

# PROJECT MANUAL

## RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT

BID NO. PUR - 1635

FAA AIP. 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)



### HAGERSTOWN REGIONAL AIRPORT – HAGERSTOWN, MD

*Prepared For:*

**THE BOARD OF COUNTY COMMISSIONERS OF WASHINGTON  
COUNTY  
MARYLAND**

*Prepared By:*



AIRPORT DESIGN CONSULTANTS INC  
6031 UNIVERSITY BLVD SUITE 330  
ELLCOTT CITY, MD 21043

SEPTEMBER 27, 2023

**BID DOCUMENTS**

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**BID NO. PUR-1635  
INVITATION TO BID  
ISSUED ON BEHALF OF  
THE BOARD OF COUNTY COMMISSIONERS  
OF WASHINGTON COUNTY, MARYLAND**

**BY  
THE WASHINGTON COUNTY PURCHASING DEPARTMENT  
100 WEST WASHINGTON STREET, SUITE 3200  
HAGERSTOWN, MD 21740  
PHONE: 240-313-2330 / FAX: 240-313-2331**

**DATE ISSUED: SEPTEMBER 27, 2023**

**HAGERSTOWN REGIONAL AIRPORT  
RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT**

**PRE-BID CONFERENCE/  
TELECONFERENCE DATE/  
TIME AND LOCATION:**

**Wednesday, October 4, 2023, at 1:00 P.M., (EDT/EST)**  
Hagerstown Regional Airport  
ARFF Conference Room  
18434 Showalter Road  
Hagerstown, MD 21742

**DEADLINE FOR QUESTIONS:**

**No later than 4:00 P.M. (EDT/EST), Wednesday, October 11, 2023**

**SUBMIT BIDS TO:**

Washington County Purchasing Department  
Washington County Administration Complex  
100 West Washington Street  
Third Floor, Suite 3200  
Hagerstown, MD 21740

**BID SUBMISSION DEADLINE  
AND BID OPENING TIME:**

**No later than 2:00 P.M., (EDT/EST), Wednesday, October 25, 2023**

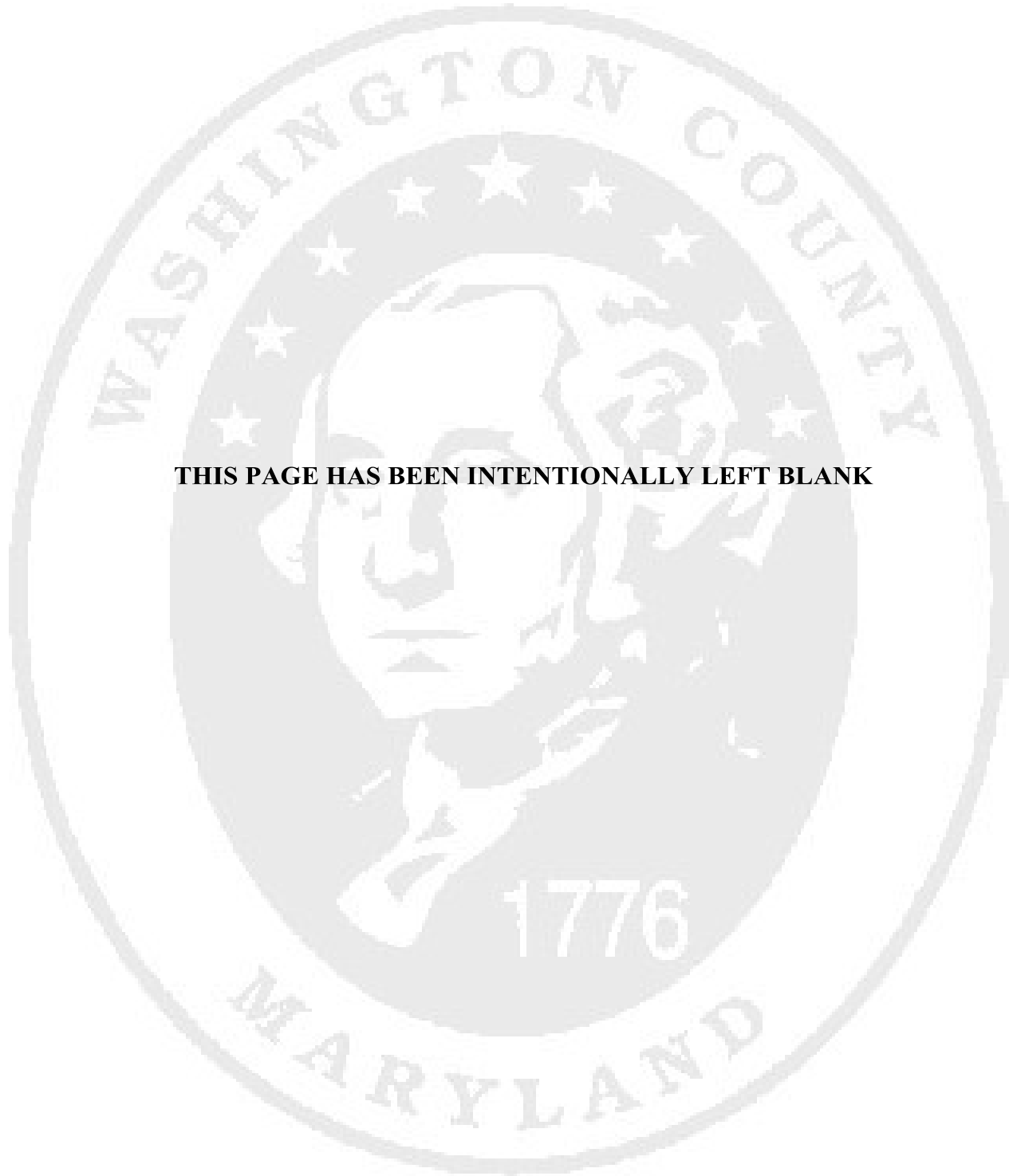
**BID OPENING LOCATION:**

Washington County Administration Complex  
100 West Washington Street  
Third Floor, Suite 3200  
Hagerstown, MD 21740

If indicated below (√) and not waived by the County, Bidders shall be required to provide the following:

- A Bid Bond, in the amount of five (5%) percent of the bid on a bid of \$100,000 or more for construction contracts. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.
- A Performance Bond for a bid award of \$100,000 or more on construction contracts. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.
- A Labor and Material Bond for a bid award of \$100,000 or more on construction contracts. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.

**BID DOCUMENT**



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PURCHASING DEPARTMENT  
DIVISION OF BUDGET & FINANCE

**PUR-1635**  
**RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT**  
**AT**  
**HAGERSTOWN REGIONAL AIRPORT**  
**AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**INVITATION TO BID**

The Board of County Commissioners of Washington County, Maryland will accept sealed bids for “**RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT**” at Hagerstown Regional Airport. The project includes the installation of new high-intensity Light Emitting Diode (LED) fixtures for Runway edge lights on existing base cans, and the installation of new LED airfield guidance signs. Bid documents are available immediately from the Washington County website by accessing: <https://www.washco-md.net/purchasing-department/purch-open-invites/> for assistance you may contact the Washington County Purchasing Department, Washington County Administration Complex, 100 West Washington Street, Third Floor, Suite 3200, Hagerstown, MD 21740. **Direct all inquiries to Brandi Naugle, CPPB, at telephone 240-313-2330 or fax 240-313-2331.**

All bids must be enclosed in a sealed opaque envelope marked “**SEALED BID – RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT AT HAGERSTOWN REGIONAL AIRPORT**” along with the firm’s name and address and be received and time stamped by the Washington County Purchasing Department, Washington County Administration Complex, 100 West Washington Street, Third Floor, Suite 3200, Hagerstown, Maryland, 21740, no later than **2:00 PM (EDT/EST) on Wednesday, October 25, 2023** after which time they will be publicly opened in the Washington County Administration Complex, 100 West Washington Street, Third Floor, Conference Room 3000, Hagerstown, MD 21740. All interested parties are invited to be present. Bidders who wish to participate via teleconference, please call 240-313-2330 prior to the bid opening for further instructions ***Facsimile Bids or any electronic bid submission will not be accepted.***

A Pre-Bid Conference will be held on **Wednesday, October 4, 2023 at 1:00 PM (EDT/EST)** in the Hagerstown Regional Airport, ARFF Conference Room, 18434 Showalter Road, Hagerstown, Maryland. All interested bidders are requested to be present. Attendance is not mandatory but is strongly encouraged. Bidders who wish to participate via teleconference, please call 240-313-2330 prior to this teleconference for further instructions.



**NOTE: All Proposers/Bidders must enter the Washington County Administrative Complex through either the front door at the 100 West Washington Street entrance or through the rear entrance (w/blue canopy roof) which is handicap accessible and must use the elevator to access the Purchasing Department to submit their proposal and/or to attend the Pre-Proposal Conference. Alternate routes are controlled by a door access system. The general public will be subject to wand search and will be required to remove any unauthorized items from the building prior to entry. Prohibited items include but are not limited to: Weapons of any type; Firearms, ammunition and explosive devices; Cutting instruments of any type – including knives, scissors, box cutters, work tools, knitting needles, or anything with a cutting edge, etc.; Pepper spray, mace or any other chemical defense sprays; and Illegal substances.**

Bid Security in the form of a Cashier's Check, Certified Check, or Bid Bond payable to the Board of County Commissioners of Washington County Maryland, in an amount equal to five percent (5%) of the Bid Price, shall be submitted by each bidding Contractor for construction bids of \$100,000 or more. The successful bidder is required to furnish satisfactory Payment and Performance Bonds for the full amount of the Contract. Bids shall be properly and completely executed on bid forms provided with the bid documents in accordance with the "Information for Bidders". All work shall conform to the drawings and specifications. The contractor shall use the Form of Proposal and Schedule of Prices forms from the Bid Documents to submit their pricing.

The Board of County Commissioners does not discriminate on the basis of race, color, national origin, sex, religion, age and disability in employment or the provision of services. Washington County makes positive efforts to utilize Disadvantaged Business Enterprises for its supplies and services and shall allow these sources the maximum feasible opportunity to compete for contracts. The Board of County Commissioners of Washington County, 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. Contractors shall make a good faith effort to obtain Disadvantaged Business Enterprise (DBE) participation of eleven and three hundredths' percent (11.03%) of the dollar value of the Contract in accordance with the Federal Aviation Administration (FAA) DBE Program, 49 CFR 26, and the goals established by the Airport.

The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade, are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals.

The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

The Board of County Commissioners of Washington County, Maryland, reserves the right to accept or reject any or all bids and to waive formalities, informalities and technicalities therein. The Board reserves the right to contact a Bidder for clarifications and may, at its sole discretion, allow a Bidder to correct any and all formalities, informalities and technicalities in the best interest of Washington County.

By Authority of:



Rick Curry, CPPO  
Director of Purchasing

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**RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT  
HAGERSTOWN REGIONAL AIRPORT  
AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**BID NO. PUR-1635  
BID DOCUMENTS  
SEPTEMBER 2023**

**SECTION 1**

**BID DOCUMENTS**

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**BOARD OF COUNTY COMMISSIONERS**  
**OF WASHINGTON COUNTY, MARYLAND**

**GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS**

**INTRODUCTION**

The general rules and conditions which follow, along with all other documents consisting of this “Bid Document,” apply to all purchases and become a definite part of each formal invitation to bid, purchase order, contract, or other award issued by the Washington County’s Director of Purchasing (hereinafter “Director of Purchasing”), unless otherwise specified. Bidders or their authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting bids; failure to do so will be at the Bidder’s own risk and they cannot secure relief on the plea of error. Bidders are advised that all costs related to preparing and/or submitting a Bid or Proposal shall be borne by the Bidder.

Satisfactory evidence of authority to bind the firm by the person signing the Bid when submitted by partnerships or corporations may be requested by the County prior to making any award. Anyone signing a Bid as an agent shall include evidence of his/her authority to do so.

Subject to Maryland State and Washington County, Maryland (hereinafter “County”) laws and all rules, regulations and limitations imposed by legislation of the Federal Government, bids on all advertisements and invitations issued by the Washington County Purchasing Department shall bind bidders to applicable conditions and requirements set forth herein unless otherwise specified in the Invitation to Bid. Should there be a conflict in laws between states, State of Maryland law shall prevail.

*Should there be a conflict between the general bid conditions and the supplemental bid conditions (if any), the supplemental bid conditions shall prevail.*

**GENERAL CONDITIONS OF BIDDING**

1. **Bids Binding for One Hundred and Twenty (120) Days:** Unless otherwise specified all formal bids submitted shall be binding for one hundred and twenty (120) calendar days following bid opening date, unless the bidder, upon request of the Director of Purchasing, agrees to an extension.
2. **Bids for All or Part:** Unless otherwise specified by the County or by the Bidder, the County reserves the right to make award on all items, or on any of the items according to the best interests of the County. Bidder may restrict his/her bid to consideration in the aggregate by so stating but should name a unit price on each item bid upon; any bid in which the bidder names a total price for all the articles without quoting a price on each and every separate item, may be rejected at the option of the County.
3. **Catalogs:** Each Bidder shall submit where necessary or when requested by the Director of Purchasing, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, finishes and the like necessary to fully describe the materials or work they propose to furnish.

4. **Collusive Bidding:** The Bidder certifies that his/her bid is made without any previous understanding, agreement or connection with any person firm, or corporation making a bid for the same project, without unlawful prior knowledge of competitive prices, and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.
5. **Competency of Bidder:** No proposal shall be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default to Washington County upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said County, or had failed to perform faithfully any previous contract with the County. The Bidder, if requested, must present within forty-eight (48) hours evidence satisfactory to the Director of Purchasing of performance ability and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

The successful Bidder shall actively cooperate in all matters pertaining to the proper compliance of this contract and shall come to the office of the Director of Purchasing whenever requested in connection with the performance of this contract.

The successful Bidder shall inform the Director of Purchasing of any and all circumstances which may impede the progress of the work or inhibit the performance of the contract including, but not limited to: bankruptcy, dissolution or liquidation, merger, sale of business, assignment, etc.

The County may examine the Bidder's and any first-tier subcontractor's records to determine and verify compliance with the contract. The Bidder and any first-tier subcontractor must grant the County access to these records at all reasonable times during the contract term and for three (3) years after final payment. If the contract is supported to any extent by Federal or State funds, the appropriate Federal or State authorities may also examine these records. The Bidder must include the preceding language of this paragraph in all first-time subcontracts.

6. **Completeness:** All information required by Invitation to Bid must be supplied to constitute a proper bid. The County shall not be responsible for the premature opening of Bids if not properly addressed or identified.
7. **Conditional Bids:** Qualified bids are subject to rejection in whole or in part.
8. **Confidentiality:** Firms shall give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification why such materials, upon request, should not be disclosed by the County under the Access to Public Records Act, State Government Article, Title 10, Sections 10-611 to 10-628, Annotated Code of Maryland.
9. **Errors in Bids:** When an error is made in extending total prices, the written unit bid price shall govern. In the absence of written prices, the unit bid price shall govern. Carelessness in quoting prices, or in preparation of bid, otherwise, will not relieve the Bidder. *Erasures or changes in bids must be initialed.*

**10. General Guaranty:** Bidder agrees to:

- a. Save the County, its agents and employees harmless from liability of any nature or kind for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented, invention, article or appliance furnished or used in the performance of the contract which the Bidder is not the patentee, assignee, licensee or owner.
- b. Protect the County against latent defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.
- c. Furnish adequate protection against damage to all work and to repair damages of any kind, to the building or equipment, to their own work or to the work of other contractors, for which their worker is responsible due to the negligence in the course and scope of the employment.
- d. Pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the County and State of Maryland.

**11. Illegal Immigrants:**

- a. The Bidder shall comply with the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, the Bidder may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The Bidder shall verify the identity and employment eligibility of anyone employed or to be employed, including completion of the Employment Eligibility Verification Form (I-9). The Bidder shall establish appropriate procedures and controls to ensure that no services under this Contract will be performed by any worker who is not legally eligible to perform such services or for employment.
- b. Failure by the Bidder or his/her Sub-Contractors to comply with the provisions of Section 11.a. herein will be grounds for termination of the Contract.

**12. Insurance:** Liability insurance on all major divisions of coverage for each and every Bidder and subcontractor shall be required for the length of the contract. Bidder and subcontractor must supply evidence of insurance upon request. Each Bidder agrees to assist in every manner possible in the reporting and investigation of any accident, and upon request, agrees to cooperate with all interested insurance carriers in the handling of any claims by securing and giving evidence and obtaining the attendance of witnesses as required for any claim or suit. The Bidder shall be prepared to show evidence of insurance as required under Washington County's *Insurance Requirements for Independent Contractors Policy*, included herein, prior to the execution of any contract. The Bidder, if requested, shall provide the Certificate of Insurance to the Purchasing Department within ten (10) calendar days after receiving a request for it. Failure to provide an acceptable Certificate of Insurance within the time frame stated above shall be cause to terminate the contract(s). The certificate shall state that such insurance is in force and cannot be cancelled or released except upon thirty (30) days prior written notice to the County. If any of the stated coverages expire during the term of this contract, the Bidder shall deliver renewal certificates to the County at least ten (10) calendar days prior to the expiration.



- 13. Interpretations, Discrepancies, Omissions:** Should any Bidder find discrepancies in, or omissions from the documents or be in doubt of their meaning, he/she should at once request, in writing, an interpretation from:

Brandi Naugle, CPPB – Buyer  
Washington County Purchasing Department  
FAX: 240-313-2331 or send questions in Microsoft Word platform via e-mail to: [purchasingquestions@washco-md.net](mailto:purchasingquestions@washco-md.net)

All necessary interpretations will be issued to all Bidders in the form of addenda to the specifications, and such addenda shall become part of the contract documents. Exceptions as taken in no way obligates the County to change the specifications. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his/her bid as submitted. The County shall assume no responsibility for oral instructions or suggestions. ORAL ANSWERS WILL NOT BE BINDING ON THE COUNTY. Requests received after 4:00 P.M. on the date included in the Supplemental Terms and Conditions may not be considered.

- 14. Landfill Tipping Fees:** Disposal of items shall be at an approved sanitary landfill and any fees for same must be included in the Bidder's proposal.
- 15. Late Bids:** Formal bids or amendments thereto received by the County after the time specified for bid opening will not be considered. Bids received after the time specified for bid opening will be returned unopened.
- 16. Mailing of Bids:** The County assumes no responsibility for the timely deliverance of mailed bids. Ample time should be allowed for the transmittal of bids by mail, and postmarks indicating the date of mailing will not be considered as evidence of intent to submit bids in proper time for the opening.
- 17. Maryland Buy American Steel Act:** In accordance with the Annotated Code of Maryland -State Finance and Procurement Article, Sections 17-301 – 17-306, Washington County is defined as a Public Body and as such shall require a Bidder or subcontractor to use or supply only American Steel products in the performance of a contract as stated in the above referenced Sections.
- 18. Multiple Bids:** No Bidder shall be allowed to offer more than one (1) price on each item even though he/she may feel that there are two (2) or more types or styles that will meet specifications. Bidders must determine for themselves which to offer. If said Bidder should submit more than one (1) price on any item, all prices for that item may be rejected at the discretion of the Director of Purchasing.
- 19. Officers Not to Benefit:** No member of the elected governing body of Washington County, or members of his or her immediate family, including spouse, parents, or children, or any person representing, or purporting to represent any member or members of the elected governing body shall receive or be promised directly or indirectly, any financial benefit, by way of fee, political contribution, or any other similar form of remuneration and/or on the account of awarding and/or executing the contract and that upon request of the County, as a prerequisite to payment pursuant

to the terms of this contract, there will be furnished to the requester, under oath, answers to any interrogatories related to a possible conflict of interest as herein embodied. The Bidder, to the best of his/her knowledge, whether he/she be an officer, director, partner or any of its employees directly involved in obtaining contracts with the State, or any County or other subdivision of the State, has not been convicted of bribery or conspiracy to bribe under the laws of any State or Federal Government. Any contract made or entered into where it is discovered that violation of the intent of this provision exists shall be declared null and void and all monies received by the Bidder shall be returned to the County.

20. **Payment Terms:** Bid prices are to be net thirty (30) calendar days; all discounts are to be deducted and reflected in net prices. Term discounts of less than twenty (20) calendar days will not be considered in connection with any prompt payment discount offered, time will be computed from date of receipt of correct invoice or receipt and acceptance of shipment, whichever is later.
21. **Procurement Policy Manual:** This bid is administered according to Washington County's Procurement Policy Manual adopted by the Board of County Commissioners of Washington County, Maryland on June 25, 2013, and effective July 1, 2013. The contents of the aforementioned Manual may be requested from the Washington County Purchasing Department at 240-313-2330 or may be found on the web site at: <https://www.washco-md.net/wp-content/uploads/ProcurementPolicyManual2013FinalDraftrevised3-5-2023.pdf>
22. **Proposal Forms:** Bids shall be submitted only on the forms provided by the County. The Bidder shall submit one (1) original bid on the forms provided with original signature, sealed to the County for that purpose. All bids must be enclosed in a sealed, opaque envelope marked with the title of the bid and be received in the Washington County Purchasing Department promptly on or before, time, date, and place stipulated on the Invitation to Bid. **NO** bids received after such stipulated time and date will be considered by the County. *Facsimile bids or any electronic bids will not be accepted.*
23. **Registration with Maryland Department of Assessments and Taxation:** Prior to contracting, private corporations must either be incorporated in the State of Maryland or registered with the Maryland Department of Assessments and Taxation as a foreign corporation and must be in good standing. Proof of such standing is required prior to the start of the contracting process and good standing shall be maintained for the duration of the contract. The website for the State Department of Assessments and Taxation is: <https://egov.maryland.gov/BusinessExpress/Account/LogOn?ReturnUrl=%2FBusinessExpress%2FUBD%2Fcreate>, and phone numbers are: (410) 767-1340 or (888) 246-5941.
24. **Reservations:** The County or its authorized agent reserves the right to reject any or all bids and to waive any informality or deficiency in bids received whenever such rejection or waiver is in the best interest of the County. The County also reserves the right to reject the bid of a Bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or the Bid of a Bidder who investigation shows is not in a position to perform the contract. The County reserves the right to waive minor differences in specifications provided these differences do not violate the specifications intent nor affect the operation for which the items are being purchased, nor increase estimated maintenance and repair cost to the County. The County reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination as shall, in its judgment, be in the best interest of the County.

- 25. Response to Invitation:** In the event you cannot submit a bid on our requirements, as set forth in the "Invitation to Bid", please return the Bid with an explanation as to why you are unable to bid on these requirements. Because of the large number of firms listed on the County's lists of Bidders, it is necessary to delete from these lists the names of those persons, firms or corporations who fail to respond after having been invited to bid on a commodity or commodities for three (3) successive bid openings.
- 26. Substitutions:** All equipment is to be supplied in exact accordance with the specifications. Any Bidder who contemplates offering a product that differs from that specified must obtain the County's written approval prior to bid opening. Substitution requests must be received in the Purchasing Department no later than the date/time specified in the Supplemental Terms and Conditions. Requests received after the specified date/time will not be considered. All such decisions will be considered final and not subject to further recourse.
- 27. Taxes-Responsibility for Payment, Exemptions, Forms to be Filed, etc.:**
- a. The County is exempt from State of Maryland Sales Tax. The County's Maryland Sales Tax Exemption Number is 3000129 2. However, the Bidder is responsible for making any necessary inquiries and investigations with regulating state agencies to obtain a determination of tax exemptions in his/her bid.
  - b. The Bidder is responsible for and by submitting a Bid agrees to pay all retail sales, income, real estate, sales and use, transportation and special taxes applicable to and assessable against any materials, equipment, processes and operations incident to or involved in the Project. The Bidder is responsible for ascertaining and acquainting his/herself with such taxes and making all necessary arrangements to pay same.
  - c. The Successful Bidder shall complete a W-9 Vendor Information form (provided by the County) and return it to the Director of Purchasing.
  - d. The County hereby reserves the right to withhold payment under this Contract until the Bidder and any subcontractor performing any duties under this Contract have furnished or caused to be furnished to the Comptroller of the State of Maryland with all properly completed forms required by the said Comptroller and until all of said retail sales and/or use taxes due the State of Maryland by the Bidder have been paid and the Bidder exhibits a release or receipt from the Comptroller evidencing such payment.
  - e. The Bidder is hereby advised of Section 1-106(b)(3) of the Code of Public Local Laws of Washington County, MD: "If a bidder has not paid all taxes owed to the County or a municipal corporation in the County, the County Commissioners may reject the bidder's bid."
- 28. Withdrawal of Bids:** A written request for the withdrawal of a bid or any part thereof may be granted if the request is received by the County prior to the specified time of opening.

## BID BONDS

- 1. Bid Deposit - Bid Bond, Certified or Cashier's Check:** Each bid shall be accompanied by a bid bond signed by a surety company licensed to do business in the State of Maryland, or by a cashier's check, certified check or Treasurer's check drawn on a responsible bank doing business in the United States in the amount of five (5%) percent of the total Bid and shall be made payable to the Board of County Commissioners of Washington County, Maryland. When computing the amount of Bid for Check purposes, DO NOT deduct for trade-ins. U.S. Postal Money Orders are acceptable in lieu of checks.
- 2. Performance/Labor and Material Bonds:** The successful Bidder(s) on this bid must furnish the required bonds as indicated at the beginning of the Specifications, made out to the Board of County Commissioners of Washington County, Maryland, prepared on forms contained herein, or in his/her absence, on an approved form, as security for the faithful performance of his/her contract, within fifteen (15) calendar days of his/her notification that his/her bid has been accepted. The surety thereon must be such surety company or companies as are authorized and licensed to transact business in the State of Maryland. Attorneys in fact who sign bonds must file with each bond a certified copy of his/her power of attorney to sign bonds. The successful Bidder or Bidders upon failure or refusal to furnish within fifteen (15) calendar days after his/her notification the required bonds shall forfeit to the County, as liquidated damages his/her bid deposit. The Performance Bond shall be in the amount of one hundred (100%) percent of the contract price covering faithful performance of the contract; and the Labor and Materials Payment Bond shall be in the amount of one hundred (100%) percent of the contract price as security for payment of all persons performing labor and furnishing materials in connection therewith.

## SPECIFICATIONS REFERENCES

- 1. Formal Specifications:** The Bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission but shall fully complete every part as the true intent and meaning of the specifications and drawings. Whenever mention is made herein, of any article, material, or workmanship to be in accordance with laws, ordinances, building codes, underwriter's codes, A.S.T.M. regulations or similar expressions, the requirements of these laws, ordinances, etc., shall be construed to meet or exceed specification requirements and current established noise levels for specific equipment, materials, and/or services being furnished under this contract.
- 2. Samples:** The Purchasing Department reserves the right to retain or destroy the samples submitted for the purpose of evaluation and will be free from any redress or claim on the part of the Bidder if any samples are lost or destroyed. Bidders shall make all arrangements for delivery of samples to the place designated, as well as the removal of samples. Cost of delivery and removal of samples shall be borne by the Bidder. Upon notification by the Purchasing Department that a sample is available for pickup, it shall be removed within thirty (30) calendar days at the Bidder's expense or the Director of Purchasing shall dispose of same at his/her discretion. All sample packages shall be marked "Sample for Purchasing Department" and each sample shall bear the name of the Bidder, item number, bid number, and shall be carefully tagged or marked in a substantial manner. Failure of the Bidder to clearly identify samples as indicated may be considered sufficient reason for rejection of bid.

3. **Trade Names/Substitutions:** In cases where an item is identified by a manufacturer's name, trade name, catalog number, or reference it is understood that the Bidder proposes to furnish the item so identified and does not propose to furnish an "equal/substitution" unless submission of an "equal/substitution" is stated otherwise as permissible. Any Bidder who contemplates offering a product that differs from that specified must obtain the County's written approval by submission of his/her request no later than the deadline for receipt of substitution requests as stated in the Supplemental Terms and Conditions. The reference to the above catalog is intended to be descriptive but not restrictive and only to indicate to the prospective Bidder articles that will be satisfactory. Bids on makes and catalogs will be considered, provided each Bidder clearly states on the face of his/her proposal exactly what he/she proposes to furnish, and forwards with his/her bid, a cut, illustration, or other descriptive matter which will clearly indicate the character of the article covered by his/her bid. The Director of Purchasing hereby reserves the right to approve as an equal, or to reject as not being an equal, any article the Bidder proposes to furnish which contains major or minor variations from specification requirements but may comply substantially therewith. If no particular brand, model, or make is specified, and if no data are required to be submitted with the bid, and after award and before manufacture or shipment, the successful Bidder may be required to submit working drawings or detailed descriptive data sufficient to enable the Director of Purchasing to judge if each requirement of the specifications is being complied with.

## AWARD

1. **Award or Rejection of Bids:** For contracts of purchase, the contract shall be awarded to the lowest, responsive and responsible Bidder complying with all the provisions of the Invitation, provided the bid price is reasonable and it is to the best interest of the County to accept it. For contracts of sale, the contract shall be awarded to the highest, responsive and responsible Bidder complying with all the provisions of the Invitation, provided the bid price is to the best interest of the County to accept it.
2. **Notice of Award:** A written award (or Acceptance of Bid) mailed (or otherwise furnished) to the successful Bidder within the time for acceptance as specified herein shall be deemed to result in a binding contract without further action by either party. The bid with respect to all items accepted and all papers accompanying the same, the general conditions and instructions to Bidders, the specifications, and other papers and documents referred to in any of the foregoing shall constitute the formal contract, unless otherwise specified, between the Bidder and the County.
3. **Political Contribution Disclosure:** In accordance with Maryland Code, State Finance and Procurement Article, §17-402, the Bidder shall comply with Maryland Code, Election Law Article, Title 14, which requires that every person that enters into contracts, leases, or other agreements with the State, a county, or any incorporated municipality, or their agencies during a calendar year in which the person receives in the aggregate \$100,000 or more, shall file with the State Administrative Board of Election Laws a statement disclosing contributions in excess of \$500 made during the reporting period to a candidate for elective office in any primary or general election. The statement shall be filed with the State Administrative Board of Election Laws: (1) before a purchase or execution of a lease or contract by the State, a county, an incorporated municipality or their agencies, and shall cover the preceding two (2) calendar years; and (2) if the contribution is made after the execution of a lease or contract, then twice a year, throughout the

contract term, on: (a) February 5, to cover the 6-month period ending January 31; and (b) August 5, to cover the 6-month period ending July 31.

4. **“Requirements” Contract Bid Quantities:** On “Requirements” bids, acceptance shall bind the County to pay for, at unit bid prices, only quantities ordered and satisfactorily delivered. All stated quantities are estimated requirements and do not constitute a minimum or maximum.
  
5. **Responsibility/Qualifications of Bidder:** The County may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the County all such information and data for this purpose as the County may request. The County reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the County that such Bidder is properly qualified to carry out the obligation of the contract and to complete the work contemplated therein. Conditional bids will not be accepted. In determining responsibility, the following qualifications, in addition to price, shall be considered by the Director of Purchasing on contracts of purchase and on contracts of sale (if applicable):
  - a. The ability, capacity and skill of the Bidder to perform the service required.
  - b. The character, integrity, reputation, judgment, experience and efficiency of the Bidder.
  - c. The quality of performance of previous contracts or services.
  - d. The Bidder’s previous and present compliance with laws and ordinances relating to the contract or service.
  - e. The sufficiency of the financial resources and ability of the Bidder to perform the contract or provide the service.
  - f. The quality, availability and adaptability of the supplies, or services, to the particular use required.
  - g. The ability of the Bidder to provide future maintenance and service for the use of the subject of the contract.
  - h. Whether the Bidder is in arrears to the County on a debt or contract or is a defaulter on surety to the County.
  - i. Such other information as may be secured having a bearing on the decision to make the award.

In determining a Bidder’s responsiveness, the Director of Purchasing shall consider material deviations from the advertised specifications which materially affect price, quantity, quality or limit the Bidder’s liability.

6. **Specific Bid Quantities:** Where quantities are specifically stated, acceptance will bind the County to order quantities specified and to pay for, at contract prices, all such supplies or services delivered that meet specifications and conditions of the contract. However, the County will not be required to accept delivery of any balances unordered, as of the contract expiration date, unless Bidder furnishes the Director of Purchasing with a statement of unordered balances not later than ten (10) calendar days after the termination date of the contract.

7. **Tie Bids:** If two (2) or more Bidders shall be tied for the lowest bid on a purchase contract, quality and service being equal, the contract shall be awarded to a local Bidder. If there is no local Bidder, or more than one local Bidder, the County shall award the contract to one (1) of the Bidders by drawing lots in public.

### CONTRACT PROVISIONS

1. **Availability of Funds:** A contract shall be deemed executory only to the extent of appropriations available to each County department/agency for the purchase of such articles. The County's extended obligation on those contracts that envision extended funding through successive fiscal periods shall be contingent upon actual appropriations for the succeeding fiscal year.
2. **Contract Alterations:** No alterations or variables in the terms of a contract shall be valid or binding upon the County unless made in writing and signed by the County or its authorized agent.
3. **Default:** The contract may be cancelled or annulled by the County in whole or in part by written notice of default to the Bidder upon non-performance or violation of contract terms. An award may be made to the next low Bidder, or, articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting Bidder (or their surety) shall be liable to the County for costs to the County in excess of the defaulted contract prices: Provided, that the Bidder shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the Bidder to deliver materials or services within the time stipulated on his/her bid, unless extended in writing by the Director of Purchasing, shall constitute contract default. In the event that a Bidder exempted from posting a Bid or Performance Guarantee fails to execute and perform any contract awarded to them, they shall forfeit the right to Bid on any future County contract for a period of time determined by the Director of Purchasing and they shall be liable for any costs incurred by the County as a result of his/her default.
4. **Guarantee:** All work, supplies, and/or materials and requirements described in the specifications including any modifications thereto which may be made in accordance with the direction and/or approval of the County Director of Purchasing shall be Guaranteed/Warranted for a period of one (1) year from the date of final acceptance by the County as follows, unless indicated otherwise in this contract:
  - a. Against all faulty or imperfect materials and/or equipment and against all imperfect, careless and/or unskilled workmanship.
  - b. Against injury or undue deterioration from proper and usual use of the goods and/or services.
  - c. Removal and replacement with proper materials, equipment, and/or services and re-execute, correct or repair without cost to the County, any materials, equipment, and/or services found to be improper, imperfect, defective or fails to perform as specified.
  - d. Make good all damage caused to other work, materials and/or equipment due to such required removal, replacement and/or re-execution.
  - e. Shall comply with any and all guarantee/warranties of whatever nature referred to in other portions of the contract specifications.

Any warranties whether expressed or implied shall not reduce the risk of the seller's/ manufacturer's obligation to the County against latent defect which may be found during the rated life of the supplies and/or materials and requirements described in the specifications including any approved modifications.

5. **Intergovernmental Purchasing:** The following Agencies/Jurisdictions shall be able to purchase, if applicable, directly from contracts resulting from this Invitation to Bid (ITB): Washington County Board of Education and all of its public schools, Hagerstown Community College, Municipalities of Washington County, and public or quasi-public agencies that receive County money and are exempt from taxation under Section 501(c)(3) of the Internal Revenue Code, i.e., Washington County Volunteer Fire and Rescue Companies. While this ITB is prepared on behalf of the County, it is intended to apply for the benefit of the above-named agencies/jurisdictions as though they were expressly named throughout the document. Each of these agencies/ jurisdictions may purchase from the successful Bidder under the same terms and conditions of the contract with the County, in accordance with each agencies/jurisdiction respective laws and regulations, or an agency may choose not to procure from the successful Bidder at the agency's sole discretion. If one of the above-named agencies/jurisdictions elects to purchase under the contract, the price shall be determined by using unit costs and other pertinent costs provided in the offer. Any special discounts unique to a particular agency/jurisdiction shall be stated. Bidder shall also submit the attached "Provisions for Other Agencies" form, if included in this bid.
6. **New Goods, Fresh Stock:** All contracts, unless otherwise specifically stated, shall produce new commodities, fresh stock, latest model, design or pack.
7. **Non-Discrimination:** No Bidder who is the recipient of County funds or who proposes to perform any work or furnish any goods under this agreement shall discriminate against any worker, employee or applicant or any member of the public because of religion, race, sex, color or national origin, age, marital status, physical or mental handicap, nor otherwise commit an unfair employment practice. Bidder further agrees that this article will be incorporated by Bidder in all contracts entered into with suppliers of materials or services, Bidders and subcontractors and all labor organizations, furnishing skilled, unskilled and craft union skilled labor, or who may perform any such labor or services in connection with this contract.
8. **Non-Liability:** The Bidder shall not be liable in damages for delay in shipment or failure to deliver when such delay or failure is the result of fire, flood, strike, act of God, act of government, act of an alien enemy or by any other circumstances which, in the Director of Purchasing's opinion, is beyond the control of the Bidder. Under the circumstances, however, the County may in its discretion, cancel the contract.
9. **Placing of Orders:** Orders against contracts shall be placed with the Bidder on a Purchase Order executed and released by the Director of Purchasing.
10. **Subletting of Contract:** It is mutually understood and agreed that the Bidder shall not assign, transfer, convey, sublet, or otherwise dispose of their contract or their rights, title or interest therein, or their power to execute such contract, to any other person, firm or corporation, without



the previous written consent of the County Director of Purchasing, but in no case shall such consent relieve the Bidder from his/her obligations, or change the terms of the contract.

11. **Termination of Contracts:** Contracts shall remain in force for full periods specified and until all articles ordered before date of termination shall have been satisfactorily delivered and accepted and thereafter until all requirements and conditions shall have been met, unless:
  - a. Terminated prior to expiration date by satisfactory deliveries of entire contract requirements.
  - b. Extended upon written authorization of the Director of Purchasing and accepted by Bidder, to permit ordering of unordered balances or additional quantities at contract prices and in accordance with contract terms.
12. **Termination for Convenience:** The performance of work under this Contract may be terminated by the County in accordance with this clause in whole, or from time to time in part, whenever the County shall determine that such termination is in the best interest of the County. The County shall pay all reasonable expenses associated with this Contract that the Contractor has incurred up to the date of termination, and all reasonable expenses associated with termination of the Contract; provided, however, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned up to the date of termination.

### **DELIVERY PROVISIONS**

1. **Delivery:** Delivery shall be required to the place designated in the specifications or on the proposal form. All prices must be FOB Destination, Inside Delivery. The weight, count, measure, etc. shall be determined at the points of delivery. The Bidder shall be required to furnish proof of delivery in every instance. Bulk materials are to be placed on skids or pallets. No help for unloading shall be provided by the County. Suppliers shall notify their shippers accordingly.
2. **Delivery Failures:** Failure of a Bidder to deliver within the time specified, or within a reasonable time as interpreted by the Director of Purchasing or failure to make replacements of rejected articles when so requested, immediately or as directed by the Director of Purchasing shall constitute authority for the Director of Purchasing to purchase in the open market articles of comparable grade to replace the articles rejected or not delivered. On all such purchases, the Bidder shall reimburse the County, within a reasonable time specified by the Director of Purchasing, for any expense incurred in excess of contract prices or the County may deduct such amount from monies owed the defaulting Bidder. Such purchases shall be deducted from contract quantities.
3. **Inspections:** Inspection and acceptance of materials or supplies shall be made after delivery. Final inspection shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud. Final inspection and acceptance or rejection of the materials or supplies shall be made as promptly as practicable, but failure to inspect and accept or reject materials or supplies shall not impose liability on the County for such materials or supplies as are not in accordance with the specifications. All delivered materials shall be accepted subject to inspection and physical count.

4. **Hazardous Safety Data Sheets:** Any hazardous substances as defined under the Department of Labor Occupational Safety and Health Standard for General Industry (29-CFR-1910.1200) and State of Maryland Law and Regulations on "Access to Information About Hazardous and Toxic Substances", MDSH Article 89, Section 28-49-D, being delivered to Washington County as a result of this Invitation to Bid shall be accompanied by a current "Hazardous Data Safety Sheet" or item may not be accepted.
  
5. **Packing Slips or Delivery Tickets:** All shipments or deliveries shall be accompanied by Packing Slips or Delivery Tickets and shall contain the following information for each item delivered. Bidders are cautioned that failure to comply with these conditions shall be considered sufficient reason for refusal to accept the goods.
  - The Purchase Order Number
  - The Name of the Article and Stock Number (Supplier's)
  - The Quantity Ordered
  - The Quantity Back Ordered
  - The Name of the Contractor
  
6. **Responsibility for Materials Shipped:** The Bidder shall be responsible for the materials or supplies covered by this contract until they are delivered at the designated point and the Bidder shall bear all risk on rejected materials or supplies after notice of rejection. Rejected materials or supplies must be removed by and at the expense of the Bidder promptly after notification of rejection, unless public health and safety require immediate destruction or other disposal of rejected delivery. Upon failure of the Bidder to remove materials or supplies within ten (10) calendar days after date of notification, the County may return the rejected materials or supplies to the Bidder at the Bidder's risk and expense or dispose of them as its own property.
  
7. **Testing:** The cost of testing a representative sample of an order or shipment for acceptance shall be borne by the County. However, if the order and shipment is rejected for failure to meet the requirements of the specifications or purchase description, the cost of testing shall be charged to the Bidder.
  
8. **Time of Delivery:** Deliveries shall be accepted between 8:00 A.M. and 3:00 P.M. on weekdays only, unless stated otherwise in the bid document. No deliveries shall be accepted on Saturdays, Sundays or County Holidays, unless otherwise arranged by an individual Department/Agency

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## SUPPLEMENTAL TERMS AND CONDITIONS

1. **Access to Site:** The successful Bidder shall coordinate all efforts of the work and access to the site with the County's authorized representative, Mr. Neil Doran, Director, Hagerstown Regional Airport, 240-313-2764.
2. **Award:** It is anticipated that the County shall award a contract to the responsive, responsible low Bidder for the Runway 9-27 Edge Lightning & Signage Replacement – Hagerstown Regional Airport.
3. **Bidders Responsibility:** Each Bidder submitting a proposal for this work shall first examine the site, verify any dimensions pertinent to the work, and thoroughly be satisfied to the conditions under which he/she will operate or that shall in any manner affect any work under this Contract. The Bidder shall accept the site as he/she finds it. All proposals shall take into consideration all conditions that may affect the work. No allowance shall be made to any Bidder for negligence in this respect.
4. **Disputes:** In cases of disputes as to whether or not an item or service quoted or delivered meets specifications, the decision of the County Commissioners or authorized representative shall be final and binding on both parties. The County's Director of Purchasing may request in writing, the recommendation of the head of the County agency using the item or materials, or other objective sources.
5. **Examination of Site:** The County will provide a tour of the site, concluding the Pre-Bid Conference, for the purpose of making a visual survey. Before submitting a bid, each Bidder shall visit the site and shall be responsible for knowledge of the conditions affecting the work. The act of submitting a bid is to be considered acknowledgement of the Bidder that he/she has inspected the site and is familiar with the conditions and requirements and shall submit his/her bid accordingly.
6. **Exceptions:** The submission of a bid shall be considered an agreement to all the items, conditions, and specifications provided herein and in the various bid documents unless specifically noted otherwise in the proposal.
7. **Form of Proposal:** All bids must be submitted on the forms provided herein.
8. **Installation:** Asphalt and concrete pavement demolition and removal, airfield lighting demolition and removal, new asphalt paving, new airfield lighting and signage, drainage, backfill, erosion and sediment control, topsoiling, seeding, sodding, mulching.
9. **Insurance:** Upon request and prior to execution of the contract, the successful Contractor shall show Evidence of Insurance as outlined in the attached copy of *Insurance Requirements for Independent Contractors*. Contractor's general liability and automobile liability shall be \$5,000,000 for all airfield work.

10. **Interpretations, Discrepancies, and Omissions:** Should any Bidder find discrepancies in or omissions for the documents or be in doubt of their meaning, he/she should at once request, in writing, an interpretation from:

Brandi Naugle, CPPB – Buyer  
Washington County Purchasing Department  
FAX: 240-313-2331; or send questions in Microsoft Word platform via-  
email to: [purchasingquestions@washco-md.net](mailto:purchasingquestions@washco-md.net)

All necessary interpretations will be issued to all Bidders in the form of addenda to the specifications, and such addenda shall become part of the contract documents. Exceptions as taken in no way obligate the County to change the specifications. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his/her bid as submitted. The County shall assume no responsibility for oral instructions or suggestions. **ORAL ANSWERS WILL NOT BE BINDING ON THE COUNTY.** Requests received after 4:00 P.M. (EDT/EST), Wednesday, October 11, 2023 may not be considered.

11. **Landfill Fees:** Disposal of items shall be at an approved landfill and any fees for same shall be included in the Bidders proposal.
12. **Liquidated Damages:** Liquidated damages shall be applied at the rate of twenty-five hundred (\$2,500.00) dollars per consecutive calendar day for each day the Contractor fails to complete the work as specified herein. This cost includes the 8-hour presence of a Construction Inspector and Engineering support for each additional day. Additional liquidated damages associated with delayed runway opening is listed on the contract drawings.
13. **Proposal:** This is a unit price contract. The Base Bid and consideration in a priority order the Alternates for the work shall include the cost of any and all permits licenses and/or fees, the cost of all applicable seals and other taxes required by Local, State and Federal laws, the cost of required bonds and insurances, the cost of all material, labor, tools, equipment, transportation, landfill user fees, superintending and other services and facilities of every nature whatsoever or as may be necessary to complete the project as described in the specifications.
14. **Payment:** Progress payments will be based on the actual quantities of work completed and approved by the County's Representative. Final payment will be made after final inspection, approval and acceptance of the work by the County's Representative. Upon final acceptance of the work, the invoice for remainder of payment shall be submitted to the Hagerstown Regional Airport, 18434 Showalter Road, Hagerstown, Maryland 21742. Payment will be made within thirty (30) calendar days upon receipt of the invoice, in the amount stipulated on the Form of Proposal.
15. **Qualification:** The County may make such investigations as deemed necessary to determine the ability of the Bidder to perform the work, and the Bidders shall furnish to the County all such information and data for this purpose as the County may request. The County reserves the right to reject any bid if the evidence submitted by or investigation of, such Bidder fails to satisfy the County that such Bidder is properly qualified to carry out the obligation of the Contract and to complete the work contemplated therein. Conditional bids will not be accepted.

16. **Responsibility of Contractor:** Each Bidder submitting a bid for this work shall first examine the site(s) and thoroughly satisfy himself/herself to the conditions under which he/she shall operate or that shall in any manner affect any work under his contract. The Contractor shall accept the site(s) as he/she finds it. All proposals shall take into consideration all conditions that may affect the work. No allowance shall be made to any Contractor for negligence in this respect. Prior to contracting, private corporations must either be incorporated in the State of Maryland or registered with the Maryland Department of Assessments and Taxation as a foreign corporation and must be in good standing. Proof of such standing is required prior to the start of the contracting process and shall remain so throughout this contract. The website for the State Department of Assessments and Taxation is: <http://dat.maryland.gov/Pages/sdatforms.aspx#BNE> the phone numbers for the State Department of Assessments and taxation are: **(410) 767-1340** or **(888) 246-5941**.
17. **Time of Completion:** By submission of proposal, the Bidder agrees to commence work under this Contract upon receipt of the Notice to Proceed (issuance of Purchase Order), prosecute the work diligently, and **substantially complete ready for its intended use within seventy-five (75) consecutive calendar days from the date of “Notice to Proceed”/issuance of purchase order**. The time stated for completion shall include material procurement, coordination, and completion of all work per the contract drawings and specifications. The successful Bidder shall schedule construction times with Mr. Neil Doran, Director, Hagerstown Regional Airport, 240-313-2764 and/or Mr. Mahesh Kukata, PE, Project Manager, Airport Design Consultants, Inc, 410-300-6379.
18. **Working Hours:** See Construction Safety & Phasing Plans for individual phase work hours.
19. **Project Schedule:** The Contractor shall adhere to the project schedule outlined below:

**Pre-Bid: Wednesday, October 4, 2023 at 1:00 PM (EDT/EST)**  
**Questions: Wednesday October 11, 2023 at 4:00 PM (EDT/EST)**  
**Bids: Wednesday, October 25, 2023 at 2:00 PM (EDT/EST)**

**Construction schedule to be determined based on FAA grant issuance**

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## **HAGERSTOWN REGIONAL AIRPORT**

### **DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM**

In accordance with Federal Regulations (49 CFR Part 23) and Department of Transportation guidelines, it is the policy of The Board of County Commissioners of Washington County, Maryland and the Hagerstown Regional Airport to utilize Disadvantaged Business Enterprises (DBE) in all aspects of contracting.

The percentage of dollar awards on each Airport Improvement Program or Planning Grant Program project has been established at eleven and three hundredths' percent (11.03%).

It is the position of The Board of County Commissioners of Washington County, Maryland and Hagerstown Regional Airport that DBE's be afforded the opportunity to actively participate in the economic mainstream of architectural, engineering, construction, and other service activities involving the use of Federal funds. The participation goal is a percentage of the dollar amount of each grant based on a project-to-project basis.

Selection will be based on the determination of whether or not the competitor offering the lowest responsible price has also met the established DBE goals, unless said bidder submits, in writing, an acceptable explanation as to why the DBE involvement is at a lower percentage or absent entirely from the project bid. This written explanation must show that the Contractor has made every effort to identify and solicit DBE involvement.

A DBE directory is available from Mr. Neil Doran, Airport Director at Hagerstown Regional Airport and will be provided to all bidders and proposers upon request.



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**POLICY TITLE:** Insurance Requirements for Independent Contractors

**ADOPTION DATE:** August 29, 1989

**EFFECTIVE DATE:** September 1, 1989

**FILING INSTRUCTIONS:** \_\_\_\_\_

**I. PURPOSE**

To protect Washington County, Maryland against liability, loss or expense due to damaged property, injury to or death of any person or persons and for care and loss of services arising in any way, out of, or in connection with or resulting from the work or service performed on behalf of Washington County, Maryland.

**II. ACTION**

The following should be inserted in all Independent Contractor Contracts:

“The Contractor shall procure and maintain at his sole expense and until final acceptance of the work by the County, insurance as hereinafter enumerated in policies written by insurance companies admitted in the State of Maryland, have A.M. Best rating of A- or better or its equivalent, and acceptable to the County.”

- 1. Workers Compensation:** The Contractor agrees to comply with Workers Compensation laws of the State of Maryland and to maintain a Workers Compensation and Employers Liability Policy.

Minimum Limits Required:

Workers Compensation -	Statutory
Employers' Liability -	\$100,000 (Each Accident)
	\$500,000 (Disease - Policy Limit)
	\$100,000 (Disease - Each Employee)

- 2. Comprehensive General Liability Insurance:** The Contractor shall provide Comprehensive General Liability including Products and Completed Operations.

Minimum Limits Required:

Five Million Dollars (\$5,000,000) combined single limit for Bodily Injury and Property Damage.

Such insurance shall protect the County, its agents, elected and appointed officials, commission members and employees, and name the Board of County Commissioners of Washington County, Maryland on the policy as additional insured against liability, loss or expense due to damaged property (including loss of use), injury to or death of any person

or persons and for care and loss of services arising in any way, out of, or in connection with or resulting from the work of service performed on behalf of Washington County, Maryland.

The Contractor is ultimately responsible that Subcontractors, if subcontracting is authorized, procure and maintain at their sole expense and until final acceptance of the work by the County, insurance as hereinafter enumerated in policies written by insurance companies admitted in the State of Maryland, have A.M. Best rating of A- or better or its equivalent, and acceptable to the County.

2. **Business Automobile Liability:** The Contractor shall provide Business Auto Liability including coverage for all leased, owned, non-owned and hired vehicles.

Minimum Limits Required:

One Million Dollars (\$1,000,000) combined single limit for Bodily Injury or Property Damage.

**Certificate(s) of Insurance:** The Contractor shall provide certificates of insurance requiring a 30-day notice of cancellation to the Purchasing Department, Board of County Commissioners of Washington County, Maryland prior to the start of the applicable project.

Approval of the insurance by the County shall not in any way relieve or decrease the liability of the Contractor. It is expressly understood that the County does not in any way represent that the specified limits of liability or coverage or policy forms are sufficient or adequate to protect the interest or liabilities of the Contractor.

All responsibility for payment of any sums resulting from any deductible provisions, corridor, or self-insured retention conditions of the policy or policies shall remain with the Contractor.

**General Indemnity:** The Contractor shall indemnify, defend and save harmless the Board of County Commissioners of Washington County, Maryland, its appointed or elected officials, commission members, employees and agents for any and all suits, legal actions, administrative proceedings, claims, demands, damages, liabilities, interest, attorneys fees, costs and expenses of whatsoever kind of nature, whether arising before or after final acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part by reason of any act, error or omission, fault or negligence whether active or passive by the Contractor, or any one acting under its direction, control or on its behalf in connection with or incident to its performance of the Contract.

Revision Date: August 27, 1991  
Effective Date: August 27, 1991  
Revision Date: March 4, 1997  
Effective Date: March 4, 1997

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## **WAGE RATES**

"General Decision Number: MD20230104 01/06/2023

Superseded General Decision Number: MD20220104

State: Maryland

Construction Type: Highway

County: Washington County in Maryland.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

<p>If the contract is entered into on or after January 30, 2022, or the contract is Renewed or extended (e.g., an Option is exercised) on or after January 30, 2022:</p>	<p>Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.</p>
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or Extended on or after January 30, 2022:</p>	<p>Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.</p>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker Protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date		
0	01/06/2023		
SUMD2019-022 09/04/2019			
		Rates	Fringes
CARPENTER		\$19.26	6.53
CEMENT MASON		\$19.88	6.53
ELECTRICIAN		\$32.90	17.64
IRONWORKER, REINFORCING		\$32.60	18.93
LABORER			
Air Tool Operator		\$21.37	13.17
Asphalt Paver		\$21.37	13.17
Asphalt Raker		\$ 16.33	6.53
Blaster-Dynamite		\$ 21.37	13.17
Burner		\$21.37	13.17
Common		\$16.33	6.53
Concrete Puddler		\$16.33	6.53
Concrete Surfacers		\$21.37	13.17
Concrete Tender		\$16.33	6.53
Concrete Vibrator		\$16.33	6.53
Density Gauge		\$16.33	6.53
Fireproofers-Mixer		\$16.33	6.53
Flagger		\$16.33	6.53
Grade Checker		\$16.33	6.53
Hand Roller		\$16.33	6.53
Hazardous Material Handler		\$21.37	13.17
Jackhammer		\$16.33	6.53
Landscaping		\$16.33	6.53
Layout		\$16.33	6.53
Luteman		\$16.33	6.53
Mason Tender		\$21.37	13.17
Mortar Mixer		\$16.33	6.53
Pipelayer		\$21.37	13.17
Plasterer-Handler		\$16.33	6.53
Scaffold Builder		\$21.37	13.17
Tamper		\$16.33	6.53
MILLWRIGHT		\$30.92	17.50
PAINTER: Bridge		\$34.23	11.89
PLUMBER		\$32.18	14.18
POWER EQUIPMENT OPERATOR			
Asphalt Distributor		\$32.77	13.95
Backhoe		\$32.22	13.95
Broom/Sweeper		\$20.11	6.53
Bulldozer		\$22.89	6.53
Crane		\$33.37	13.95+a
Drill Rig		\$21.65	6.53
Excavator		\$24.61	6.53
Forklift		\$32.22	13.95
Grader		\$32.22	13.95+a
Loader		\$32.22	13.95
Mechanic		\$31.52	6.53

Milling Machine	\$19.39	6.53
Paver	\$21.12	6.53
Rock/Stump Tub Grinder	\$32.22	13.95
Roller – Asphalt	\$20.54	6.53
Roller – Earth	\$19.34	6.53
Screed	\$21.57	6.53
Skid Steer (Bobcat)	\$32.22	13.95
Trencher	\$39.50	12.13
STEAMFITTER/PIPEFITTER	\$32.18	14.18
TRUCK DRIVER		
Dump	\$18.38	6.53
Dump-Articulating	\$18.76	6.53
Flatbed	\$20.54	6.53
Lowboy	\$22.10	4.35
Tack/Tar Truck	\$20.54	6.53
Tractor Trailer	\$20.65	6.53
Water	\$19.17	6.53

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.

b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).



### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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### WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
  - \* an existing published wagger determination
  - \* a survey underlying a wage determination
  - \* a Wage and Hour Division letter setting forth a position on a wage determination matter
  - \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO”

### SIGNATURE TO BIDS

**NOTE: Bidders shall use this page as a cover page when submitting his/her bid.**

Each bid must show the full business address and telephone number of the Bidder and be signed by the person legally authorized to sign contracts. All correspondence concerning the bid and contract, including notice of award, copy of contract and purchase order, will be mailed or delivered to the address shown on the bid in the absence of written instructions from the Bidder to the contrary. Bids by partnerships must be signed in the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing, who shall also state the names of the individuals composing the partnership. Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the officer having authority to sign. When requested, satisfactory evidence of authority of the officer signing in behalf of the corporation shall be furnished. Anyone signing the bid as agent shall file satisfactory evidence of his/her authority to do so.

All documents, materials, or data developed as a result of this contract are the County's property. The County has the right to use and reproduce any documents, materials, and data, including confidential information, used in or developed as a result of this contract. The County may use this information for its own purposes or use it for reporting to Federal agencies. The Bidder warrants that it has title to or right of use of all documents, materials, or data used or developed in connection with this contract. The Bidder must keep confidential all documents, materials, and data prepared or developed by the Bidder or supplied by the County. All erasures and/or changes shall be initialed by the individual making modifications to the proposal.

**BIDDER MUST SIGN BELOW AND RETURN THESE PAGES AND THE PROPOSAL FORM IN ADDITION TO SUBMITTING ANY DOCUMENTS CALLED FOR BY THE GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS, SPECIFICATIONS, AND ANY OTHER DOCUMENTS HEREIN CONTAINED.**

By signing here, Bidder does hereby attest that he/she has read fully the general conditions and instructions, specifications, and any other documents herein contained, and does understand them and will furnish and deliver all labor and materials in accordance with the specifications for the price as listed on the proposal form.

Bidder acknowledges receipt of Addenda by initialing the following:

Addendum No. 1 \_\_\_\_\_ Addendum No. 2 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_  
Addendum No. 4 \_\_\_\_\_ Addendum No. 5 \_\_\_\_\_ Addendum No. 6 \_\_\_\_\_

BIDDER'S COMPANY/FIRM:

\_\_\_\_\_

ADDRESS:

\_\_\_\_\_

AUTHORIZED SIGNATURE:

\_\_\_\_\_

NAME AND TITLE PRINTED:

\_\_\_\_\_

TELEPHONE & FAX NUMBER:

\_\_\_\_\_

E-MAIL ADDRESS:

\_\_\_\_\_

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

FEDERAL EMPLOYER'S IDENTIFICATION NO. \_\_\_\_\_

***For Informational Purposes Only:*** Has your company/firm been certified by the State of Maryland as a Minority Business Enterprise? (Please check.) \_\_\_\_\_ Yes \_\_\_\_\_ No

**PUR-1635**  
**FORM OF PROPOSAL**

(Submit Form of Proposal & Schedule of Prices)

**Board of County Commissioners  
of Washington County, Maryland  
(hereinafter called "Owner")  
c/o Washington County Purchasing Department  
100 West Washington Street, Suite 3200  
Hagerstown, MD 21740**

**BIDS DUE:  
Date: Wednesday, October 25, 2023  
Time: No later than 2:00 P.M., (EDT/EST)**

Project Name: **Runway 9-27 Edge Lighting & Signage Replacement**  
Washington County Bid No.: **PUR-1635**

Proposal of \_\_\_\_\_ (hereinafter called "Bidder"), \*a corporation, organized and existing under the laws of the State of \_\_\_\_\_, \*a partnership, or an individual doing business as \_\_\_\_\_.

Telephone No. (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_.

Contact:  
Name & Title Printed: \_\_\_\_\_

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

E-Mail Address: \_\_\_\_\_

\*Insert corporation, partnership or individual as applicable.

**Gentlemen/Ladies:**

The Bidder, in compliance with your Invitation for Bids for the abovementioned project has examined the plans and specifications with related documents and the size of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, equipment, plant and services, and to construct the project in accordance with the Contract Documents and Addenda within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.

We hereby submit our proposal for the **Runway 9-27 Edge Lighting & Signage Replacement – Hagerstown Regional Airport.**

Having carefully examined the Contract Documents for the subject construction project -

Specifications Dated September 2023

Drawings Dated September 2023

Addenda No. \_\_\_\_\_ Date \_\_\_\_\_, No. \_\_\_\_\_ Date \_\_\_\_\_, No. \_\_\_\_\_ Date \_\_\_\_\_

Addenda No. \_\_\_\_\_ Date \_\_\_\_\_, No. \_\_\_\_\_ Date \_\_\_\_\_, No. \_\_\_\_\_ Date \_\_\_\_\_

and having received clarification on all items of conflict or upon which any doubt arose, the undersigned proposes to properly complete the work, in strict accordance with the Contract Documents, for the stipulated sum of, based on the unit prices set forth in the attached Schedule of Prices:

**1. TOTAL SUM BID:**

To furnish labor, materials, equipment, plant and services necessary to properly complete the work required under the TOTAL SUM BID, based on the prices set forth in the attached Schedule of Prices in strict accordance with the aforesaid documents, and to be substantially completed within **Sixty (60) consecutive calendar days** from the date of contractor's receipt of written Notice to Proceed.

	Dollars	
	Cents \$	
<b>(Written)</b>		<b>(Figures)</b>

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

It is understood that the bid price will be firm for a time period of one hundred and twenty (120) calendar days from the bid opening date and that if the undersigned is notified of acceptance of this proposal within this time period, the firm shall **substantially complete the total work within Sixty (60) consecutive calendar days from the date of "Notice to Proceed" for construction and to complete the work in accordance with the provisions of the Contract Documents.** If this work is not completed within the time period specified, the Contractor will be liable for liquidated damages of:

- Two thousand five hundred (\$2,500) dollars per consecutive calendar day for exceeding the contract duration.
- Two thousand five hundred (\$2,500) dollars per 15 minutes (or part thereof) for delay in runway opening.

**2. SUBCONTRACTORS:**

- A. All Bidders shall submit their list of subcontractors list as part of their bid packet.
- B. No change or deviation from this list shall be allowed except as determined by the Owner or the Owner's Representative.

**3. AWARD:**

Award of the bid can be made by the Owner to the responsive, responsible low bidder based on the Total Sum Bid for the Base Bid.

**4. BIDDER'S STATE OF MARYLAND REGISTRATION NUMBER:**

Construction Firm License No.	Date Issued	Place of Issuance

Federal Employer Identification Number (FEIN) or Social Security No. if no FEIN

Bid Security Bonds shall be submitted with each proposal in the amount of five percent (5%) of the Total Sum Bid.

Bid Bonds, except those of the two (2) low bidders will be returned after the bid opening. Other bid bonds will be returned after the related contract has been executed. If no bid has been accepted within one hundred and twenty (120) calendar days after the bid opening, then any bond may be returned upon demand of the bidder.

Upon receipt of written notice of the acceptance of this bid, bidder will execute the formal contract within fifteen (15) calendar days. The Bid Security attached, in the sum of:

	<b>Dollars</b>	
	<b>Cents \$</b>	
_____	_____	_____
<b>(Written)</b>		<b>(Figures)</b>

Is to become the property of the Owner in the event the Contract and Bond are not executed within the time set forth above, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Failure to properly and completely fill in all blanks may cause for rejection of this proposal. All alternates and unit prices called for in the Contract Documents must be submitted herewith.

Dated: \_\_\_\_\_

\_\_\_\_\_ **BIDDER'S NAME**

BIDDER'S SEAL

BY: \_\_\_\_\_  
\_\_\_\_\_ **SIGNATURE AND TITLE**

\_\_\_\_\_ **ADDRESS**

\_\_\_\_\_ **CITY STATE ZIP**

INSTRUCTIONS:

The bidder shall fill in all the blank spaces and complete the Form of Proposal and Schedule of Prices which follows.

**SCHEDULE OF PRICES FORM**

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
M-150-5.1	Project Survey and Stakeout @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	LS	1	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-100-5.1	Site Locating and Duct Tracing @ <b>Twenty Thousand</b> Dollars <i>(Written)</i> <b>Zero</b> Cents per <i>(Written)</i>	ALL	1	<b>\$20,000.00</b>	<b>\$20,000.00</b>
L-108-5.1	1-1/C No. 8 AWG, 5KV, L-824C Cable in Conduit, Installed Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	LF	28,500	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-108-5.2	Demolition of Cable in Conduit, Conduit to Remain, per Conduit Length @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	LF	28,500	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>



**SCHEDULE OF PRICES FORM**

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
L-109-7.1	Remove 30KW Constant Current Regulator and Associated Equipment and Install 20KW, 5-Step, 240V, L-829 Constant Current Regulator and all Associated Incoming Power and Communication Appurtenances @ _____ Dollars (Written) _____ Cents per (Written)	EA	1	\$ _____ (Figures)	\$ _____ (Figures)
L-125-5.1	L-862(L) Runway Elevated Edge Light Fixture on Existing Light Base, with Transformer and Accessories, Installed Complete in Place @ _____ Dollars (Written) _____ Cents per (Written)	EA	64	\$ _____ (Figures)	\$ _____ (Figures)
L-125-5.2	L-862E(L) Runway Threshold/End Light on Existing Light Base, with Transformer and Accessories, Installed Complete in Place @ _____ Dollars (Written) _____ Cents per (Written)	EA	16	\$ _____ (Figures)	\$ _____ (Figures)

**SCHEDULE OF PRICES FORM**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Approximate Quantity</b>	<b>Unit Price</b>	<b>Total Price</b>
L-125-5.3	L-850C(L) Runway In-Pavement Edge Light Fixture on Existing Light Base, with Transformer and Accessories, Installed Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	5	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.4	1 Module – Size 1, Style 3, Class 1, Mode 2, L-858(L) Airfield Guidance Sign on Existing Foundation, with Transformer and Accessories, Installed, Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	10	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.5	2 Module – Size 1, Style 3, Class 1, Mode 2, L-858(L) Airfield Guidance Sign on Existing Foundation, with Transformer and Accessories, Installed, Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	15	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>



**SCHEDULE OF PRICES FORM**

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
L-125-5.9	Relocate 2 Module L-858(L) Airfield Guidance Sign on Existing Foundation, Furnish and Install Transformer and Accessories, Installed, Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	2	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.10	Remove and Replace all Existing Sign Panels within Existing Sign Housing @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	4	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.11	Install 12" Diameter 36" Deep Reinforced Concrete Pier for Sign Foundation Extension and 6" Deep Washed Stone Maintenance Pad, Complete in Place @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	10	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>

**SCHEDULE OF PRICES FORM**

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
L-125-5.12	Remove Airfield Guidance Sign, Demolish Transformer and Accessories, Foundation to Remain @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	46	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.13	Remove Light Fixture, Demolish Transformer and Accessories @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	EA	85	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
L-125-5.14	Temporary Airfield Lighting During Construction @ <b>Seven Thousand</b> Dollars <i>(Written)</i> <b>Zero</b> Cents per <i>(Written)</i>	ALL	1	<b>\$7,000</b>	<b>\$7,000</b>
Sub Total A: Sum Total of Base Bid Items <u>M-150-5.1</u> through <u>L-125-5.14</u> @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>				\$ _____ <i>(Figures)</i>	

**SCHEDULE OF PRICES FORM**

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
M-100-4.1	Maintenance and Protection of Traffic (shall not exceed 5% of total Contract Bid amount) @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	LS	1	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
C-105-6.1	Mobilization (shall not exceed 5% of total Contract Bid amount) @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>	LS	1	\$ _____ <i>(Figures)</i>	\$ _____ <i>(Figures)</i>
Sub Total B: Sum Total of Base Bid Items <u>M-100-4.1</u> through <u>C-105-6.1</u> @ _____ Dollars <i>(Written)</i> _____ Cents per <i>(Written)</i>				\$ _____ <i>(Figures)</i>	

**BID BOND**

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are hereby held and firmly bound unto the Board of County Commissioners of Washington County, Maryland as OWNER in the penal sum of \_\_\_\_\_ (five percent (5%) of Total Bid) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 2023. The Condition of the above obligation is such that whereas the Principal has submitted to the Board of County Commissioners of Washington County, Maryland a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for **Contract No. PUR-1635 Runway 9-27 Edge Lighting & Signage Replacement – Hagerstown Regional Airport.**

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (Properly completed in accordance with said BID) and shall furnish a BOND for **faithful** performance of said contract, and for the payment of all persons performing labor 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 the obligations of said Surety and its BOND 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 (L.S.)

\_\_\_\_\_  
Surety

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

**IMPORTANT** - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and authorized to transact business in the State where the project is located.

**THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK**



## AFFIDAVIT OF NON-COLLUSION AND BRIBERY CONVICTIONS

### AFFIRMATION REGARDING COLLUSION:

I AFFIRM THAT:

Neither I nor, to the best of my knowledge, information, and belief, the below stated business has:

- (a) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;
- (b) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the Bidder or Offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

### AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM:

Neither I nor, to the best of my knowledge, information, and belief, the below business (as is defined in Section 16-101 (b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies (as is defined in Section 16-101(f) of the State Finance and Procurement Article of the Annotated Code of Maryland), has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, Section 6-220 of the Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other State or federal law, **except as follows** (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

---

---

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE ABOVE-REFERENCED AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF AND THAT I AM THE DULY AUTHORIZED REPRESENTATIVE OF THE BELOW BUSINESS AND THAT I POSSESS THE LEGAL AUTHORITY TO MAKE THE AFFIDAVITS AND CERTIFICATION ON BEHALF OF MYSELF AND THE BUSINESS FOR WHICH I AM ACTING.

BY:

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

\_\_\_\_\_  
(Name & Title Printed)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_/\_\_\_\_\_  
(Phone Number) (Fax Number)

\_\_\_\_\_  
(Federal Employer Identification Number)

(SEAL) If bid is by corporation.

### BIDDER'S EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION (EEOC)

Section 151.54(d)(1) of the FAA Regulations requires each bidder or prospective Contractor or any of their proposed subcontractors, to state as an initial part of the bid whether it has participated in any previous contract or subcontract subject to the equal employment opportunity clause; and, if so, whether it has filed with the Committee or agency all compliance reports due under applicable instructions. In any case in which a bidder or prospective Contractor or proposed Contractor which has participated in a previous contract or subcontract subject to the equal employment opportunity clause has not filed a compliance report due under applicable instructions, such bidder, prospective Contractor, or proposed subcontractor shall be required to submit a compliance report prior to the award of the proposed contract or subcontract [41 CFR 60-1.6(b)(1)].

The bidder shall complete the following statement by checking the appropriate spaces. Failure to complete will result in a non-responsive bid.

The bidder has \_\_\_\_, has not \_\_\_\_, participated in a previous contract subject to the discrimination clause prescribed by Executive Order 10925 dated March 6, 1961, or Executive Order 11114 dated June 22, 1963, or Executive Order 11246 dated September 24, 1965.

The bidder has \_\_\_\_, has not \_\_\_\_, submitted compliance reports as required by applicable instructions, the successful bidder will be required to submit a Standard Form 100 (for Federally-Assisted Construction Contracts) before award.

Certification: The information above is true and complete to the best of my knowledge and belief.

---

Name and Title of Signer

---

Signature

---

Date

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## CERTIFICATION OF NON-SEGREGATED FACILITIES

The Federally Assisted construction contractor certifies that it does not maintain or provide, for its employees, any segregated facilities at any of its establishments and that it does not permit employees to perform services where segregated facilities are maintained. The federally assisted construction contractor certifies further that it will not maintain or provide, for its employees, segregated facilities at any of its establishments, and that it will not permit its employees to perform services at any location, under its 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 area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are in fact segregated on the basis of 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.

### NOTICE TO PROSPECTIVE CONTRACTORS OF REQUIREMENT FOR CERTIFICATION FOR NONSEGREGATED FACILITIES:

A Certification of Non-Segregated Facilities must be submitted prior to the award of a contract or subcontract exceeding \$10,000 which is not exempt from the provisions of the equal opportunity clause. Certification - The information above is true and complete to the best of my knowledge and belief.

---

Name and Title of Signer (Please Type)

---

Signature

---

Date

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

BIDDERS NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

INTERNAL REVENUE SERVICE EMPLOYER IDENTIFICATION NUMBER \_\_\_\_\_

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**BOARD OF COUNTY COMMISSIONERS**  
**OF WASHINGTON COUNTY, MARYLAND**

**DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

for

Hagerstown Regional Airport, Hagerstown MD

**Policy Statement**

Washington County (hereafter 'the County') has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (USDOT) 49 CFR Part 26. The County has received federal financial assistance from USDOT, and as a condition of receiving this assistance, the County has signed an assurance that they will comply with 49 CFR Part 26.

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

1. To ensure nondiscrimination in the award and administration of USDOT - assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts;
3. To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
5. To help remove barriers to the participation of DBEs in USDOT assisted contracts;
6. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities conducted by the County;
7. To assist the development of firms that can compete successfully in the marketplace outside the DBE Program; and
8. To provide appropriate flexibility to recipients of federal financial assistance in establishing and providing opportunities for DBEs.

The County has designated the following individual as its DBE Liaison Officer (DBELO):

Neil Doran, Airport Director  
Hagerstown Regional Airport 18434 Showalter Road  
Hagerstown, MD 21742  
Phone: 240-313-2764  
Email: [ndoran@washco-md.net](mailto:ndoran@washco-md.net)

### **Bidders List**

The County is required to create and maintain a bidders list, consisting of information about all DBE and non-DBE firms that bid or quote on USDOT-assisted contracts. The bidders list will include the name, address, DBE non-DBE status, age, and annual gross receipts of firms.

Bidders on this contract shall report the names/addresses, and possibly other information, of all firms who quote to them on subcontracts. This report shall be submitted with the bid. See Attachment 3 at the back of this section for a sample form.

### **Non-Discrimination**

The contractor 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 USDOT 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 County deems appropriate, which may include, but is not limited to:

Withholding monthly progress payments;  
Assessing sanctions;  
Liquidated damages; and/or  
Disqualifying the contractor from future bidding as non-responsible.

### **Bid Submission**

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of Washington County to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the requirements of this bid specification. These requirements apply to all bidders/offerors, including those who qualify as a DBE. A DBE contract goal of **11.03 percent** has been established for this contract. The bidder/offeror shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract.

### **Information to be submitted**

- (1) Award of the contract will be conditioned on meeting the requirements of this section;
- (2) As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided:
  - (i) The names and addresses of DBE firms that will participate in the contract;
  - (ii) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
  - (iii) The dollar amount of the participation of each DBE firm participating;



- (iv) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; and
  - (v) If the contract goal is not met, evidence of good faith efforts (see Appendix A of 49 CFR Part 26). The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (3) The successful Bidder or Offeror must provide written confirmation of participation from each of the DBE firms the Bidder or Offeror lists in its commitment within five days after bid opening.

All documentation submitted at time of bid, as well as additional data provided by the successful bidder, is considered part of the contract documents. Any alterations, substitutions, deletions, etc., to data provided at time of submission of bid must have prior approval of the County's DBE Liaison Officer.

Should a DBE firm not certified by the Maryland Department of Transportation be proposed by a potential contractor as a part of his/her DBE plan efforts, the inclusion of said firm will not be considered a demonstration of making good faith efforts towards meeting the DBE goal.

Bids submitted which do not meet the DBE contract goals, and which do not show that a meaningful good faith effort was made to achieve the stated goals, will be considered non-responsive bids, and bidders will be notified of the deficiency and given opportunity to appeal to the Administrative Reconsideration Official (49 CFR 26.53). The bidder will not be eligible for award of the contract until the appeal procedures are complete. The Administrative Reconsideration Official will make the determination on the sufficiency of the good faith efforts.

The County reserves the right to reject any or all bids, or to re-advertise for bids. Award, if made, will be to the lowest responsive and qualified bidder. A bid will not be considered responsive unless the bidder complies with Title 49 Code of the Federal Regulations, Part 26, and the Disadvantaged Business Enterprise Program of the County.

### **Prompt Payment Mechanisms**

The County requires that all subcontractors performing work on USDOT-assisted contracts shall be promptly paid for work, in accordance with all relevant federal, state, and local law.

The Contractor agrees to pay each subcontractor under this contract for satisfactory performance of its work no later than 10 days from the receipt of each payment the Contractor receives from Washington County. The Contractor agrees further to return retainage payments to each subcontractor within 10 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the County. This clause applies to both DBE and non-DBE subcontracts.

### **Prompt Payment Dispute Resolution**

The County will take the following steps to resolve disputes as to whether work has been satisfactorily completed.

A meeting will be scheduled with the contractor, subcontractor, DBELO and other appropriate County representative(s). Any meeting for the purpose of dispute resolution will include County representative(s) authorized to bind each interested party, including County representative(s) with authorization to take enforcement action.

### **Prompt Payment Complaints**

Complaints by subcontractors regarding the prompt payment requirements are handled according to the following procedure.

1. The affected subcontractor shall file a complaint with the Contractor directly regarding payment.
2. If filing a complaint with the Contractor does not result in timely and meaningful action by the Contractor to resolve the prompt payment dispute, the affected subcontractor may contact the County's DBELO.
3. If filing a prompt payment complaint with the DBELO does not result in timely and meaningful action by the County to resolve prompt payment disputes, the affected subcontractor may contact the FAA Office of Civil Rights.

### **Dispute Resolution**

The County requires that Contractors insert a contract provision in their subcontractor agreements that allows for a dispute resolution process. Contractors shall include in their subcontractors' agreements language that Contractors and subcontractors will use appropriate alternative dispute resolution mechanisms to resolve payment disputes; and disputes between the Contractor and DBE subcontractor may also be subject to Maryland's Alternative Dispute Resolution process: <https://www.courts.state.md.us/district/adr/home>

Contractor will not be reimbursed for work performed by subcontractors unless and until the Contractor ensures that the subcontractors are promptly paid for the work they have performed.

### **Directory**

The primary Disadvantaged Business Enterprise Directory for the County comes from the Maryland Department of Transportation (MDOT) and contains listings of certified minority- and women-owned construction firms and material suppliers from throughout the State of Maryland.

The link for the directory can be found at: <https://mbe.mdot.maryland.gov/directory/>

### **Monitoring and Compliance**

#### **Monitoring Payments to DBEs and Non-DBEs**

Contractors shall maintain records and documents of payments to subcontractors, including DBEs, for a minimum of three (3) years. These records will be made available for inspection upon request by any authorized representative of the County or DOT. This reporting requirement extends to all subcontractors, both DBE and non-DBE.

The County uses a number of DBE forms, which can be found as Attachment 1 at the back of this section to collect DBE information for initial project setup and for ongoing monitoring of DBE participation:

- DBE Project Compliance Review Checklist
- Listing of DBE Subcontractors
- DBE Monthly Report
- DBE Commercially Useful Function Report

#### Enforcement Actions for Noncompliance of Participants

The County will take appropriate means to enforce the requirements of Prompt Payment Mechanisms. These means may include:

- Assessing liquidated damages, in accordance with the contract, against the Contractor for each day beyond the required time period the Contractor fails to pay the subcontractor
- Advising subcontractors of the availability of the payment and performance bond to assure payment for labor and materials in the execution of the work provided for in the contract
- Paying subcontractors directly and deducting this amount from the retainage owed to the Contractor
- Issuing a stop-work order until payments are released to subcontractors, such orders constitute unauthorized delays for the purposes of calculating liquidated damages, if milestones are not met

#### Monitoring Contracts and Work Sites

The County will review contracting records and will engage in active monitoring of work sites to ensure that work committed to DBEs at contract award or subsequently (*e.g.*, as the result of modification to the contract) is actually performed by the DBEs to which the work was committed. Work site monitoring will be performed by the DBELO with assistance from the resident project representative. Contracting records will be reviewed by the DBELO.

The contractor shall utilize the specific DBEs listed in the contractor's bid to perform the work and supply the materials for which each is listed unless the contractor obtains prior written consent of the County as provided in 49 CFR Part 26, §26.53(f). Unless such consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

#### Good Faith Efforts Procedures

##### Demonstration of good faith efforts

The obligation of the bidder/offeror is to make good faith efforts. The bidder/offeror can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts.

The DBELO will determine whether a bidder/offeror has not met the contract goal and has documented sufficient good faith efforts to be regarded as responsive.

The County will review all information for completeness and accuracy and that it adequately documents the bidder/offer's good faith efforts before committing to the performance of the contract by the bidder/offeror.

### Administrative Reconsideration

Within seven (7) days of being informed by the County that a bid is not responsive because the bidder has not documented sufficient good faith efforts; a bidder may request administrative reconsideration. Bidders should make this request in writing to the following reconsideration official:

Rick Curry, CPPO–Director of Purchasing  
Washington County Administration Complex  
100 West Washington Street, Suite 3200  
Hagerstown, Maryland, 21740-4748 Email: [bnaugle@washco-md.net](mailto:bnaugle@washco-md.net)

The reconsideration official will not have played any role in the original determination that the bidder did not document sufficient good faith efforts.

As part of this reconsideration, the bidder/offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder/offeror will have the opportunity to meet in person with the County's administrative reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do. The County will send the bidder/offeror a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the US Department of Transportation.

### Good Faith Efforts procedures in situations when there are contract goals

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 County's written consent; and that, unless the County's consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The County will require the contractor that is awarded the contract to make available upon request a copy of all DBE subcontracts. The subcontractor shall ensure that all subcontracts or an agreement with DBEs to supply labor or materials require that the subcontract and all lower tier subcontractors be performed in accordance with this section's provisions.

### Good Faith Efforts when a DBE is replaced on a contract

The County requires that Contractors not terminate a DBE subcontractor listed on a bid/contract with a DBE contract goal without the County's prior written consent. Prior written consent will only be provided where there is "good cause" for termination of the DBE firm.

In those instances where "good cause" exists to terminate a DBE's contract, the County will require the Contractor to make good faith efforts to replace a DBE that is terminated or has otherwise failed to complete its work on a contract with another certified DBE, to the extent needed to meet the

contract goal. The County will require the Contractor to notify the DBE Liaison officer immediately of the DBE's inability or unwillingness to perform and provide reasonable documentation.

In this situation, the County will require the Contractor to obtain prior approval of the substitute DBE and to provide copies of new or amended subcontracts, or documentation of good faith efforts. The County will provide such written consent only if the County agrees, for reasons stated in a concurrence document, that the Contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, non-discriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1,200 or applicable state law;
- (6) The County has determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the project and provides to the County written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that the County has determined compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

Before transmitting its request to the County to terminate and/or substitute a DBE subcontractor, the Contractor must give notice in writing to the DBE subcontractor, with a copy to the County, of its intent to request to terminate and/or substitute, and the reason for the request.

The Contractor must give the DBE five days to respond to the Contractor's notice and provide the County and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the County should not approve the Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the County may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

If the Contractor fails or refuses to comply in the time specified, the County's contracting office will issue an order stopping all or part of payment/work until satisfactory action has been taken. If the contractor still fails to comply, the contracting officer may issue a termination for default proceeding.

The County shall require contractors to make good faith efforts to replace a DBE subcontractor that is terminated or fails to complete its work on the contract for any reason, with another DBE subcontractor. If a DBE subcontractor is terminated or fails to complete its work on the contract for any reason, the Contractor must notify the County immediately. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the established contract goal. The contractor shall submit documentation within seven (7) days, which may be extended for an additional seven (7) days, if necessary, at the request of the contractor, and the County shall provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated.

The County shall approve all substitutions prior to contract award and during contract performance in order to ensure that the substitute firms are eligible DBEs.

### **Certification Process**

For information about the certification process or to apply for certification, firms should contact:

Maryland Department of Transportation  
Office of Diversity and Equity 7201 Corporate Center Drive  
P.O. Box 548  
Hanover, Maryland 21076  
Toll Free 1-888-713-1414  
([http://www.mdot.maryland.gov/newMDOT/Diversity/MBE\\_DB\\_E/index.html](http://www.mdot.maryland.gov/newMDOT/Diversity/MBE_DB_E/index.html)).

### **Cooperation**

All participants in the Department's DBE program (including, but not limited to, DBE firms and applicants for DBE certification, complainants and appellants, and contractors using DBE firms to meet contract goals) are required to cooperate fully and promptly with DOT and the County's compliance reviews, certification reviews, investigations, and other requests for information. Failure to do so shall be a grounds for appropriate action against the party involved (e.g., with respect to DBE firms, denial of certification or removal of eligibility and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a contractor which uses DBE firms to meet goals, findings of non-responsibility for future contracts and/or suspension and debarment).

The County, Contractor, or any other participant in the program will not intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by this part or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under this part.

### **Monitoring Payments to DBEs**

The County will require Contractors to maintain records and documents of payments to DBEs for three (3) years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative of the County or USDOT. This reporting requirement also extends to any certified DBE subcontractor.

The County will perform interim audits of contract payments to DBEs. The audit will review payments to DBE subcontractors to ensure that the actual amount paid to DBE subcontractors equals or exceeds the dollar amounts stated in the schedule of DBE participation.

### **ATTACHMENTS**

Attachment 1	Monitoring and Compliance
Attachment 2	Demonstration of Good Faith Efforts
Attachment 3	Bidders List Data Form

## **Attachment 1**

# **Monitoring and Compliance**



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## DBE COMMERCIALLY USEFUL FUNCTION REPORT

Project:	
AIP Number:	
Contractor:	
DBE Firm:	
DBE Start/Complete	
CUF Review Date:	

### GENERAL

	Yes	No	N/A
1. Does the DBE have its own employees on the job to perform the work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the DBE own the equipment being utilized to perform its work? If No, attach equipment list, ownership documents, and rental/lease agreements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the DBE self-performing the subcontract defined task for a specific item of work (distinct element) on the contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### HAULING FIRMS

	Yes	No	N/A
1. Does the DBE hauling firm own and/or lease their trucks? (review ownership/vehicle registration and/or lease documents to verify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the DBE employ drivers for trucks owned by the company? (If leased trucks include operators, this should be indicated in the agreement/purchase order.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Do the haul tickets and/or bills of lading associated with the project confirm that hauling is being performed by the DBE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### MATERIAL SUPPLIERS OR MANUFACTURERS/FABRICATORS

	Yes	No	N/A
1. Does the DBE's name appear on all applicable invoices, haul tickets, and/or bills of lading?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Did the DBE provide documentation showing that the funds used to pay a supplier in fact came from the DBE's own funds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If the DBE had any materials drop shipped to the project site, was the invoice addressed to the DBE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Did the DBE deliver materials to the site with their own and/or leased trucks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SUPERVISION

	Yes	No	N/A
1. Is the DBE self-performing work without assistance from the prime or another subcontractor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the DBE providing supervision of its employees and their work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the supervisor a full-time employee of the DBE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed by:			
Date:			

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**Listing of DBE Subcontractors (to be submitted with bid)**

**Project:** \_\_\_\_\_

The Bidder hereby proposes the following DBE participation:

DBE Subcontractor/Supplier	Work to be Performed	NAICS Code	Subcontract Amount	Amount Applicable to Goal (suppliers=*.60)
Total DBE Participation				
Base Bid Amount				
DBE Participation Proposed (%)				
DBE Participation Goal (%)				

Bidder (Firm Name)	Signature	Date

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<b>DBE MONTHLY REPORT</b>
<b>Contractor:</b>
<b>Project:</b>
<b>AIP Number:</b>
<b>Date:</b>

DBE Subcontractor/Supplier	Committed Award	Total Prior Payments	Current Payment	Total	Date Paid to Vendor/Sub this Invoice	Percent
Totals						

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

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

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

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

## DBE Project Compliance Review Checklist

<b>Project:</b>
<b>AIP Number:</b>
<b>Contractor:</b>

- Pre-Bid Checklist**  
Review project to determine if a DBE contract goal is needed.  
Attend pre-bid meeting to inform bidders of DBE requirements.
  
- Pre-Award Project Checklist**  
Collect the Listing of DBE Subcontractors form.  
Collect letters of intent for all committed DBEs.  
If Contractor is unable to meet the DBE goal, collect documentation of its good faith effort.
  
- Post Award (Pre-Construction/Design) Project Checklist**  
Collect fully executed (signed) subcontracts for all DBE firms.  
Review DBE subcontract(s) to ensure scope of work is consistent with what has been committed.  
Review contracts to verify that all required contract clauses are included.  
Ensure dollar value of DBE subcontract(s) is/are equal to or greater than the amount committed.
  
- During Construction and/or Design Checklist**  
Complete DBE Commercially Useful Function Report form, to verify that the DBEs are performing a commercially useful function.
  
 Verify that business names on equipment and vehicles are not covered with paint or magnetic signs (visual inspection of vehicles on site).
  
 Verify who employs the workers on site (visually inspect badges/IDs; establish reporting relationships of workers on site/review certified payrolls).
  
 Review supplier invoices and cancelled checks to verify what firm orders and pays for the necessary supplies being used by the DBE subcontractor.
  
 Ensure all DBE firms are paid promptly (within 10 days of payment to Contractor per 49 CFR 26.29) by collecting and reviewing the DBE monthly report form.
  
 Document and file any correspondence related to terminations, substitutions, or deletions of DBE firms.
  
 If terminations, substitutions, or deletions were approved, collect documentation of Contractor's good faith effort to find a replacement firm
  
- Post Construction/Design Checklist**  
Ensure DBE goal has been achieved by collecting and reviewing the final DBE report.
  
 If a shortfall exists, collect Good Faith Effort documentation from Contractor explaining reasons shortfall took place.

**Certification:**

I, \_\_\_\_\_ hereby certify that the contracting records for the federally-funded project have been reviewed and the work site has been visited/monitored.

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



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## **Attachment 2**

### **Demonstration of Good Faith Efforts**

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**WASHINGTON COUNTY**

**FORM 1: DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION**

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the following manner (please check the appropriate space):

\_\_\_ The bidder/offeror is committed to a minimum of \_% DBE utilization on this contract.

\_\_\_ The bidder/offeror (if unable to meet the DBE goal of % ) is committed to a minimum of \_% DBE utilization on this contract and has submitted documentation demonstrating good faith efforts.

Name of bidder/offeror's firm: \_\_\_\_\_

State Registration No. \_\_\_\_\_

By \_\_\_\_\_  
(Signature) Title

**WASHINGTON COUNTY**

**FORM 2 – LETTER OF INTENT**

Name of bidder/offeror’s firm: \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Name of DBE firm: \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

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

Description of work to be performed by DBE firm:

-----  
-----  
-----  
-----

The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is \$ \_\_\_\_\_.

**Affirmation**

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By \_\_\_\_\_ (Signature) \_\_\_\_\_ (Title)

**If the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.**

(Submit this page for each DBE subcontractor.)

**Attachment 3**

**Bidders List Data Form**

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**BIDDERS LIST DATA FORM**

Firm Name	Firm Address and Phone No.	DBE or Non-DBE Status ( <i>verify via MDOT DBE Directory</i> )	Age of Firm	Annual Gross Receipts
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M



**BIDDERS LIST DATA FORM**

Firm Name	Firm Address and Phone No.	DBE or Non-DBE Status <i>(verify via MDOT DBE Directory)</i>	☐ Age of Firm	☐ Annual Gross Receipts
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M
		<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1- 3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 years	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-2M <input type="checkbox"/> \$2-5M <input type="checkbox"/> Greater than \$5M

**BIDDER'S DBE CERTIFICATION**

To meet the requirements of Department of Transportation, Regulation 49 CFR Part 23, all bidders will provide evidence of the methods they have used to meet the Disadvantaged Business Enterprise goal as published in the Sponsor's Disadvantaged Business Enterprise Plan and approved by the Department of Transportation. The DBE participation goal for this project is eleven and three hundredths percent (11.03%).

All bidders must submit an assurance stating the percentage of Disadvantaged Businesses they intend to employ on this project.

WITHIN 5 DAYS AFTER THE OPENING OF BIDS AND BEFORE THE AWARD OF A CONTRACT, ALL BIDDERS OR PROPOSERS WISHING TO REMAIN IN COMPETITION FOR THE CONTRACT SHALL SUBMIT:

1. Names of the DBE subcontractors they intend to use.
2. Description of work each DBE subcontractor is to perform.
3. The dollar amount of the participation of each DBE firm.
4. Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) provided with the Bid Proposal to meet the Owner's project goal; and
5. If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

REQUIRED ASSURANCE TO BE INCLUDED IN ALL BID PROPOSALS.

This firm assures that it will utilize not less than \_\_\_\_% of Disadvantaged Business participation.

CERTIFICATION OF BIDDER FOR THE ABOVE:

\_\_\_\_\_  
AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
NAME

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
COMPANY

(SEAL)

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### SUBCONTRACTORS AND SUPPLIERS

Low bidder shall provide the Subcontractor and supplier list to the Owner within 48 hours of the bid opening. If a subcontractor or supplier is a Disadvantaged Business Enterprise (DBE), please indicate it on this list.

No.	Name of the Subcontractor/Supplier and Description of Work to be Performed	Contact Name/Tel. No.	Approximate Value

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**BUY AMERICAN CERTIFICATE**

By submitting a bid under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid the offeror certifies that steel and each manufactured product, are produced in the United States, as defined in the clause Buy American – Steel and Manufactured Products for Construction Contracts and that components of unknown origin are considered to have been produced or manufactured outside the United States.

Offerors may obtain from the owner a listing of articles, materials, and supplies excepted from this provision.

<b>Product</b>	<b>Country of Origin</b>

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**BID NO. PUR-1635  
RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT  
FOR  
HAGERSTOWN REGIONAL AIRPORT  
AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**Certificate of Buy American Compliance for Manufactured Products**

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

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

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

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

- The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

1. To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that supports the type of waiver being requested.
2. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.



3. To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

### Required Documentation

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

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

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

- a) Detailed cost information for total project using U.S. domestic product
- b) Detailed cost information for total project using non-domestic product

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title

**BID NO. PUR-1635  
RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT  
FOR  
HAGERSTOWN REGIONAL AIRPORT  
AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND  
FELONY CONVICTIONS**

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

**Certifications**

- 1) The applicant represents that it is ( ) is not ( ) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The applicant represents that it is ( ) is not ( ) a corporation that was convicted of a criminal violation under any Federal law within the preceding twenty-four (24) months.

**Note**

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

**Term Definitions**

**Felony conviction:** Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

**Tax Delinquency:** A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

**CERTIFICATION REGARDING LOBBYING**

I CERTIFY:

By signing and submitting this bid or proposal, to the best of my knowledge and belief, that:

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

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title

**SECTION 2**

**FORM OF CONTRACT**

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**PUR-1635**  
**RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT**  
**HAGERSTOWN REGIONAL AIRPORT**  
**AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**CONTRACT AGREEMENT**  
**BY AND BETWEEN THE**

**BOARD OF COUNTY COMMISSIONERS OF**  
**WASHINGTON COUNTY, MARYLAND**

**AND**

THIS CONTRACT AGREEMENT (hereinafter the “Contract”), is made this \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between (hereinafter the “Contractor”) and the **BOARD OF COUNTY COMMISSIONERS OF WASHINGTON COUNTY, MARYLAND**, a body corporate and politic and a political subdivision of the State of Maryland, (hereinafter the “County”).

*RECITALS*

This Contract for the construction of **Contract No. PUR-1635**, Runway 9-27 Edge Lighting & Signage Replacement at Hagerstown Regional Airport, near Hagerstown, Washington County, Maryland, as shown on the drawings identified in the same manner, with a final approval date of September 2023, on file at the Hagerstown Regional Airport, Maryland, subject to all the conditions, covenants, stipulations, terms and provisions contained in the Specifications, the Specifications being in all respects incorporated herein by reference and made a part hereof as if attached or entirely stated herein, has recently been awarded to the Contractor by the County, at and for a sum equal to the prices and rates respectively named therefore in the bid.

One of the conditions of said award is that a formal contract be executed by and between the Contractor and the County evidencing the terms of said award.

NOW, THEREFORE, in consideration of the mutual covenants, conditions and agreements herein contained, the parties hereby agree as follows:

1. The “Contract Documents,” except for modifications issued after the execution of this Contract, are enumerated as follows and are incorporated herein by reference and made a part hereof as if attached or entirely stated herein:

*Invitation to Bid*

*General Conditions and Instructions to Bidder*

*Supplemental Terms and Conditions*

*Washington County’s Disadvantaged Business Enterprise (DBE) Program For Hagerstown Regional Airport*

*The Insurance Requirements for Independent Contractors*

*Wage Rates*

*Signature to Bids*

*Form of Proposal and Schedule of Prices*

*Bid Bond*

*Affidavit of Non-Collusion and Bribery Convictions*

*Bidders EEOC*

*Certification of Non-Segregated Facilities*  
*DBE Program*  
*DBE Certification*  
*Subcontractors and Suppliers*  
*Buy American Certificate*  
*Certificate of Buy American Compliance for Manufactured Products*  
*Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions and Lobbying*  
*The executed Contract Agreement between the County and the Contractor*  
*Labor and Material Payment Bond*  
*Performance Bond*  
*FAA General Provisions*  
*Federal Requirements for AIP Program Contracts*  
*Technical Specifications*  
*Notice of Award*  
*Notice to Proceed*  
*Contract Drawings dated September 2023*

2. The date of commencement and substantial completion of the project contemplated herein shall be as set forth in the Instructions to Bidders and stipulated by the Notice to Proceed or an authorized extension thereof.
3. The Contractor shall complete **Contract No. PUR-1635**, Runway 9-27 Edge Lighting & Signage Replacement at Hagerstown Regional Airport, near Hagerstown, Washington County, Maryland, in accordance with each and every one of the conditions, covenants, stipulations, terms and provisions contained in the aforementioned Specifications, which in all respects are incorporated herein by reference and made a part hereof as if attached or entirely stated herein, and as shown on the aforementioned drawings, which are also incorporated herein by reference and made a part hereof as if attached or entirely stated herein, at and for a sum equal to the prices and rates respectively named therefore in the bid attached hereto, and shall comply with and perform each and every obligation imposed upon it by the said Specifications or by the terms of said award.
4. The County shall comply with and perform each and every obligation imposed upon it by the said Specifications or by the terms of the said award.
5. The County shall pay the Contractor for the Contractor's performance of the Contract the sum of \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_) (hereinafter the "Contract Sum"), when due and payable under the terms of the said Specifications and the terms of said award and shall be subject to additions and deductions as provided for in the Contract Documents.
6. Payments shall be made on account of the Contract Sum to the Contractor as set forth in the Contract Documents.
7. The Contractor hereby certifies that it is a corporation authorized and registered to do business in the State of Maryland with the Maryland State Department of Assessments and Taxation.

8. The Contractor hereby certifies that it has read and understood the provisions of the Washington County Purchasing guidelines dealing with conflicts of interest, and that it further certifies, represents and warrants to the County that there is no current conflict of interest and that the Contractor shall refrain from any such conflict of interest for the duration of this Contract.
9. This Contract was made and entered into in the State of Maryland and shall be governed and construed in accordance with the laws of the State of Maryland. As to the Contractor, this Contract is intended to be a contract under seal and specialty.
10. The Recitals are incorporated into this Contract as substantive provisions.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed and delivered, the day and year first above written.

**ATTEST:**

\_\_\_\_\_

**APPROVED AND AGREED TO:**

BY: \_\_\_\_\_  
(Signature)

**ATTEST:**

**APPROVED AND AGREED TO:**

**BOARD OF COUNTY COMMISSIONERS  
OF WASHINGTON COUNTY, MARYLAND**

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

\_\_\_\_\_  
(SEAL)  
John F. Barr, President

**Recommended for approval:**

\_\_\_\_\_  
Neil Doran, Director  
Hagerstown Regional Airport

**Approved as to form and Legal Sufficiency  
for execution by the county:**

\_\_\_\_\_  
Kirk C. Downey  
County Attorney

**END OF DOCUMENT**



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**LABOR AND MATERIAL PAYMENT BOND**

Board of County Commissioners of Washington County, Maryland

**BOND NO.** \_\_\_\_\_

**CONTRACT NO. PUR-1635**

Date Bond Executed: \_\_\_\_\_, 2023

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_,

\_\_\_\_\_  
(Here insert full name and address or legal title of Contractor, including zip code)

a corporation organized and existing under the laws of the State of Maryland and authorized to do business in the State of Maryland, hereinafter called the “**Principal**” and

\_\_\_\_\_  
(Here insert full name and address or legal title of Surety, including zip code)

a corporation organized and existing under the laws of the State of \_\_\_\_\_, and authorized to do business in the State of Maryland, hereinafter called the “**Surety**”, are held and firmly bound unto the Board of County Commissioners of Washington County, Maryland, a body corporate and politic, and a political subdivision of the State of Maryland, hereinafter called the “**County**”, for the use and benefit of claimants as hereinafter defined, in the Penal Sum \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_) lawful money, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into or will enter into a contract with the County, for the Runway 9-27 Edge Lighting & Signage Replacement– Hagerstown Regional Airport (**Contract No. PUR-1635**), **in Washington County, Maryland**. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed there under or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as the “**Contract**”.

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials furnished, supplied and reasonably required for use in the performance of the Contract, then this obligation shall be null and void, otherwise it shall remain in full force and effect, subject to the following conditions:

1. A **Claimant** is defined to be any and all of those persons supplying labor and materials (including lessors of the equipment to the extent of the fair market value thereof) to the Principal or its subcontractors and sub-subcontractors in the prosecution of the work provided for the Contract, entitled to the protection provided by Md. Code Ann., State Finance and Procurement Article, §17-101, *et seq.*, as from time to time amended.

2. The above-named Principal and Surety hereby jointly and severally agree with the County that every claimant as herein defined, who has not been paid in full may, pursuant to and when in compliance with the provisions of the aforesaid State Finance and Procurement Article, §17-101, *et seq.*, sue on this Bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant and have execution thereon. The County shall not be liable for the payment of any costs or expenses of any such suit.

The Surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder of the Specifications accompanying the same shall in any way affect its obligations on this Payment Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or the Specifications.

This Payment Bond shall be governed and construed in accordance with the laws of the State of Maryland and any reference herein to the Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, the Principal and Surety have set their hands and seals to this Payment Bond this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

**WITNESS:**

\_\_\_\_\_  
(Typed Name of Principal)

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

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

\_\_\_\_\_  
(Typed Name and Title)

**WITNESS:**

\_\_\_\_\_  
(Typed Name of Surety)

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

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

\_\_\_\_\_  
(Typed Name and Title)

\_\_\_\_\_  
(Name of Local Agent)

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

\_\_\_\_\_  
(Telephone Number of Local Agent)

**PERFORMANCE BOND**

Board of County Commissioners of Washington County, Maryland

**BOND NO.** \_\_\_\_\_

**CONTRACT NO. PUR-1635**

Date Bond Executed: \_\_\_\_\_, 2023

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_

\_\_\_\_\_  
(Here insert full name and address or legal title of Contractor, including zip code)

a corporation organized and existing under the laws of the State of \_\_\_\_\_ and authorized to do business in the State of Maryland, hereinafter called the **“Principal”** and \_\_\_\_\_

\_\_\_\_\_  
(Here insert full name and address or legal title of Surety, including zip code)

a corporation organized and existing under the laws of the State of \_\_\_\_\_ and authorized to do business in the State of Maryland, hereinafter called the **“Surety”**, are held and firmly bound unto the Board of County Commissioners of Washington County, Maryland, hereinafter called the **“County”**, the sum of Sum \_\_\_\_\_ *Dollars and* \_\_\_\_\_ *Cents* (\$ \_\_\_\_\_) lawful money of the United States for the payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into or will enter into a contract with the County for the Runway 9-27 Edge Lighting and Signage Replacement – Hagerstown Regional Airport (**Contract No. PUR-1635, hereinafter the “Contract”**), in Washington County, Maryland, which Contract and all work to be done thereunder and all the plans, drawings, and specifications accompanying the same shall be deemed a part hereof and shall be incorporated by reference herein to the same extent as if fully set forth.

NOW, THEREFORE, during the original term of said Contract, during any extensions thereto that may be granted by the County, and during the guarantee and warranty period, if any, required under the Contract, unless otherwise stated therein, this Performance Bond shall remain in full force and effect unless and until the following terms and conditions are met:

1. Principal shall well and truly perform the Contract; and
2. Principal and Surety shall comply with the terms and conditions in this Performance Bond.

Whenever Principal shall be declared by the County to be in default under the Contract, the Surety may, within ten (10) days after notice of default from the County, notify the County of its election to either promptly proceed to remedy the default or promptly proceed to complete the Contract in accordance with and subject to its terms and conditions. In the event the Surety does not elect to exercise either of the above stated options, then the County thereupon shall have the remaining contract work completed, Surety to remain liable hereunder for all expenses of completion up to but not exceeding the penal sum stated above.

The Surety for value received hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder of the Specifications accompanying the same shall in any way affect its obligations on this Performance Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the

Contract or to the work to be performed thereunder of the specifications accompanying the same.

This Performance Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Performance Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

Signed, and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

**WITNESS:**

\_\_\_\_\_  
(Typed Name of Principal)

\_\_\_\_\_  
BY: \_\_\_\_\_ (SEAL)

\_\_\_\_\_  
(Typed Name and Title)

**WITNESS:**

\_\_\_\_\_  
(Typed Name of Surety)

\_\_\_\_\_  
BY: \_\_\_\_\_ (SEAL)

\_\_\_\_\_  
(Typed Name and Title)

\_\_\_\_\_  
(Name of Local Agent)

(\_\_\_\_\_) \_\_\_\_\_  
(Telephone Number of Local Agent)

**SECTION 3  
FAA GENERAL PROVISIONS**

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### 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	<b>AASHTO</b>	The American Association of State Highway and Transportation Officials.
10-02	<b>Access Road</b>	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	<b>Advertisement</b>	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	<b>Airport</b>	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.
10-05	<b>Airport Improvement Program (AIP)</b>	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	<b>Air Operations Area (AOA)</b>	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
10-07	<b>Apron</b>	Area where aircrafts are parked, unloaded or loaded, fueled and/or serviced.
10-08	<b>ASTM International (ASTM)</b>	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	<b>Award</b>	The Owner's notice to the successful bidder of the acceptance of the submitted bid.
10-10	<b>Bidder</b>	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
10-11	<b>Building Area</b>	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.
10-12	<b>Calendar Day</b>	Every day shown on the calendar.
10-13	<b>Certificate of Analysis (COA)</b>	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
10-14	<b>Certificate of Compliance (COC)</b>	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.



<b>10-15</b>	<b>Change Order</b>	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.
<b>10-16</b>	<b>Contract</b>	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. The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.
<b>10-17</b>	<b>Contract Item (Pay Item)</b>	A specific unit of work for which a price is provided in the contract.
<b>10-18</b>	<b>Contract Time</b>	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.
<b>10-19</b>	<b>Contractor</b>	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.
<b>10-20</b>	<b>Contractors Quality Control (QC) Facilities</b>	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
<b>10-21</b>	<b>Contractor Quality Control Program (CQCP)</b>	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
<b>10-22</b>	<b>Control Strip</b>	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
<b>10-23</b>	<b>Construction Safety and Phasing Plan (CSPP)</b>	The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
<b>10-24</b>	<b>Drainage System</b>	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
<b>10-25</b>	<b>Engineer</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, inspection, and/or observation of the contract work and acting directly or through an authorized representative.

10-26	<b>Equipment</b>	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.
10-27	<b>Extra Work</b>	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 Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.
10-28	<b>FAA</b>	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	<b>Federal Specifications</b>	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	<b>Force Account</b>	<p><b>a.</b> Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p><b>b.</b> Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	<b>Intention of Terms</b>	<p>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 Engineer and/or Resident Project Representative (RPR) 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 Engineer and/or RPR, subject in each case to the final determination of the Owner.</p> <p>Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.</p>
10-32	<b>Lighting</b>	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	<b>Major and Minor Contract Items</b>	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	<b>Materials</b>	Any substance specified for use in the construction of the contract work.
10-35	<b>Modification of Standards (MOS)</b>	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.

<b>10-36</b>	<b>Notice to Proceed (NTP)</b>	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.
<b>10-37</b>	<b>Owner</b>	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 Board of County Commissioners of Washington County, Maryland.
<b>10-38</b>	<b>Passenger Facility Charge (PFC)</b>	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
<b>10-39</b>	<b>Pavement Structure</b>	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
<b>10-40</b>	<b>Payment bond</b>	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.
<b>10-41</b>	<b>Performance bond</b>	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.
<b>10-42</b>	<b>Plans</b>	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.'
<b>10-43</b>	<b>Project</b>	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
<b>10-44</b>	<b>Proposal</b>	The written offer of the 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.
<b>10-45</b>	<b>Proposal guaranty</b>	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.
<b>10-46</b>	<b>Quality Assurance (QA)</b>	Owner’s responsibility to assure that construction work completed complies with specifications for payment.
<b>10-47</b>	<b>Quality Control (QC)</b>	Contractor’s responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
<b>10-48</b>	<b>Quality Assurance (QA) Inspector</b>	An authorized representative of the Engineer, Construction Manager and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
<b>10-49</b>	<b>Quality Assurance (QA) Laboratory</b>	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer, Construction Manager or RPR. May also be referred to as Engineer’s, Owner’s, or QA Laboratory.

<b>10-50</b>	<b>Resident Project Representative (RPR)</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative. May also be referred to as the Construction Manager, Engineer, Resident Engineer or Owner's Representative.
<b>10-51</b>	<b>Runway</b>	The area on the airport prepared for the landing and takeoff of aircraft.
<b>10-52</b>	<b>Runway Safety Area (RSA)</b>	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
<b>10-53</b>	<b>Safety Plan Compliance Document (SPCD)</b>	Details how the Contractor will comply with the CSPP.
<b>10-54</b>	<b>Specifications</b>	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.
<b>10-55</b>	<b>Sponsor</b>	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
<b>10-56</b>	<b>Structures</b>	Airport facilities such as 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.
<b>10-57</b>	<b>Subgrade</b>	The soil that forms the pavement foundation.
<b>10-58</b>	<b>Superintendent</b>	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.
<b>10-59</b>	<b>Supplemental Agreement</b>	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 by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
<b>10-60</b>	<b>Surety</b>	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
<b>10-61</b>	<b>Taxilane</b>	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.

<b>10-62</b>	<b>Taxiway</b>	The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.
<b>10-63</b>	<b>Taxiway/Taxilane Safety Area (TSA)</b>	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.
<b>10-64</b>	<b>Work</b>	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.
<b>10-65</b>	<b>Working day</b>	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.
<b>10-66</b>	<b>Owner Defined terms</b>	Airport Design Consultants, Inc. will act as the Construction Manager (CM) on behalf of the Owner for this contract.

**END OF SECTION 10**

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## Section 20 Proposal Requirements and Conditions

### 20-01 Advertisement (Notice to Bidders).

See invitation to bid located at the beginning of the bid book.

**20-02 Qualification of bidders.** Each bidder shall submit evidence of competency and evidence of financial responsibility to perform the work to the Owner at the time of bid opening.

Evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, and a list of equipment and a list of key personnel that would be available for the work. Each bidder shall furnish the Owner satisfactory evidence of 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.

**20-03 Contents of proposal forms.** The Owner's proposal forms state the location and description of the proposed construction; the place, date, and time of opening of the proposals; and the estimated quantities of the various items of work to be performed and materials to be furnished for which unit bid prices are asked. The proposal form states the time in which the work must be completed, and the amount of the proposal guaranty that must accompany the proposal. The Owner will accept only those Proposals properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a proposal irregular are given in paragraph 20-09 *Irregular proposals*.

A Prebid conference is required on this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. The Prebid conference will be held on **Wednesday, October 4, 2023, 1:00 PM (EDT/EST)** in the Hagerstown Regional Airport's ARFF Conference Room, 18434 Showalter Road, Hagerstown, Maryland.

**20-04 Issuance of proposal forms.** The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is in default for any of the following reasons:

- a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.
- b. 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.
- c. Documented record of Contractor default under previous contracts with the Owner.
- d. Documented record of unsatisfactory work on previous contracts with the Owner.

**20-05 Interpretation of estimated proposal quantities.** An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of

the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

**20-06 Examination of plans, specifications, and site.** The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. Bidders shall satisfy themselves to the character, quality, and quantities of work to be performed, materials to be furnished, and to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied to the conditions to be encountered in performing the work and the requirements of the proposed contract, plans, and specifications.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which the bidder may make or obtain from their own examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

**20-07 Preparation of proposal.** The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals which they propose for each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

Prices should generally be written in whole dollars and cents. The extended total amount of each item should not be rounded.

The bidder shall correctly sign the proposal in ink. If the proposal is made by an individual, their name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state where the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of their authority to do so and that the signature is binding upon the firm or corporation.

**20-08 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 taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

**20-09 Irregular proposals.** Proposals shall be considered irregular for the following reasons:

- a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.
- b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.
- c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
- d. If the proposal contains unit prices that are obviously unbalanced.



- e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.
- f. If the applicable Disadvantaged Business Enterprise information is incomplete.

The Owner reserves the right to reject any irregular 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.

**20-10 Bid guarantee.** Each separate 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 the Owner.

The bid guarantee shall be equivalent to 5% of the bid price. It shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.

**20-11 Delivery of proposal.** Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the invitation to bid or as modified by Addendum before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

**20-12 Withdrawal or revision of proposals.** 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 in writing before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

**20-13 Public opening of proposals.** Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

**20-14 Disqualification of bidders.** A bidder shall be considered disqualified for any of the following reasons:

- a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.
- b. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.
- c. If the bidder is considered to be in "default" for any reason specified in paragraph 20-04, *Issuance of Proposal Forms*, of this section.

**20-15 Discrepancies and Omissions.** A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner a written request for interpretation no later than the questions cutoff date.

Any interpretation of the project bid documents by the Owner's Engineer 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.

## 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 on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern.

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 Section 20, paragraph 20-09, *Irregular Proposals*.
- b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.

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 120 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 bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

**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.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the paragraph 30-01, *Consideration of Proposals*. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful 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 bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the 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.

**30-06 Execution of contract.** The successful 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 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 bidder's proposal and the terms of the contract.

**30-08 Failure to execute contract.** Failure of the successful 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 detail, 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's Engineer or RPR 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, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements 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 unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

**40-03 Omitted items.** The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. 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. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

**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 or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed unit 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 RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*. If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

All change orders, supplemental agreements, and contract modifications must eventually be reviewed by the FAA. Unless specifically requested by the FAA, the Owner does not have to obtain prior FAA approval for contract

changes except for the Buy American review, if required. However, if an Owner proceeds with contract changes without FAA approval, it is at the Owner's risk.

**40-05 Maintenance of traffic.** It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

a. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

b. 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 operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

Refer to AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport and AC 150/5370-2, Operational Safety on Airports During Construction for applicable standards.

c. When the contract requires the maintenance of an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. 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/>), 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 Removal of existing structures.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

The removal of large or complicated existing structures such as box-culverts, underground storage tanks, large underground electrical vaults, large reinforced concrete structures or foundations, or similar existing airport facilities should be provided for in separate technical specifications. Contract pay items should also be provided in the contract proposal to cover payment for such work.

**40-07 Rights in and use of materials found in the work.** Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be embankment, the Contractor may at their own option either:

- a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,
- b. Remove such material from the site, upon written approval of the RPR; or
- c. Use such material for the Contractor's own temporary construction on site; or,
- d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the RPR's approval in advance of such use.

Should the RPR approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for use of such material used in the work or removed from the site.

Should the RPR approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of their own exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

**40-08 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. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

**END OF SECTION 40**



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## Section 50 Control of Work

**50-01 Authority of the Resident Project Representative (RPR).** The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR 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 RPR 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 RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR 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 supplemental agreement as applicable.

If the RPR 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 in accordance with the RPR's written orders.

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 RPR's 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 RPR's 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 RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering 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 RPR 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 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, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs contained in the General Conditions, Supplemental Terms and Conditions or Special Provisions conflict with General Provisions or Technical Specifications, the General Conditions, Supplemental Terms and Conditions and Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within standard test methods,

the Contractor shall immediately ask the RPR for an interpretation and decision, and such decision shall be final.

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 Special Provisions. Not Used.**

**50-05 Cooperation of Contractor.** The Contractor shall be supplied with five hard copies and an electronic PDF of the conformed plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the RPR 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 RPR or their authorized representative.

**50-06 Cooperation between Contractors.** The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-07 Construction layout and stakes.** The RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. 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 deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution and control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the

following format(s): LandXML, AutoCAD .dwg file format (2018) and PDF.

Laser, GPS, String line, or other automatic control shall be checked with temporary control as necessary. In the case of error, on the part of the Contractor, their surveyor, employees or subcontractors, resulting in established grades, alignment or grade tolerances that do not concur with those specified or shown on the plans, the Contractor is solely responsible for correction, removal, replacement and all associated costs at no additional cost to the Owner.

No direct payment will be made, unless otherwise specified in contract documents, for this labor, materials, or other expenses. The cost shall be included in the price of the bid for the various items of the Contract.

**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 foreman for the Contractor.

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 RPR 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 RPR 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.

If the RPR requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the Owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

**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 RPR as provided in 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*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the RPR made under the provisions of this subsection, the RPR 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. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own 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.

**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. In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

**50-13 Failure to maintain the work.** Should the Contractor at any time fail to maintain the work as provided in paragraph 50-12, *Maintenance during Construction*, the RPR 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.

Should the Contractor fail to respond to the RPR's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be recovered as a liquidated damage against the Contractor.

**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 RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. 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 RPR 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 RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the RPR 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 RPR 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 RPR 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 RPR 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 RPR 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 10 calendar days, submit a written claim to the RPR 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.

**50-17 Value Engineering Cost Proposal. Not Used.**

**END OF SECTION 50**

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## Section 60 Control of Materials

**60-01 Source of supply and quality requirements.** The materials 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).

In order to expedite the inspection and testing of materials, the Contractor shall furnish documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

The Contractor shall furnish airport lighting equipment that meets the requirements of the specifications; and is listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program* and *Addendum*, that is in effect on the date of advertisement.

**60-02 Samples, tests, and cited specifications.** All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), federal specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the RPR.

A copy of all Contractor QC test data shall be provided to the RPR daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

The Contractor shall perform or employ a Quality Control (QC) testing organization to perform all Contractor required QC tests in accordance with Item C-100 Contractor Quality Control Program (CQCP).

**60-03 Certification of compliance/analysis (COC/COA).** The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.



The form and distribution of certificates of compliance shall be as approved by the RPR.

When a material or assembly is specified by “brand name or equal” and the Contractor elects to furnish the specified “or equal,” the Contractor shall be required to furnish the manufacturer’s certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

The RPR shall be the sole judge as to whether the proposed “or equal” is suitable for use in the work.

The RPR reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

**60-04 Plant inspection.** The RPR or their authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.

Should the RPR conduct plant inspections, the following conditions shall exist:

a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.

b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.

c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

**60-05 Engineer/ Resident Project Representative (RPR) field office.** An Engineer/RPR Office is not required.

**60-06 Storage of materials.** Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor’s plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner’s permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

**60-07 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 by the RPR.

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.

**60-08 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 unit price bid for the contract 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. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

**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 Restoration of surfaces disturbed by others.** The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:

UTILITY	OWNER	PLAN SHEET	CONTACT
Power	N/A	N/A	N/A
Gas	N/A	N/A	N/A
Telecommunications	N/A	N/A	N/A
FAA Facilities	N/A	N/A	N/A

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the RPR.

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-05 Federal Participation.** The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

**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 aircraft and 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 frequent intervals, and upon the order of the RPR. If the RPR 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 RPR 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 Construction Safety and Phasing Plan (CSPP).** The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2G, Operational Safety on Airports During Construction. The CSPP is on sheet(s) G200 to G500 of the project plans.

**70-09 Use of explosives.** When the use of explosives is necessary for the execution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the RPR and, in general, not closer than 1,000 feet (300 m) from the work or from any building, road, or other place of human occupancy.

The Contractor shall notify each property Owner and public utility company having structures or facilities in proximity to the site of the work of their intention to use explosives. Such notice shall be given sufficiently in advance to enable them to take such steps as they may deem necessary to protect their property from injury.

The use of electrical blasting caps shall not be permitted on or within 1,000 feet (300 m) of the airport property.

**70-10 Protection and restoration of property and landscape.** The Contractor shall be responsible for the preservation of all public and private property and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer/RPR has witnessed or otherwise referenced their location and shall not move them until directed.

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 Engineer/RPR and the Owner and their officers, agents, and employees 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 to traffic.** 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, such “phasing” of the work must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

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*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

The Contractor must conform to safety standards contained AC 150/5370-2G and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

**70-14 Contractor’s responsibility for work.** Until the RPR’s final 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, 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 Contractor’s responsibility for utility service and facilities of others.** As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the

Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and/or in the contract documents.

<b>Utility Service or Facility</b>	<b>Person to Contact</b>	<b>Contact</b>
FAA – Martinsburg SSC	Mr. Mark Hayman	540-521-1622
Miss Utility		1-800-257-7777

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of their plan of operations. Such notification shall be in writing addressed to “The Person to Contact” as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor’s opinion, the Owner’s assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner’s “Person to Contact” no later than two normal business days prior to the Contractor’s commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor’s failure to give the two days’ notice shall be cause for the Owner to suspend the Contractor’s operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor’s operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

**70-15.1 FAA facilities and cable runs.** Not Used.

**70-16 Furnishing rights-of-way.** The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor’s operations.

**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 Engineer, RPR, 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 expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, 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 Archaeological and historical findings.** Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

**70-21 Insurance Requirements.** The Contractor shall procure and maintain at his own expense, and without additional cost to the Owner, until final acceptance of the work covered by this Contract, insurance for liability for damages imposed by law, of the kinds and in the amounts as hereinafter provided. Insurance shall be obtained from insurance companies authorized to do work in the State and approved by the Washington County Maryland, Board of Commissioners and it shall cover all operations under the Contract whether performed by the Contractor or by his subcontractors. Before commencement of the work, the Contractor shall furnish to the Engineer, certificates (in six copies) of insurance in forms satisfactory to the Owner, and indicating compliance with the requirements of this General Provision.

The Contractor shall furnish a copy of this General Provision to his insurance broker in order to assure that the policies to be furnished conform exactly to the requirements stated below. The kinds and amounts of insurance, as required solely by the Owner in accordance with the Owner's direction, follow,

**Endorsement.** Policies listed in this Contract must be endorsed, as specified for each policy, as follows, unless such coverage is provided for in the policy:



1. To remove explosion, collapse, and underground hazards exclusion.
2. It is understood and agreed that, if during the course of work employees of the Washington County Maryland, Board of Commissioners are loaned or assigned to the Contractor to perform work in connection with the Contract, such employees are to be considered as employees of the Contractor for the purpose of this insurance.
3. Whereby, the coverage provided under these policies must not be affected if Washington County Maryland, Board of Commissioners performs work in connection with the project, of which the Contract may be only a part, by means of its own employees or if the Owner directs or supervises the work to be performed by the Contractor, but any work which may be performed on the project by the Owner by its own forces under its supervision shall not be covered under these policies.
4. The Certificates shall name Washington County Maryland, Board of Commissioners and Airport Design Consultants, Inc. as additional insured's and the certificates shall be endorsed to provide that the policies shall not be changed or cancelled until twenty (20) days written notice has been given to Washington County Maryland, Board of Commissioners.

**Insurance Coverage to be Provided.**

1. Workmen's Compensation Insurance – The policy shall cover the obligations of the Contractor under the current provisions of the Federal and State Workmen's Compensation Law for all operations under the Contract, whether performed by him/her or by his/hers subcontractors, and including Employer's Liability coverage. The Contract shall be void and of no effect unless the person or corporation making or executing secures and maintains such compensation coverage. This policy must be endorsed in accordance with Endorsement 4 as recited above.
2. Contractor's Comprehensive Bodily Injury and Property Damage Liability
  - a. Bodily Injury and Property Damage Liability (Combined Single Limit) – The minimum amount of such insurance shall provide \$1,000,000 liability for any one occurrence and an aggregate policy limit of \$2,000,000 for all occurrences.
  - b. Property Damage Liability – The minimum amount of such insurance shall provide \$1,000,000 for any one occurrence and an aggregate policy limit of \$2,000,000 on account of all occurrences.
  - c. Comprehensive General Liability including Contractors Liability; Contingent Liability; Contractual Liability; Completed Operations and Products Liability all on the occurrence basis with Personal Injury Coverage and broad form Property Damage.

This policy must be endorsed in accordance with Endorsements 1,2,3, and 4 as recited above.
3. Comprehensive Automobile Liability for Bodily Injury and Property Damage – The same limits of Section 2 shall be provided for claims arising out of the operation of owned, non-owned, and hired automobiles, motorcycles, and trucks as are provided in the Bodily Injury and Property Damage Policies.

This policy must be endorsed in accordance with Endorsement 4 as recited above.
4. Contractor's Protective Liability – The preceding Bodily Injury and Property Damage Policies must be so written as to include contingent bodily injury and contingent property damage coverage for claims arising from the operations of a Subcontractor.
5. Excess General and Automobile Liability – Umbrella liability insurance shall be provided in a minimum amount of \$5,000,000.
6. Owner's Liability Coverage to be Paid by Owner as Follows – The Contractor will obtain an owner's protective legal liability policy in the name of Washington County Maryland, Board of Commissioners with limits of Bodily Injury (including wrongful death)-\$1,000,000 each occurrence and \$2,000,000 aggregate; Property Damage - \$1,000,000 aggregate or in lieu of the above, a combined single limit policy for the above in the amount of \$3,000,000. The cost of such coverage will be borne by Washington County Maryland, Board of Commissioners, either by direct payment by Washington County Maryland, Board of Commissioners for such coverage or by reimbursement of the premium paid by the Contractor. Prior to obtaining the Owner's Protective Liability Policy, the Contractor will first obtain a quote for such coverage

and provide that quote to Washington County Maryland, Board of Commissioners. Washington County Maryland, Board of Commissioners shall then have thirty (30) days from receipt of that quote to determine whether to obtain such coverage itself, for which Washington County Maryland, Board of Commissioners will pay directly, or elect to have the Contractor obtain coverage at the quoted premium, in which case Washington County Maryland, Board of Commissioners will reimburse Contractor in that amount. Upon the expiration of this 30-day period, the Contractor will obtain the coverage and submit proof of payment to Washington County Maryland, Board of Commissioners has advised of its election to obtain the coverage itself.

Whenever the estimated aggregate losses covered by the property damage insurance policies under 2, 3, and 6 above, equals or exceeds 50 percent of the aggregate policy limit, as estimated or determined by Washington County Maryland, Board of Commissioners such policy shall upon ten (10) days written notice by Washington County Maryland, Board of Commissioners be endorsed to restore the initial aggregate policy limits or shall be replaced by another policy having the same limit.

All the aforesaid insurance policies the insurers named therein shall be subject to the approval of Washington County Maryland, Board of Commissioners.

Items 2,3,4, and 5 shall list the Washington County Maryland, Board of Commissioners, Airport Design Consultants, Inc., the Federal Aviation Administration and the Maryland Aviation Administration as additionally insured.

**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 Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least 25 percent of the total contract cost.

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 RPR 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 Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within 10 days of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

**80-03 Execution and progress.** Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR 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 RPR's 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 shall notify the RPR at least 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 shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 72 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2G, Operational Safety on Airports During Construction, latest edition and the approved CSPP.

**80-04.1 Operational safety on airport during construction.** All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2G, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

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 CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

**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, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

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.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

**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 RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. 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 shall be stated in the proposal 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.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

**80-08 Failure to complete on time.** For each calendar day, as specified in the contract, that any work remains uncompleted after the contract time (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 engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract. Liquidated Damages are listed on the Construction Safety and Phasing Plans.

**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 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR 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 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.

**80-11 Work area, storage area and sequence of operations.** The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

**END OF SECTION 80**



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### Section 90 Measurement and Payment

**90-01 Measurement of quantities.** All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term “lump sum” when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, “lump sum” work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

#### Measurement and Payment Terms

Term	Description
<b>Excavation and Embankment Volume</b>	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
<b>Measurement and Proportion by Weight</b>	The term “ton” will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
<b>Measurement by Volume</b>	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
<b>Asphalt Material</b>	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.

Term	Description
<b>Cement</b>	Cement will be measured by the ton (kg) or hundredweight (km).
<b>Structure</b>	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
<b>Timber</b>	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
<b>Plates and Sheets</b>	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
<b>Miscellaneous Items</b>	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
<b>Scales</b>	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.</p> <p>Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p> <p>All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.</p>

Term	Description
<b>Rental Equipment</b>	Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i> .
<b>Pay Quantities</b>	When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

**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 contract in a complete and 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*.

When the “basis of payment” subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

**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 RPR 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 RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR’s order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR’s 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 RPR’s 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.

**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 supplemental agreement authorizing the extra work.

**90-06 Partial payments.** Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored 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.

The Owner shall hold retainage from prime Contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime Contractors based on these acceptances, and require a contract clause obligating the prime Contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 10 days after the Owner's payment to the prime Contractor. The percent withheld shall be 5%.

**a. From the total of the amount determined to be payable on a partial payment, 5 percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:**

**(1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-03. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.**

**(2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.**

**b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 10 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 10 days after the subcontractor's work is satisfactorily completed. 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.**

**c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.**

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

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 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 Payment for materials on hand.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.
- b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the RPR 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.
- e. The Contractor has furnished the Owner evidence that the material stored or stockpiled 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 or stockpiled 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.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled 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 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 RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate 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 RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire sum, 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 partial estimates and payments shall be subject to correction in the final estimate and 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.

**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.

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 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 RPR 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.
- 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. Security for Construction Warranty.
- l. Equipment commissioning documentation submitted, if required.

**END OF SECTION 90**

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## **SECTION 4**

# **FEDERAL PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM (AIP) CONTRACTS**

## Federal Provisions for Airport Improvement Program (AIP) Contracts

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## AIP CONTRACT PROVISIONS

### A1 GENERAL

The contractor (including all subcontractors) agrees to insert the following Federal contract provisions in each lower tier contract(s) (e.g. subcontract or sub-agreement) and to incorporate the applicable requirements of these contract provisions by reference for work done under any purchase orders, rental agreements and other agreements for supplies or services. The contractor also agrees to be responsible for compliance with these contract provisions by any subcontractor, lower-tier subcontractor or service provider.

For the Equal Employment Opportunity (EEO) clause, the term **applicant** means an applicant for employment (whether or not the phrase, *for employment*, follows the word applicant or applicants).

For all other clauses, the term **applicant** means a bidder, offeror, or proposer for a contract.

### A2 ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

### A3 AFFIRMATIVE ACTION REQUIREMENT (Contracts Exceeding \$10,000)

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

#### Timetables

Goals for minority participation for each trade: 25.2%

Goals for female participation in each trade: 6.9%

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

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

purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

#### **A4 BREACH OF CONTRACT TERMS (Contracts Exceeding \$250,000)**

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

#### **A5 FAA BUY AMERICAN PREFERENCE**

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,<sup>1</sup> U.S. statues, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all construction materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist

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Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.

primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

## **A5.1 CERTIFICATE OF COMPLIANCE WITH FAA BUY AMERICAN PREFERENCE – CONSTRUCTION PROJECTS**

### **Certificate of Buy American Compliance for Manufactured Products**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intend to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statues, guidance, and FAA policies, by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statues, guidance, and policies of the FAA by:
- a) Only installing iron, steel and manufactured products produced in the United States;
  - b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
  - c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
  - d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

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

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel and/or manufactured product.
  - b) To faithfully comply with providing U.S. domestic product.
  - c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
  - d) Certify that all construction materials used in the project are manufactured in the U.S.
- The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To the submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
  - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
  - c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
  - d) To furnish U.S. domestic product for any waiver request that the FAA rejects.

- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified

**Required Documentation**

**Type 2 Waiver (Nonavailability)** - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

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

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

**Type 4 Waiver (Unreasonable Costs)** – Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) At minimum two comparable equal bidders and/or offerors;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005; indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title

**A6. CIVIL RIGHTS - GENERAL**

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statues, Executive Orders, and such rules as identifies in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the ground of race, color, national origin (including limited English proficiency), creed, sec (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

## **A7. CIVIL RIGHTS – TITLE VI ASSURANCE**

### **A7.1 Title VI Solicitation Notice**

The **Board of County Commissioners of Washington County**, 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 for 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 no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

### **A7.2 Title VI List of Pertinent Nondiscrimination Acts and Authorities**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 (2005));



- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681 et seq).

### **A7.3 Compliance with Nondiscrimination Requirements**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor’s noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States

## **A8 CLEAN AIR AND WATER POLLUTION CONTROL (Contracts Exceeding \$150,000)**

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 USC §§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceed \$150,000.

## **A9 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS (Contracts Exceeding \$100,000)**

### **1. Overtime Requirements.**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

### **2. Violation; Liability for Unpaid Wages; Liquidated Damages.**

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

### **3. Withholding for Unpaid Wages and Liquidated Damages.**

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

### **4. Subcontractors.**

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

## **A10 COPELAND "ANTI-KICKBACK" ACT (Contracts Exceeding \$2,000)**

Contractor must comply with the requirements of the Copeland "Anti-Kickback" Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

## A11 DAVIS-BACON REQUIREMENTS (Contracts Exceeding \$2,000)

### 1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii) (A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of

all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account asset for the meeting of obligations under the plan or program.

## **2. Withholding.**

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and Basic Records.**

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or

mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

#### **4. Apprentices and Trainees.**

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 § CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The

ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

#### **5. Compliance with Copeland Act Requirements.**

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

#### **6. Subcontracts.**

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

#### **7. Contract Termination: Debarment.**

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

#### **8. Compliance with Davis-Bacon and Related Act Requirements.**

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

#### **9. Disputes Concerning Labor Standards.**

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

## **10. Certification of Eligibility.**

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

## **A12 DEBARMENT AND SUSPENSION (Contracts Exceeding \$25,000)**

### **A12.1 Certification of Offeror/Bidder Regarding Debarment**

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

### **A12.2 Certification of Lower Tier Contractors Regarding Debarment**

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

1. Checking the System for Award Management at website: <http://www.sam.gov>.
2. Collecting a certification statement similar to the Certification of Offeror /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.

## **A13 DISADVANTAGED BUSINESS ENTERPRISE**

### **A13.1 Information Submitted as A Matter of Bidder Responsiveness**

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
- 5) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.



### **A13.2 Bid Information Submitted as A Matter of Bidder Responsibility**

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

As a condition of responsibility, every Bidder or Offeror must submit the following information on the forms provided herein within five days after bid opening.

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal;
- 5) Written confirmation from each DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

### **A13.3 Race/Gender Neutral Means**

The requirements of 49 CFR part 26 apply to this contract. It is the policy of The Board of County Commissioners of Washington County to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

### **A13.4 Projects Covered by A DBE Program**

#### **DISADVANTAGED BUSINESS ENTERPRISES**

##### **Contract Assurance (49 CFR § 26.13)**

The Contractor, subrecipient 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 Owner 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.

##### **Prompt Payment (§26.29) –**

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from The Board of County Commissioners of Washington County. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame

may occur only for good cause following written approval of The Board of County Commissioners of Washington County. This clause applies to both DBE and non-DBE subcontractors.

### **Termination of DBE Subcontracts (49 CFR § 26.53(f)) –**

The prime contractor must not terminate a DBE subcontractor listed in response to Section A13.1 (or an approved substitute DBE firm) without prior written consent of The Board of County Commissioners of Washington County. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from The Board of County Commissioners of Washington County. Unless The Board of County Commissioners of Washington County's consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The prime contractor may provide such written consent only if The Board of County Commissioners of Washington County agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR § 26.53.

Before transmitting to The Board of County Commissioners of Washington County its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the SBE subcontractor, with a copy to The Board of County Commissioners of Washington County, of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise The Board of County Commissioners of Washington County and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why The Board of County Commissioners of Washington County should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), The Board of County Commissioners of Washington County may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

## **A14 DISTRACTED DRIVING (Contracts Exceeding \$10,000)**

### **A14.1 Texting When Driving**

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving", (10/1/2009) and DOT Order 3902.10, "Text Messaging While Driving", (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$10,000 that involve driving a motor vehicle in performance of work activities associated with the project.

## **A15 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT**

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

## **A16 DRUG FREE WORKPLACE REQUIREMENTS**

Not Applicable.

## **A17 EQUAL EMPLOYEMENT OPPORTUNITY (EEO) (Contracts Exceeding \$10,000)**

### **A17.1 Equal Opportunity Clause**

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- (4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and

the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

#### **A17.2 Standard Federal Equal Employment Opportunity Construction Contract Specifications**

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
  - d. "Minority" includes:
    - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
    - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation, and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

- c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
  - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
  - m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are nonsegregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

#### **A18 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

#### **A19 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES (Contracts Exceeding \$100,000)**

##### **A19.1 Certification Regarding Lobbying**

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

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of



Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

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

## **A20. PROHIBITION OF SEGREGATED FACILITIES**

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

## **A21 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

## **A22 PROCUREMENT OF RECOVERED MATERIALS (Contracts Exceeding \$10,000)**

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year;  
or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at [www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products](http://www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products).

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

### **A23 RIGHT TO INVENTIONS**

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR § 401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

### **A24 SEISMIC SAFETY**

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

### **A25 TAX DELINQUENCY AND FELONY CONVICTIONS**

#### **A25.1 Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions**

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

#### **Certifications**

- 1) The applicant represents that it is ( ) is not ( ) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The applicant represents that it is ( ) is not ( ) a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

## Note

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the Sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

## Term Definitions

**Felony conviction:** Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

**Tax Delinquency:** A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

## A26 TERMINATION OF CONTRACT (Contracts Exceeding \$10,000)

### A26.1 Termination for Convenience

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

- 1) Contractor must immediately discontinue work as specified in the written notice.
- 2) Terminate all subcontracts to the extent they relate to the work terminated under the notice.
- 3) Discontinue orders for materials and services except as directed by the written notice.
- 4) Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
- 5) Complete performance of the work not terminated by the notice.
- 6) Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

- 1) Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
- 2) Documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
- 3) Reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
- 4) Reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

### **A26.2 Termination for Cause (Construction)**

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes standard language for conditions, rights, and remedies associated with Owner termination of this contract for cause due to default of the Contractor.

### **A26.3 Termination for Cause (Equipment)**

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract for cause if the Contractor:

1. Fails to begin the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;
5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within [10] days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

## **A27 TRADE RESTRICTION CERTIFICATION**

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

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

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

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

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

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

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

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

## **A28 VETERAN'S PREFERENCE**

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf

veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 § USC 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

## **A29 DOMESTIC PREFERENCES FOR PROCUREMENTS**

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

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**SECTION 5**  
**TECHNICAL SPECIFICATIONS**



## **List of Specification**

- ITEM C-105 Mobilization
- ITEM M-100 Maintenance and Protection of Traffic
- ITEM M-150 Project Survey and Stakeout
- ITEM P-152 Excavation, Subgrade, and Embankment
- ITEM P-610 Concrete for Miscellaneous Structures
- ITEM L-100 General Provisions and Requirements for Electrical Work
- ITEM L-108 Underground Power Cable for Airports
- ITEM L-109 Airport Transformer Vault and Vault Equipment
- ITEM L-125 Installation of Airport Lighting System

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### Item C-105 Mobilization

**105-1 Description.** This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

**105-2 Mobilization limit.** Mobilization shall not exceed ten percent (10%) of the contract bid price excluding the bid price for mobilization. Should the bidder exceed the foregoing ten percent (10%), the bidder shall distribute the amount in excess of the ten percent (10%) among other items of work.

**105-3 Posted notices.** Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster “Equal Employment Opportunity is the Law” in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL “Notice to All Employees” Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

**105-4 Engineer/RPR field office.** An Engineer/RPR field office is not required.

### METHOD OF MEASUREMENT

**105-5 Basis of measurement and payment.** Based upon the contract lump sum price for “Mobilization” partial payments will be allowed as follows:

- a. With first pay request, 25%.
- b. When 25% or more of the original contract is earned, an additional 25%.
- c. When 50% or more of the original contract is earned, an additional 40%.
- d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

### BASIS OF PAYMENT

**105-6 Payment will be made under:**

Item C-105-6.1                      Mobilization – per lump sum

### REFERENCES

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

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 – Employee Rights under the Davis-Bacon Act Poster

**END OF ITEM C-105**

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## Item M-100 Maintenance and Protection of Traffic

### DESCRIPTION

**1.1 GENERAL.** This work shall consist of maintaining aircraft and vehicular traffic and protecting the public from damage to person and property within the limits of and for the duration of the Contract. This work shall also consist of implementing and complying with the Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD). This work shall also include installation of new temporary haul routes, maintenance of new and existing haul routes, as well as the restoration of any haul routes as shown on the plans.

**2.1 Maintenance of Aircraft and Vehicular Traffic.**

The following items are specifically included without limiting the generality implied by these Specifications and the Contract Drawings. Many of the items below are also required to comply with the CSPP and SPCD.

- Installation, maintenance, and removal of temporary haul roads.
- Restoration of all surfaces disturbed as a result of the Contractor's Operations.
- Providing, placing, maintaining, relocating and removal of temporary barricades/lights, warning signs and hazard markings.
- Installation, maintenance, and removal of all temporary markings.
- Testing and maintenance of existing and new lighting circuitry.
- Cleaning and maintenance of all paved areas.
- Security requirements including crossing guards, gate guards, and airfield escorts. If the contractor fails to provide qualified personnel for these functions, Owner or Engineer will provide qualified personnel and will back charge the Contractor for all these costs.
- Communication with the air traffic control tower regarding work schedules and closures will be provided by the Engineer and Owner. However, communication with the Tower for escorting and monitoring air traffic shall be the contractor responsibility.
- Construction, removal and restoration of stone roads, asphalt ramps and dirt haul roads.
- Dust control for the duration of the project.

**2.2 Construction Safety and Phasing Plan (CSPP).** The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction, latest edition. The requirements of the CSPP are included in the contract drawings and Appendix A of the Specifications.

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, such "phasing" of the work is specified and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the contract drawings. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, transition ramps, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction, latest edition. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP. **The SPCD must be approved by the RPR/Owner prior to issuance of the Notice to Proceed.**

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 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 CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

In addition to the items listed in 2.1, the following items are specifically included in the CSPP, without limiting the generality implied by these Specifications and the Contract Drawings.

- Preparing the SPCD
- Scheduling and Updates
- Look Ahead Schedules
- Conducting and Attending Construction Progress, Safety and Security Meetings
- Providing flaggers and escort personnel. All must have airfield training
- Installation, maintenance, and removal of flood lights for night time construction
- Maintenance of access roads and staging areas
- Maintenance and protection of utilities
- Installation, maintenance, and removal of temporary protection during demolition, milling and paving operations
- Cleaning of paved surfaces
- Foreign Object Debris (FOD) removal
- Wildlife Management
- Restoration of surfaces disturbed as a result of the Contractor's operations
- Providing, maintaining, and removing warning signs, hazard markings, barricade lights
- Providing padlocks for access gates
- Providing a trained guard at access gates.
- Security requirements.

### **METHOD OF MEASUREMENT**

**3.1 Method of measurement.** Based upon the contract lump sum price for "Maintenance and

Protection of Traffic and CSPP” partial payments will be allowed as follows:

- a. With first pay request, 25%.
- b. When 25% or more of the original contract is earned, an additional 25%.
- c. When 50% or more of the original contract is earned, an additional 40%.
- d. After Final Inspection and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

### **BASIS OF PAYMENT**

**4.1 Basis of payment.** The lump sum bid price for Maintenance and Protection of Traffic and CSPP shall include all equipment, materials, and labor necessary to adequately and safely maintain and protect traffic and to implement and comply with the CSPP and SPCD.

In the event the contract completion date is extended, no additional payment will be made for maintenance and protection of traffic and for the CSPP.

Progress payments will be made for this item in proportion to the total amount of contract work completed, less any deductions for unsatisfactory maintenance and protection of traffic and non-compliance and failure to implement the CSPP and SPCD.

No payment will be made under maintenance and protection of traffic and CSPP for each calendar day during which there are substantial deficiencies in compliance with the Specification requirements of any subsection of this Section as determined by the RPR.

The amount of such calendar day non-payment will be determined by dividing the lump sum amount bid for maintenance and protection of traffic and CSPP by the number of calendar days between the date the Contractor commences work and the date of completion as designated in this proposal, without regard to any extension of time.

If the Contractor fails to maintain and protect traffic and/or fails to comply with or implement the CSPP and SPCD adequately and safely for a period of 24 hours, the Owner shall correct the adverse conditions by any means it deems appropriate and shall deduct the cost of the corrective work from any monies due the Contractor. The cost of this work shall be in addition to the liquidated damages and non-payment for maintenance and protection of traffic and CSPP listed above.

However, where major nonconformance with the requirements of this Specification is noted by the RPR and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the RPR regardless of whether corrections are made by the Owner as stated in the paragraph above.

**Payment will be made under:**

Item M-100-4.1                      Maintenance and Protection of Traffic and CSPP – per lump sum

**END OF ITEM M-100**

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## Item M-150 Project Survey and Stakeout

### DESCRIPTION

- 1.1 Under this item, the Contractor shall perform all necessary surveying required to construct all elements of the Project as shown on the Contract Drawings and specified in the Proposal and Specifications. This shall include but not be limited to stakeout, layout and elevations for pavement, structures, control joints and forms, as shown and required, consistent with the current practices. The stakeout survey shall proceed immediately following the award of the Contract and shall be expeditiously progressed to completion in a manner and at a rate satisfactory to the RPR. The Contractor shall keep the RPR fully informed as to the progress of the stakeout survey. All survey work shall be provided under the direction of a Maryland licensed land surveyor.

### MATERIALS

- 2.1 All instruments, equipment, stakes and any other material necessary to perform the work satisfactorily shall be provided by the Contractor.

All stakes used shall be of a type approved by the RPR. It shall be the Contractor's responsibility to maintain these stakes in their proper position and location at all times.

### CONSTRUCTION DETAILS

- 3.1 The exact position of all work shall be established from control points, baseline transit points or other points of similar nature which are shown on the Contract Drawings and/or modified by the RPR. Any error, apparent discrepancy or absence in or of data shown or required for accurately accomplishing the stakeout survey shall be referred to the RPR for interpretation or furnishing when such is observed or required.

The Contractor shall place two offset stakes or references at each centerline station and at such intermediate locations as the RPR may direct. From computations and measurements made by the Contractor, these stakes shall be clearly and legibly marked with the correct centerline station number, offset and cut or fill so as to permit the establishment of the exact centerline location and elevation during construction. If markings become faded or blurred for any reason, the markings shall be restored by the Contractor and at the request of the RPR. He shall locate and place all cut, fill, slope, fine grade or other stakes and points, as the RPR may direct for the proper progress of the work. All control points shall be properly guarded and flagged for easy identification.

All structures shall be staked out by the Contractor at the locations and elevations shown on the Contract Drawings or specified by the RPR. Reference points, baselines, stakes and benchmarks for borrow pits shall be established by the Contractor. Permanent survey marker locations shall be established and referenced by the Contractor.

The Contractor shall be responsible for the accuracy of his work and shall maintain all reference points, stakes, etc., throughout the life of the Contract. Damaged or destroyed points, benchmarks or stakes, or any reference points made inaccessible by the progress of the construction, shall be replaced or transferred by the Contractor. Any of the above points which may be destroyed or damaged shall be transferred by the Contractor before they are damaged or destroyed. All control points shall be referenced by ties to acceptable objects and recorded. Any alterations or revisions in the ties shall be so noted and the information furnished to the RPR immediately. All stakeout survey work shall be referenced to the centerlines shown on the Contract Drawings. All

computations necessary to establish the exact position of the work from control points shall be made and preserved by the Contractor. All computations, survey notes and other records necessary to accomplish the work; shall be neatly made. Such computations, survey notes and other records shall be made available to the RPR upon request and shall become the property of the Owner and delivered to the RPR not later than the date of acceptance of the Contract.

The RPR may check all or any portion of the stakeout survey work or notes made by the Contractor. Any necessary correction to the work shall be made immediately by the Contractor. Such checking by the RPR shall not relieve the Contractor of any responsibilities for the accuracy or completeness of his work.

Prior to the final cross-section survey of the Project by the RPR, the Contractor shall reestablish centerline or baseline points and stationing as required by the RPR.

During the progress of the construction work, the Contractor will be required to furnish all of the surveying and stakeout incidental to the proper location by line and grade for each phase of the work. For paving and any other operation requiring extreme accuracy, the Contractor will re-stake with pins or other acceptable hubs located directly adjacent to the work as stated in the FAA General Provisions Section 50-07 Construction Layout and Stakes.

Any existing stakes, iron pins, survey monuments or other markers defining property lines or airfield features which may be disturbed during construction shall be properly tied into fixed reference points before being disturbed and accurately reset in their proper position upon completion of the work. Just prior to completion of the Contract, the Contractor shall reestablish, if necessary, and retie all control points as permanently as possible and to the satisfaction of the RPR.

#### **METHOD OF MEASUREMENT**

- 4.1 Payment will be made at the lump sum price bid for this item.

#### **BASIS OF PAYMENT**

- 5.1 The lump sum price bid shall include the cost of furnishing all labor, equipment, instruments and all other material necessary to satisfactorily complete the Project surveying and stakeout. Partial payments may be made at the discretion of the RPR and owner as the work progresses.

Payment will be made under:

Item M-150-5.1            Project Survey and Stakeout – per lump sum

#### **END OF ITEM M-150**

## Item P-152 Excavation, Subgrade, and Embankment

### DESCRIPTION

**152-1.1** This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

**152-1.2 Classification.** All material excavated shall be classified as defined below:

- a. **Unclassified excavation.** Unclassified excavation shall consist of the excavation of all material, regardless of its nature. Topsoil shall be stockpiled separately
- b. **Borrow excavation.** Borrow excavation shall consist of approved material required for the construction of embankments or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas designated by the Resident Project Representative (RPR) within the limits of the airport property but outside the normal limits of necessary grading, or from areas outside the airport boundaries.

**152-1.3 Unsuitable excavation.** Unsuitable material shall be disposed in designated waste areas as shown on the plans. Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used on the embankment slope when approved by the RPR.

### CONSTRUCTION METHODS

**152-2.1 General.** Before beginning excavation, grading, and embankment operations in any area, the area shall be prepared and pavement removed in accordance with Item P-101.

The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of off Airport property in accordance with local laws and regulations.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches, to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

**a. Blasting.** Blasting shall not be allowed.

**152-2.2 Excavation.** No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

Digital terrain model (DTM) files of the existing surfaces, finished surfaces and other various surfaces were used to develop the design plans.

Existing grades on the design cross sections or DTM's, where they do not match the locations of actual spot elevations shown on the topographic map, were developed by computer interpolation from those spot elevations. Prior to disturbing original grade, Contractor shall verify the accuracy of the existing ground surface by verifying spot elevations at the same locations where original field survey data was obtained as indicated on the topographic map. Contractor shall recognize that, due to the interpolation process, the actual ground surface at any particular location may differ somewhat from the interpolated surface shown on the design cross sections or obtained from the DTM's. Contractor's verification of original ground surface, however, shall be limited to verification of spot elevations as indicated herein, and no adjustments will be made to the original ground surface unless the Contractor demonstrates that spot elevations shown are incorrect. For this purpose, spot elevations which are within 0.1 foot of the stated elevations for ground surfaces, or within 0.04 foot for hard surfaces (pavements, buildings, foundations, structures, etc.) shall be considered "no change". Only deviations in excess of these will be considered for adjustment of the original ground surface. If Contractor's verification identifies discrepancies in the topographic map, Contractor shall notify the RPR in writing at least two weeks before disturbance of existing grade to allow sufficient time to verify the submitted information and make adjustments to the design cross sections or DTM's. Disturbance of existing grade in any area shall constitute acceptance by the Contractor of the accuracy of the original elevations shown on the topographic map for that area.

All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of off Airport property in accordance with local laws and regulations.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

**a. Selective grading.** When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

**b. Undercutting.** Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed of off Airport property in accordance with local laws and regulations. The cost is incidental to this item. This excavated material shall be paid for at the contract unit price per cubic yard. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a

part of the embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as unclassified excavation.

**c. Over-break.** Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

**d. Removal of utilities.** The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by the Contractor as indicated on the plans. All existing foundations shall be excavated at least 2 feet below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans.

**152-2.3 Borrow excavation.** Borrow areas within the airport property shall be coordinated with the RPR. Borrow excavation shall be made only at these designated locations and within the horizontal and vertical limits as staked or as directed by the RPR. All unsuitable material shall be disposed of by the Contractor as shown on the plans. All borrow pits shall be opened to expose the various strata of acceptable material to allow obtaining a uniform product. Borrow areas shall be drained and left in a neat, presentable condition with all slopes dressed uniformly. Borrow areas shall not create a hazardous wildlife attractant.

**152-2.4 Drainage excavation.** Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. Ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas or as directed by the RPR. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross-section and shall keep them free of debris or obstructions until the project is accepted.

**152-2.5 Preparation of cut areas or areas where existing pavement has been removed.** In those areas on which a subbase or base course is to be placed, the top 12 inches of subgrade shall be compacted to not less than 100 % of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

**152-2.6 Preparation of embankment area.** All sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches and shall then be compacted per paragraph 152-2.10.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

**152-2.7 Control Strip.** The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches upon the Contractor's demonstration

that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

**152-2.8 Formation of embankments.** The material shall be constructed in lifts as established in the control strip, but not less than 6 inches nor more than 12 inches of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained due to rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each lift shall be within  $\pm 2\%$  of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The Contractor will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with ASTM D 1557. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the Contractor for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR.

If the material has greater than 30% retained on the 3/4-inch sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles.

Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D1557. Under all areas to be paved, the embankments shall be compacted to a depth as shown on the details and to a density of not less than 100 percent of the maximum density as determined by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches which shall be prepared for a seedbed in accordance with Item T-901.

The in-place field density shall be determined in accordance with ASTM D1556. The Contractor's laboratory shall perform all density tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance. If the specified density is not attained, the area represented by the test or as

designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches in their greatest dimensions will not be allowed in the top 12 inches of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement, asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet (60 cm) in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet (1.2 m) below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in lifts, compacting, discing, watering, mixing, sloping, and other operations necessary for construction of embankments will be included in the contract price for excavation, borrow, or other items.

**152-2.9 Proof rolling.** The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. Before start of embankment, and after compaction is completed, the subgrade area shall be proof rolled with a Tandem axle Dual Wheel Dump Truck loaded to the legal limit with tires inflated to 100 psi in the presence of the RPR. Apply a minimum of two (2) coverages, or as specified by the RPR, under pavement areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1 inch or show permanent deformation greater than 1 inch shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.

**152-2.10 Compaction requirements.** The subgrade under areas to be paved shall be compacted to a depth of 12 inches and to a density of not less than 100 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

The material to be compacted shall be within  $\pm 2\%$  of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the  $\frac{3}{4}$  inch (19.0 mm) sieve, follow the methods in ASTM D1557 Tests for moisture content and compaction will be taken at a minimum of 3,000 S.Y. of subgrade. All quality assurance testing shall be done by the Contractor's laboratory in the presence of the RPR, and density test results shall be furnished upon completion to the RPR for acceptance determination.

The in-place field density shall be determined in accordance with ASTM D1556.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

**152-2.11 Finishing and protection of subgrade.** Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

**152-2.12 Haul.** All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

**152-2.13 Surface Tolerances.** In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches, reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. **Smoothness.** The finished surface shall not vary more than +/- 1/2 inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot straightedge for the full length of each line on a 50-foot grid.
- b. **Grade.** The grade and crown shall be measured on a 50-foot grid and shall be within +/-0.05 feet of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

**152-2.14 Topsoil.** When topsoil is specified or required as shown on the plans or under Item T-905, it shall be salvaged from stripping or other grading operations. The topsoil shall meet the requirements of Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its final section of finished construction, the material shall be stockpiled at approved locations. Stockpiles shall be located as shown on the plans or approved by the RPR, and shall not be placed on areas that subsequently will require any



excavation or embankment fill. If, in the judgment of the RPR, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further re-handling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as shown on the plans and as required in Item T-905. Topsoil shall be paid for as provided in Item T-905. No direct payment will be made for topsoil spreading under Item P-152.

### METHOD OF MEASUREMENT

**152-3.1** Excavation, subgrade, and embankment shall not be measured and shall be incidental to the work completed in place including but not limited to duct bank backfill.

### BASIS OF PAYMENT

**152-4.1** No separate payment will be made for excavation, subgrade, and embankment. The cost of work, complete in place, described in this specification section shall be incidental to the work requiring earthen backfill.

### REFERENCES

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

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180 Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop

ASTM International (ASTM)

ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>))

ASTM D1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2700 kN-m/m<sup>3</sup>))

ASTM D6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

Advisory Circulars (AC)

AC 150/5370-2 Operational Safety on Airports During Construction Software

Software

FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design

U.S. Department of Transportation

FAA RD-76-66 Design and Construction of Airport Pavements on Expansive Soils

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## Item P-610 Concrete for Miscellaneous Structures

### DESCRIPTION

**610-1.1** This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all structural and miscellaneous concrete other than airfield pavement including but not limited to sign foundations which are cast-in-place.

### MATERIALS

**610-2.1 General.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Resident Project Representative (RPR) before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

**a. Reactivity.** Fine aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix.

If the expansion is greater than 0.20%, the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

**610-2.2 Coarse aggregate.** The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.

### Coarse Aggregate Grading Requirements

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 1/2 inch	467 or 4 and 67
1 inch	57
3/4 inch	67
1/2 inch	7

#### 610-2.2.1 Coarse Aggregate susceptibility to durability (D) cracking.

Coarse aggregate may only be accepted from sources that have a 20-year service history for the same gradation to be supplied with no history of D-Cracking. Aggregates that do not have a 20-year record of service free from major repairs (less than 5% of slabs replaced) in similar conditions without D-cracking shall not be used unless the material currently being produced has a durability factor greater than or equal to 95 per ASTM C666. The Contractor shall submit a current certification and test results to verify the aggregate acceptability. Test results will only be accepted from the Maryland State Department of Transportation (MDOT) materials laboratory or an accredited laboratory. Certification and test results which are not dated or which are over one (1) year old or which are for different gradations will not be accepted.

Crushed granite, calcite cemented sandstone, quartzite, basalt, diabase, rhyolite or trap rock are considered to meet the D-cracking test requirements but must meet all other quality tests specified in Item P-501.

**610-2.3 Fine aggregate.** The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.

**610-2.4 Cement.** Cement shall conform to the requirements of ASTM C150 Type I.

#### 610-2.5 Cementitious materials.

**a. Fly ash.** Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash shall have a Calcium Oxide (CaO) content of less than 13% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the RPR.

**b. Slag cement (ground granulated blast furnace (GGBF)).** Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.

**610-2.6 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

**610-2.7 Admixtures.** The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the RPR from

the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

**a. Air-entraining admixtures.** Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

**b. Water-reducing admixtures.** Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

**c. Other chemical admixtures.** The use of set retarding, and set-accelerating admixtures shall be approved by the RPR. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.

**610-2.8 Premolded joint material.** Premolded joint material for expansion joints shall meet the requirements of ASTM D1751.

**610-2.9 Joint filler.** The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

**610-2.10 Steel reinforcement.** Reinforcing shall consist of **reinforcing steel** conforming to the requirements of ATSM A615.

**610-2.11 Materials for curing concrete.** Curing materials shall conform to ASTM C171 and C309.

## CONSTRUCTION METHODS

**610-3.1 General.** The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the RPR.

**610-3.2 Concrete Mixture.** The concrete shall develop a compressive strength of 4000 psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cementitious material per cubic yard. The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches as determined by ASTM C143.

**610-3.3 Mixing.** Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94 or ASTM C685.

The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F without the RPRs approval. If approval is granted for mixing under such conditions, aggregates, or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F nor more than 100°F. The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

**610-3.4 Forms.** Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface.

**610-3.5 Placing reinforcement.** All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

**610-3.6 Embedded items.** Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

**610-3.7 Concrete Consistency.** The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.

**610-3.8 Placing concrete.** All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the RPR. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet. Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

**610-3.9 Vibration.** Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.

**610-3.10 Joints.** Joints shall be constructed as indicated on the plans.

**610-3.11 Finishing.** All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated.

**610-3.12 Curing and protection.** All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.

**610-3.13 Cold weather placing.** When concrete is placed at temperatures below 40°F, follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.

**610-3.14 Hot weather placing.** When concrete is placed in hot weather greater than 85°F, follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

### QUALITY ASSURANCE (QA)

**610-4.1 Quality Assurance sampling and testing.** Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content in accordance with ASTM C231; make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

**610-4.2 Defective work.** Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

### METHOD OF MEASUREMENT

**610-5.1** Concrete shall not be measured and shall be incidental to the work completed in place including but not limited to edge light can and sign base construction.

### BASIS OF PAYMENT

**610-6.1** No separate payment will be made for concrete for miscellaneous structures. The cost of work, complete in place, described in this specification section shall be incidental to the installation of structures requiring concrete.

### REFERENCES

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

ASTM International (ASTM)

ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete

ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)



ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)
ASTM D1752	Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction

American Concrete Institute (ACI)

ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 308R	Guide to External Curing of Concrete
ACI 309R	Guide for Consolidation of Concrete

**END OF ITEM P-610**

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## Item L-100 General Provisions and Requirements for Electrical Work

### DESCRIPTION

#### 100-1.1 GENERAL

The electrical portion of the project includes all supervision, labor, materials, tools, equipment, workmanship, transportation and shop services required for complete installations, ready for continuous and satisfactory service as shown on the drawings and specified herein. The various Airport and FAA facilities affected include:

- a. Remove existing light base mounted airfield light fixtures and isolation transformers and reinstall existing airfield light fixtures with new isolation transformers where shown on the plans.
- b. Remove existing cabling from conduit and replace with new cabling where shown on the plans. Provide L-823 connectors in all light base and junction points.
- c. Existing direct buried cable for airfield lighting to be abandoned in place.
- d. Provide and install new light bases light fixtures as shown on the plans.
- e. Provide new conduits, duct banks, handholes, junction cans, manholes, and connections as shown on the plans.
- f. Repair existing (conduits, etc.) that are damaged by construction.
- g. Provide temporary lighting and power during construction.

#### 100-1.2 RELATED DOCUMENTS

Work shall be in accordance with Federal Aviation Administration Advisory Circular No. 150-5370-10, "Standards for Specifying Construction of Airports," as modified herein, other FAA Advisory Circulars and Specifications referred to herein and other requirements as specified herein.

- a. Drawings and general provisions of the Contract apply to this Section.

Additional details pertaining to a specific system covered in this item are contained in the FAA Order and Advisory Circulars listed below. Copies of the FAA Order may be obtained from:

Subsequent Distribution Section M-494.3	or	Document Inspection Facility, APA-220
Department of Transportation		U.S. Department of Transportation
400 Seventh Street, S.W.		Federal Aviation Administration
Washington, D.C. 20590		Washington, D.C. 20591

Or [www.faa.gov](http://www.faa.gov)

- b. FAA Order 6850.2B (or latest edition), Visual Guidance Lighting Systems.
- c. Advisory Circular 150/5345-7F (or latest edition), Specification for L-824 Underground Electrical Cable for airport Circuits.

- d. Advisory Circular 150/5345-26D (or latest edition), Specification for L-823 Plug and Receptacle, Cable Connectors.
- e. Advisory Circular 150/5345-42H (or latest edition), Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories.
- f. Advisory Circular 150/5345-45C (or latest edition), Low-Impact Resistant (LIR) Structures
- g. Advisory Circular 150/5345-46E (or latest edition), Specification for Runway and Taxiway Lighting system
- h. Advisory Circular 150/5345-53D (or latest edition), Airport Lighting Equipment Certification Program
- i. Advisory Circular 150/5220-23 (or latest edition), Frangible Connections
- j. FAA-STD-19e (or latest edition), Specifications for Lightning Protection, Grounding, Bonding, and Shielding Requirements for Facilities
- k. N JO 3900.73, Lockout/Tagout Procedures- New Equipment Installation and major modifications
- l. FAA-C-1391b (or latest edition), Installation and Splicing of Underground Cables
- m. NEC, National Electric Code (NFPA 70)
- n. NECA, Standard for Installation
- o. NEMA, Standard for Materials and Products
- p. NFPA, No. 101, Life Safety Code
- q. UL, Underwriters Laboratories

### 100-1.3 DEFINITIONS

- a. **Authority:** Board of County Commissioners of Washington County, Maryland.
- b. **Contractor:** The Individual or Company awarded the Contract to perform the construction work described in the Contract Documents.
- c. **EES:** Earth Electrode System
- d. **RPR:** The organization or individual employed to oversee the Project as the Specifically Authorized Representative or Agent of the RPR.
- e. **Handhole/Manhole** Throughout the specifications, the term, manhole, or handhole is used to represent all below grade electrical chambers.

- f. **Light Bar.** Threshold bars, typically associated with Approach Light Systems.
- g. **Directive Verbs:** The information in these Specifications contains requirement criteria, recommended practices, and other guidance instructions which require the use of certain directive verbs such as: **SHALL, SHOULD, MAY, MUST, WILL FURNISH, and PROVIDE.** In these specifications, the explicit meaning of each verb is as follows:
- (1) **SHALL:** The action is mandatory.
  - (2) **SHOULD:** The action is desirable or recommended.
  - (3) **MAY:** The action is permissible.
  - (4) **MUST:** The action is required in support of a mandatory action.
  - (5) **WILL:** The action is to be undertaken at some point in the future.
  - (6) **FURNISH:** To supply or make available whatever is needed.
  - (7) **PROVIDE:** Furnish, install, and connect up, complete.

### 100-1.3 QUALIFICATIONS

All work shall be performed in strict accordance with these contract specifications, drawings, and any instructions that may be furnished by the RPR during execution of the work to aid in interpretations of said drawings and specifications. The Contractor shall keep these and all applicable specifications on file at his airport construction office. Electrical work shall be performed by an Electrical Contractor licensed in the State of Maryland with at least five (5) years experience in airfield lighting (in-pavement as well as elevated lighting) installation. Proof of experience shall be submitted with bid. Workmen installing electrical systems shall have a current Apprentice license. Apprentices shall have a minimum of three (3) years experience installing electrical systems.

All material furnished for this project shall be listed by Underwriters Laboratories wherever UL has a listing standard for that material.

### 100-1.4 VERIFICATION OF RUNWAY/TAXIWAY LIGHTING

Contractor shall verify at the end of every work shift that all required lights, which may have been affected by his work, and all lighting associated with the circuits involved in the scope but are outside scope limits are functioning properly.

Per the testing requirements of Paragraph L-100-3.15, the Contractor shall secure the services of an independent testing service to test the installed airfield lighting and miscellaneous power cables prior to the start of and at the completion of this project.

### **100-1.5 CONFLICTS BETWEEN DOCUMENTS**

Prospective contractors shall, as part of their proposals, enumerate, identify and list conflicts that they discover to exist within the contract documents and/or between those documents and the rules, regulations, standards and codes of local utility companies and local, county or state governing bodies.

### **100-1.6 TEMPORARY LIGHTING AND CIRCUITS**

- a. Contractor shall coordinate with the RPR at the end of each work shift to verify that all temporary airfield lighting circuits are operational. Contractor shall provide all labor and material for this work.
- b. Contractor shall provide and maintain, on hand, sufficient equipment required to provide temporary lighting and circuit extensions. This includes, but is not limited to, fixtures, transformers, bases, two inch conduit, L-824 airfield lighting cable and L-823 connectors.

## **EQUIPMENT AND MATERIALS**

### **100-2.1 GENERAL**

- a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.
- b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the RPR.
- c. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.
- d. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable).

Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

- e. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The RPR reserves the right to reject all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.
- f. The data submitted shall show physical size, mounting, characteristics of components, electrical and photometric data, reinforcing, manhole and handhole load bearing capabilities, etc., all as may be required to provide the RPR with sufficient information to allow him to ascertain compliance with the drawings, specifications and installation requirements.
- g. All equipment and materials furnished and installed under this specification shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the RPR. The defective materials and/or equipment shall be repaired or replaced, at the RPR's discretion, with no additional cost to the RPR.
- h. The Contractor shall submit six (6) hard copies and an electronic copy for each of the shop drawings to include, but not limited to, the following items of equipment in accordance with the General Provisions.

Airfield lighting items including:

- (1) L-823 Connectors, Cable
- (2) L-824 Cables, Underground Electrical, 5kV Cables, 600V Cables, and Control Cables
- (3) L-830 Transformers, Isolation
- (4) L-868 Light base
- (5) L-861T Edge Lights
- (6) L-858 Guidance Signs
- (7) Ground Rods, Grounding Accessories, and Lightning Protection Equipment
- (8) Concrete-Encased Junction Box
- (9) Handholes
- (10) Concrete Mix
- (11) Heat Shrinkable Tubing

- (12) Exothermic Welds.
- (13) Detectable, Marking Warning Tape
- (14) Conduit and Fittings, all types
- (15) Conduit Sealing Bushings
- (16) Conduit Expansion Joints
- (17) Pull Boxes

Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

- i. The Contractor must take notice of all materials which he will be required to furnish under this contract. He must identify items, which have a long lead-time from a manufacturer or distributor and order these items soon after contract award. These items will require Shop Drawing submittals and Resident RPR approval before procurement. Contractor shall submit these Shop Drawings within four weeks after administrative notice to proceed.

## **CONSTRUCTION METHODS**

### **100-3.1 COORDINATION OF WORK**

Work under Items L-108, L-109, L-110, L-125, and L-128 shall be carefully coordinated with work under other items of the specifications so that all work will be complementary and not require excessive cutting and patching. It is the responsibility of the Contractor for this section to see that necessary information, materials, etc., are turned over to the Contractor(s) for other work in time to be incorporated in their work. This shall include mounting bolts, templates, inserts, etc.

Continuation of work from one trade to another is indicated or specified as accurately as possible, but in the case of interference or conflicts, it shall be the responsibility of the Contractor to decide and direct.

### **100-3.2 CONFINED SPACES**

Work for this project requires the presence of personnel in confined spaces which have the potential to contain hazardous atmospheres. The work shall also be done in compliance with Federal Occupational Safety and Health Administration, General Industry 29 CFR Parts 1910 and Construction Industry 1926.1.201.

### **100-3.3 PERMITS AND INSPECTIONS**

The Contractor shall obtain and pay for all construction permits, inspections and certificates required by governmental authorities having jurisdiction.



### **100-3.4 CODES AND STANDARDS**

All workmanship and material shall be in accordance with applicable provisions of the National Electrical Code current edition as minimum standard, larger sizes and capacities as indicated shall be provided.

FAA Advisory Circulars, FAA Orders, Standards and Specifications, NEMA Standards and Federal Specifications as referenced shall apply. All equipment and material of a type listed by the Underwriters' Laboratories (UL) shall be so listed.

All excavations shall be performed in accordance with requirements of the Occupational Safety and Health Administration (OSHA) standards as applicable.

### **100-3.5 EXISTING UTILITIES**

Prior to any excavation or trenching, locate any existing cables and utilities that will be crossed by the trench. Ensure these utilities are permanently disconnected if they are going to be demolished. The existing service lines shall be exposed by hand excavation in those areas that will be crossed and shall be protected from any possible damage. If any damage occurs, it shall be the Contractor's responsibility to immediately repair such damage with materials and methods approved by the RPR and in compliance with applicable codes and standards, at no additional cost to the RPR. Existing utilities are to be abandoned or removed at the point of crossing as shown on the drawings and as field directed by the RPR.

### **100-3.6 DEMOLITION AND REMOVAL**

Demolition and Removal shall be specified in Section L-128 and as directed in the drawings.

### **100-3.7 TEMPORARY AIRFIELD LIGHTING**

Provide all cables, conduits, and fixtures, and temporary connections to provide temporary airfield lighting required to maintain the function of the airfield during all stages of reconstruction.

### **100-3.8 CABLE INSTALLATION**

This Section includes the underground installation of all power and control cables. Contractor shall provide all materials. All runs shall be as continuous as possible with no splices permitted between terminations except where noted in the drawings and except where required by lengths supplied. Locations of splices shall be approved by the RPR. The Contractor, in pulling cables through ducts and/or conduits, shall not exceed the maximum allowable tension values for the cables as specified by the manufacturer.

A cable slack loop of 6 feet,  $\pm 6$  inches shall be left on each end of cable runs and at all points where cable connections are brought above ground. The slack loop shall be installed at the same minimum depth as the cable run. Loops shall have no bends with an inner radius less than twelve times the outside diameter of the cable. Also see Section L-108 for installation of airfield lighting cables.

### **100-3.9 CABLE SPLICES**

Cable splicing materials shall be as shown on the project drawings or as specified in Section L-108. All splicing methods shall be as recommended by the manufacturer of the splicing material for the particular

type of cable being spliced and shall be approved by the RPR prior to installation.

**100-3.10 POWER CABLE AND WIRING**

- a. 600 Volt and Less (for Electrical Service Equipment). Conductors shall be joined with crimp-type insulated connectors as manufactured by Thomas & Betts, General Electric, 3M Company, or equal. These connectors shall be used for both above and below ground splices. Splice shall be constructed of electrical tapes and pressure epoxy resin. Tapes shall be vinyl electrical tape and resin shall be multipurpose moisture sealing. Cable armor continuity shall be maintained within splice with shield bond connectors and #6 AWG stranded, bare copper wire or equal. Wire termination lugs and bus bars marked “CU-AL” shall be protected from corrosion with an anti-oxidation paste. Apply paste to wire at termination point within lug and between lug and any other conductive surface.
- b. Above 600 Volt. See Section L-108, Installation of Underground Power Cable for Airports, for airfield lighting cable.

**100-3.11 GROUNDING**

All metal support structures and metal enclosures shall be grounded in accordance with the requirements of FAA-STD-019 and as indicated on the drawings.

**100-3.12 GROUND RODS**

Grounding rods shall be 3/4-inch diameter by 10 feet long copper-clad steel. Grounding connections shall be by the exothermic weld process, Cadweld or equal. Extruded, drawn or stamped-type ground clamps will not be acceptable. The resistance to ground shall not exceed 25 ohms.

**100-3.13 CONDUCTORS**

Installation of underground 5 kV and 600 V conductors is specified in Section L-108 of these specifications.

**100-3.14 GROUND CONDUCTORS**

Equipment grounding conductors shall be insulated copper, except where shown on the project drawings to be bare, and sized as shown on the contract drawings; and all grounds will be shown in accordance with Article 250 of the National Electrical Code and with FAA-STD-019. Attachment of wire to supports, boxes, etc., shall be accomplished using approved ground lug attached with a separate stainless-steel screw, lock washer and nut. Screws used for support of the electrical enclosure shall not be used for connection of the ground wire. Pipe straps shall not be used for ground purposes.

COLOR CODING OF GROUND CONDUCTORS	
TYPE OF GROUND CONDUCTOR	COLOR OF INSULATION
Grounding Electrode Conductor (GEC)	Bare – No Insulation
Equipment Grounding Conductor (Safety) (EGC)	Green (safety)

Each of these separate ground conductors is insulated in order to keep it distinct and not allow contact with any other conductor.

Electrical continuity of cable armor or shield shall be maintained. Grounding of the cable armor or shield shall be required at all terminations and shall be accomplished by connecting a #6 AWG solid bare copper wire to the cable armor or shield by means of a compression-type ground clamp installed within the terminating enclosure. Armor or shield ground wire shall be connected to the ground electrode conductor using split bolt connector, Burndy or equal.

**100-3.15 TESTING AND SUBMITTALS**

Equipment and materials list and shop drawings shall be submitted as per FAA-C-1217, Section 5.1. Testing shall be required and performed as per FAA-C-1217, Section 5.3 and FAA-C-1391, Section 4. The Contractor shall be responsible for repairs or replacement of any cable found defective after installation.

For new airfield lighting cable installed on existing circuits (installed with existing cable) the Contractor shall procure the services of an independent testing agency that shall measure and certify the insulation resistance of (1) the new cable from a handhole, or light base in the field, (2) the insulation resistance of the existing circuit (as measured in the vault), and (3) the insulation resistance of the modified or new circuit at the completion of the project (as measured in the vault). The results shall be provided to the RPR in writing for review.

Photometric testing of the installed new or re-installed airfield lighting fixtures shall be performed by an independent vendor qualified to test airfield lighting using equipment designed to test and evaluate airfield lighting. The results of this testing shall be provided to the RPR in writing for review.

Installation tests in addition to all tests contained in other L-Series Sections shall be provided as follows:

Item	Test Required	Manufacturer's Rep. Present?
5 kV Rated Airfield Lighting and Power Cables (Installed in This Project)	Megger check at 1000 volts at the completion and start of the installation. Test every circuit for conductor-to-ground and conductor-to-conductor (between circuits) insulation resistance. Test results shall be tabulated and given to the RPR for acceptance.	No
5 kV Rated Airfield Lighting and Power Cables (All Circuits Emanating from any Lighting Vault Modified in This Project)	Megger check at 1000 volts prior to the start of and at the completion of installation. Test every circuit for conductor-to-ground and conductor-to-conductor (between circuits) insulation resistance. Test results shall be tabulated and given to the RPR for acceptance.	No
5 kV Rated Airfield Lighting and Power Cables (Not Including Equipment)	Megger check to 2.0 times nominal system rated voltage prior to and after installation. Values of resistance of conductor-to-conductor and	No

Item	Test Required	Manufacturer's Rep. Present?
	conductor-to-ground shall be noted and given to the RPR for approval. It is expected that the readings will be greater than 100 megohms. No readings of less than 100 megohms will be accepted; remedial measures to attain the 100 megohm reading shall be made at no additional expense to the RPR. Continuous tape pull tension readings for each section of cable shall be provided to the RPR for review.	
Regulators (Existing affected by work)	The regulators shall be tested and certified to ensure correct operation of all output and alarm functions. The output current for each intensity stage of the modified/completed lighting circuit shall be noted and forwarded with the certificate to the RPR.	No
Bases	All lighting bases shall be fitted in accordance with FAA Advisory Circulars such that the base of the fitting, when installed, shall be level. Alignment jigs as supplied by Jacquith Industries, Inc., Millerbernd (or equal) shall be used to ensure the base is installed to a depth and aligned in such a way that fixture height will be appropriate with the surrounding surface and the base is geometrically positioned such that when the fixture is installed, the light beam will be directed in accordance with the appropriate advisory circulars for that type of fixture and its location.	Yes, minimum of first three (3) days of installation
Airfield Light Fixture	Each light fixture will be tested prior to installation to ensure that lenses, where required, have been fitted, no signs of physical damage to the fittings exist and the lamps are working by connecting the electrical leads to a DC voltage source not exceeding 6 volts, such as a motorcycle battery. Any failures are to be reported to the RPR. The fittings, when installed, shall be torqued to manufacturer's and FAA requirements and noted.	No

EQUIPMENT AND INSTALLATION DATA: The Contractor shall submit the following information to the RPR upon completion of the project:

**FEDERAL AVIATION ADMINISTRATION  
AIRPORT LIGHTING EQUIPMENT AND INSTALLATION DATA**

AIRPORT

DATE

LOCATION

DATA BY

PROJECT NO.

WITNESSED BY

DESCRIPTION OF PROJECT ELECTRICAL WORK:

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NOTES:

Equipment "Type" as used on form above should include L-800 series, size, type or style.

Cable "Type" as used should include "L-824. A, B, or C" Size, number of conductors, and voltage rating.

Voltage Readings should be made with facility operating.

	RUNWAY DESIGNATION		TAXIWAY DESIGNATION	
RE: L-800 Series				
Light Fixture Type				
Light Fixture Manufacturer				
Light Fixture Lamp Type & Wattage				
Isolation Trans. Manufacturer.				
Cable Type				
Cable Connector Type & Size				
Connector Manufacturer				
<u>CCR Regulator</u> - Mfg. - Size (KW) - Regulator Input Voltage. - Output Current Rating (Measured) <ol style="list-style-type: none"> <li>a. Step 1</li> <li>b. Step 2</li> <li>c. Step 3</li> </ol> - Insulation Resistance (Ohm)				

### **100-3.16 GUARANTEE**

All equipment furnished and work performed under the Contract Documents shall be guaranteed against defects in materials or workmanship for a period of one (1) year from the date of final acceptance. This guarantee does not replace any responsibility for errors or omissions as set forth in state law. The guarantee shall be listed as RPR purchaser. Any long-term warranties issued or offered by manufacturers for items of equipment shall be turned over to the RPR.

Any failure of equipment or work due to defects in materials or workmanship shall be corrected by the Contractor at no cost to the RPR.

### **100-3.17 CLEAN-UP**

The Contractor shall remove all debris resulting from the work together with all tools, equipment, etc., from the site upon completion of this Contract. All equipment, including lighting fixtures and glass shall be clean and free from dirt, grease, insects, finger marks, etc., satisfactory to RPR and RPR before final acceptance. The Contractor shall also conform to other clean-up requirements in the Contract Documents.

## **METHOD OF MEASUREMENT**

**100-4.1** Measurement for Site Locating and Duct Tracing shall be on time and materials basis from allowance. This item shall include all field investigation, site marking, documentation, and tracing necessary.

**100-4.2** All other requirements of this specification shall be incidental to the work being performed unless otherwise specified.

## **BASIS OF PAYMENT**

**100-5.1** Site Locating and Duct Tracing shall be paid on a time and materials basis from the allowance. Contractor shall use \$20,000 as the allowance. Prior to the initiation of construction, the Contractor shall be responsible for the verification of existing conditions, including airfield circuit investigation to determine active and inactive circuits. The Site Locating and Duct Tracing pay allowance shall be submitted for all cost and efforts to locate, identify, trace, expose and protect the existing systems and cabling that are located within the area of work. The Contractor shall coordinate all locating efforts with the RPR, FAA, local utilities, and others deemed necessary. This shall include marking and staking of all existing systems that impact or are potentially in conflict with the proposed installation. In all areas where existing systems are in close proximity to new installations, the Contractor shall soft dig to identify the exact location of existing infrastructure or cabling on the intervals identified above. The Contractor shall identify locations and depths of these conditions prior to the initiation of any new installation. The Contractor shall submit requests for compensation for furnishing all materials, equipment, subcontracts, and for all preparation, maintenance, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item L-100-5.1 Site Locating and Duct Tracing – per allowance

**END OF ITEM L-100**

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## Item L-108 Underground Power Cable for Airports

### DESCRIPTION

**108-1.1** This item shall consist of furnishing and installing power cables that are direct buried and furnishing and/or installing power cables within conduit or duct banks per these specifications at the locations shown on the plans. It includes excavation and backfill of trench for direct-buried cables only. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the RPR. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of cable for FAA owned/operated facilities.

### EQUIPMENT AND MATERIALS

#### 108-2.1 General.

**a.** Airport lighting equipment and materials covered by advisory circulars (AC) shall be approved under the Airport Lighting Equipment Certification Program per AC 150/5345-53, current version.

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

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

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

**e.** The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. RPR reserves the right to reject any and all equipment, materials, or procedures that do not meet the system design and the standards and codes, specified in this document.

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

resistance in accordance with paragraph 108-3.10e with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period when tested in accordance with AC 150/5340-26, *Maintenance Airport Visual Aid Facilities*, paragraph 5.1.3.1, Insulation Resistance Test.

**108-2.2 Cable.** Underground cable for airfield lighting facilities (runway and taxiway lights and signs) shall conform to the requirements of AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits latest edition. Conductors for use on 6.6 ampere primary airfield lighting series circuits shall be single conductor, seven strand, #8 American wire gauge (AWG), L-824 Type C, 5,000 volts, non-shielded, with cross-linked polyethylene insulation. Conductors for use on 20 ampere primary airfield lighting series circuits shall be single conductor, seven strand, #6 AWG, L-824 Type C, 5,000 volts, non-shielded, with cross-linked polyethylene insulation. L-824 conductors for use on the L-830 secondary of airfield lighting series circuits shall be sized in accordance with the manufacturer's recommendations. All other conductors shall comply with FAA and National Electric Code (NEC) requirements. Conductor sizes noted above shall not apply to leads furnished by manufacturers on airfield lighting transformers and fixtures.

Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Commercial Item Description A-A-59544A and shall be type THWN-2, 75°C for installation in conduit and RHW-2, 75°C for direct burial installations. Conductors for parallel (voltage) circuits shall be type and size and installed in accordance with NFPA-70, National Electrical Code.

Unless noted otherwise, all 600-volt and less non-airfield lighting conductor sizes are based on a 75°C, THWN-2, 600-volt insulation, copper conductors, not more than three single insulated conductors, in raceway, in free air. The conduit/duct sizes are based on the use of THWN-2, 600-volt insulated conductors. The Contractor shall make the necessary increase in conduit/duct sizes for other types of wire insulation. In no case shall the conduit/duct size be reduced. The minimum power circuit wire size shall be #12 AWG.

Conductor sizes may have been adjusted due to voltage drop or other engineering considerations. Equipment provided by the Contractor shall be capable of accepting the quantity and sizes of conductors shown in the Contract Documents. All conductors, pigtails, cable step-down adapters, cable step-up adapters, terminal blocks and splicing materials necessary to complete the cable termination/splice shall be considered incidental to the respective pay items provided.

Cable type, size, number of conductors, strand and service voltage shall be as specified in the Contract Document.

**108-2.3 Bare copper wire (counterpoise, bare copper wire ground and ground rods).** Wire for counterpoise or ground installations for airfield lighting systems shall be No. 6 AWG bare solid copper wire for counterpoise and/or No. 6 AWG insulated stranded for grounding bond wire per ASTM B3 and ASTM B8, and shall be bare copper. For voltage powered circuits, the equipment grounding conductor shall comply with NEC Article 250.

Ground rods shall be copper or copper-clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case be less than 10 feet long and 3/4 inch in diameter.

**108-2.4 Cable connections.** In-line connections or splices of underground primary cables shall be of the type called for on the plans, and shall be one of the types listed below. No separate payment will be made for cable connections.

**a. The cast splice.** A cast splice, employing a plastic mold and using epoxy resin equivalent to that manufactured by 3M™ Company, "Scotchcast" Kit No. 82-B, or an approved equivalent, used for potting the splice is acceptable.

**b. The field-attached plug-in splice.** Field attached plug-in splices shall be installed as shown on the plans. The Contractor shall determine the outside diameter of the cable to be spliced and furnish appropriately sized connector kits and/or adapters. Tape or heat shrink tubing with integral sealant shall be in accordance with the manufacturer's requirements. Primary Connector Kits manufactured by Amerace, "Super Kit", Integro "Complete Kit", or approved equal is acceptable.

**c. The factory-molded plug-in splice.** Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

**d. The taped or heat-shrink splice.** Taped splices employing field-applied rubber, or synthetic rubber tape covered with plastic tape is acceptable. The rubber tape should meet the requirements of ASTM D4388 and the plastic tape should comply with Military Specification MIL-I-24391 or Commercial Item Description A-A-55809. Heat shrinkable tubing shall be heavy-wall, self-sealing tubing rated for the voltage of the wire being spliced and suitable for direct-buried installations. The tubing shall be factory coated with a thermoplastic adhesive-sealant that will adhere to the insulation of the wire being spliced forming a moisture- and dirt-proof seal. Additionally, heat shrinkable tubing for multi-conductor cables, shielded cables, and armored cables shall be factory kits that are designed for the application. Heat shrinkable tubing and tubing kits shall be manufactured by Tyco Electronics/ Raychem Corporation, Energy Division, or approved equivalent.

In all the above cases, connections of cable conductors shall be made using crimp connectors using a crimping tool designed to make a complete crimp before the tool can be removed. All L-823/L-824 splices and terminations shall be made per the manufacturer's recommendations and listings.

All connections of counterpoise, grounding conductors and ground rods shall be made by the exothermic process or approved equivalent, except that a light base ground clamp connector shall be used for attachment to the light base. All exothermic connections shall be made per the manufacturer's recommendations and listings.

**108-2.5 Splicer qualifications.** Every airfield lighting cable splicer shall be qualified in making airport cable splices and terminations on cables rated at or above 5,000 volts AC. The Contractor shall submit to the RPR proof of the qualifications of each proposed cable splicer for the airport cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

**108-2.6 Concrete.** Not used.

**108-2.7 Flowable backfill.** Flowable material used to backfill trenches for power cable trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material.

**108-2.8 Cable identification tags.** Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

**108-2.9 Tape.** Electrical tapes shall be Scotch™ Electrical Tapes –Scotch™ 88 (1-1/2 inch (38 mm) wide) and Scotch™ 130C® linerless rubber splicing tape (2-inch (50 mm) wide), as manufactured by the Minnesota Mining and Manufacturing Company (3M™), or an approved equivalent.

**108-2.10 Electrical coating.** Electrical coating shall be Scotchkote™ as manufactured by 3M™, or an approved equivalent.

**108-2.11 Existing circuits.** Whenever the scope of work requires connection to an existing circuit, the existing circuit's insulation resistance shall be tested, in the presence of the RPR. The test shall be performed per this item and prior to any activity that will affect the respective circuit. The Contractor shall record the results on forms acceptable to the RPR. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the RPR. The Contractor shall

record the results on forms acceptable to the RPR. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the existing circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

**108-2.12 Detectable warning tape.** Plastic, detectable, American Public Works Association (APWA) Red (electrical power lines, cables, conduit and lighting cable) with continuous legend tape shall be polyethylene film with a metalized foil core and shall be 3-6 inches (75-150 mm) wide. Detectable tape is incidental to the respective bid item. Detectable warning tape for communication cables shall be orange. Detectable warning tape color code shall comply with the APWA Uniform Color Code.

## CONSTRUCTION METHODS

**108-3.1 General.** The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Cable shall be run without splices, from fixture to fixture.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections unless otherwise authorized in writing by the RPR or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed and on both sides of slack loops where a future connector would be installed.

Provide not less than 3 feet (1 m) of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least one foot (30 cm) vertically above the top of the access structure. This requirement also applies where primary cable passes through empty light bases, junction boxes, and access structures to allow for future connections, or as designated by the RPR.

Primary airfield lighting cables installed shall have cable circuit identification markers attached on both sides of each L-823 connector and on each airport lighting cable entering or leaving cable access points, such as manholes, hand holes, pull boxes, junction boxes, etc. Markers shall be of sufficient length for imprinting the cable circuit identification legend on one line, using letters not less than 1/4 inch (6 mm) in size. The cable circuit identification shall match the circuits noted on the construction plans.

**108-3.2 Installation in duct banks or conduits.** This item includes the installation of the cable in duct banks or conduit per the following paragraphs. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be per the latest version of the National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected and that any potential interference is avoided.

Duct banks or conduits shall be installed as a separate item per Item L-110, Airport Underground Electrical Duct Banks and Conduit. The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to ensure that the duct bank or conduit is open, continuous and clear of debris. The mandrel size shall be compatible with the conduit size. The Contractor shall swab out all conduits/ducts and clean light bases, manholes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed, the light bases and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, light bases, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be re-cleaned at the Contractor's expense. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

The cable shall be installed in a manner that prevents harmful stretching of the conductor, damage to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Maximum pulling tensions shall not exceed the cable manufacturer's recommendations. A non-hardening cable-pulling lubricant recommended for the type of cable being installed shall be used where required.

The Contractor shall submit the recommended pulling tension values to the RPR prior to any cable installation. If required by the RPR, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the RPR. Cable pull tensions shall be recorded by the Contractor and reviewed by the RPR. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or NEC requirements (whichever is more restrictive) shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the RPR, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or use other appropriate means to prevent abrasion to the cable jacket.

**108-3.3 Installation of direct-buried cable in trenches.** Unless otherwise specified, the Contractor shall not use a cable plow for installing the cable. Cable shall be unreeled uniformly in place alongside or in the trench and shall be carefully placed along the bottom of the trench. The cable shall not be unreeled and pulled into the trench from one end. Slack cable sufficient to provide strain relief shall be placed in the trench in a series of S curves. Sharp bends or kinks in the cable shall not be permitted.

Where cables must cross over each other, a minimum of 3 inches (75 mm) vertical displacement shall be provided with the topmost cable depth at or below the minimum required depth below finished grade.

**a. Trenching.** Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored. Trenches for cables may be excavated manually or with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of surface is disturbed. Graders shall not be used to excavate the trench with their blades. The bottom surface of trenches shall be essentially smooth and free from coarse aggregate. Unless otherwise specified, cable

trenches shall be excavated to a minimum depth of 18 inches (0.5 m) below finished grade per NEC Table 300.5, except as follows:

- When off the airport or crossing under a roadway or driveway, the minimum depth shall be 36 inches (91 cm) unless otherwise specified.
- Minimum cable depth when crossing under a railroad track, shall be 42 inches (1 m) unless otherwise specified.

The Contractor shall excavate all cable trenches to a width not less than 6 inches (150 mm). Unless otherwise specified on the plans, all cables in the same location and running in the same general direction shall be installed in the same trench.

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

Duct bank or conduit markers temporarily removed for trench excavations shall be replaced as required.

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

(1) Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred.

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

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

**b. Backfilling.** After the cable has been installed, the trench shall be backfilled. The first layer of backfill in the trench shall encompass all cables ; be 3 inches (75 mm) deep, loose measurement; and shall be either earth or sand containing no mineral aggregate particles that would be retained on a 1/4-inch (6.3 mm) sieve. This layer shall not be compacted. The second layer shall be 5 inches (125 mm) deep, loose measurement, and shall contain no particles that would be retained on a one inch (25.0 mm) sieve. The remaining third and subsequent layers of backfill shall not exceed 8 inches (20 cm) of loose measurement and be excavated or imported material and shall not contain stone or aggregate larger than 4 inches (100 mm) maximum diameter.

The second and subsequent layers shall be thoroughly tamped and compacted to at least the density of the adjacent material. If the cable is to be installed in locations or areas where other compaction requirements are specified (under pavements, embankments, etc.) the backfill compaction shall be to a minimum of 100 percent of ASTM D1557.

Trenches shall not contain pools of water during backfilling operations. The trench shall be completely backfilled and tamped level with the adjacent surface, except that when turf is to be established over the trench, the backfilling shall be stopped at an appropriate depth consistent with the type of turfing operation to be accommodated. A proper allowance for settlement shall also be provided. Any excess excavated material shall be removed and disposed of per the plans and specifications.

Underground electrical warning (caution) tape shall be installed in the trench above all direct-buried cable. Contractor shall submit a sample of the proposed warning tape for acceptance by the RPR. If not

shown on the plans, the warning tape shall be located 6 inches (150 mm) above the direct-buried cable or the counterpoise wire if present. A 3-6 inch (75 - 150 mm) wide polyethylene film detectable tape, with a metalized foil core, shall be installed above all direct buried cable or counterpoise. The tape shall be of the color and have a continuous legend as indicated on the plans. The tape shall be installed 8 inches (200 mm) minimum below finished grade.

**c. Restoration.** Following restoration of all trenching near airport movement surfaces, the Contractor shall visually inspect the area for foreign object debris (FOD) and remove any that is found. Where soil and sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by work shall be restored to its original condition. The restoration shall include the seeding as shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. When trenching is through paved areas, restoration shall be equal to existing conditions. If the cable is to be installed in locations or areas where other compaction requirements are specified (under pavements, embankments, etc.) the backfill compaction shall be to a minimum of 100 percent of ASTM D1557. Restoration shall be considered incidental to the pay item of which it is a component part.

**108-3.4 Cable markers for direct-buried cable.** The location of direct buried circuits shall be marked by a concrete slab marker, 2 feet (60 cm) square and 4-6 inch (10 - 15 cm) thick, extending approximately one inch (25 mm) above the surface. Each cable run from a line of lights and signs to the equipment vault shall be marked at approximately every 200 feet (61 m) along the cable run, with an additional marker at each change of direction of cable run. All other direct-buried cable shall be marked in the same manner. Cable markers shall be installed directly above the cable. The Contractor shall impress the word "CABLE" and directional arrows on each cable marking slab. The letters shall be approximately 4 inches (100 mm) high and 3 inches (75 mm) wide, with width of stroke 1/2 inch (12 mm) and 1/4 inch (6 mm) deep. Stencils shall be used for cable marker lettering; no hand lettering shall be permitted.

At the location of each underground cable connection/splice, except at lighting units, or isolation transformers, a concrete marker slab shall be installed to mark the location of the connection/splice. The Contractor shall impress the word "SPICE" on each slab. The Contractor also shall impress additional circuit identification symbols on each slab as directed by the RPR. All cable markers and splice markers shall be painted international orange. Paint shall be specifically manufactured for uncured exterior concrete. After placement, all cable or splice markers shall be given one coat of high-visibility aviation orange paint as approved by the RPR. Furnishing and installation of cable markers is incidental to the respective cable pay item.

**108-3.5 Splicing.** Connections of the type shown on the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

**a. Cast splices.** These shall be made by using crimp connectors for jointing conductors. Molds shall be assembled, and the compound shall be mixed and poured per the manufacturer's instructions and to the satisfaction of the RPR.

**b. Field-attached plug-in splices.** These shall be assembled per the manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches (38 mm) on each side of the joint or (3) On connector kits equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

**c. Factory-molded plug-in splices.** These shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) Wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half

lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint. (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches (38 mm) on each side of the joint. or (3) On connector kits so equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

**d. Taped or heat-shrink splices.** A taped splice shall be made in the following manner:

Bring the cables to their final position and cut so that the conductors will butt. Remove insulation and jacket allowing for bare conductor of proper length to fit compression sleeve connector with 1/4 inch (6 mm) of bare conductor on each side of the connector. Prior to splicing, the two ends of the cable insulation shall be penciled using a tool designed specifically for this purpose and for cable size and type. Do not use emery paper on splicing operation since it contains metallic particles. The copper conductors shall be thoroughly cleaned. Join the conductors by inserting them equidistant into the compression connection sleeve. Crimp conductors firmly in place with crimping tool that requires a complete crimp before tool can be removed. Test the crimped connection by pulling on the cable. Scrape the insulation to assure that the entire surface over which the tape will be applied (plus 3 inches (75 mm) on each end) is clean. After scraping, wipe the entire area with a clean lint-free cloth. Do not use solvents.

Apply high-voltage rubber tape one-half lapped over bare conductor. This tape should be tensioned as recommended by the manufacturer. Voids in the connector area may be eliminated by highly elongating the tape, stretching it just short of its breaking point. The manufacturer's recommendation for stretching tape during splicing shall be followed. Always attempt to exactly half-lap to produce a uniform buildup. Continue buildup to 1-1/2 times cable diameter over the body of the splice with ends tapered a distance of approximately one inch (25 mm) over the original jacket. Cover rubber tape with two layers of vinyl pressure-sensitive tape one-half lapped. Do not use glyptol or lacquer over vinyl tape as they react as solvents to the tape. No further cable covering or splice boxes are required.

Heat shrinkable tubing shall be installed following manufacturer's instructions. Direct flame heating shall not be permitted unless recommended by the manufacturer. Cable surfaces within the limits of the heat-shrink application shall be clean and free of contaminants prior to application.

**e. Assembly.** Surfaces of equipment or conductors being terminated or connected shall be prepared in accordance with industry standard practice and manufacturer's recommendations. All surfaces to be connected shall be thoroughly cleaned to remove all dirt, grease, oxides, nonconductive films, or other foreign material. Paints and other nonconductive coatings shall be removed to expose base metal. Clean all surfaces at least 1/4 inch (6.4 mm) beyond all sides of the larger bonded area on all mating surfaces. Use a joint compound suitable for the materials used in the connection. Repair painted/coated surface to original condition after completing the connection.

**108-3.6 Bare counterpoise wire installation for lightning protection and grounding.** If shown on the plans or included in the job specifications, bare solid #6 AWG copper counterpoise wire shall be installed for lightning protection of the underground cables. The RPR shall select one of two methods of lightning protection for the airfield lighting circuit based upon sound engineering practice and lightning strike density.

**a. Equipotential.** Not used.

**b. Isolation.** Counterpoise size is as shown on the plans. The isolation method is an alternate method for use only with edge lights installed in turf and stabilized soils and raceways installed parallel to and adjacent to the edge of the pavement. NFPA 780 uses 15 feet to define "adjacent to".

The counterpoise conductor shall be installed halfway between the pavement edge and the light base, mounting stake, raceway, or cable being protected.

The counterpoise conductor shall be installed 8 inches (203 mm) minimum below grade. The counterpoise is not connected to the light base or mounting stake. An additional grounding electrode is



required at each light base or mounting stake. The grounding electrode is bonded to the light base or mounting stake with a 6 AWG solid copper conductor.

See AC 150/5340-30, Design and Installation Details for Airport Visual Aids and NFPA 780, Standard for the Installation of Lightning Protection Systems, Chapter 11, for a detailed description of the Isolation Method of lightning protection.

**c. Common Installation requirements.** When a metallic light base is used, the grounding electrode shall be bonded to the metallic light base or mounting stake with a No. 6 AWG bare, annealed or soft drawn, solid copper conductor.

Grounding electrodes may be rods, ground dissipation plates, radials, or other electrodes listed in the NFPA 70 (NEC) or NFPA 780.

Where an existing airfield lighting system is being extended or modified, the new counterpoise conductors shall be interconnected to existing counterpoise conductors at each intersection of the new and existing airfield lighting counterpoise systems.

**d. Parallel Voltage Systems.** Provide grounding and bonding in accordance with NFPA 70, National Electrical Code.

**108-3.7 Counterpoise installation above multiple conduits and duct banks.** Counterpoise wires shall be installed above multiple conduits/duct banks for airfield lighting cables, with the intent being to provide a complete area of protection over the airfield lighting cables. When multiple conduits and/or duct banks for airfield cable are installed in the same trench, the number and location of counterpoise wires above the conduits shall be adequate to provide a complete area of protection measured 45 degrees each side of vertical.

Where duct banks pass under pavement to be constructed in the project, the counterpoise shall be placed above the duct bank. Reference details on the construction plans.

**108-3.8 Counterpoise installation at existing duct banks.** When airfield lighting cables are indicated on the plans to be routed through existing duct banks, the new counterpoise wiring shall be terminated at ground rods at each end of the existing duct bank where the cables being protected enter and exit the duct bank. The new counterpoise conductor shall be bonded to the existing counterpoise system.

**108-3.9 Exothermic bonding.** Bonding of counterpoise wire shall be by the exothermic welding process or equivalent method accepted by the RPR. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the RPR, the welding kits, materials and procedures to be used for welded connections prior to any installations in the field. The installations shall comply with the manufacturer's recommendations and the following:

**a.** All slag shall be removed from welds.

**b.** Using an exothermic weld to bond the counterpoise to a lug on a galvanized light base is not recommended unless the base has been specially modified. Consult the manufacturer's installation directions for proper methods of bonding copper wire to the light base. See AC 150/5340-30 for galvanized light base exception.

**c.** If called for in the plans, all buried copper and weld material at weld connections shall be thoroughly coated with 6 mm of 3M™ Scotchkote™, or approved equivalent, or coated with coal tar Bitumastic® material to prevent surface exposure to corrosive soil or moisture.

**108-3.10 Testing.** The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the RPR. The Contractor shall demonstrate the electrical

characteristics to the satisfaction of the RPR. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase. The Contractor must maintain the test results throughout the entire project as well as during the warranty period that meet the following:

**a.** Earth resistance testing methods shall be submitted to the RPR for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the RPR. All such testing shall be at the sole expense of the Contractor.

**b.** Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The RPR shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the RPR the following:

**c.** That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

**d.** That all affected circuits (existing and new) are free from unspecified grounds.

**e.** That the insulation resistance to ground of all new non-grounded high voltage series circuits or cable segments is not less than 200 megohms. Verify continuity of all series airfield lighting circuits prior to energization.

**f.** That the insulation resistance to ground of all new non-grounded conductors of new multiple circuits or circuit segments is not less than 100 megohms.

**g.** That all affected circuits (existing and new) are properly connected per applicable wiring diagrams.

**h.** That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

**i.** That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81, to verify this requirement. As an alternate, clamp-on style ground impedance test meters may be used to satisfy the impedance testing requirement. Test equipment and its calibration sheets shall be submitted for review and approval by the RPR prior to performing the testing.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the RPR. Where connecting new cable to existing cable, insulation resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

#### METHOD OF MEASUREMENT

**108-4.1** Conduits shall be installed as a separate item in accordance with Item L-110, "Airport Underground Electrical Duct Banks and Conduit."

**108-4.2** Cabling installed in duct or conduit shall be measured by the number of linear feet measured in place, complete, ready for operation, and accepted as satisfactory by the RPR. Measurement shall be made for each 1-1/C (one conductor) installed in duct or conduit, including terminations, L-823

connectors, ground rods and grounding connectors. Measurements are point to point following conduit routing and do not include required cable slack. Cable slack shall be incidental to the Item cost.

### BASIS OF PAYMENT

**108-5.1** Payment will be made at the contract unit price for cable and equipment ground installed in existing and new duct bank or conduit and bare counterpoise wire installed in trench (direct-buried), tested by the Contractor, and accepted by the RPR. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors and trench marking tape, necessary to complete this item.

Payment will be made under:

Item L-108-5.1	1-1/C No. 8 AWG 5kV, L-824C cable in conduit, installed, complete in place per linear foot
Item L-108-5.2	Demolition of cable in conduit, conduit to remain, removed per linear foot of conduit

### REFERENCES

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

#### Advisory Circulars (AC)

AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-53	Airport Lighting Equipment Certification Program

#### Commercial Item Description

A-A-59544A	Cable and Wire, Electrical (Power, Fixed Installation)
A-A-55809	Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic

#### ASTM International (ASTM)

ASTM B3	Standard Specification for Soft or Annealed Copper Wire
ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
ASTM B33	Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes
ASTM D4388	Standard Specification for Nonmetallic Semi-Conducting and Electrically Insulating Rubber Tapes

Mil Spec

MIL-PRF-23586F Performance Specification: Sealing Compound (with Accelerator),  
Silicone Rubber, Electrical

MIL-I-24391 Insulation Tape, Electrical, Plastic, Pressure Sensitive

National Fire Protection Association (NFPA)

NFPA-70 National Electrical Code (NEC)

NFPA-780 Standard for the Installation of Lightning Protection Systems

American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE)

ANSI/IEEE STD 81 IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and  
Earth Surface Potentials of a Ground System

Federal Aviation Administration Standard

FAA STD-019E Lightning and Surge Protection, Grounding Bonding and Shielding  
Requirements for Facilities and Electronic Equipment

**END OF ITEM L-108**

## Item L-109 Airport Transformer Vault and Vault Equipment

### DESCRIPTION

**109-1.1** This item shall consist of removing an existing airport regulator and replacing it with a new regulator per these specifications and per the design and dimensions shown in the plans. This work shall also include the furnishing of all incidentals that are necessary to produce a completed unit. This work shall also include the painting of equipment and conduit; the marking and labeling of equipment and the labeling or tagging of wires; the testing of the installation; and the furnishing of all incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the RPR.

### EQUIPMENT AND MATERIALS

#### 109-2.1 General.

**a.** Airport lighting equipment and materials covered by advisory circulars (AC) shall be certified in AC 150/5345-53, Airport Lighting Equipment Certification Program (ALECP) and listed in the ALECP Addendum.

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

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

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

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

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

**109-3.3 Precast concrete structures.** N/A

**109-3.4 Reinforcing steel.** N/A

**109-3.5 Brick.** N/A

**109-3.6 Rigid steel conduit.** Rigid steel conduit and fittings shall be per Underwriters Laboratories Standards 6 and 514B.

**109-3.7 Plastic Conduit and fittings.** Plastic Conduit and fittings shall conform to the requirements of UL-651 and UL-654 schedule 40 polyvinyl chloride (PVC) suitable for use above or below ground.

**109-3.8 Lighting.** N/A.

**109-3.9 Outlets.** N/A

**109-3.10 Switches.** N/A

**109-3.11 Paint.** N/A

**109-3.12 Ground bus.** N/A

**109-3.13 Square duct.** N/A

**109-3.14 Ground rods.** N/A

**109-3.15 Vault prefabricated metal housing.** N/A

**109-3.16 FAA-approved equipment.** Certain items of airport lighting equipment installed in vaults are covered by individual ACs listed below:

AC 150/5345-3	Specification for L-821, Panels for Remote Control of Airport Lighting
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-10	Specification for Constant Current Regulators and Regulator Monitors
AC 150/5345-13	Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits.
AC 150/5345-49	Specification for L-854, Radio Control Equipment
AC 150/5345-56	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS)

**109-3.17 Other electrical equipment.** Distribution transformers, oil switches, cutouts, relays, terminal blocks, transfer relays, circuit breakers, and all other regularly used commercial items of electrical equipment not covered by FAA equipment specifications and ACs shall conform to the applicable rulings and standards of the Institute of Electrical and Electronic Engineers (IEEE) or the National Electrical Manufacturers Association (NEMA). When specified, test reports from a testing laboratory indicating that the equipment meets the specifications shall be supplied. In all cases, equipment shall be new and a first-grade product. This equipment shall be supplied in the quantities required for the specific project and shall incorporate the electrical and mechanical characteristics specified in the proposal and plans. Equipment selected and installed by the Contractor shall maintain the interrupting current rating of the existing systems or specified rating whichever is greater.

**109-3.18 Wire.** Wire (in conduit) rated up to 5,000 volts shall be per AC 150/5345-7, Specification for L-824 Underground Electrical Cables for Airport Lighting Circuits. For ratings up to 600 volts, moisture and heat resistant thermoplastic wire conforming to Commercial Item Description A-A-59544A Type

THWN-2 shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

**a. Control circuits.** Unless otherwise indicated on the plans, wire shall be not less than No. 12 American wire gauge (AWG) and shall be insulated for 600 volts. If telephone control cable is specified, No. 19 AWG telephone cable per ANSI/Insulated Cable Engineers Association (ICEA) S-85-625 specifications shall be used.

**b. Power circuits.**

- (1) 600 volts maximum – Wire shall be No. 6 AWG or larger and insulated for at least 600 volts.
- (2) 3,000 volts maximum – Wire shall be No. 6 AWG or larger and insulated for at least 3,000 volts.
- (3) Over 3,000 volts-Wire shall be No. 6 AWG or larger and insulated for at least the circuit voltage.

**109-3.19 Short circuit / coordination / device evaluation / arc flash analysis.** The Contractor shall, based upon the equipment provided, include as a part of the submittal process the electrical system “Short Circuit / Coordination / Device evaluation / Arc Flash Analysis”. The analysis shall be performed by the equipment manufacturer and submitted in a written report. The analysis shall be signed and sealed by a registered professional Engineer from the state in which the project is located. The analysis shall comply with NFPA-70E and IEEE 1584.

The analysis will include: one line diagrams, short circuit analysis, coordination analysis, equipment evaluation, arc flash analysis and arc flash labels containing at a minimum, equipment name, voltage/current rating, available incident energy and flash protection boundary.

The selected firms field service Engineer shall perform data gathering for analysis completion and device settings, perform device setting as recommended by the analysis and will furnish and install the arc flash labels. The components worst case incident energy will be considered the available arc flash energy at that specific point in the system. Submit three written copies and one electronic copy of the report.

## CONSTRUCTION METHODS

### CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING

**109-4.1 General.** N/A

**109-4.2 Foundation and walls.** N/A

**109-4.3 Roof.** N/A

**109-4.4 Floor.** N/A

**109-4.5 Floor drain.** N/A

**109-4.6 Conduits in floor and foundation.** N/A

**109-4.7 Doors.** N/A

**109-4.8 Painting.** N/A

**109-4.9 Lights and switches.** N/A

## INSTALLATION OF EQUIPMENT IN VAULT OR PREFABRICATED METAL HOUSING

**109-5.1 General.** The Contractor shall furnish, install, and connect all equipment, equipment accessories, conduit, cables, wires, buses, grounds, and support necessary to ensure a complete and operable electrical distribution center for the airport lighting system as specified herein and shown in the plans. When specified, an emergency power supply and transfer switch shall be provided and installed.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and local code agency having jurisdiction. All electrical work shall comply with the NEC and local code agency having jurisdiction including the separation of under 600V work from 5,000V work.”

**109-5.2 Power supply equipment.** Transformers, regulators, booster transformers, and other power supply equipment items shall be furnished and installed at the location shown in the plans or as directed by the RPR. The power supply equipment shall be set on steel “H” sections, “I” beams, channels, or concrete blocks to provide a minimum space of 1-1/2 inch (38 mm) between the equipment and the floor. The equipment shall be placed so as not to obstruct the oil-sampling plugs of the oil-filled units; and name-plates shall, so far as possible, not be obscured.

If specified in the plans and specifications, equipment for an alternate power source or an emergency power generator shall be furnished and installed. The alternate power supply installation shall include all equipment, accessories, an automatic changeover switch, and all necessary wiring and connections. The emergency power generator set shall be the size and type specified.

**109-5.3 Switchgear and panels.** Oil switches, fused cutouts, relays, transfer switches, panels, panel boards, and other similar items shall be furnished and installed at the location shown in the plans or as directed by the RPR. Wall or ceiling mounted items shall be attached to the wall or ceiling with galvanized bolts of not less than 3/8-inch (9 mm) diameter engaging metal expansion shields or anchors in masonry or concrete vaults.

**109-5.4 Duct and conduit.** The Contractor shall furnish and install square-type exposed metallic ducts with hinged covers for the control circuits in the vault. These shall be mounted along the walls behind all floor-mounted equipment and immediately below all wall-mounted equipment. The hinged covers shall be placed to open from the front side with the hinges at the front bottom.

Wall brackets for square ducts shall be installed at all joints 2 feet (60 cm) or more apart with intermediate brackets as specified. Conduit shall be used between square ducts and equipment or between different items of equipment when the equipment is designed for conduit connection. When the equipment is not designed for conduit connection, conductors shall enter the square-type control duct through insulating bushings in the duct or on the conduit risers.

**109-5.5 Wiring and connections.** The Contractor shall make all necessary electrical connections in the vault per the wiring diagrams furnished and as directed by the RPR. In wiring to the terminal blocks, the Contractor shall leave sufficient extra length on each control lead to make future changes in connections at the terminal block. This shall be accomplished by running each control lead the longest way around the box to the proper terminal. Leads shall be neatly laced in place.

**109-5.6 Marking and labeling.** All equipment, control wires, terminal blocks, etc., shall be tagged, marked, or labeled as specified below:

**a. Wire identification.** The Contractor shall furnish and install self-sticking wire labels or identifying tags on all control wires at the point where they connect to the control equipment or to the terminal blocks. Wire labels, if used, shall be of the self-sticking preprinted type and of the manufacturer’s recommended size for the wire involved. Identification -markings designated in the plans shall be followed. Tags, if used, shall be of fiber not less than 3/4 inch (19 mm) in diameter and not less than 1/32 inch (1 mm) thick. Identification markings designated in the plans shall be stamped on tags by means of small tool dies. Each tag shall be securely tied to the proper wire by a nonmetallic cord.



**b. Labels.** The Contractor shall stencil identifying labels on the cases of regulators, breakers, and distribution and control relay cases with white oil paint as designated by the RPR. The letters and numerals shall be not less than one inch (25 mm) in height and shall be of proportionate width. The Contractor shall also mark the correct circuit designations per the wiring diagram on the terminal marking strips, which are a part of each terminal block.

### METHOD OF MEASUREMENT

**109-6.1** Calibration of constant current regulators (CCRs) will be performed by an authorized representative of the CCR, occurring after all field terminations are completed for the affected circuits. The CCR shall be evaluated on all lighting step intensities, and circuit load, voltage insulation and loop resistance measurements will be recorded. The manufacturer will make any modifications to the CCR to optimize circuit performance and reduce reactive power loss. A statement of calibration, as well as all testing results will be furnished to the engineer.

**109-6.2** The quantity of equipment to be paid for under this item shall be for one L-829 CCR, and one Instruction Manual (per CCR) installed and accepted as a completed unit, in place, ready for operation. This includes the circuit overcurrent protection, 240V cable conduit from the panelboard to the CCR, the cable/conduit for the 48V communication loop, and the conduit and L-824 cabling required to connect the CCR to the L-823 connector cabinet in the vault.

### BASIS OF PAYMENT

#### **109-7.1 INSTALLATION OF AIRFIELD LIGHTING CABLE AND CONNECTIONS TO EXISTING CONSTANT CURRENT REGULATORS**

Installation of cabling in conduit to the CCR shall be installed as separate items in accordance with Item L-108, "Underground Power Cable for Airports" and Item L-110, "Airport Underground Electrical Duct Banks and Conduit."

#### **109-5.2 CCR CALIBRATION**

Constant Current Regulator Calibration shall include the following: total cost manufacturer to perform the work detailed above and contractor markup. The work to be performed by the Contractor associated with the modifications and as detailed above shall be incidental to the project and no additional payment shall be made under this contract.

#### **109-5.3 CONSTANT CURRENT REGULATOR**

Payment will be made at the contract unit price for the completed total quantity of L-829 CCRs installed, in place by the Contractor, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item L-109-7.1	Remove 30kW constant current regulator and associated equipment and install 20kW, 5-step, 240V L-829 constant current regulator and all associated incoming power and communication appurtenances, per each
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## REFERENCES

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

### Advisory Circulars (AC)

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-3	Specification for L-821, Panels for Remote Control of Airport Lighting
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-10	Specification for Constant Current Regulators and Regulator Monitors
AC 150/5345-13	Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits
AC 150/5345-49	Specification L-854, Radio Control Equipment;
AC 150/5345-53	Airport Lighting Equipment Certification Program

### American National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

ANSI/ICEA S-85-625	Standard for Telecommunications Cable Aircore, Polyolefin Insulated, Copper Conductor Technical Requirements
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### ASTM International (ASTM)

ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM C62	Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale)
ASTM C90	Standard Specification for Loadbearing Concrete Masonry Units
ASTM D2823	Standard Specification for Asphalt Roof Coatings, Asbestos Containing
ASTM D4479	Standard Specification for Asphalt Roof Coatings – Asbestos-Free

### Commercial Item Description (CID)

A-A 59544	Cable and Wire, Electrical (Power, Fixed Installation) Institute of Electrical and Electronic Engineers (IEEE)
IEEE 1584	Guide for Performing Arc-Flash Hazard Calculations

### Master Painter's Institute (MPI)

MPI Reference #9	Alkyd, Exterior, Gloss (MPI Gloss Level 6)
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### Underwriters Laboratories (UL)

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

UL Standard 651A      Type EB and A Rigid PVC Conduit and HDPE Conduit

National Fire Protection Association (NFPA)

NFPA-70                      National Electrical Code (NEC)

NFPA-70E                  Standard for Electrical Safety in the Workplace

NFPA-780                  Standard for the Installation of Lightning Protection Systems

**END OF ITEM L-109**

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## Item L-125 Installation of Airport Lighting Systems

### DESCRIPTION

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

### EQUIPMENT AND MATERIALS

#### 125-2.1 General.

**a.** Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

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

**c.** All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

**d.** The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in a neatly bound, properly sized 3-ring binder, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

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

## EQUIPMENT AND MATERIALS

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

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

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

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

**125-2.6 Retroreflective Markers.** N/A

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

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

**125-2.9 Runway End Identifier Light (REIL).** N/A

**125-2.10 Precision Approach Path Indicator (PAPI).** N/A

**125-2.11 Circuit Selector Cabinet.** N/A

**125-2.12 Light Base and Transformer Housings.** Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Light bases shall be Type L-867 and L-868, Class 1A, Size B and shall be provided as indicated or as required to accommodate the fixture or device installed thereon. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

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

## INSTALLATION

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

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

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

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

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

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

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

### METHOD OF MEASUREMENT

**125-4.1** Payment for light fixtures, new or stored with artic kit, isolation transformer and associated equipment shall be per each light installed, complete in place, ready for operation, and accepted by the engineer. This includes the light fixture, L-867B, class 1A hot-dipped galvanized steel light base with concrete foundation, isolation transformer; isolation transformer stand, 3/8" – 16 stainless steel bolts and stainless steel Nord-Lock washers; identification tag, excavation/coring, and restoration; conduit stub outs; ground rod and grounding; and all other incidentals, materials, and labor, and testing required.

**125-4.2** Payment for temporary airfield lighting shall be an allowance to the contractor to provide cabling, light bases, isolation transformers, grounding, and light fixtures, as well as protective measures, to temporarily activate airfield ground lighting circuits during the construction phase. Items used for temporary lighting shall not be used for final installations.

**125-4.4** Payment for removals shall include disassembly and removal of light fixture. Preserve and store equipment to be reinstalled or turn over stored materials to airport owner. Items identified for demolition shall be removed in their entirety and disposed offsite.

### BASIS OF PAYMENT

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

Payment will be made under:

- |                |   |
|----------------|---|
| Item L-125-5.1 | L-862(L) runway elevated edge light fixture on existing light base, with transformer and accessories, installed complete in place |
| Item L-125-5.2 | L-862E(L) runway threshold/end light on existing light base, with transformer and accessories, installed complete in place        |

Item L-125-5.3	L-850C(L) runway in-pavement edge light fixture on existing light base, with transformer and accessories, installed complete in place
Item L-125-5.4	1 module - size 1, style 3, class 1, mode 2, 1-858(L) airfield guidance sign on existing foundation, with transformer and accessories, installed, complete in place
Item L-125-5.5	2 module - size 1, style 3, class 1, mode 2, 1-858(L) airfield guidance sign on existing foundation, with transformer and accessories, installed, complete in place
Item L-125-5.6	3 module - size 1, style 3, class 1, mode 2, 1-858(L) airfield guidance sign on existing foundation, with transformer and accessories, installed, complete in place
Item L-125-5.7	4 module - size 1, style 3, class 1, mode 2, 1-858(L) airfield guidance sign on existing foundation, with transformer and accessories, installed, complete in place
Item L-125-5.8	1 module - size 4, style 3, class 1, mode 2, 1-858(L) airfield guidance sign on existing foundation, with transformer and accessories, installed, complete in place
Item L-125-5.9	Relocate 2 module 1-858(L) airfield guidance sign on existing foundation, furnish and install transformer and accessories, installed, complete in place
Item L-125-5.10	Remove and replace all existing sign panels within existing sign housing - per each sign
Item L-125-5.11	Install 12" diameter 36" deep reinforced concrete pier for sign foundation extension and 6" deep washed stone maintenance pad, complete in place
Item L-125-5.12	Remove airfield guidance sign, demolish transformer and accessories, foundation to remain
Item L-125-5.13	Remove light fixture, demolish transformer and accessories
Item L-125-5.14	Temporary airfield lighting during construction

### REFERENCES

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

#### Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch



AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series-to-Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program
Engineering Brief (EB)	
EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures

**END OF ITEM L-125**

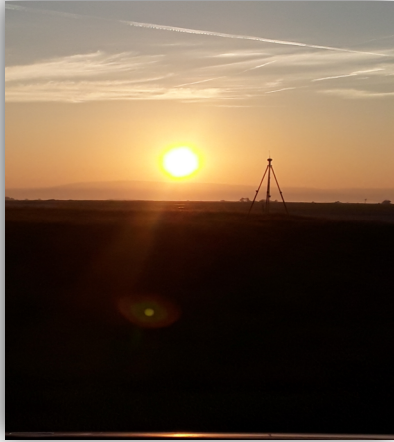
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**APPENDIX A – CONSTRUCTION SAFETY AND PHASING  
PLAN (CSPP)**

**RUNWAY 9-27 EDGE LIGHTING & SIGNAGE REPLACEMENT  
HAGERSTOWN REGIONAL AIRPORT  
AIP 3-24-0019-071-2023 (DESIGN/CONSTRUCTION)**

**BID NO. PUR-1635  
BID DOCUMENTS  
SEPTEMBER 2023**

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# Runway 9-27 Edge Lighting and Signage Replacement

## Construction Safety and Phasing Plan (CSPP)

Hagerstown Regional Airport (HGR)  
Hagerstown, MD



June 2023



6031 University Blvd, Suite 330  
Ellicott City, MD 210

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### Appendices

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Appendix B.	Construction Safety and Phasing Drawings
Appendix C.	Sample Contractor’s Safety Plan Compliance Document (SPCD)
Appendix D.	Construction Project Daily Safety Inspection Checklist

# Runway 9-27 Edge Lighting and Signage Replacement

AIP-3-24-0019-XXX-2023 (Design)  
Hagerstown Regional Airport (HGR)  
Hagerstown, Maryland

## 0. Project Overview

The Runway 9-27 edge lights will be upgraded to LED fixtures replaced on existing base cans, airfield signs will be upgraded to LED utilizing existing bases (retrofit or signage replacement), and existing circuit cables will be removed and replaced utilizing existing conduit and ductbanks. The major work components include:

- Remove existing and install new LED runway edge lights on existing base cans.
- Remove existing and install new cable in existing conduit.
- Remove existing and install new LED airfield guidance signs.
- Construction Area Control and Safety Features.
- Coordination with HGR Operations/Management to Schedule Runway and Taxiway Closures.

This narrative discusses the elements of the Construction Safety and Phasing Plan for the Runway 9-27 Lighting and Signage Upgrades project. **Figure 1** shows the scope of work for the project.

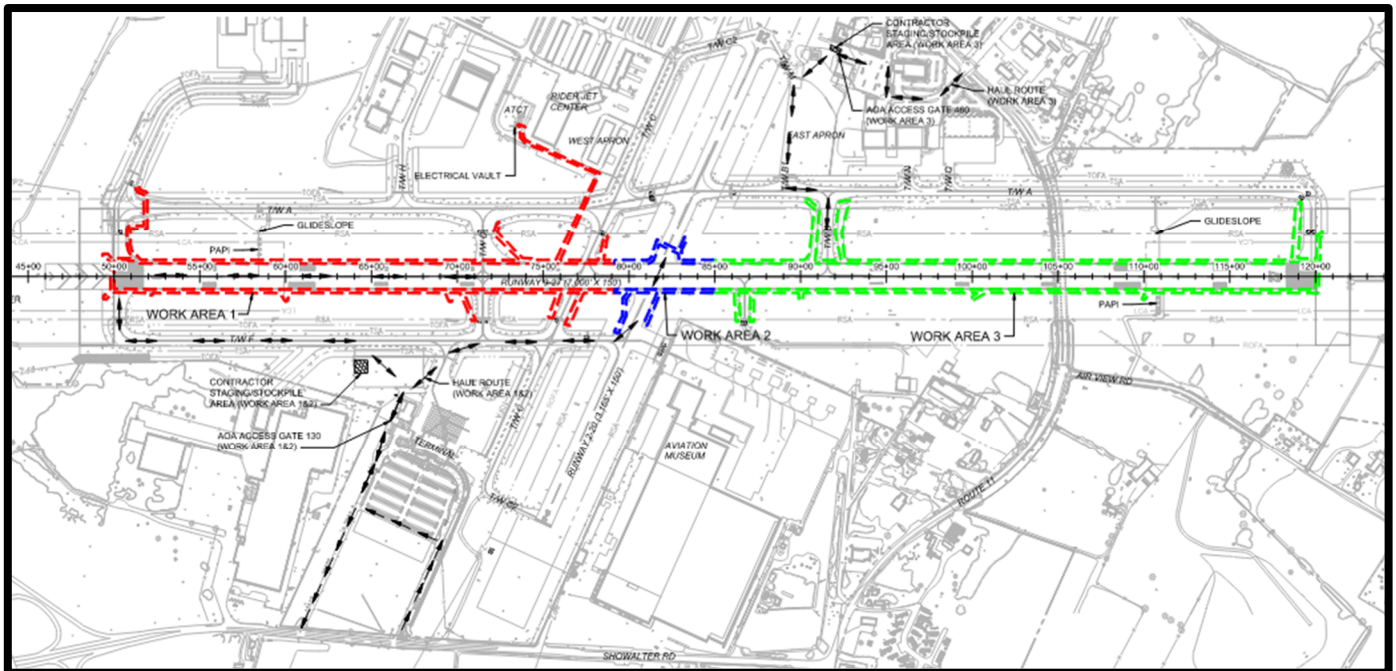


Figure 1 – Runway 9-27 Lighting and Signage Upgrades: Scope of Work

## 1. Coordination

On behalf of the Board of County Commissioners for Washington County MD, the airport sponsor, HGR will host pre-bid and pre-construction coordination meetings to ensure the sponsor, the Construction Manager, the Designer, the Contractor, the FAA, tenants, and all other interested parties are aware of design, safety, and construction requirements and have an understanding of their individual responsibilities, as well as the technical and legal requirements of the contract.

### 1.1 Pre-Bid Meeting:

The pre-bid coordination meeting will include discussion of the project's scope of work, construction phasing, schedule, unique construction items, bid forms to be submitted, Disadvantaged Business Enterprise (DBE) requirements, and question and answer session. The meeting will clarify and explain project construction methods, procedures, and safety measures. The Construction Safety and Phasing Plan (CSPP) will be reviewed and discussed with key attendees.

- Key Attendees:
 

HGR Operations/Management	<i>(Owner)</i>
Washington County Commissioners	<i>(Owner)</i>
Resident Project Representative (RPR)	<i>(Owner's Representative)</i>
ADCI	<i>(Designer)</i>
Bidding Contractors	<i>(Contractor)</i>

### 1.2 Pre-Construction Meeting

The pre-construction coordination meeting will include discussion of project scope, staging, phasing, operational safety, security, environmental factors, DBE compliance and other project-specific issues. The CSPP and Safety Plan Compliance Document (SPCD) will be reviewed and discussed.

- Key Attendees:
 

HGR Airport Director
HGR Access Control and Security
HGR Maintenance
HGR Operations
FAA Airports District Office (Washington)
FAA Air Traffic Control Tower (ATCT)
RPR
ADCI - Designer
Testing Laboratory representative
Contractor and Subcontractor representative(s)
Tenants
Airlines
Federal, State, and local agencies affected by the proposed construction

### 1.3 Weekly Progress Meetings

Throughout the duration of the project, weekly progress meetings will be held. Construction phasing and operational safety will be a standing agenda item at the weekly progress meeting.

- Key Attendees:
 

HGR Airport Director
HGR Access Control and Security
HGR Maintenance
ARFF Representative
RPR
ADCI - Designer
Superintendent and Foreman of Prime Contractor
Project foreman for each subcontractor with work occurring during current period
Contractor Safety Officer
Contractor Security Officer



### 1.4 Daily Safety Meeting

The General Contractor is responsible to host Daily Safety Meetings prior to the start of each construction day with all workers to review and discuss daily project scope and appropriate safety equipment and measures.

At the end of each construction day, the General Contractor is responsible to maintain a clean and safe construction site. The General Contractor is responsible for daily monitoring and routine maintenance of safety devices and equipment. The Contractor is responsible for immediately repairing malfunctioning safety devices and equipment to the satisfaction of the Airport.

### 1.5 Scope or Schedule Changes

Changes in project scope or schedule may require revisions to the CSPP. Changes to the CSPP would need to be reviewed and approved by HGR Operations/Management and the FAA. The approved changes shall also be reflected in the SPCD.

### 1.6 FAA ATO Coordination

Coordination with FAA ATO has occurred throughout the design process. Closures of runways and taxiways and issuing NOTAMS will be closely coordinated with the FAA ATCT. Construction activity was modeled by ADCI to determine any impacts or restrictions during construction.

The Contractor will provide a two-week look ahead schedule at every weekly progress meeting. HGR Operations/Management will maintain coordination with the FAA ATCT and inform the FAA ATCT of any changes to the project scope or schedule.

## 2. Phasing

The construction phasing has been developed to minimize the impact of construction operations on the airport and its tenants while promoting construction efficiency and overall safety. The project is broken into three work areas. The three construction work areas are dictated by airport operational requirements.

**Estimated Start Date:** Fall 2023

**Estimated Completion Date:** Fall/Winter 2023

### 2.1 Mobilization

- May overlap with the start of construction if determined by Contractor's Schedule to be feasible and if approved by the RPR.
- Establish site access, haul routes, and Contractor staging area.
- Access: Work Area 1 & 2: Manual Gate 130 located on Terminal Drive. Work Area 3: Gate 460 located on the East Apron.
- Haul Route: Off Airport – Air Park Road to Henson Blvd. to US Route 11 to Showalter Road to Terminal Drive to Gate 130.
- Staging Area: For Work Area 1 & 2 located adjacent to Terminal Drive and the Long Term parking lot. For Work Area 3 located inside Gate 800 on Air View Road. The stockpile area is off Air Park Road near Interstate 81.
- Submittals, Shop Drawings and approval of Asphalt Mix Designs.
- Requests for Information (RFI).
- Ordering of Materials.
- Trailer/Temporary Construction Setup (if Required by Contractor).
- Construction Schedule development and approval.
- Coordination with HGR Operations to schedule Runway and Taxiway closures.
- Contractor will not impact any part of the airfield as part of the Mobilization phase unless otherwise authorized by the RPR.

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## 2.2 Work Area 1

The scope of work for Work Area 1 includes but is not limited to:

- Remove existing and install new LED edge lights on existing base cans.
- Remove existing and install new cable in existing conduit.
- Remove existing and install new LED guidance signs.
- Retrofit existing incandescent/halogen guidance signs to LED.

Work Area 1 will include the replacement of lighting, cable, and signage from Runway 9 end up to the west RSA boundary of Runway 2-20 and will also include the replacement of the homerun cable to the electrical vault.

Major airfield impacts during Work Area 1 will include the following:

- Closure of Runway 9-27

Work Area 1 will be completed as night work (9 PM – 6 AM) for all work within Runway 9-27 RSA, requiring closure of Runway 9-27. Nighttime work hours may be adjusted at the Airport's discretion to accommodate commercial flight service. No time restrictions for work outside Runway 9-27 RSA.

## 2.3 Work Area 2

The scope of work for Work Area 2 includes but is not limited to:

- Remove existing and install new LED edge lights on existing base cans.
- Remove existing and install new cable in existing conduit.
- Remove existing and install new LED guidance signs.
- Retrofit existing incandescent/halogen guidance signs to LED.

Work Area 2 will include the replacement of lighting, cable, and signage within the intersection of Runway 9-27 and Runway 2-20.

Major airfield impacts during Work Area 2 will include the following:

- Closure of both Runway 9-27 and Runway 2-20

Work Area 2 will be completed in one (1) night shift (9 PM – 6 AM), requiring closure of both runways. The closure will be closely coordinated with HGR Operations and the RPR.

## 2.4 Work Area 3

The scope of work for Work Area 3 includes but is not limited to:

- Remove existing and install new LED edge lights on existing base cans.
- Remove existing and install new cable in existing conduit.
- Remove existing and install new LED guidance signs.
- Retrofit existing incandescent/halogen guidance signs to LED.

Work Area 3 will include the replacement of lighting, cable, and signage from the east RSA boundary of Runway 2-20 to the Runway 27 end.

Major airfield impacts during Work Area 3 will include the following:

- Closure of Runway 9-27

Work Area 3 will be completed as night work (9 PM – 6 AM) for all work within Runway 9-27 RSA, requiring closure of Runway 9-27. Nighttime work hours may be adjusted at the Airport's discretion to accommodate commercial flight service. No time restrictions for work outside Runway 9-27 RSA.

## 2.5 Closeout and Final Acceptance

- Punchlist items and clean-up
- Submission of final as-built and mark-up information

### 3. Areas and Operations Affected by Construction

The area of the airport that will be affected by the Runway 9-27 Lighting and Signage Upgrades project includes the full length of Runway 9-27 edges, all Runway 9-27 connector taxiways, Taxiway A short of the intersection with Taxiway C, and the intersection of Runway 9-27 and Runway 2-20.

Nightly closures of Runway 9-27 for all phases and one nighttime closure of Runway 2-20 (Work Area 2 only) will be required during construction. Taxiway electrical circuits will be de-energized and guidance signs will be covered and/or removed. Runway closure will be required for any work along the taxiway that is inside the Runway Safety Area (RSA). The RSA and ROFA will be identified in the field with survey stakes as approved by the RPR. No runway or taxiway closures will be permitted without advance approval from HGR Operations.

The Contractor will not enter any safety area of any active runway without an appropriately badged escort and approval from the ATCT. In addition, there will be no construction activities, placement of stockpiles, storage of materials, or fueling in the approach protection area of any active runway.

#### 3.1 Runway Safety Areas

The Contractor will not enter the safety area of any active Runway without an appropriately badged escort. **Table 3-1** shows Runway Safety Area dimensions in the project work areas

**Table 3-1. Runway Safety Areas**

Runway	Aircraft Approach Category	Airplane Design Group	Runway Safety Area Width Divided by 2
09-27	C	III	250 feet
02-20	B	II	75 feet

Contractor shall install survey stakes at limits of RSA and TSA to delineate these areas during construction.

#### 3.2 Runway Approach Protection Areas

Unless otherwise shown, the Contractor will not enter, conduct fueling, place stockpiles, or store materials in the approach protection area of any active Runway. **Table 3-2** shows Runway Approach Protection Areas.

**Table 3-2. Runway Approach Protection Areas**

Runway End	Aircraft Approach Category	Airplane Design Group	Safety Area Prior to Threshold	Minimum Distance to Threshold on Approach Slope	
9	C	III	1,000 feet	200 feet	34:1
27	C	III	1,000 feet	200 feet	50:1

### 4. Navigational Aid (NAVAID) Protection

Aircraft navigational aids (NAVAIDS) provide visual and electronic information which are used by pilots who operate and land aircraft at the airport. Construction activities may have negative impacts on the functionality and serviceability of NAVAIDS. The Contractor must coordinate their work effort and limit

their operations in NAVAID critical areas to minimize NAVAID impacts.

The Contractor will be required to restrict and limit operations so that material, equipment, and personnel do not enter NAVAID critical areas or disturb power to NAVAID facilities without prior coordination with HGR Operations and FAA Tech Ops personnel. All construction activity has been modeled by ADCI to determine any impacts or restrictions during construction. It is anticipated that there will be no impacts or restrictions to NAVAID facilities during this project.

The Contractor is required to provide notice to HGR Operations and FAA Tech Ops personnel at least 72 hours prior to disturbing power supply or removing a NAVAID from service. FAA Tech Ops Office – (410) 859-7936.

## 5. Contractor Access

### 5.1 Location of Stockpiled Construction Material

No stockpiled materials or staged equipment may be placed outside of the designated staging areas unless approved by the RPR. There will be no stockpiles or staged equipment within the ROFA.

- *Height restrictions:* Stockpiles shall not exceed the heights shown on the Contract Drawings and will not be located within any area (TOFA, TLOFA, TSA, RSA, ROFA, RPZ, etc.) that is required for the operation of the aircraft.
- *Wildlife attractant:* Contractor to manage stockpiles so that they do not attract wildlife. Refer to Section 6 of this document.
- *Foreign Object Debris (FOD):* Contractor to manage material stockpiles and trash so that they do not create FOD. Refer to Section 7 of this document.
- *Marking and Lighting of Stockpiles:* Contractor will not be required to mark or light material stockpiles.

### 5.2 Vehicle and Pedestrian Operations

#### 5.2.1 Access to AOA

The airport operations area is defined by the perimeter fence surrounding the airfield. Access onto the AOA is through any number of gates along the fence or doors through buildings. Contractor access onto the AOA is limited to the gates shown on the CSPP drawings. No person shall enter the AOA, or any other restricted area, except authorized personnel assigned to duty therein escorted by an appropriately badged escort.

Contractor access will be through Gate 130 and Gate 460 as shown in the Contract Drawings, and/or approved by the RPR. Gate 130 is located on Terminal Drive near the ARFF building and Gate 460 is located on the East Apron.

#### 5.2.2 Mechanisms to Prevent Improper Movement

Contractor operations within the AOA are limited to the areas shown on the CSPP. A visual boundary will be installed by the Contractor around all areas of work, consisting of low-profile barricades on pavement surfaces as well as grassed areas. The project phasing plans show locations of work area and sub-area boundaries. Construction vehicles and personnel must not cross boundaries at any time without an appropriately badged escort and approval from the ATCT, if required.

The Contractor shall provide enclosures, fences, barricades, or other devices where necessary to prevent access to the site or danger to the public, as approved by the RPR.

#### 5.2.3 Parking Areas for Personal Vehicles and Equipment

Contractor employee personal vehicles may not be parked or driven in the AOA. Personal vehicles instead must be parked outside the AOA.

#### 5.2.4 Haul Routes

The G200 series drawings illustrate the proposed access points, haul routes, stockpile areas, and landside staging area. The Contractor will not be permitted to use any access or haul roads other than those designated on the Contract Drawings and will be required to submit a detailed Staging Area and Haul Route Plan prior to the start of construction.

Contractor access and hauling operations are strictly limited to the haul routes shown. Contractor is responsible for any improvements and maintenance to haul routes as needed to efficiently perform construction activities.

#### 5.2.5 Airport Rules for Ground Vehicle Operations

Rules for vehicular and equipment travel on the airport are located on G200. These rules must be followed at all times when driving on the airport.

#### 5.2.6 Contractor Vehicle Marking and Lighting

Only Contractor licensed vehicles will be permitted to enter the AOA. Each Contractor licensed vehicle must display a company logo on both sides of the vehicle, as well as a yellow/amber rotating beacon affixed to the uppermost part of the vehicle that is visible from any direction, day and night. Contractor vehicle marking and lighting is the sole responsibility of the Contractor; the Airport will not provide marking or lights. Marking and lighting of vehicles must comply with AC 150/5210-5, latest edition, *Painting, Marking and Lighting of Vehicles Used on an Airport*. Additional vehicle marking and signage guidelines can also be found on Sheet G200.

#### 5.2.7 Contractor Construction Equipment Parking

Any unused equipment shall not be parked any closer than 85.5 feet from the centerline of an active taxiway and no closer than 250 feet from an active runway unless noted or shown otherwise on the phasing plans. The ROFA for Runway 2-20 is 500 feet, and the ROFA for Runway 9-27 is 800 feet.

### **5.3 Radio Communications**

#### 5.3.1 Two-way Radios

Contractors may utilize two-way radios on the project provided that they do not interfere with existing Airport, FAA, or military communication equipment and frequencies.

#### 5.3.2 Air Traffic Control Tower (ATCT) Radio Communications

Vehicle operations on the movement area require contact with the ATCT. The Contractor will not communicate directly with the ATCT unless trained by HGR Operations. If no Contractor personnel are trained by HGR Operations, the Contractor must contact HGR Operations for an escort onto any movement area.

#### 5.3.3 Personnel Required to Communicate with ATCT

All communications with the ATCT will be made by persons trained and approved by HGR Operations.

#### 5.3.4 Training

All training of Contractor personnel for communication with the ATCT will be completed by HGR Operations.

#### 5.3.5 Procedure for Communicating

Radio types: Airband radios capable of transmitting and receiving on frequencies used by the ATCT.

Light signals: not applicable.

### **5.4 Airport Security**

Hagerstown Regional Airport maintains an active security program, which is of primary importance. The project will take place within the Airport's Security Identification Display Area (SIDA), which requires specific security protocol be followed. General project security requirements include the following:

- The project plans show the entry point(s), barricades, Contractor's staging area, and work area. The Contractor shall provide security for these areas. The Contractor is to provide to

the Airport, for review and approval, all security measures, barricades, and other means to be taken to secure scheduled openings between the secure and non-secure areas, prior to creating the opening.

- No Contractor employee may tamper or interfere with, compromise, modify, attempt to circumvent, or cause a person to tamper or interfere with, compromise, modify, or attempt to circumvent any security system, measure, or procedure implemented at the Airport.
- Each Contractor employee must immediately notify the Airport when security-related facilities and equipment within the Contractor's area are malfunctioning or no longer adequate to perform the control function.
- No Contractor employee may enter or be present within a secured area, SIDA, AOA, or Sterile Area without complying with the systems, measures, or procedures being applied in such areas.
- The project will require AOA badges for all Contractor personnel, and the Contractor will be required to maintain a list of all badged employees and badged subcontractor employees.

Additional details about the Airport's security procedures can be found on Sheet G200.

## 6. Wildlife Management

### 6.1 Trash

Food scraps must be collected from construction personnel activity.

### 6.2 Standing Water

Any activity taking place that creates a standing body of water must be resolved immediately. Standing water will not be permitted and must drain within 48 hours.

### 6.3 Poorly Maintained Fencing and Gates

Periodic perimeter fence inspections are conducted by HGR Security to ensure the fence is secured. These inspections also include identifying any animal digs that are located under the fence and ensuring that perimeter gates and drainage grates are tightly secured to prevent animal access. In addition, HGR Operations will take appropriate actions to reduce any other observed wildlife activity.

The Contractor should also be vigilant in observing the security fence for areas that may not be secured and report any problems immediately to HGR Operations.

### 6.4 Disruption of Existing Wildlife Habitat

Contractor personnel should immediately notify HGR Operations of a wildlife sighting.

## 7. Foreign Object Debris (FOD) Management

Foreign object debris at airports includes any object found in an inappropriate location that can damage aircraft, equipment, or airport personnel. Foreign object debris on construction sites is typically comprised of things such as loose gravel, blowing sand, wire bristles from sweeper heads, food wrappers, and material packaging. The presence of FOD on an airport's air operations area (AOA) poses a significant threat to the safety of air travel. FOD has the potential to damage aircraft during critical phases of flight, which can lead to catastrophic loss of life and airframe, and at the very least increased maintenance and operating costs. As such, FOD shall not be allowed near active aircraft movement areas, and FOD shall be continuously removed by the Contractor during the construction project. The construction area shall be kept clean at all times of debris that may blow onto the airfield.

### 7.2 Methods of FOD Control

- *Training:* Contractor shall provide training to all employees working within the AOA on effective FOD management. Training shall include description and consequences of FOD, FOD

awareness, and housekeeping procedures.

- *Housekeeping*: Preventing FOD from occurring is the most effective form of FOD management. Contractor must monitor construction activities and proactively develop a plan to prevent FOD from occurring. Typical FOD prevention measures include the use of covered trash containers, covered loads, zero tolerance of littering, and tying down items which may be easily windblown.
- *Ground Vehicle Tire Inspections*: Prior to crossing active airfield pavement the Contractor must perform a vehicle tire check for any loose rocks that may be in the tread. Tires covered in mud must be cleaned prior to crossing active pavement in order to prevent tracking of dirt.
- *FOD Inspections*: Refer to Section 10 of this document for FOD inspection requirements.

## 8. Hazardous Material (HAZMAT) Management

HAZMAT procedures to be developed by the Contractor prior to the issuance of the notice to proceed include, but are not limited to:

- Fuel Storage Locations and Handling Procedures
- Spill Response Procedures
- Safety Data Sheets (SDS)

The Contractor shall not introduce explosives or any other hazardous materials or equipment without the prior written consent of the RPR.

## 9. Notification of Construction Activities

### 9.1 List of Responsible Representatives

Persons who have questions concerning policies, procedures, or requirements of the Airport Security Program, should contact HGR Security. Persons who observe a security violation, suspicious act or any serious act that may endanger persons or property, should immediately contact HGR Security, HGR Operations, Police, and Fire Departments. For this project, all communications with the ATCT will be made by persons trained and approved by HGR Operations. Important telephone numbers are listed below:

- Police Department – (301) 790-3700 (Dispatch)
- Fire Department – (301) 790-2476 (Watch Desk)
- Airport Communication Center – (240) 313-2200
- FAA Tech Ops Office – (410) 859-7636
- FAA TRACON – (410) 859-7252/7255
- FAA ATCT Manager – Coordinate with RPR

### 9.2 Notices to Air Missions (NOTAMs)

Contractor shall coordinate with the RPR and HGR Operations personnel 7 days in advance for the issuance of all NOTAMs related to the project construction. HGR Operations will generate and issue NOTAMs based on Contractor construction schedule and facility impacts.

### 9.3 Emergency Notification Procedures

In the case of a life-threatening situation, dial 911 and the Airport's Emergency Number (240-313-2777) immediately thereafter. HGR Operations will coordinate any emergency response.

### 9.4 Coordination with ARFF

Weekly construction progress meetings will be held throughout the duration of the project and prior to commencement of phasing changes. During these weekly meetings, ARFF will be notified of re-routing, blocking, and restoration of emergency access routes. Contractor is required to adjust haul routes and hauling activities as necessary to accommodate ARFF operations.

### 9.5 Notification to the FAA

If the Contractor needs use of cranes, equipment, or other items on or near the airport taller than the

allowable elevations shown on the Drawings, the Contractor must submit a new 7460-1 to the FAA for airspace review and approval. FAA approval could take up to ninety (90) calendar days.

## **10. Inspection Requirements**

### **10.1 FOD Inspection**

The Contractor shall keep the project site and vehicles clean, employing a “clean as you go” approach throughout the project.

### **10.2 Airport Operations Daily Inspection**

Airport staff and HGR Operations personnel conduct daily airfield inspections. These inspections include an inspection of all open/active airfield-paved areas and safety areas to ensure compliance with FAR Part 139.327.

### **10.3 Contractor Inspection**

Prior to opening work areas and pavement to aircraft traffic, the Contractor must coordinate with the RPR and HGR Operations for inspection of the work area. Pavements must be free of all dirt, sand, gravel, wire bristles, or any other objects that could cause damage to aircraft. All turf/soil areas must be free of dirt clods, ruts, or surface irregularities that could damage an aircraft should it leave the pavement. Daily inspections must be completed to assure all traffic control devices are in proper location and in working order.

### **10.4 Final Inspection**

The Contractor will be required to coordinate with the RPR and Airport to schedule a final inspection.

## **11. Underground Utilities**

The location of the underground utilities and FAA cables shown on the plans has been obtained from available records and field checks and are believed to be correct. Locations of existing and proposed underground utilities and facilities shown on the Contract Drawings have been developed from available information. Completeness and accuracy of the location and depth of utilities and facilities cannot be guaranteed.

Prior to beginning any excavating operations, the Contractor is to use hand excavation, as required, to verify the depth and location of all utilities and facilities and clear them. Any underground utilities located which do not appear on the plans shall be brought to the attention of the RPR and shown on the Contractor mark-ups.

If FAA cables are damaged during construction, repairs shall be done from point to point in accordance with FAA requirements and in the presence of a FAA Representative. Maintenance and protection of underground utilities and infrastructure shall be the responsibility of the Contractor. If the Contractor damages any existing utilities during construction, he/she shall immediately repair the damaged item to the RPR's satisfaction, at the sole expense of the Contractor.

## **12. Penalties**

The following penalties will be administered by the Airport, FAA and TSA as allowed per the requirements of the Construction Safety and Phasing Plan and HGR, FAA and TSA Rules and Regulations. If a fine is levied upon the Airport for a Contractor's violation, the fine amount will be paid by the Airport and deducted from the Contractor's monthly payment.

If a discrepancy or violation occurs, the Owner will allow construction work to resume only when the discrepancy is corrected to the Owner's satisfaction. The Owner may permanently prohibit any Consultant or Contractor Employee acting in violation with airport rules and regulations from entering or working on airport property.

### **12.1 Vehicle Operations**

Stiff penalties exist to punish those who violate airport driving regulations. Prosecution can be a fine, imprisonment, lease violation, or impoundment of vehicle.



## 12.2 Security Violations

Individuals who violate Airport Security rules may be subject to prosecution. Penalties may be a fine, imprisonment, lease violation or impoundment of vehicle. The TSA can levy fines of up to \$11,000 per security incident. In addition to these penalties, the Airport reserves the right to remove or eject from the airport premises and suspend the contract of any person who violates any Airport Security rules or regulations. These violations include entering the AOA outside of the designated work area and the unescorted operation of a vehicle on any active AOA surface.

## 12.3 FOD

The airport has a zero-tolerance approach to FOD, and the Contractor may be subject to fines from the Airport, FAA, or other agencies for failure to properly manage FOD during construction activities.

## 13. Special Conditions

The Contractor may be required to halt construction activities during periods of low visibility conditions, snow removal, emergency situations, or VIP movements. In all cases the Contractor shall follow instructions from HGR Operations. See Section 5 of this document for airport safety and security measures and radio communications procedures. See Section 9 of this document for emergency notification procedures.

## 14. Runway and Taxiway Visual Aids

### 14.1 General

All lighting and signs that are located within an Object Free Area will be frangible.

### 14.2 Markings

Markings must be in compliance with the standards of AC 150/5340-1M, *Standards for Airport Markings*. Lighted Runway closure "X" markers will be installed on closed runways for the durations shown on the phasing plans, when runway closures are required. Runway closure "X" markers will comply with AC 150/5345-55A, Specifications for L-893, Lighted Visual Aid to indicate temporary runway closure.

There is no proposed marking work within this project.

### 14.3 Lighting and Visual NAVAIDS

Lighting shall conform to the requirements in AC 150/5340-30, *Design and Installation Details for Airport Visual Aids*; AC 150/5345-50, *Specification for Portable Runway and Taxiway Lights*; and AC 150/5345-53, *Airport Lighting Certification Program*. The existing Runway 9-27 edge light system will be replaced with LED fixtures on the existing light bases. When the taxiways and runways are closed for construction, the existing edge lights will be de-energized.

### 14.4 Signs

Signs shall conform to the requirements of AC 150/5345-44, *Specification for Runway and Taxiway Signs*; AC 50/5340-18, *Standards for Airport Sign Systems*; and AC 150/5345-53, *Airport Lighting Certification Program*. The existing guidance signs associated with Runway 9-27 will either be retrofitted to LED (assuming no change to the legend), or replaced with a new guidance sign on an existing or extended foundation. When the taxiway is closed for construction, the existing guidance signs will be covered until they are removed.

## 15. Markings and Signs for Access Routes

The pavement markings and signs for construction personnel conform to AC 150/5340-18F, and to the extent practicable, with Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD). Signs placed adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23. Access routes for Contractor are shown in the CSPP drawings.

## 16. Hazard Marking and Lighting

Low-profile barricades with flashing red lights will be used for all pavement closures. Cones may be utilized to establish limits of construction haul routes. Barricades will be placed end to end with no space in between except to allow ARFF access or as directed by the RPR. A Contractor's representative will be on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades.

Hazard marking and lighting of excavation areas are to be in accordance with the Occupational Safety and Health Organization (OSHA) requirements. Open trenches, excavations, open manholes, small areas under repair, stockpiled material, and waste areas shall be prominently marked with barricades and orange flags and illuminated by flashing red light units during hours of restricted visibility and darkness, as directed by the RPR.

For work that is scheduled to be conducted at night, the contractor will provide lighting units to complete this work. The contractor will coordinate with the RPR for the location and aiming. Lights will not be aimed towards the ATCT or toward active taxiways/runways.

## 17. Work Zone Lighting for Nighttime Construction.

All Construction lighting shall be directed away from the approach of any active runway and/or any aircraft operators and the Air Traffic Control Tower. The Contractor shall provide a proposed lighting plan for approval by the RPR. During construction, the Contractor shall relocate, re-position or shield any construction lighting that interferes with the operation of the airport as directed by the RPR.

## 18. Protection of Areas, Zones, and Surfaces

All Safety Areas, Object Free Areas, and Obstacle Free Zones will be protected from construction activity. Open trenches and excavations are not permitted within the RSA or TSA while the Runway or Taxiway is open. All trenches and excavations within an RSA or TSA must be backfilled prior to opening a runway or taxiway for aircraft use. Any pavement construction related drop-offs shall be covered by at least one lift of asphalt prior to opening adjacent pavements to aircraft use. Pavement shall be brought up to RSA/TSA grading standards as defined by FAA AC 150/5300-13B. No non-frangible obstructions or drop-offs greater than three inches in height will be permitted within active runway or taxiway object free areas. If a runway or taxiway must be opened before excavations are backfilled, they must be covered appropriately, as approved by the RPR.

For work on and adjacent to active taxiways, runways, and aprons, the following conditions apply:

- *Runway Safety Area (RSA)*: An area within 200 feet of the Runway 9-27 centerline, and an area within 75 feet of the Runway 2-20 centerline.
- *Runway Object Free Area (ROFA)*: An area within 400 feet of the Runway 9-27 centerline, and an area within 250 feet of the Runway 2-20 centerline. Any equipment that is not in use (no operator available to move equipment for more than 15 minutes) must be completely removed from the ROFA.
- *Taxiway Safety Area (TSA)*: an area within 59 feet of ADG III taxiway centerlines, unless otherwise noted on the plans.
- *Taxiway Object Free Area (TOFA)*: an area within 85.5 feet of ADG III taxiway centerlines, unless otherwise noted on the plans.
- *Obstacle Free Zone (OFZ)*: Personnel, Construction equipment and stockpiles shall not penetrate the OFZ when the runway is open.

All construction activity within the RSA will require an applicable NOTAM and the closure of that runway. All construction activity within a TSA or TOFA will require an applicable NOTAM and the closure of that

taxiway, or a designated portion thereof, or a restriction to the aircraft which will be permitted to use that taxiway during construction. The Contractor shall request through the RPR a NOTAM for the closure or restriction of the required portion of the taxiway or runway. The request shall include the times requested and the Contractor's proposed detailed schedule of this operation within the area utilizing only the requested closure times. NOTAMs require a 7 day notice and are subject to Airport approval.

If RSA or TSA dimension is adjusted, the airport operator will coordinate the change with the ATCT and the appropriate FAA Airports Regional or District Office and issue a local NOTAM.

## 19. Other Limits of Construction

Certain work areas and sub-areas may be made available to the Contractor with advanced notice and coordination with the RPR and HGR Operations. The specific sequence of work within each phase will be determined by the Contractor. Additional limitations include but are not limited to:

- Runways 9-27 and 2-20 shall not be closed at any time without advance approval from HGR Operations.
- The Contractor will be required to halt construction activities when required by emergency crews at the airport.
- The Contractor may be required to halt construction activities in the event of VIP movements on the airport.
- The Contractor shall not use tall equipment (cranes, concrete pumps, etc.) that exceeds the allowable elevations shown on the drawings, unless a 7460-1 determination letter is issued for such equipment.
- Blasting and the use of electrical blasting caps is prohibited on this project.
- The use of flare pots is prohibited within the AOA.
- Open flame, welding, or torch-cutting operations are prohibited.
- No debris burning will be allowed unless authorized by the RPR.

## 20. Safety Plan Compliance Document (SPCD) – Contractor's Responsibility

Contractor shall be responsible for meeting all of the requirements contained in this CSPP including the requirements shown in the Safety and Phasing drawings. In addition, the Contractor will be required to submit a Safety Plan Compliance Document (SPCD) to the RPR and Airport for review in time for an approval prior to Notice to Proceed. The requirements for the SPCD are stated in AC 150/5370-2G. A sample SPCD is included in Appendix C.

No work may commence until the schedule and SPCD is approved. The SPCD shall include but not be limited to:

- A plan for controlling construction equipment, personnel and vehicular movements in the AOA. The plan must include material haul routes. The plan shall detail the general requirements contained in the CSPP.
- The SPCD shall complete any details and discuss any deviations or topics that could not be addressed during the preparation of the CSPP. Should the SPCD include substantive changes to the CSPP requested by the Contractor, the SPCD must be submitted 45 days prior to the start of work in order for the Airport to obtain approval of such changes from the FAA.
- The SPCD shall include a general statement by the construction Contractor that he/she has read and will abide by the CSPP, the approval date of the CSPP, and a reference to any supplemental information (that is, "I [**Name of Contractor**], have read the [**Title of Project**] CSPP, approved on [**Date**], and will abide by it as written and with the following additions as noted:"). The supplemental information in the SPCD should be written to match the format of the CSPP indicating each subject by corresponding CSPP subject number and title. If no supplemental information is necessary for any specific subject, the statement, "No supplemental information," should be written after the corresponding subject title.

**Appendix A. Safety and Phasing Plan Checklist**

**APPENDIX A. SAFETY AND PHASING PLAN CHECKLIST**  
AC 150/5370-2G (12/13/2017)

This appendix is keyed to Chapter 2. In the electronic version of this AC, clicking on the paragraph designation in the Reference column will access the applicable paragraph. There may be instances where the CSPP requires provisions that are not covered by the list in this appendix.

This checklist is intended as an aid, not a required submittal.

**Table C-1. CSPP Checklist**

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
<b>General Considerations</b>					
Requirements for predesign, pre-bid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	<u>2.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operational safety is a standing agenda item for construction progress meetings.	<u>2.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scheduling of the construction phases is properly addressed.	<u>2.5.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any formal agreements are established.	<u>2.6</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Formal Agreements
<b>Areas and Operations Affected by Construction Activity</b>					
Drawings showing affected areas are included.	<u>2.7.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	<u>2.7.1.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access routes used by ARFF vehicles affected by the project are addressed.	<u>2.7.1.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	To be addressed at Weekly Construction Progress Meeting
Access routes used by airport and airline support vehicles affected by the project are addressed.	<u>2.7.1.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	To be addressed at Weekly Construction Progress Meeting
Underground utilities, including water supplies for firefighting and drainage.	<u>2.7.1.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	<u>2.7.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	<u>2.7.1.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temporary changes to taxi operations are addressed.	<u>2.7.2.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detours for ARFF and other airport vehicles are identified.	<u>2.7.2.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	To be addressed at Weekly Construction Progress Meeting
Maintenance of essential utilities and underground infrastructure is addressed.	<u>2.7.2.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temporary changes to air traffic control procedures are addressed.	<u>2.7.2.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>NAVAIDs</b>					
Critical areas for NAVAIDs are depicted on drawings.	<u>2.8</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	<u>2.8</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction activity will not impact NAVAIDS
Protection of NAVAID facilities is addressed.	<u>2.8</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction activity will not impact NAVAIDS
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	<u>2.8</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction activity will not impact NAVAIDS
Procedures for coordination with FAA ATO/Technical Operations, including identification of points of contact, are included.	<u>2.8, 2.13.1, 2.13.5.3.1, 2.18.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction activity will not impact NAVAIDS
<b>Contractor Access</b>					
The CSPP addresses areas to which contractor will have access and how The area will be accessed.	<u>2.9</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	<u>2.9</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The location of stockpiled construction materials is depicted on drawings.	<u>2.9.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The requirement for stockpiles in the ROFA to be approved by FAA is included.	<u>2.9.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There will be no stockpiles within the ROFA
Requirements for proper stockpiling of materials are included.	<u>2.9.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction site parking is addressed.	<u>2.9.2.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction equipment parking is addressed.	<u>2.9.2.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access and haul roads are addressed.	<u>2.9.2.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A requirement for marking and lighting of vehicles to comply with <u>AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport</u> , is included.	<u>2.9.2.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Proper vehicle operations, including requirements for escorts, are described.	<u>2.9.2.5, 2.9.2.6</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Training requirements for vehicle drivers are addressed.	<u>2.9.2.7</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Two-way radio communications procedures are described.	<u>2.9.2.9</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Maintenance of the secured area of the airport is addressed.	<u>2.9.2.10</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Wildlife Management</b>					
The airport operator's wildlife management procedures are addressed.	<u>2.10</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
<b>Foreign Object Debris Management</b>					
The airport operator's FOD management procedures are addressed.	<u>2.11</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Hazardous Materials Management</b>					
The airport operator's hazardous materials management procedures are addressed.	<u>2.12</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Notification of Construction Activities</b>					
Procedures for the immediate notification of airport user and local FAA of any conditions adversely affecting the operational safety of the airport are detailed.	<u>2.13</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Maintenance of a list by the airport operator of the responsible representatives/points of contact for all involved parties and procedures for contacting them 24 hours a day, seven days a week is specified.	<u>2.13.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A list of local ATO/Technical Operations personnel is included.	<u>2.13.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OPS to coordinate with ATCT
A list of ATCT managers on duty is included.	<u>2.13.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Contractor to coordinate with RPR
A list of authorized representatives to the OCC is included.	<u>2.13.2</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Contractor to coordinate with RPR
Procedures for coordinating, issuing, maintaining and cancelling by the airport operator of NOTAMS about airport conditions resulting from construction are included.	<u>2.8, 2.13.2, 2.18.3.3.9</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provision of information on closed or hazardous conditions on airport movement areas by the airport operator to the OCC is specified.	<u>2.13.2</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No hazardous conditions will occur in airport movement areas
Emergency notification procedures for medical, firefighting, and police responses are addressed.	<u>2.13.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Coordination with ARFF personnel for non-emergency issues is addressed.	<u>2.13.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	<u>2.13.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	<u>2.13.5.3.2</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No NAVAID impacts are expected
<b>Inspection Requirements</b>					
Daily and interim inspections by both the airport operator and contractor are specified.	<u>2.14.1, 2.14.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Final inspections at certificated airports are specified when required.	<u>2.14.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Underground Utilities</b>					
Procedures for protecting existing underground facilities in excavation areas are described.	<u>2.15</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Penalties</b>					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	<u>2.16</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Special Conditions</b>					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	<u>2.17</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDs</b>					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDs is addressed.	<u>2.18.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Frangibility of airport markings, lighting, signs, and visual NAVAIDs is specified.	<u>2.18.1, 2.18.3, 2.18.4.2, 2.20.2.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The requirement for markings to be in compliance with <u>AC 150/5340-1M, Standards for Airport Markings</u> , is specified.	<u>2.18.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detailed specifications for materials and methods for temporary markings are provided.	<u>2.18.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The requirement for lighting to conform to <u>AC 150/5340-30, Design and Installation Details for Airport Visual Aids</u> ; <u>AC 150/5345-50, Specification for Portable Runway and Taxiway Lights</u> ; and <u>AC 150/5345-53, Airport Lighting Certification Program</u> , is specified.	<u>2.18.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The use of a lighted X is specified where appropriate.	<u>2.18.2.1.2,</u> <u>2.18.3.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The requirement for signs to conform to <u>AC 150/5345-44, Specification for Runway and Taxiway Signs</u> ; <u>AC 150/5340-18, Standards for Airport Sign Systems</u> ; and <u>AC 150/5345-53, Airport Lighting Certification Program</u> , is specified.	<u>2.18.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Marking and Signs for Access Routes</b>					
The CSPP specifies that pavement markings and signs intended for construction personnel should conform to <u>AC 150/5340-18</u> and, to the extent practicable, with the MUTCD and/or State highway specifications.	<u>2.18.4.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Hazard Marking and Lighting</b>					
Prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles are specified.	<u>2.20.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Hazard marking and lighting are specified to identify open manholes, small areas under repair, stockpiled material, and waste areas.	<u>2.20.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The CSPP considers less obvious construction-related hazards.	<u>2.20.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast is specified.	<u>2.20.2.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	<u>2.20.2.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Red lights meeting the luminance requirements of the State Highway Department are specified.	<u>2.20.2.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Barricades, temporary markers, and other objects placed and left in areas adjacent to any open runway, taxiway, taxi lane, or apron are specified to be as low as possible to the ground, and no more than 18 inch high.	<u>2.20.2.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Barricades are specified to indicate construction locations in which no part of an aircraft may enter.	<u>2.20.2.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	<u>2.20.2.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Markings for temporary closures are specified.	<u>2.20.2.5</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Closures will be nightly, thus only low-profile barricades will be used.
The provision of a contractor's representative on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades is specified.	<u>2.20.2.7</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
<b>Work Zone Lighting for Nighttime Construction</b>					
If work is to be conducted at night, the CSPP identifies construction lighting units and their general locations and aiming in relationship to the ATCT and active runways and taxiways.	<u>2.21</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Protection of Runway and Taxiway Safety Areas</b>					
The CSPP clearly states that no construction may occur within a safety area while the associated runway or taxiway is open for aircraft operations.	<u>2.22.1.1,</u> <u>2.22.3.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The CSPP specifies that the airport operator coordinates the adjustment of RSA or TSA dimensions with the ATCT and the appropriate FAA Airports Regional or District Office and issues a local NOTAM.	<u>2.22.1.2,</u> <u>2.22.3.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	<u>2.22.3.3</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Blasting is not permitted
The CSPP specifies that open trenches or excavations are not permitted within a safety area while the associated runway or taxiway is open, subject to approved exceptions.	<u>2.22.1.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Appropriate covering of excavations in the RSA or TSA that cannot be backfilled before the associated runway or taxiway is open is detailed.	<u>2.22.1.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	<u>2.22.1.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Grading and soil erosion control to maintain RSA/TSA standards are addressed.	<u>2.22.3.5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	<u>2.22.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The CSPP clearly states that no construction may occur within a taxiway safety area while the taxiway is open for aircraft operations.	<u>2.22.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	<u>2.22.4</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Measures to ensure that personnel, material, and/or equipment do not penetrate the OFZ or threshold siting surfaces while the runway is open for aircraft operations are included.	<u>2.22.4.3.6</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provisions for protection of runway approach/departure areas and clearways are included.	<u>2.22.6</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Other Limitations on Construction</b>					
The CSPP prohibits the use of open flame welding or torches unless adequate fire safety precautions are provided, and the airport operator has approved their use.	<u>2.23.1.2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft. (300m) of the airport property.	<u>2.23.1.3</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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**Appendix B. Construction Safety and Phasing Drawings \***

1. G200\_General Construction & Safety Notes 1
2. G201\_General Construction & Safety Notes 2
3. G202\_General Project Layout
4. G203\_Maximum Equipment Height Plan
5. G204\_Survey Control and Baseline Layout Plan
6. G300\_Overall Construction and Phasing Plan
7. G301\_Construction Safety and Phasing Plan – Work Area 1
8. G302\_Construction Safety and Phasing Plan – Work Area 2
9. G303\_Construction Safety and Phasing Plan – Work Area 3
10. G500\_Construction Safety Phasing Notes and Details 1

\* Construction Safety and Phasing Drawings provided in this CSPP are for CSPP submittal to FAA only. In the event of any discrepancy between these drawings and the bid set of plans, the bid set of plans shall govern.

**GENERAL CONSTRUCTION NOTES:**

1. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF WASHINGTON COUNTY (THE AIRPORT SPONSOR), THEIR AUTHORIZED REPRESENTATIVES, THE FEDERAL AVIATION ADMINISTRATION (FAA), MARYLAND AVIATION ADMINISTRATION (MAA), AND OTHER GOVERNING AGENCIES.
  2. THE PROJECT IS TO BE COMPLETED IN CLOSE CONFORMANCE WITH THE CONSTRUCTION PLANS AND CONTRACT SPECIFICATIONS AND SHALL BE CONSTRUCTED IN A TIMELY MANNER IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PROJECT SCHEDULE. THE SCHEDULE SHALL PROVIDE FOR COMPLETION OF THE WORK AREAS AS SHOWN ON THE PLANS AND DESCRIBED IN THE CONTRACT SPECIFICATIONS.
  3. THE CONTRACTOR IS EXPECTED TO COMPLETE THE ENTIRE PROJECT ON TIME. THE IMPORTANCE OF THIS IS STRESSED BY THE INCLUSION OF LIQUIDATED DAMAGES IN THE CONTRACT SPECIFICATIONS.
  4. HAGERSTOWN REGIONAL AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF WORK WITH THE AIRPORT AND AIRLINE(S) (THROUGH THE AIRPORT DIRECTOR) IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
  5. CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS WILL OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT. COORDINATION WITH APPROPRIATE GOVERNMENT AND UTILITY AGENCIES IS ALSO REQUIRED.
  6. ACCESS TO THE SITE - THE CONTRACTOR'S ACCESS POINTS TO THE SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THE AIRPORT PROPERTY. THE CONTRACTOR SHALL CONSULT WITH THE RESIDENT PROJECT REPRESENTATIVE (RPR) AT THE BEGINNING AND ENDING OF EACH WORK PERIOD.
  7. HAUL ROUTES - THE CONTRACTOR'S ON-AIRPORT HAUL ROUTES ARE SHOWN ON THE GENERAL PROJECT LAYOUT. ANY DEBRIS (WHETHER CAUSED BY THE CONTRACTOR OR NOT) SHALL BE REMOVED IMMEDIATELY.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS, OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE PAVEMENTS USED AS HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR PRE-CONSTRUCTION CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND RPR.
- FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE RPR PRIOR TO COMMENCING THE WORK. THIS WORK IS CONSIDERED INCIDENTAL TO WORK AND NO SEPARATE PAYMENT WILL BE MADE. ALL ON-SITE ACCESS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.
8. CONTRACTOR'S STAGING AREAS - AREAS ARE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THESE AREAS ARE SHOWN ON THE GENERAL PROJECT LAYOUT AND PHASING PLANS. THE CONTRACTOR'S STAGING AREAS SHALL BE RETURNED TO THEIR PRE-CONSTRUCTION CONDITION UPON COMPLETION OF USE.
  9. DISPOSAL AREA - ALL MATERIALS THAT ARE SALVAGEABLE AND ARE DESIRED BY AIRPORT MAINTENANCE SHALL BE TURNED OVER TO THE AIRPORT. A DISPOSAL AREA FOR THE NONSALVAGEABLE MATERIAL WILL NOT BE AVAILABLE ON AIRPORT PROPERTY. THE CONTRACTOR'S WASTE MATERIALS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION. TRASH, (I.E. CUPS, CANS, ETC.) SHALL BE DISPOSED OF THROUGH PROPER SANITARY METHODS.


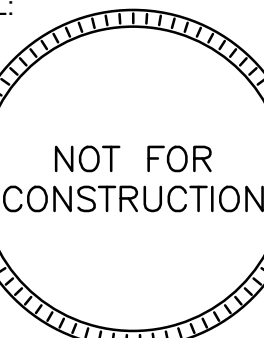

**CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION:**

10. SAFETY - THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, "CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
11. PROTECTION OF AND REPAIR TO EXISTING CABLES - LOCATIONS OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF DAMAGED CABLES MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE FAA MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
12. ALL CONSTRUCTION EQUIPMENT IS LIMITED TO A MAXIMUM HEIGHT OF 25 FEET UNLESS OTHERWISE SPECIFIED ON THE PLANS. IF ANY EQUIPMENT IS GOING TO BE HIGHER THAN 25 FEET, CONTRACTOR MUST COORDINATE WITH THE RPR.
13. CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THE SECTION TITLED, "CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
14. THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND LICENSES REQUIRED FOR THE PROJECT WORK AT HIS OWN EXPENSE.
15. THE CONTRACTOR SHALL OBTAIN APPROPRIATE PERMITS FROM THE PROPER GOVERNMENT AGENCIES FOR ACCESS TO, AND TO USE THEIR ROADS FOR DELIVERY OF MATERIALS AND EQUIPMENT TO THE SITE. ANY DAMAGE TO OFF-SITE OR ON-SITE ROADS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
16. BASE MAPPING FOR THIS PROJECT IS BASED ON HISTORICAL MAPPING PROVIDED BY THE AIRPORT.

- A FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC), ORDERS AND FEDERAL AVIATION REGULATIONS (F.A.R).
- THE FOLLOWING PUBLICATIONS CONTAIN DEFINITIONS/DESCRIPTIONS OF CRITICAL AIRPORT OPERATING AREAS. THE AREAS DEFINED BELOW PERTAIN TO AIRFIELD SAFETY REQUIREMENTS AND ARE REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS. COPIES OF THESE PUBLICATIONS ARE AVAILABLE THROUGH THE FAA AND CAN BE REVIEWED AT THE OFFICES OF THE HAGERSTOWN REGIONAL AIRPORT.
1. AC 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", CURRENT EDITION, SETS FORTH GUIDELINES TO ASSIST AIRPORT OPERATORS IN COMPLYING WITH F A R PART 139, "CERTIFICATION AND OPERATION; LAND AIRPORTS SERVING CERTAIN AIR CARRIERS" AND WITH THE REQUIREMENTS OF FEDERALLY FUNDED CONSTRUCTION PROJECTS.
  2. F A R PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE, CURRENT EDITION.
  - (A) ESTABLISHES STANDARDS FOR DETERMINING OBSTRUCTIONS TO NAVIGABLE AIRSPACE. CIVIL AIRPORT IMAGINARY SURFACES ARE DEFINED IN THE PUBLICATION AND ARE SHOWN ON THE SAFETY/PHASING NOTES AND DETAILS.
  - (B) SETS FORTH REQUIREMENTS FOR NOTICE OF CERTAIN PROPOSED CONSTRUCTION OR ALTERATION. NOTICE OF CONSTRUCTION PROVIDES A BASIS FOR RECOMMENDATIONS FOR IDENTIFYING THE CONSTRUCTION OR ALTERATION IN ACCORDANCE WITH AC 70/7460-1M "OBSTRUCTION MARKING AND LIGHTING," CURRENT EDITION.
  3. AC 150/5300-13B, "AIRPORT DESIGN", CURRENT EDITION, ESTABLISHES DESIGN, OPERATIONAL, AND MAINTENANCE STANDARDS FOR AIRPORTS. STANDARD TERMS DEFINED IN THIS AC AND USED IN THE CONTRACT PLANS AND SPECIFICATIONS ARE DEFINED BELOW:
  - (A) OBSTACLE FREE ZONE (OFZ) - A VOLUME OF SPACE WHICH IS FREE OF ALL FIXED OBJECTS AND CLEAR OF VEHICLES IN THE PROXIMITY OF AN AIRPLANE CONDUCTING AN APPROACH, MISSED APPROACH, LANDING, TAKEOFF, OR DEPARTURE. AN OFZ TYPICAL SECTION IS SHOWN ON THE SAFETY/PHASING NOTES AND DETAILS SHEET.
  - (B) RUNWAY PROTECTION ZONE (RPZ): A TRAPEZOIDAL AREA CENTERED ON THE RUNWAY BEGINNING AT A POINT 200 FEET BEYOND THE END OF THE AREA USABLE FOR TAKEOFF OR LANDING. THE RPZ IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.
  - (C) OBJECT FREE AREA (OFA): A TWO DIMENSIONAL GROUND AREA SURROUNDING RUNWAYS, TAXIWAYS, AND TAXILANES WHICH IS CLEAR OF OBJECTS EXCEPT FOR OBJECTS WHOSE LOCATION IS FIXED BY FUNCTION.
  - (D) SAFETY AREA - THE SURFACE ADJACENT TO RUNWAYS, TAXIWAYS, AND TAXILANES OVER WHICH AIRCRAFT SHOULD, IN DRY WEATHER, BE ABLE TO CROSS AT NORMAL SPEEDS WITHOUT INCURRING SIGNIFICANT DAMAGE. A SAFETY AREA IS GRADED, DRAINED AND COMPACTED. IT IS FREE OF ANY HOLES, TRENCHES, BUMPS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRY) CONDITIONS.
- B GENERAL SAFETY REQUIREMENTS
1. THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO HAGERSTOWN REGIONAL AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY SPECIFIED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SAFETY DEVICES AS REQUIRED FOR THE PROTECTION OF HIS PERSONNEL.
  2. PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND GOVERNMENT PERSONNEL. THE SEQUENCE OF OPERATION SHALL BE SUCH THAT MAXIMUM PROTECTION IS AFFORDED TO INSURE THAT PERSONNEL AND WORKERS IN THE WORK AREA ARE NOT SUBJECT TO ANY DANGEROUS CONDITIONS. THE CONTRACTOR MUST PROVIDE SAFETY MEASURES TO GUARD AGAINST INJURY.

3. DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS, TAXIWAYS, AND AIRCRAFT PARKING APRONS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. ALL AIRCRAFT TRAFFIC ON THESE AREAS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. THE OWNER RESERVES THE RIGHT TO ORDER THE CONTRACTOR AT ANY TIME TO VACATE ANY AREA NECESSARY TO MAINTAIN SAFE AIRCRAFT OPERATIONS. USE OF AREAS NEAR THE CONTRACTOR'S WORK WILL BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, OR ANY OTHER UNAUTHORIZED PERSON TO ENTER OR REMAIN IN ANY AIRPORT AREA WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS.
- C CONSTRUCTION AND FACILITIES MAINTENANCE
1. THE CONTRACTOR SHALL BE AWARE OF AND PREVENT THE FOLLOWING TYPES OF SAFETY PROBLEMS AND/OR HAZARDS:
    - (A) TRENCHES, HOLES, OR EXCAVATION ON OR ADJACENT TO ANY OPEN RUNWAY OR IN SAFETY AREAS.
    - (B) UNMARKED/UNLIGHTED HOLES OR EXCAVATION IN ANY APRON, OPEN TAXIWAY, OPEN TAXILANE, OR RELATED SAFETY AREA.
    - (C) MOUNDS OR PILES OF EARTH, CONSTRUCTION MATERIALS, TEMPORARY STRUCTURES, OR OTHER OBJECTS IN THE VICINITY OF THE OPEN RUNWAY, TAXIWAYS, TAXILANES, OR IN A RELATED SAFETY APPROACH OR DEPARTURE AREA.
    - (D) VEHICLES OR EQUIPMENT, WHETHER OPERATING OR IDLE, ON ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY APPROACH OR DEPARTURE AREA.
    - (E) VEHICLES, EQUIPMENT, EXCAVATION, STOCKPILES, OR OTHER MATERIALS WHICH COULD DEGRADE OR OTHERWISE INTERFERE WITH ELECTRONIC SIGNALS FROM RADIOS OR ELECTRONIC NAVIGATIONAL AIDS (NAVAIDS).
    - (F) PAVEMENT DROP-OFFS OR PAVEMENT TURF-LIPS (EITHER PERMANENT OR TEMPORARY) WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR LIP IS 1-1/2 INCHES.
    - (G) UNMARKED UTILITY, NAVAID, WEATHER SERVICE, RUNWAY LIGHTING, OR OTHER POWER OR SIGNAL CABLES THAT COULD BE DAMAGED DURING CONSTRUCTION.
    - (H) OBJECTS, WHETHER OR NOT MARKED OR FLAGGED, OR ACTIVITIES ANYWHERE ON OR IN THE VICINITY OF AIRPORT WHICH COULD BE DISTRACTING, CONFUSING, OR ALARMING TO PILOTS DURING AIRCRAFT OPERATIONS.
    - (I) UNFLAGGED/UNLIGHTED LOW VISIBILITY ITEMS SUCH AS TALL CRANES, DRILLS, AND THE LIKE ANYWHERE IN THE VICINITY OF ACTIVE RUNWAYS, OR IN ANY APPROACH OR DEPARTURE AREAS.
    - (J) MISLEADING OR MALFUNCTIONING OBSTRUCTION LIGHTS OR UNLIGHTED/UNMARKED OBSTRUCTIONS IN THE APPROACH TO ANY ACTIVE RUNWAY.
    - (K) INADEQUATE APPROACH/DEPARTURE SURFACES (THESE SURFACES ARE NEEDED TO ASSURE ADEQUATE LANDING/TAKEOFF CLEARANCE OVER OBSTRUCTIONS, OR WORK OR STORAGE AREAS).
    - (L) INADEQUATE, CONFUSING OR MISLEADING (TO USER PILOTS) MARKING/LIGHTING OF RUNWAYS, TAXIWAYS, OR TAXILANES (INCLUDING DISPLACED OR RELOCATED THRESHOLDS).
    - (M) WATER, SNOW, DIRT, DEBRIS, OR OTHER TRANSIENT ACCUMULATION WHICH TEMPORARILY OBSCURES PAVEMENT MARKINGS OR PAVEMENT EDGES, OR REDUCES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.
    - (N) INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADING, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA.
    - (O) TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT DAMAGE (FOD) POTENTIAL: WHETHER ON RUNWAYS, TAXIWAYS, OR APRONS; OR IN RELATED SAFETY AREAS.
    - (P) INADEQUATE BARRICADING OR OTHER MARKING WHICH IS PLACED TO SEPARATE CONSTRUCTION OR MAINTENANCE AREAS FROM OPEN AIRCRAFT OPERATING AREAS.
    - (Q) FAILURE TO CONTROL UNAUTHORIZED VEHICLE AND HUMAN ACCESS FROM ACTIVE AIRCRAFT OPERATING AREAS.
    - (R) FAILURE TO MAINTAIN RADIO COMMUNICATION BETWEEN CONSTRUCTION/MAINTENANCE VEHICLES AND AIR TRAFFIC CONTROL TOWER.
    - (S) CONSTRUCTION/MAINTENANCE ACTIVITIES OR MATERIALS WHICH COULD HAMPER THE RESPONSE OF AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) OR OTHER EMERGENCY EQUIPMENT FROM REACHING AIRCRAFT, ALL OR ANY PART OF THE RUNWAY/TAXIWAY SYSTEM, RUNWAY APPROACH AND DEPARTURE AREAS AND TO AIRCRAFT PARKING LOCATIONS.
    - (T) BIRD ATTRACTANTS ON AIRPORT SUCH AS: EDIBLES (FOOD SCRAPS, ETC.), MISCELLANEOUS TRASH, OR PONDED WATER.

2. THE CONTRACTOR SHALL CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED HEREIN. THE CONTRACTOR SHALL INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY AND PROMPTLY TAKE ALL STEPS NECESSARY TO PREVENT/REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS OR ACTIVITIES DISCOVERED.
  3. BEFORE ACTUAL COMMENCEMENT OF CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY, IN WRITING AT LEAST 48 HOURS IN ADVANCE, THE AIRPORT DIRECTOR OF HIS INTENTIONS OF CONSTRUCTION, STATING THE PROPOSED TIME, DATE, AND AREA OF WHICH COMMENCEMENT IS TO OCCUR.
  4. UPON COMPLETION OF WORK AND RETURN OF ALL RELATED AREAS TO STANDARD CONDITIONS, THE CONTRACTOR SHALL AGAIN NOTIFY THE AIRPORT DIRECTOR, IN WRITING, AND DESCRIBE THE AREA THAT IS COMPLETE AND AVAILABLE FOR NORMAL AIRPORT OPERATIONS.
  5. THE ISSUANCE OF NOTICE TO AIR MISSIONS (NOTAM) SHALL BE REQUIRED FOR ALL AIRFIELD IMPACTS (I.E. RUNWAY CLOSURES, TAXIWAY CLOSURES, NAVAID IMPACTS, BLASTING, ETC.). THE CONTRACTOR SHALL COORDINATE THE NECESSARY NOTAMS FOR ALL AIRFIELD IMPACTS WITH THE RPR AND THE OWNER A MINIMUM OF 72 HOURS IN ADVANCE OF THE DESIRED CLOSURE. IN ACCORDANCE WITH THE CONTRACTORS ACCEPTED SCHEDULE, THE CONTRACTOR SHALL ALSO PROVIDE A MINIMUM OF TWO (2) WEEKS PRIOR WRITTEN NOTIFICATION, TO THE RPR, OF ANTICIPATED AIRFIELD IMPACTS
  6. THE AIRPORT DIRECTOR WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTAMS CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.
- D MOTORIZED VEHICLES
1. THIS PROJECT INCLUDES WORK WITHIN THE AIRFIELD OPERATIONS AREA (AOA) (I.E.), THE SECURE PORTION OF THE AIRPORT. ALL PERMITTED VEHICLES SHALL DISPLAY IN FULL VIEW ABOVE THE VEHICLE A 3-FOOT X 3-FOOT OR LARGER, ORANGE AND WHITE CHECKERBOARD, PLASTIC FLAG. EACH CHECKERBOARD COLOR SHALL BE ONE FOOT SQUARE. IN LIEU OF FLAGS, VEHICLES MAY DISPLAY A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. THESE LIGHTS SHALL REMAIN FLASHING AT ALL TIMES WHEN THE VEHICLE IS IN THE AOA, EVEN IF PARKED.
  2. ANY VEHICLE OPERATING IN THE AOA DURING THE HOURS OF DARKNESS SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. DARKNESS SHALL BE DEFINED AS ONE HOUR BEFORE OFFICIAL SUNSET UNTIL ONE HOUR AFTER SUNRISE.
  3. ALL VEHICLES OPERATING WITHIN THE AIRFIELD BOUNDARY SHALL BE IDENTIFIED WITH A SIGN ON EACH SIDE OF THE VEHICLE BEARING THE CONTRACTOR'S NAME. THE MINIMUM SIZE FOR LETTERING ON THE VEHICLE SIGNS IS 12 INCHES. IN ADDITION ALL CONSTRUCTION VEHICLES OPERATING IN THE AIRFIELD MUST BE ISSUED AND DISPLAY AN AIRPORT VEHICLE ID TAG.
  4. VEHICLES MAKING ONLY OCCASIONAL VISITS TO THE JOB SITE ARE EXEMPT FROM THE IDENTIFICATION REQUIREMENTS CONTAINED HEREIN PROVIDED THAT THEY ARE ESCORTED INTO, THROUGH, AND OUT OF THE AOA BY A PROPERLY IDENTIFIED VEHICLE.
- E RADIO COMMUNICATIONS
1. RADIO COMMUNICATIONS MAY BE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND THE AIR TRAFFIC CONTROL TOWER (ATCT). RADIO CONTACT IS REQUIRED AT ALL TIMES WHILE THE CONTRACTOR HAS PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AND WHILE THEY ARE IN AN ACTIVE AIRFIELD OPERATIONS AREA (AOA) OF THE AIRPORT.
  2. RADIOS SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CAPABLE OF TRANSMITTING AND RECEIVING AT A GROUND CONTROL FREQUENCY OF 120.8 MHZ. THIS FREQUENCY IS TO BE UTILIZED WHEN CROSSING ACTIVE FACILITIES.
  3. SUFFICIENT RADIOS SHALL BE ON SITE AND OPERATING AT ALL TIMES SO THAT INSTRUCTIONS OR COMMUNICATIONS MAY BE DISPATCHED TO ALL CREWS AND/OR EQUIPMENT WORKING IN AN ACTIVE AOA IMMEDIATELY AFTER RECEIPT FROM THE ATCT.
  4. HAGERSTOWN REGIONAL AIRPORT IS SERVED BY PART-TIME ATCT. DURING CERTAIN PHASES OF CONSTRUCTION, THE ATCT MAY BE CLOSED. DURING THOSE PERIODS WHEN THE ATCT IS CLOSED, THE CONTRACTOR SHALL MAINTAIN CONTACT WITH AIRCRAFT USING THE AIRPORT BY MONITORING THE CTAF FREQUENCY OF 120.3 MHZ AND UNICOM FREQUENCY OF 122.95 MHZ.

<p>CONSULTANT:</p>  <p>ADCI AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLCOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602</p>	<p>SEAL:</p>  <p>NOT FOR CONSTRUCTION</p>	<p>PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.</p> <p>LICENSE NO. _____ EXPIRATION DATE: _____</p> <table border="1"> <thead> <tr> <th>DESIGNED:</th> <th>REVISION NO.</th> <th>REVISION DATE</th> <th>DESCRIPTIONS</th> </tr> </thead> <tbody> <tr> <td>M.J.B</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRAWN:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>R.D.H</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>R.N.M</td> <td></td> <td></td> <td></td> </tr> <tr> <td>APPROVED:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M.S.K</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center; font-size: 2em; font-weight: bold;">90% DESIGN</p> 	DESIGNED:	REVISION NO.	REVISION DATE	DESCRIPTIONS	M.J.B				DRAWN:				R.D.H				CHECKED:				R.N.M				APPROVED:				M.S.K				<p>PROJECT TITLE: RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT</p> <p>SHEET TITLE: GENERAL CONSTRUCTION AND SAFETY NOTES 1</p> <p>SCALE: N.T.S DATE: JUNE 2023</p>	<p>FAA AIP No.: XXX Bid No.: XXX</p> <p>SHEET NO.: G200</p> <p>3 OF 38</p>
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F DEBRIS

1. DEBRIS, WASTE, AND LOOSE MATERIAL (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR OR PROPELLERS, OR BEING INGESTED IN JET ENGINES, SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT MOVEMENT AREAS OR ADJACENT GRASSED AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY AND/OR CONTINUOUSLY BY THE CONTRACTOR. THE CONTRACTOR SHALL HAVE A SWEEPING MACHINE AND OPERATOR ON SITE AND READY AT ALL TIMES DURING CONSTRUCTION ACTIVITY WHERE TRAVEL ON OR ACROSS RUNWAYS, RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS IS REQUIRED. THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP SUCH SURFACES CLEAR OF DEBRIS. THE CONTRACTOR SHALL ALSO MAINTAIN A WATER TRUCK ON SITE FOR DUST CONTROL PURPOSES.

G FLAGMEN

1. IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH FLAGMEN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE RPR).
2. ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS, TAXIWAYS AND APRONS SHALL DO SO UNDER THE DIRECT CONTROL OF A COMPETENT FLAGMAN WHO IS IN DIRECT RADIO CONTACT WITH GROUND CONTROL. ALL AIRCRAFT TRAFFIC ON RUNWAYS, TAXIWAYS, AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS, TAXIWAYS, SAFETY AREAS, OBJECT FREE AREAS, OR RUNWAY PROTECTION ZONES WITHOUT PROPER AUTHORIZATION OBTAINED THROUGH GROUND CONTROL.

H MISCELLANEOUS

1. OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE RPR.
2. EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
3. THE CONTRACTOR SHALL PROVIDE POLYETHYLENE CONSTRUCTION BARRIERS WITH FLASHING RED LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHEN CLOSED TO AIRPORT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.
4. ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES DEFINED PREVIOUSLY AND SHOWN ON THE CONSTRUCTION SAFETY AND PHASING NOTES AND DETAILS SHEET. EQUIPMENT SHALL BE PARKED AT THE STAGING AREA WHEN NOT IN USE.
5. UPON COMPLETION OF ANY WORK AREA, THE RPR WILL ARRANGE A PHYSICAL INSPECTION OF THE AREA WITH AIRPORT OPERATIONS PERSONNEL PRIOR TO OPENING ANY PORTION OR WHOLE RUNWAY, TAXIWAY, OR RAMP AREA THAT HAS BEEN CLOSED FOR WORK OR USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.
6. ENTRANCE TO THE AIRFIELD IS SUBJECT TO STRICT SECURITY REGULATIONS. ALL PERSONNEL ENTERING THE AIRFIELD MAY BE SUBJECT TO A BACKGROUND CHECK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL OF HIS EMPLOYEES WHO NEED TO HAVE ACCESS TO THE AIRFIELD, HAVE INFORMATION AVAILABLE FOR A BACKGROUND CHECK TO BE PERFORMED, DATING BACK TEN (10) YEARS VERIFYING REPRESENTATIONS MADE BY THE EMPLOYEE RELATING TO EMPLOYMENT.
7. THE CONTRACTOR SHALL PROVIDE THE RPR AND AIRPORT DIRECTOR A CURRENT LIST OF ALL EMPLOYEES WORKING ON THE AIRPORT. THE LIST SHALL BE MAINTAINED CURRENT BY THE CONTRACTOR AND APPLIES TO BOTH THE CONTRACTOR AND SUBCONTRACTORS.
8. THE CONTRACTOR SHALL FAMILIARIZE HIS PERSONNEL WITH CLEARANCES NEEDED TO PROVIDE FOR THE SAFE OPERATION OF RUNWAYS AND TAXIWAYS AS SHOWN IN THE PLANS.
9. EXCEPT FOR EMERGENCIES, ALL CONTACT WITH AIRPORT PERSONNEL SHALL BE MADE THROUGH THE RPR. FOR EMERGENCIES INVOLVING SAFETY (INJURIES, FIRES, SECURITY BREACHES, ETC.) THE CONTRACTOR SHALL MAKE DIRECT CONTACT WITH AIRPORT OPERATIONS MANAGER FOLLOWED BY NOTIFICATION TO THE RPR AS SOON AS POSSIBLE.

10. THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
11. IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE FIELD OFFICE(S) IN A WEATHERPROOF ENCLOSURE.

I UTILITIES

1. UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY APPROXIMATE LOCATIONS. ALL UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT ANY UTILITY IS DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR INCURRED COSTS OF REPAIRS.
2. THE CONTRACTOR SHALL ALSO NOTIFY "MISS UTILITY" AT 1-800-257-7777. THE COST ASSOCIATED WITH CONTACTING MISS UTILITY SHALL BE BORNE BY THE CONTRACTOR. ANY COSTS ASSOCIATED WITH DAMAGE TO UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
3. UTILITIES NOTIFICATION: AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RPR AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.

J SECURITY

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE VARIOUS ASPECTS OF TRANSPORTATION SECURITY ADMINISTRATION (TSA) SECTION 1542 "AIRPORT SECURITY". ANY VIOLATION OF TSA SECTION 1542 BY THE CONTRACTOR AND ANY SUBSEQUENT FINES IMPOSED DUE TO THE VIOLATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL VEHICLES TO BE USED ON THE AIRPORT SHALL BE REGISTERED WITH THE AIRPORT OPERATIONS MANAGER. REGISTRATION CONSISTS OF LICENSE PLATE NUMBER AND OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT VEHICLES ARE REGISTERED IN A TIMELY MANNER SO AS NOT TO DELAY THE PROJECT. VISITING VEHICLES ARE EXEMPT FROM THE REGISTRATION REQUIREMENTS SO LONG AS THEY ARE ESCORTED BY A REGISTERED VEHICLE AT ALL TIMES WHEN ON THE AOA.
3. THE AIRPORT WILL NOT PROVIDE AIR OPERATIONS AREA (AOA) ESCORTS. THE CONTRACTOR MUST PROVIDE HIS OWN RADIO, ACQUAINT HIMSELF AND ANY OTHER PERSONNEL THAT ARE ANTICIPATED TO USE THE RADIO WITH THE PROPER PROCEDURES IN COMMUNICATING WITH AIR TRAFFIC CONTROL TOWER (ATCT) GROUND CONTROL ON FREQUENCY 120.8 MHZ WHILE THE ATCT IS OPEN BETWEEN THE HOURS OF 0500-2200 AND ON THE COMMON TRAFFIC ADVISORY FREQUENCY (CTAF) ON 120.3 MHZ WHEN THE ATCT IS CLOSED. THE CONTRACTOR WILL NEED TO ATTEND SECURITY/GROUND VEHICLE OPS TRAINING.
4. THE PROJECT SUPERVISORS SHALL HAVE WITH THEM AT ALL TIMES THE TELEPHONE NUMBERS FOR THE FOLLOWING PERSONS. IN THE EVENT OF AN EMERGENCY THESE PERSONNEL SHOULD BE CONTACTED IN DESCENDING ORDER:  
  
MR. NEIL DORAN, AIRPORT DIRECTOR  
MR. TERRY STOUFFER, AIRPORT MAINTENANCE SUPERVISOR  
MR. GENE BOLANOWSKI, OPERATIONS MANAGER  
MR. BOB HOOPENGARDNER, AIRPORT FIRE CHIEF
5. TELEPHONE NUMBERS WILL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. ADDITIONAL CONTACTS MAY BE PROVIDED TO THE CONTRACTOR AT THAT TIME.

5. WHEN CONSTRUCTION ACTIVITY IS CONDUCTED IN THE AOA, KEY PROJECT SITE SUPERVISORY PERSONNEL OF THE CONTRACTOR AND ITS SUBCONTRACTORS (INCLUDING CONSTRUCTION GATE GUARD PERSONNEL) SHALL BE ISSUED AIRPORT IDENTIFICATION (ID) BADGES. ALL INDIVIDUALS WHO RECEIVE AN AIRPORT BADGE ARE REQUIRED TO ATTEND A SECURITY TRAINING CLASS PROVIDED BY THE AIRPORT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPLICATIONS AND MAKE ALL NECESSARY ARRANGEMENTS TO ENABLE HIS/HER PERSONNEL TO OBTAIN ID BADGES. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ENSURING THAT HE/SHE HAS SUFFICIENT SUPERVISORY AND CONSTRUCTION GATE PERSONNEL ON THE PROJECT SITE WHENEVER WORK IS OCCURRING TO FULFILL THE RESPONSIBILITIES.

6. PROJECT SITE SUPERVISORY PERSONNEL ARE SUBJECT TO FEDERAL CRIMINAL RECORDS CHECKS AND MUST PROVIDE EMPLOYMENT VERIFICATION FORMS THAT COVER THE LAST TEN (10) YEARS OF EMPLOYMENT AND EDUCATION. INFORMATION ON THESE FORMS WILL BE VERIFIED BY THE AIRPORT.

7. APPLICATIONS AND FORMS CAN BE OBTAINED FROM THE AIRPORT BY CALLING MR. GENE BOLANOWSKI. ALL APPLICATIONS AND FORMS ARE TO BE SUBMITTED TO THE AIRPORT AT LEAST TWO (2) WEEKS PRIOR TO THE PROJECT START DATE IN ORDER TO ALLOW TIME TO PERFORM THE EMPLOYMENT AND BACKGROUND CHECKS. THERE IS A REFUNDABLE DEPOSIT OF ONE HUNDRED DOLLARS (\$100.00) FOR EACH PHOTO ID BADGE ISSUED. PAYMENT MUST ACCOMPANY THE APPLICATION. APPLICATIONS, ACCESS INVESTIGATION FORMS AND EMPLOYMENT VERIFICATION FORMS MUST BE FILLED OUT COMPLETELY BEFORE AN APPLICATION WILL BE PROCESSED. NON-REFUNDABLE CONTRACTOR BADGE FEES WILL NOT BE RETURNED TO THE CONTRACTOR IF AN APPLICATION CANNOT BE PROCESSED BECAUSE IT IS INCOMPLETE. COST FOR SECURITY SHALL BE INCLUDED IN CONTRACTORS BID PRICE FOR MOBILIZATION /DEMOLITION.

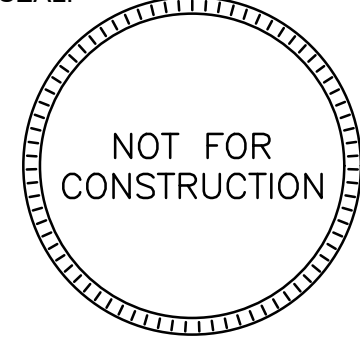
8. PHOTO ID BADGES MUST BE RETURNED TO THE AIRPORT ID PROCESSING OFFICE NO LATER THAN FIVE (5) DAYS AFTER COMPLETION OF THE CONTRACT TO RECEIVE A REFUND OF THE DEPOSIT AND MUST BE RETURNED BEFORE THE FINAL PAY ESTIMATE WILL BE PROCESSED. IN ADDITION TO THE LOSS OF THE BADGE SECURITY DEPOSIT, HOLDERS OF BADGES WHICH ARE LOST WILL BE ASSESSED A BADGE REPLACEMENT FEE OF FIFTY DOLLARS (\$50.00). THE AIRPORT MUST BE NOTIFIED IMMEDIATELY IF A BADGE IS LOST OR STOLEN OR IF ITS HOLDER TERMINATES EMPLOYMENT OR IS REASSIGNED.

9. PHOTO ID BADGES SHALL BE DISPLAYED ON THE OUTERMOST GARMENT ABOVE THE WAIST SO THEY CAN BE SEEN BY FAA, POLICE AND OTHER AIRPORT PERSONNEL.

CONSULTANT:



SEAL:



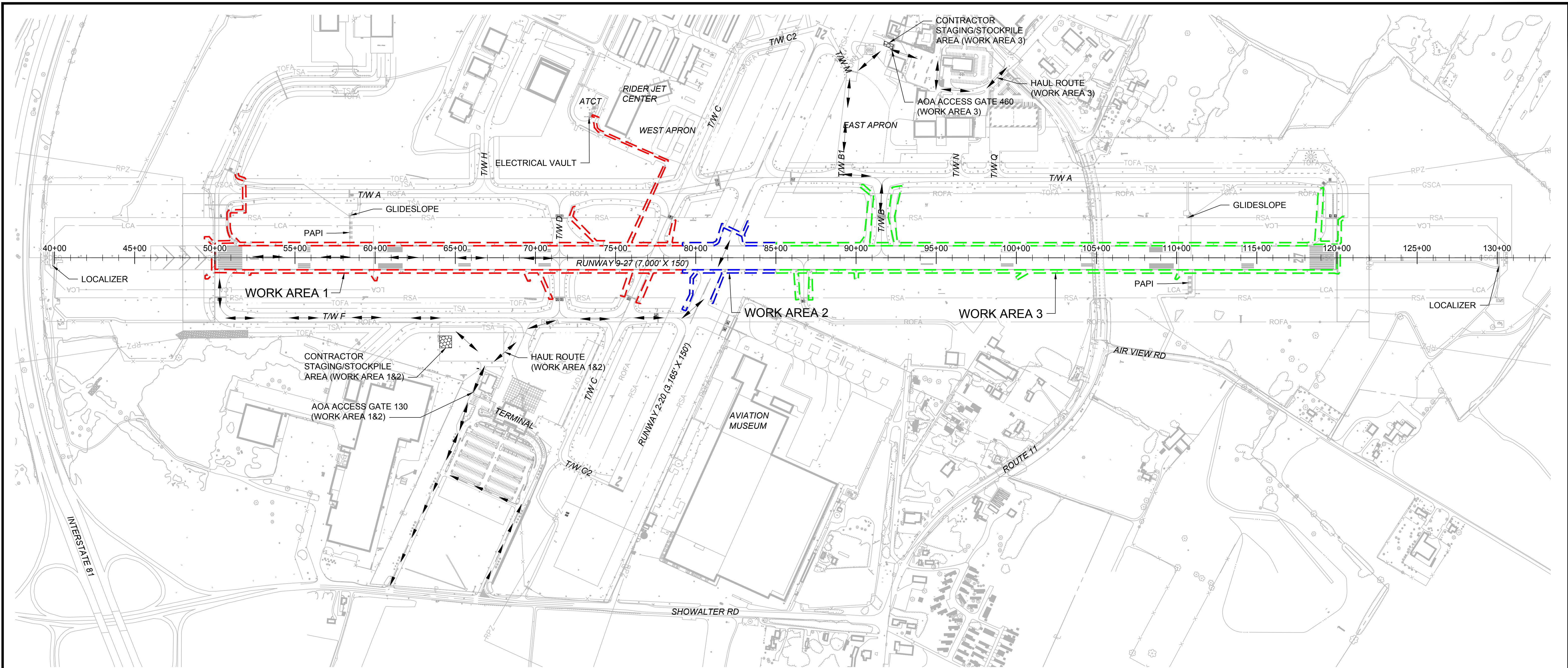
PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO. \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

DESIGNED:	REVISION NO.	REVISION DATE	DESCRIPTIONS
M.J.B			
DRAWN:			
R.D.H			
CHECKED:			
R.N.M			
APPROVED:			
M.S.K			

90% DESIGN



PROJECT TITLE:	RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT	FAA AIP No.: XXX Bid No.: XXX
SHEET TITLE:	GENERAL CONSTRUCTION AND SAFETY NOTES 2	SHEET NO.: <b>G201</b>
SCALE:	N.T.S	DATE: JUNE 2023



**NOTES:**

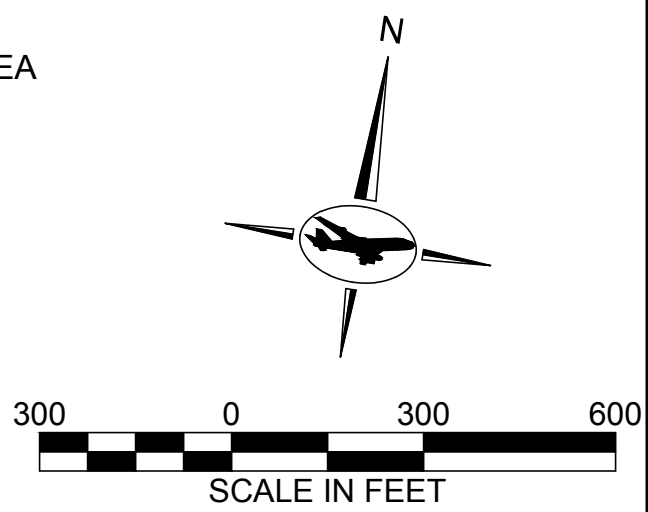
1. CONTRACTOR IS REQUIRED TO WORK IN THE SECURE AREA OF THE AIRPORT IN SIDE THE AIRCRAFT OPERATIONS AREA (AOA). THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION OUTLINED ON SHEETS G200 AND G201.
2. GENERAL STAGING AREA LOCATION SHOWN. CONTRACTOR TO COORDINATE WITH RPR TO ACCESS THE AREA. A BUDDY LOCK SYSTEM IS UTILIZED AT THE GATE 460 ACCESS AREA AND NEEDS TO BE COORDINATED WITH THE RESIDENT PROJECT REPRESENTATIVE (RPR) DURING CONSTRUCTION.

**EXISTING LEGEND:**

- EXISTING FENCE
- RPZ RUNWAY PROTECTION ZONE
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- GSCA GLIDESLOPE CRITICAL AREA
- LCA LOCALIZER CRITICAL AREA

**PROPOSED LEGEND:**

- HAUL ROUTE
- WORK AREA 1
- WORK AREA 2
- WORK AREA 3
- CONTRACTOR STAGING/STOCKPILE AREA



CONSULTANT:

**ADCI**  
AIRPORT DESIGN CONSULTANTS  
6031 UNIVERSITY BLVD, SUITE 330  
ELLCOTT CITY, MD 21043  
TEL: 410.465.9600  
FAX: 410.465.9602

SEAL:

NOT FOR CONSTRUCTION

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LICENSE NO. \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

DESIGNED: M.J.B.  
DRAWN: R.D.H.  
CHECKED: R.N.M.  
APPROVED: M.S.K.

REVISION NO.	REVISION DATE	DESCRIPTIONS
		<b>90% DESIGN</b>

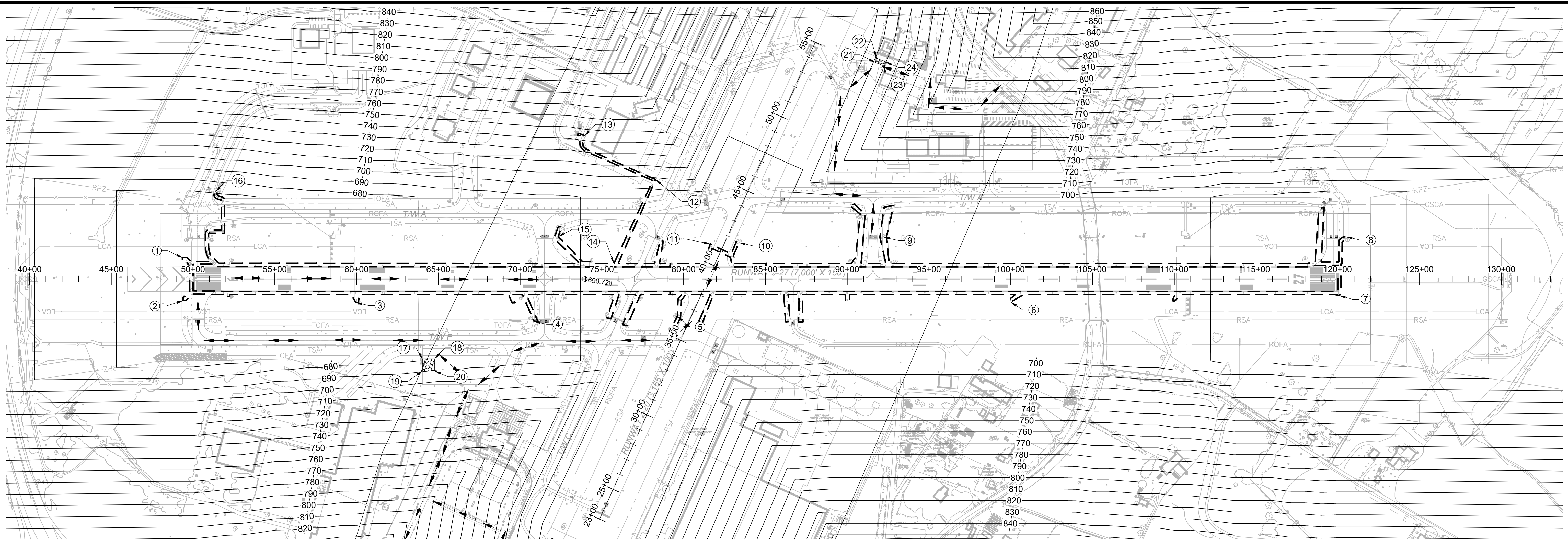
Washington County, MD  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT</b>	
SHEET TITLE: <b>GENERAL PROJECT LAYOUT</b>	
SCALE: AS SHOWN	DATE: JUNE 2023

FAA AIP No.: XXX  
Bid No.: XXX

SHEET NO.:  
**G202**

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MAXIMUM EQUIPMENT HEIGHT

POINT #	NORTHING	EASTING	LATITUDE (N)	LONGITUDE (W)	SITE ELEV. (MSL)	CONTROLLING RUNWAY	PART 77 ELEV. (MSL)	OFZ ELEV. (MSL)	MAX. ALLOWABLE HEIGHT (AGL)
1*	744048.56	1104492.52	39° 42' 26.24"	77° 44' 19.25"	663.1	RW 2-20	664.6	853.1	190.0
2*	743789.50	1104537.50	39° 42' 23.68"	77° 44' 18.64"	661.3	RW 2-20	664.6	853.1	191.8
3*	743944.00	1105583.00	39° 42' 25.29"	77° 44' 05.28"	675.4	RW 2-20	676.2	853.1	177.7
4	744001.50	1106677.00	39° 42' 25.94"	77° 43' 51.29"	686.6	RW 9-27	687.8	745.9	59.4
5**	744168.57	1107537.74	39° 42' 27.66"	77° 43' 40.30"	694.7	RW 2-20	694.0	853.1	158.4
6*	744576.33	1109537.40	39° 42' 31.85"	77° 43' 14.75"	697.3	RW 2-20	698.0	853.1	155.8
7*	744930.59	1111514.97	39° 42' 35.50"	77° 42' 49.49"	683.7	RW 2-20	685.6	853.1	169.4
8	745291.65	1111499.82	39° 42' 39.07"	77° 42' 49.72"	680.8	RW 9-27	685.6	741.7	60.9
9	744845.17	1108705.21	39° 42' 34.44"	77° 43' 25.43"	697.1	RW 9-27	698.0	757.4	60.3
10**	744673.45	1107840.14	39° 42' 32.68"	77° 43' 36.48"	696.9	RW 2-20	696.0	853.1	156.2
11**	744638.17	1107666.31	39° 42' 32.31"	77° 43' 38.70"	696.4	RW 2-20	695.7	853.1	156.7
12*	744974.05	1107275.59	39° 42' 35.60"	77° 43' 43.73"	694.2	RW 9-27	708.4	810.6	116.4
13	745170.76	1106804.85	39° 42' 37.51"	77° 43' 49.78"	690.7	RW 9-27	744.3	851.8	161.1
14*	744427.23	1107103.46	39° 42' 30.18"	77° 43' 45.88"	691.2	RW 2-20	692.0	853.1	161.9
15	744536.00	1106741.50	39° 42' 31.23"	77° 43' 50.52"	686.6	RW 9-27	688.2	747.5	60.9
16	744477.25	1104629.00	39° 42' 30.48"	77° 44' 17.54"	666.4	RW 9-27	671.2	770.4	104.0

MAXIMUM EQUIPMENT HEIGHT

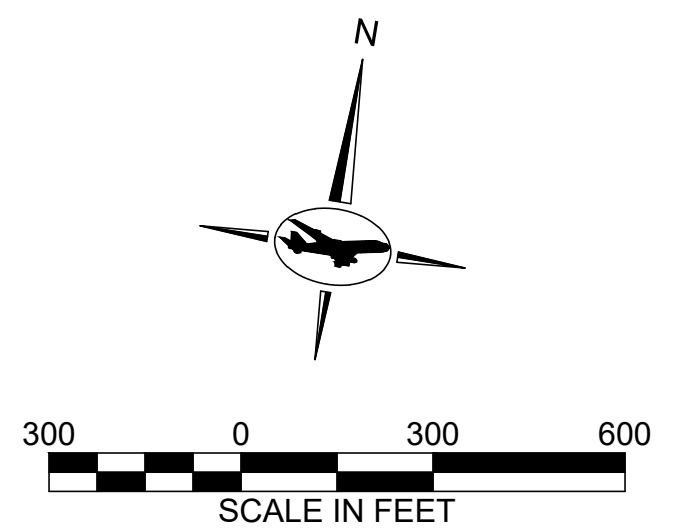
POINT #	NORTHING	EASTING	LATITUDE (N)	LONGITUDE (W)	SITE ELEV. (MSL)	CONTROLLING RUNWAY	PART 77 ELEV. (MSL)	OFZ ELEV. (MSL)	MAX. ALLOWABLE HEIGHT (AGL)
17	743668.17	1106038.59	39° 42' 22.60"	77° 43' 59.43"	680.0	RW 9-27	680.4	777.6	97.7
18	743679.96	1106112.66	39° 42' 22.72"	77° 43' 58.48"	680.9	RW 9-27	681.6	778.3	97.5
19	743594.10	1106050.38	39° 42' 21.87"	77° 43' 59.27"	680.7	RW 9-27	689.4	790.1	109.4
20	743605.89	1106124.44	39° 42' 21.99"	77° 43' 58.32"	681.5	RW 9-27	690.6	790.8	109.3
21	745892.22	1108489.65	39° 42' 44.77"	77° 43' 28.29"	695.8	RW 2-20	721.7	853.1	157.3
22	745920.26	1108491.25	39° 42' 45.05"	77° 43' 28.28"	695.8	RW 2-20	720.9	853.1	157.3
23	745878.75	1108549.22	39° 42' 44.64"	77° 43' 27.53"	695.2	RW 2-20	730.4	853.1	157.9
24	745905.81	1108548.92	39° 42' 44.91"	77° 43' 27.54"	695.0	RW 2-20	729.4	853.1	158.1

\* RUNWAY 9-27 WILL BE CLOSED WHEN WORK IS PERFORMED IN THIS LOCATION

\*\* RUNWAY 9-27 AND RUNWAY 2-20 WILL BE CLOSED WHEN WORK IS PERFORMED IN THIS LOCATION

NOTES:

- EQUIPMENT (WITHOUT OPERATORS), MATERIALS, AND TEMPORARY STOCKPILES MUST NOT PENETRATE THE FAR PART 77 HEIGHT RESTRICTIONS. NO EQUIPMENT SHALL PENETRATE OFZ ELEVATIONS.
- ALL ELEVATIONS ARE PROVIDED IN NAVD88 DATUM ABOVE MEAN SEA LEVEL (MSL).
- ALL HEIGHTS SHOWN ON THIS PLAN ARE AGL (ABOVE GROUND LEVEL) WITH RESPECT TO THE MAXIMUM EQUIPMENT HEIGHT TABLE.
- THE WORK LIMITS SHOWN ON THIS PLAN ARE FOR AIRSPACE REVIEW BY THE FAA.
- ONLY FAR PART 77 SURFACE CONTOURS DISPLAYED FOR CLARITY.



LEGEND:

- PROJECT LIMITS
- EXISTING FENCE
- POINT #
- FAR PART 77 CONTOUR
- CONTRACTOR STAGING/STOCKPILE AREA
- HAUL ROUTE

CONSULTANT:

**ADCI**  
AIRPORT DESIGN CONSULTANTS  
6031 UNIVERSITY BLVD, SUITE 330  
ELLCOTT CITY, MD 21043  
TEL: 410.465.9600  
FAX: 410.465.9602

SEAL:

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LICENSE NO. \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

DESIGNED:	REVISION NO.	REVISION DATE	DESCRIPTIONS
M.J.B.			
DRAWN:			
R.D.H.			
CHECKED:			
R.N.M.			
APPROVED:			
M.S.K.			

90% DESIGN

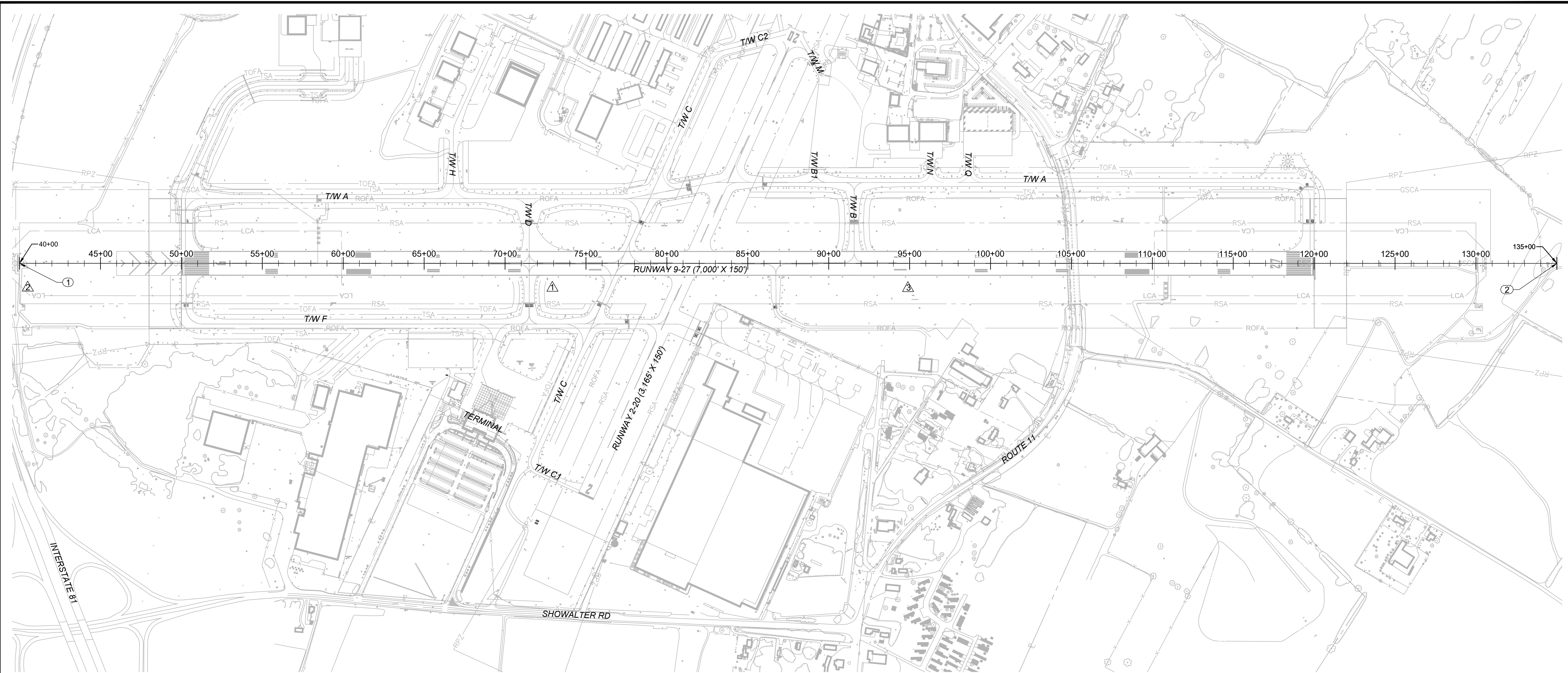
Washington County, MD  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT	
SHEET TITLE:	MAXIMUM EQUIPMENT HEIGHT PLAN	
SCALE:	AS SHOWN	DATE: JUNE 2023

FAA AIP No.: XXX  
Bid No.: XXX

SHEET NO.: **G203**

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SURVEY CONTROL TABLE

POINT #	LATITUDE	LONGITUDE	NORTHING *	EASTING *	ELEVATION **	DESCRIPTION
△	N039° 42' 27.34"	W077° 43' 48.90"	744141.2190	1106864.9930	687.00	SECONDARY AIRPORT CONTROL STATION (SACS) HGR ARP (NGS PID JV7051)
△	N039° 42' 22.06"	W077° 44' 29.79"	743632.2986	1103664.8033	653.80	PRIMARY AIRPORT CONTROL STATION (PACS) HGR AP STA B (NGS PID JV7053)
△	N039° 42' 30.93"	W077° 43' 21.12"	744487.1713	1109039.2373	697.60	SECONDARY AIRPORT CONTROL STATION (SACS) HGR AP STA A (NGS PID AA9254)

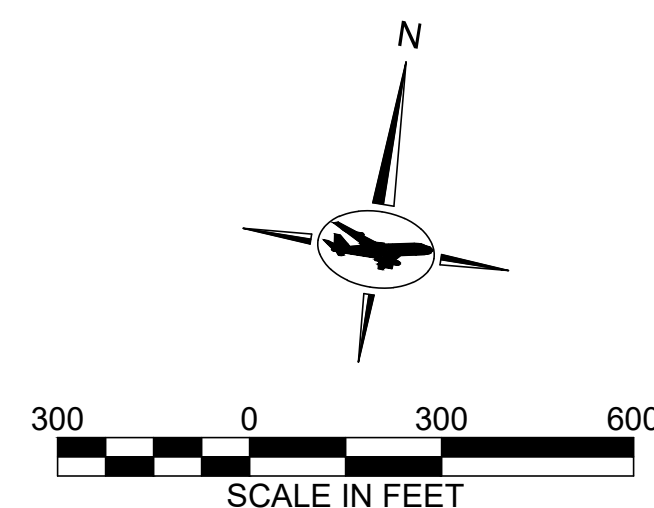
\* HORIZONTAL DATUM: NAD83 MARYLAND STATE PLANE  
 COORDINATE SYSTEM, US FOOT  
 \*\* VERTICAL DATUM: NAVD88

BASELINE LAYOUT

POINT #	BASELINE	STATION	DESCRIPTION	NORTHING	EASTING
1	RW 9-27	40+00.00	START	743772.25	1103589.33
2	RW 9-27	135+00.00	END	745264.63	1112971.38

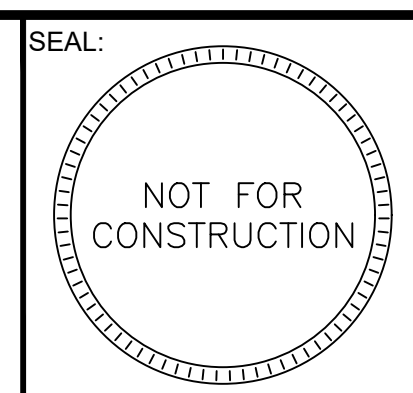
LEGEND:

- △ SURVEY CONTROL POINT
- ① BASELINE LAYOUT POINT



CONSULTANT:

**ADCI**  
 AIRPORT DESIGN CONSULTANTS  
 6031 UNIVERSITY BLVD, SUITE 330  
 ELLICOTT CITY, MD 21043  
 TEL: 410.465.9600  
 FAX: 410.465.9602



PROFESSIONAL CERTIFICATION:  
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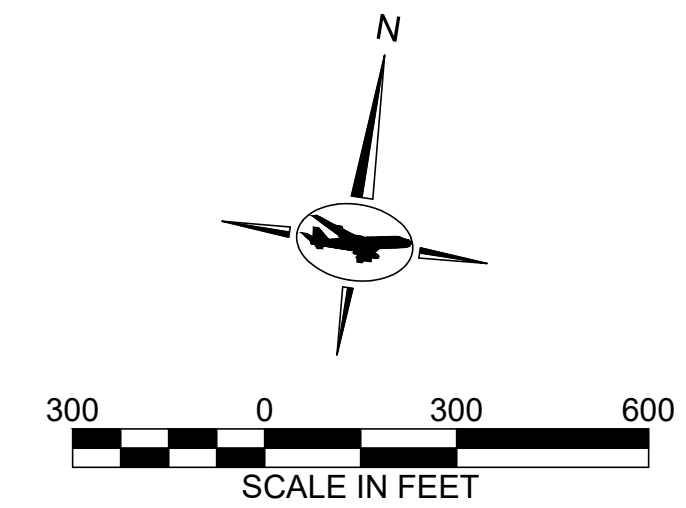
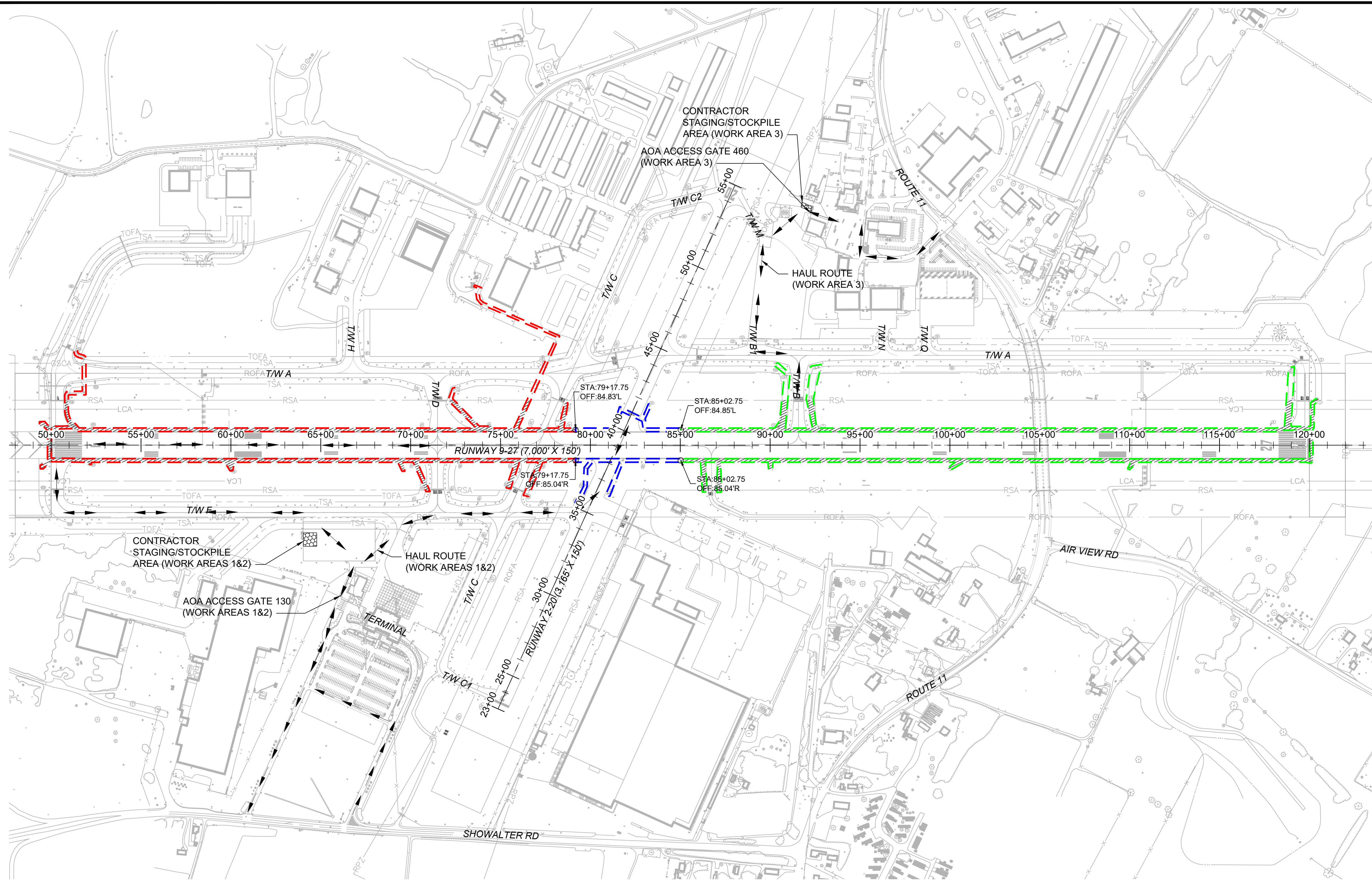
DESIGNED:	REVISION NO.	REVISION DATE	DESCRIPTIONS
M.J.B.			
DRAWN:			
R.D.H.			
CHECKED:			
R.N.M.			
APPROVED:			
M.S.K.			

90% DESIGN



PROJECT TITLE:	RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT	
SHEET TITLE:	SURVEY CONTROL AND BASELINE LAYOUT PLAN	
SCALE:	AS SHOWN	DATE: JUNE 2023

FAA AIP No.: XXX Bid No.: XXX
SHEET NO.: <b>G204</b>
7 OF 38



- NOTES:**
1. SEE SHEETS G200 AND G201 FOR GENERAL CONSTRUCTION AND SAFETY NOTES AND SHEET G500 FOR CONSTRUCTION SAFETY PHASING NOTES AND DETAILS.
  2. SEE SHEET G203 FOR MAXIMUM EQUIPMENT HEIGHT PLAN.
  3. SEE SHEETS E101 TO E108 FOR ELECTRICAL WORK PLANS.
  4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GATE GUARDS, FLAGGERS AND ESCORTS.
  5. DURING DAYS, WHEN DAYTIME WORK IS PLANNED, AND THE AIRPORT IS IN INSTRUMENT METEOROLOGICAL CONDITIONS (IMC) AND PILOTS MUST FLY UNDER INSTRUMENT FLIGHT RULES (IFR), RATHER THAN BY VISUAL FLIGHT RULES (VFR), RUNWAY 9-27 MUST REMAIN OPEN AND ALL LIGHTING, SIGNAGE AND NAVAIDS OPERATIONAL. THESE DAYS WILL NOT COUNT AGAINST CONTRACT TIME.

**LIQUIDATED DAMAGES:**  
 \$500 PER DAY/PART OF DAY BEYOND PROJECT COMPLETION

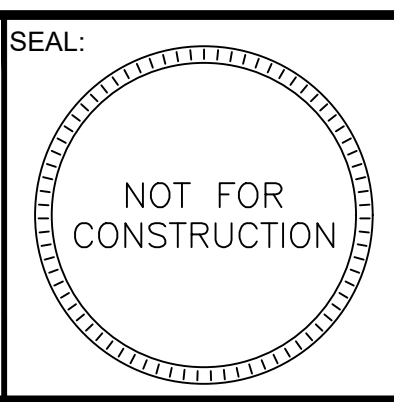
**CONSTRUCTION WORK HOURS:**  
 9:00PM - 6:00AM (EST) FOR WORK WITHIN RSA  
 WORK HOURS MAY BE ADJUSTED AT OWNER'S DISCRETION TO ACCOMMODATE COMMERCIAL FLIGHT SERVICE  
 WORK OUTSIDE RSA MAY BE COMPLETED AS DAY WORK

**CONSTRUCTION DURATION:**  
 CONTRACT DURATION: 60 CONSECUTIVE CALENDAR DAYS FROM CONSTRUCTION NOTICE TO PROCEED  
 RUNWAY 9-27 NIGHTLY CLOSURES SHALL BE RESTRICTED TO 10 NIGHTS  
 RUNWAY 9-27 / RUNWAY 2-20 INTERSECTION NIGHTLY CLOSURE SHALL BE RESTRICTED TO 1 NIGHT

- EXISTING LEGEND:**
- x - x - x - x - Existing Fence
  - RPZ — Runway Protection Zone
  - RSA — Runway Safety Area
  - ROFA — Runway Object Free Area
  - TOFA — Taxiway Object Free Area
  - GSCA — Glideslope Critical Area
  - LCA — Localizer Critical Area

- PROPOSED LEGEND:**
- ← → Haul Route
  - - - - - Work Area 1
  - ▨ Work Area 1A
  - - - - - Work Area 2
  - - - - - Work Area 3
  - ▨ Work Area 3A
  - ◻ Contractor Staging/Stockpile Area

**CONSULTANT:**  
  
 AIRPORT DESIGN CONSULTANTS  
 6031 UNIVERSITY BLVD, SUITE 330  
 ELLICOTT CITY, MD 21043  
 TEL: 410.465.9600  
 FAX: 410.465.9602



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 LICENSE NO. \_\_\_\_\_  
 EXPIRATION DATE: \_\_\_\_\_

DESIGNED:	REVISION NO.	REVISION DATE	DESCRIPTIONS
M.J.B.			
DRAWN:			
R.D.H.			
CHECKED:			
R.N.M.			
APPROVED:			
M.S.K.			

90% DESIGN

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

**PROJECT TITLE:** RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT

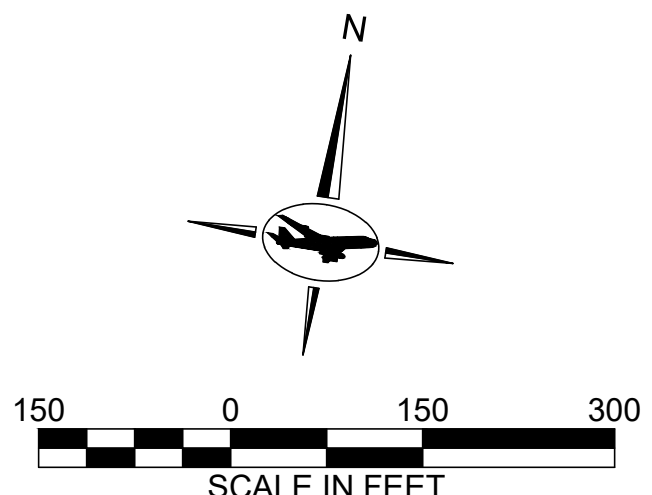
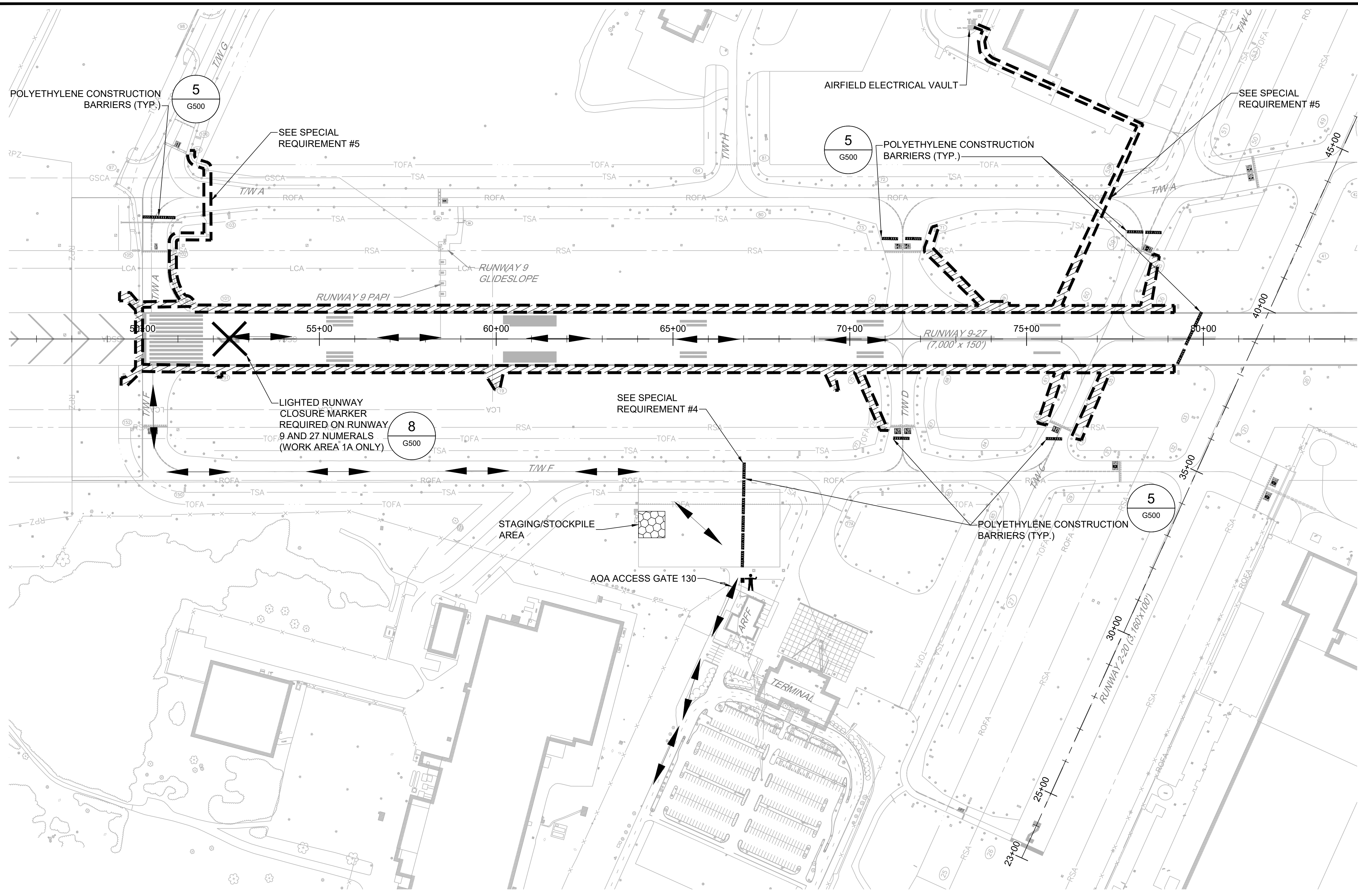
**SHEET TITLE:** OVERALL CONSTRUCTION SAFETY AND PHASING PLAN

**SCALE:** AS SHOWN      **DATE:** JUNE 2023

FAA AIP No.: XXX  
 Bid No.: XXX

SHEET NO.: **G300**

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**NOTES:**

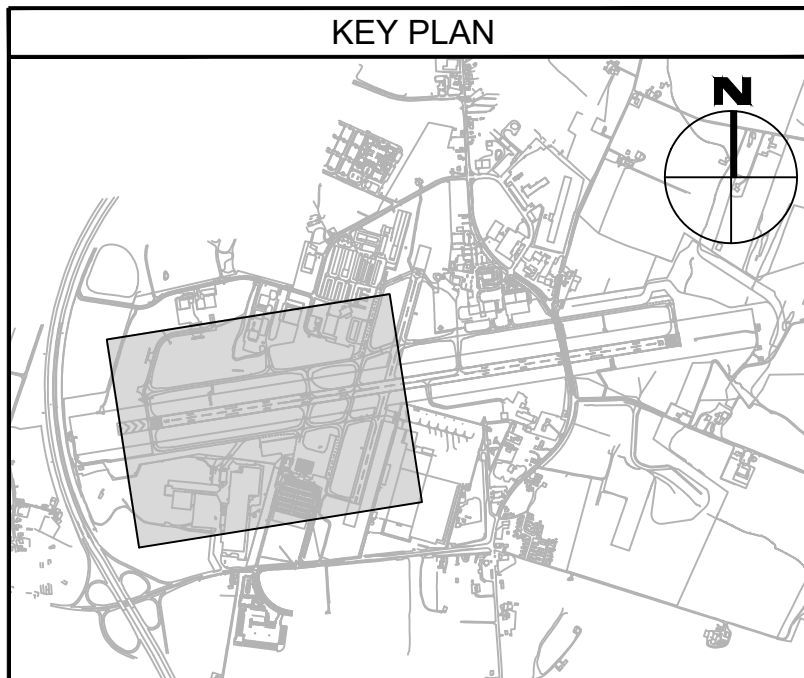
- SEE SHEETS G200 AND G201 FOR GENERAL CONSTRUCTION AND SAFETY NOTES AND G500 FOR CONSTRUCTION SAFETY PHASING NOTES AND DETAILS.
- SEE SHEET G203 FOR MAXIMUM EQUIPMENT HEIGHT PLAN.
- SEE SHEETS E101 TO E108 FOR ELECTRICAL WORK PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GATE GUARDS, FLAGGERS AND ESCORTS.
- WORK AREA 1A INCLUDES ALL WORK IN WORK AREA 1 LOCATED IN RUNWAY 9-27 RSA.
- DURING DAYS, WHEN DAYTIME WORK IS PLANNED, AND THE AIRPORT IS IN INSTRUMENT METEOROLOGICAL CONDITIONS (IMC) AND PILOTS MUST FLY UNDER INSTRUMENT FLIGHT RULES (IFR), RATHER THAN BY VISUAL FLIGHT RULES (VFR), RUNWAY 9-27 MUST REMAIN OPEN AND ALL LIGHTING, SIGNAGE AND NAVAIDS OPERATIONAL. THESE DAYS WILL NOT COUNT AGAINST CONTRACT TIME.

**EXISTING LEGEND:**

- x—x—x—x—x— EXISTING FENCE
- RPZ RUNWAY PROTECTION ZONE
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- GSCA GLIDESLOPE CRITICAL AREA
- LCA LOCALIZER CRITICAL AREA

**LEGEND:**

- ← → HAUL ROUTE
- WORK AREA 1
- /// WORK AREA 1A
- ◻ Contractor Staging/Stockpile Area
- Polyethylene Construction Barriers
- ⚓ FLAGGER



**WORK AREA 1 CONSTRUCTION WORK HOURS:**  
 WORK AREA 1A: 9:00PM - 6:00AM EST  
 NO TIME RESTRICTIONS FOR WORK OUTSIDE RUNWAY 9-27 RSA  
  
 WORK HOURS MAY BE ADJUSTED AT AIRPORT DISCRETION TO ACCOMMODATE COMMERCIAL FLIGHT SERVICE

- WORK AREA 1 AIRFIELD IMPACTS:**
- RUNWAY 9-27 NIGHTLY CLOSURES (1A ONLY)
  - TAXIWAYS A, D, F, G NIGHTLY CLOSURES (1A ONLY)

- SPECIAL REQUIREMENTS:**
- RUNWAY 2-20 SHALL REMAIN OPEN AT ALL TIMES.
  - TAXIWAY A (OUTSIDE OF RUNWAY 9-27 RSA), TAXIWAY C, AND TAXIWAY F (EAST OF TAXIWAY D) SHALL REMAIN OPEN AT ALL TIMES.
  - FLAGGER SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC NEAR THE TERMINAL/ARFF AREA.

- BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET G500 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL PLACE BARRICADES A MINIMUM OF 85.5' FROM ACTIVE TAXIWAY CENTERLINE AND 250' FROM ACTIVE RUNWAY CENTERLINES.
- CONTRACTOR SHALL COORDINATE WORK WITHIN TSA WITH RPR AND AIRPORT OPERATIONS PRIOR TO COMMENCING. CONTRACTOR WILL BE REQUIRED TO WORK ON A PULL-BACK BASIS FOR TAXIING AIRCRAFT.

CONSULTANT:  
  
 AIRPORT DESIGN CONSULTANTS  
 6031 UNIVERSITY BLVD, SUITE 330  
 ELLICOTT CITY, MD 21043  
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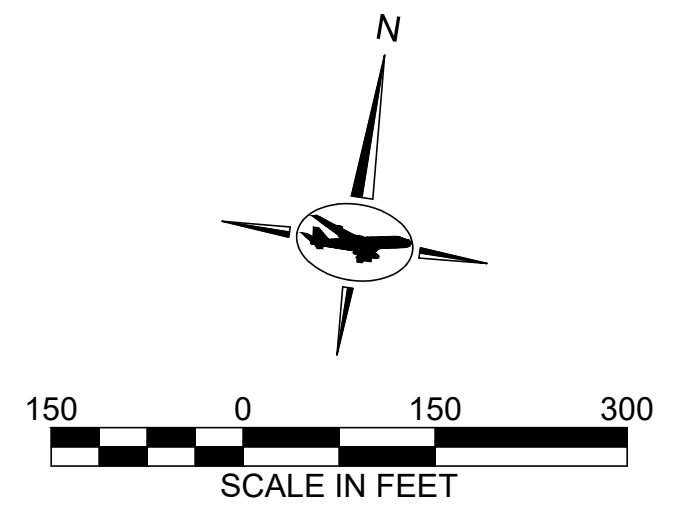
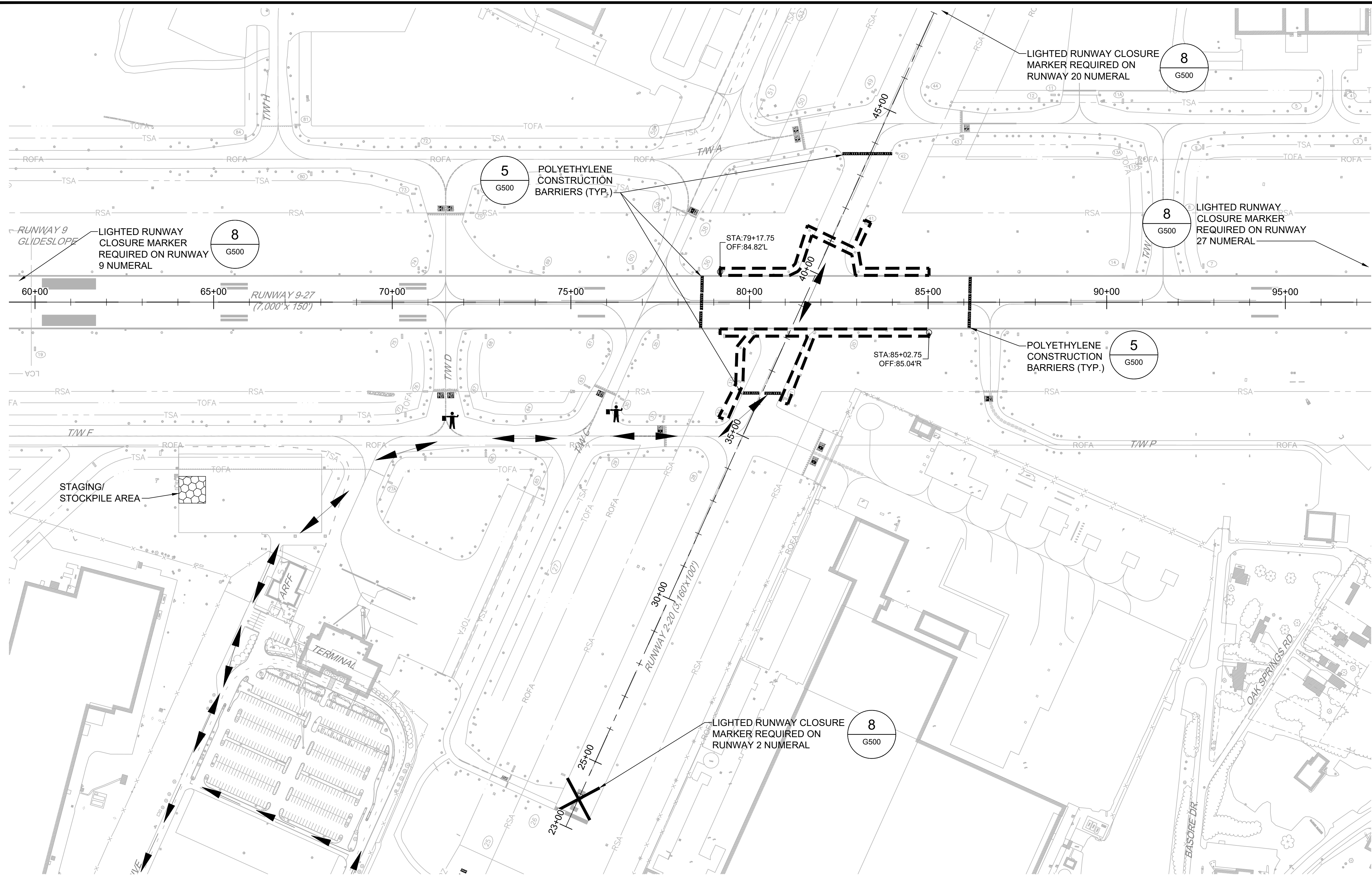
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R.N.M.			
APPROVED:			
M.S.K.			

90% DESIGN

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT
SHEET TITLE:	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1
SCALE:	AS SHOWN
DATE:	JUNE 2023

FAA AIP No.: XXX Bid No.: XXX
SHEET NO.: <b>G301</b>
9 OF 38



**NOTES:**

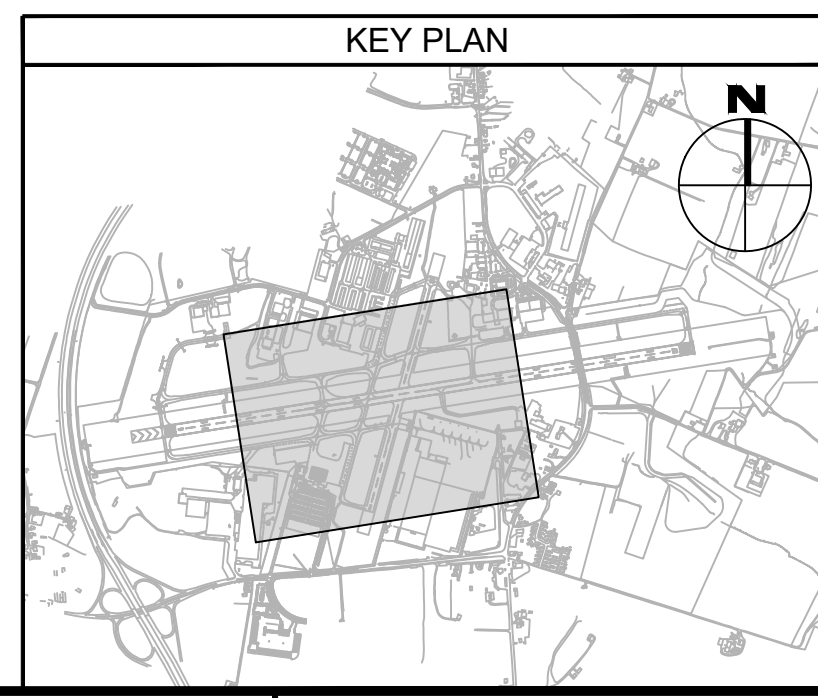
1. SEE SHEETS G200 AND G201 FOR GENERAL CONSTRUCTION AND SAFETY NOTES AND G500 FOR CONSTRUCTION SAFETY PHASING NOTES AND DETAILS.
2. SEE SHEET G203 FOR MAXIMUM EQUIPMENT HEIGHT PLAN.
3. SEE SHEETS E101 TO E108 FOR ELECTRICAL WORK PLAN.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GATE GUARDS, FLAGGERS AND ESCORTS.

**EXISTING LEGEND:**

- EXISTING FENCE
- RPZ RUNWAY PROTECTION ZONE
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- GSCA GLIDESLOPE CRITICAL AREA
- LCA LOCALIZER CRITICAL AREA

**PROPOSED LEGEND:**

- HAUL ROUTE
- WORK AREA 2
- CONTRACTOR STAGING/STOCKPILE AREA
- POLYETHYLENE CONSTRUCTION BARRIERS
- FLAGGER



**WORK AREA 2 CONSTRUCTION DURATION:**  
1 NIGHT

**WORK AREA 2 CONSTRUCTION WORK HOURS:**  
9:00PM - 6:00AM EST

WORK HOURS MAY BE ADJUSTED AT AIRPORT DISCRETION TO ACCOMMODATE COMMERCIAL FLIGHT SERVICE

**WORK AREA 2 AIRFIELD IMPACTS:**

1. RUNWAY 9-27 AND RUNWAY 2-20 CLOSURE

**SPECIAL REQUIREMENTS:**

1. FLAGGERS SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC ACROSS TAXIWAYS C, D, AND F.
2. BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET G500 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL PLACE BARRICADES A MINIMUM OF 85.5' FROM ACTIVE TAXIWAY CENTERLINE AND 250' FROM ACTIVE RUNWAY CENTERLINES.
3. EXACT CLOSURE DATE(S) SHALL BE COORDINATED WITH THE RPR/OWNER TO ENSURE MINIMAL IMPACTS TO SCHEDULED AIRLINE SERVICE TO THE AIRPORT.

CONSULTANT:

**ADCI**  
AIRPORT DESIGN CONSULTANTS  
6031 UNIVERSITY BLVD, SUITE 330  
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**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT**

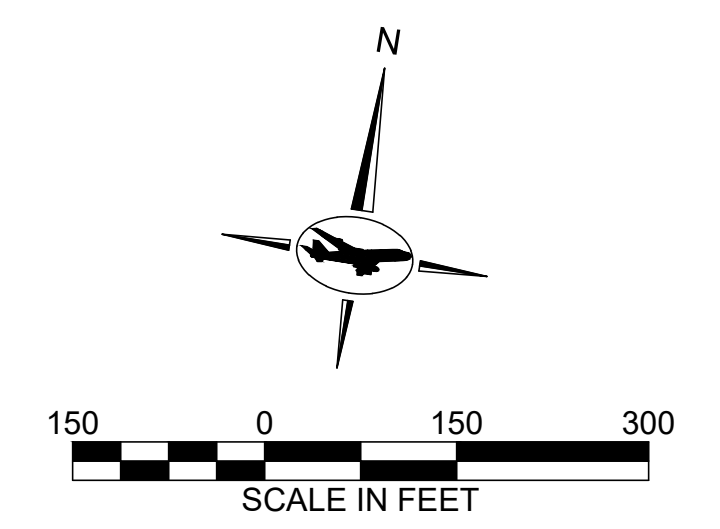
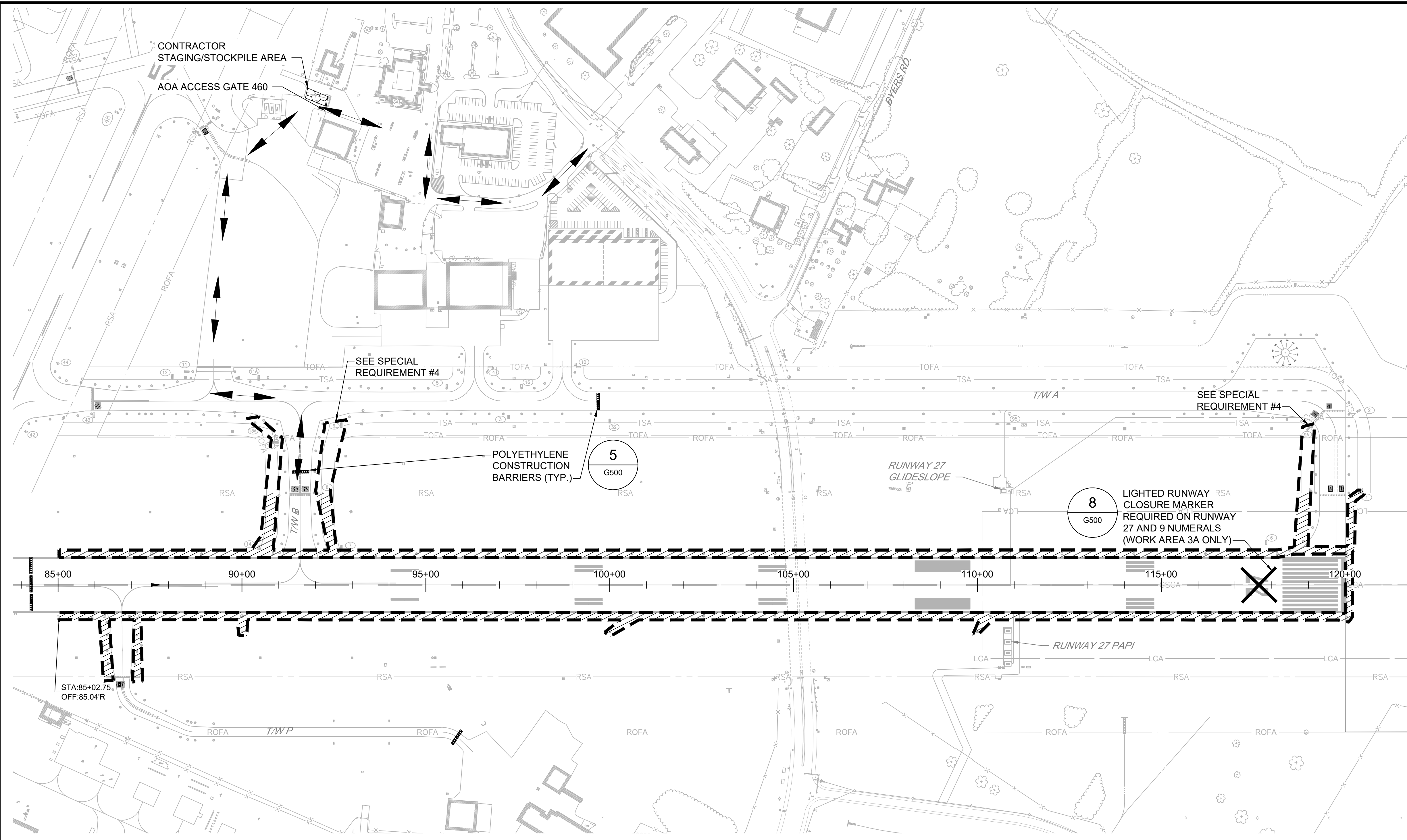
SHEET TITLE: **CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2**

SCALE: AS SHOWN      DATE: JUNE 2023

FAA AIP No.: XXX  
Bid No.: XXX

SHEET NO.: **G302**

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- NOTES:**
- SEE SHEET G200 AND G201 FOR GENERAL CONSTRUCTION AND SAFETY NOTES AND SHEET G500 FOR CONSTRUCTION SAFETY PHASING NOTES AND DETAILS.
  - SEE SHEET G203 FOR MAXIMUM EQUIPMENT HEIGHT PLAN.
  - SEE SHEETS E101 TO E108 FOR ELECTRICAL WORK PLANS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GATE GUARDS, FLAGGERS AND ESCORTS.
  - WORK AREA 3A INCLUDES ALL WORK IN WORK AREA 3 LOCATED IN RUNWAY 9-27 RSA.
  - DURING DAYS, WHEN DAYTIME WORK IS PLANNED, AND THE AIRPORT IS IN INSTRUMENT METEOROLOGICAL CONDITIONS (IMC) AND PILOTS MUST FLY UNDER INSTRUMENT FLIGHT RULES (IFR), RATHER THAN BY VISUAL FLIGHT RULES (VFR), RUNWAY 9-27 MUST REMAIN OPEN AND ALL LIGHTING, SIGNAGE AND NAVAIDS OPERATIONAL. THESE DAYS WILL NOT COUNT AGAINST CONTRACT TIME.

- EXISTING LEGEND:**
- - - - - EXISTING FENCE
  - RPZ — RUNWAY PROTECTION ZONE
  - RSA — RUNWAY SAFETY AREA
  - ROFA — RUNWAY OBJECT FREE AREA
  - TOFA — TAXIWAY OBJECT FREE AREA
  - GSCA — GLIDESLOPE CRITICAL AREA
  - LCA — LOCALIZER CRITICAL AREA

- PROPOSED LEGEND:**
- ↔ HAUL ROUTE
  - WORK AREA 3
  - ▨ WORK AREA 3A
  - ▣ CONTRACTOR STAGING/STOCKPILE AREA
  - ▬ POLYETHYLENE CONSTRUCTION BARRIERS

**WORK AREA 3 CONSTRUCTION WORK HOURS:**

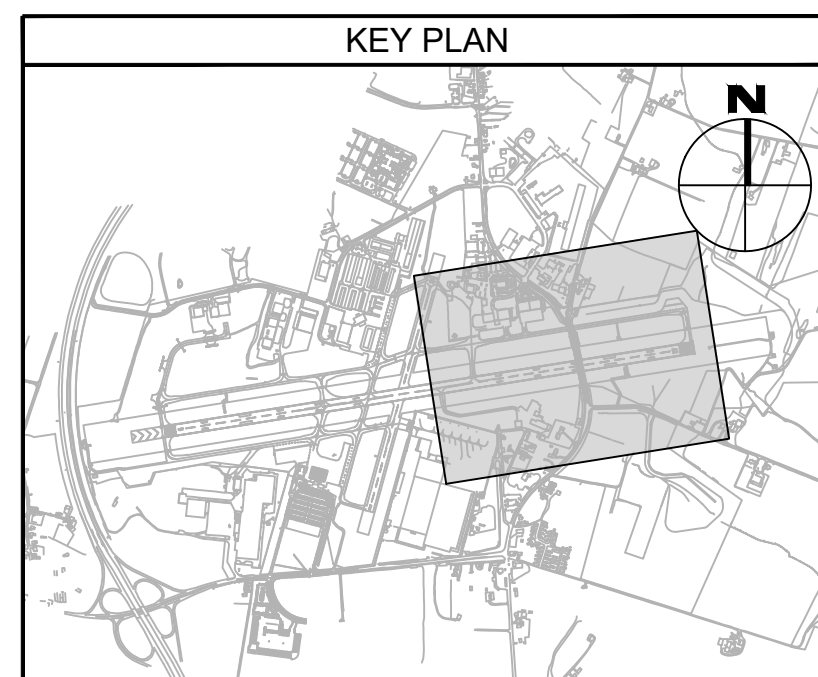
WORK AREA 3A: 9:00PM - 6:00AM EST  
NO TIME RESTRICTIONS FOR WORK OUTSIDE RUNWAY 9-27 RSA

WORK HOURS MAY BE ADJUSTED AT AIRPORT DISCRETION TO ACCOMMODATE COMMERCIAL FLIGHT SERVICE

**WORK AREA 3 AIRFIELD IMPACTS:**

- RUNWAY 9-27 NIGHTLY CLOSURES (3A ONLY)
- TAXIWAYS A, B, P NIGHTLY CLOSURES (3A ONLY)

- SPECIAL REQUIREMENTS:**
- RUNWAY 2-20 SHALL REMAIN OPEN AT ALL TIMES.
  - TAXIWAY A (OUTSIDE OF RUNWAY 9-27 RSA) SHALL REMAIN OPEN AT ALL TIMES.
  - BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET G500 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL PLACE BARRICADES A MINIMUM OF 85.5' FROM ACTIVE TAXIWAY CENTERLINE AND 250' FROM ACTIVE RUNWAY CENTERLINES.
  - CONTRACTOR SHALL COORDINATE WORK WITHIN TSA WITH RPR AND AIRPORT OPERATIONS PRIOR TO COMMENCING. CONTRACTOR WILL BE REQUIRED TO WORK ON A PULL-BACK BASIS FOR TAXIING AIRCRAFT.



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**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT**

SHEET TITLE: **CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3**

SCALE: AS SHOWN      DATE: JUNE 2023

FAA AIP No.: XXX  
Bid No.: XXX

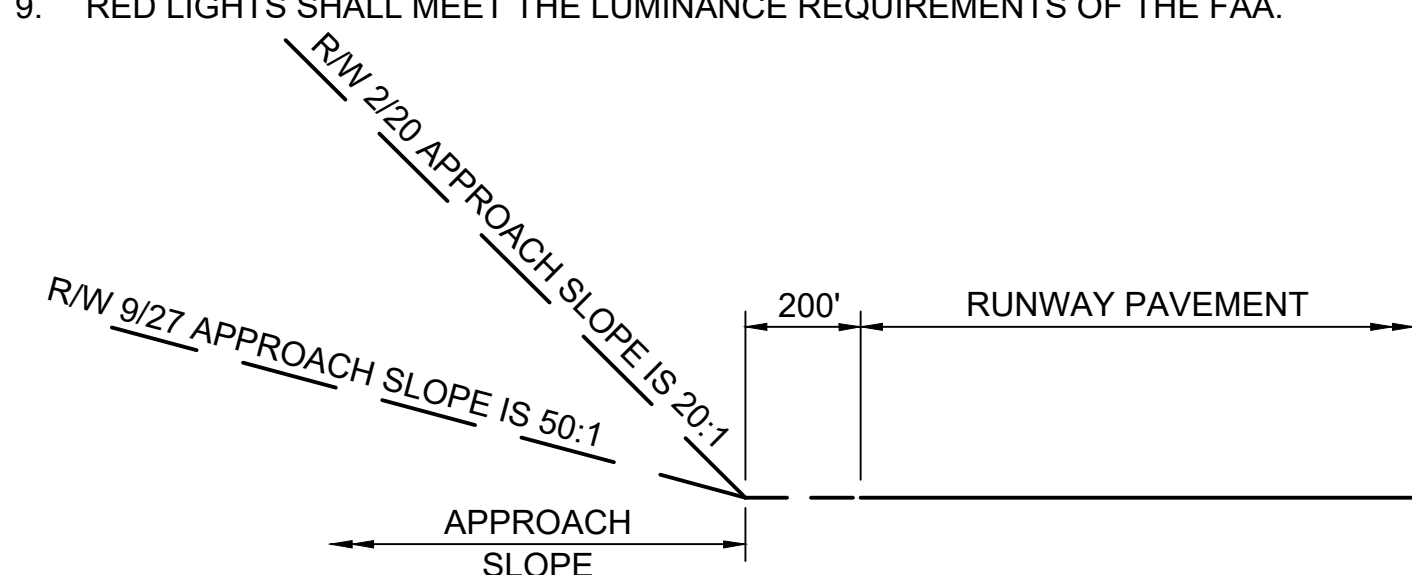
SHEET NO.: **G303**

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**GENERAL PHASING NOTES:**

1. THE INTENT OF THE PHASING PLAN IS TO MINIMIZE THE IMPACT OF CONSTRUCTION ON THE OPERATION OF THE AIRPORT. THE CONTRACTOR SHALL CONSTRUCT THE PROJECT AS OUTLINED IN THE PLANS UNLESS OTHERWISE APPROVED BY THE RESIDENT PROJECT REPRESENTATIVE (RPR). ADJUSTMENTS TO THE PHASING PLAN MAY BE NECESSARY TO ACCOMMODATE UNFORESEEN PROBLEMS WITH AIRPORT OPERATION.
2. THE CONTRACTOR SHALL PROVIDE, MAINTAIN, MOVE, REMOVE (AS DIRECTED) CONSTRUCTION BARRIERS TO DELINEATE AREAS CLOSED TO AIRCRAFT TRAFFIC AND TO MARK ALL OPEN EXCAVATIONS, PAVEMENT DROP-OFFS ETC. CLOSURE MARKERS AND BARRIERS WILL ONLY BE PAID FOR ONCE EACH AND SHALL BE RELOCATED AS REQUIRED. COSTS ASSOCIATED WITH RELOCATING BARRICADES SHALL BE INCIDENTAL TO ITEM M-100.
3. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE FOR REVIEW AND APPROVAL OF THE RPR PRIOR TO STARTING CONSTRUCTION. STRICT ADHERENCE TO THE APPROVED SCHEDULE WILL BE ENFORCED TO AVOID CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES AND ADVERSE EFFECTS ON AIRPORT OPERATIONS.
4. ELECTRICAL WORK SHALL BE SEQUENCED TO MAINTAIN ALL ELECTRICAL SYSTEMS WITHOUT ANY INTERRUPTIONS. TEMPORARY WIRING IF REQUIRED SHALL BE INCIDENTAL TO THE CORRESPONDING ELECTRICAL WORK. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE RPR AND THE AIRPORT MAINTENANCE DEPARTMENT.
5. ACTIVE PAVEMENTS MUST BE KEPT CLEAR AND FREE OF DEBRIS AT ALL TIMES. THE CONTRACTOR MUST HAVE A VACUUM SWEEPER AND OPERATOR READY AT ALL TIMES DURING WORK ADJACENT TO ACTIVE AIRFIELD PAVEMENTS.
6. THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FAA ADVISORY CIRCULARS AND FEDERAL AVIATION REGULATIONS. PAY PARTICULAR ATTENTION TO FAA AC 150/5370-2G.
7. MAXIMUM EQUIPMENT HEIGHTS FOR ACTIVE WORK AREAS AND STAGING AREA ARE LIMITED BY FAR PART 77 AND OBSTACLE FREE ZONE (OFZ) SURFACES IDENTIFIED ON THIS SHEET.
8. DUST ON CONSTRUCTION PROJECTS IS A MAJOR PROBLEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON-SITE AT ALL TIMES ON A CONTINUOUS BASIS. THE CONTRACTOR MUST SUBMIT A DETAILED DUST CONTROL PLAN TO THE RPR FOR APPROVAL PRIOR TO BEGINNING WORK. THE COST FOR THIS WORK SHALL BE INCLUDED UNDER VARIOUS CONTRACT ITEMS.
9. RED LIGHTS SHALL MEET THE LUMINANCE REQUIREMENTS OF THE FAA.

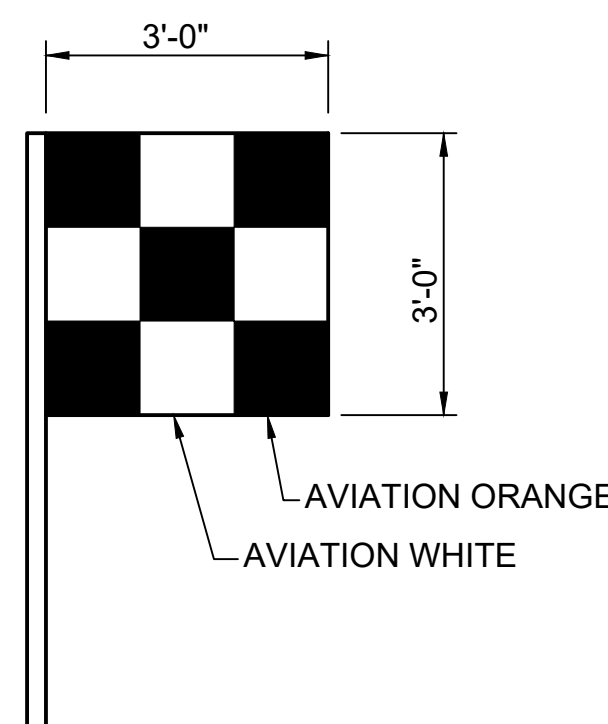


**FAR PART 77 NOTES:**

1. THE OFZ SHALL GOVERN EQUIPMENT CLEARANCE DURING CONSTRUCTION ADJACENT TO AN ACTIVE RUNWAY. UNDER NO CIRCUMSTANCES SHALL ANY MEN OR EQUIPMENT PENETRATE THESE SURFACES UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE RPR, HGR, AND THE FAA ATCT.
2. THE FAR PART 77 SURFACES (PRIMARY AND TRANSITIONAL) GOVERN STOCKPILE AND PARKED EQUIPMENT. UNDER NO CIRCUMSTANCES SHALL PARKED EQUIPMENT, STOCKPILES, OR OTHER ITEMS PENETRATE THESE SURFACES DURING CONSTRUCTION ADJACENT TO AN ACTIVE RUNWAY.
3. THE FAR PART 77 APPROACH SURFACE GOVERNS STOCKPILES, CONSTRUCTION EQUIPMENT AND OTHER OBJECTS BEYOND THE RUNWAY END. UNDER NO CIRCUMSTANCES SHALL THESE ITEMS PENETRATE THE APPROACH SLOPES.

**3 TYPICAL PROFILE FAR PART 77 IMAGINARY SURFACES**

G500 SCALE: NTS



**6 VEHICLE-EQUIPMENT FLAG**

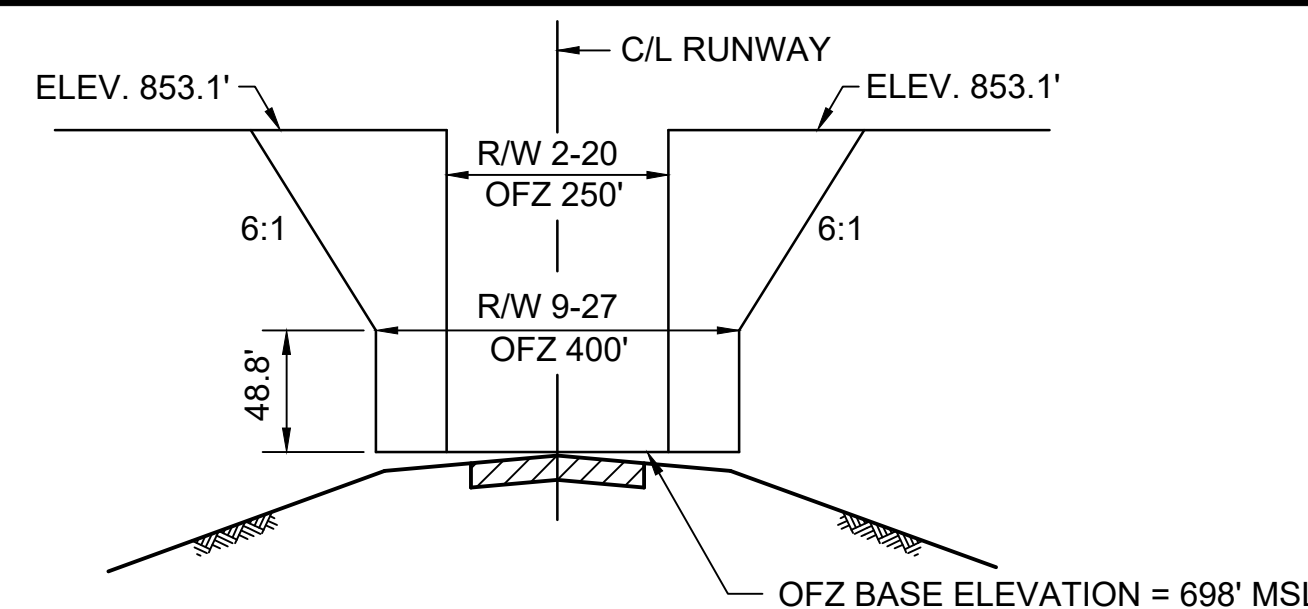
G500 SCALE: NTS

**SUPERVISION:**

THE PRIME CONTRACTOR SHALL HAVE THE PROJECT SUPERINTENDENT OR SOMEONE IN RESPONSIBLE CHARGE BE PRESENT AT ALL TIMES ON THE PROJECT SITE. THIS PERSON SHALL BE FAMILIAR WITH ALL TYPES OF CONSTRUCTION BEING PERFORMED AND SHALL BE THE SAME PERSON EACH DAY THROUGHOUT THE PROJECT. THE SUPERINTENDENT SHALL HAVE THE RESPONSIBILITY OF COORDINATING EACH DAY'S WORK WITH THE RPR AND AIRPORT PERSONNEL AND SHALL HAVE AUTHORITY TO SCHEDULE AND ADJUST ALL WORKERS, PRIME AND SUB CONTRACTORS, TO ACCOMMODATE AIRPORT OPERATION AS DIRECTED BY THE RPR AND/OR AIRPORT PERSONNEL. ALL WORK MUST BE PERFORMED WITH THE RPR AND/OR AIRPORT PERSONNEL ON THE SITE. WORK DURING EVENINGS AND WEEKENDS MUST BE COORDINATED WITH THE RPR AND AIRPORT PERSONNEL AT LEAST 7 DAYS IN ADVANCE, EXCLUDING EMERGENCIES AND INCLEMENT WEATHER CONDITIONS. ALL PERSONNEL SHALL CLEAR THE CONSTRUCTION AREA ONCE WORK HAS STOPPED FOR THE DAY. ALL MECHANICS NEEDING ACCESS TO THE AIR OPERATIONS AREA DURING EVENINGS AND WEEKENDS TO WORK ON CONSTRUCTION EQUIPMENT SHALL HAVE A PICTURED IDENTIFICATION BADGE, RECEIVE DRIVING PRIVILEGES, AND HAVE THEIR VEHICLES IDENTIFIED WITH THE CONTRACTOR NAME OR MAGNETIC PLACARD ISSUED BY THE AIRPORT OPERATIONS.

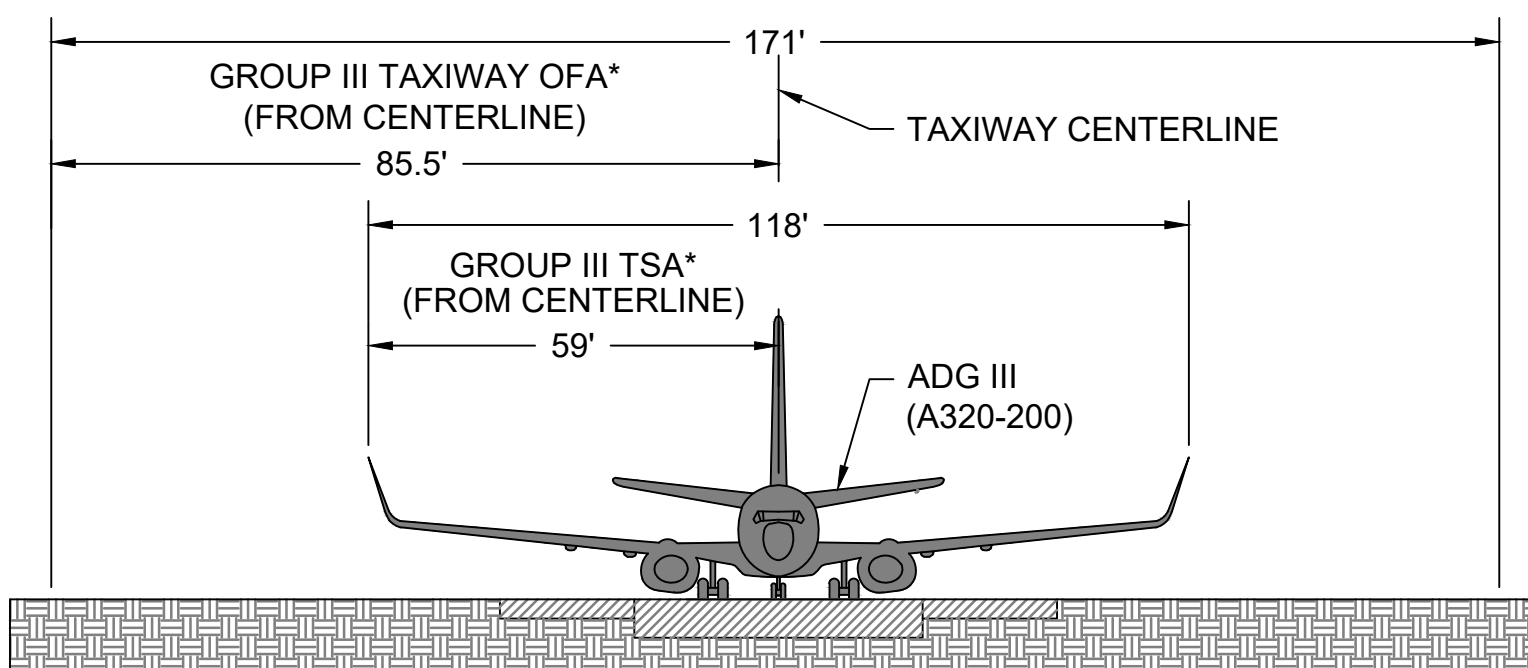
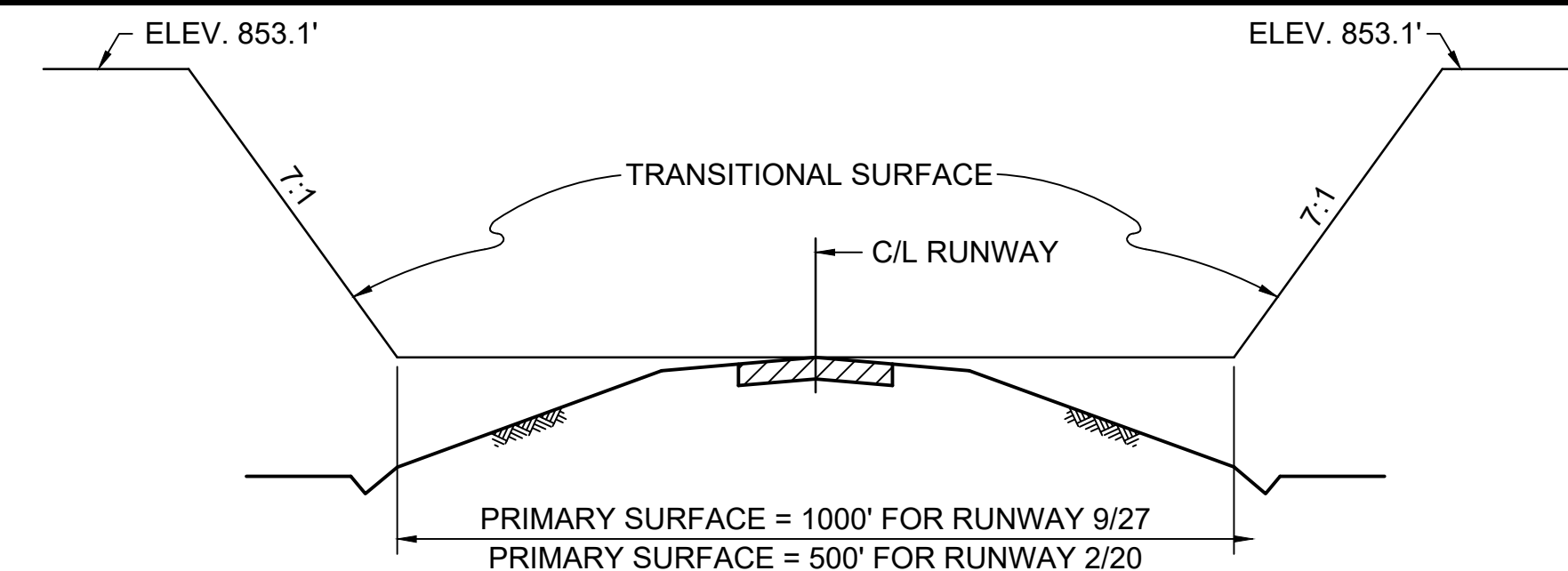
**1 TYPICAL SECTION OBSTACLE FREE ZONE**

G500 SCALE: NTS



**2 TYPICAL SECTION FAR PART 77 IMAGINARY SURFACES**

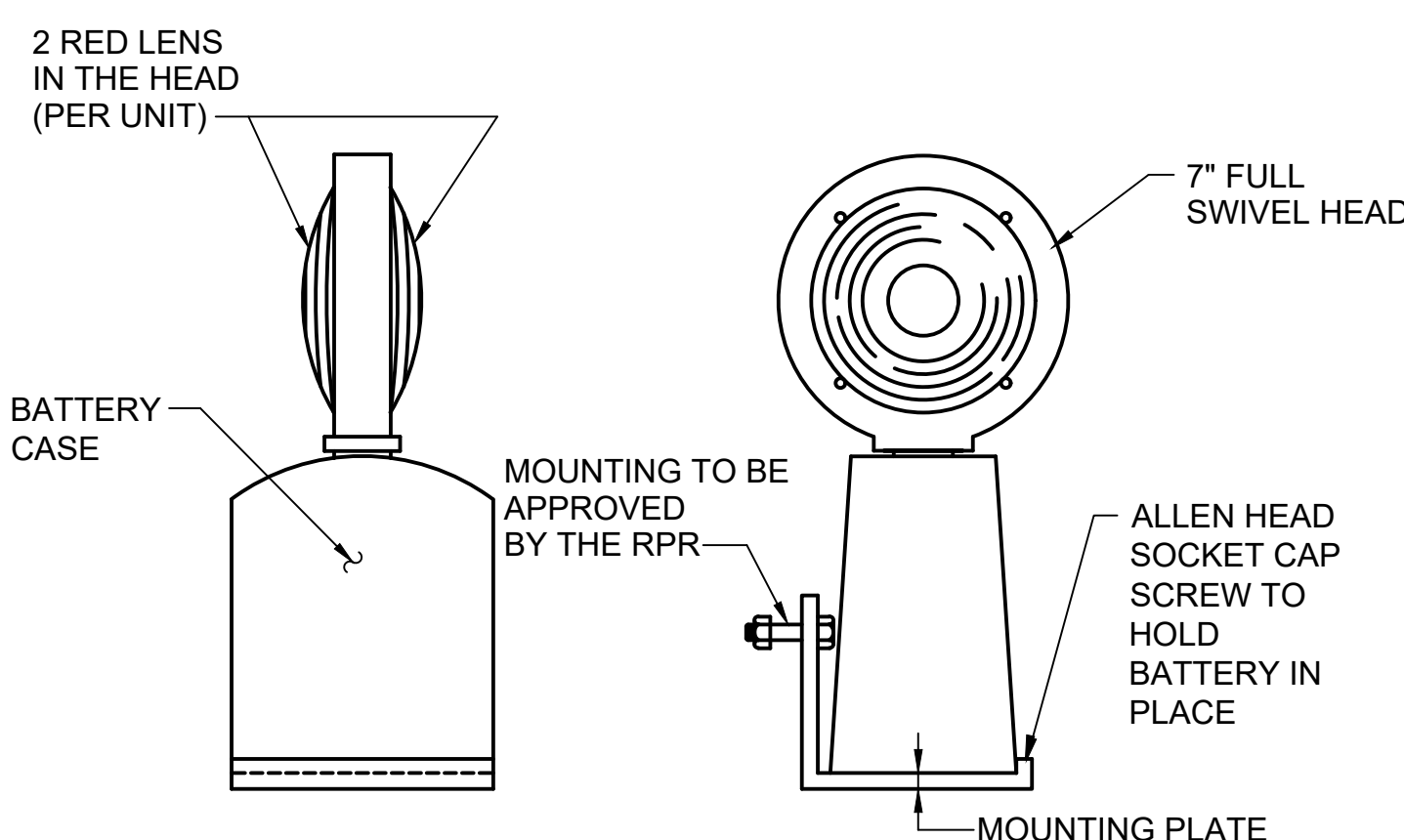
G500 SCALE: NTS



\*NO CONSTRUCTION MAY OCCUR WITHIN THE TAXIWAY OBJECT FREE AREA WHILE THE TAXIWAY IS OPEN FOR AIRCRAFT OPERATIONS. SEE FAA AC 150/5370-2G, SECTION 2.22.4 FOR ADDITIONAL RESTRICTIONS. RESTORATION OF TAXIWAY OFA NOT REQUIRED TO OPEN TAXIWAY TO TRAFFIC. RESTORATION OF TAXIWAY TSA REQUIRED TO OPEN TAXIWAY TO TRAFFIC.

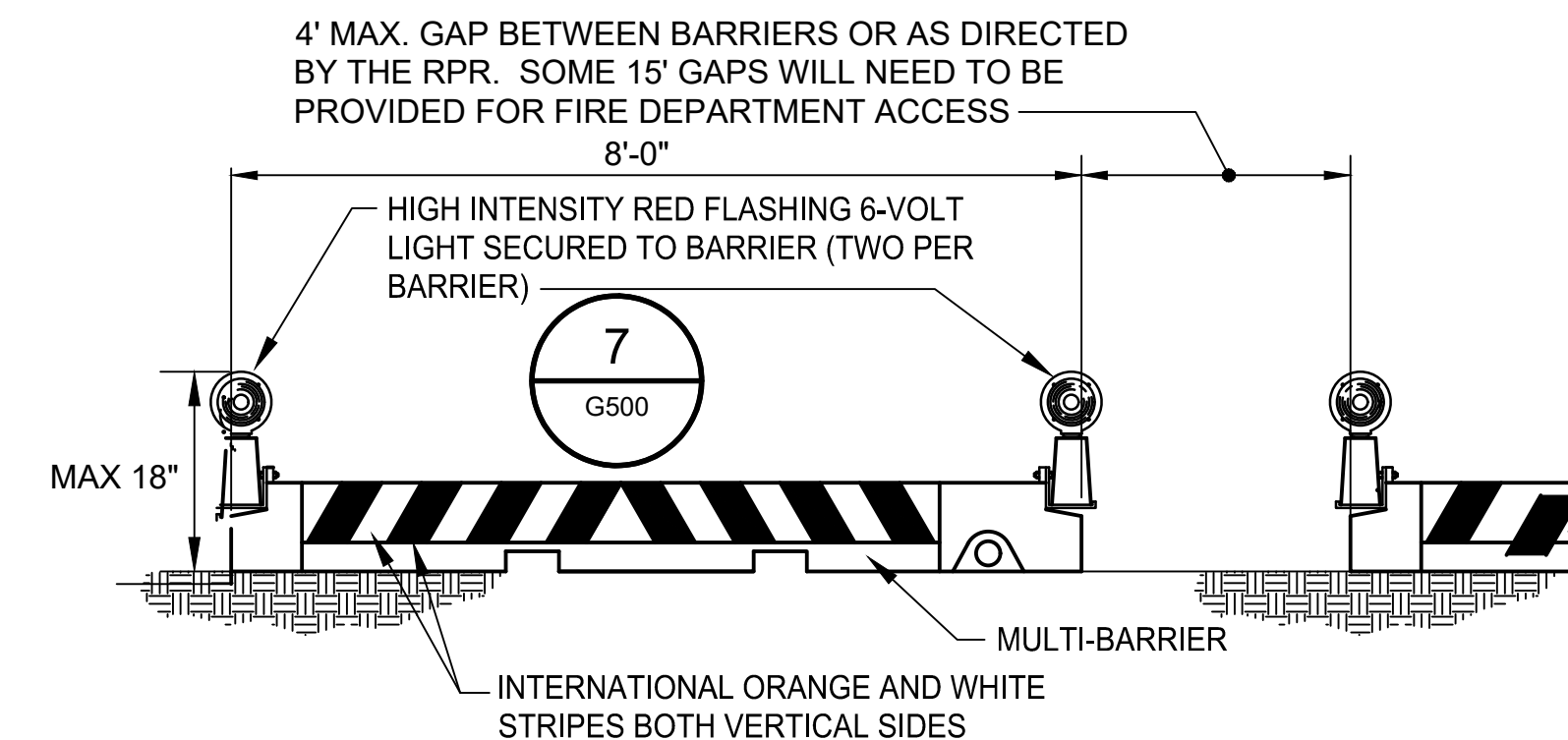
**4 GROUP III TAXIWAY SAFETY AREA (TSA) - TAXIWAY OBJECT FREE AREA (TOFA) - TANGENT SECTION**

G500 SCALE: NTS



**7 TEMPORARY BARRIER LIGHT DETAIL**

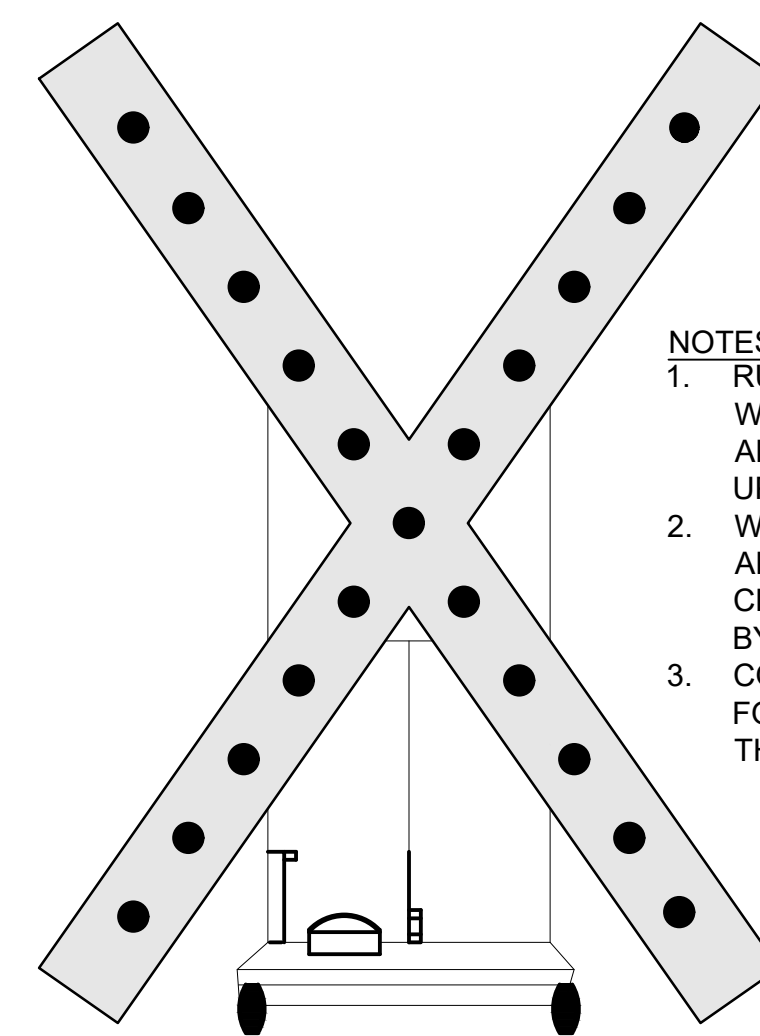
G500 SCALE: NTS



**5 POLYETHYLENE CONSTRUCTION BARRIERS**

G500 SCALE: NTS

\* TIMBER BARRICADES MAY ALSO BE ACCEPTABLE



**8 LIGHTED RUNWAY CLOSURE MARKER**

G500 SCALE: NTS

**NOTES:**

1. RUNWAY CLOSURE MARKERS TWO (2) WILL BE PROVIDED BY THE AIRPORT AND RETURNED BY THE CONTRACTOR UPON COMPLETION OF CONTRACT.
2. WORK AREA 2 REQUIRES AN ADDITIONAL TWO (2) RUNWAY CLOSURE MARKERS TO BE FURNISHED BY THE CONTRACTOR.
3. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AND PLACEMENT THROUGHOUT CONTRACT DURATION.

CONSULTANT:

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AIRPORT DESIGN CONSULTANTS  
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M.S.K.			

90% DESIGN

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 EDGE LIGHTING AND SIGNAGE REPLACEMENT**

SHEET TITLE: **CONSTRUCTION SAFETY PHASING NOTES AND DETAILS**

SCALE: N.T.S. DATE: JUNE 2023

FAA AIP No.: XXX  
Bid No.: XXX

SHEET NO.: **G500**

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**Appendix C. Sample Contractors Safety Plan Compliance Document (SPCD)**

**SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)**

Project Location: Hagerstown Regional Airport

Project Name: Runway 9-27 Edge Lighting and Signage Replacement

**General Statement:**

The Construction Safety and Phasing Plan (CSPP), has been prepared in accordance with FAA Advisory Circular 150/5370-2G, *Operational Safety on Airports During Construction and the requirements of the Airport Owner*. The CSPP has been submitted to the FAA for review and comment. Any comments from the FAA which were received prior to bid opening have been incorporated into the CSPP.

In the event that the FAA transmits comments which require that the CSPP be revised after bid opening, I understand that I am obligated to abide by the conditions and statements contained in the revised CSPP. I further understand that I will be given the opportunity to evaluate the revised CSPP as it relates to my contract and request appropriate compensation in accordance with the provisions of the contract.

**Supplemental Information:**

Where the CSPP covers a subject and no additional information is needed, the statement below reads, "No supplemental information required". Where additional information is required by the Contractor, the information shall be provided in the spaces below.

The section numbers below correspond with the section numbers in the CSPP.

**3.1 Coordination**

**Statement:** [Explain how you will distribute information and details of meetings to employees and subcontractors.]

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

**3.2 Phasing**

**Statement:** [List the number of days each Work Area will take. State the time day work will start and finish for each work area.]

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

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### 3.3 Areas and Operations affected by the construction activity

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.4 Navigational Aid (NAVAID) Protection

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.5 Contractor Access

**Security Statement:** [Explain how you will maintain integrity of the airport security fence at the access gate, e.g.: Gate guards, closed and locked gates, temporary fencing, etc.]

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**Training Statement:** [List individuals who will receive driver training (for certificated airports and as requested.)]

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**Communication Statement:** [Identify types of radios, if any, you will use to communicate with drivers and personnel. Identify who will be monitoring radios. Identify a contact person and phone number if ATCT cannot reach the contractor's designated person by radio.]

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**Escort Statement:** [Identify who will escort material delivery vehicles.]

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### 3.6 Wildlife Management

**Statement:** [Identify who will be monitoring wildlife in the construction area. Identify who will be monitoring wildlife at the construction gate.]

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### 3.7 Foreign Object Debris (FOD) Management

**Statement:** [Identify who will be preparing a FOD Management Plan. (Plan must be approved prior to the start of construction activities.)]

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### 3.8 Hazardous Material (HAZMAT) Management

**Statement:** [Identify who will be preparing a Spill Prevention Plan. (Plan must be approved prior to the start of construction activities.)]

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### 3.9 Notification of Construction Activities. Provide the following:

**Key Personnel Statement:** [Identify your key personnel points of contact with phone numbers.]

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**Emergency Contacts Statement:** [Identify your emergency contacts with 24 hour phone numbers.]

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**Equipment Statement:** [Part 77: Identify equipment you will be using that is taller than 25 feet, including on-site batch plants. Identify the maximum height it will be extended to during construction for each Work Area and the expected duration. Identify when during the day it will be used.]

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**3.10 Inspection Requirements.**

**Statement:** [Identify the person who will be responsible for daily inspections to ensure conformance with the CSPP. Describe additional inspections you will employ, if any, to ensure conformance.]

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**3.11 Underground Utilities.**

**Statement:** [Discuss proposed methods of identifying and protecting underground utilities.]

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**3.12 Penalties**

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.13 Special Conditions.**

**Statement:** [Identify who will be responsible for moving equipment and personnel from the work area and vacating the area in the event of a special condition listed in the CSPP.]

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**3.14 Runway and Taxiway Visual Aids.** Including marking, lighting, signs, and visual NAVAIDs.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.15 Marking and Signs for Access Routes.** Discuss proposed methods of demarcating access routes for vehicle drivers.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.16 Hazard Marking and Lighting.**

**Statement:** [Identify who will be responsible for maintaining hazard marking and lighting. Include a 24 hour phone number.]

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**3.17 Work Zone Lighting for Nighttime Construction.**

**Statement:** [Identify who will be responsible for maintaining work zone lighting for nighttime construction. Include a 24 hour phone number.]

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**3.18 Protection of Areas, Zones, and Surfaces.** Include object free areas, obstacle free zones, approach/departure surfaces and safety areas as required. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

Equipment and methods for maintaining Taxiway/Taxilane Safety Area standards.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.19 Other Limits of Construction.**

Other limitations are identified in the CSPP and do not require an entry in this document.

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**Appendix D. Construction Project Daily Safety Inspection Checklist**

**APPENDIX D. CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST**

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project including information such as the date, time and name of the person conducting the inspection.

**Table D-1. Potentially Hazardous Conditions**

<b>Item</b>	<b>Action Required (Describe)</b>	<b>No Action Required (Check)</b>
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.		
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.		
Runway resurfacing projects resulting in lips exceeding 3 inch (7.6 cm) from pavement edges and ends.		
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.		
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.		
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and		

<b>Item</b>	<b>Action Required (Describe)</b>	<b>No Action Required (Check)</b>
approach zones.		
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.		
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.		
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.		
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.		
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.		
Obliterated or faded temporary markings on active operational areas.		
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.		

<b>Item</b>	<b>Action Required (Describe)</b>	<b>No Action Required (Check)</b>
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.		
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.		
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.		
Lack of radio communications with construction vehicles in airport movement areas.		
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.		
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.		
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.		
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).		

<b>Item</b>	<b>Action Required (Describe)</b>	<b>No Action Required (Check)</b>
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.		
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.		
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.		
Site burning, which can cause possible obscuration.		
Construction work taking place outside of designated work areas and out of phase.		