the sealed drawings previously provided to CHA's client for any purpose in connection with the project. As an example, and without limiting the generality of the foregoing, the AutoCAD files are not intended to be used for the detection of conflicts, preparation of shop drawings, development of quantity take offs, development of construction phasing schedules and models, construction cost estimates, construction of the project or any other uses other than as specifically described above.

Any use of the AutoCAD files for any purpose inconsistent with the foregoing, or any use of altered files or reuse of files for any purpose other than that for which they were prepared, without written authorization by CHA for the specific purpose intended, will be at the sole risk and full legal responsibility of {Name of party receiving files}, and CHA assumes no liability or legal responsibility for such uses. Furthermore, {Name of party receiving files} will, to the fullest extent permitted by law, indemnify and hold CHA harmless from

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any and all claims, suits, liability, demands, judgment, or costs arising out of or resulting from such use or reuse.

If you agree to the terms and conditions set forth above, please indicate such agreement by signing below and returning this letter to my attention. Upon receipt of a signed letter, we will provide you with the requested electronic files.

Very truly yours,

CHA

{Your Name}

I have the authority to execute this agreement on behalf of the  
{Name of party receiving files}

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

AGREEMENT FOR RELEASE OF ELECTRONIC FILES

END OF SECTION 01 33 00



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## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes requirements for temporary services, facilities, and controls including temporary utilities services, support facilities, and security and protection facilities.
- B. Temporary utilities include, but are not limited to, the following:
  - 1. Water service and distribution.
  - 2. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
  - 3. Electric power.
  - 4. Telephone.
- C. Temporary construction and support facilities include, but are not limited to, the following:
  - 1. Waste disposal facilities.
  - 2. Storages.
  - 3. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
  - 1. Security enclosure and lockup as allowed herein.
  - 2. Barricades, warning signs, and lights.

#### 1.2 USE CHARGES

- A. General: The cost of all use charges for temporary facilities are not chargeable to Owner, and shall be included in the Contract Sum unless otherwise indicated. The contractor shall be responsible for paying all use charges until the project is substantially complete. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
  - 1. Owner and Owner's Representatives.
  - 2. Occupants of Project.
  - 3. Personnel of authorities having jurisdiction.
- B. Water Service: The Owner will make available to provide water required at the at Project site for construction activities, unless otherwise indicated. Potable water for drinking is provided by Contractor.
- C. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges.

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### 1.3 SUBMITTALS

- A. Implementation and Termination Schedule: Within 15 days of date established for submittal of Contractor's Construction Schedule, submit a schedule indicating implementation and termination of each temporary utility.

### 1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
  1. Building Code requirements.
  2. Health and safety regulations.
  3. Utility company regulations.
  4. Police, Fire Department and Rescue Squad rules.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Engineer. Provide materials suitable for use intended.
- B. Portable and Temporary Chain-Link Fencing: Minimum 2-inch (50-mm) 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide temporary concrete or galvanized steel bases for supporting posts.
- C. Lumber and Plywood: Provided the following:
  1. For fences and vision barriers, provide exterior type, minimum 3/8-inch thick plywood.
  2. For safety barriers, and similar uses, provide minimum 5/8-inch thick exterior plywood.
- D. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- E. Water: Provide potable water for drinking as approved by local health authorities

### 2.2 EQUIPMENT

- A. General: Provide new equipment undamaged, or previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.
- B. Field Administration of the Work: Comply with the requirements to provided adequate supervision and safety at all time at each Work site.

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1. For all on-site construction activities, the Prime Contractor shall have full-time representation and supervision of all work forces present at all times.
  2. General Requirements on-site requirements by the Prime Contractor.
    - a. Telephone: A separate phone for the exclusive use on the Project.
    - b. Potable Water.
    - c. First Aid Kit: The Contractor shall keep the kit properly stocked with appropriate first aid supplies at all times.
    - d. Toilet: A separately enclosed porta-potty, properly ventilated and complying with applicable sanitary codes. Wherever possible, the Contractor shall provide a lavatory with running water and flush type toilet.
    - e. Fire Extinguisher: Non-toxic, dry chemical, fire extinguisher meeting Underwriters Laboratories, Inc., approval for Class A, Class B, and Class C fires with a minimum rating of 2A:10B:10C.

### 2.3 TEMPORARY UTILITY INSTALLATION

- A. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
  1. Provide rubber hoses as necessary to serve Project site.
- B. Sanitary Facilities: Owner will the use of existing toilets, wash facilities, and drinking-water fixtures. Abuse of the Owner's facilities by the Contractor shall invoke immediate termination of the facilities by the Owner.
- C. Electric Power Service: Use of Owner's existing electric power service will be permitted as long as equipment is maintained in a condition acceptable to Owner.

### 2.4 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
  1. Contractor Parking.
    - a. The Owner will make available three (3) parking stalls and drive aisle access near each generator location during the Work phase at each location for Contractor employee parking, temporary use, and staging area. The parking area will be made available to the Contractor unsecure. If required, the Contractors shall fence the area with access gate(s) and lockable for storage, security and safety in accordance with the requirements for portable and temporary chain-link fencing.
  2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

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- B. Traffic Controls (As Required): Provide temporary traffic controls at junction of temporary roads with public roads. Include warning signs for public traffic and "STOP" signs for entrance onto public roads. Comply with requirements of authorities having jurisdiction.
  - C. Waste Disposal Facilities: Collect waste from construction areas and haul off daily. Provide waste-collection containers in sizes adequate to handle waste from daily construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste. Comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.
  - D. Storage: Secure, on-site storage is not provided by Owner.

## 2.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.
- B. Barricades, Warning Signs, and Lights (as Required): Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.
  - 1. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8 inch (16 mm) thick exterior plywood.

## 2.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion.
  - 1. Materials and facilities that constitute temporary facilities are the property of Contractor.
  - 2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 01 Section "Closeout Procedures."

END OF SECTION 01 50 00

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## SECTION 01 60 00 – PRODUCT REQUIREMENTS

### PART 1 – GENERAL

#### 1.1 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  2. New Products: Items that have not previously been incorporated into another project or facility Products salvaged or recycled from other projects are not considered new products.
  3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor. Referenced Division 01 – "Substitution Procedures".
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

#### 1.2 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
  2. Form: Tabulate information for each product under the following column headings:
    - a. Specification Section number and title.
    - b. Generic name used in the Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.

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- g. Projected delivery date or time span of delivery period.
  - h. Identification of items that require early submittal approval for scheduled delivery date.
- 3. Initial Submittal: Within twenty (20) days after date of commencement of the Work, or beginning of Contract Time, submit initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
    - a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
  - 4. Completed List: Within thirty-five 35 days after date of commencement of the Work, or beginning of Contract Time submit completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
  - 5. Action: The Owner, or Owner's Representative will respond in writing to Contractor within fifteen (15) days of receipt of completed product list. The Owner, or Owner's Representative response will include a list of unacceptable product selections and a brief explanation of reasons for this action. The Owner, or Owner's Representative response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.
  - C. All Product List submittals shall be made via Internet-based submittal service at Contractor's expense. See Specification Section 00 30 00 – "Project Management and Coordination" for requirements.

### 1.3 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, The Owner, or Owner's Representative will determine which products shall be used.
- B. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
  - 1. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Engineer for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.

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## 1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  - 5. Store products to allow for inspection and measurement of quantity or counting of units.
  - 6. Store materials in a manner that will not endanger Project structure.
  - 7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  - 9. Protect stored products from damage.
- B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

## PART 2 – PRODUCTS

### 2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
  - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  - 4. Where products are accompanied by the term "as selected," the Owner, or Owner's Representative will make selection.
  - 5. Where products are accompanied by the term "match sample," sample to be matched and such evaluation for compliance will be made by the the Owner, or Owner's Representative.

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6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- B. Product Selection Procedures: Procedures for product selection include the following:
1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
  2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
  3. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
  4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  5. Available Products: Where Specification paragraphs or subparagraphs titled "Available Products" introduce a list of names of both products and manufacturers, provide one of the products listed or another product that complies with requirements.
  6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements.
  7. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer.
  8. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Products" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
  9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Engineer's sample. The Owner, or Owner's Representative decision will be final on whether a proposed product matches satisfactorily.
    - a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
  10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.



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- a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received within twenty (20) days after commencement of the Work, or the beginning of the Contract Time. Requests received after that time may be considered or rejected at discretion of the Owner, or Owner's Representative.
- B. Substitutions requested in products, materials, equipment, and methods of construction from those required by the Contract Documents shall be made in accordance with Division 01 – "Substitution Procedures".

## 2.3 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
  - 1. Evidence that the proposed product does not require extensive revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - 3. Evidence that proposed product provides specified warranty.
  - 4. List of similar installations for completed projects with project names and addresses and names, contact person, and addresses of the installation.
  - 5. The Owner, or Owner's Representative will make requested for samples, if required.

## PART 3 – EXECUTION (Not Used)

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## SECTION 01 73 00 – EXECUTION REQUIREMENTS

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
1. Construction layout.
  2. Field engineering and surveying.
  3. General installation of products.
  4. Progress cleaning.
  5. Starting and adjusting.
  6. Protection of installed construction.
  7. Correction of the Work.

### PART 2 – PRODUCTS (NOT USED)

### PART 3 – EXECUTION

#### 3.1 EXAMINATION

- A. Existing Conditions: Existing building and site improvements, utilities, and other construction indicated as to be verified by Contractor as to the actual conditions for automated parking guidance system, and related improvement to the installed and construction. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
- B. Acceptance of Conditions: Examine existing substrates, areas, and conditions for installations and construction for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Description of the Work.
    - b. List of detrimental conditions, including substrates.
    - c. List of conditions unacceptable with installation tolerances.
    - d. Recommended corrections.
  2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.

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5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to the Owner, or Owner's Representative. Include a detailed description of problem encountered, together with recommendations for correction. Submit requests on Form "Request for Information." Reference Division 01 – "Request for Information"

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the existing conditions. If discrepancies are discovered, notify Owner, or Owner's Representative promptly.

### 3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  1. Make vertical work plumb and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
  4. Maintain minimum headroom clearance of 7'-2" above finish floor in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

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- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
  - D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
  - E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
  - F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
    - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
    - 2. Allow for building movement, including thermal expansion and contraction.
  - G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
  - H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

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- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
    - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
  - H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
  - I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
  - J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

### 3.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 - "Cutting and Patching."
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

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- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
  - E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

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## SECTION 01 73 29 – CUTTING AND PATCHING

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Refer to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.
  - 1. Requirements in this Section apply to mechanical and electrical installations. Refer to Divisions 22, 23, and 26 Sections for other requirements and limitations applicable to cutting and patching of mechanical and electrical installations.

#### 1.2 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

#### 1.3 SUBMITTALS

- A. Cutting and Patching Proposal: Where approval of procedures for cutting and patching is required before proceeding, submit a proposal describing procedures at least ten(10) days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
  - 1. Extent: Describe the extent of cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
  - 2. Changes to Existing Construction: Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
  - 3. Products: List products to be used and firms or entities that will perform the Work.
  - 4. Dates: Indicate dates when cutting and patching will be performed.
  - 5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.
  - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
  - 7. Engineer's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right of the Engineer to later require removal and replacement of unsatisfactory work.

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8. Describe means for the protection of adjacent areas to where cutting and patching shall take place.

#### 1.4 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
  1. Elements that might otherwise be overlooked as structural elements and that require the Owner, or Owner's Representative's approval of a cutting and patching proposal.
    - a. Foundation construction.
    - b. Bearing and retaining walls.
    - c. Structural concrete.
    - d. Structural steel.
    - e. Lintels.
    - f. Structural decking.
    - g. Stair systems.
    - h. Miscellaneous structural metals.
- B. Operational Elements: Do not cut and patch the following operating elements or safety related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  1. Primary operational systems and equipment.
  2. Air or smoke barriers.
  3. Fire-protection systems.
  4. Control systems.
  5. Communication systems.
  6. Conveying systems.
  7. Electrical wiring systems.
- C. Miscellaneous Elements: Do not cut and patch the following elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  1. Water, moisture, or vapor barriers.
  2. Membranes and flashings.
  3. Equipment supports.
  4. Piping, ductwork, vessels, and equipment.
  5. Noise- and vibration-control elements and systems.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Owner, or Owner's Representative's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

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1. If possible, retain original Installer or fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or fabricator, engage another recognized, experienced, and specialized firm.
    - a. Processed concrete finishes.
    - b. Stonework and stone masonry.
    - c. Ornamental metal.
    - d. Matched-veneer woodwork.
    - e. Preformed metal panels.
    - f. Terrazzo.
    - g. Finished wood flooring.
    - h. Fluid-applied flooring.
    - i. HVAC enclosures, cabinets, or covers.
  - E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

## 1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Prior to cutting existing services, examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed. Take corrective action before proceeding. If unsafe or unsatisfactory conditions are encountered, investigate both sides of the surface involved. Determine exact location of structural members.

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1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary shoring and support of Work to be cut to prevent settlement or other damage to existing construction to remain.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas.
- E. Take all precautions necessary to avoid cutting existing pipe, conduit, or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

### 3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  1. In general, where cutting is required, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Existing Finished Surfaces: To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.

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4. Mechanical and Electrical Services: Bypass utility services such as pipe or conduit, before cutting, where services are shown or required to be moved, relocated, or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
  5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Comply with specified tolerances. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Perform patching around items penetrating existing construction in a manner that will maintain the water and fire resistive capability of the existing construction.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
    - b. Where surfaces exposed by removals are to remain as exposed surfaces, paint such areas to match adjacent surfaces as closely as practicable using paint with the same characteristics and appearance as the existing to remain.
  4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
  6. Where reinstallation of removed items is indicated, reinstall them to a condition equal to or better than their condition before removal.

END OF SECTION 01 73 29

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## SECTION 01 77 00 – CLOSEOUT PROCEDURES

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
1. Substantial Completion.
  2. Final Completion.
  3. Project Record Documents.
  4. Operation and maintenance manuals.
  5. Warranties.
  6. Instruction of Owner's personnel.
  7. Demonstration and Training.
  8. Final cleaning.

#### 1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  2. Advise Owner of pending insurance changeover requirements.
  3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
  6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  8. Complete startup testing of systems.
  9. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  10. Advise Owner of changeover in heat and other utilities.
  11. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  12. Complete final cleaning requirements, including touchup painting.

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13. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, the Owner, or Owner's Representative will either proceed with inspection or notify Contractor of unfulfilled requirements. The Owner, or Owner's Representative will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by the Owner, or Owner's Representative, that must be completed or corrected before final acceptance and payment are considered.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for Final Completion.

### 1.3 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Technical Specifications, Division 01 Section "Payment Procedures."
  2. Submit certified copy of Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by the Owner, or Owner's Representative. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
  5. Comply with the additional requirements of Section 90 of the General Provisions.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, will either proceed with inspection or notify Contractor of unfulfilled requirements. The Owner, or Owner's Representative will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

### 1.4 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for reference during normal working hours.
- B. Record Documents: The requirements for Record Documents are found in the Special Provision SP-25 – "Project Close-out – Record Documents" of the Special Provision.



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## 1.5 OPERATION AND MAINTENANCE DATA

- A. Assemble a complete set of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in the General Provision, Special Provisions and Technical Specification Sections and as follows:
  - 1. Comply with the requirements in Technical Specification, Division 01, Section – “Operation and Maintenance Data.”

## 1.6 WARRANTIES

- A. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (115-by-280-mm) paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title “WARRANTIES,” Project name, and name of Contractor.
- B. Provide additional copies of each warranty to include in operation and maintenance manuals.
- C. Comply with additional requirements of Section 90 of the General Provisions.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 – EXECUTION

### 3.1 DEMONSTRATION AND TRAINING

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline.
  - 1. Comply with the requirements of Technical Specification, Division 01, Section – “Demonstration and Training.”

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### 3.2 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas where Work was completed to broom clean condition. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - d. Sweep concrete floors broom clean in unoccupied spaces where Work was completed.
    - e. Remove labels that are not permanent.
    - f. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
      - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
    - g. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    - h. Replace parts subject to unusual operating conditions.
    - i. Clean ducts, blowers, and coils if units were operated without filters during construction.
    - j. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
    - k. Leave Project clean and ready for occupancy.
  - 2. Comply with additional requirements of Section 40 – "Final Cleanup" of the General Provisions.

END OF SECTION 01 77 00

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## SECTION 01 78 23 – OPERATION AND MAINTENANCE DATA

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  - 1. Operation and maintenance documentation directory.
  - 2. Operation manuals for systems, subsystems, and equipment.
  - 3. Maintenance manuals for the care and maintenance of products, materials, systems and equipment.

#### 1.2 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics like a connected or symbiotic to a system.

#### 1.3 SUBMITTALS

- A. Initial Review: Prior to Substantial Completion at the prerequisite Pre-Close-out Conference, review the requirements of the a complete operation and maintenance directory. Direction will be provided to the Contractor on the contents of the Final Submittal.
- B. Final Submittal: Submit one (1) copies of each manual in final form prior to final inspection and acceptance. Owner will return copy with comments within after final inspection.
  - 1. Correct or modify each manual to comply with Owners' comments. Submit three (3) copies of each corrected manual within fifteen (15) days of receipt of Owner's comments.

#### 1.4 COORDINATION

- A. Where operation and maintenance documentation include information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

### PART 2 – PRODUCTS

#### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
  - 1. List of documents.
  - 2. List of systems.

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3. List of equipment.
  4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
  - C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
  - D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
  - E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with the same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

## 2.2 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
  1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
  1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name, address, and telephone number of Contractor.
  6. Name and address of Engineer.
  7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
  1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

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1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (115-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
    - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
  2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
  3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
  4. Supplementary Text: Prepared on 8-1/2-by-11-inch (115-by-280-mm), 20-lb/sq. ft. (75-g/sq. m) white bond paper.
  5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
    - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

## 2.3 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
  1. System, subsystem, and equipment descriptions.
  2. Performance and design criteria if Contractor is delegated design responsibility.
  3. Operating standards.
  4. Operating procedures.
  5. Operating logs.
  6. Wiring diagrams.
  7. Control diagrams.
  8. Piped system diagrams.
  9. Precautions against improper use.
  10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
  1. Product name and model number.

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2. Manufacturer's name.
  3. Equipment identification with serial number of each component.
  4. Equipment function.
  5. Operating characteristics.
  6. Limiting conditions.
  7. Performance curves.
  8. Engineering data and tests.
  9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
  2. Equipment or system break-in procedures.
  3. Routine and normal operating instructions.
  4. Regulation and control procedures.
  5. Instructions on stopping.
  6. Normal shutdown instructions.
  7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

#### 2.4 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
  2. Manufacturer's name.
  3. Color, pattern, and texture.
  4. Material and chemical composition.
  5. Reordering information for specially manufactured products.

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- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
    - 1. Inspection procedures.
    - 2. Types of cleaning agents to be used and methods of cleaning.
    - 3. List of cleaning agents and methods of cleaning detrimental to product.
    - 4. Schedule for routine cleaning and maintenance.
    - 5. Repair instructions.
  - E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
  - F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
    - 1. Include procedures to follow and required notifications for warranty claims.

## 2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in the manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard printed maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.
  - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
  - 1. Test and inspection instructions.
  - 2. Troubleshooting guide.
  - 3. Precautions against improper maintenance.
  - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - 5. Aligning, adjusting, and checking instructions.
  - 6. Demonstration and training videotape, if available.

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- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
    - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
    - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
  - F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
  - G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
  - H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
    - 1. Include procedures to follow and required notifications for warranty claims.

## PART 3 – EXECUTION

### 3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
  - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.



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1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
1. Do not use original Project Record Documents as part of operation and maintenance manuals.
  2. Comply with requirements of newly prepared Record Drawings in Division 1 Section "Project Record Documents."
- G. Comply with Technical Specification, Division 01, Section "Closeout Procedures" for the schedule for submitting operation and maintenance documentation.

END OF SECTION 01 78 23

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## SECTION 01 79 00 – DEMONSTRATION AND TRAINING

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
  - 1. Demonstration of operation of systems, subsystems, and equipment.
  - 2. Training in operation and maintenance of systems, subsystems, and equipment.

#### 1.2 SUBMITTALS

- A. Instruction Program: Submit copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of and instruction time as accepted in the Contractor's Technical Proposal submittal made a Contractual requirement to fulfill as a demonstration and training program. Include learning objective and outline for each training module.
  - 1. At completion of training, submit training documents for Owner's use.

#### 1.3 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 01 Section "Quality Requirements," experienced in operation and maintenance procedures and training.

#### 1.4 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Owner's Representative or Owner.

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## PART 2 – PRODUCTS

### 2.1 DEMONSTRATIONS AND INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
1. Docking stations and load bank: features, functionality, operation, maintenance, customization, and troubleshooting, and as required herein.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
1. Basis of System Design, Two (2) hours required - Operational Requirements, and Criteria: Include the following:
    - a. System, subsystem, and equipment descriptions.
    - b. Performance and design criteria if Contractor is delegated design responsibility.
    - c. Operating standards.
    - d. Regulatory requirements.
    - e. Equipment function.
    - f. Operating characteristics.
    - g. Limiting conditions.
    - h. Performance curves.
  2. Documentation: One (1) hour required - Review the following items in detail:
    - a. Operations manuals.
    - b. Maintenance manuals.
    - c. Maintenance service agreements and similar continuing commitments.
  3. Emergencies: One (1) hour required - Include the following, as applicable:
    - a. Instructions on meaning of warnings, trouble indications, and error messages.
    - b. Shutdown instructions for each type of emergency.
    - c. Operating instructions for conditions outside of normal operating limits.
    - d. Special operating instructions and procedures.
  4. Operations: One (1) hour required - Include the following, as applicable:
    - a. Startup procedures.
    - b. Routine and normal operating instructions.
    - c. Regulation and control procedures.
    - d. Control sequences.
    - e. Normal shutdown instructions.
    - f. Operating procedures for system, subsystem, or equipment failure.
    - g. Special operating instructions and procedures.
  5. Troubleshooting: One (1) hour required - Include the following:
    - a. Diagnostic instructions.

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- b. Test and inspection procedures.
  - 6. Maintenance: One (1) hour required - Include the following:
    - a. Inspection procedures.
    - b. Procedures for preventive maintenance.
    - c. Procedures for routine maintenance.
    - d. Instruction on use of special tools.
  - 7. Repairs: One (1) hour required - Include the following:
    - a. Diagnosis instructions.
    - b. Review of spare parts needed for operation and maintenance.

### PART 3 – EXECUTION

#### 3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- B. Set up instructional equipment at instruction location.

#### 3.2 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
  - 1. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
  - 1. Schedule training with Owner .
- C. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use a demonstration performance-based test.

END OF SECTION 01 79 00

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SECTION 26 00 01 – ELECTRICAL

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, material, tools, equipment, transportation, and services necessary for and incidental to completion of all electrical work as indicated on the Drawings and/or as specified herein.

1.2 DRAWING USE AND INTERPRETATION

- A. The Drawings are diagrammatic and indicate the general arrangement of systems and equipment unless indicated otherwise by dimensions or details. Exact equipment locations and raceway routing, etc. shall be governed by actual field conditions and/or instructions of the Engineer and/or Owner's Representative.

1.3 COMPLETE SYSTEMS

- A. General: Furnish and install all materials as required for complete systems, including all parts obviously or reasonably incidental to a complete installation, whether specifically indicated or not. All systems shall be completely assembled, tested, adjusted and demonstrated to be ready for operation prior to Owner's acceptance.
- B. Wiring: The wiring specified and/or shown on the Drawings is for complete and workable systems. Any deviations from the wiring shown due to a particular manufacturer's or subcontractor's requirements shall be made at no cost to either the Contract or the Owner.

1.4 CODES AND REGULATIONS

- A. General: Comply with the latest recognized edition of the National Electrical Code (NEC) and all governing federal, state, and local laws, ordinances, codes, rules, and regulations. Where the Contract Documents exceed these requirements, the Contract Documents shall govern. In no case shall work be installed contrary to or below minimum legal standards.
- B. Utilities: Comply with all applicable rules, restrictions, and requirements of the utility companies serving the project site/facilities.
- C. Non-Compliance: Should any work be performed which is found not to comply with any of the above codes and regulations, provide all work and pay all costs necessary to correct the deficiencies.

1.5 REFERENCE STANDARDS

- A. All latest published standards of the following associations/organizations shall be followed and applied where applicable as minimum requirements:
  1. (ADA), Americans with Disabilities Act.
  2. (ANSI), American National Standards Institute.
  3. (ASTM), American Society for Testing and Materials.
  4. (TBC), Tennessee Building Code.
  5. (CBM), Certified Ballast Manufacturer.

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6. (EPACT), National Energy Policy Act.
  7. (ETL), Electrical Testing Laboratory.
  8. (TFC), Tennessee Fire Code.
  9. (ICEA), Insulated Cable Engineers Association.
  10. (IEEE), Institute of Electrical and Electronic Engineers.
  11. (IESNA), Illuminating Engineering Society of North America.
  12. (NBFU), National Board of Fire Underwriters.
  13. (NEMA), National Electrical Manufacturers Association.
  14. (NESC), National Electrical Safety Code.
  15. (NFPA), National Fire Protection Association.
  16. (UL), Underwriter's Laboratories.

#### 1.6 PERMITS

- A. General: Obtain and pay for any and all permits required by all applicable agencies, prior to commencing work.

#### 1.7 SUBMITTALS

- A. General: Prepare and submit for approval, per the procedures set forth in Division 1, all submittals required by Division 1, this section, and by all other Contract Documents.
- B. Types: Required submittals may include: Schedule of Values; List of Subcontractors; Product Data; Shop Drawings; Samples; Test Reports; Certifications; Warranties; Maintenance Manuals; Record Drawings; and various administrative submittals.
- C. Number of Copies: As indicated in Division 1, Division 26, or elsewhere in the Contract Documents. For quantities indicated in the Contract Documents or specification sections other than Division 26 sections, increase number of copies by one to allow for the Engineer's record copy. Minimum number of copies per submittal: three.
- D. Product Data: Submit for all basic electrical equipment, devices, and materials to be used on the project. Product data to consist of manufacturer's standard catalog cuts, descriptive literature and/or diagrams, in 8-1/2-inch-by-11-inch format, and in sufficient detail so as to clearly indicate compliance with all specified requirements and standards. Mark each copy to clearly indicate proposed product, options, finishes, etc.
- E. Shop Drawings: Submit for all custom equipment and systems (e.g., panelboards) to be used on the project. Shop Drawings to be newly prepared, specifically for this project, and shall include all information listed in the Shop Drawings submittal requirements in the respective specification section. Include all pertinent information such as equipment/system identification, manufacturer, dimensions, nameplate data, sizes, capacities, types, materials, performance data, features, accessories, wiring diagrams, etc., in sufficient detail so as to clearly indicate compliance with all specified requirements and standards. For control systems, provide computer generated control ladder diagrams specifically developed for this project (standard diagrams not acceptable).
- F. Maintenance Manuals: Include operating and maintenance data in accordance with Division 1. Include all Product Data/Shop Drawing submittals as well as descriptions of function, normal operating



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characteristics and limitations, and manufacturer's printed operating maintenance, trouble shooting, repair, adjustment, and emergency instructions, and complete replacement parts listing.

- G. Record Documents: Prepare and submit in accordance with Division 01. In addition to Division 01 requirements, indicate actual installed locations for all equipment and devices, routing of major interior raceways, locations of all concealed and underground equipment and raceways, and all approved modifications to the Contract Documents, and deviations necessitated by field conditions and change orders.

#### 1.8 QUALITY ASSURANCE

- A. Manufacturers' Qualifications: Not less than three years of experience in the actual production of the specified products.
- B. Installers' Qualifications: Firm with not less than five years of experience in the installation of electrical systems and equipment similar in scope and complexity to those required for this Project, and having successfully completed at least ten comparable scale projects.
- C. Incidental Work: Excavation, backfill, painting, patching, welding, carpentry, mechanical work, concrete pads and the like related to or required for Division 26 work shall be performed by craftsman skilled in the appropriate trade, but shall be provided for under Division 26.

#### 1.9 INSPECTIONS

- A. General: During and upon completion of the work, arrange and pay all associated costs for inspections of all electrical work installed under this contract, in accordance with the Conditions of the Contract.
- B. Inspections Required: As per the laws and regulations of the local and/or state agencies having jurisdiction at the project site.
- C. Inspection Agency: Approved by the local and/or state agencies having jurisdiction at the project site.
- D. Certificates: Submit all required inspection certificates.
- E. Coordination: Coordinate inspections with the local utility.

#### 1.10 DELIVERY STORAGE AND HANDLING

- A. Comply with Division 1 requirements.
- B. Packing and Shipping: Deliver products in original, unopened packaging, properly identified with manufacturer's identification, and compliance labels.
- C. Storage and Protection: Comply with all manufacturer's written recommendations. Store all products in a manner, which shall protect them from damage, weather, and entry of debris.
- D. Damaged Products: Do not install damaged products. Arrange for prompt replacement.

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## PART 2 – PRODUCTS

### 2.1 GENERAL

- A. Where Specified: Materials and equipment shall be as specified herein and/or as indicated on the Drawings.
- B. General Requirements: All materials and equipment shall be in accordance with the Contract Documents, and to the extent possible, standard products of the various manufacturers, except where special construction or performance features are called for. All materials and equipment to be new, clean, undamaged, and free of defects and corrosion.
- C. Acceptable Products: The product of a specified or approved manufacturer will be acceptable only when that product complies with or is modified as necessary to comply with all requirements of the Contract Documents.
- D. Common Items: Where more than one of any specific item is required, all shall be of the same type and manufacturer.
- E. UL Listing: All electrical materials and equipment shall be Underwriters' Laboratories (UL) listed and labeled where UL standards and listings exist for such materials or equipment.

### 2.2 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Refer to the Conditions of the Contract and Division 01.

### 2.3 FIRESTOPPING MATERIALS

- A. General: Firestop systems composed of firestop compounds and appropriate damming materials installed together with the penetrant (e.g., conduit) to form a complete firestop system, providing a fire resistant rating at least equal to the hourly fire resistance rating of the floor, wall or partition into which the firestop system is to be installed.
- B. Test Standards: Firestopping materials shall be tested together as a system to the time/temperature requirements of ASTM E119 and shall be tested to UL 1479 (ASTM E814) and be UL classified for up to 3 hours.
- C. Firestop Sealants: Non-hardening, conformable, intumescent putties, sealants or other compounds, containing no toxic solvents or asbestos, and exhibiting aggressive adhesion to all common building materials and penetrants, while allowing reasonable movement of the penetrants, without being displaced. Compounds shall be waterproof, non-toxic and smoke and gas tight.
- D. Firestop Mortars: Light-weight, water-based, cementitious, fast drying, low density mortar, non-shrinking and non-cracking during its cure, and which forms a surface capable of being sanded, bored and painted.
- E. Damming Materials: Mineral wool or ceramic fiber.
- F. Multi-Cable Transits: Assemblies consisting of a frame, a compression mechanism, and grooved insert sealing modules sized for multiple penetrating elements of various sizes.

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- G. Acceptable Manufacturers: Hilti; Heavy Duty/Nelson; International Protective Coatings; Specified Technologies, Inc.

#### 2.4 RACEWAY SYSTEMS

- A. Raceway Sizing: As required by the NEC (minimum) with oversized raceways as indicated and where required for ease of pulling cable.
  - 1. Minimum conduit size: 3/4 inch, unless indicated otherwise.
- B. Raceway Types: Rigid galvanized steel conduit, electrical metallic tubing (EMT), flexible steel conduit, liquid-tight flexible steel conduit and Schedule 40 heavywall and Schedule 80 extra-heavywall rigid non-metallic (PVC) conduit conforming to applicable ANSI, NEMA and UL standards.
- C. Fittings: All raceway fittings (except for rigid non-metallic conduit) to be steel or malleable iron and UL-listed for the intended application. EMT fittings to be compression type.
- D. Pull and Junction Boxes, and Wireways: Use as indicated and required. Junction and pull boxes for general indoor use (dry locations) to be of galvanized code gauge steel construction, minimum 4-inch square by 1-1/2 inches deep with screw-on covers. Wireways to be UL listed, sheet steel construction with screw-on covers. For exterior and damp or wet indoor locations, use boxes and wireways approved for such use.
- E. Pipe Sleeves: Rigid steel conduit or iron pipe.
- F. Conduit Seals: For Cast-in-Place Concrete Applications:
  - 1. Acceptable Manufacturers:
    - a. O-Z/Gedney Type "FSK."
    - b. Thunderline Corp. "Link Seal" with "Link Seal Wall Sleeve."
- G. Pull Wires: No. 14 AWG zinc-coated steel monofilament plastic line with 200-pound tensile strength.

#### 2.5 600 VOLT CLASS WIRE

- A. General: All wire and cable shall be constructed in accordance with all applicable ICEA, NEMA and IEEE published standards, and shall be UL-listed and labeled. Single-conductor, 98 percent conductivity, annealed, uncoated copper conductors with 600-volt rated type "THHN/THWN" insulation.
- B. Wire shall be annealed bare copper per ANSI/ASTM B3, UL 83, and Federal Specification JC-30A with 600 volt insulation, be stranded (except for #10 AWG and smaller may be solid), and be minimum size #12 AWG (except for control wiring and signal circuits).
- C. Insulation: Provide THHN/THWN insulation for all conductors except XHHW insulation may be used for conductors #4 and larger.
- D. Ampacity of conductors shall be rated for 75 DegC regardless of temperature of conductor insulation when combining circuits in one conduit. Derate conductors and increase size per NEC when installing multiple circuits in a raceway, utilizing 75 DegC ampacity table.
- E. Connectors: Nylon shell insulated metallic screw-on connectors for #14-10 AWG and bolted pressure or compression type lugs and connectors with insulating covers for #8 AWG and larger.

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## 2.6 EQUIPMENT CONNECTIONS

- A. Materials as specified in this section, and as required.

## 2.7 HANGERS AND SUPPORTS

- A. General: All hangers, supports, fasteners and hardware shall be zinc-coated or of equivalent corrosion resistance by treatment or inherent property, and shall be manufactured products designed for the application. Products for outdoor use shall be hot dip galvanized.
- B. Types: Hangers, straps, riser supports, clamps, U-channel, threaded rods, etc., as indicated and/or required.
- C. Seismic restraints and supports as indicated and/or required.

## 2.8 ELECTRICAL IDENTIFICATION

- A. Nameplates: Three-layer laminated plastic with minimum 3/16-inch high white engraved characters on black background, and punched for mechanical fastening. Fasteners: self-tapping stainless-steel screws or number 10-32 stainless steel machine screws with nuts and flat and lock washers. Each nameplate on all panelboards and switchgear shall indicate the following:
  - 1. Panel Name.
  - 2. Voltage, Phase, Number of Wires.
  - 3. Source.
- B. Underground Warning Tape: 6-inch wide polyethylene tape, permanently bright colored with continuous-printed legend indicating general type of underground line below and "CAUTION." Colors as follows:
  - 1. Red – Electric.
  - 2. Orange – Communications.
- C. Marking Pens: Permanent, waterproof, quick drying black ink.
  - 1. Acceptable Manufacturers:
    - a. Sanford Fine Point "Sharpie."
    - b. Or equal.
- D. Wire Tags: Vinyl or vinyl-cloth self-adhesive wraparound type indicating appropriate circuit number, etc.
- E. Arc Flash Panelboard Stickers: Provide per NEC 110.16.

## 2.9 GROUNDING

- A. General: Ground rods, conductors, clamps and connectors, etc., as required.
- B. Ground Rods: Minimum 5/8-inch diameter by 10-foot long copper clad steel.
- C. Welded Connectors: Exothermic process.

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## PART 3 – EXECUTION

### 3.1 GENERAL

- A. The installation of all electrical work shall be in accordance with the intent of the Contract Documents as determined by the Engineer.
- B. Installation Requirements: All materials and equipment shall be installed as recommended by the respective manufacturers, by mechanics experienced and skilled in their particular trade, in a neat and workmanlike manner, in accordance with the standards of the trade, and so as not to void any warranty or UL listing.
- C. Administration and Supervision: All electrical work shall be performed under the Contractor's direct supervision using sufficient and qualified personnel as necessary to complete the work in accordance with the progress schedule. The Contractor shall assign one or more competent supervisors who shall have authority to accept and execute orders and instructions, and who shall cooperate with the other Contractors and subcontractors, the Engineer, and Owner in all matters to resolve conflicts and avoid delays.

### 3.2 EXAMINATION

- A. Conditions Verification: Examine the areas and conditions under which the work is to be performed, and identify any conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

### 3.3 COORDINATION

- A. General: Sequence, coordinate and integrate the installation of all electrical materials and equipment for efficient flow of work, in conjunction with the other trades. Review to the Drawings for work of the other trades, and report and resolve any discovered discrepancies, prior to commencing work.
- B. Cooperation: Cooperate with the other Contractors and individual disciplines for placement, anchorage, and accomplishment of the work. Resolve interferences between work of other disciplines or Contractors, prior to commencing installation.
- C. Chases, Slots, and Openings: Arrange for chases, slots, and openings during the progress of construction as required to allow for installation of the electrical work.
- D. Supports and Sleeves: Coordinate the installation of required supporting devices and sleeves to be set in poured-in-place concrete and other structural components as they are constructed.
- E. Obstacles and Interferences: When installing equipment and raceways, provide offsets, fittings, accessories, and changes in elevation or location as necessary to avoid obstacles and interferences, per actual field conditions.
- F. Space Requirements: Electrical equipment sizes indicated on the Drawings are generally based on specified manufacturer. Verify that the proposed equipment will fit in the space indicated on the drawings. Maintain clearances required by NEC.

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### 3.4 DIMENSIONS

- A. Building Dimensions: For exact locations of building elements, refer to dimensioned drawings. However, field measurements take precedence over dimensioned drawings.
- B. Site Dimensions: Field measurements take precedence over scaled electrical site plans.
- C. Limiting Dimensions: Equipment outlines shown on detail drawings of 1/4" = 1'-0" scale or larger and dimensions indicated on the Drawings are limiting dimensions. Do not install equipment exceeding dimensions indicated by outlines on Drawings or equipment or arrangements that reduce indicated clearances.
- D. Establish the exact location of electrical equipment based on the actual field verified dimensions of equipment furnished.

### 3.5 EQUIPMENT PROTECTION

- A. Protect all electrical equipment, and materials and work from the weather elements, paint, mortar, construction debris and damage until project is substantially complete. Repair, replace, and clean all electrical work so affected.

### 3.6 ELECTRICAL INSTALLATION - GENERAL

- A. Unfinished and Finished Areas: For the purposes of these electrical specifications, "unfinished" areas shall include mechanical, electrical and telephone equipment rooms. All other areas shall be considered "finished" spaces unless indicated or approved otherwise.
- B. In Unfinished Areas: Raceways, equipment, and devices may be installed concealed or exposed unless indicated otherwise.
- C. In Finished Areas: Conceal all raceway and flush mount all electrical boxes, equipment, and devices unless indicated or approved otherwise. The space above suspended ceilings or behind furred spaces is considered outside finished areas and electrical materials installed within these areas are considered concealed.
- D. Minimum Mounting Height: Install exposed raceway and all other electrical equipment (e.g., lighting fixtures) with not less than 7 feet and 6 inches clear to finished floor unless indicated or approved otherwise, and excluding raceway and equipment mounted on walls.
- E. Dimensions and Clearances: Field measure all dimensions and clearances affecting the installation of electrical work in relation to established datum, building openings and clearances, and work of other trades as construction progresses.
- F. Rough-In Locations: Verify final locations for rough-ins with field measurements and requirements of actual equipment being installed.
- G. Door Swings: Verify the swings of all doors before switch outlets or other electrical devices are installed. If necessary, relocate devices so they are not obstructed by doors when doors are open.
- H. Ceiling Mounted Devices: The locations indicated on the architectural reflected ceiling plans take precedence over the electrical documents, in the event of conflict.

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- I. Install equipment according to manufacturer's written instructions.
  - J. Install equipment, conduit, cable tray, hangers, and supports to withstand seismic forces for the seismic zone of the installation.

### 3.7 LAYOUT

- A. General: Install electrical systems, materials and equipment level and plumb, and parallel and perpendicular to other building systems and components, where installed exposed.
- B. Serviceability: Install electrical equipment and raceways, etc., to readily facilitate servicing, maintenance, and repair or replacement of components and so as to minimize interference with other equipment and installations.
- C. Clearances: Prior to commencing work, verify that all electrical equipment will adequately fit and conform to the indicated and code required clearances in the spaces indicated on the Drawings. If rearrangement is required, submit plan and elevation drawings or sketches indicating proposed rearrangement for the Engineer's approval. Do not rearrange without express written permission of the Engineer.
- D. Right-Of-Way: When laying out electrical work, give priority in available space to steam and condensate lines, sanitary lines, drain lines, fire protection piping, and sheet metal duct work. Provide offsets as required to avoid conflicts. Resolve all conflicts before commencing installation.

### 3.8 MOUNTING HEIGHTS

- A. General: Indicated heights are measured from the center of the device outlet box to finished floor or grade, unless indicated otherwise. Request instructions for mounting heights not indicated.

### 3.9 HOLES, SLEEVES, AND OPENINGS

- A. General: Provide all holes, sleeves, and openings required for the completion of Division 26 work and restore all surfaces damaged to match surrounding surfaces. Maintain integrity of all fire and smoke rated barriers using approved firestopping systems. When cutting holes or openings, or installing sleeves, do not cut, damage, or disturb structural elements or reinforcing steel unless approved in writing by the Project Structural Engineer.
- B. Conduit Penetrations: Size core drilled holes so that an annular space of not less than 1/4 inch and not more than 1 inch is left around the conduit. When openings are cut in lieu of core drilled, provide sleeve in rough opening. Size sleeves to provide an annular space of not less than 1/4 inch and not more than 1 inch around the conduit. Patch around sleeve to match surrounding surfaces.

### 3.10 FIRESTOPPING SYSTEMS

- A. General: Install firestopping at all electrical raceway and cable penetrations through floor structures and interior walls or partitions, which are time-rated fire and/or smoke barriers.
- B. Preparation: Prior to installation, verify that all penetrating elements and supporting devices are permanently installed and that surfaces which will be in contact with penetration seal materials are clean and free of dust, dirt, grease, oil, loose materials, rust or other substances.

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- C. Installation: Install firestop systems in accordance with UL approved design details and the manufacturer's instructions. Install sleeves, conduits, and cables with required clearance spaces, allowing installation of sealing materials. Do not exceed the outside diameter of the sleeve, conduit, or cable by more than 1 inch or by less than 1/4 inch when making openings for penetrations. Install firestop systems so as to completely seal openings to prevent passage of smoke and water.

### 3.11 CUTTING AND PATCHING

- A. General: Provide all cutting, drilling, chasing, fitting, and patching necessary for accomplishing the work of Division 26, which includes any and all work necessary to: uncover work to provide for the installation of ill-timed work; remove and replace defective work and work not conforming to the requirements of the Contract Documents; and install equipment and materials in existing structures, in addition to that required during the normal course of construction.
- B. Comply with the cutting and patching requirements of Division 01.
- C. Building Structure: Do not endanger the integrity of the building structure by cutting, drilling, or otherwise modifying any structural member without specific approval. Do not proceed with any structural modifications without written permission of the Project Structural Engineer.
- D. Repairs: Repair any and all damage to work of other trades caused by cutting and patching operations using skilled mechanics of the trades involved.

### 3.12 WELDING

- A. General: Where welding is required, such welding shall be performed in a skilled manner by certified welders. Verify that welds are free from cracks, craters, undercuts, and strikes, weld spatter, and any other surface defects. Clean and re-weld any welds deemed unacceptable in size or configuration. Do not weld to structural steel without prior written permission from the Project Structural Engineer.

### 3.13 ELECTRICAL DEMOLITION

- A. General: Provide electrical demolition work as indicated and as required for removal and/or abandonment of systems, equipment, devices, etc., made obsolete by this Project and as required for demolition and remodeling by the other trades.
- B. Existing Conditions: In general, existing electrical systems, equipment, and devices are not shown on the Drawings unless pertinent to the demolition and/or remodeling work. Existing electrical conditions, where indicated, are based on casual field observations and must be verified. Report any discrepancies to the Engineer before disturbing the existing installation.
- C. Examination: Prior to bidding, examine the site to determine all actual observable conditions. No additional compensation will be granted on account of extra work made necessary by the Contractor's failure to investigate such existing conditions.
- D. Scheduling and Phasing: Coordinate demolition and changeover work with the other trades involved and with the Owner's Representative.
- E. Protection of Adjacent Materials: During execution of demolition work, primary consideration shall be given to protecting from damage, the building structure, furnishings, finishes, and the like, which are not specifically indicated to be removed. Existing items or surfaces to remain, which are damaged as a result



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of this work, shall be refinished, repaired, or replaced to the satisfaction of the Owner at the Contractor's expense.

- F. Patching: When electrical materials are removed, patch and finish walls, surfaces, etc., to match surrounding surfaces. Provide blank coverplates as required, etc. Materials used for patching shall be in conformance with the applicable sections of the Project Manual. Where materials are not specifically described, but required for proper completion of the Work, they shall be as selected by the Contractor subject to approval of the Engineer.
- G. Inspection: Before commencing demolition work, carefully inspect the project site and become familiar with existing systems and conditions.
- H. Items To Be Salvaged: Verify with the Owner, all systems, materials, and equipment which are to be salvaged and those which must be removed. The Owner reserves the right to salvage any or all existing electrical materials and equipment at the project site.
- I. Disconnections: Disconnect all electrical devices and equipment as indicated and required. Disconnect electrical connections to mechanical and other equipment being removed by other trades.
- J. Wiring Removals: Where existing electrical devices or equipment are indicated to be removed, remove all associated wiring. Remove all abandoned or dead wiring back to source.
- K. Raceway Removals: Remove all abandoned raceways, boxes, supports, etc., where exposed and where they interfere with new work of any trade. Cut conduits flush with walls and floors, and cap.
- L. Existing Electrical Work to Remain: Protect and maintain access to existing electrical work, which must remain. Reinstall existing electrical work disturbed.
- M. Reconnections: Where electrical work in adjoining areas, or electrical work indicated to remain, becomes disconnected or affected by demolition work, reconnect circuits, etc., as required to restore original operation. Restoration work to comply with requirements for new work.
- N. Existing Electrical Work to be Relocated: Disconnect, remove, reinstall and reconnect existing devices and equipment indicated to be relocated and where required to accommodate remodeling or new construction. Extend existing installations as required. Materials and methods used for relocations and extensions to conform to requirements for new work.
- O. Shutdowns: All shutdowns to existing electrical services to be scheduled and approved, in writing, by the Owner's Representative.

### 3.14 RACEWAY SYSTEMS

- A. Raceway Types: Unless indicated otherwise, use raceway types as follows:
  - 1. Indoors, Exposed: Use rigid galvanized steel conduit below 10 feet above finished floor. EMT may be used above 10 feet.
  - 2. Outdoors, Exposed: Rigid galvanized steel conduit.
  - 3. Flexible Steel Conduit: Use (in dry locations only) for connections to transformers, vibrating equipment, and equipment requiring minor adjustments in positions for final connections to recessed lighting fixtures and between outlet boxes in metal stud partitions.

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4. Liquid-Tight Flexible Steel Conduit: Use where flexible steel conduit connections are required in damp, wet, or oily locations, and for final connections to all motors and similar equipment.
  - B. Raceway Routing: As required by job conditions unless specific routes or dimensioned positions are indicated on the Drawings. Install tight to slabs, beams, and joists wherever possible. Route exposed conduit, and conduit installed above ceilings, parallel or perpendicular to walls ceilings and structural members. Install to maintain minimum headroom and to present a neat appearance. Run parallel raceways together with bends made from same center line. Verify exact locations of all raceways, pull boxes, and junction boxes. Resolve any conflicts before installation.
  - C. Raceway Installation: Cut conduit ends square using saw or pipecutter and ream each cut end smooth. Carefully make all conduit bends and offsets so that the inside diameter of pipe is not reduced. Make bends so that legs are in the same plane. Make offsets so that legs are in the same plane and parallel. Protect stub-ups from damage, and carefully rebend when necessary.
  - D. Fittings: Make up all raceway fittings tight so that final installation of raceway, fittings and enclosures constitutes a firm mechanical assembly and a continuous electrical conductor. Where required, provide bonding jumpers to assure electrical continuity.
  - E. Protection: Protect all raceways, enclosures, and equipment during construction to prevent entry of concrete, debris and other foreign matter. Free clogged conduits of all obstructions, or replace, prior to pulling wire. Do not pull wire within buildings until buildings are completely enclosed.
  - F. Boxes: Install all outlet, pull, and junction boxes rigidly, plumb, and level. Support and secure boxes independently from conduits terminating at box. Install all boxes so as to be accessible and so that covers may be easily removed.
  - G. Conduit Seals: Install conduit seal for each conduit penetrating an exterior building wall below grade (unless penetration is below lowest building floor slab) and elsewhere as indicated, and so as to achieve a sealed watertight installation.
  - H. Pull Strings: Provide pull strings in all spare conduits.

### 3.15 CONDUCTORS - 600 VOLT AND BELOW

- A. Minimum Conductor Size: All branch circuit wiring shall be minimum #12 AWG. All control circuit wiring shall be minimum #14 AWG unless indicated otherwise. Provide larger sizes as indicated or required.
- B. Branch Circuit Conductor Sizes: Provide branch circuit conductor sizes as indicated on the panelboard schedules, plans, or elsewhere. Neutral conductor size to match phase conductors unless indicated otherwise. Provide branch circuit switch legs and travelers as required for the switching indicated.
- C. Equipment Grounding Conductor Required: For each branch circuit and feeder run, provide an equipment grounding conductor for continuous length of run, sized per NEC 250-122 (minimum), larger if so indicated.
- D. Feeders: Provide feeder conductor sizes and quantities as indicated.
- E. In Raceway: Install all wiring in conduit or other specified raceway unless indicated otherwise.

- F. Terminations: Furnish and install terminations including lugs (if necessary) to make all electrical connections indicated or required. Make connections and terminations for all stranded AWG conductors using crimp, clamp, or box-type connectors and terminators. Enclose all strands of stranded conductors in connectors, and lugs.
- G. Color: Conductors #10 and smaller shall be factory color-coded by integral pigmentation with a separate color for each phase and neutral. #8 and larger shall have stripes, bands, hash marks, or color pressure-sensitive plastic tape. Color code all branch circuit and feeder conductors as follows:

- 1. 208/120 Volts:

PHASE	COLOR
A	Black
B	Red
C	Blue
Neutral	White

- 2. 480/277 Volts:

PHASE	COLOR
A	Brown
B	Orange
C	Yellow
Neutral	Gray

- 3. Equipment Grounding Conductors: Green

- H. Phase Arrangement: Arrange phases in all electrical equipment as follows:

- 1. A, B, C: Front to Rear.
- 2. A, B, C: Top to Bottom.
- 3. A, B, C: Left to Right when facing established front of equipment.

- I. Provide conductors with not less than 90 DegC rated insulation when branch circuit wiring is attached to high temperature light fixtures (e.g., fluorescent and HID), boilers, incinerators, ovens, ranges, kitchen exhaust fans, other heat-producing equipment, and "100 percent rated" overcurrent protective devices. Use special higher temperature wire as required for connection to specialty equipment as required by equipment manufacturer.

### 3.16 EQUIPMENT CONNECTIONS

- A. Connect complete, all equipment requiring electrical connections, furnished as part of this Contract or by others unless indicated otherwise.
- B. Equipment Variations: Note that equipment sizes and capacities as shown on the Contract Documents are for bidding purposes and as such may not be the exact unit actually furnished. Contractor shall anticipate minor variations in equipment and shall include in his Bid all costs required to properly connect the equipment actually furnished.

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- C. Verification: Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished by others. Examine actual equipment to verify proper connection locations and requirements.
  - D. Coordination: Sequence electrical rough-in and final connections to coordinate with installation and start-up schedule and work by other trades.
  - E. Rough-In: Provide all required conduit, boxes, fittings, wire, connectors, miscellaneous accessories, etc., as necessary to rough in and make final connections to all equipment requiring electrical connections. In general, motors and equipment shall be wired in conduit to a junction box (or safety switch) near the unit, and from there to the unit in flexible metal or liquid-tight flexible steel conduit.
  - F. Connections: Provide properly sized overload and short circuit protection for all equipment connected, whether furnished under this Contract or by others. Verify proper connections with manufacturer's published diagrams and comply with same. Verify that equipment is ready for electrical connections, wiring, and energization prior to performing same.
  - G. Control Wiring: Provide all control wiring to remote devices or equipment as indicated or required. Modify equipment control wiring, install or disconnect jumpers, etc., as required.

### 3.17 HANGERS AND SUPPORTS

- A. General: Rigidly support and secure all electrical materials, raceway, and equipment to building structure using hangers, supports, and fasteners, suitable for the use, materials and loads encountered. Provide all necessary hardware.
- B. Overhead Mounting: Attach overhead mounted equipment to structural framework or supporting metal framework. Do not make attachments to steel roofing, steel flooring, or ceiling mineral tile.
- C. Wall Mounting: Support wall mounted equipment by masonry, concrete block, metal framing, or sub-framing.
- D. Exterior Walls: Mount all electrical equipment located on the interior of exterior building walls at least 1 inch away from wall surface using suitable spacers.
- E. Structural Members: Do not cut, drill, or weld any structural member.
- F. Independent Support: Do not support electrical materials or equipment from other equipment, piping, ductwork, or supports for same.
- G. Temporary Conditions: Do not attach to or support electrical work from removable or knockout panels or temporary walls or partitions.
- H. Raceway Supports: Rigidly support all raceway with maximum spacings per NEC and so as to prevent distortion of alignment during pulling operation. Use approved hangers, clamps, and straps for individual runs. Do not use perforated straps or tie wires. Where multiple parallel raceways are run together, use trapeze type hanger arrangement made from U-channel and accessories, suspended by threaded rods, and allow at least 25 percent spare capacity for future installation of additional raceways. Rigidly anchor vertical conduits serving floor-mounted or "island" type equipment mounted away from walls with metal bracket or rigid steel conduit extension secured to floor.

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- I. Miscellaneous Supports: Provide any additional structural support steel brackets, angles, fasteners, and hardware as required to adequately support all electrical materials and equipment.
  - J. Seismic restraints and supports: Provide as indicated and/or as required per seismic zone indicated.

### 3.18 ELECTRICAL IDENTIFICATION

- A. General: Locate nameplate, marking, or other identification means on outside of equipment or box front covers when above ceilings and when in mechanical or electrical equipment rooms or other unfinished areas, and on inside of front cover when in finished rooms/areas. Use Contract Document designations for identification unless indicated otherwise.
- B. Nameplates: Provide nameplate engraved with equipment designation for each safety switch, panelboard, transformer, motor starter, and all other electrical cabinets, etc.
- C. Underground Warning Tape: During trench backfilling for each underground electrical, telephone, signal, and communications line, provide a continuous underground warning tape located directly above line at 6 to 8 inches below finished grade.
- D. Marking Pen Labeling: Mark each junction and pull box indicating source designation and circuit number(s) for the enclosed conductors.
- E. Wire Tags: For power circuits, apply wire tag indicating appropriate circuit or feeder number to each conductor present in distribution panel and panelboard gutters, and to each conductor in pull and junction boxes where more than one feeder or multi-wire branch circuit is present. Where only a single feeder or multi-wire branch circuit is present, box cover labeling and conductor color coding is sufficient. For control, communications, and signal circuits, apply wire tag indicating circuit or termination number at all terminations and at all intermediate locations and boxes where more than one circuit is present.
- F. Panelboard Circuit Directories: At completion of project, accurately complete each panelboard circuit directory card, identifying load served or "spare" or "space" for each circuit pole. When modifying, adding or deleting circuits at an existing panelboard, update the existing (or provide new) circuit directory card to accurately reflect final conditions.
- G. Abandoned Equipment: Label all abandon equipment as "Abandon as of \_\_\_\_." For conduits and conductors, include opposite end location.

### 3.19 GROUNDING

- A. General: Provide all system and equipment grounding as indicated and required by the NEC.
- B. Equipment Grounding: Provide a green equipment grounding conductor, sized per NEC 250-122 (larger if so indicated), with each feeder and branch circuit run.
- C. Provide exothermic welded connections where indicated.

### 3.20 CHECKOUT, TESTING, AND ADJUSTING

- A. General: Provide testing equipment, materials, instruments, and personnel to perform all test procedures and adjustments required by the Contract Documents and/or deemed necessary by the

---

Engineer to establish proper performance and installation of electrical systems and equipment. All test instruments to be accurately calibrated and in good working order.

- B. Scheduling: Schedule tests at least three days in advance, and so as to allow Engineer and Owner representative(s) to witness the test, unless directed otherwise. Do not schedule tests until the system installation is complete and fully operational unless indicated or directed otherwise.
- C. Manufacturer's Authorized Representatives: For all new and modified systems and equipment, arrange and pay for the services of the manufacturer's authorized representative(s) to be present at time of equipment or system start-up, to supervise the start-up, and to conduct and/or certify all required testing and adjusting.
- D. Test Reports: Submit test reports neatly typewritten on 8-1/2-inch-by-11-inch sheets indicating system or equipment being tested, methodology of testing, date, and time of test, witnesses of test, and test results. Submit test reports in three (3) copies to the Engineer for review within five (5) days after test is performed, and include a copy with the appropriate operation and maintenance data.
- E. Correction/Replacement: After testing, correct any deficiencies, and replace materials and equipment shown to be defective or unable to perform at design or rated capacity. Retest without additional cost to the Owner or Contract. Submit finalization report indicating corrective measures taken and satisfactory results of retest.

### 3.21 SYSTEMS DEMONSTRATION

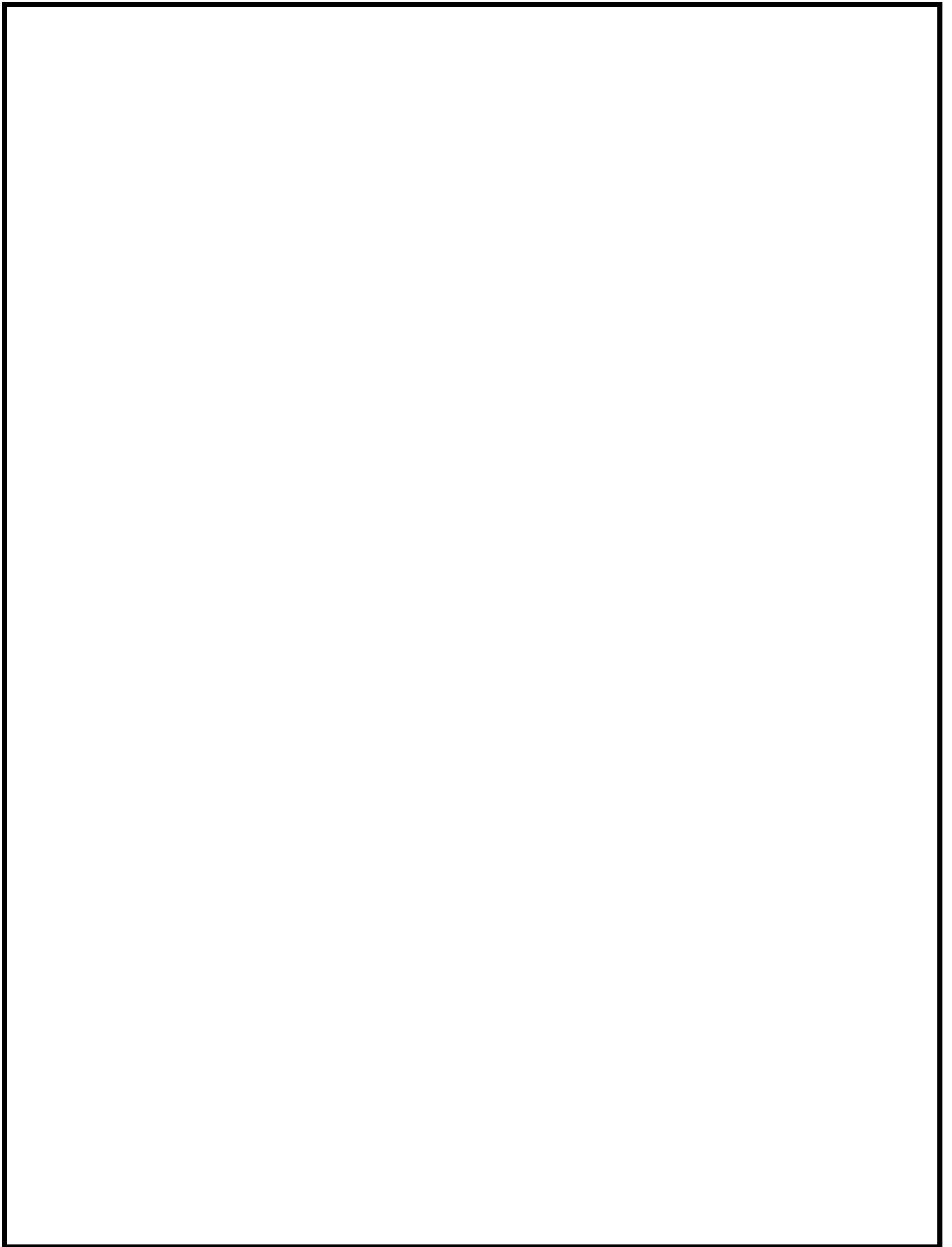
- A. Instruct the Owner's representative(s) in the start-up, operation, and maintenance of all electrical systems and equipment in accordance with Division 1 and as requested by the Owner's Representative.

### 3.22 CLEANING AND TOUCH-UP PAINTING

- A. Perform cleaning required by Division 01.
- B. General: Periodically remove from the project site, all waste, rubbish, and construction debris accumulated from construction operations, and maintain order. The premises shall be left clean and free of any debris and unused construction materials prior to final acceptance.
- C. Electrical Equipment: Remove all dust, dirt, debris, mortar, wire scraps, rust, and other foreign materials from the interior and exterior of all electrical equipment and enclosures, and wipe down. Clean accessible current carrying elements and insulators prior to energizing.
- D. Light Fixtures: Thoroughly clean all new or relocated light fixtures and lamps, just prior to final inspection. Fixture enclosures, reflectors, lenses, etc., shall be cleaned free of dust, dirt, fingerprints, etc., by an approved method.
- E. Touch-Up Painting: Restore and refinish to original condition, all surfaces of electrical equipment scratched, marred, and/or dented during shipping, handling, or installation. Remove all rust, and prime and paint as recommended by the manufacturer.

END OF SECTION 26 00 01

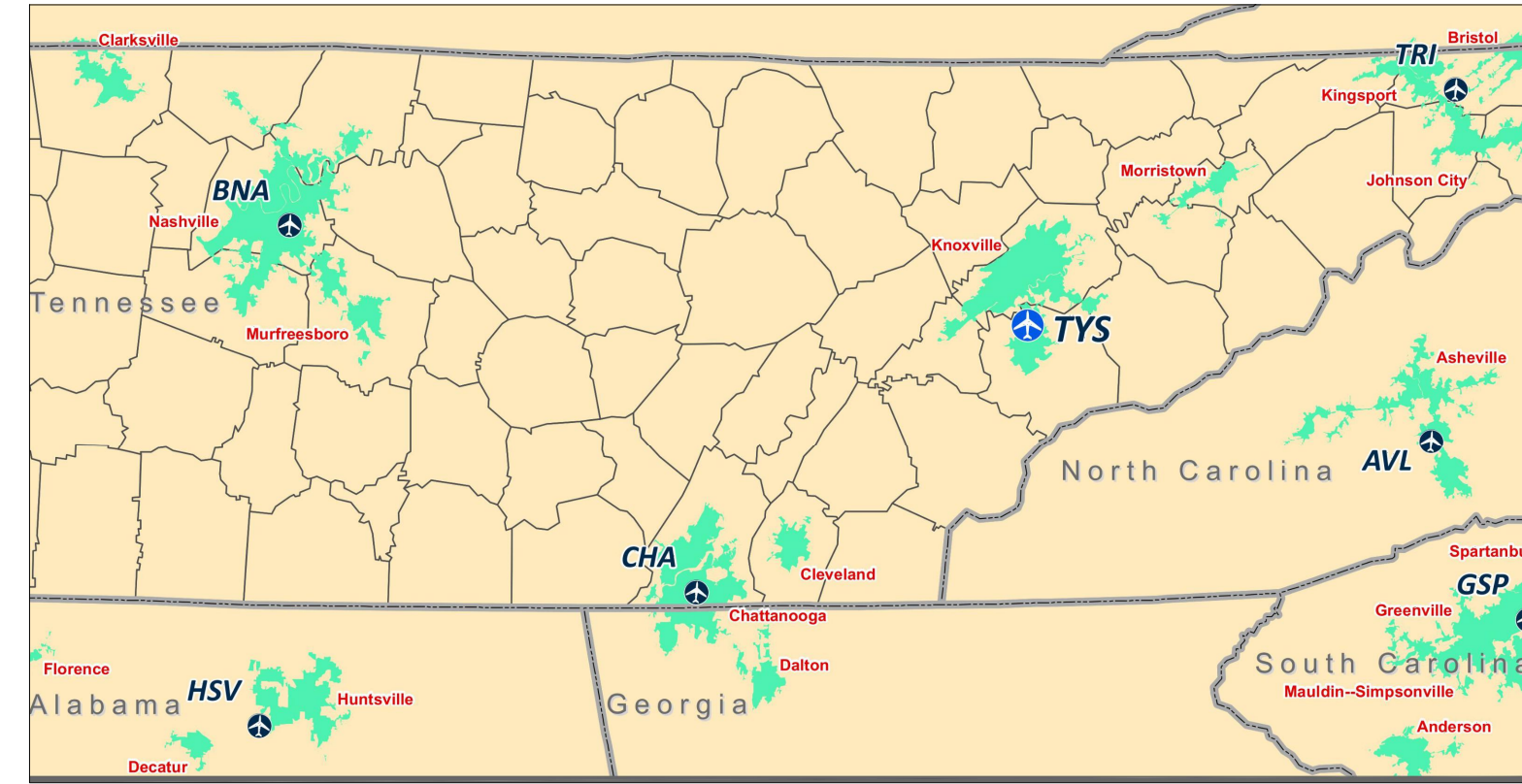
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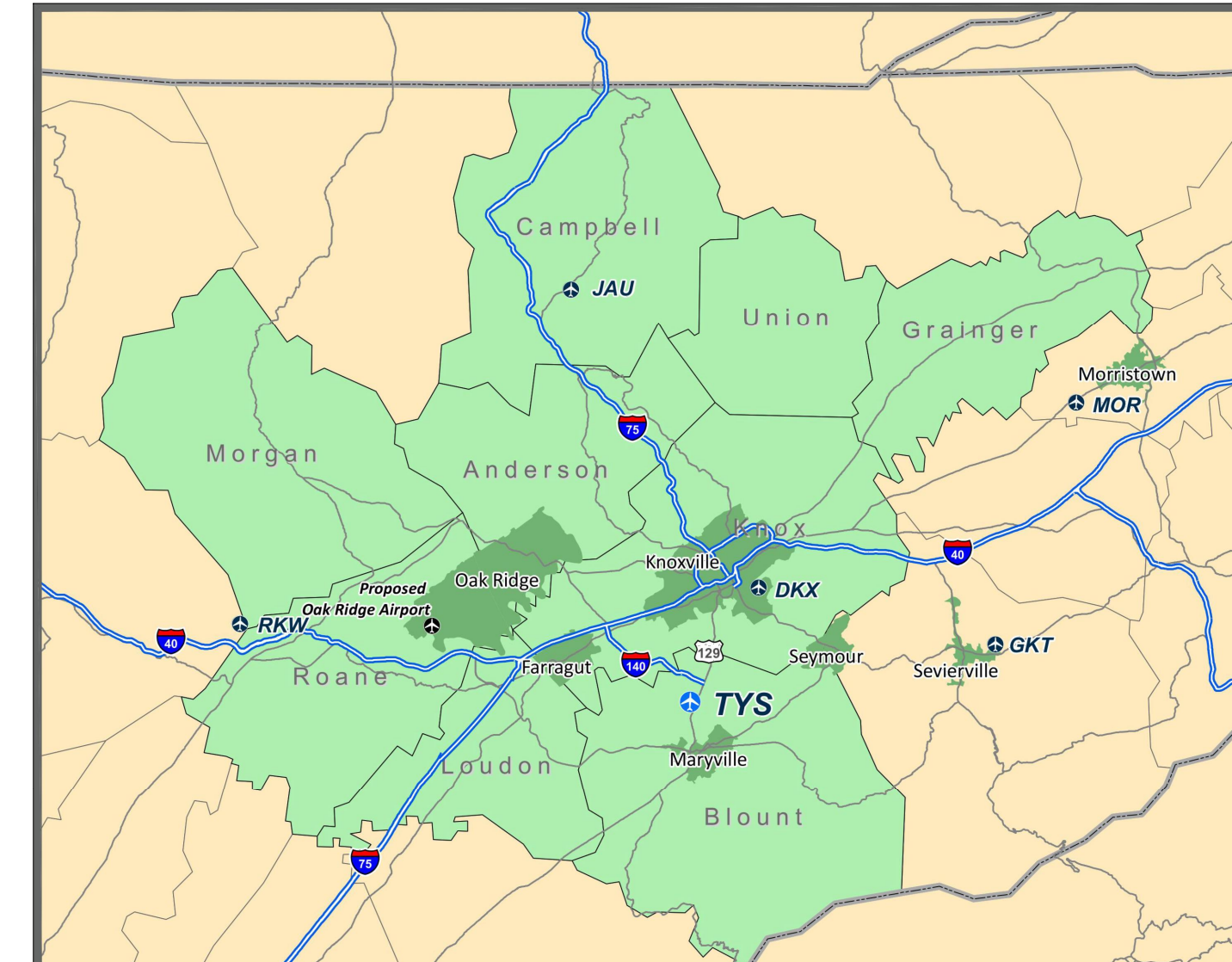


# MKAA

- Mr. Brian Simmons ..... Chairman
- Mr. Charles Harr ..... Secretary
- Mr. Joe Dawson ..... Assistant Secretary
- Ms. Ursula Bailey ..... Board Member
- Mrs. Julia Bentley ..... Board Member
- Mrs. Caryn Hawthorn ..... Board Member
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- Mr. Wes Stowers ..... Board Member
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- Mr. Mark Mamantov ..... Legal Counsel
- Mr. Patrick Wilson, AAE ..... President
- Mr. Bryan D. White, PE ..... Vice President of  
Engineering and Planning



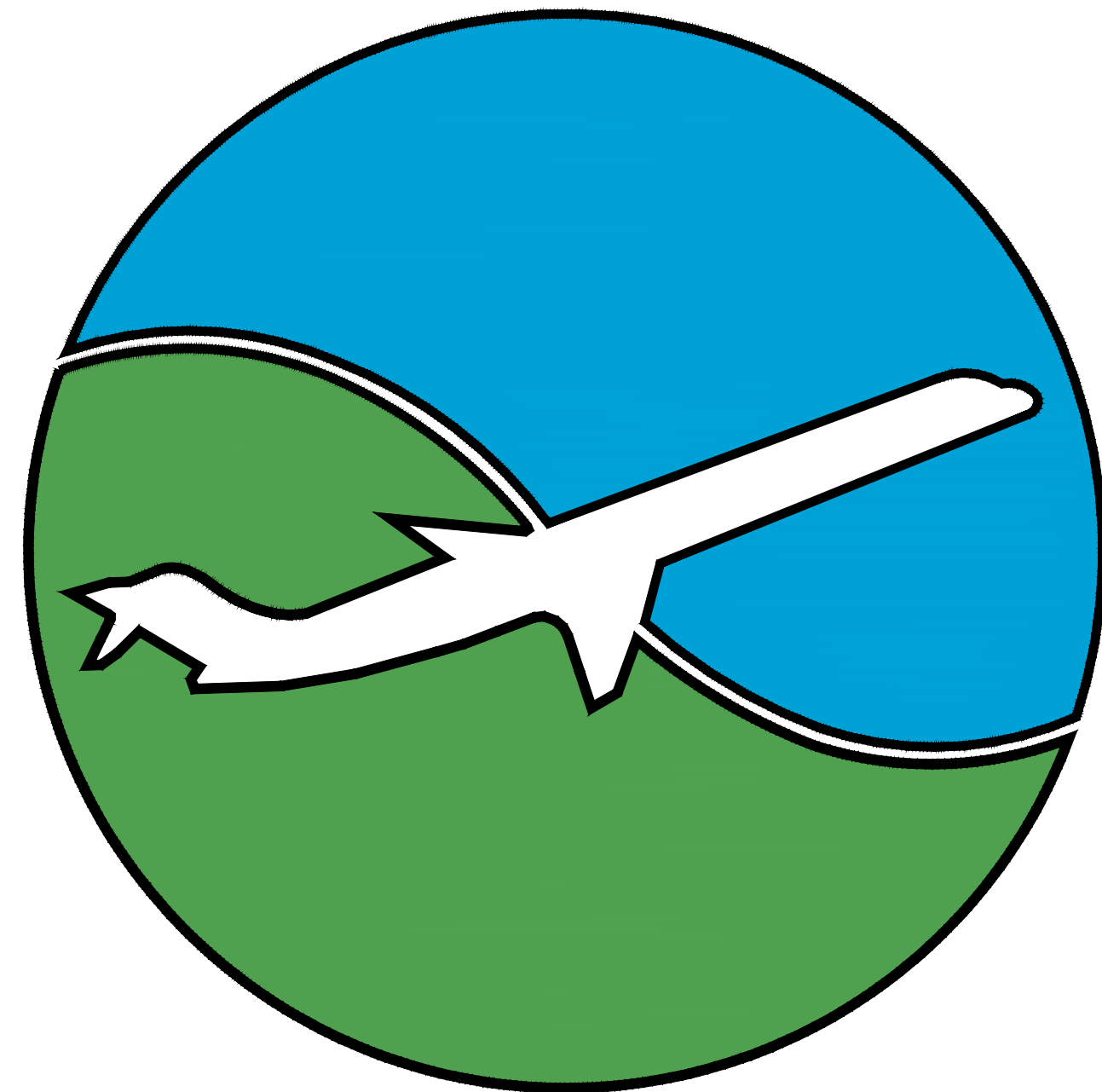
LOCATION MAP



VICINITY MAP

### DRAWING INDEX

- E-001 ELECTRICAL LEGEND, SYMBOLS & ABBREVIATIONS
- E-100 ELECTRICAL OVERALL POWER PLAN
- E-101 ELECTRICAL POWER PLAN - TERMINAL
- E-102 ELECTRICAL POWER PLAN - ARFF
- E-103 ELECTRICAL POWER PLAN - AOC
- E-601 ELECTRICAL ONE-LINES & DETAILS



# McGhee Tyson Airport

**M**ETROPOLITAN  
**K**NOXVILLE  
**A**IRPORT  
**A**UTHORITY

## ENGINEER:

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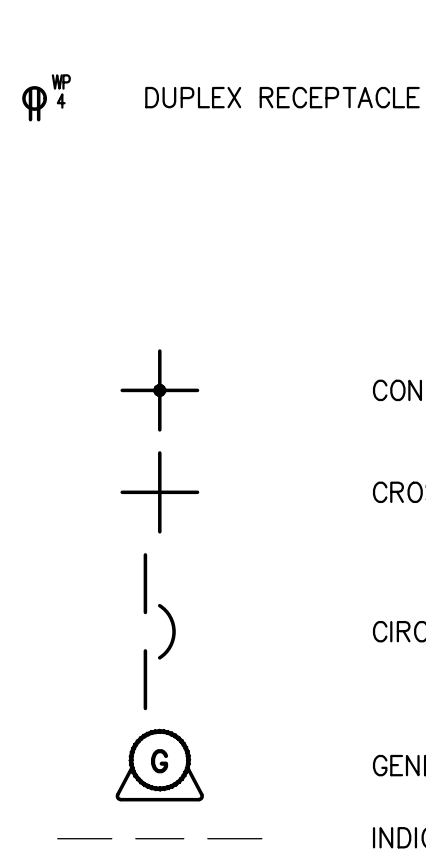
# PROVISIONS FOR STANDBY GENERATOR DOCKING STATIONS AND RELATED IMPROVEMENTS

**ISSUED FOR BID  
APRIL 9, 2024**



ABBREVIATIONS	
A	AMPERE
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFF/G	ABOVE FINISHED FLOOR/GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AT	AMPERE TRIP
AUX	AUXILIARY
A/V	AUDIBLE/VISUAL
AWG	AMERICAN WIRE GAUGE
BB	BACKBOARD
BCW	BARE COPPER WIRE
BATT	BATTERY
BTM	BOTTOM
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CAB	CABINET
CATV	COMMUNITY ACCESS TELEVISION (CABLE TELEVISION)
CB	CIRCUIT BREAKER
CIR	CIRCUIT
CKT	CIRCUIT
CL	CENTER LINE
CO	COMPANY
COMM	COMMUNICATIONS
CONN	CONNECTION, CONNECT
CUH	CABINET UNIT HEATER
CT	CURRENT TRANSFORMER
CU	COPPER
CWA	CONSTANT WATTAGE AUTOTRANSFORMER
△	DELTA CONNECTION
D	DEEP
DB	DECIBEL
DET	DETECTOR
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DIV	DIVISION
DN	DOWN
DWG	DRAWING
EA	EACH
EBH	ELECTRIC BASEBOARD HEATER
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXT	EXTERIOR
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLES
FIXT	FIXTURE
FLR	FLOOR
FLUOR	FLUORESCENT
FT	FOOT (FEET)
FUT	FUTURE
G, GND	GROUND
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HD	HEAVY DUTY
HGT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HO	HIGH OUTPUT
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
HW	HOT WATER
ID	IDENTIFY, IDENTIFICATION
INCAND	INCANDESCENT
J-BOX	JUNCTION BOX
J.C.	JANITOR CLOSET
JCT	JUNCTION
KCM/Kcmil	THOUSAND CIRCULAR MILS
KVA	KILO VOLT AMPERE
KW	KILOWATT
LG	LIGHTING
LT(S)	LIGHT(S)
LED	LIGHT EMITTING DIODE
L	LOUVER
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MC	METAL CLAD CABLE
MFR	MANUFACTURER
MH	METAL HALIDE
MECH	MECHANICAL
MIN	MINIMUM
ML	MOTORIZED LOUVER
MLO	MAIN LUGS ONLY
MT	MOUNT
MTD	MOUNTED
MTR	MOTOR
N	NORTH
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NL	NIGHT LIGHT
No/#	NUMBER
OC	OVER COUNTER
OL	OVERLOAD

P	POLE(S)
PA	PUBLIC ADDRESS
PANL	PANEL
PR	PAIR
PRI	PRIMARY
PWR	POWER
∅	PHASE
PT	PRESSURE TREATED
RECEPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL ROOM
RM	ROOM
SEC	SECONDARY
SH	SHIELDED
SPKR	SPEAKER
SW	SWITCH
TEMP	TEMPORARY/TEMPERATURE
T-STAT	THERMOSTAT
TB	TERMINAL BOARD
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLT, VOLTS
VA	VOLT-AMPERES
W	WATT, WIRE
W/	WITH
WP	WEATHERPROOF
XFMR/T	TRANSFORMER
Y	WYE CONNECTION



**DEVICES AND APPURTENANCES**

**ONE LINE DIAGRAMS**

**POWER DISTRIBUTION EQUIPMENT**

- SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD 208/120V, 3φ, 4W, UON
- ▨ SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD 480/277V, 3φ, 4W, UON
- <sup>30/3</sup> NON-FUSED SAFETY SWITCH DISCONNECT RATING/POLES

**GENERAL**

- ⊘ NUMBER IN CIRCLE, WITH OR WITHOUT ARROW OR LEADER, REFER TO MATCHING NUMBERED CODED NOTE
- ⬠ NUMBER IN DIAMOND, WITH OR WITHOUT ARROW OR LEADER; REFER TO THE DEMOLITION CODED NOTE WITH THE MATCHING NUMBER
- ⊠  
XXXX DETAIL CALLOUT

**GENERAL NOTES**

- CONDUIT RUNS SHOWN ARE DIAGRAMMATIC UON. EXACT LOCATION OF ALL CONDUIT RUNS SHALL BE DETERMINED IN THE FIELD. COORDINATE INSTALLATIONS AND AVOID CONFLICT WITH PIPING, DUCTWORK, ACCESS DOORS AND WORK BY OTHER TRADES.
- CONCEAL CONDUITS AND/OR WIRING WITHIN WALLS, UNDERFLOORS AND/OR ABOVE SUSPENDED CEILINGS WHEREVER POSSIBLE.


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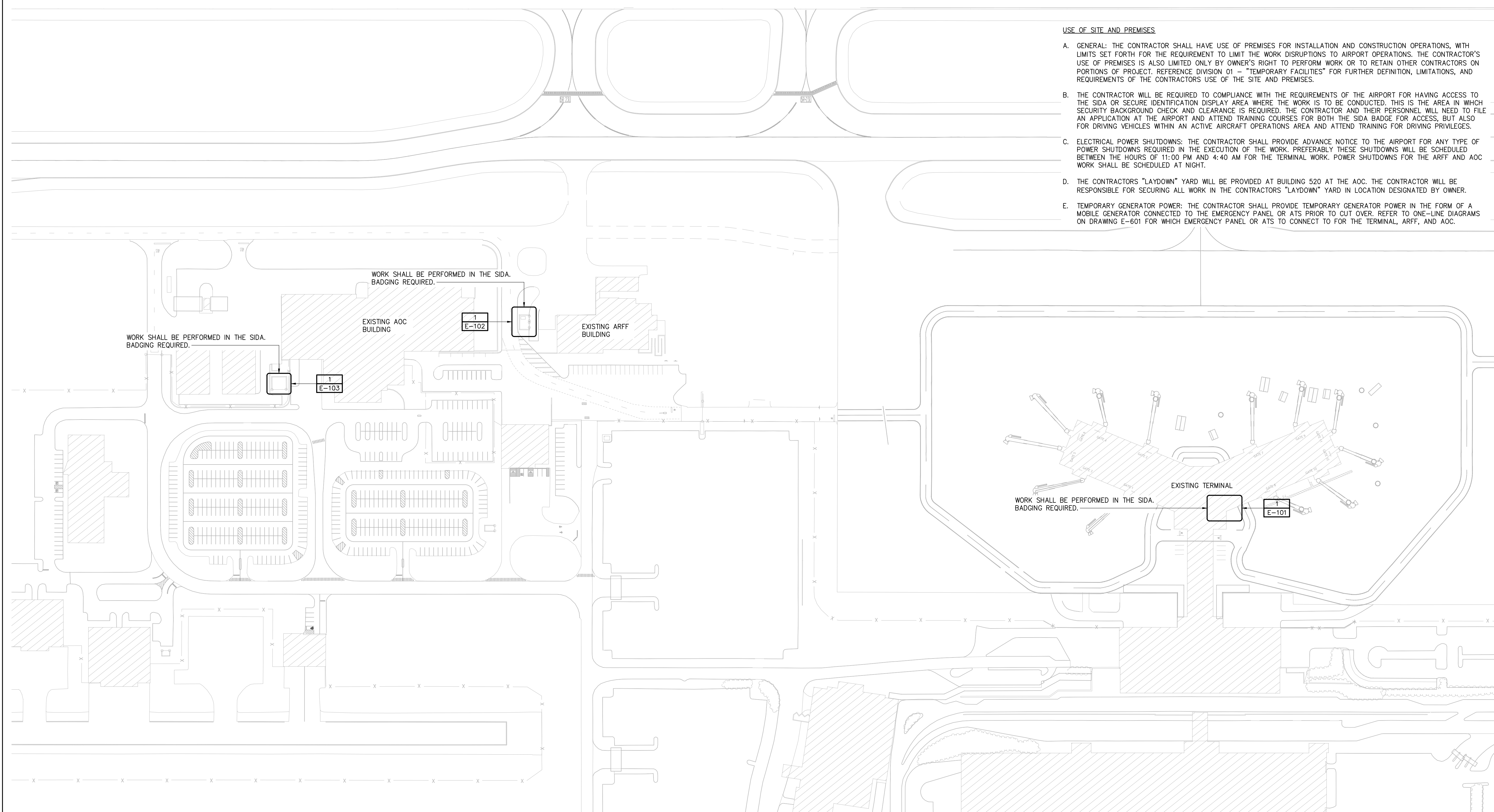
METROPOLITAN  
KNOXVILLE  
AIRPORT  
AUTHORITY

PROJECT NAME		JOB NO.	DATE
<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>		84592	04/09/2024
SHEET TITLE		FILE NAME	REV. NO.
<b>ELECTRICAL LEGEND, SYMBOLS AND ABBREVIATIONS</b>		E001-084592	
SUBMITTAL		DWG. NO.	
ISSUED FOR BID		<b>E-001</b>	

PROJECT NO.	
84592	

**USE OF SITE AND PREMISES**

- A. GENERAL: THE CONTRACTOR SHALL HAVE USE OF PREMISES FOR INSTALLATION AND CONSTRUCTION OPERATIONS, WITH LIMITS SET FORTH FOR THE REQUIREMENT TO LIMIT THE WORK DISRUPTIONS TO AIRPORT OPERATIONS. THE CONTRACTOR'S USE OF PREMISES IS ALSO LIMITED ONLY BY OWNER'S RIGHT TO PERFORM WORK OR TO RETAIN OTHER CONTRACTORS ON PORTIONS OF PROJECT. REFERENCE DIVISION 01 - "TEMPORARY FACILITIES" FOR FURTHER DEFINITION, LIMITATIONS, AND REQUIREMENTS OF THE CONTRACTOR'S USE OF THE SITE AND PREMISES.
- B. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE AIRPORT FOR HAVING ACCESS TO THE SIDA OR SECURE IDENTIFICATION DISPLAY AREA WHERE THE WORK IS TO BE CONDUCTED. THIS IS THE AREA IN WHICH SECURITY BACKGROUND CHECK AND CLEARANCE IS REQUIRED. THE CONTRACTOR AND THEIR PERSONNEL WILL NEED TO FILE AN APPLICATION AT THE AIRPORT AND ATTEND TRAINING COURSES FOR BOTH THE SIDA BADGE FOR ACCESS, BUT ALSO FOR DRIVING VEHICLES WITHIN AN ACTIVE AIRCRAFT OPERATIONS AREA AND ATTEND TRAINING FOR DRIVING PRIVILEGES.
- C. ELECTRICAL POWER SHUTDOWNS: THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE TO THE AIRPORT FOR ANY TYPE OF POWER SHUTDOWNS REQUIRED IN THE EXECUTION OF THE WORK. PREFERABLY THESE SHUTDOWNS WILL BE SCHEDULED BETWEEN THE HOURS OF 11:00 PM AND 4:40 AM FOR THE TERMINAL WORK. POWER SHUTDOWNS FOR THE ARFF AND AOC WORK SHALL BE SCHEDULED AT NIGHT.
- D. THE CONTRACTORS "LAYDOWN" YARD WILL BE PROVIDED AT BUILDING 520 AT THE AOC. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING ALL WORK IN THE CONTRACTORS "LAYDOWN" YARD IN LOCATION DESIGNATED BY OWNER.
- E. TEMPORARY GENERATOR POWER: THE CONTRACTOR SHALL PROVIDE TEMPORARY GENERATOR POWER IN THE FORM OF A MOBILE GENERATOR CONNECTED TO THE EMERGENCY PANEL OR ATS PRIOR TO CUT OVER. REFER TO ONE-LINE DIAGRAMS ON DRAWING E-601 FOR WHICH EMERGENCY PANEL OR ATS TO CONNECT TO FOR THE TERMINAL, ARFF, AND AOC.




**1 ELECTRICAL OVERALL SITE PLAN**  
 - 1" = 100'-0"

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SCALE	AS SHOWN

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 AIRPORT  
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PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL OVERALL POWER PLAN</b>
SUBMITTAL	ISSUED FOR BID

JOB NO.	84592	DATE	04/09/2024
FILE NAME	E-100-084592	REV. NO.	
DWG. NO.	<b>E-100</b>		

PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL OVERALL POWER PLAN</b>
SUBMITTAL	ISSUED FOR BID

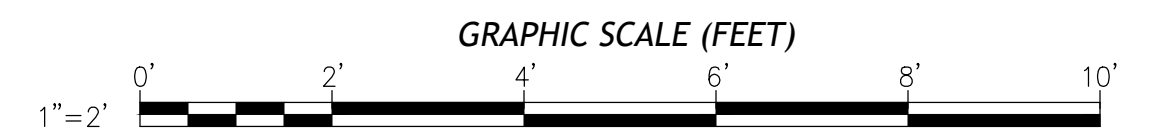
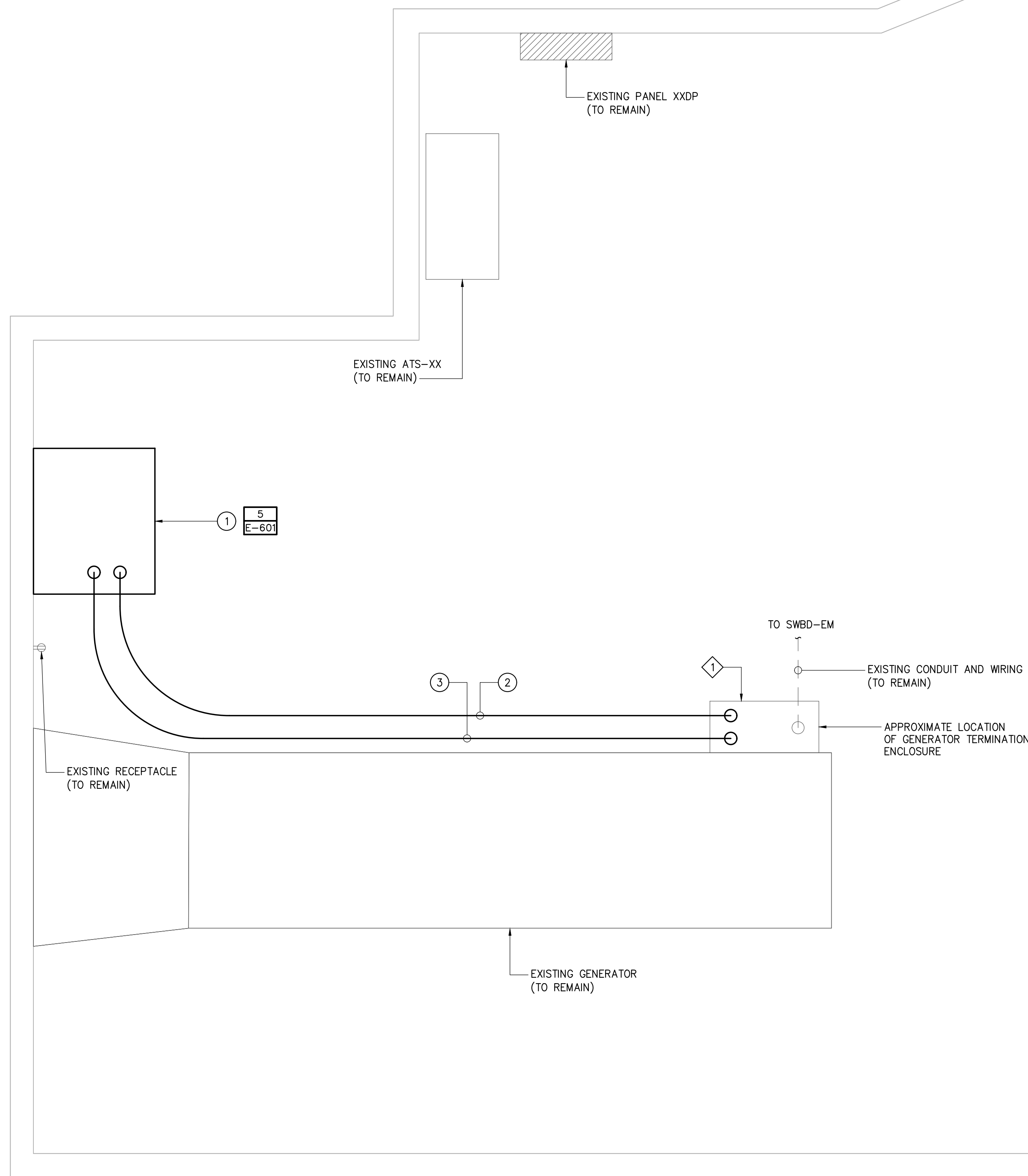


**DEMOLITION CODED NOTES**

- ① DISCONNECT EXISTING CABLING BETWEEN GENERATOR AND EXISTING ATS-XX. SAVE FOR EXTENSION.

**CODED NOTES**

- ① PROVIDE 1600A, 480V, 3 $\phi$ , 4W PAD-MOUNTED DOCKING STATION WITH CAMLOCK CONNECTORS MATCHING PORTABLE GENERATOR CABLE. BASIS OF DESIGN: TRYSTAR DPDS.
- ② PROVIDE 4 SETS OF 4" CONDUIT WITH (4)#500MCM, (1)#4/0G FROM OUTPUT OF EXISTING GENERATOR TO INPUT OF PAD-MOUNT DOCKING STATION. STUB-UP AND SURFACE MOUNT CONDUIT TO CEILING.
- ③ PROVIDE 4 SETS OF 4" CONDUIT WITH (4)#500MCM, (1)#4/0G FROM OUTPUT OF PAD-MOUNT DOCKING STATION TO EXISTING GENERATOR. STUB-UP AND SURFACE MOUNT CONDUIT TO CEILING. SPLICE WITH EXISTING CABLING TO EXISTING SWITCHBOARD SWBD-EM.




**1** ELECTRICAL POWER PLAN – TERMINAL GENERATOR ROOM  
 - 1" = 2'-0"

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SCALE	AS SHOWN

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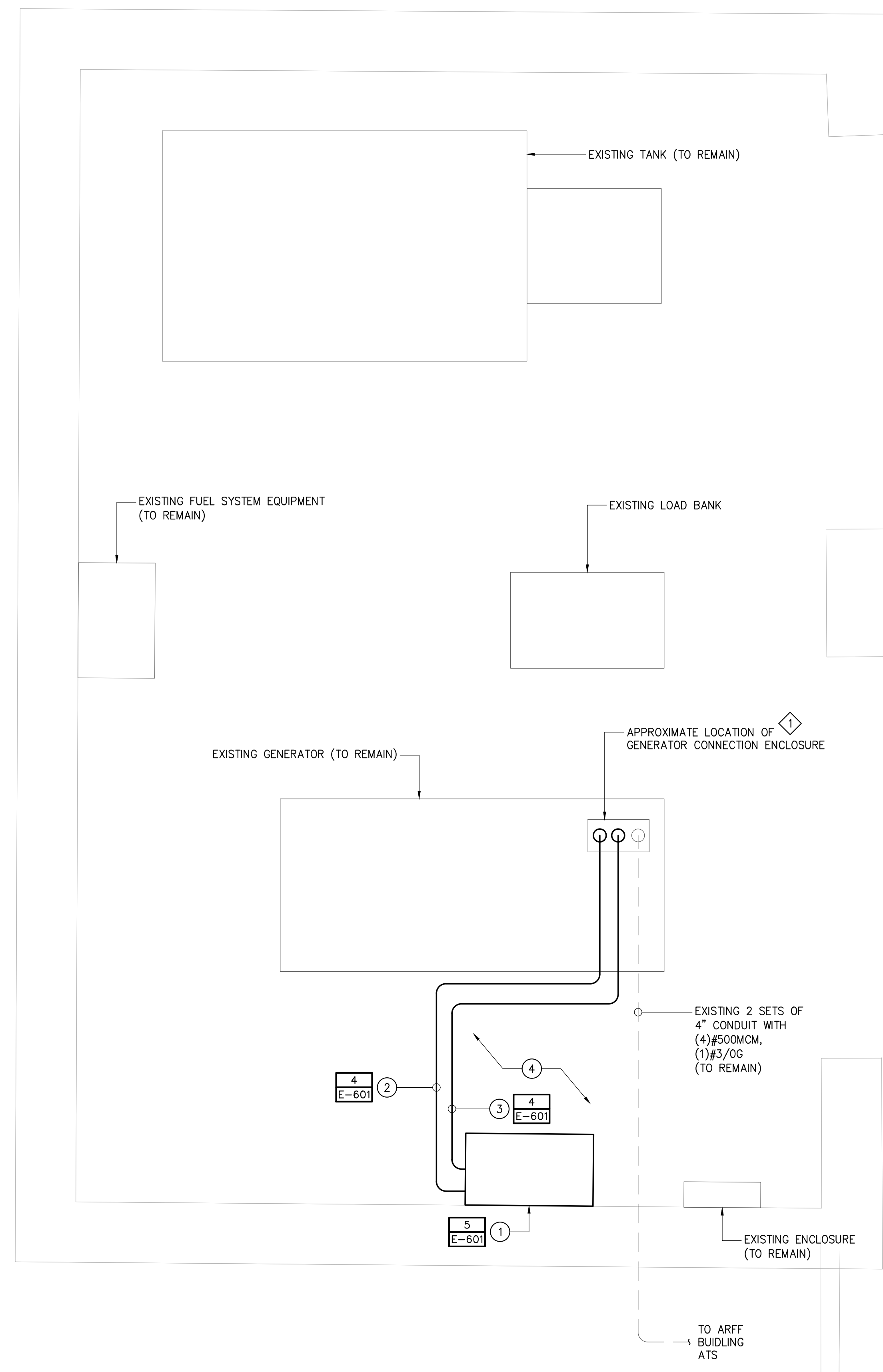

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 AIRPORT  
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PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL POWER PLAN - TERMINAL</b>
SUBMITTAL	ISSUED FOR BID

JOB NO.	84592	DATE	04/09/2024
FILE NAME	E:101-084592	REV. NO.	
DWG. NO.	<b>E-101</b>		

PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL POWER PLAN - TERMINAL</b>
SUBMITTAL	ISSUED FOR BID

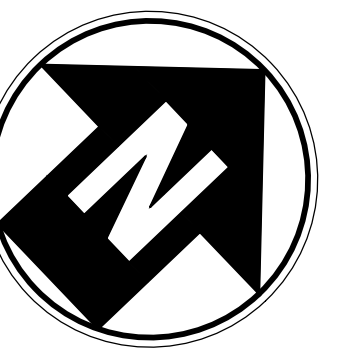
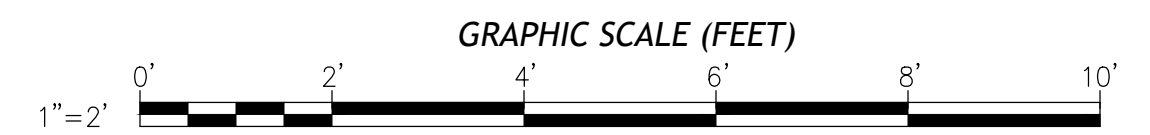
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**DEMOLITION CODED NOTES**  
 ① DISCONNECT EXISTING CABLING BETWEEN GENERATOR AND ARFF BUILDING ATS. SAVE FOR EXTENSION.

**CODED NOTES**  
 ① PROVIDE 800A, 208V, 3φ, 4W PAD-MOUNTED DOCKING STATION WITH CAMLOCK CONNECTORS MATCHING PORTABLE GENERATOR CABLE. BASIS OF DESIGN: MARATHON ELECTRIC 3WMTS.  
 ② PROVIDE 2 SETS OF 4" CONDUIT WITH (4)#500MCM, (1)#3/0G FROM OUTPUT OF EXISTING GENERATOR TO INPUT OF PAD-MOUNT DOCKING STATION. PROVIDE SURFACE CONDUIT SUPPORTS.  
 ③ PROVIDE 2 SETS OF 4" CONDUIT WITH (4)#500MCM, (1)#3/0G FROM OUTPUT OF PAD-MOUNT DOCKING STATION TO EXISTING GENERATOR. PROVIDE SURFACE CONDUIT SUPPORTS. SPLICE WITH EXISTING CABLING TO ARFF BUILDING ATS.  
 ④ AVOID INSTALLING CONDUITS IN FRONT OF THE DOCKING STATION PER NEC.

1 ELECTRICAL POWER PLAN - ARFF GENERATOR AREA  
 - 1" = 2'-0"



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	04/10/2024	ISSUED FOR BID	KML	JJD	KML

DESIGNED BY	CHECKED BY	APPR. BY	MAX. APPR.	SCALE
KML	JJD	JLK		AS SHOWN

DESIGNED BY	CHECKED BY	APPR. BY	MAX. APPR.	SCALE
KML	JJD	JLK		AS SHOWN

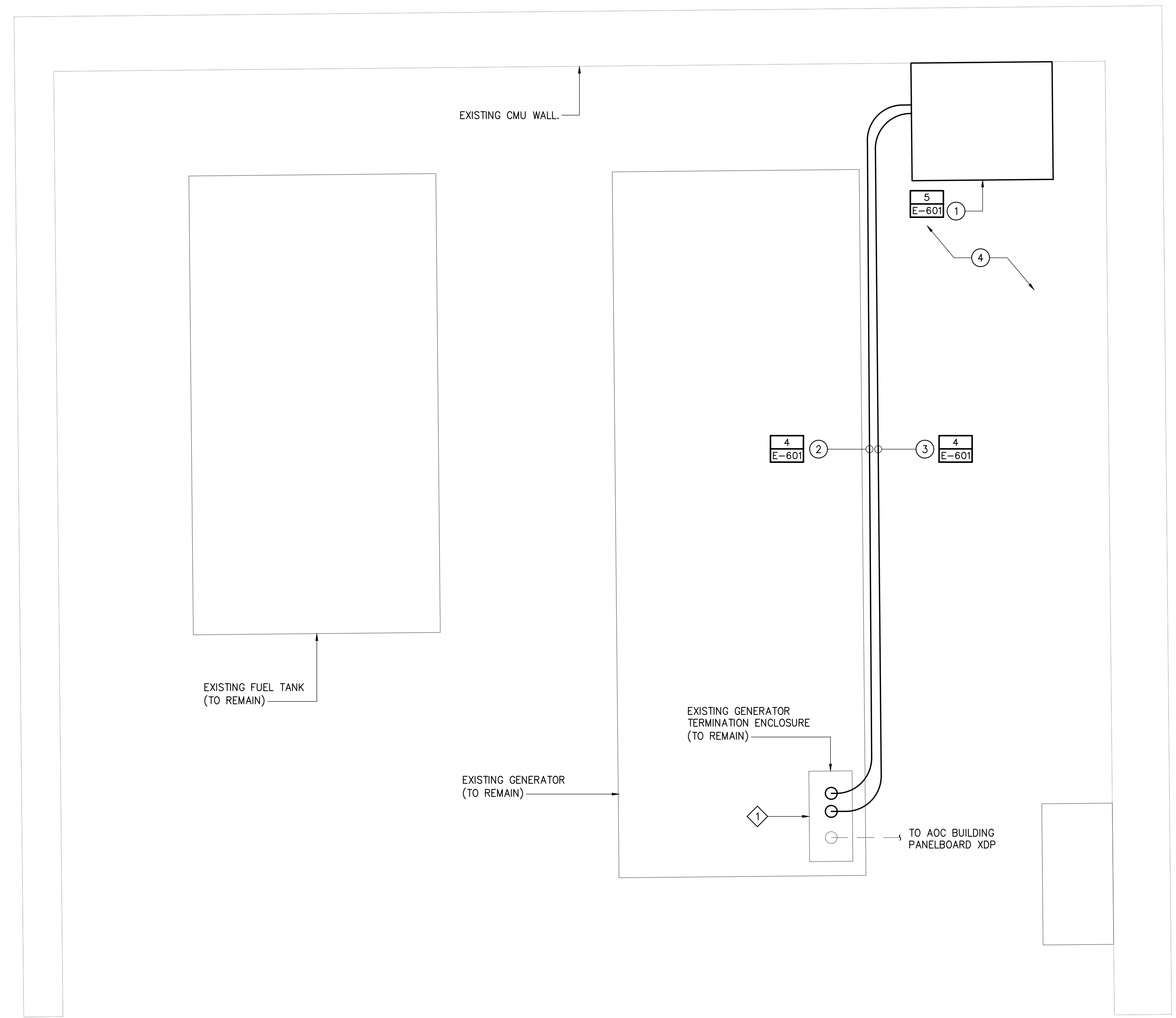
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PROJECT NAME	SHEET TITLE	SUBMITTAL
<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>	<b>ELECTRICAL POWER PLAN - ARFF</b>	ISSUED FOR BID

JOB NO.	DATE	FILE NAME	REV. NO.	DWG. NO.
84592	04/09/2024	E:102-084592		<b>E-102</b>

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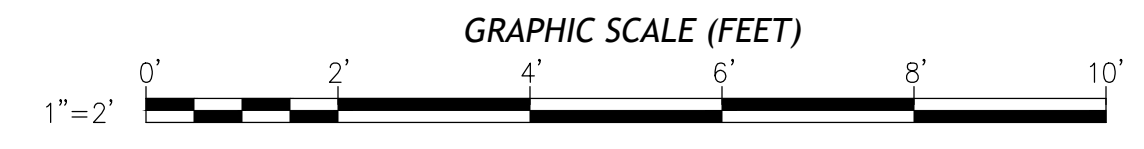
**DEMOLITION CODED NOTES**

- ① DISCONNECT EXISTING CABLING BETWEEN GENERATOR AND AOC BUILDING ATS. SAVE FOR EXTENSION.

**CODED NOTES**


- ① PROVIDE 800A, 480V, 3Φ, 4W PAD-MOUNTED DOCKING STATION WITH CAMLOCK CONNECTORS MATCHING PORTABLE GENERATOR CABLE. BASIS OF DESIGN: TRYSTAR DPDS.
- ② PROVIDE 2 SETS OF 3-1/2" CONDUIT WITH (4)#500MCM, (1)#1/0G FROM OUTPUT OF EXISTING GENERATOR TO INPUT OF PAD-MOUNT DOCKING STATION. PROVIDE SURFACE CONDUIT SUPPORTS.
- ③ PROVIDE 2 SETS OF 3-1/2" CONDUIT WITH (4)#500MCM, (1)#1/0G FROM OUTPUT OF PAD-MOUNT DOCKING STATION TO EXISTING GENERATOR. PROVIDE SURFACE CONDUIT SUPPORTS. SPLICE WITH EXISTING CABLING TO AOC BUILDING PANEL XDP.
- ④ AVOID INSTALLING CONDUITS IN FRONT OF THE DOCKING STATION PER NEC.

**1 ELECTRICAL POWER PLAN – AOC GENERATOR AREA**  
 - 1" = 2'-0"



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SCALE	AS SHOWN

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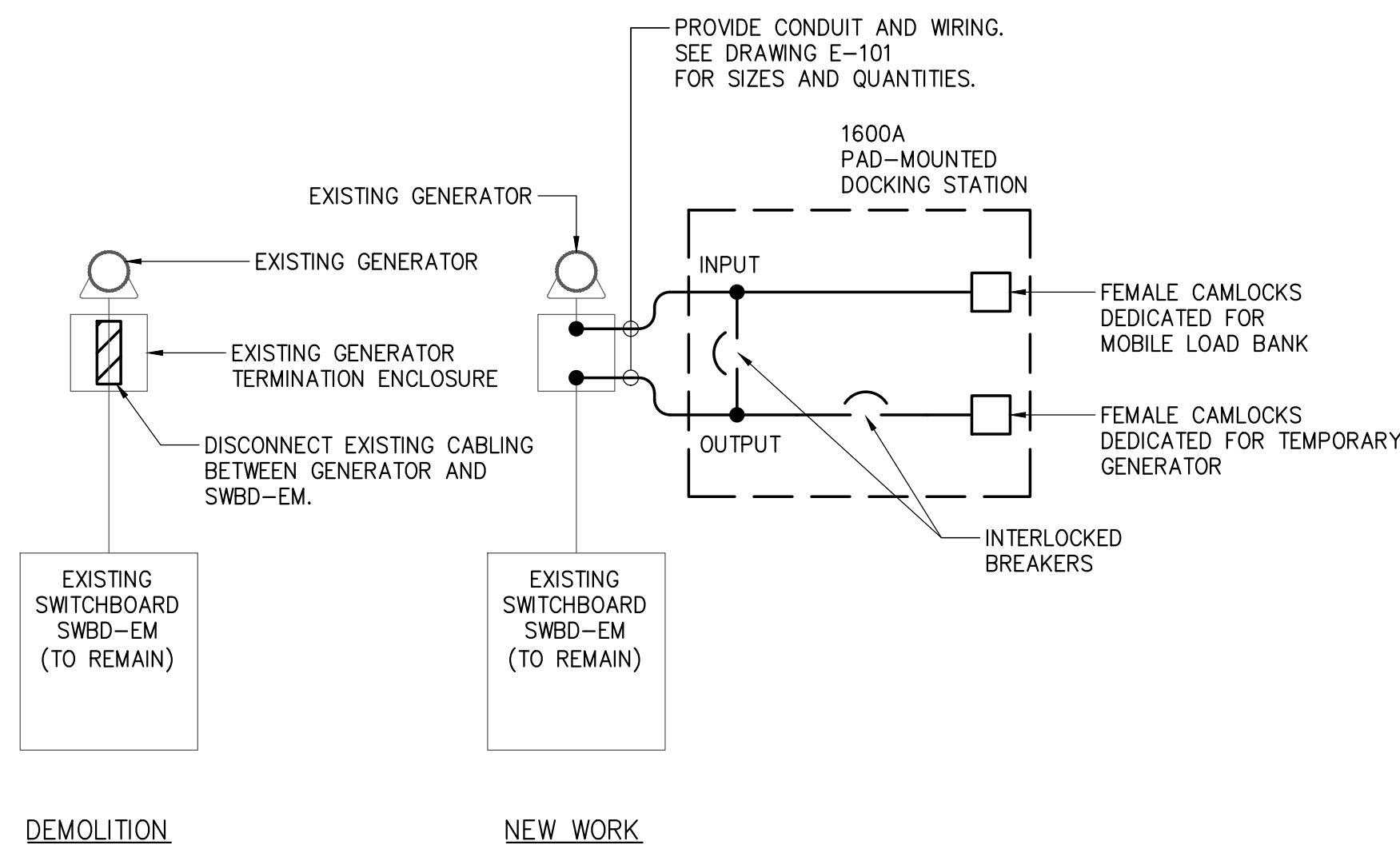

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PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL POWER PLAN - AOC</b>
SUBMITTAL	ISSUED FOR BID

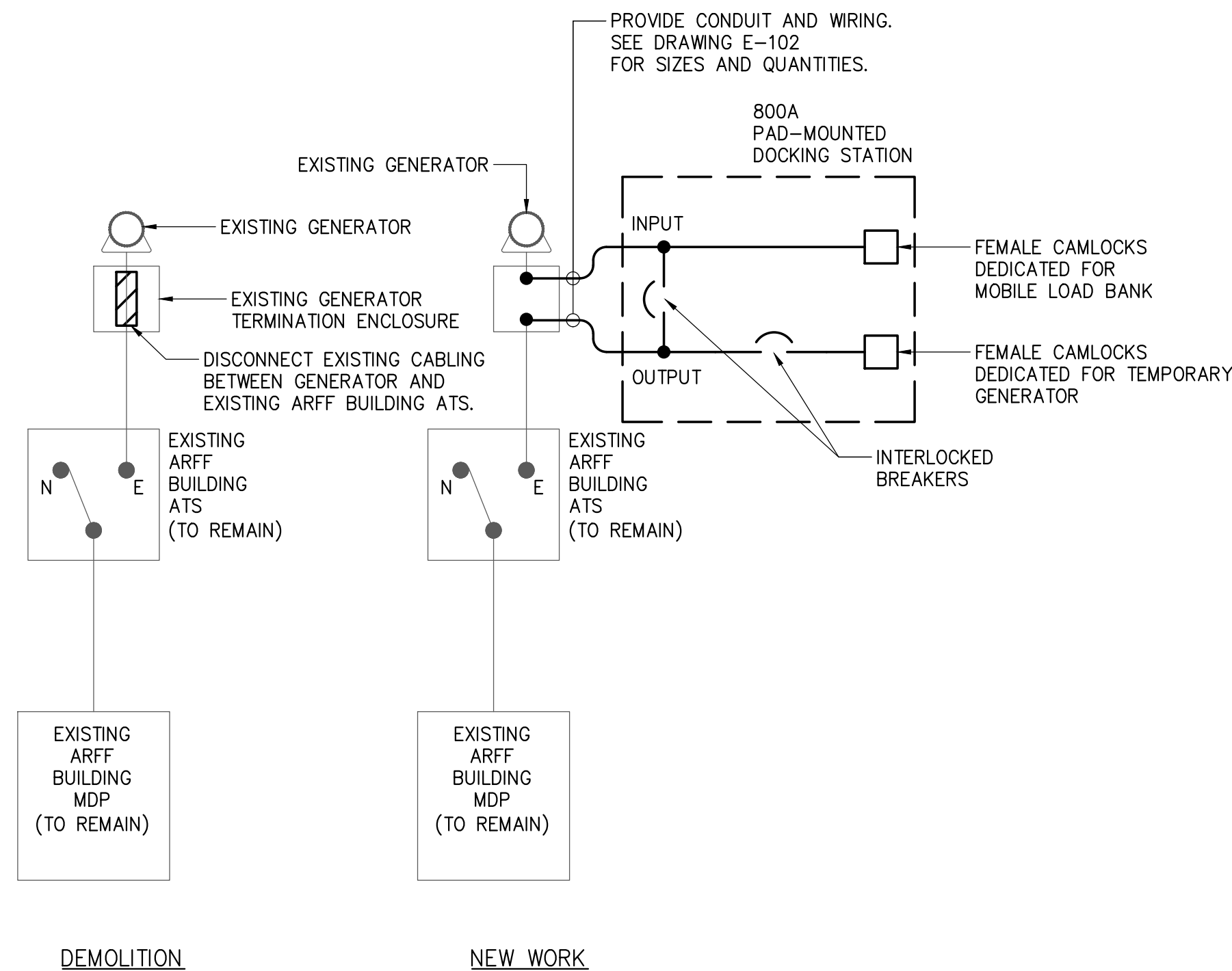
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FILE NAME	E:103-084592	REV. NO.	
DWG. NO.	<b>E-103</b>		

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DATE	04/09/2024
REV. NO.	
DWG. NO.	<b>E-103</b>

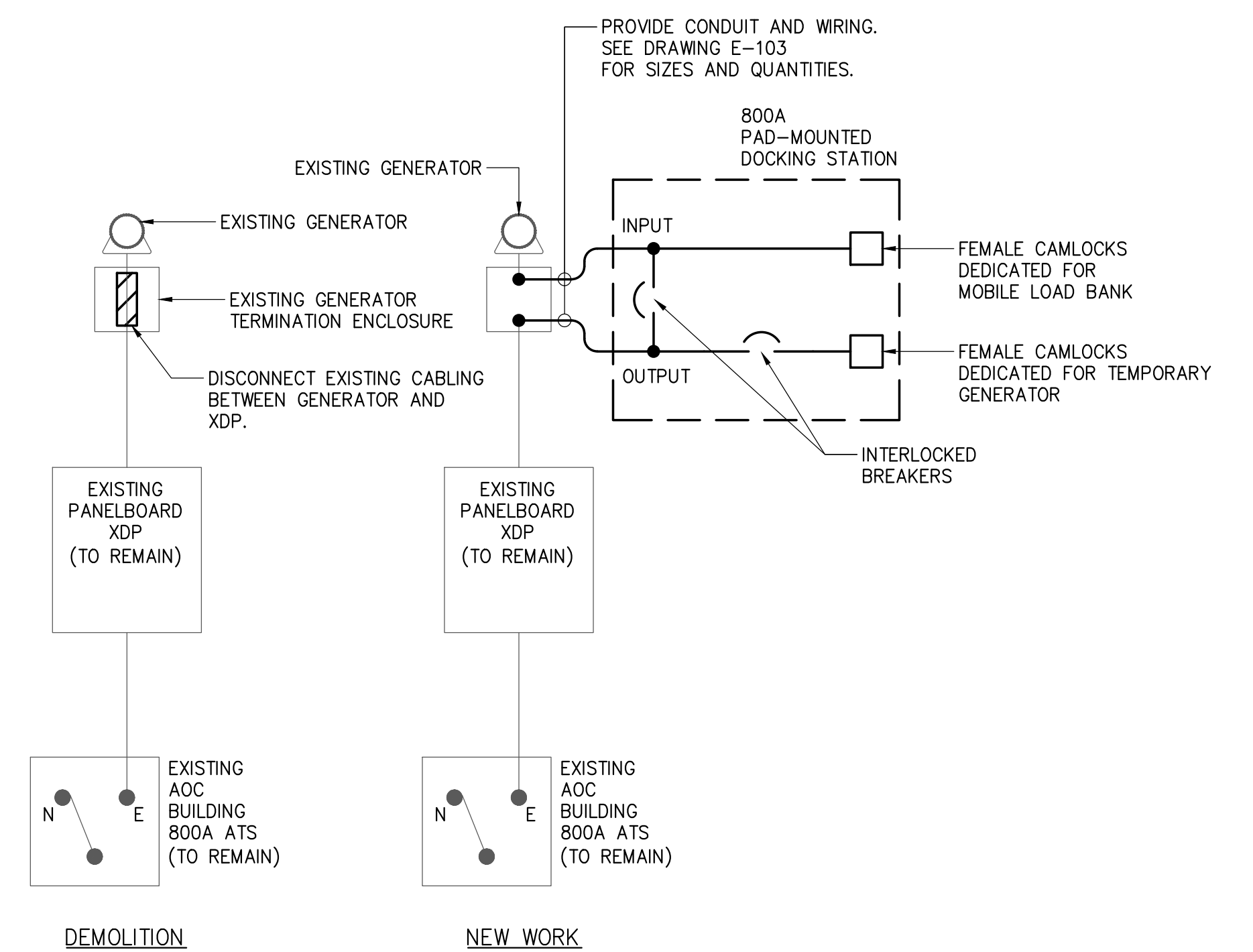




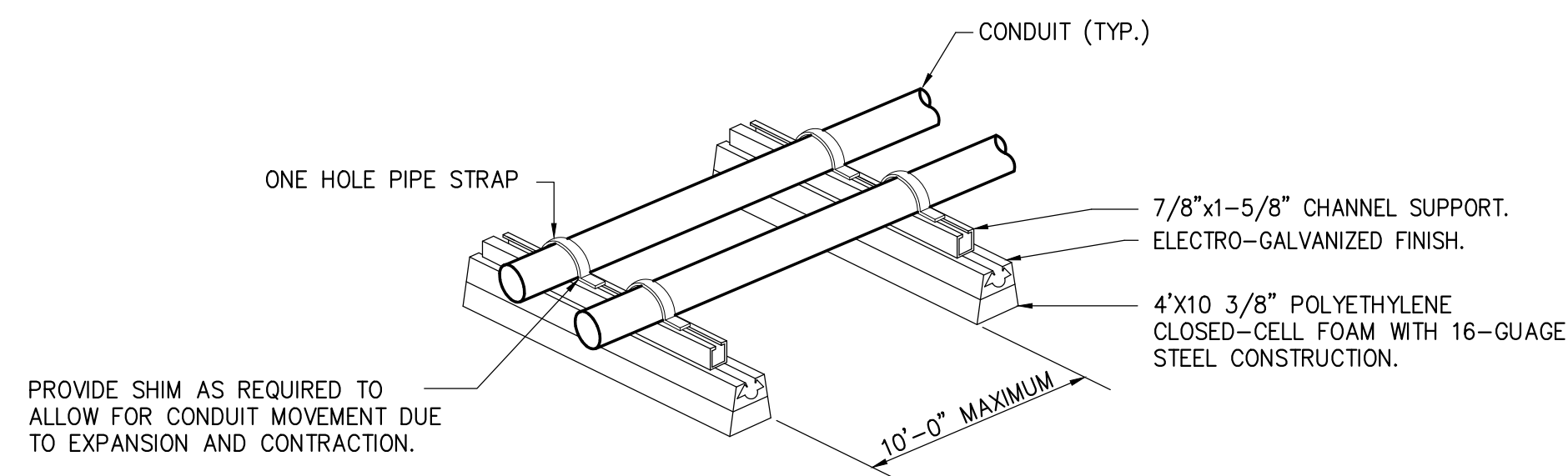
**1 PARTIAL ONE-LINE DIAGRAM – TERMINAL**  
- NOT TO SCALE



**2 PARTIAL ONE-LINE DIAGRAM – ARFF**  
- NOT TO SCALE

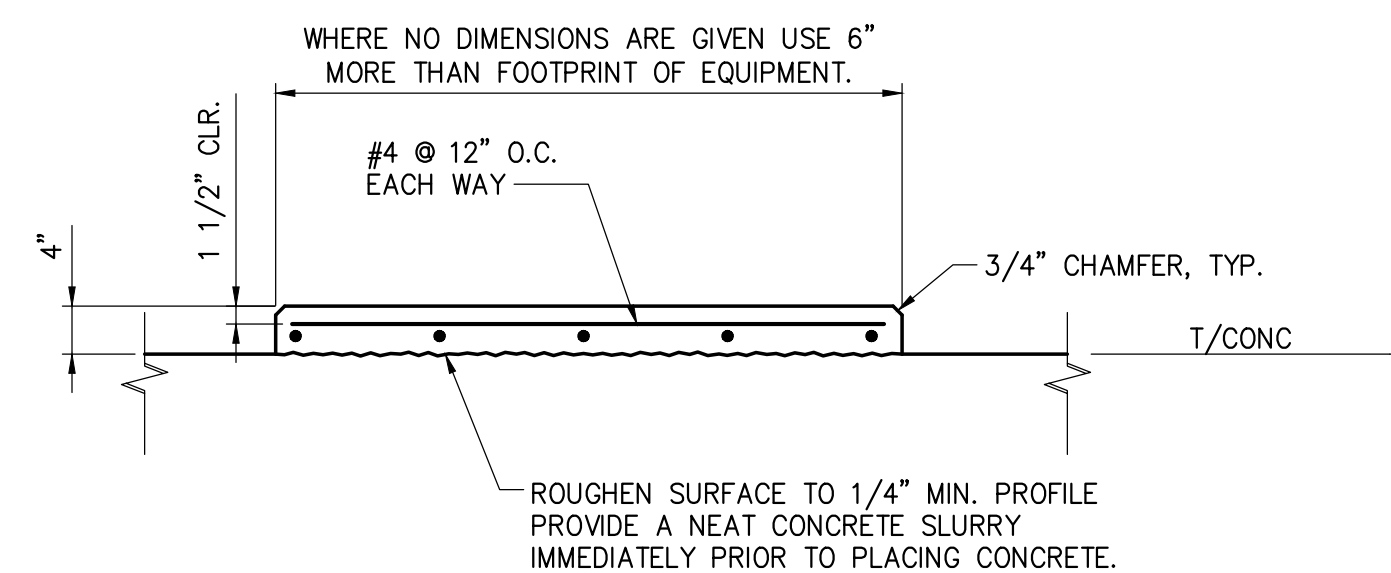


**3 PARTIAL ONE-LINE DIAGRAM – AOC**  
- NOT TO SCALE



NOTE: PROVIDE NUMBER OF CONDUITS AND CONDUCTORS AS SHOWN ON DRAWINGS.

**4 GROUND CONDUIT SUPPORT – DETAIL**  
- NOT TO SCALE



**5 TYPICAL HOUSEKEEPING PAD DETAIL**  
- NOT TO SCALE

File Name: V:\Projects\ANYK\084592\000\09\_DesignDrawings\01\_Sheets\E-601-084592.dwg - E-601-084592  
 Modified / By: April 10, 2024 8:51:44 AM / 5719  
 Plotted / By: April 10, 2024 8:55:43 AM / Leung, Keith

NO	DATE	REVISION	BY	CK	APPR.
	04/10/2024	ISSUED FOR BID	KML	JJD	KML

DESIGNED BY	KML
CHECKED BY	JJD
APPR. BY	JLK
MAX. APPR.	
SCALE	AS SHOWN
GRAPHIC SCALE	

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**McGhee Tyson Airport**  
METROPOLITAN  
KNOXVILLE  
AIRPORT  
AUTHORITY

PROJECT NAME	<b>MCGHEE TYSON AIRPORT GENERATOR DOCKING STATIONS</b>
SHEET TITLE	<b>ELECTRICAL ONE-LINES &amp; DETAILS</b>
SUBMITTAL	ISSUED FOR BID

JOB NO.	84592	DATE	04/09/2024
FILE NAME	E601-084592	REV. NO.	
DWG. NO.	<b>E-601</b>		