

Updated 2/5/2026

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

1. Use pen and ink to complete all paper Bids.
2. As a minimum, the following must be received prior to the time of Bid opening:

For a Paper Bid:

- a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items, d) two copies of the completed and signed Contract Offer, Agreement & Award form, e) a Bid Guaranty, (if required), and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.

For an Electronic Bid:

NOTE: Not all projects accept Electronic Bids. Please review the Notice to Contractors and see if it specifically states that Electronic Bids will be accepted.

- a) a completed Bid using Expedite® software and submitted via the Bid Express™ web-based service, b) an electronic Bid Guaranty (if required) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other Certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for all items in the Schedule of Items (excluding non-selected alternates).
 4. Bid Guaranty acceptable forms are:
 - a) a properly completed and signed Bid Bond on the Department's prescribed form (or on a form that does not contain any significant variations from the Department's form as determined by the Department) for 5% of the Bid Amount or
 - b) an Official Bank Check, Cashier's Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors or
 - c) an electronic bid bond submitted with an electronic bid.
 5. If a paper Bid is to be sent, "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta. Other means, such as U.S. Postal Service's Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

6. Complete the DBE Proposed Utilization form, and submit with your bid. If you are submitting your bid electronically, you must FAX the form to (207) 624-3431. This is a curable defect.

If you need further information regarding Bid preparation, call the DOT Contracts Section at (207) 624-3410.

For complete bidding requirements, refer to Section 102 of the Maine Department of Transportation, Standard Specifications, March 2020 Edition.

February 5, 2026
Supersedes April 28, 2017

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled and allow for an electronic downloading of bid packages from our website, while continuing to maintain an optional plan holders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments must fill out the on-line plan holder registration form and provide an email address to the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Guy Berthiaume at guy.berthiaume@maine.gov.

NOTICE

For security and other reasons, all Bid Packages which are mailed, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

In Addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

This should not be much of a change for those of you who use Federal Express or similar services.

Hand-carried Bids may be in one envelope as before, and should be marked with the following information:

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

October 16, 2001

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Bid Guaranty-Bid Bond Form

KNOW ALL MEN BY THESE PRESENTS THAT _____

_____, of the City/Town of _____ and State of _____

as Principal, and _____ as Surety, a

Corporation duly organized under the laws of the State of _____ and having a usual place of

Business in _____ and hereby held and firmly bound unto the Treasurer of

the State of Maine in the sum of _____ for payment which Principal and Surety bind

themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of

Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a

part herein, to enter into a written contract for the construction of _____

_____ and if the Department shall accept said bid

and the Principal shall execute and deliver a contract in the form attached hereto (properly

completed in accordance with said bid) and shall furnish bonds for this faithful performance of

said contract, and for the payment of all persons performing labor or furnishing material in

connection therewith, and shall in all other respects perform the agreement created by the

acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full

force, and effect.

Signed and sealed this _____ day of _____ 20____

WITNESS:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to RFI-Contracts.MDOT@maine.gov.

These are the only allowable mechanisms for answering Project specific questions. Maine DOT will not be bound to any answers to Project specific questions received during the Bidding phase through other processes.

When submitting RFIs by Email please follow the same guidelines as stated on the “Request for Information” form and include the word “RFI” along with the Project name and Identification number in the subject line.

RFI No:

Date _____

WIN(S): _____ **Town(s):** _____ **Bid Date:** _____

Question(s):

Company Name: _____ **Phone: ()** _____

Email: _____ **Fax:** () _____

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NOTICE

BIDDER'S LIST FORM

All Bidders must submit the Bidder's List Form with their bid.

The Bidder's List Form contains information required by USDOT.

The Bidder's List Form must be completed by each Prime Contractor.

A copy of the new Bidder's List Form and instructions for completing it are attached.

The DBE Directory can be found on the MaineDOT Website at: <https://www.maine.gov/dot/doing-business/civil-rights/dbe>

Questions about the Directory or this form should be sent to the Civil Rights Office at mary.bryant@maine.gov or by calling 207-624-3056.

INSTRUCTIONS FOR PREPARING THE MAINEDOT BIDDER'S LIST FORM

The Contractor shall extend equal opportunity to MaineDOT certified DBE firms (as listed in MaineDOT's DBE Directory of Certified Businesses) in the selection and utilization of subcontractors and suppliers.

Each prime contractor submitting a bid on a federally funded project must complete each section of the Bidder's List Form in its entirety for itself and each subcontractor on that project.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

Section A:

1. Insert Prime Contractor Name
2. Insert WIN for the Federal Project bidding on
3. Insert Bid Date
4. Insert Project Location
5. Insert Email address of Contact Person

Section B:

- A. Enter each Contractor's and Sub-Contractor's name and address (including zip code) – Prime Contractor's name should be listed in first box of this section; then each additional line would be proposed subcontractors – DBE and NonDBE
- B. Enter each Contractor's and Sub-Contractor's annual gross receipts bracket (see the legend on the form)
- C. Enter DBE status (DBE or non-DBE) for each contractor/sub-contractor
- D. Enter each Contractor's and Sub-Contractor's NAICS (North Amer. Industry Classification System) code (may be more than one) and Scope of Work
- E. For each Contractor and Sub-Contractor enter the Race and Gender of the firm's majority owner
- F. Enter the Age of each firm for every Contractor and Sub-Contractor
- G. Enter the Proposed amount of payment (Bid amount) for each Contractor/Sub-Contractor.

Maine Department of Transportation
BIDDER'S LIST FORM

Section A. Bidder/Prime Contractor Information.

This section must be completed by the Bidder/Prime Contractor.

1. Prime Contractor Name:		2. Federal Project WIN:		3. Bid Date:	
4. Project Location:		5. Email Address:			

Section B. Commitment Details - Prime Contractor and all Proposed Subcontractor Information is Required in This Section

A. Firm's Name & Address, Including Zip Code Prime must be listed first	B. Annual Gross Receipt Bracket Select 1 to 7*	C. Status DBE or Non-DBE	D. NAICS Code(s) and Scope of Work	E. Race & Gender of each Firm's Majority Owner	F. Age of Each Firm	G. Proposed Amount

***1) Less Than \$1M, 2) \$1 - \$3M, 3) \$3 - \$6M, 4) \$6 - \$10M, 5) \$10 - \$20M, 6) \$20 - \$50M, 7) Greater Than \$50M - More than 5 Subs use a new form**

MaineDOT Use Only:

Form Received: ____ / ____ / ____ Verified by: ____ FHW A ☐ FTA ☐ FAA ☐

For a complete list of certified DBE firms please visit: <http://www.maine.gov/dot/doing-business/civil-rights/dbe>

Note: This information is required pursuant to 49 CFR §26.11 and is used to track data in all federally funded MaineDOT contracts.

Maine Department of Transportation Civil Rights Office

Directory of Certified Disadvantaged Business Enterprises

Listing can be found at:

<https://www.maine.gov/dot/doing-business/civil-rights/dbe>

For additional information and guidance contact:

Civil Rights Office at (207) 624-3066

It is the responsibility of the Contractor to access the DBE Directory at this site in order to have the most current listing.

Vendor Registration

Prospective Bidders must register as a vendor with the Department of Administrative & Financial Services if the vendor is awarded a contract. Vendors will not be able to receive payment without first being registered. Vendors/Contractors will find information and register through the following link –

<http://www.maine.gov/purchases/venbid/index.shtml>

**STATE OF MAINE DEPARTMENT OF TRANSPORTATION
NOTICE TO CONTRACTORS**

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for construction of **Automated Weather Observing System Level III at Sugarloaf Regional Airport (B21)** in the town of Carrabassett Valley, at **Greenville Municipal Airport (3B1)** in the town of Greenville, and at **Central Maine Regional Airport (OWK)** in the town of Norridgewock" will be received from contractors at the Reception Desk, MaineDOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on June 24, 2026, and at that time and place, publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate previous successful completion of projects of a similar size and scope to be considered for the award of this contract. **Please note: The Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MaineDOT Contract Section within 72 hours of the bid opening.**

Both alternates must be bid upon for acceptance. MaineDOT will award one bid alternate to the lowest qualified bidder based upon funding received for the project. MaineDOT will not accept bids on a single alternate.

Description: MaineDOT's FAA AIP (Airport Improvement Program) Federal Project WIN 018717.12

Location: In Franklin County, the Sugarloaf Regional Airport is at 1220 Carrabassett Drive in Carrabassett Valley. In Piscataquis County, the Greenville Municipal Airport is on Airport Road in Greenville. In Somerset County, the Central Maine Regional Airport is at 603 Airport Road in Norridgewock.

Scope of Work: Automated Weather Observing System Level III construction plus other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/dot/doing-business/bid-opportunities> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, drawings, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Project Manager Tyler Schroeder** at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Monday (or if that Monday is a state holiday, Friday) prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. TTY users call Maine Relay 711.

Bid Documents, specifications and bid forms can be viewed and obtained digitally at no cost at <http://www.maine.gov/dot/doing-business/bid-opportunities/information-about-bidding>. They may be purchased from the Department between the hours of 7:00 a.m. to 3:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 24 Child Street, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 7:00 a.m. to

3:30 p.m. Full size plans **\$26.00 (\$30.50 by mail)**. Half size plans **\$13.00 (\$16.00 by mail)**, Bid Book \$10 (\$15 by mail), Single Sheets \$2, payment in advance, all non-refundable.

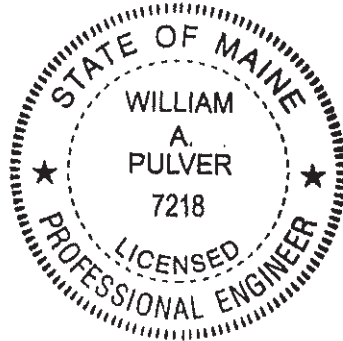
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of 5% of the bid amount, payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

All work shall be governed by *State of Maine, Department of Transportation, Standard Specifications, March 2020 Edition*, price \$10 [\$15 by mail], and *Standard Details, March 2020 Edition*, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 7:00 a.m. to 3:30 p.m. *Standard Detail* updates can be found at <http://www.maine.gov/dot/doing-business/bid-opportunities/standards>.

The right is hereby reserved to the MaineDOT to reject any or all bids.

Augusta, Maine
June 3, 2026




WILLIAM A. PULVER P. E.
CHIEF ENGINEER

Bid Schedule

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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BID SCHEDULE

BID ALTERNATE ONE (1)

Date: _____

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
1 C-105	1 LS	MOBILIZATION (3B1) _____ _____ PER LUMP SUM		
2 C-105	1 LS	MOBILIZATION (B21) _____ _____ PER LUMP SUM		
3 C-105	1 LS	MOBILIZATION (OWK) _____ _____ PER LUMP SUM		
4 M-126	1 LS	PREPARE AWOS SITE (3B1) _____ _____ PER LUMP SUM		
5 M-126	1 LS	PREPARE AWOS SITE (B21) _____ _____ PER LUMP SUM		
6 M-126	1 LS	PREPARE AWOS SITE (OWK) _____ _____ PER LUMP SUM		
7 M-126	1 LS	INSTALL AWOS SYSTEM (3B1) _____ _____ PER LUMP SUM		
8 M-126	1 LS	INSTALL AWOS SYSTEM (B21) _____ _____ PER LUMP SUM		
9 M-126	1 LS	INSTALL AWOS SYSTEM (OWK) _____ _____ PER LUMP SUM		
10 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (3B1) _____ _____ PER LUMP SUM		

BID SCHEDULE

BID ALTERNATE ONE (1)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
11 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (B21) _____ _____ PER LUMP SUM		
12 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (OWK) _____ _____ PER LUMP SUM		
13 M-126	1 LS	BUILDING MODIFICATIONS (3B1) _____ _____ PER LUMP SUM		
14 M-126	1 LS	BUILDING MODIFICATIONS (B21) _____ _____ PER LUMP SUM		
15 M-126	1 LS	BUILDING MODIFICATIONS (OWK) _____ _____ PER LUMP SUM		
16 M-126	1 LS	TRIANNUAL INSPECTIONS (3B1) _____ _____ PER LUMP SUM		
17 M-126	1 LS	TRIANNUAL INSPECTIONS (B21) _____ _____ PER LUMP SUM		
18 M-126	1 LS	TRIANNUAL INSPECTIONS (OWK) _____ _____ PER LUMP SUM		
19 33.SP	3 EA	UHF LICENSE COORDINATION _____ _____ PER EACH		
20 34.SP	2 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (3B1) _____ _____ PER EACH		

BID SCHEDULE

BID ALTERNATE ONE (1)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
21 34.SP	4 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (OWK) PER EACH		
22 34.SP	350 LF	HORIZONTAL DIRECTIONAL DRILLING (3B1) PER LINEAR FOOT		
23 34.SP	500 LF	HORIZONTAL DIRECTIONAL DRILLING (OWK) PER LINEAR FOOT		

Total Bid Amount \$ _____

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BID SCHEDULE

BID ALTERNATE TWO (2)

Date: _____

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
1 C-105	1 LS	MOBILIZATION (B21) _____ _____ PER LUMP SUM		
2 C-105	1 LS	MOBILIZATION (OWK) _____ _____ PER LUMP SUM		
3 M-126	1 LS	PREPARE AWOS SITE (B21) _____ _____ PER LUMP SUM		
4 M-126	1 LS	PREPARE AWOS SITE (OWK) _____ _____ PER LUMP SUM		
5 M-126	1 LS	INSTALL AWOS SYSTEM (B21) _____ _____ PER LUMP SUM		
6 M-126	1 LS	INSTALL AWOS SYSTEM (OWK) _____ _____ PER LUMP SUM		
7 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (B21) _____ _____ PER LUMP SUM		
8 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (OWK) _____ _____ PER LUMP SUM		
9 M-126	1 LS	BUILDING MODIFICATIONS (B21) _____ _____ PER LUMP SUM		
10 M-126	1 LS	BUILDING MODIFICATIONS (OWK) _____ _____ PER LUMP SUM		

BID SCHEDULE

BID ALTERNATE TWO (2)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
11 M-126	1 LS	TRIENNIAL INSPECTIONS (B21)		
		PER LUMP SUM		
12 M-126	1 LS	TRIENNIAL INSPECTIONS (OWK)		
		PER LUMP SUM		
13 33.SP	2 EA	UHF LICENSE COORDINATION		
		PER EACH		
14 34.SP	4 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (OWK)		
		PER EACH		
15 34.SP	500 LF	HORIZONTAL DIRECTIONAL DRILLING (OWK)		
		PER LINEAR FOOT		

Total Bid Amount \$ _____

Bidding Certifications and Disclosures

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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Certification Regarding Federal Contract Provisions for FAA Funded Projects (v. 03/17/26)

By signing and submitting a Bid for the Project, the Bidder certifies that it has read, understands, and will comply with all Federal Contract Provisions contained within the Bidding and Contract Documents and as listed by reference and qualified below:

All Contracts Regardless of Funding Source

Civil Rights – General Provisions

Civil Rights – Title VI Assurances

All FAA Funded Contracts

Access to Records and Reports

Buy American Preference

Disadvantaged Business Enterprise

Domestic Preferences for Procurements

Federal Fair Labor Standards Act (Minimum Wage)

Foreign Trade Restriction

Occupational Safety and Health Act

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

Prohibition of Covered Unmanned Aircraft Systems (UAS)

Rights to Inventions

Seismic Safety

Tax Delinquency and Felony Convictions

Veteran's Preference

Additional Provisions for FAA Funded Contracts that are \$2,000 and greater

Copeland Anti-Kickback Act

Davis-Bacon Requirements

Additional Provisions for FAA Funded Contracts that are \$10,000 and greater

Procurement of Recovered Materials

Termination of Contract

Additional Provisions for FAA Funded Contracts that are \$15,000 and greater

Texting Messaging While Driving

Additional Provisions for FAA Funded Contracts that are \$25,000 and greater

Debarment and Suspension

Additional Provisions for FAA Funded Contracts that are \$100,000 and greater

Breach of Contract

Clean Air and Water Pollution Controls

Contract Work Hours and Safety Standards

Lobbying Federal Employees

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

Certification of Compliance with FAA Buy American Preference (Construction)

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 intends to comply with 49 U.S.C. § 50101, BABA, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must SELECT ONE certification statement (not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 U.S.C. § 50101, BABA, and other related U.S. statutes, 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 products.
- 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.

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

- a) To 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 that 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 components and subcomponents produced in the United States is more than 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 and installation at project location.
- 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 and installation at project location.

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 from
- b) At minimum two comparable equal bids and/or offers;
- 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 U.S.C. § 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

Certification of Compliance with FAA Buy American Preference (Building/Equipment)

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 intends to comply with 49 U.S.C. § 50101, BABA, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must SELECT ONE certification statement (not both) by inserting a checkmark (✓) or the letter "X".

☐ Bidder or offeror hereby certifies that it will comply with 49 U.S.C. § 50101, BABA, and other related U.S. statutes, guidance, and policies of the FAA by:

- a) Only installing 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 FAA evidence that documents the source and origin of the steel and manufactured product.
- b) To faithfully comply with providing U.S. domestic product.
- c) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

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

- a) To 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 that 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 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 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 than 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) 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).
- 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 “item” 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) Completed Content Percentage Worksheet and Final Assembly Questionnaire from
- 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 U.S.C. § 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

Certifications Regarding Debarment

CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT

(2 CFR Part 180 (subpart B); 2 CFR Part 200, Appendix II(H); 2 CFR Part 1200; DOT Order 4200.5; Executive Orders 12549 and 12689)

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.

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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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Certification Regarding Lobbying

(31 U.S.C. Part 1352 – Byrd Anti-Lobbying Amendment; 2 CFR Part 200, Appendix II(I); 49 CFR Part 20, Appendix A)

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 of Lobbying Activities," 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 31 U.S.C. § 1352. 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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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Certification Regarding Trade Restriction

(49 U.S.C. Part 50104; 49 CFR Part 30)

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 U.S.C. § 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 to 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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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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.

Name of Bidder: _____

Signature: _____

Name: (type or print) _____

Official Title: _____ Date: _____

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Disadvantaged Business Enterprise Utilization

The undersigned has satisfied the requirements of the specifications in the following manner (please check the appropriate space):

☐ The Bidder is committed to a minimum of 0.00% DBE utilization on this project.

☐ The Bidder (if unable to meet the goal of 0.00% DBE utilization) is committed to a minimum of N/A % DBE utilization on this project and has submitted documentation showing good faith effort.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at <http://www.maine.gov/dot/doing-business/bid-opportunities>. It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into their Bid Package, and to reference the Amendment number and the date on the form below. The MaineDOT will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package.

CONTRACTOR

Date

Signature of authorized representative

(Name and Title Printed)

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN 018717.12** for **Automated Weather Observing Systems Level III** in the town of **Carrabassett Valley**, County of **Franklin**, in the town of **Greenville**, County of **Piscataquis**, and in the town of **Norridgewock**, County of **Somerset**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work; performing construction quality control including inspection, testing and documentation; providing all required documentation at the conclusion of the project; warranting its work; and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract. Payment shall be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **September 1, 2027**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation Standard Specifications, March 2020 Edition* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$_____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *Standard Specifications March 2020 Edition*, *Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

**WIN 018717.12 – Automated Weather Observing Systems Level III
construction plus other incidental work - in the towns of Carrabassett Valley,
Greenville, and Norridgewock,**

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items.”

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the *Standard Specifications, March 2020 Edition*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *Standard Specifications March 2020 Edition* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and

submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Dale F. Doughty, Commissioner

Witness

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ in the State of _____, as principal,
and _____,
a corporation duly organized under the laws of the State of _____ and having a
usual place of business _____,
as Surety, are held and firmly bound unto the Treasurer of the State of Maine in the sum
of _____ and 00/100 Dollars (\$ _____),
to be paid said Treasurer of the State of Maine or his successors in office, for which
payment well and truly to be made, Principal and Surety bind themselves, their heirs,
executors and administrators, successors and assigns, jointly and severally by these
presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of _____
promptly and faithfully performs the Contract, then this
obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the State
of Maine.

Signed and sealed this _____ day of _____, 20....

WITNESSES:

Signature.....
Print Name Legibly

Signature

Print Name Legibly
SURETY ADDRESS:

.....
.....
.....

TELEPHONE.....

SIGNATURES:

CONTRACTOR:

.....
Print Name Legibly

SURETY:

.....
Print Name Legibly

NAME OF LOCAL AGENCY:

ADDRESS

.....
.....

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ **in the State of** _____, as principal,
and.....
a corporation duly organized under the laws of the State of and having a
usual place of business in
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use
and benefit of claimants as herein below defined, in the sum of
_____ **and 00/100 Dollars (\$** _____ **)**
for the payment whereof Principal and Surety bind themselves, their heirs, executors and
administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of
_____ promptly satisfies all claims and demands incurred for all
labor and material, used or required by him in connection with the work contemplated by
said Contract, and fully reimburses the obligee for all outlay and expense which the
obligee may incur in making good any default of said Principal, then this obligation shall
be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a
Subcontractor of the Principal for labor, material or both, used or reasonably required for
use in the performance of the contract.

Signed and sealed this day of, 20

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS

.....

.....

TELEPHONE

.....

SPECIAL PROVISION

SECTION 105.8.2

(Federal Aviation Requirements (FAA))

The attached **FAA information** is information required to be submitted by the Contractor prior to starting work. In addition to the submittal requirements, the Contractor shall comply with all other requirements included in this document. Payment for the work associated with complying with this Special Provision shall not be made directly but will be considered incidental to related Contract Pay Items.

The Contractor shall be responsible for filing a 7460-1 Notice of Proposed Construction or Alteration to the FAA Obstruction Evaluation/Airport Airspace Analysis office for all crane usage as required by 14 CFR Part 77 (<https://www.ecfr.gov/current/title-14/part-77>). The 7460-1 can be filed electronically at:
<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

Proof of submission shall be forwarded to the MaineDOT Project Manager. Responses from the FAA regarding the submission shall be filed with the MaineDOT Project Manager. Should the FAA require marking or lighting, the Contractor shall follow the most recent version of the Advisory Circular 70/7460-1k, Obstruction Marking and Lighting, which is located at the following link:
<https://drs.faa.gov/>

All questions regarding the need to file should be directed towards the FAA Airports Airspace Specialist at 781-238-7621 with notification to the MaineDOT Project Manager with the inquiry and the FAA response.

The Contractor shall file the 7460-1 for crane usage no later than 45 days after Contract Award.

SPECIAL PROVISION 105
OVERLIMIT PERMITS

Title 29-A § 2382 MRSA Overlimit Movement Permits.

1. Overlimit movement permits issued by State. The Secretary of State, acting under guidelines and advice of the Commissioner of Transportation, may grant permits to move nondivisible objects having a length, width, height or weight greater than specified in this Title over a way or bridge maintained by the Department of Transportation

2. Permit fee. The Secretary of State, with the advice of the Commissioner of Transportation, may set the fee for single trip permits, at not less than \$6, nor more than \$30, based on weight, height, length and width. The Secretary of State may, by rule, implement fees that have been set by the Commissioner of Transportation for multiple trip, long-term overweight movement permits. Rules established pursuant to this section are routine technical rules pursuant to Title 5, chapter 375, subchapter II-A.

3. County and municipal permits. A county commissioner or municipal officer may grant a permit, for a reasonable fee, for travel over a way or bridge maintained by that county or municipality

4. Permits for weight. A vehicle granted a permit for excess weight must first be registered for the maximum gross vehicle weight allowed for that vehicle.

5. Special mobile equipment. The Secretary of State may grant a permit, for no more than one year, to move pneumatic-tire equipment under its own power, including Class A and Class B special mobile equipment, over ways and bridges maintained by the Department of Transportation. The fee for that permit is \$15 for each 30-day period.

6. Scope of permit. A permit is limited to the particular vehicle or object to be moved, the trailer or semitrailer hauling the overlimit object and particular ways and bridges.

7. Construction permits. A permit for a stated period of time may be issued for loads and equipment employed on public way construction projects, United States Government projects or construction of private ways, when within construction areas established by the Department of Transportation. The permit:

A. Must be procured from the municipal officers for a construction area within that municipality;

B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:

(1) Withholding by the agency contracting the work of final payment under contract; or

(2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.

The suitability of repairs or the amount of damage is to be determined by the Department of Transportation on state-maintained ways and bridges, otherwise by the municipal officers;

C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and

D. For construction areas, carries no fee and does not come within the scope of this section.

8. Gross vehicle weight permits. The following may grant permits to operate a vehicle having a gross vehicle weight exceeding the prescribed limit:

A. The Secretary of State, with the consent of the Department of Transportation, for state and state aid highways and bridges within city or compact village limits;

B. Municipal officers, for all other ways and bridges within that city and compact village limits; and

C. The county commissioners, for county roads and bridges located in unorganized territory.

9. Pilot vehicles. The following restrictions apply to pilot vehicles.

A. Pilot vehicles required by a permit must be equipped with warning lights and signs as required by the Secretary of State with the advice of the Department of Transportation.

B. Warning lights may be operated and lettering on the signs may be visible on a pilot vehicle only while it is escorting a vehicle with a permit on a public way.

With the advice of the Commissioner of Transportation and the Chief of the State Police, the Secretary of State shall establish rules for the operation of pilot vehicles.

9-A. Police escort. A person may not operate a single vehicle or a combination of vehicles of 125 feet or more in length or 16 feet or more in width on a public way unless the vehicle or combination of vehicles is accompanied by a police escort. The Secretary of State, with the advice of the Commissioner of Transportation, may require a police escort for vehicles of lesser dimensions.

A. The Bureau of State Police shall establish a fee for state police escorts to defray the costs of providing a police escort. A county sheriff or municipal police department may establish a fee to defray the costs of providing police escorts.

B. The Bureau of State Police shall provide a police escort if a request is made by a permittee. A county sheriff or municipal police department may refuse a permittee's request for a police escort.

C. A vehicle or combination of vehicles for which a police escort is required must be accompanied by a state police escort when operating on the interstate highway system.

10. Taxes paid. A permit for a mobile home may not be granted unless the applicant provides reasonable assurance that all property taxes, sewage disposal charges and drain and sewer assessments applicable to the mobile home, including those for the current tax year, have been paid or that the mobile home is exempt from those taxes. A municipality may waive the requirement that those taxes be paid before the issuance of a permit if the mobile home is to be moved from one location in the municipality to another location in the same municipality for purposes not related to the sale of the mobile home.

11. Violation. A person who moves an object over the public way in violation of this section commits a traffic infraction.

Section History:

PL 1993, Ch. 683, §A2 (NEW).

PL 1993, Ch. 683, §B5 (AFF).

PL 1997, Ch. 144, §1,2 (AMD).

PL 1999, Ch. 117, §2 (AMD).

PL 1999, Ch. 125, §1 (AMD).

PL 1999, Ch. 580, §13 (AMD).

PL 2001, Ch. 671, §30 (AMD).

PL 2003, Ch. 166, §13 (AMD).

PL 2003, Ch. 452, §Q73,74 (AMD).

PL 2003, Ch. 452, §X2 (AFF).

SPECIAL PROVISION
SECTION 107
SCHEDULING OF WORK

Replace Section 107.4.2 with the following:

"107.4.2 Schedule of Work Required Within 21 Days of Contract Execution and before beginning any on-site activities, the Contractor shall provide the Department with its Schedule of Work. The Contractor shall plan the Work, including the activity of Subcontractors, vendors, and suppliers, such that all Work will be performed in Substantial Conformity with its Schedule of Work. The Schedule must include sufficient time for the Department to perform its functions as indicated in this Contract, including QA inspection and testing, approval of the Contractor's TCP, SEWPCP and QCP, and review of Working Drawings.

At a minimum, the Schedule of Work shall include a bar chart which shows the major Work activities, milestones, durations, submittals and approvals, and a timeline. Milestones to be included in the schedule include: (A) start of Work, (B) beginning and ending of planned Work suspensions, (C) Completion of Physical Work, and (D) Completion. If the Contractor Plans to Complete the Work before the specified Completion date, the Schedule shall so indicate.

Any restrictions that affect the Schedule of Work such as paving restrictions or In-Stream Work windows must be charted with the related activities to demonstrate that the Schedule of Work complies with the Contract.

The Department will review the Schedule of Work and provide comments to the Contractor within 20 days of receipt of the schedule. The Contractor will make the requested changes to the schedule and issue the finalized version to the Department."

The United States Department of Transportation (USDOT)

Standard Title VI/Non-Discrimination Assurances

DOT Order No. 1050.2A

The **Maine Department of Transportation** (herein referred to as the "Recipient"), **HEREBY AGREES THAT**, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through **Federal Aviation Administration** (herein referred to as "FAA" is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation-Effectuation Of Title VI Of The Civil Rights Act Of 1964*);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

*"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity, for which the Recipient receives Federal financial assistance from DOT, including the **FAA**.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its Federally assisted **FAA Program**.

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23(b) and 21.2(e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.
2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all **FAA Programs** and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

"The Maine Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders 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."
3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.
4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.
5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.
6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.
7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds,

leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:

- a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
 - b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:
 - A. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
 - b. the period during which the Recipient retains ownership or possession of the property.
9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, **Maine Department of Transportation** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the **FAA's** access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the **FAA**. You must keep records, reports, and submit the material for review upon request to **FAA** or its designee in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

Maine Department of Transportation gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the **FAA Programs**. This ASSURANCE is binding on the State of Maine, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors, transferees, successors in interest, and any other participants in the **FAA Programs**. The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

Maine Department of Transportation
Dale F. Doughty, Commissioner
(Name of Recipient)

By: 
(Signature of Authorized Official)

Dated: 2-13-26

APPENDIX A

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 Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Aviation Administration (FAA)**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** 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 in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, 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 Acts and the Regulations relative to Non-discrimination 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 Recipient or the **FAA** to be pertinent to ascertain compliance with such Acts, Regulations, 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 Recipient or the **FAA** 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 Recipient will impose such contract sanctions as it or the **FAA** 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 Recipient or the FAA 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 Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX B

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **Maine Department of Transportation** will accept title to the lands and maintain the project constructed thereon in accordance with all requirements imposed by Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, part 21, Non-discrimination in Federally-assisted Programs of the Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), the Regulations for the Administration of **Federal Aviation Administration (FAA) Program**, and the policies and procedures prescribed by the **FAA** of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **Maine Department of Transportation** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto **Maine Department of Transportation** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **Maine Department of Transportation**, its successors and assigns.

The **Maine Department of Transportation**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [.] [and]* (2) that the **Maine Department of Transportation** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non- discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation

and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

APPENDIX C

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **Maine Department of Transportation** pursuant to the provisions of Assurance 7(a):

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
 - 1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, **Maine Department of Transportation** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*
- C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, the **Maine Department of Transportation** will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the **Maine Department of Transportation** and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by **Maine Department of Transportation** pursuant to the provisions of Assurance 7(b):

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, **Maine Department of Transportation** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*
- C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, **Maine Department of Transportation** will there upon revert to and vest in and become the absolute property of **Maine Department of Transportation** and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

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:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 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 U.S.C. § 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, 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 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 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, which ensures discrimination 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 to 74100);

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

AS-BID

MAY 2026

PROJECT MANUAL

CONSTRUCT AWOS-III – BID PACKAGE 2

SUGARLOAF REGIONAL AIRPORT (B21)

CARRABASSETT VALLEY, MAINE

CENTRAL MAINE AIRPORT (OWK)

NORRIDGEWOCK, MAINE

GREENVILLE MUNICIPAL AIRPORT (3B1)

GREENVILLE, MAINE

MAINEDOT PROJECT WIN NO. 018717.12

PREPARED FOR THE
MAINE DEPARTMENT OF TRANSPORTATION

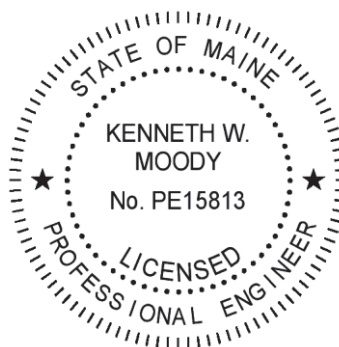
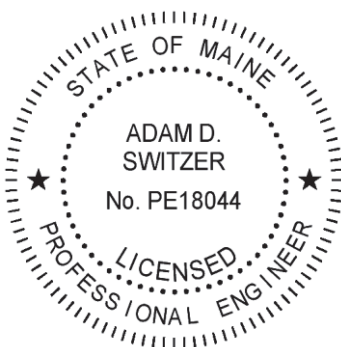


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Pre-Bid Meeting

Project Name: Construct AWOS-III - Bid Package 2
Airports: Sugarloaf Regional Airport (Carrabassett Valley, ME)
Central Maine Airport (Norridgewock, ME)
Greenville Municipal Airport (Greenville, ME)

MEETING DATE: Monday, June 8, 2026

MEETING TIME: 10:00 AM local time

MEETING FORMAT: Virtual meeting

All bidders are requested to attend to discuss the proposed construction and the plans and specifications. All potential bidders are strongly urged to attend.

VIRTUAL ATTENDEE MEETING DETAILS

Signing into the Meeting:

Beginning approximately 15 minutes prior to the meeting time, copy and paste the meeting link below into your web browser and launch the Microsoft Teams meeting. For the best experience, use Microsoft Edge or Google Chrome.

Meeting link:

<https://teams.microsoft.com/meet/245903729877092?p=BUJQhOFgUpoH7EW2lv>

Meeting ID: 245 903 729 877 092

Passcode: U9tf3R8q

Questions Before, During, or After the Meeting:

All attendees will be muted by default during the presentation. Attendees will be unmuted for questions at the end of the presentation.

Project-related questions can also be asked in writing during the bidding process and submitted to the contact indicated in the contract documents.

Technical Assistance:

Please familiarize yourself with the login and features (including audio/video settings) of the platform well before the scheduled meeting. More information can be found on the Microsoft Support site at:

<https://support.microsoft.com/en-us/office/join-a-meeting-in-microsoft-teams-1613bb53-f3fa-431e-85a9-d6a91e3468c9>

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Bidding Documents

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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Bid Schedule

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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BID SCHEDULE

BID ALTERNATE ONE (1)

Date: _____

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
1 C-105	1 LS	MOBILIZATION (3B1) _____ _____ PER LUMP SUM		
2 C-105	1 LS	MOBILIZATION (B21) _____ _____ PER LUMP SUM		
3 C-105	1 LS	MOBILIZATION (OWK) _____ _____ PER LUMP SUM		
4 M-126	1 LS	PREPARE AWOS SITE (3B1) _____ _____ PER LUMP SUM		
5 M-126	1 LS	PREPARE AWOS SITE (B21) _____ _____ PER LUMP SUM		
6 M-126	1 LS	PREPARE AWOS SITE (OWK) _____ _____ PER LUMP SUM		
7 M-126	1 LS	INSTALL AWOS SYSTEM (3B1) _____ _____ PER LUMP SUM		
8 M-126	1 LS	INSTALL AWOS SYSTEM (B21) _____ _____ PER LUMP SUM		
9 M-126	1 LS	INSTALL AWOS SYSTEM (OWK) _____ _____ PER LUMP SUM		
10 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (3B1) _____ _____ PER LUMP SUM		

BID SCHEDULE

BID ALTERNATE ONE (1)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
11 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (B21) _____ _____ PER LUMP SUM		
12 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (OWK) _____ _____ PER LUMP SUM		
13 M-126	1 LS	BUILDING MODIFICATIONS (3B1) _____ _____ PER LUMP SUM		
14 M-126	1 LS	BUILDING MODIFICATIONS (B21) _____ _____ PER LUMP SUM		
15 M-126	1 LS	BUILDING MODIFICATIONS (OWK) _____ _____ PER LUMP SUM		
16 M-126	1 LS	TRIANNUAL INSPECTIONS (3B1) _____ _____ PER LUMP SUM		
17 M-126	1 LS	TRIANNUAL INSPECTIONS (B21) _____ _____ PER LUMP SUM		
18 M-126	1 LS	TRIANNUAL INSPECTIONS (OWK) _____ _____ PER LUMP SUM		
19 33.SP	3 EA	UHF LICENSE COORDINATION _____ _____ PER EACH		
20 34.SP	2 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (3B1) _____ _____ PER EACH		

BID SCHEDULE

BID ALTERNATE ONE (1)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
21 34.SP	4 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (OWK) PER EACH		
22 34.SP	350 LF	HORIZONTAL DIRECTIONAL DRILLING (3B1) PER LINEAR FOOT		
23 34.SP	500 LF	HORIZONTAL DIRECTIONAL DRILLING (OWK) PER LINEAR FOOT		

Total Bid Amount \$ _____

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BID SCHEDULE

BID ALTERNATE TWO (2)

Date: _____

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
1 C-105	1 LS	MOBILIZATION (B21) _____ _____ PER LUMP SUM		
2 C-105	1 LS	MOBILIZATION (OWK) _____ _____ PER LUMP SUM		
3 M-126	1 LS	PREPARE AWOS SITE (B21) _____ _____ PER LUMP SUM		
4 M-126	1 LS	PREPARE AWOS SITE (OWK) _____ _____ PER LUMP SUM		
5 M-126	1 LS	INSTALL AWOS SYSTEM (B21) _____ _____ PER LUMP SUM		
6 M-126	1 LS	INSTALL AWOS SYSTEM (OWK) _____ _____ PER LUMP SUM		
7 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (B21) _____ _____ PER LUMP SUM		
8 M-126	1 LS	AWOS SYSTEM POWER & CONTROL (OWK) _____ _____ PER LUMP SUM		
9 M-126	1 LS	BUILDING MODIFICATIONS (B21) _____ _____ PER LUMP SUM		
10 M-126	1 LS	BUILDING MODIFICATIONS (OWK) _____ _____ PER LUMP SUM		

BID SCHEDULE

BID ALTERNATE TWO (2)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICES IN FIGURES	EXTENDED TOTAL
			DOLLARS CENTS	DOLLARS CENTS
11 M-126	1 LS	TRIENNIAL INSPECTIONS (B21)		
		PER LUMP SUM		
12 M-126	1 LS	TRIENNIAL INSPECTIONS (OWK)		
		PER LUMP SUM		
13 33.SP	2 EA	UHF LICENSE COORDINATION		
		PER EACH		
14 34.SP	4 EA	HORIZONTAL DIRECTIONAL DRILLING - DAY RATE (OWK)		
		PER EACH		
15 34.SP	500 LF	HORIZONTAL DIRECTIONAL DRILLING (OWK)		
		PER LINEAR FOOT		

Total Bid Amount \$ _____

Bidding Certifications and Disclosures

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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Certification Regarding Federal Contract Provisions for FAA Funded Projects (v. 03/17/26)

By signing and submitting a Bid for the Project, the Bidder certifies that it has read, understands, and will comply with all Federal Contract Provisions contained within the Bidding and Contract Documents and as listed by reference and qualified below:

All Contracts Regardless of Funding Source

Civil Rights – General Provisions

Civil Rights – Title VI Assurances

All FAA Funded Contracts

Access to Records and Reports

Buy American Preference

Disadvantaged Business Enterprise

Domestic Preferences for Procurements

Federal Fair Labor Standards Act (Minimum Wage)

Foreign Trade Restriction

Occupational Safety and Health Act

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

Prohibition of Covered Unmanned Aircraft Systems (UAS)

Rights to Inventions

Seismic Safety

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Additional Provisions for FAA Funded Contracts that are \$2,000 and greater

Copeland Anti-Kickback Act

Davis-Bacon Requirements

Additional Provisions for FAA Funded Contracts that are \$10,000 and greater

Procurement of Recovered Materials

Termination of Contract

Additional Provisions for FAA Funded Contracts that are \$15,000 and greater

Texting Messaging While Driving

Additional Provisions for FAA Funded Contracts that are \$25,000 and greater

Debarment and Suspension

Additional Provisions for FAA Funded Contracts that are \$100,000 and greater

Breach of Contract

Clean Air and Water Pollution Controls

Contract Work Hours and Safety Standards

Lobbying Federal Employees

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

Certification of Compliance with FAA Buy American Preference (Construction)

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 intends to comply with 49 U.S.C. § 50101, BABA, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must SELECT ONE certification statement (not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 U.S.C. § 50101, BABA, and other related U.S. statutes, 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 products.
- 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.

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

- a) To 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 that 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 components and subcomponents produced in the United States is more than 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 and installation at project location.
- 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 and installation at project location.

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 from
- b) At minimum two comparable equal bids and/or offers;
- 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 U.S.C. § 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

Certification of Compliance with FAA Buy American Preference (Building/Equipment)

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 intends to comply with 49 U.S.C. § 50101, BABA, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must SELECT ONE certification statement (not both) by inserting a checkmark (✓) or the letter "X".

☐ Bidder or offeror hereby certifies that it will comply with 49 U.S.C. § 50101, BABA, and other related U.S. statutes, guidance, and policies of the FAA by:

- a) Only installing 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 FAA evidence that documents the source and origin of the steel and manufactured product.
- b) To faithfully comply with providing U.S. domestic product.
- c) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

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

- a) To 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 that 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 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 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 than 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) 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).
- 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 “item” 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) Completed Content Percentage Worksheet and Final Assembly Questionnaire from
- 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 U.S.C. § 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

Certifications Regarding Debarment

CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT

(2 CFR Part 180 (subpart B); 2 CFR Part 200, Appendix II(H); 2 CFR Part 1200; DOT Order 4200.5; Executive Orders 12549 and 12689)

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.

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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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Certification Regarding Lobbying

(31 U.S.C. Part 1352 – Byrd Anti-Lobbying Amendment; 2 CFR Part 200, Appendix II(I); 49 CFR Part 20, Appendix A)

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 of Lobbying Activities," 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 31 U.S.C. § 1352. 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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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Certification Regarding Trade Restriction

(49 U.S.C. Part 50104; 49 CFR Part 30)

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 U.S.C. § 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 to 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.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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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.

Name of Bidder: _____

Signature: _____

Name: (type or print) _____

Official Title: _____ Date: _____

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Disadvantaged Business Enterprise Utilization

The undersigned has satisfied the requirements of the specifications in the following manner (please check the appropriate space):

☐ The Bidder is committed to a minimum of 0.00% DBE utilization on this project.

☐ The Bidder (if unable to meet the goal of 0.00% DBE utilization) is committed to a minimum of N/A % DBE utilization on this project and has submitted documentation showing good faith effort.

Name of Bidder: _____

Signature: _____

Name: *(type or print)* _____

Official Title: _____ Date: _____

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Prime Contractor Data Collection Form

The U.S. Department of Transportation under *49 CFR Part 26 Subpart A* requires the Owner to report specific bidders list information on federally assisted projects. Bidders must submit a completed *Prime Contractor Data Collection Form*, regardless of DBE status.

Name of Firm: _____

Contact Name: _____

Business Address: _____
(No P.O. Boxes)

Email Address: _____ Phone: (____) _____

Age of Firm: _____ years

Firm's Annual Gross Receipts: ☐ Less than \$1 million ☐ \$6 to \$10 million
☐ \$1 to \$3 million ☐ Greater than \$10 million
☐ \$3 to \$6 million

Description of work to be performed on project	Associated NAICS Code(s)

Is your firm DBE certified for the work described above in the state where the project will be located? (If "YES," complete fields below.) ☐ No ☐ Yes

DBE certification number: _____ Effective date of DBE certification: _____

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Subcontractor Data Collection Form

The U.S. Department of Transportation under *49 CFR Part 26 Subpart A* requires the Owner to report specific bidders list information on federally assisted projects. Bidders must submit a completed *Subcontractor Data Collection Form* for every firm it intends to subcontract with to perform work for the project, regardless of DBE status. Make copies of this form as needed.

PART 1 – to be completed by ALL subcontractors

Name of Firm: _____

Contact Name: _____

Business Address: _____
(No P.O. Boxes)

Email Address: _____ Phone: (____) _____

Age of Firm: _____ years Vendor Type: ☐ Service Provider ☐ Supplier

Firm's Annual Gross Receipts: ☐ Less than \$1 million ☐ \$6 to \$10 million
☐ \$1 to \$3 million ☐ Greater than \$10 million
☐ \$3 to \$6 million

Description of work to be performed on project	Associated NAICS Code(s)

Total Dollar value of estimated work: \$ _____

Is your firm DBE certified for the work described above in the state where the project will be located? ☐ No ☐ Yes

If "YES," complete Part II; if "NO," STOP here.

PART II – to be completed by the BIDDER and all DBE subcontractors

Section A – Vendor Type

Will the DBE firm act as a Supplier for the project? ☐ No ☐ Yes

If "YES," the DBE firm must complete the U.S. Department of Transportation DBE Regular Dealer/Distributor Affirmation Form, then enter the calculated value below based on its status as a REGULAR DEALER or DISTRIBUTOR:

Regular Dealer: Total dollar value of estimated work x 60% = \$ _____

Distributor: Total dollar value of estimated work x 40% = \$ _____

Section B – Statement of Intent to Utilize DBE Firm*

The BIDDER affirms its intent to utilize the above-named DBE FIRM for the work as described.

BIDDER Firm Name: _____

By: _____
Bidder Representative's Signature Printed Name and Title Date

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

By: _____
DBE Firm Representative's Signature Printed Name and Title Date

DBE certification number: _____ Effective date of DBE certification: _____

**In the event the bidder does not receive award of the prime contract, this Statement of Intent shall be null and void.*

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Section 20-02 Bidder Qualification Requirements

CHECKLIST

Refer to Section 20 *Proposal Requirements and Conditions*, paragraph 20-02, for the following items to be furnished to the Owner at the time of Bid opening. Insert a checkmark (✓) or the letter “X” to acknowledge inclusion:

A. Satisfactory evidence of the Bidder’s competency to perform the proposed work. Such evidence, unless otherwise specified, shall consist of:

- statements covering the Bidder’s experience on similar work, _____
- a list of equipment that would be available for the work, and _____
- a list of key personnel that would be available. _____

BIDDERS SHALL PROVIDE ITEMS IN SECTION B OR SECTION C:

B. Satisfactory evidence of Bidder’s financial responsibility:

- Such evidence, 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 certified by a public accountant. _____
- Certify whether his or her 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. _____

C. Unless otherwise specified, a Bidder may submit evidence that he or she is prequalified with the State Highway Division and is on the current “Bidder’s list” of the state in which the proposed work is located.

- Bidder is prequalified with the State Highway Division and is on the current “Bidders list” of the State. In-lieu-of submitting items in Section B above, evidence of the pre-qualification is included with the Bid. _____

Name of Bidder: _____

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Contract Conditions

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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Part 1 – General Contract Provisions

Section 10 Definition of Terms

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

Paragraph Number	Term	Definition
10-01	AASHTO	The American Association of State Highway and Transportation Officials.
10-02	Access Road	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	Advertisement	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	Airport	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-05	Airport Improvement Program (AIP)	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	Air Operations Area (AOA)	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	Apron	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	ASTM International (ASTM)	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	Award	The Owner's notice to the successful bidder of the acceptance of the submitted bid.
10-10	Bidder	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
10-11	Building Area	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
10-12	Calendar Day	Every day shown on the calendar.

Paragraph Number	Term	Definition
10-13	Certificate of Analysis (COA)	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
10-14	Certificate of Compliance (COC)	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.
10-15	Change Order	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project.
10-16	Contract	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, Construction Agreement, Proposal, Performance bond, Payment Bond, general provisions, certifications and representations, Specifications, Plans, Special Provisions, supplemental provisions, standards incorporated by reference and issued Addenda.
10-17	Contract Item (Pay Item)	A specific unit of work for which a price is provided in the contract.
10-18	Contract Time	The number of calendar days, or working days, stated in the proposal allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.
10-19	Contractor	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
10-20	Contractors Quality Control (QC) Facilities	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
10-21	Contractor Quality Control Program (CQCP)	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.
10-22	Control Strip	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.

Paragraph Number	Term	Definition
10-23	Construction Safety and Phasing Plan (CSPP)	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.
10-24	Drainage System	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
10-25	Engineer	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	Equipment	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
10-27	Extra Work	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's 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	FAA	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	Federal Specifications	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	Force Account	a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis. b. Owner Force Account - Work performed for the project by the Owner's employees.

Paragraph Number	Term	Definition
10-31	Intention of Terms	Whenever, in these specifications or on the plans, the words “directed,” “required,” “permitted,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the 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. 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.
10-32	Lighting	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	Major and Minor Contract Items	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	Materials	Any substance specified for use in the construction of the contract work.
10-35	Modification of Standards (MOS)	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	Notice to Proceed (NTP)	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.
10-37	Owner	The term “Owner” shall mean the party of the first part or the contracting agency signatory to the contract. Where the term “Owner” is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is the Maine Department of Transportation.
10-38	Passenger Facility Charge (PFC)	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.
10-39	Pavement Structure	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.

Paragraph Number	Term	Definition
10-40	Payment bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-41	Performance bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
10-42	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as "contract drawings," "drawings," "plan sheets," or "exhibits."
10-43	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-44	Proposal	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.
10-45	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
10-46	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-47	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-48	Quality Assurance (QA) Inspector	An authorized representative of the Engineer 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.
10-49	Quality Assurance (QA) Laboratory	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
10-50	Resident Project Representative (RPR)	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.
10-51	Runway	The area on the airport prepared for the landing and takeoff of aircraft.

Paragraph Number	Term	Definition
10-52	Runway Safety Area (RSA)	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.
10-53	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.
10-54	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
10-55	Sponsor	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. The Sponsor for this project is the Maine Department of Transportation.
10-56	Structures	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.
10-57	Subgrade	The soil that forms the pavement foundation.
10-58	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.
10-59	Supplemental Agreement	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.
10-60	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-61	Taxilane	A taxiway designed for low-speed movement of aircraft between aircraft parking areas and terminal areas.
10-62	Taxiway	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.

Paragraph Number	Term	Definition
10-63	Taxiway/Taxilane Safety Area (TSA)	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.
10-64	Work	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
10-65	Working day	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays, and holidays on which the Contractor's forces engage in regular work will be considered as working days.
	Owner Defined Terms:	
10-66	Addenda	Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bidding documents or the contract documents and become a part thereof.
10-67	Bid	The Bidder's formal offer, written and submitted on the prescribed forms, to perform the work for the project at a specified cost based on the terms and conditions outlined in the Bidding Documents.
10-68	Bidding Documents	The Bidding Documents include the invitation for bids/advertisement; instructions to bidders; bid forms and supplements (including but not limited to the bid form; bid schedule(s); and all bid certifications and disclosures); bid bond or other accepted forms of bid security; proposed Contract Documents; and issued Addenda.
10-69	Contract Documents	The Contract Documents include the Bid submitted by the awarded Contractor; the Project Manual, other than the supplemental resource material included in the appendices which provide geotechnical and existing conditions information; the Plans; and issued Addenda.
10-70	FAA Advisory Circular (AC)	A document prepared by the Federal Aviation Administration to provide guidance and information in a designated aviation related subject area, including standards, materials, and/or methods. The most current edition of ACs, approved by the FAA, can be found on the FAA web site at https://www.faa.gov/regulations_policies/advisory_circulars/
10-71	Install	Unless described otherwise in the plans or specifications, "install" shall mean to furnish the item(s) referenced and to provide all materials, labor, equipment, and tools necessary to establish the referenced items(s) in place and in the correct working order.

Paragraph Number	Term	Definition
10-72	Notice of Award	The written notice by the Owner to the apparent low bidder that they are the successful bidder and, that upon compliance with the contract conditions, the Owner intends to execute the contract with the apparent low bidder.
10-73	Project Manual	A comprehensive written manual consisting of the documents that define the technical, contractual, and administrative requirements for procuring and constructing the project. Contents may be bound in one or more volumes.
10-74	Shop Drawings	All drawings, diagrams, illustrations, schedules, and other data which are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor and which illustrate the equipment, material or some portion of the work. All shop drawings shall be approved by the Contractor and submitted to the Engineer for review and acceptance for reasonable conformance to the contract documents.
10-75	Subcontractor	An individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for the performance of a part of the work at the site.
10-76	Substantial Completion	The work has progressed to the point where, in the opinion of the Owner as evidenced by the Engineer's definitive Certificate of Substantial Completion, it is sufficiently complete in accordance with the contract documents, so that the work can be utilized for the purposes for which it is intended.
10-77	Maine Department of Transportation (MaineDOT) Standard Specifications	The Maine Department of Transportation (MaineDOT) Standard Specifications, current edition, utilized for highway construction. These specifications may be incorporated by reference in some of the technical specifications for this project and shall have the same force and effect as if included in the contract physically.
10-78	Maine Department of Transportation (MaineDOT) Standard Details	The Maine Department of Transportation (MaineDOT) Standard Details, current edition, utilized for highway construction. These standards may be incorporated by reference in some of the plans and technical specifications for this project and shall have the same force and effect as if included in the contract physically.

END OF SECTION 10

Section 20 Proposal Requirements and Conditions

20-01 Advertisement (Notice to Bidders).

A copy of the advertisement for the project has been incorporated in the front of this project manual.

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*.

Mobilization is limited to the percentage specified in Item C-105, paragraph 105-2, *Mobilization Limit*.

A prebid conference will be held for 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.

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 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 with regard 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.

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 guarantee in the format and amount specified in the proposal forms. Such bid guarantee shall be made payable to the Owner.

20-11 Delivery of proposal. Each bid submitted must be placed in a sealed envelope plainly marked with the project name, project number (if applicable), airport name, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed bid, marked as indicated above, should be enclosed in an additional envelope. No bid will be considered unless received at the place specified in the advertisement or as modified by Addendum before the time specified for opening all bids. Bids 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, by fax, or by email 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's Engineer of the matter. A bidder that has

doubt as to the true meaning of a project requirement may submit to the Owner's Engineer a written request for interpretation no later than five (5) business days prior to bid opening.

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

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 no later than October 15, 2026 , 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.

For AIP contracts, unless otherwise specified in this subsection, no award shall be made until the FAA has reviewed the Owner's recommendation to make such award in accordance with 2 CFR 200.324.

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

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 Engineer's opinion, is necessary for completion of the extra work.

When determined by the Engineer to be in the Owner's best interest, the Engineer 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, Engineer 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.

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).

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.

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 Engineer shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the Engineer 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.

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 Engineer 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 Engineer; 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 Engineer's approval in advance of such use.

Should the Engineer 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 Engineer 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 Engineer. The Engineer has final authority regarding the interpretation of project specification requirements. The Engineer 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 Engineer 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 Engineer 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 Engineer will advise the Owner of their determination that the affected work be accepted and remain in place. The Engineer 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 Engineer 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 Engineer'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 Engineer'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 Engineer'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 Engineer 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 Engineer 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 Special Provisions conflict with General Provisions or Technical Specifications, the 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 Engineer 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. See the Special Provisions section of the specification.

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

The Contractor shall give constant attention to the work to facilitate the progress thereof and shall cooperate with the Engineer 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 Engineer 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 Engineer 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 the Engineer. 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 Engineer 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 Engineer. The Contractor is responsible to establish all layout required for the construction of the project.

Copies of survey notes will be provided to the Engineer for each area of construction and for each placement of material as specified to allow the Engineer 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 Engineer prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the following format(s): AutoCAD 2018 or newer.

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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans or as established by the Engineer, 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 Engineer made under the provisions of this subsection, the Engineer 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 Engineer 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 Engineer'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 Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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 Engineer who will present it to the Owner for consideration in accordance with local laws or ordinances.

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

END OF SECTION 50

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Section 60 Control of Materials

60-01 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 Engineer 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 Engineer'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 Engineer before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the Engineer 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 Engineer, 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 Engineer. 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 Engineer.

A copy of all Contractor QC test data shall be provided to the Engineer 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 Engineer showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

60-03 Certification of compliance/analysis (COC/COA). The Engineer 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 Engineer.

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

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

60-04 Plant inspection. The Engineer 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 Engineer conduct plant inspections, the following conditions shall exist:

- a. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- b. The Engineer 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 Engineer, 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 Engineer 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 field 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 Engineer. 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 Engineer. 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 Engineer 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 Engineer.

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 Engineer 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.

A listing of utilities or other facilities which may be encountered during the work has been provided below.

Facility or Utility	Person to Contact (Name and Title)	Telephone/Email
Airport Facilities (Sugarloaf Regional)	Tom Wallace	207-350-1415
Airport Facilities (Greenville Municipal)	Michael Roy	207-695-2421
Airport Facilities (Central Maine Regional)	Richard Labelle	207-634-2252

Except as authorized by the owner, 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 Engineer.

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 Engineer, 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 Engineer. If the Engineer 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 Engineer 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 150/5370-2, *Operational Safety on Airports During Construction*. The CSPP is included in the Appendices.

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

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 shall be 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 the work indicated in the CSPP and the project plans, 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 Engineer, 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 150/5370-2 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 Engineer’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.

See paragraph 70-04 for a list of all known services or utility providers with associated contact information.

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 paragraph 70-04, *Restoration of Surfaces Disturbed by Others*. A copy of each notification shall be given to the Engineer.

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 Engineer.

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 Engineer 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 Engineer 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. Section 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 Engineer. The Engineer 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, at its sole expense, purchase and maintain, and shall require its subcontractors of any tier to purchase and maintain, in full force and effect during the performance of any contract issued hereunder the following insurance coverages with companies acceptable to the Owner: insurance shall be provided in accordance with MDOT Standard Specification Section 110.

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 Engineer.

The Contractor shall perform, with his organization, an amount of work equal to at least 33 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 Engineer 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.
- DBE/non-DBE status.

80-02 Notice to proceed (NTP). The Owner's 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 Engineer at least 48 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 Engineer's review and acceptance at least 10 days prior to the Preconstruction Conference. The Contractor's progress schedule, once accepted by the Engineer, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The Engineer 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 Engineer'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 Engineer at least 48 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) 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 twice 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 Engineer) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the Engineer 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)*.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as detailed in the CSPP.

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction 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 150/5370-2, 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 Engineer, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, 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 Engineer.

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 Engineer 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 Engineer. 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 Engineer 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 Engineer 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 Engineer 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 Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The Engineer 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 or working 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.

Schedule	Liquidated Damages Cost	Allowed Construction Time
See Plans		

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

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

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or

- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

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

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the Engineer 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 Engineer 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 Engineer.

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 Engineer 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 Engineer, 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 Engineer.

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 Engineer 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 Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Measurement and Payment Terms

Term	Description
Excavation and Embankment Volume	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
Measurement and Proportion by Weight	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 Engineer. 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 Engineer directs, and each truck shall bear a plainly legible identification mark.
Measurement by Volume	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.

Term	Description
Asphalt Material	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.
Cement	Cement will be measured by the ton (kg) or hundredweight (km).
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
Timber	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.
Plates and Sheets	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.
Miscellaneous Items	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.
Scales	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. 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 Engineer 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. 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%. 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. Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the Engineer can safely and conveniently view them.

Term	Description
	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. 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.
Rental Equipment	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 Payment for Extra Work.
Pay Quantities	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 Engineer. 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 Engineer 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 Engineer 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 Engineer’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 Engineer'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 Engineer'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 Engineer, 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.

a. From the total of the amount determined to be payable on a partial payment, after the first 50% of payment is made on the project, five (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 50-14. Contractor must provide a certified invoice to the Engineer 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 30 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 30 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 Engineer, the Engineer 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 Engineer 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 Engineer at or on an approved site.
- b. The Contractor has furnished the Engineer with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the Engineer 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 Engineer will prepare the final estimate of the items of work actually performed. The Contractor shall approve the Engineer's final estimate or advise the Engineer 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 Engineer 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 Engineer's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the Engineer'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 Engineer's final estimate, and after the Engineer'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. However, this will not relieve the Contractor from corrective items required by the final acceptance of the project work. Light Emitting Diode emitting diode (LED) light fixtures with the exception of obstruction lighting, must be warranted by the manufacturer for a minimum of four (4) years after date of installation inclusive of all electronics.

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 Engineer 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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Federal Contract Provisions for FAA Funded Projects (v. 03/17/26)

Federal laws and regulations require that a Sponsor (a recipient of federal assistance) include specific provisions in certain contracts, solicitations, or specifications, regardless of whether the project is federally funded, to remain compliant with its obligations.

Unless otherwise stated, the following federally required contract provisions also flow down to subcontracts and sub-tier agreements. The Contractor (including all subcontractors) is required to insert these contract provisions in each lower tier contract (e.g., subcontract or sub-agreement). For work done under any purchase orders, rental agreements, and other agreements for supplies or services, the Contractor (including all subcontractors) is required to incorporate the requirements of these contract provisions by reference.

The prime Contractor is responsible for compliance with these contract provisions by any subcontractor, lower-tier subcontractor, or service provider.

A1: ACCESS TO RECORDS AND REPORTS

Sources: *2 CFR § 200.334; 2 CFR § 200.337; FAA Order 5100.38*

Contract Dollar Threshold: \$0

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.

A2: BREACH OF CONTRACT TERMS

Source: *2 CFR Part 200 Appendix II (A)*

Contract Dollar Threshold: \$350,000

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.

A3: BUY AMERICAN PREFERENCE

Sources: *Title 49 U.S.C. § 50101; Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers; Infrastructure Investment and Jobs Act (IIJA) (P.L. No. 117-58), Build America, Buy America (BABA)*

Contract Dollar Threshold: \$0

The Contractor certifies that its bid/offer is in compliance with 49 U.S.C. § 50101, BABA and other related Made in America Laws,¹ U.S. statutes, 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 constructions 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 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.

The bidder or offeror certifies procurement of certain rolling stock using FAA grant funds will prohibit airports from using Federal financial assistance to procure buses or rail car vehicle rolling stock from covered entities.

1: 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.

Certification of Compliance with FAA Buy American Preference – Construction Projects

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 intends to comply with 49 U.S.C. § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 U.S.C. § 50101, BABA and other related U.S. statutes, 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 products.
 - 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 U.S.C. § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 U.S.C. § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To 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 that 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 components and subcomponents produced in the United States is more than 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 and installation at project location.
- 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 and installation at project location.

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 from
- b) At minimum two comparable equal bids and/or offers;
- 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 U.S.C. § 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

Certification of Compliance with FAA Buy American Preference – Equipment/Building Projects

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 U.S.C. § 50101, BABA, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one on 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 U.S.C. § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:

- a) Only installing 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 FAA evidence that documents the source and origin of the steel and manufactured product.
- b) To faithfully comply with providing U.S. domestic product.
- c) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- d) 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 U.S.C. § 50101(a) but may qualify for a Type 3 waiver under 49 U.S.C. § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- a) To 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 that 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 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 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 than 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) 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).
- 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 “item” 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) Completed Content Percentage Worksheet and Final Assembly Questionnaire from
- 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 U.S.C. § 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

A4: GENERAL CIVIL RIGHTS PROVISIONS

Source: *49 U.S.C. § 47123*

Contract Dollar Threshold: \$0

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin, creed, sex, 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.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

A5: TITLE VI SOLICITATION NOTICE

Sources: *49 U.S.C. § 47123; FAA Order 1400.11*

Contract Dollar Threshold: \$0

The Sponsor, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, all businesses 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, creed, sex, age, or disability in consideration for an award.

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 U.S.C. § 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) including amendments thereto;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 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 U.S.C. § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 U.S.C § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (P.L. 100-259) (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 (42 U.S.C. § 12101, et seq) (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) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681, et seq).

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, national origin, creed, sex, age, or disability in the selection and retention of subcontractors, including procurements of materials and 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 including amendments thereto.
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.

A6: CLEAN AIR AND WATER POLLUTION CONTROL

Sources: 2 CFR Part 200, Appendix II (G); 42 U.S.C. § 7401, et seq; 33 U.S.C. § 1251, et seq

Contract Dollar Threshold: \$150,000

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. §§ 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.

A7: CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

Sources: 2 CFR Part 200, Appendix II(E); 29 CFR § 5.5(b)(2); 29 CFR § 5.8(a); 40 U.S.C. § 3702(c); 40 U.S.C. § 3704

Contract Dollar Threshold: \$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 therefore 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 \$33 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.

A8: COPELAND “ANTI-KICKBACK” ACT

Sources: *2 CFR Part 200, Appendix II(D); 29 CFR Parts 3 and 5*

Contract Dollar Threshold: \$2,000

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 U.S.C. 874 and 40 U.S.C. 3145), as supplemented by Department of Labor regulation 29 CFR part 3. The 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 covered work during the prior week. The Owner must report any violations of the Act to the Federal Aviation Administration.

A9: DAVIS-BACON REQUIREMENTS

Sources: *2 CFR Part 200, Appendix II(D); 29 CFR Part 5; 49 U.S.C. § 47112(b); 40 U.S.C. §§ 3141-3144, 3146, and 3147*

Dollar Threshold: \$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 regulations implementing 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 assets 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 <https://www.dol.gov/agencies/whd/government-contracts/construction/payroll-certification> 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 no 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.

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 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 U.S.C. § 1001.

A10: DEBARMENT AND SUSPENSION

Sources: 2 CFR Part 180 (Subpart B); 2 CFR Part 200, Appendix II(H); 2 CFR Part 1200; DOT Order 4200.5; Executive Orders 12549 and 12689

Contract Dollar Threshold: \$25,000

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.

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.

A11: DISADVANTAGED BUSINESS ENTERPRISES REQUIRED PROVISIONS

Sources: *49 CFR Part 26; 49 U.S.C. § 47113*

Dollar Threshold: \$0

A11.1: Solicitation for Proposals

The requirements of 49 CFR part 26, including any amendments, thereto apply to this contract. It is the policy of the Airport Sponsor 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.

A11.2: Prime Contracts Covered by a DBE Program

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, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (49 CFR § 26.29)

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than seven (7) days from the receipt of each payment the prime contractor receives from the Sponsor. 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 Sponsor. This clause applies to both DBE and non-DBE subcontractors.

A12: TEXTING WHEN DRIVING

Sources: *Executive Order 13513; DOT Order 3902.10*

Contract Dollar Threshold: \$15,000

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 \$15,000 that involve driving a motor vehicle in performance of work activities associated with the project.

A13: PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Sources: *2 CFR Part 200, Appendix II(K); 2 CFR § 200.216*

Contract Dollar Threshold: \$0

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 [P.L. 115-232, § 889(f)(1)].

A14: DRUG-FREE WORKPLACE REQUIREMENTS

Sources: *49 CFR Part 32; Drug-Free Workplace Act of 1988 (41 U.S.C. § 8101-8106, as amended)*

Not applicable to this contract.

A15: FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

Sources: *29 U.S.C. § 201, et seq; 2 CFR § 200.430*

Contract Dollar Threshold: \$0

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.

A16: CERTIFICATION REGARDING LOBBYING

Source: *31 U.S.C. §1352 - Byrd Anti-Lobbying Amendment; 2 CFR Part 200 Appendix II(I); 49 CFR Part 20, Appendix A*

Contract Dollar Threshold: \$100,000

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 31 U.S.C. § 1352. 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.

A17: OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Source: *29 CFR Part 1910*

Contract Dollar Threshold: \$0

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.

A18: PROCUREMENT OF RECOVERED MATERIALS

Sources: *2 CFR § 200.323; 2 CFR Part 200, Appendix II(J); 40 CFR Part 247; 42 U.S.C. § 6901, et seq (Resource Conservation and Recovery Act [RCRA])*

Contract Dollar Threshold: \$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.

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.

A19: RIGHTS TO INVENTIONS

Sources: *2 CFR Part 200, Appendix II(F); 37 CFR Part 401*

Contract Dollar Threshold: \$0

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.

A20: SEISMIC SAFETY

Source: *49 CFR Part 41*

Contract Dollar Threshold: \$0

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.

A21: CERTIFICATION OF OFFEROR/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

Sources: *Section 8113 of the Consolidated Appropriations Act, 2022 (P.L. 117-103) and similar provisions in subsequent appropriations acts; DOT Order 4200.6 – Appropriations Act Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions*

Contract Dollar Threshold: \$0

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.

A22: TERMINATION OF CONTRACT

Sources: 2 CFR Part 200 Appendix II (B); FAA Advisory Circular 150/5370-10, Section 80-09

Contract Dollar Threshold: \$10,000

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.

Termination for Cause (Construction Projects)

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.

Termination for Cause (Equipment Purchases)

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.

A23: FOREIGN TRADE RESTRICTION CERTIFICATION

Sources: *49 U.S.C. §50104; 49 CFR Part 30*

Contract Dollar Threshold: \$0

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 U.S.C. § 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.

A24: VETERAN'S PREFERENCE

Source: *49 U.S.C. § 47112(c)*

Contract Dollar Threshold: \$0

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 49 U.S.C. § 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. § 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.

A25: CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

Sources: *2 CFR § 200.322; 2 CFR Part 200, Appendix II(L)*

Contract Dollar Threshold: \$0

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.

A26: PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS)

Source: *FAA Reauthorization Act of 2024 (P.L. 118-63), Section 936; 49 U.S.C. § 44801 note*

Contract Dollar Threshold: \$0

The Bidder or Offeror certifies that they are aware of and comply with relevant Federal statutes and regulations, including those from the Federal Aviation Administration (FAA), for operating unmanned aircraft systems (UAS) in accordance, and in compliance with all related requirements in the FAA Reauthorization Act of 2024 (P.L. 118-63), section 936 (49 U.S.C. § 44801 note).

Contractor warrants that all UAS operations will be conducted in full compliance with all applicable Federal Aviation Administration (FAA) regulations, including but not limited to 14 CFR Part 107, and any other applicable local, state, or Federal laws and regulations.

Sponsors and subgrant recipients cannot use AIP grant funds to enter into, extend, or renew a contract related to covered unmanned aircraft systems (UAS). This includes both procurement and operational contracts, as well as contracts with entities that operate such systems.

END OF FEDERAL CONTRACT PROVISIONS FOR FAA FUNDED PROJECTS

Davis-Bacon Wage Rates

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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"General Decision Number: ME20260028 05/18/2026

State: Maine

Construction Types: Heavy

Counties: Maine Counties of
Franklin, Knox and Lincoln

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ENGI0004-002 12/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: BULLDOZER.....	\$ 43.60	33.86
POWER EQUIPMENT OPERATOR: BACKHOE, EXCAVATOR, LOADER, TRACKHOE.....	\$ 43.86	33.86

LAB00327-001 12/01/2023

	Rates	Fringes
LABORER: COMMON OR GENERAL.....	\$ 25.40	21.28

LAB00327-002 12/01/2023

	Rates	Fringes
LABORER: FLAGGER.....	\$ 25.40	21.28

SUME2014-009 01/30/2017

	Rates	Fringes
TRUCK DRIVER: DUMP TRUCK.....	\$ 15.40	3.09
OPERATOR: CRANE.....	\$ 24.57	6.89
LABORER: PIPELAYER.....	\$ 21.96	5.99
IRONWORKER, STRUCTURAL.....	\$ 24.57	11.13
ELECTRICIAN.....	\$ 24.94	9.00
CARPENTER, INCLUDES FORM WORK.....	\$ 20.04	10.48

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

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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>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

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) (iii)).

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

Union Rate Identifiers

A four-letter identifier beginning with characters other than **USU**, **UAVG**, **SA**, or **SC** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio.

The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The **SU** identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The **SA** identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the **SA** identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as

conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

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

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

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END OF GENERAL DECISION

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"General Decision Number: ME20260025 05/18/2026

State: Maine

Construction Types: Heavy

Counties: Maine Counties of
Somerset

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ENGI0004-002 12/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: BULLDOZER.....	\$ 43.60	33.86
POWER EQUIPMENT OPERATOR: BACKHOE, EXCAVATOR, LOADER, TRACKHOE.....	\$ 43.86	33.86

LAB00327-001 12/01/2023

	Rates	Fringes
LABORER: COMMON OR GENERAL.....	\$ 25.40	21.28

LAB00327-002 12/01/2023

	Rates	Fringes
LABORER: FLAGGER.....	\$ 25.40	21.28

SUME2014-006 01/30/2017

	Rates	Fringes
TRUCK DRIVER: DUMP TRUCK.....	\$ 15.40	3.09
OPERATOR: CRANE.....	\$ 24.57	6.89
LABORER: PIPELAYER.....	\$ 21.96	5.99
IRONWORKER, STRUCTURAL.....	\$ 24.57	11.13
ELECTRICIAN.....	\$ 24.94	9.00
CARPENTER, INCLUDES FORM WORK.....	\$ 20.04	10.48

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

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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>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

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) (iii)).

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

Union Rate Identifiers

A four-letter identifier beginning with characters other than **USU**, **UAVG**, **SA**, or **SC** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio.

The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

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SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

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WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

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- c) an initial WHD letter setting forth a position on a wage determination matter
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Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

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"General Decision Number: ME20260024 05/18/2026

State: Maine

Construction Types: Heavy

Counties: Maine Counties of
Piscataquis

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

SUME2014-005 01/30/2017

	Rates	Fringes
TRUCK DRIVER: DUMP TRUCK.....	\$ 15.91	3.78
OPERATOR: LOADER.....	\$ 14.62	4.24
OPERATOR: CRANE.....	\$ 22.70	6.40
OPERATOR: BULLDOZER.....	\$ 22.91	6.04
OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE.....	\$ 23.48	4.96
LABORER: PIPELAYER.....	\$ 21.17	5.63
LABORER: COMMON OR GENERAL.....	\$ 13.60	2.12
IRONWORKER, STRUCTURAL.....	\$ 24.95	12.32
ELECTRICIAN.....	\$ 24.87	8.54
CARPENTER, INCLUDES FORM WORK.....	\$ 18.07	4.33

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

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Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The **❖SU❖** identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this

classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

◆SU◆ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ◆SA◆ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ◆SA◆ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

=====
END OF GENERAL DECISION

"

Special Provisions

01.SP Additional Insured Requirements

The Contractor shall specify the Owner and the Engineer as named additional insured in all insurance required under the provisions of Section 70-21 Insurance Requirements. The cost for adding the Owner and Engineer shall be incidental to the overall project.

02.SP Conflict with Other Controls

In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply. The Contractor shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

03.SP Pavement Loading

The existing airport pavements are designed for aircraft on single and dual gear configurations. The Contractor shall preserve and/or protect existing and new pavements from damage due to construction operations. Existing pavements which are damaged shall be replaced or repaved at the Contractor's expense. The Contractor shall take immediate action to alleviate the problem.

04.SP Communications

The Contractor shall keep the Engineer and/or Resident Project Representative apprised of his/her scheduled construction activities in order to allow proper notification of the airport manager and airport operators. As a minimum, weekly meetings to discuss construction progress and location should be anticipated.

The Contractor shall have a two-way radio at the jobsite at all times work is in progress. The Contractor shall monitor the ground control frequency, the Common Traffic Advisory Frequency (CTAF), and Airport UNICOM frequency.

05.SP Aircraft Operations

It is the intent of the Owner to minimize interference with aircraft operations. The Contractor shall coordinate his/her activities while working near the aircraft operational area, so as to create minimal interference with aircraft operations. Before starting his/her operations at any location on the airport, the Contractor shall assure proper safety precautions and separations are in place in accordance with the Plans, Construction Safety Phasing Plan (CSPP) and the contractor's Safety Plan Compliance Document (SPCD), all prepared in accordance with FAA Advisory Circular (AC) 150/5370-2G, *Operational Safety on Airports During Construction*.

06.SP Shop Drawings and Samples

The Contractor shall review and approve all shop drawings and submittals for conformance to the contract documents before submittal to the Engineer. After reviewing the plans and project manual and/or verifying all field measurements, the Contractor shall submit to the Engineer for review and approval copies of all shop drawings, certificates, and samples. These drawings shall bear a stamp or specific written indication that the Contractor has satisfied the Contractor's responsibilities under the Contract Documents with respect to the review of the submission. The Contractor shall certify the following by placing a stamp or specific written indication on the shop drawings.

"This shop drawing has been reviewed by NAME OF CONTRACTOR and approved with respect to the means, methods, techniques, sequences, procedures of construction, safety precautions and programs

incidental thereto. NAME OF CONTRACTOR also warrants that this shop drawing complies with the contract documents and comprises no variations thereto, unless noted below. ”

“NAME OF CONTRACTOR certifies that this shop drawing complies with Buy American requirements as established under 49 USC Section 50101. Steel products must be 100% U.S. domestic product Manufactured Products. Preference shall be given to products that are 100% manufactured and assembled in the U.S. Manufactured products not meeting the 100% U.S. domestic preference may only be used on the project if the FAA has officially granted a permissible waiver to Buy American Preferences.”

All submissions shall be identified as the Engineer may require. The data shown on the shop drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable the Engineer to review the information.

The Contractor shall also submit to the Engineer for review and approval with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that the Contractor has satisfied the Contractor's responsibilities under the Contract Documents with respect to the review of the submission and shall be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

Before submission of each shop drawing or sample, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each shop drawing or sample with other shop drawings and samples and with the requirements of the work and the Contract Documents.

At the time of each submission, the Contractor shall give the Engineer specific written notice of each variation that the shop drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each shop drawing submitted to the Engineer for review and approval of each such variation.

For each shop drawing or sample submittal, the Contractor shall utilize a cover sheet similar in format and content to the “Sample Submittal Form” attached as an appendix to this project manual.

The Engineer will review with reasonable promptness, shop drawings and samples, but the Engineer's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. The Contractor shall make corrections required by the Engineer and shall return the required number of corrected copies of shop drawings and submit as required new samples for review and approval. The Contractor shall direct specific attention, in writing, to revisions other than the corrections called for by the Engineer on previous submittals.

The Engineer's review of the shop drawings or samples shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Documents unless the Contractor has, in writing, called the Engineer's attention to each such variation at the time of submission and the Engineer has given written concurrence of each such variation by a specific written notation thereof, incorporated in, or accompanying the shop drawings or sample approval; nor will any review by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings.

Where a shop drawing or sample is required by the project manual, any related work performed prior to the Engineer's review of the pertinent submission will be the sole expense and responsibility of the Contractor.

The Contractor shall submit shop drawings electronically, via the Engineers Newforma/Info Exchange site.

Contractor shall submit electronic versions of each individual submittal to the Engineer in a printable PDF format. Submittals that are larger than 11x17 shall be submitted with one hard copy in addition to the electronic version. Formatting of the PDF drawings shall be of the same size as the hard copy submittal.

The Contractor will be provided access to the Engineer's secured project hosting site (Newforma) via a personalized password protected account. This site utilizes a web browser interface that requires internet access, and an individual email account. The Engineer will provide the Contractor with submittal protocol and process documentation for the hosting site when the account information is verified and configured by the Engineer.

The Engineer will return submittals electronically in PDF format.

07.SP Contractor's Application for Payment Form

The Contractor shall provide a Contractor's Application for Payment Form to submit for payment. At a minimum, the form shall include the following:

- Name of Project
- Name and address of Owner
- Name and address of Contractor
- Application number and date
- Applicable Project Numbers (Owner, Engineer, Contractor, etc.)
- Original contract amount
- Sum of approved change orders
- Total value of work completed to date
- Total value of materials stored on hand in accordance with Section 90-07 of the Project Manual
- Amount retained in accordance with Section 90-06 of the Project Manual
- Total amount earned to date
- Total amount received to date
- Amount currently due
- Balance to finish
- Contractor's Certification
- Line item for each bid item from the Bid Proposal with the following included:
 - Item No.
 - Specification No.
 - Description
 - Unit
 - Unit Price
 - Contract Quantity
 - Quantity this Request
 - Quantity to Date
 - Amount this Request
 - Amount to Date
- Signature blocks for the Contractor, Resident Project Representative (as applicable), and Engineer

The Contractor shall submit a draft Contractor's Pay Application Form prior to the Preconstruction Conference for review and approval prior to use. The cost for providing the Contractor's Pay Application Form shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Contractor's Application for Payment Form

08.SP Record Drawings

The Contractor shall maintain during the work and shall provide the Engineer with one set of marked prints showing any modifications between the original plans and final "as-constructed" conditions. The Contractor shall provide the marked set of drawings to the Engineer at the final inspection. The cost for providing the record drawings shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Plan set with red-line as-built markups and surveys

09.SP Final Inspections

The Engineer will attend a final inspection and if necessary, one follow-up final inspection of the completed work and the completed punch list items, respectively. These inspections will be scheduled when the Contractor indicates that the work is complete and ready for final inspection or that the punch list is totally complete, and the final inspection can be made. If the Engineer is required to conduct more than two (2) final inspections outlined above, the charges for the Engineer's services associated with such additional inspections shall be deducted by the Owner from the Contractor's final payment for the project.

10.SP Existing Airfield Features

The Contractor shall protect existing items on the airfield that are not identified to be removed or modified. This may include pavements, markings, lighting fixtures, signs, survey monuments, etc. An inventory of conditions of the project and all items that are to remain shall be taken before construction begins and the Contractor shall be responsible for the cost of replacement of any fixtures damaged by his/her operations. The cost for providing the existing airfield features inventory list shall be considered incidental to the cost of the project.

11.SP Project Schedule

The Contractor shall submit a detailed progress schedule for the entire project at least 10 days prior to the Preconstruction Conference. The schedule shall be developed in a "Critical Path Method" (CPM) format to include production rates per work period and time for mobilization and demobilization. Once the Contractor's schedule has been reviewed by the Engineer, any deviations must be incorporated into an updated schedule and submitted for review by the Engineer. The initial schedule will be used as a baseline for determining impacts to the critical path items of the schedule due to weather or other items as may be documented by the contractor that is potentially a reason to extend the contract time period.

The Contractor shall review the project schedule with the Engineer and/or Resident Project Representative (RPR) prior to submittal of the monthly Contractor Pay Request. Any update deemed necessary by the Engineer, RPR or Contractor shall be incorporated into an updated schedule. The updated schedule shall be submitted with the pay request. The Pay Request will not be processed unless an accurate up-to-date schedule is on file with the Engineer. The cost for providing and maintaining the project schedule shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Project Schedule

12.SP Contract Time Extensions

The Contractor shall be responsible for providing justification and documentation for proposed time extensions. The Contractor shall submit the justification and documentation along with a copy of the original and updated project schedules to the Engineer for review.

The number of calendar days specified in the Contract includes an allowance for 80 percent of the calendar days available for productive work (i.e., 20% of the project time anticipates rain or other impacts to the overall schedule).

The Contractor will be entitled to an automatic extension in contract time if requested, when the available days for productive work are less than 80 percent of the established contract time. The Engineer will

furnish the Contractor with a copy of his/her weekly statement of the number of calendar days available for productive work. The Engineer shall base his/her weekly statement of available days for productive work on the following considerations:

A day will be considered available for productive work regardless of whether the Contractor actually worked or not, if, in the Engineers opinion, the Contractor could have been able to proceed with a principal work item for at least a 6-hour work period during normal work hours for the project.

The Contractor will be allowed one (1) week in which to file a written protest setting forth his/her objections to the Engineer's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

In the event the number of available calendar days for productive work is less than 80 percent, the contract time will be extended until the allowance number of available productive days is achieved.

No provisions of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspensions made at the request of the Contractor, for any other delay provided for in the contract, plans, or project manual.

13.SP Construction Flags and Amber Lights

During work in the Air Operation Area (AOA), the Contractor shall furnish amber flashing hazard beacons or aircraft warning flags on all vehicles and equipment in accordance with Advisory Circular (AC) 150/5210-5D, *Painting, Marking, and Lighting of Vehicles Used on an Airport*. Amber flashing hazard beacons or aircraft warning flags may be used during the day. Amber flashing hazard beacons are required for nighttime operations.

The beacons shall be mounted on the uppermost part of the vehicle structure or equipment so that it will be visible from any direction, day and night, including from the air.

The flags shall be at least a 3-foot square having a checkered pattern of international orange and white squares at least 1 foot on each side in accordance with AC 150/5210-5D. Flags on equipment shall be mounted on a staff not less than 8 feet in length.

14.SP Employment History

If requested, the Contractor shall provide background information concerning the ten (10) year employment history on all its employees or affiliated personnel who will be involved with work inside the security fence. Based upon background information on an employee, the Owner reserves the right to restrict the access of an employee of the Contractor from working inside the security fence for reasons of airport security. Identification badges will be required for all personnel entering the aircraft operational areas (AOA) and can be obtained from the Airport Manager. A nominal fee may be charged to cover the cost of the materials for these identification badges. The cost for providing and maintaining the employment history shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Employment History, when requested.

15.SP Utility Conflicts

The Contractor should anticipate conflicts with existing utilities. Where conflicts are encountered, the Contractor shall reroute electrical conduits, ducts, water pressure lines and/or force mains around gravity lines which will take precedence over pressure lines for maintaining vertical alignment as shown on plans. Conflicts between pressure lines shall be resolved as ordered by the Engineer. No additional payment will be made for rerouting utilities due to conflicts.

The Contractor shall be responsible for repair to utilities in service which are damaged by the Contractor's men and equipment. The Contractor shall assume all risk and liability for any inconvenience, delay, or expense that may be occasioned by public utilities. No additional compensation will be allowed for delays, inconvenience, or damage sustained by the Contractor due to interference from the said utility

appurtenances or the operations of moving them. The time for completion may be extended if it is determined by the owner that a project delay to critical path work items has occurred.

16.SP Testing General

The Contractor shall inform the Engineer when work in progress or an area will be subject to or has been prepared for testing. Timely communication between the Contractor and the Engineer will be required to schedule needed testing. All quality assurance testing will be performed by the Owner's testing laboratory under the direction of the Engineer. The Contractor is advised that the cost of failing tests requiring additional tests to confirm compliance will be deducted from the monies due to the Contractor through the Progress Payment Process. For materials requiring test strips (P-401, P-403, etc.), this shall include costs incurred after two (2) failing test strips. The testing laboratory shall not be used by the Contractor for quality control purposes.

17.SP Materials Testing

The Contractor shall provide actual test results and/or certifications for all materials incorporated into the work to assure his/her compliance with the contract documents. Current ASTM, AASHTO, and/or federal specifications on the date of advertisement for bids shall be used. The latest edition of other referenced specifications, handbooks or documents shall be used. Prior to installing, placing, or incorporating any materials into the work, the Contractor shall provide four (4) copies of the materials tests and/or certifications required by the contract documents to the Engineer.

The Testing/Certification submittals required by the contract documents shall be provided by the Contractor to the Engineer at the Contractor's expense. The required submittals shall be all tests and certifications required by the contract documents.

18.SP Dust Control

The Contractor is advised that aircraft maintenance operations are conducted adjacent to the project. Special attention to dust control will be required during the course of the project. The use of water and calcium chloride shall be anticipated. The Engineer reserves the right to halt work or hauling in non-conforming areas if corrective actions are not promptly taken by the Contractor to control dust.

19.SP On-Site Contractor Supervision

The Contractor shall keep on the project at all times during its progress, a competent resident superintendent whose name and qualifications shall be furnished to the Engineer at the Pre-Construction Meeting and who shall not be replaced without prior written notice to the Engineer, except under extraordinary circumstances, in which event immediate written notice shall be given to the Engineer. The superintendent will be the Contractor's representative at the site and shall have the authority to act on behalf of the Contractor and to receive any and all notices or instructions given pursuant to the Contract Documents. The superintendent shall be an employee of the Contractor. The Contractor shall provide competent and suitable personnel, equipment and supplies to perform the work required by the Contract Documents. He/she shall at all times maintain good discipline and order at the site. The cost for providing the superintendent qualifications shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Superintendent Qualifications

20.SP Storage / Staging Area

All construction material storage, equipment, and vehicle parking will be designated by the Owner. Under no circumstances shall material, equipment, and/or vehicles be stored in such a place as to create an obstruction to vehicular traffic. All storage shall be limited to the designated area(s) on the project site; no storage of any equipment or material shall be allowed at any place other than the project site unless

otherwise approved by the Owner. Climate conditioning for stored materials shall be the responsibility of the Contractor.

21.SP Security

The Contractor shall be responsible for the security of his/her equipment and materials, as well as the security of the equipment and materials of the Contractor's agents and Subcontractors. Further, the Contractor shall be responsible for the security of all entrances to the project site.

The Contractor shall exercise and take all precautions in the storage and dispensing of all flammable liquids such as, but not limited to, gasoline, fuel, and lubricants.

The Contractor shall be responsible for the direct supervision of his/her employees, those of his/her agents and Subcontractors at all times while on the project site.

22.SP Motorized Vehicles

The Contractor shall be responsible for the actions of his/her employees, agents, and Subcontractors. Personnel who do not abide by the applicable rules and regulations shall be subject to prosecution.

All motorized vehicles and equipment operating on the project site and anywhere else on the Airport shall not exceed a speed of 15 mph, and all aircraft shall have priority over all motorized vehicles and equipment.

23.SP Debris

Waste and loose material shall be removed immediately and continuously during the construction work of the project. The removal and disposal of all debris shall be the responsibility of the Contractor. All debris shall be disposed of off the project site and the Airport property in conformance with prevailing local ordinances, codes, and Federal laws.

24.SP Contractor's Contact Persons

The Contractor shall provide the name and mobile phone number of at least two (2) people to be contacted in case of emergencies at the work site during non-working hours. The contact people must be qualified and have the authority to make decisions on behalf of the Contractor. There must be at least one (1) contact person on-call and available to be at the site within one (1) hour. This item is to be considered incidental to the project and no additional or separate payment will be made.

The Contractor shall provide the name of the Project Manager. This person will be the Contractor's representative to whom the Engineer and Owner shall address all relevant correspondence or communications. The Contractor shall not change the Project Manager without approval of the Engineer and/or Owner. The names of the Project Manager and the two (2) Emergency Contact Persons shall be provided at the Preconstruction Conference.

The cost for providing and maintaining the emergency contact list shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Emergency Contact List

25.SP Subgrade Drainage

Subgrades and construction areas are highly susceptible to damage from intrusion of surface water. Surface water should not be allowed to collect in or on prepared subgrades during or after construction. The Contractor shall be responsible for protection of the subgrade from standing water by constructing drainage ditches or by grading the site to sheet flow towards natural or artificial drainage features. Excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, groundwater, or surface water. Subgrades should be crowned or sloped to prevent collection of water and a means of escape provided for runoff. Subgrades shall be sealed with a smooth-drum roller or covered with a mud-mat of lean concrete or other easily removable materials if the possibility of precipitation

arises. Positive site drainage should be provided throughout the construction area to reduce infiltration of surface water around the perimeter of the site.

Subgrade repairs or undercut resulting from the Contractor's failure to provide positive site drainage shall be the responsibility of the Contractor and shall be completed as ordered by the Engineer at no cost to the Owner.

26.SP De-Watering During Construction

The Contractor shall provide de-watering during construction. All impounded water required to be pumped shall be pumped to the nearest acceptable receiving inlet or ditch and not allowed to discharge across pavement. Sediment shall be filtered as necessary to meet local requirements. All de-watering costs shall be considered incidental to the project. Saturated subgrade or subbase materials shall be recompacted as required by the specifications prior to placing subsequent pavement layers.

27.SP Contract Time

The contract time shall be as specified on the contract document plans.

28.SP Liquidated Damages

Liquidated damages for failure to complete the project within the allotted contract time shall be as specified in the contract documents' plans.

29.SP Submittals Schedule

The Contractor shall submit a detailed listing of all submittals and shop drawings required by the contract documents. The listing can be developed in a spreadsheet format and shall include:

- Specification item number
- Item description
- Description of submittal
- Specification paragraph requiring submittal
- Scheduled date of submittal

The cost for providing and maintaining the submittal schedule shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Submittals Schedule

30.SP Documentation

The Contractor shall maintain daily records of all work, inspections, and tests performed. These records shall include a summary of the work performed and factual evidence that the required inspections or tests (as applicable) have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviation, causes for rejection, etc.; proposed remedial action; and corrective action.

These records must cover both conforming and defective or deficient features and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the Engineer daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor's Project Superintendent. The cost for providing the noted documentation shall be considered incidental to the cost of the project.

Required Contractor Deliverable: Records of daily reports, inspections, tests, etc.

31.SP Bidders Notice

Bidders are hereby notified and agree by submission of their bid that should, after award of the contract, additional items not listed in the bid become necessary and require unit prices not established by their bid, that the unit prices of such items shall be negotiated and shall be directly proportional to the established unit prices of similar bid items.

32.SP FAA Specifications

All FAA specifications are denoted with the AC reference and date of revision at the beginning of each specification section. Edits by way of additions to the FAA standard text are denoted in all capital letters (EXAMPLE).

33.SP FCC License Coordination

This item shall consist of the Contractor coordinating with the Federal Communications Commission (FCC) to obtain valid radio station licenses for the project's specific Ultra High Frequency (UHF) and Very High Frequency (VHF) equipment. This includes all administrative efforts, technical documentation, and payment of required application fees to obtain the license(s). Where aggregate application fees exceed \$500 in total for the project, these costs shall be reimbursed to the Contractor via a Change Order.

The Owner shall provide contact information for each licensee.

Payment will be made under:

UHF License Coordination - per each

VHF License Coordination - per each

34.SP Horizontal Directional Drilling

This item shall consist of horizontal directional drilling (HDD) at the locations shown on the contract documents. The HDD shall be completed by machinery specifically designed for the purpose and by a firm experienced in such work, meaning they have been engaged in conducting similar work over the prior 5 years, minimum. The work shall be completed in accordance with accepted industry standards and best practices.

The Contractor shall provide a submittal of the proposed drilling plan indicating the following items:

- A. Information on the selected HDD firm, including the firm's resume and equipment to be used.
- B. Drilling plan to indicate the following:
 - 1. Location and depths of bore pits and proposed drilling profile.
 - 2. Work sequence plan to describe the process from setup to site restoration.
 - 3. Submittals for all drilling fluids, grouts, and additives to be used, along with waste capture plan for containing and transporting spent fluids.
 - 4. Submittals for proposed HDPE conduits and required tracer wire.
 - 5. Proposed method of tracking the HDD drill bit.
- C. Provide an as-built log of bore depths at 20-intervals along the boring path.

Existing geology below the boring locations is unknown. To mitigate this issue, the HDD includes multiple bid items as described below:

Horizontal Directional Drilling Day Rate – This item includes all costs to mobilize and demobilize equipment and personnel to the site, and for the daily operations of the work. This item shall be payable based on the days required to complete the work. Payment shall be made based on minimum working hours for a 10-hour day on-site. Work during this period shall occur at standard productivity rates and

may be monitored. This item may be payable on a pro-rated basis in one-half-units based on required working hours to complete the work. No additional time shall be granted based on equipment breakdowns or weather. The intent of this provision is to allow for completion of the work as expeditiously as possible. Where a site has multiple HDD locations, it is expected that all HDD work is completed on the same mobilization. No payment shall be made for time on site when equipment is idle or not being used due to staging, breakdown, waiting time for supplies or parts, etc.

The total days included in the bid schedule assume some level of rock will be encountered which will slow productivity. The HDD contractor shall assume rock may be encountered and shall mobilize equipment and supplies capable of drilling in rock.

Horizontal Directional Drilling – This item includes all costs to complete the directional drilling not otherwise covered in other bid items. These costs those which are directly associated with the HDD operation, such as conduits, tracing wires, drill steel and bits, etc. and shall be payable by the linear foot. For either bid item, the bid cost shall constitute full payment, and such cost shall include all work items, labor, equipment, materials, and incidentals required to complete the work.

Payment shall be made under:

Horizontal Directional Drilling – Day Rate (Airport ID) - per each

Horizontal Directional Drilling (Airport ID) - per linear foot

END OF SPECIAL PROVISIONS

FAA Specifications

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

Version:

AC 150/5370-10H Standard Specifications for Construction of Airports

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Part 2 – General Construction Items

Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control

DESCRIPTION

102-1.1 This item shall consist of temporary control measures as shown on the plans or as ordered by the Engineer during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and *AC 150/5370-2, Operational Safety on Airports During Construction*. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

MATERIALS

102-2.1 Grass. Grass that will not compete with the grasses sown later for permanent cover per Item T-901 shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover. Selected grass species shall not create a wildlife attractant.

102-2.2 Mulches. Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials per Item T-908. Mulches shall not create a wildlife attractant.

102-2.3 Fertilizer. Fertilizer shall be a standard commercial grade and shall conform to all federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

102-2.4 Slope drains. Slope drains may be constructed of pipe, fiber mats, rubble, concrete, asphalt, or other materials that will adequately control erosion.

102-2.5 Silt fence. Silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461.

102-2.6 Other. All other materials shall meet commercial grade standards and shall be approved by the Engineer before being incorporated into the project.

CONSTRUCTION REQUIREMENTS

102-3.1 General. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The Engineer shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

102-3.2 Schedule. Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the Engineer.

102-3.3 Construction details. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the plans and approved CSPP. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices but are not associated with permanent control features on the project.

Where erosion may be a problem, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The Engineer shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the Engineer.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the Engineer. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the Engineer, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The Engineer may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

102-3.4 Installation, maintenance and removal of silt fence. Silt fences shall extend a minimum of 16 inches and a maximum of 34 inches above the ground surface. Posts shall be set no more than 10 feet on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch overlap and securely sealed. A trench shall be excavated approximately 4 inches deep by 4 inches wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The fence shall be maintained in good working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the Engineer.

METHOD OF MEASUREMENT

102-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured

BASIS OF PAYMENT

102-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

AC 150/5370-2 Operational Safety on Airports During Construction

ASTM International (ASTM)

ASTM D6461 Standard Specification for Silt Fence Materials

United States Department of Agriculture (USDA)

FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM C-102

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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 be limited to 20 percent of the total project cost. The mobilization amount shall be documented in accordance with the Special Provisions. Any mobilization costs over the stated percentage will be paid for on an as-incurred basis. Any non-incurred costs will not be paid.

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 Mobilization (Airport) – 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

Part 3 – Sitework

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 and disposal of all material, regardless of its nature.

152-1.3 Unsuitable excavation. Unsuitable material shall be disposed of 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 Engineer.

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or cleared and grubbed in accordance with Item P-151.

The suitability of material to be placed in embankments shall be subject to approval by the Engineer. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the Engineer.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the Engineer notified per Section 70, paragraph 70-20. At the direction of the Engineer, 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 Engineer, 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 Engineer has obtained from the Contractor the survey notes of the elevations and measurements of the ground surface. The Contractor and Engineer 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.

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 Engineer. 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 as shown on the plans.

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 of as directed by the Engineer. 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 Engineer 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 Engineer. 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 at locations shown on the plans. ~~This excavated material shall be paid for at the contract unit price per cubic yard for "Unclassified Excavation."~~ 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 Engineer. All over-break shall be graded or removed by the Contractor and disposed of as directed by the Engineer. The Engineer 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 Engineer 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 Engineer. 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 are not required.

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 Engineer. 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 95% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D698. 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. This item is not required.

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 Engineer. 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 Engineer 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 D698. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the Engineer for every 100 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the Engineer.

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 95% of maximum density for non-cohesive soils, and 100% of maximum density for cohesive soils as determined by ASTM D698. Under all areas to be paved, the embankments shall be compacted to a depth of 12 inches and to a density of not less than 95% of the maximum density as determined by ASTM D698. 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 D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. The Engineer shall perform all density tests. If the specified density is not attained, the area represented by the test or as designated by the Engineer 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 Engineer 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 Engineer.

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 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 below the finished subgrade.

Payment for compacted embankment will be made under embankment in-place, and no payment will be made 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 20-ton Tandem axle Dual Wheel Dump Truck loaded to the legal limit with tires inflated to 100 psi in the presence of the Engineer. Apply a minimum of two (2) coverages, or as specified by the Engineer, 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 95% of the maximum dry density as determined by ASTM D698. 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% 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 sieve, follow the methods in ASTM D698. Tests for moisture content and compaction will be taken at a minimum of 500 square yards of subgrade. All quality assurance testing shall be done by the Engineer.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

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 Engineer 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 Engineer.

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 Engineer. The Contractor shall perform all final smoothness and grade checks in the presence of the Engineer. 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 $\pm 1/2$ 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 and the approved CSPP and shall not be placed on areas that subsequently will require any excavation or embankment fill. If, in the judgment of the Engineer, 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 under Item P-152.

METHOD OF MEASUREMENT

152-3.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

152-4.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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
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ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft ³ (600 kN-m/m ³))
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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 ³ (2700 kN-m/m ³))
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	
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

END OF ITEM P-152

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Part 12 – Turfing

Item T-901 Seeding

DESCRIPTION

901-1.1 This item shall consist of soil preparation, seeding, and fertilizing the areas shown on the plans or as directed by the Engineer in accordance with these specifications.

MATERIALS

901-2.1 Seed. The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Federal Specification JJJ-S-181, Federal Specification, Seeds, Agricultural.

Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and applicable state seed laws with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected.

Seeds shall be applied as follows:

Seed Properties and Rate of Application

Seed	Minimum Seed Purity (Percent)	Minimum Germination (Percent)	Rate of Application lb/acre (or lb/1,000 S.F.)
As identified on the plans.			

Seeding shall be performed during the period between May 1 and September 15 inclusive, unless otherwise approved by the Engineer.

901-2.2 Lime. Not required.

901-2.3 Fertilizer. Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified and shall meet the requirements of applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or
- c. A granular or pellet form suitable for application by blower equipment.

Fertilizers shall be a commercial fertilizer as indicated in the plans and shall be spread at the rate as shown on the plans.

901-2.4 Soil for repairs. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

CONSTRUCTION METHODS

901-3.1 Advance preparation and cleanup. After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches (50 mm) in any diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches (125 mm) as a result of grading operations and, if immediately prior to seeding, the top 3 inches (75 mm) of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

When the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

901-3.2 Dry application method.

a. Liming. Not required.

b. Fertilizing. Following advance preparations and cleanup fertilizer shall be uniformly spread at the rate that will provide not less than the minimum quantity stated in paragraph 901-2.3.

c. Seeding. Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing. The fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in mixtures, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn roller, weighing 40 to 65 pounds per foot (60 to 97 kg per meter) of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per foot (223 to 298 kg per meter) of width for sandy or light soils.

901-3.3 Wet application method.

a. General. The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

b. Spraying equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons (190 liters) over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons (380 liters) per minute at a pressure of 100 lb / sq inches (690 kPa). The pump shall be mounted in a line that will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch (16 mm) solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet (6 to 30 m). One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For case of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet (15 m) in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds (100 kg) of lime shall be added to and mixed with each 100 gallons (380 liters) of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds (100 kg) of these combined solids shall be added to and mixed with each 100 gallons (380 liters) of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. The Contractor shall identify to the Engineer all sources of water at least two (2) weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within two (2) hours from the time they were mixed or they shall be wasted and disposed of at approved locations.

d. Spraying. Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches (75 mm), after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray that shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to ensure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area.

Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

901-3.4 Maintenance of seeded areas. The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. A grass stand shall be considered adequate when bare spots are one square foot (0.01 sq m) or less, randomly dispersed, and do not exceed 3% of the area seeded.

METHOD OF MEASUREMENT

901-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

901-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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 C602 Standard Specification for Agricultural Liming Materials

Federal Specifications (FED SPEC)

FED SPEC JJJ-S-181, Federal Specification, Seeds, Agricultural

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-901

Item T-908 Mulching

DESCRIPTION

908-1.1 This item shall consist of furnishing, hauling, placing, and securing mulch on surfaces indicated on the plans or designated by the Engineer.

MATERIALS

908-2.1 Mulch material. Acceptable mulch shall be the materials listed below or any approved locally available material that is similar to those specified. Mulch shall be free from noxious weeds, mold, and other deleterious materials. Mulch materials, which contain matured seed of species that would volunteer and be detrimental to the proposed overseeding, or to surrounding farm land, will not be acceptable. Straw or other mulch material which is fresh and/or excessively brittle, or which is in such an advanced stage of decomposition as to smother or retard the planted grass, will not be acceptable.

a. Hay. Not used.

b. Straw. Not used.

c. Hay mulch containing seed. Not used.

d. Manufactured mulch. Cellulose-fiber or wood-pulp mulch shall be products commercially available for use in spray applications.

e. Asphalt binder. Not used.

908-2.2 Inspection. The Engineer shall be notified of sources and quantities of mulch materials available, and the Contractor shall furnish him with representative samples of the materials to be used 30 days before delivery to the project. These samples may be used as standards with the approval of the Engineer and any materials brought on the site that do not meet these standards shall be rejected.

CONSTRUCTION METHODS

908-3.1 Mulching. Before spreading mulch, all large clods, stumps, stones, brush, roots, and other foreign material shall be removed from the area to be mulched. Mulch shall be applied immediately after seeding. The spreading of the mulch may be by hand methods, blower, or other mechanical methods, provided a uniform covering is obtained.

Mulch material shall be furnished, hauled, and evenly applied on the area shown on the plans or designated by the Engineer. ~~Straw or hay shall be spread over the surface to a uniform thickness at the rate of 2 to 3 tons per acre (1800—2700 kg per acre) to provide a loose depth of not less than 1 1/2 inches (38 cm) nor more than 3 inches (75 mm).~~ Other organic material shall be spread at the rate directed by the Engineer. ~~Mulch may be blown on the slopes and the use of cutters in the equipment for this purpose will be permitted to the extent that at least 95% of the mulch in place on the slope shall be 6 inches (150 mm) or more in length. When mulches applied by the blowing method are cut, the loose depth in place shall be not less than one inch (25 mm) nor more than 2 inches (50 mm).~~

908-3.2 Securing mulch. The mulch shall be held in place by light discing, a very thin covering of topsoil, pins, stakes, wire mesh, asphalt binder, or other adhesive material approved by the Engineer. ~~Where mulches have been secured by either of the asphalt binder methods, it will not be permissible to~~

~~walk on the slopes after the binder has been applied. When an application of asphalt binder material is used to secure the mulch, the Contractor must take every precaution to guard against damaging or disfiguring structures or property on or adjacent to the areas worked and will be held responsible for any such damage resulting from the operation.~~

~~If the “peg and string” method is used, the mulch shall be secured by the use of stakes or wire pins driven into the ground on 5 foot (1.5 m) centers or less. Binder twine shall be strung between adjacent stakes in straight lines and crisscrossed diagonally over the mulch, after which the stakes shall be firmly driven nearly flush to the ground to draw the twine down tight onto the mulch.~~

908-3.3 Care and repair.

a. The Contractor shall care for the mulched areas until final acceptance of the project. Care shall consist of providing protection against traffic or other use by placing warning signs, as approved by the Engineer, and erecting any barricades that may be shown on the plans before or immediately after mulching has been completed on the designated areas.

b. The Contractor shall be required to repair or replace any mulch that is defective or becomes damaged until the project is finally accepted. When, in the judgment of the Engineer, such defects or damages are the result of poor workmanship or failure to meet the requirements of the specifications, the cost of the necessary repairs or replacement shall be borne by the Contractor.

~~**c.** If the “asphalt spray” method is used, all mulched surfaces shall be sprayed with asphalt binder material so that the surface has a uniform appearance. The binder shall be uniformly applied to the mulch at the rate of approximately 8 gallons (32 liters) per 1,000 square feet (100 sq m), or as directed by the Engineer, with a minimum of 6 gallons (24 liters) and a maximum of 10 gallons (40 liters) per 1,000 square feet (100 sq m) depending on the type of mulch and the effectiveness of the binder securing it. Asphalt binder material may be sprayed on the mulched slope areas from either the top or the bottom of the slope. An approved spray nozzle shall be used. The nozzle shall be operated at a distance of not less than 4 feet (1.2 m) from the surface of the mulch and uniform distribution of the asphalt material shall be required. A pump or an air compressor of adequate capacity shall be used to ensure uniform distribution of the asphalt material.~~

~~**d.** If the “asphalt mix” method is used, the mulch shall be applied by blowing, and the asphalt binder material shall be sprayed into the mulch as it leaves the blower. The binder shall be uniformly applied to the mulch at the rate of approximately 8 gallons (32 liters) per 1,000 square feet (100 sq m) or as directed by the Engineer, with a minimum of 6 gallons (24 liters) and a maximum of 10 gallons (40 liters) per 1,000 square feet (100 sq m) depending on the type of mulch and the effectiveness of the binder securing it.~~

METHOD OF MEASUREMENT

908-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

908-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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 D977 Standard Specification for Emulsified Asphalt

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-908

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Part 13 – Lighting Installation

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 Engineer. 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 Engineer.

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 Engineer) 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 Engineer 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 Engineer, to determine compliance with the plans and specifications. The Contractor's submittals shall be electronically submitted in pdf format. The Engineer 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 wire. For voltage powered circuits, the equipment grounding conductor shall comply with NEC Article 250.

Ground rods shall be solid stainless steel, copper, copper-clad steel, or sectional 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 Engineer 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. Concrete shall be proportioned, placed, and cured per state department of transportation structural concrete with a minimum allowable compressive strength of 3,000 psi (28 MPa).

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 Engineer. 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 Engineer. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the Engineer. The Contractor shall record the results on forms acceptable to the Engineer. 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 Engineer 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 Engineer.

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 Engineer 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 Engineer prior to any cable installation. If required by the Engineer, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the Engineer. Cable pull tensions shall be recorded by the Contractor and reviewed by the Engineer. 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 Engineer, 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. Section is not used.

108-3.4 Cable markers for direct-buried cable. Section not used.

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 Engineer.

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 Engineer 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. The counterpoise size is as shown on the plans. The equipotential method is applicable to all airfield lighting systems; i.e., runway, taxiway, apron – touchdown zone, centerline, edge, threshold and approach lighting systems. The equipotential method is also successfully applied to provide lightning protection for power, signal and communication systems. The light bases, counterpoise, etc., – all components – are bonded together and bonded to the vault power system ground loop/electrode.

Counterpoise wire shall be installed in the same trench for the entire length of buried cable, conduits and duct banks that are installed to contain airfield cables. The counterpoise is centered over the cable/conduit/duct to be protected.

The counterpoise conductor shall be installed no less than 8 inches (200 mm) minimum or 12 inches (300 mm) maximum above the raceway or cable to be protected, except as permitted below:

(1) The minimum counterpoise conductor height above the raceway or cable to be protected shall be permitted to be adjusted subject to coordination with the airfield lighting and pavement designs.

(2) The counterpoise conductor height above the protected raceway(s) or cable(s) shall be calculated to ensure that the raceway or cable is within a 45-degree area of protection, (45 degrees on each side of vertical creating a 90-degree angle).

The counterpoise conductor shall be bonded to each metallic light base, mounting stake, and metallic airfield lighting component.

All metallic airfield lighting components in the field circuit on the output side of the constant current regulator (CCR) or other power source shall be bonded to the airfield lighting counterpoise system.

All components rise and fall at the same potential; with no potential difference, no damaging arcing and no damaging current flow.

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 Equipotential Method of lightning protection.

Reference FAA STD-019E, Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment, Part 4.1.1.7.

b. Isolation. The counterpoise conductor shall be installed halfway between the pavement edge and the light base, mounting stake, raceway, or cable being protected.

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. When a nonmetallic light base is used, the grounding electrode shall be bonded to the metallic light fixture or metallic base plate 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 raceway is installed by the directional bore, jack and bore, or other drilling method, the counterpoise conductor shall be permitted to be installed concurrently with the directional bore, jack and bore, or other drilling method raceway, external to the raceway or sleeve.

The counterpoise wire shall also be exothermically welded to ground rods installed as shown on the plans but not more than 500 feet (150 m) apart around the entire circuit. The counterpoise system shall be continuous and terminate at the transformer vault or at the power source. It shall be securely attached to

the vault or equipment external ground ring or other made electrode-grounding system. The connections shall be made as shown on the plans and in the specifications.

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 Engineer. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the Engineer, 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 Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. 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 Engineer for approval. Earth resistance testing results shall be recorded on an approved form, and testing shall be performed in the presence of the Engineer. 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 Engineer 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 Engineer 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 50 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 Engineer prior to performing the testing.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. 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 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

108-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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
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Federal Aviation Administration Standard

FAA STD-019E	Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment
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END OF ITEM L-108

Item L-110 Airport Underground Electrical Duct Banks and Conduits

DESCRIPTION

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

EQUIPMENT AND MATERIALS

110-2.1 General.

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

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

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

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

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

110-2.2 Steel conduit. Rigid galvanized steel (RGS) conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standards 6, 514B, and 1242. All RGS conduits or RGS elbows installed below grade, in concrete, permanently wet locations or

other similar environments shall be painted with a 10-mil thick coat of asphaltum sealer or shall have a factory-bonded polyvinyl chloride (PVC) cover. Any exposed galvanizing or steel shall be coated with 10 mils of asphaltum sealer. When using PVC coated RGS conduit, care shall be exercised not to damage the factory PVC coating. Damaged PVC coating shall be repaired per the manufacturer's written instructions. In lieu of PVC coated RGS, corrosion wrap tape shall be permitted to be used where RGS is in contact with direct earth."

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

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

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

- a. Type I – Schedule 40 and Schedule 80 PVC suitable for underground use either direct-buried or encased in concrete.
- b. Type II – Schedule 40 PVC suitable for either above ground or underground use.
- c. Type III – Schedule 80 PVC suitable for either above ground or underground use either direct-buried or encased in concrete.
- d. Type III – HDPE pipe, minimum standard dimensional ratio (SDR) 11, suitable for placement with directional boring under pavement.

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

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

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

110-2.6 Concrete. Concrete shall be proportioned, placed, and cured per state department of transportation structural concrete and a minimum allowable compressive strength of 3,000 psi.

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

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

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

CONSTRUCTION METHODS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

110-3.3 Conduits without concrete encasement. Trenches for single-conduit lines shall be not less than 6 inches (150 mm) nor more than 12 inches (300 mm) wide. The trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

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

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits within the Airport's secured area where trespassing is prohibited are at least 18 inches (0.5 m) below the finished

grade. Conduits outside the Airport's secured area shall be installed so that the tops of the conduits are at least 24 inches (60 cm) below the finished grade per National Electric Code (NEC), Table 300.5.

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

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

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

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

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

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

Flowable backfill may alternatively be used.

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

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

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

110-3.6 Backfilling for duct banks. After the concrete has cured, the remaining trench shall be backfilled and compacted per Item P-152 "Excavation and Embankment" except that the material used for backfill shall be select material not larger than 4 inches (100 mm) in diameter. In addition to the

requirements of Item P-152, where duct banks are installed under pavement, one moisture/density test per lift shall be made for each 250 linear feet (76 m) of duct bank or one work period's construction, whichever is less.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

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

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

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

110-3.8 Ownership of removed cable. Section not used.

METHOD OF MEASUREMENT

110-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

110-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

REFERENCES

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

Advisory Circular (AC)

AC 150/5340-30 Design and Installation Details for Airport Visual Aids

AC 150/5345-53 Airport Lighting Equipment Certification Program

ASTM International (ASTM)

ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

National Fire Protection Association (NFPA)

NFPA-70 National Electrical Code (NEC)

Underwriters Laboratories (UL)

UL Standard 6 Electrical Rigid Metal Conduit - Steel

UL Standard 514B Conduit, Tubing, and Cable Fittings

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

END OF ITEM L-110

Item L-115 Electrical Manholes and Junction Structures

DESCRIPTION

115-1.1 This item shall consist of electrical manholes and junction structures (hand holes, pull boxes, junction cans, etc.) installed per this specification, at the indicated locations and conforming to the lines, grades and dimensions shown on the plans or as required by the Engineer. This item shall include the installation of each electrical manhole and/or junction structures with all associated excavation, backfilling, sheeting and bracing, concrete, reinforcing steel, ladders, appurtenances, testing, dewatering and restoration of surfaces to the satisfaction of the Engineer, including removal of existing manholes and junction structures as shown on the plans.

EQUIPMENT AND MATERIALS

115-2.1 General.

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

b. 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 Engineer) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item shall be submitted to the Engineer 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.

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

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from 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.

115-2.2 Concrete structures. Concrete shall be proportioned, placed, and cured per the requirements of the State DOT. Cast-in-place concrete structures shall be as shown on the plans.

115-2.3 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another engineer approved third party certification program. Provide precast concrete structures where shown on the plans.

Precast concrete structures shall be an approved standard design of the manufacturer. Precast units shall have mortar or bitumastic sealer placed between all joints to make them watertight. The structure shall be designed to withstand AASHTO H-10 traffic loading unless otherwise shown on the plans. Openings or knockouts shall be provided in the structure as detailed on the plans.

Threaded inserts and pulling eyes shall be cast in as shown on the plans.

If the Contractor chooses to propose a different structural design, signed and sealed shop drawings, design calculations, and other information requested by the Engineer shall be submitted by the Contractor to allow for a full evaluation by the Engineer. The Engineer shall review per the process defined in the General Provisions.

115-2.4 Junction boxes. Junction boxes shall be L-867 Class 1 (non-load bearing) or L-868 Class 1 (load bearing) airport light bases that are encased in concrete. The light bases shall have a L-894 blank cover, gasket, and stainless steel hardware. All bolts, studs, nuts, lock washers, and other similar fasteners used for the light fixture assemblies must be fabricated from 316L (equivalent to EN 1.4404), 18-8, 410, or 416 stainless steel. If 18-8, 410, or 416 stainless steel is utilized it shall be passivated and be free from any discoloration. Covers shall be 3/8-inch (9-mm) thickness for L-867 and 3/4-inch (19-mm) thickness for L-868. All junction boxes shall be provided with both internal and external ground lugs.

115-2.5 Mortar. The mortar shall be composed of one part of cement and two parts of mortar sand, by volume. The cement shall be per the requirements in ASTM C150, Type I. The sand shall be per the requirements in ASTM C144. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15% of the weight of cement used. The hydrated lime shall meet the requirements of ASTM C206. Water shall be potable, reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product.

115-2.6 Concrete. Concrete shall be proportioned, placed, and cured per State Department of Transportation structural concrete and a minimum allowable compressive strength of 3,000 psi.

115-2.7 Frames and covers. The frames shall conform to one of the following requirements:

- a. ASTM A48: Gray iron castings
- b. ASTM A47: Malleable iron castings
- c. ASTM A27: Steel castings
- d. ASTM A283, Grade D: Structural steel for grates and frames
- e. ASTM A536: Ductile iron castings
- f. ASTM A897: Austempered ductile iron castings

All castings specified shall withstand a minimum AASHTO H-10 loading.

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings specified.

Each frame and cover unit shall be provided with fastening members to prevent it from being dislodged by traffic, but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

Each cover shall have the word "ELECTRIC" or other approved designation cast on it. Each frame and cover shall be as shown on the plans or approved equivalent. No cable notches are required.

Each manhole shall be provided with a "DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" safety warning sign as detailed in the Contract Documents and in accordance with OSHA 1910.146 (c)(2).

115-2.8 Ladders. Ladders, if specified, shall be galvanized steel or as shown on the plans.

115-2.9 Reinforcing steel. All reinforcing steel shall be deformed bars of new billet steel meeting the requirements of ASTM A615, Grade 60.

115-2.10 Bedding/special backfill. Bedding or special backfill shall be as shown on the plans.

115-2.11 Flowable backfill. Flowable material used to backfill shall conform to the requirements of Item P-153, Controlled Low Strength Material.

115-2.12 Cable trays. Cable trays shall be of galvanized steel. Cable trays shall be located as shown on the plans.

115-2.13 Plastic conduit. Plastic conduit shall comply with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

115-2.14 Conduit terminators. Conduit terminators shall be pre-manufactured for the specific purpose and sized as required or as shown on the plans.

115-2.15 Pulling-in irons. Pulling-in irons shall be manufactured with 7/8-inch (22 mm) diameter hot-dipped galvanized steel or stress-relieved carbon steel roping designed for concrete applications (7 strand, 1/2-inch (12 mm) diameter with an ultimate strength of 270,000 psi (1862 MPa)). Where stress-relieved carbon steel roping is used, a rustproof sleeve shall be installed at the hooking point and all exposed surfaces shall be encapsulated with a polyester coating to prevent corrosion.

115-2.16 Ground rods. Ground rods shall be one piece, solid stainless steel, copper, or copper clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 8 feet (2.4 m) long nor less than 5/8 inch (16 mm) in diameter.

CONSTRUCTION METHODS

115-3.1 Unclassified excavation. It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Damage to utility lines, through lack of care in excavating, shall be repaired or replaced to the satisfaction of the Engineer without additional expense to the Owner.

The Contractor shall perform excavation for structures and structure footings to the lines and grades or elevations shown on the plans or as staked by the Engineer. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown.

All excavation shall be unclassified and shall be considered incidental to Item L-115. Dewatering necessary for structure installation and erosion per federal, state, and local requirements is incidental to Item L-115.

Boulders, logs and all other objectionable material encountered in excavation shall be removed. All rock and other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the Engineer. All seams, crevices, disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation. Excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

The Contractor shall provide all bracing, sheeting and shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheeting and shoring shall be included in the unit price bid for the structure.

Unless otherwise provided, bracing, sheeting and shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

After each excavation is completed, the Contractor shall notify the Engineer. Structures shall be placed after the Engineer has approved the depth of the excavation and the suitability of the foundation material.

Prior to installation the Contractor shall provide a minimum of 6 inches (150 mm) of sand or a material approved by the Engineer as a suitable base to receive the structure. The base material shall be compacted and graded level and at proper elevation to receive the structure in proper relation to the conduit grade or ground cover requirements, as indicated on the plans.

115-3.2 Concrete structures. Concrete structures shall be built on prepared foundations conforming to the dimensions and form indicated on the plans. The concrete and construction methods shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is placed.

115-3.3 Precast unit installations. Precast units shall be installed plumb and true. Joints shall be made watertight by use of sealant at each tongue-and-groove joint and at roof of manhole. Excess sealant shall be removed and severe surface projections on exterior of neck shall be removed.

115-3.4 Placement and treatment of castings, frames and fittings. All castings, frames and fittings shall be placed in the positions indicated on the Plans or as directed by the Engineer and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

Field connections shall be made with bolts, unless indicated otherwise. Welding will not be permitted unless shown otherwise on the approved shop drawings and written approval is granted by the casting manufacturer. Erection equipment shall be suitable and safe for the workman. Errors in shop fabrication or deformation resulting from handling and transportation that prevent the proper assembly and fitting of parts shall be reported immediately to the Engineer and approval of the method of correction shall be obtained. Approved corrections shall be made at Contractor's expense.

Anchor bolts and anchors shall be properly located and built into connection work. Bolts and anchors shall be preset by the use of templates or such other methods as may be required to locate the anchors and anchor bolts accurately.

Pulling-in irons shall be located opposite all conduit entrances into structures to provide a strong, convenient attachment for pulling-in blocks when installing cables. Pulling-in irons shall be set directly into the concrete walls of the structure.

115-3.5 Installation of ladders. Ladders shall be installed such that they may be removed if necessary. Mounting brackets shall be supplied top and bottom and shall be cast in place during fabrication of the structure or drilled and grouted in place after erection of the structure.

115-3.6 Removal of sheeting and bracing. In general, all sheeting and bracing used to support the sides of trenches or other open excavations shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a structure shall be withdrawn, unless otherwise directed, before more than 6 inches (150 mm) of material is placed above the top of the structure

and before any bracing is removed. Voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The Engineer may direct the Contractor to delay the removal of sheeting and bracing if, in his judgment, the installed work has not attained the necessary strength to permit placing of backfill.

115-3.7 Backfilling. After a structure has been completed, the area around it shall be backfilled in horizontal layers not to exceed 6 inches (150 mm) in thickness measured after compaction to the density requirements in Item P-152. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

Backfill shall not be placed against any structure until approval is given by the Engineer. In the case of concrete, such approval shall not be given until tests made by the laboratory under supervision of the Engineer establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

Where required, the Engineer may direct the Contractor to add, at his own expense, sufficient water during compaction to assure a complete consolidation of the backfill. The Contractor shall be responsible for all damage or injury done to conduits, duct banks, structures, property or persons due to improper placing or compacting of backfill.

115-3.8 Connection of duct banks. To relieve stress of joint between concrete-encased duct banks and structure walls, reinforcement rods shall be placed in the structure wall and shall be formed and tied into duct bank reinforcement at the time the duct bank is installed.

115-3.9 Grounding. A ground rod shall be installed in the floor of all concrete structures so that the top of rod extends 6 inches (150 mm) above the floor. The ground rod shall be installed within one foot (30 cm) of a corner of the concrete structure. Ground rods shall be installed prior to casting the bottom slab. Where the soil condition does not permit driving the ground rod into the earth without damage to the ground rod, the Contractor shall drill a 4-inch (100 mm) diameter hole into the earth to receive the ground rod. The hole around the ground rod shall be filled throughout its length, below slab, with Portland cement grout. Ground rods shall be installed in precast bottom slab of structures by drilling a hole through bottom slab and installing the ground rod. Bottom slab penetration shall be sealed watertight with Portland cement grout around the ground rod.

A grounding bus of 4/0 bare stranded copper shall be exothermically bonded to the ground rod and loop the concrete structure walls. The ground bus shall be a minimum of one foot (30 cm) above the floor of the structure and separate from other cables. No. 2 American wire gauge (AWG) bare copper pigtailed shall bond the grounding bus to all cable trays and other metal hardware within the concrete structure. Connections to the grounding bus shall be exothermic. If an exothermic weld is not possible, connections to the grounding bus shall be made by using connectors approved for direct burial in soil or concrete per UL 467. Hardware connections may be mechanical, using a lug designed for that purpose.

115-3.10 Cleanup and repair. After erection of all galvanized items, damaged areas shall be repaired by applying a liquid cold-galvanizing compound per MIL-P-21035. Surfaces shall be prepared and compound applied per the manufacturer's recommendations.

Prior to acceptance, the entire structure shall be cleaned of all dirt and debris.

115-3.11 Restoration. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt and rubbish from the site. The Contractor shall restore all disturbed areas equivalent to or better than their original condition. All sodding, grading and restoration shall be considered incidental to the respective Item L-115 pay item.

The Contractor shall grade around structures as required to provide positive drainage away from the structure.

Areas with special surface treatment, such as roads, sidewalks, or other paved areas shall have backfill compacted to match surrounding areas, and surfaces shall be repaired using materials comparable to original materials.

Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD) and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

After all work is completed, the Contractor shall remove all tools and other equipment, leaving the entire site free, clear and in good condition.

115-3.12 Inspection. Prior to final approval, the electrical structures shall be thoroughly inspected for conformance with the plans and this specification. Any indication of defects in materials or workmanship shall be further investigated and corrected. The earth resistance to ground of each ground rod shall not exceed 25 ohms. Each ground rod shall be tested using the fall-of-potential ground impedance test per American National Standards Institute / Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81. This test shall be performed prior to establishing connections to other ground electrodes.

115-3.13 Manhole elevation adjustments. The Contractor shall adjust the tops of existing manholes in areas designated in the Contract Documents to the new elevations shown. The Contractor shall be responsible for determining the exact height adjustment required to raise or lower the top of each manhole to the new elevations. The existing top elevation of each manhole to be adjusted shall be determined in the field and subtracted/added from the proposed top elevation.

The Contractor shall remove/extend the existing top section or ring and cover on the manhole structure or manhole access. The Contractor shall install precast concrete sections or grade rings of the required dimensions to adjust the manhole top to the new proposed elevation or shall cut the existing manhole walls to shorten the existing structure, as required by final grades. The Contractor shall reinstall the manhole top section or ring and cover on top and check the new top elevation.

The Contractor shall construct a concrete slab around the top of adjusted structures located in graded areas that are not to be paved. The concrete slab shall conform to the dimensions shown on the plans.

115-3.14 Duct extension to existing ducts. Where existing concrete encased ducts are to be extended, the duct extension shall be concrete encased plastic conduit. The fittings to connect the ducts together shall be standard manufactured connectors designed and approved for the purpose. The duct extensions shall be installed according to the concrete encased duct detail and as shown on the plans.

METHOD OF MEASUREMENT

115-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

115-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

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 National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

ANSI/IEEE STD 81 IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

Advisory Circular (AC)

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 150/5345-42 Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories

AC 150/5340-30 Design and Installation Details for Airport Visual Aids

AC 150/5345-53 Airport Lighting Equipment Certification Program

Commercial Item Description (CID)

A-A 59544 Cable and Wire, Electrical (Power, Fixed Installation)

ASTM International (ASTM)

ASTM A27 Standard Specification for Steel Castings, Carbon, for General Application

ASTM A47 Standard Specification for Ferritic Malleable Iron Castings

ASTM A48 Standard Specification for Gray Iron Castings

ASTM A123 Standard Specification for Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products

ASTM A283 Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates

ASTM A536 Standard Specification for Ductile Iron Castings

ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

ASTM A897 Standard Specification for Austempered Ductile Iron Castings

ASTM C144 Standard Specification for Aggregate for Masonry Mortar

ASTM C150 Standard Specification for Portland Cement

ASTM C206 Standard Specification for Finishing Hydrated Lime

FAA Engineering Brief (EB)

EB #83 In Pavement Light Fixture Bolts

Mil Spec

MIL-P-21035 Paint High Zinc Dust Content, Galvanizing Repair

National Fire Protection Association (NFPA)

NFPA-70 National Electrical Code (NEC)

END OF ITEM L-115

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Other Specifications

for

Construct AWOS-III - Bid Package 2

at

Sugarloaf Regional Airport (Carrabassett Valley, ME)

Central Maine Airport (Norridgewock, ME)

Greenville Municipal Airport (Greenville, ME)

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Item M-103 Closed Runway or Taxiway Markers

DESCRIPTION

103-1.1 Closed runway and taxiway markers shall be installed and maintained at the time and location indicated on the plans, or when ordered by the Engineer. The markers shall remain in place and clearly visible until the runway and taxiway are operational. The Contractor shall make a frequent inspection of the markers and make prompt repairs, as necessary.

MATERIALS

103-2.1 Lighted Portable (Mobile) Closed Runway Markers. Lighted portable (mobile) closed runway markers shall be furnished by the Contractor. Markers shall be in accordance with AC 150/5345-55, “Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure” and shall be operated and maintained by the Contractor.

103-2.2 Closed Taxiway Markers. Closed taxiway markers may be constructed of plywood, lumber, cloth, plastic, or other satisfactory material as approved by the Engineer and secured to the pavement with sandbags or other method approved by the Engineer. The color shall be aviation yellow.

METHOD OF MEASUREMENT

103-3.1 Closed taxiway and runway markers shall not be measured separately, and their cost shall be incidental to the total project.

BASIS OF PAYMENT

103-4.1 Where this item is shown on the plans, the costs for procuring, placing, and relocating the markers shall be incidental to the total project.

END OF ITEM M-103

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Item M-107 Aviation Barricades

DESCRIPTION

107-1.1 Aviation barricades shall be furnished by the Contractor and placed and maintained as shown on the plans or as ordered by the Engineer. The aviation barricades shall be installed when ordered by the Engineer. The aviation barricades shall remain in-place, clearly visible, until ordered removed by the Engineer. Flashing or steady burning red lights shall be placed on the barricades for nighttime use. Aviation barricades shall be placed a maximum of four (4) feet apart.

MATERIALS

107-2.1 Materials shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) or as shown on the plans.

METHOD OF MEASUREMENT

107-3.1 Aviation barricades shall not be measured separately, and their costs shall be incidental to the total project. No separate measurement will be made for relocation of the aviation barricades.

BASIS OF PAYMENT

107-4.1 Where this item is shown on the plans, the costs for procuring, placing, and relocating the barricades shall be incidental to the total project.

END OF ITEM M-107

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Item M-126 Automated Weather Observing System – Level III

DESCRIPTION

126-1.1 This item shall consist of installing an FAA approved Level III automatic weather observing system (AWOS) in accordance with this specification, the referenced specification, and the applicable FAA advisory circulars and orders. The systems shall be installed at the location and in accordance with the dimensions and details shown in the plans and FAA criteria. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the system in operation as a completed unit to the satisfaction of the Engineer and ready for commissioning by the Federal Aviation Administration.

This section includes payment for items which may reference standards and requirements included in other technical sections of these contract documents. In this case those technical sections shall govern the procurement and installation of those items, even if the payment for them is indicated under this section.

EQUIPMENT AND MATERIALS

126-2.1 General. The automatic weather observing system and other equipment and material covered by FAA specifications shall have the prior approval of the Federal Aviation Administration, Washington, D.C., 20591, as listed in Advisory Circular 150/5345-1, latest edition at time of bid opening.

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

126-2.2 AWOS System. The automated weather observing system (AWOS) shall be an FAA (type certificated) system in accordance with AC 150/5220-16 and Order 6560.20, latest edition, as manufactured by:

- a. All Weather, Inc.
- b. DBT Transportation Services, LLC
- c. Mesotech International

Additional manufacturers of the automatic weather observing systems (AWOS) will be considered subject to verification that the system has been type certificated by the Federal Aviation Administration on the bid opening date. The selected manufacturer shall forward certification that their system meets the Federal Aviation Administration's requirements along with a copy of the FAA's certification letter.

126-2.3 System Features. The AWOS system provided for this project shall, as a minimum, include the following features:

a. Output Modes: (Level III)

(1) Provide continuous ground-to-air broadcast on an assigned VHF frequency. The assigned frequency shall be confirmed with the Engineer immediately prior to installation. The VHF antenna shall be securely mounted in the location indicated on the plans. All penetrations to any buildings required for the mounting of the antenna or cabling shall be neat and weather tight.

(2) Provide hookup for telephone audio output on an assigned dial up telephone number. The telephone line shall be provided by Airport management through a Voice Over IP (VOIP) system or

through a copper line system. The proposed AWOS system shall be capable of operating through either communication method

(3) Provide video monitor, audio output, printer, keyboard, and master monitor at the Airport Manager's office. The Contractor shall provide all necessary interface equipment, monitor, printer, detachable keyboard, audio output equipment, and incidentals necessary to complete the unit. The audio output unit shall be provided with an on/off switch and volume control.

(4) Provide hookup for the AWOS to the National Airspace Data Interchange Network (NADIN) in conformance with the AWOS/ADAS Interface Control Document. The proposed AWOS system shall be capable of operating the NADIN through a modem or internet connection.

b. Input Modes: (Level III)

(1) Altimeter setting, vented per FAA requirements. The proposed finished elevation of the AWOS equipment building or equipment mast footer will be provided by the Owner. The Contractor shall provide an as-built location and elevation of the system for purposes of establishing the altimeter elevation and shall coordinate this elevation with the AWOS remanufacture. This information shall be collected by a professional land surveyor.

(2) Wind speed, direction, and gusts.

(3) Temperature.

(4) Dew point.

(5) Density altitude.

(6) Visibility.

(7) Cloud Height.

(8) "Notice-to-Airmen" (NOTAM) Messages.

A minimum of three (3) copies of all system documentation, including system description, maintenance manual, data recording forms, installation, check-out and operation instructions, and other documentation as required in FAA Advisory Circular AC 150/5220-16 and FAA Order 6560-20.

126-2.4 Equipment Enclosure. AWOS components not designed for outdoor use shall be located in the airport manager's office as shown in the plans and in accordance with manufacturer and FAA guidelines.

126-2.5 Concrete. The concrete shall have a minimum twenty-eight (28) day compressive strength of 3,500 PSI, unless higher strengths are recommended by the equipment manufacturer.

126-2.6 Reinforcing Steel. Reinforcing steel shall consist of deformed bars meeting the requirements of AASHTO-M31, grade 60.

126-2.7 Conduit. Conduit shall meet the requirements of the national electrical code and local code and AWOS equipment recommendation. In addition, all outdoor conduit shall meet the requirements of FAA Specification L-110.

126-2.8 Wire And Control Cables. Wire and control cables shall meet the requirements of the national electric code, local electric code and AWOS equipment manufacturers recommendation. Control cables shall be the manufacturer's required number of pairs plus two spare pairs individually shielded and suitable for direct earth burial. Power conductors shall meet the requirements of FAA Specification L-108.

126-2.9 AWOS Data Link. AWOS systems utilizing a radio data link for transmitting collected AWOS data to the system processor shall conform to all applicable FCC regulations, FAA requirements, and AWOS equipment manufacturers recommendations. The data link will operate on an assigned discrete

UHF offset frequency. The selected frequency shall be confirmed with the Engineer immediately prior to installation. The UHF antenna shall be securely mounted at the location shown on the plans. All penetrations to the building shall be neat and weather tight.

126-2.10 Tower. The tower utilized to mount the wind sensor, and any supporting towers, shall match the height specified in the plans. The tower shall conform to all AWOS equipment manufacturers specifications. Towers shall be of a tilt-down style as indicated on the plans.

126-2.11 Painting. The tower shall be painted with alternating bands of aviation surface orange and white in accordance with AC 70/7460-1 or approved waivers. The band widths shall be 1/7 of the height of the tower, and perpendicular to the vertical axis of the tower. Paint and aviation colors referred to in the specifications should conform to Federal Standards FED-STD-595, Colors as follows:

- a. Orange Number 12197 (Aviation Surface Orange) – 4 Bands
- b. White Number 17875 (Aviation White) – 3 Bands

The tower shall be primed in accordance with the manufacturer's specifications at the manufacturer's facilities.

126-2.12 Obstruction Light. A 2-bulb L-810 LED obstruction light shall be placed atop the wind tower in accordance with FAA requirements and Manufacturer's plans and specifications. The bulb type shall be one which is specifically designed to be visible to night vision goggles (NVG).

126-2.13 Wind Tower And Sensor Foundations. The wind tower and sensor foundations shall be constructed in accordance with the manufacturer's plans and specifications. The wind tower and sensors shall be located in the areas designated in the plans. The Contractor shall provide a sensor siting plan showing proposed locations of all sensors to the Engineer prior to construction.

126-2.14 Transient And Lightning Protection. AWOS equipment shall be protected against damage or operational upset due to lightning - induced surges on all sensors input lines, sensor supply lines, and incoming power and data communication lines. Equipment (including electrical circuits of fiber optics modems) and personnel shall be protected from lightning surges and voltages, from power line transients and charges. Lightning protection systems shall be designed and installed in accordance with the Lightning Protection Code, NFPA 7B, and manufacturers recommendations for all equipment and structures. Minimal lightning mitigation requirements are indicated on the plans. The Contractor shall enhance these items where required to meet the manufacture's minimum requirements.

CONSTRUCTION METHODS

126-3.1 General. The installation and testing of the equipment shall be completed in accordance with the national electric code, local electric code, AWOS equipment manufacturers and FAA guidelines per Specifications L-108, L-110, L-115, and M-129. The Contractor shall have the AWOS equipment manufacturer visit the site, provide instructions on the equipment's use, and inspect the final installation. The AWOS equipment manufacturer shall provide written certification that the equipment has been installed in conformance with their recommendations and guidelines.

126-3.2 AWOS CPU Power. Unless otherwise shown on the plans the Contractor shall utilize existing terminal building power sources for the indoor AWOS equipment. Where a new circuit specified, the circuit shall be sized in accordance with code requirements. The conduit run shall be concealed.

METHOD OF MEASUREMENT

126-4.1 Prepare AWOS Site. The Contractor shall complete the site stripping and clearing, excavation and embankment operations, compaction, topsoil handling, erosion and sediment controls, seeding, mulching and restoration of all disturbed areas required to install the AWOS system, including all incidental items associated with this work. The Contractor shall install the gravel housekeeping pad at the AWOS site and its associated work items. Measurement and payment for this item shall not be measured separately for payment but shall be measured on a lump sum basis, complete to provide all site grading, preparation, and restoration required for the AWOS. No separate measurement will be made.

126-4.2 Install AWOS System. The Contractor shall install the AWOS sensor, conduit runs, sensor power and control cable, data link, tower and foundations, obstruction lights, sensors, AWOS Computer equipment, peripheral and all other incidentals for a turnkey installation. Measurement for payment of cable, conduit and trench required shall be considered incidental to the AWOS installation. No separate measurement will be made for the remaining items necessary to complete the AWOS power and control system. The AWOS system equipment installed by the Contractor shall be measured as a lump sum, complete, in-place unit ready for operation and certified by the AWOS equipment manufacturer as properly installed and accepted by the Engineer. No separate measurement will be made.

126-4.3 AWOS System Power and Control. The Contractor shall complete all conduit, cable, junction boxes, grounding, trenching, duct markers, restoration, and associated incidentals, required to provide power and communications (where indicated) from the power source location shown on the plans to the AWOS location in the field. The Contractor shall install and complete the AWOS service rack as shown on the plans. Measurement and payment for this item shall not be measured separately for payment but shall be measured on a lump sum basis, complete to provide all work required to provide, install, and establish power and communications for the AWOS. No separate measurement will be made.

126-4.4 Building Modifications. The Contractor shall complete all modifications and additions to existing buildings or facilities required to establish power and communication services between the terminal building (or its equivalent as shown on the plans) and the AWOS system. This may include modifications to more than one building and may include modifications to existing electrical panels or other devices located inside of or mounted to these buildings. Modifications may be required to make new penetrations to existing walls, eaves, soffits, or similar, and where completed such penetrations shall be made in a weathertight manner appropriate for the construction type of the building. Measurement and payment for this item shall not be measured separately for payment but shall be measured on a lump sum basis, complete to provide all work required to modify existing buildings and their electrical components to provide power and communications for the AWOS. No separate measurement will be made.

126-4.5 Supplemental Antenna Tower. The Contractor shall provide and install any supplemental antenna tower indicated on the plans. This work shall include the appropriate tower to the style, type, lines, and grades indicated on the plans, and to include all tower appurtenances indicated for the tower. This work shall include all foundations, site establishment and site restoration required for the tower. Measurement and payment for this item shall not be measured separately for payment but shall be measured on a lump sum basis, complete to provide all work required to provide, install, and establish the supplemental antenna tower(s). No separate measurement will be made.

126-4.6 Triannual Inspections. Beginning on the effective date of the AWOS Commissioning NOTAM the Contractor shall complete on-site service to complete the FAA-mandated Triannual (3 times per year) inspections. This shall also include work to diagnose and remedy other issues which arise with the system during the inspections. This item shall not include costs which are otherwise covered by the project and equipment Warranty and which are otherwise included with or incidental to the project. The technician shall check in with Airport Management upon arrival and departure from the site. The complete annual series of three (3) Triannual trips shall be measured on a lump sum basis.

BASIS OF PAYMENT

126-5.1 Payment for items described above shall be made as follows:

Item M-126-5.1 Prepare AWOS Site (3B1) - per lump sum

Item M-126-5.1 Prepare AWOS Site (B21) - per lump sum

Item M-126-5.1 Prepare AWOS Site (OWK) - per lump sum

Item M-126-5.2 Install AWOS System (3B1) - per lump sum

Item M-126-5.2 Install AWOS System (B21) - per lump sum

Item M-126-5.2 Install AWOS System (OWK) - per lump sum

Item M-126-5.3 AWOS System Power & Control (3B1) - per lump sum

Item M-126-5.3 AWOS System Power & Control B21) - per lump sum

Item M-126-5.3 AWOS System Power & Control (OWK) - per lump sum

Item M-126-5.4 Building Modifications (3B1) - per lump sum

Item M-126-5.4 Building Modifications (B21) - per lump sum

Item M-126-5.4 Building Modifications (OWK) - per lump sum

Item M-126-5.6 Triannual Inspections (3B1) - per lump sum

Item M-126-5.6 Triannual Inspections (B21) - per lump sum

Item M-126-5.6 Triannual Inspections (OWK) - per lump sum

END OF ITEM M-126

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Item M-129 Installation, Splicing, and Testing of Cable

DESCRIPTION

129-1.1 Scope. This specification covers the installation and splicing of cable buried directly in ground or installed in duct and conduit. It includes trenches, installation of cables, installation in duct, and/or conduit and backfilling trenches.

129-1.2 Applicable Specifications.

Federal Specification WW-C-581	Galvanized Steel Conduit
Federal Specification W-C-581	Bituminized Fibre Duct
Military Specification MIL-I-7798	Plastic Electrical Insulating Tape
Federal Specification HH-T-111	Rubber Insulating Tape
National Electrical Code	Current Edition

129-1.3 Materials. The Contractor shall furnish all necessary materials not shown on the list of Government furnished material included as part of the contract. All electrical conductors shall be copper.

CABLE INSTALLATION DETAILS

129-2.1 Trench for Direct Earth Burial of Cables.

a. Excavation. Trenches shall be excavated in essentially straight lines and to such width and depth such that the cable will be a minimum of 24" below finished grade.

b. Backfill. The trench shall be backfilled in eight-inch maximum layers and tamped and compacted to at least the density of adjacent undisturbed ground. A minimum of three inches of bedding material under the cable and eight inches over the cable. Bedding material shall be sand.

The remainder of the trench backfilling may be done with excavated material provided it does not contain stones larger than four inches in diameter, and further provided that such material contains sufficient earth to prevent the trench from functioning as a drainage ditch.

Trenches shall not be excessively wet and shall not contain pools of water during the backfilling operations.

Unless otherwise specified in the contract, all trenches within airport boundaries shall be completely backfilled and tamped level with the adjacent surface; all trenches outside the boundaries shall be completely backfilled and tamped with backfill heaped over the trench.

c. Reconditioning Surface. Any excess excavated material shall be removed and disposed of in accordance with instructions from the Government's representative. After backfilling, the surface shall be left free from ruts and rough spots and subject to the conditions of the preceding paragraphs, shall be restored to its original level and conditions. In cultivated areas, sod or topsoil shall be preserved carefully and replaced by sod of quality equal to that removed. Where the disturbed surface is a newly seeded area, the restored surface shall be reseeded with the same quantity and formula of seed as that used in the original seeding.

The Contractor will be held responsible for maintaining all disturbed surfaces and replacements until final acceptance of the work involved.

At the time of final inspection, the Contractor shall be required to dig and properly backfill by hand, one test hole for every 400 feet of cable in trench. The location shall be determined by the Government representative. If the cables have not been installed correctly in accordance with the drawings and specifications, the Contractor shall unearth the cables by hand digging only and reinstall the cables in accordance with the drawings and specifications at no additional cost to the Government.

129-2.2 Cable Installation. Cable shall be run in one piece, without splices where possible, from connection to connection. The number of splices shall be kept to a minimum. The Contractor shall provide a plan for laying each reel of cable to the FAA representative prior to installing any of the cable. When cutting is required, cable ends shall be effectively sealed against moisture immediately after cutting.

Cable plows shall not be used for installing cable. Bends of a radius of less than eight times the diameter for rubber, plastic, and twelve times the diameter for metallic armored cable shall not be made. Cable that has been kinked shall not be installed.

129-2.3 Direct Earth Burial.

a. Laying Cable. Cable for direct earth burial shall be unreeled in place in the open trench or along the trench and carefully placed in the trench bottom. Pulling the cable into the trench or dragging along the trench will not be permitted.

b. Separation. The separation of power and control cables shall be as shown on the applicable drawings.

c. Cable Loop. Except where directed otherwise, a slack loop of approximately three feet shall be left on each end of cable runs, on one side of splices, and at all points where cable connections are brought above ground, the slack loop shall be installed with the same minimum depth requirements as the cable run. Loops shall have no bends with an inner radius less than twelve times the maximum diameter of the cable. Where cable is brought above ground, additional slack cable shall be left to make the required connections.

The location of each underground cable splice shall be shown by a cable marker slab placed above the splice with approximately one inch of the slab projecting above the surface. The concrete marker shall be as described above, except the words "Power Splice" or "Control Splice" shall be substituted for "Cable".

129-2.4 Installation Of Cable In Ducts And Conduit. Cable shall be installed in ducts and/or galvanized conduit at the places shown on the drawings. The cable shall be installed in such a manner and by such methods to ensure against harmful stretching of the conductor, injury to the insulation, or damage to the outer protective covering. No splices or joints will be permitted to be drawn inside ducts or conduit. If necessary to relieve strain on cable during pulling, a lubricant approved by Underwriters' Laboratories, Inc. shall be used.

a. Conduit and Conduit Fittings. All exposed conduits shall be adequately plugged or capped during construction to prevent entrance of foreign matter. Ground bushings shall be installed on all risers except as noted on installation drawings and connected to ground with No. 6 bare, solid, copper wire.

All conduit and conduit fittings shall be in accordance with Federal Specifications WW-C-581 and W-F-406. Sherarized conduit or conduit having equal protection may be substituted for zinc-coated conduit, where authorized by the Government representative. The bends and offsets in rigid conduit shall be made with an approved hickey or conduit bending machine. Pipe joint compound shall be used on all threaded joints and all joints shall be made up tight. Conduit shall be installed as a complete system for each unit, before conductors are pulled in. Conduit shall be fastened securely in place, and attached to steel work with galvanized clamps, straps, wraplock, or other approved fasteners. Conduit terminating in cabinets or

boxes shall be fastened with locknuts, washers and bushings, except when otherwise specified. Conduits terminated underground shall be provided with groundings and bushings.

129-2.5 Cable Terminating. Cables shall be terminated in the manner specified on the drawings and in accordance with the best practice of the art. Where potheads are used, strict conformance to the manufacturer's recommendations shall be followed. Terminations with or without potheads shall be made by experienced personnel regularly engaged in that type of work.

Potheads shall be tagged as to function, i.e., facility which it serves or other pertinent data. Tags shall be corrosion resistant metal and securely fastened to pothead conduit. Where terminations are made at substation high voltage bushings, they shall be taped for full voltage and varnished.

129-2.6 Stenciling And Marking. All terminals, boxes and conductors shall be appropriately marked as to phase, function or some other logical numbering or lettering system, as directed by the Government representative. The type of marking shall be marking tape, tags or other logical permanent, lasting, and weatherproof methods as approved by the Government representative.

129-2.7 Grounding. All metal cases of electrical equipment shall be grounded in accordance with the requirements of the National Electrical Code, the National Electrical Safety Code as specified herein. Ground rods shall be installed at locations detailed in the drawings and shall be driven into the ground so that the top is at 12 inches below grade. The ground rods shall be located at least two feet from concrete pads. Ground connectors, clamps and lugs where used shall be of the best commercial quality for lasting, trouble-free service and designed specifically for the service intended. Pipe straps shall not be used specifically for grounding purposes. The grounding conductor shall be No. 6 or larger bare copper wire and shall connect to the ground rod using a welding process similar and equal to Erico Products Corp. "Cadweld" or Burndy Corp. "Thermoweld." The ground wire shall be dressed flat against all steel surfaces over which it is installed. Ground rods shall be equal to Copperweld sectional ground rods with rolled threads at one end for joining together with couplings to form multiples of the individual 10-foot length.

129-2.8 Ground Resistance Test. The ground resistance shall be checked at each component with a "ground megger" instrument subject to the approval of the Resident Engineer. Ground resistance measurements shall be made for each individual ground rod (isolated from counterpoise system) by the "Fall-of-Potential" Method.

The ground resistance of each light station shall not exceed 25 ohms. Additional ground rods will be driven (minimum spacing 6') if necessary and connected in parallel to produce the desired readings. Additional ground rods may be secured to the original to increase the rod depth to 16 or 24 feet in lieu of parallel ground rods. This will be done at no additional cost to the Government.

A record shall be kept of each ground resistance reading and six copies turned over to the Engineer.

SPLICING OF CABLES

129-3.1 General Splicing Requirements. Cable splicing shall be performed only by experienced and qualified cable splicers regularly engaged in this type of work. Metallic armored cables and metallic shielded cables shall have the armor and shield bonded across splices to provide a continuous electrical path for the entire run.

The Contractor shall test each splice for conductor continuity and ground insulation resistance at the completion of each splice along the length of the cable run.

The cable ends to be spliced shall be trained, racked, or arranged as nearly as possible in the final position they will after splicing. The ends should be cut off squarely and with sufficient conductor overlap to allow

a symmetrical staggering of joints of individual conductors. It is desirable to tie or bind the cables so that they will not move during the splicing operation.

In the splicing operation, care must be exercised so that individual wire conductors and insulation are not nicked or damaged.

The individual wire conductors, prior to splicing, shall be cleaned bright to secure a low resistance electrical connection. When a cable is opened preparatory to splicing, the work should proceed without delay. If delay is encountered in completing a splice, the opened cable ends shall be protected to prevent entrance of moisture and foreign matter. Individual splices within a cable shall be staggered to keep the diameter of the resulting splice bundles as small as practical.

129-3.2 Methods. Splicing shall be performed in a manner similar and equal to that prescribed for the type of cable involved. Methods and materials described represent the minimum acceptable requirements. Improved techniques and materials may be employed provided the completed splice meets or exceeds the requirements specified herein. Plastic electrical insulating tape, when used, shall meet the requirements of Military Specification MIL-I-7798.

129-3.3 Cable Splicing Procedures. The cable shall be spliced with material from splice kits that shall be specifically designed for the type of cable being spliced.

129-3.4 Cable Splicing, Terminating and Arcproofing Materials. Tapes for splices or terminations shall be dated by the tape manufacturer to indicate that they have been manufactured no longer than six months prior to use in the work of this section.

All splicing, terminating and arcproofing materials shall be compatible, so that no one material will adversely affect the physical or electrical properties of any other, or of the wire or cable itself.

Splicing materials required for this installation shall conform to the following:

a. Connectors. Connectors shall be as follows:

- (1) Split sleeve solder connectors shall be high conductivity, corrosion-resistant type.
- (2) Solderless, uninsulated, compression connectors shall be high conductivity, corrosion resistant type.
- (3) Insulated, indenter type compression butt connectors.
- (4) Insulated integral self-locking flexible shell, expandable spring connectors.
- (5) Uninsulated, indenter type compression pigtail connectors.
- (6) Welded type connectors.

b. Terminals.

- (1) Solder terminals shall be high conductivity, corrosion resistant type.
- (2) Solderless, uninsulated, compression terminals shall be high conductivity, corrosion-resistant type.
- (3) Insulated, compression terminals.
- (4) Solderless, bolted terminals shall be high conductivity, corrosion-resistant, hex-screw type.
- (5) Welded type terminals.

c. Shrinkable Tubing.

(1) Heat shrinkable tubing shall be either irradiated modified polyvinyl chloride or irradiated modified polyolefin.

(2) Cold shrinkable tubing.

d. Tapes and sealers.

(1) Vinyl tape shall be flame-retardant, cold, and weather-resistant ¾-inch and 1 ½-inch wide, as required, conforming to UL 510 and ASTM D3005.

(a) Interior, dry locations: 7-mil conforming to ASTM D 3005 (Type I) Scotch (3M) No. 33 or approved equal.

(b) Exterior or damp and wet locations: 8.5-mil and conforming to ASTM D 3005 (Type II) Scotch (3M) No. 88 or approved equal.

(2) Rubber tape shall be ethylene-propylene, rubber-based, 30-mil splicing tape, rated for 130 degrees C operation: ¾-inch and wider (1, 1 ½, 2 inches) as required and approved, conforming to ASTM D 1373 and Federal Specification HH-I 553 (Grade A); Scotch (3M) No. 130C, or approved equal.

e. Binding wire. Binding wire shall be uninsulated, tinned copper.

f. Lead sleeve. Lead sleeve shall be 5/32 inches thick, commercially, and chemically pure, and shall conform to ICEA S-68-516 and ASTM B 29.

g. Solder.

(1) Solder used on the shielding braids of any cable shall be 50 Tin/50 Lead.

(2) Solder used for wiping the lead splice sleeve to the lead sheath of any cable shall be 40 Tin/60 Lead, Class A.

(3) Flux used when soldering conductor connectors or shielding tapes and shielding braids shall be of a non-corrosive and non-acid type.

h. Insulating compound. Insulating compound shall be installed in all lead covered splices and all potheads.

i. Arcproofing material.

(1) Fire resistant tape shall be Scotch No. 77 or approved equal.

(2) Glass cloth binding tape shall be Scotch No. 69 or approved equal.

j. Ground straps. Ground straps shall be flexible, tinned copper braid, equivalent to #6 AWG.

k. Special splicing materials and methods. Special splicing materials and methods shall be as shown on the Contract Drawings.

129-3.5 Wire and Cable Installation. Wires and cables shall be kept dry at all times.

Wire and cable ends shall be sealed with watertight caps if splicing or terminating does not follow at once.

Before splicing or terminating wires and cables, Contractor shall make a thorough inspection to determine that water has not entered the wires and cables or that the wires and cables have not been damaged.

Adequate lubrication shall be used when installing cables in conduits or raceways. Pulling compounds shall be of the type which will be compatible with the finish of the wires and cables furnished.

129-3.6 Grounding Wires and Cables. Splices and terminations shall be made by using either a welded type connection or a solderless, high conductivity, corrosion-resistant, compression type connector installed in accordance with the manufacturer's recommendation.

In hazardous or classified locations, splices shall be solderless, high conductivity, corrosion-resistant, compression type connectors and terminations shall be clamp type pressure connectors suitable for such use.

All underground connections shall be covered with two coats of asphalt base paint.

Each splice shall be bonded to ground, using a flexible ground strap, 2 feet long, #6 AWG or equivalent size.

139-3.7 Splices and Terminations. All wires and cables shall be spliced in each manhole through which they pass, unless otherwise noted herein or on the Contract Drawings, or where the Contractor submits pulling tension and sidewall pressure calculations and they are approved by the Engineer. Sufficient slack shall be provided for several resplicings.

Splices and terminations shall be completed by workmen trained and experienced in the type of cable and the voltage class, with not less than three years' experience in this specialty type of work.

Where required by the Engineer, sample splices shall be demonstrated to the Engineer, by each splicer working on the contract. The sample shall be provided to the Engineer after completion of the demonstration.

Terminations using stress-relief cones (conforming to Class 1, IEEE 48) shall be made in accordance with the cable manufacturer's recommendations.

Splices shall conform to IEEE 404 and shall:

- a. Meet the full electrical and physical integrity of the wire and cable construction, including voltage rating, ampacity, BIL, and type of waterproofing.
- b. Conform to the wire and cable manufacturer's requirements and recommendations.

Where cable is lead-sheathed construction, prior to splicing or terminating each cable shall be nitrogen purged to remove all moisture. The purging procedure shall be submitted in advance to the Engineer. All terminators shall include a lead wiping collar or adaptor, and all splices shall be lead-sleeve, wiped construction. Each splice shall be air-tested, prior to filling with insulating compound. Where cable is jacketed over the lead sheath, apply two half-laps of vinyl tape over the complete splice.

Where splices or terminators are on the Utility side of incoming service equipment, the splices or terminations shall be of the type and style approved by the Utility and shall be submitted to the Utility for approval.

129-3.8 Arcproofing.

- a. Wires and cables shall be arcproofed, as follows:

- (1) Arcproofing on wires and cables which have been disturbed for any reason shall be reinstalled as soon as possible after the disturbance.

- (2) All wire and cables operating at greater than 600 volts (line-to-line) shall be arcproofed.

- b. Arcproofing shall be installed as follows:

- (1) Wires and cables shall be grouped by circuit and arcproofing shall be applied over the group of cables comprising one circuit. Splices shall be arcproofed individually and the taping shall join with and be overlapped by the group taping.

- (2) Arcproofing shall be applied in two wrappings of half-lapped tape, bound with glass cloth tape applied at the ends of the tape and at intervals not to exceed 24 inches along the entire length of the cables. The two wrappings shall be wrapped with opposing-lays.

(3) Arcproofing shall extend into the conduit opening or end bell of the raceway entering a handhole, manhole or box.

(4) Arcproofing tape shall be 1 ½ -inches wide where the diameter of the individual cable, or the circumscribed circle for the circuit group, is less than 1 ¾-inches. For larger diameters, the tape shall be 3 inches wide.

129-3.9 Identification of Wires and Cables. All wires and cables shall be identified by circuits in all cabinets, boxes, manholes, handholes, wiring troughs, and other enclosures, and at all terminal points.

The circuit designations shall be as shown on the Contract Drawings. Tags shall be attached to wires and cables, so that they will be readily visible and available.

The tag ties shall be wrapped around all conductors comprising the circuit or feeder to be identified.

Wires and cables which are arcproofed shall be identified outside of the applied arcproofing.

Wires and cable tags shall be stainless steel metal tags, gauge and ¾-inch wide, embossed with letters and numbers 5/16-inch high, fastened to the cable at both ends of tags with 1/16-inch diameter monel metal wire or stainless-steel cable ties.

129-3.10 Test of Splices in Power Cables. The cable furnished for the job will be assumed to be capable of rated performance unless the Contractor makes tests prior to installation and reports otherwise in writing to the FAA representative.

Prior to performing any electrical tests, the Resident Engineer shall be notified. His presence will be required during the tests described herein.

129-3.11 Cables, 5,000 Volt. After installation, the cables, their splices and any terminations such as potheads installed by the Contractor, shall be tested for compliance with specification requirements. The Contractor shall furnish the necessary instruments except where indicated otherwise. The Contractor shall show evidence that the instruments have been calibrated within a period of two years preceding the test. The tests will be performed as follows:

a. Conductors, splices, wiring, etc., will be hi-potted at 10,000 volts D.C. by qualified contractor personnel using approved contractor equipment after complete installation and backfilling of trenches. The test will be made between conductors and from conductors to ground with cable shield and armor grounded, and for a period of not less than one minute after instrument readings have stabilized.

Minimums acceptable resistance values will be 50 megohms when measured at 10 KV D.C. Original insulation values of the cable have been substantially reduced to the specified 50 megohms in order to compensate for cable length, ageing of conductor insulation and other factors which may affect test results both before and during installation. Unless cable length should appreciably exceed ten thousand feet, no reduction in the specified insulation resistance will be considered.

b. A test will be made by the Contractor for continuity of the cable's shield and armor. An ohmmeter type instrument may be used.

c. If cables do not meet the applicable criteria after testing, it will be the Contractor's responsibility to make the necessary corrections to the cable so that the cable will test satisfactorily.

129-3.12 Secondary Power Cables. The Contractor shall furnish the necessary instruments. The Contractor shall show evidence that the instruments he uses for testing have been calibrated within a period of two years preceding this test.

The Contractor shall obtain approval from the Resident Engineer of the information to be impressed on the cable marker and for the method of impression. The letters shall be four inches high, three inches wide and one-half inch deep.

METHOD OF MEASUREMENT

129-4.1 All items included in this section are incidental to the pay items defined in Specification M-126 and shall not be separately measured.

BASIS OF PAYMENT

129-5.1 Payment for all items in this section is incidental to the pay items defined in Specification M-126.

Appendix A - Other Forms

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SAMPLE SUBMITTAL FORM

Project Name: Construct AWOS-III - Bid Package 2

Delta Project #: 24038 - MaineDOT

Submittal #:

Submittal Description:

Bid/Pay Item #:

Drawing Sheet #:

Date:

CONTRACTOR CERTIFICATIONS:

This shop drawing has been reviewed by [*Name of Contractor*] and approved with respect to the means, methods, techniques, sequences, procedures of construction, safety precautions and programs incidental thereto. [*Name of Contractor*] also warrants that this shop drawing complies with the contract documents and comprises no variations thereto, unless noted below.

[*Name of Contractor*] certifies that this shop drawing complies with Buy American requirements as established under 49 USC Section 50101. Steel products must be 100% U.S. domestic product Manufactured Products. Preference shall be given to products that are 100% manufactured and assembled in the U.S. Manufactured products not meeting the 100% U.S. domestic preference may only be used on the project if the FAA has officially granted a permissible waiver to Buy American Preferences.

PROPOSED VARIATIONS OR SUBSTITUTIONS

Signature: _____

Date: _____

Printed Name: _____

Company Name: _____

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Certificate of Substantial Completion

Project: Construct AWOS-III - Bid Package 2
Airports: Sugarloaf Regional Airport (Carrabassett Valley, ME – B21)
Central Maine Airport (Norridgewock, ME – OWK)
Greenville Municipal Airport (Greenville, ME – 3B1)
Grant No(s).: Pending
MaineDOT Project WIN No.: 018717.12
Contract Date: _____

This Certificate of Substantial Completion applies to all Work performed under the Contract Documents and authorized alterations and additions thereto for the above-named Project completed by _____ (Contractor) for the Maine Department of Transportation (Owner).

The Work to which this Certificate applies has been observed by authorized representatives of the Owner, Contractor, and Engineer, and that the Work is hereby declared to be substantially complete in accordance with the Contract Documents as of _____.

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of Contractor to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by the Contractor within thirty (30) calendar days of the above Date of Substantial Completion.

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

ENGINEER: Delta Airport Consultants, Inc.

Name: (print) _____

Signature: _____ **Date:** _____

CONTRACTOR: _____

Name: (print) _____

Signature: _____ **Date:** _____

OWNER: Maine Department of Transportation

Name: (print) _____

Signature: _____ **Date:** _____

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Certificate of Final Acceptance

Project: Construct AWOS-III - Bid Package 2
Airports: Sugarloaf Regional Airport (Carrabassett Valley, ME – B21)
Central Maine Airport (Norridgewock, ME – OWK)
Greenville Municipal Airport (Greenville, ME – 3B1)
Grant No(s).: Pending
MaineDOT Project WIN No.: 018717.12
Contract Date: _____

This Certificate of Final Acceptance applies to all Work performed under the Contract Documents and authorized alterations and additions thereto for the above-named Project completed by _____ (Contractor) for the Maine Department of Transportation (Owner).

The Work to which this Certificate applies has been observed by authorized representatives of the Owner, Contractor, and Engineer, and that Work is hereby accepted as complete on _____.

The following documents and information are attached to and made a part of this Certificate:

- (1) Warranty of Construction
- (2) Lien and Claims Release

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

ENGINEER: Delta Airport Consultants, Inc. _____

Name: *(print)* _____

Signature: _____ Date: _____

CONTRACTOR: _____

Name: *(print)* _____

Signature: _____ Date: _____

OWNER: Maine Department of Transportation _____

Name: *(print)* _____

Signature: _____ Date: _____

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**Appendix B - Construction Safety and Phasing Plan
(Sugarloaf Regional Airport)**

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CONSTRUCTION SAFETY & PHASING PLAN

Construct AWOS-III – Bid Package 2

Sugarloaf Regional Airport

Carrabassett, Maine

Maine WIN No. 018717.12

Delta Project No. 24038

May 2026

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INTRODUCTION

Aviation safety is a primary consideration at airports, especially during construction. In accordance with FAA Advisory Circular (AC) 150/5370-2G, “Operational Safety on Airports During Construction,” a Construction Safety and Phasing Plan (CSPP) must be developed on each on-airfield construction project funded by the Airport Improvement Program (AIP), Passenger Facility Charge (PFC) program or for any project located on an airport certificated under Part 139.

The CSPP sets forth benchmarks and requirements for the project and is the airport operator’s guideline for developing the highest levels of safety, security, and efficiency at the airport during project construction. The CSPP is to be used by all personnel involved in the project, including construction personnel, inspection personnel, and airport staff. This document has been developed for this construction project in order to minimize interruptions to airport operations, control construction costs, and maximize the performance and safety of construction activity.

The Contractor shall be required to submit a Safety Plan Compliance Document (SPCD) to the airport operator describing how the Contractor will comply with the requirements set forth in this CSPP. The SPCD must be submitted to and approved by the airport operator prior to issuance of the Notice to Proceed. The SPCD includes a certification statement by the Contractor that indicates it understands the operational safety requirements of the CSPP and asserts it will not deviate from the approved CSPP and SPCD unless written approval is granted by the airport operator.

In the event the Contractor’s activities are found in non-compliance with the provisions of the CSPP or the SPCD, the Contractor shall immediately cease those operations in violation. In addition, the Contractor will conduct a safety meeting, with the airport operator’s representative present, and review those provisions in the CSPP/SPCD which were violated. The Contractor will not be allowed to resume construction operations until conclusion of the safety meeting and implementation of corrective actions.

PROJECT SCOPE

This CSPP has been prepared for upcoming airfield projects at the Sugarloaf Regional Airport Airport in Carrabassett, Maine. The project includes the construction of an AWOS-III weather observing system.

The Sugarloaf Regional Airport Airport is an Airport Reference Code (ARC) A-I, small general aviation facility with general aviation activity. The airport has one runway: 17-35 which is 2,797' long by 75' wide.

1. COORDINATION

Coordination of safety issues will occur throughout all stages of the project. Key conferences and meetings include:

1.1. Design Coordination

Design coordination will be completed with the affected agencies and organizations to discuss operational safety. Participants will include tenants, funding agencies, FAA District Office, State Aviation personnel, the Engineer, and airport operator staff. Input will be solicited on key safety issues to be considered, methods to ensure safety during construction, required protocols, advance notices, and other requirements that need to be incorporated in the contract bid documents.

1.2. Prebid Meeting

A prebid meeting with potential bidders and construction contractors will take place. The meeting will be held approximately 10 days prior to the bid opening date. During the meeting, safety will be discussed, with an emphasis on the unique aspects of construction on an active airfield. FAA Advisory Circular 150/5370-2G will be reviewed, as will the requirements for the Contractor-prepared SPCD. It will be made clear in both the contract documents as well as the pre-bid meeting that the SPCD is the responsibility of the Contractor.

1.3. Preconstruction Meeting

A preconstruction meeting will be held once a construction contract has been awarded, but prior to the start of construction. Invitees will include users, tenants, prime contractor, subcontractors, funding agencies, FAA District Office, State Aviation personnel, the Engineer, Resident Project Representative, and the airport operator staff. The FAA Airports District Office should ensure that all appropriate FAA offices and Federal agencies that may have an interest in the project are notified.

The airport operator, or authorized agent will prepare an agenda prior to the preconstruction meeting. This will include, but not be limited to:

- a. project scope and phasing requirements;
- b. relationship between airport operator, airport operator's authorized agent, and the Contractor;
- c. relationship between the airport operator and the FAA;
- d. identification of Contractor's superintendent and discussion of authority and responsibilities;
- e. designation of airport operator representative responsible for notifying the Flight Service Station of any circumstances requiring a NOTAM;
- f. scheduling of work and phasing requirements;
- g. notice to proceed date;
- h. safety during construction, including responsibility for marking and lighting of closed and hazardous areas, all in accordance with FAA AC 150/5370-2G *Operational Safety on Airports During Construction*;
- i. security requirements;
- j. communications and documentation protocols, including contact information for all key personnel.

Emphasis will be placed on compliance with the established CSPP and approved SPCD.

1.4. Contractor Progress Meetings

Progress meetings will be held throughout the construction phase, with operational safety as a standing agenda item. Given the sequence of the work, standing meetings are not anticipated and may occur to address key phases of the work. Current compliance issues and upcoming critical work will be reviewed. Meeting participants will include the Engineer, the Resident Project Representative, the Contractor, and the airport operator. Daily meetings between the Resident Project Representative and key Contractor personnel will also occur to address daily work schedules and associated operational concerns. When necessary, appropriate FAA/State personnel, airport staff, or affected tenants will attend progress meetings.

1.5. Scope or Schedule Changes

Coordination between the Engineer, Contractor, FAA, and the airport operator will occur in the event of any scope or schedule changes. It will be determined if revisions to either the CSPP or the SPCD are required as a result of any scope or schedule changes. Revisions to these documents will be routed through the appropriate approval channels prior to beginning construction in areas of impact.

2. PHASING (CONSTRUCTION SEQUENCING)

This discussion reviews the construction phasing and work areas defined for the project. The phasing generally provides the desired sequencing for the project. The defined work areas address work limitations. These limitations are primarily associated with operational safety, focusing on maintaining adequate separation between the Contractor's activities and aircraft operations and limiting the time that Contractor activities impact airport operations. Refer to the phasing plans in Attachment A for work areas. General elements of this sequencing and phasing are described in the following subsections.

2.1. Construction Staging Areas

Refer to the phasing plans in Attachment A for staging area locations and general safety and security notes concerning use of the staging areas. Construction staging areas and Contractor employee parking areas are to remain outside of all object free areas and all safety areas for all active airfield surfaces.

2.2. Construction Access and Haul Routes

Refer to phasing plans in Attachment A for access and haul route locations and general safety and security notes concerning use of access and haul routes. Applicable control along haul routes for both safety and security must be maintained at all times.

2.3. Firefighting Access Routes

Emergency firefighting access in and around the site will be maintained by the Contractor, as required, for the duration of this project. Construction contractors must prominently mark open trenches and excavations within the construction site, with approval from the airport operator, and light them with red lights during hours of restricted visibility or darkness. There are no designated ARFF or EMS routes on the airport.

2.4. Required Hazard Marking and Lighting

Refer to the phasing plans in Attachment A for required hazard marking and lighting. Reference Sections 15, 16, and 17 of this CSPP for additional information.

2.5. Work Area Phasing.

Work areas have been defined to limit the Contractor's activities and minimize impact to airport operations. The project includes a single work area adjacent to the terminal apron. The work in this area will not require closure of the apron nor access across any runway. The site may be accessed without impacts to airport operations, although a temporary closure of a taxilane is required for work in the TLSA.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

Runways and taxiways shall remain in use to the maximum extent possible without compromising safety. See Table 3-1 for a summary of effects on airport operations created by this project. Meetings with the Engineer, Contractor, and the airport operator will occur before construction begins on each phase. Items discussed during these meetings are described below:

3.1. Identification of Affected Areas

The affected areas for each construction phase are identified in the phasing plans in Attachment A.

3.1.1. Closing or partial closing of runways, taxiways, and aprons. See Attachment A.

3.1.2. Closing of firefighting access routes. Access into, through, and/or around the project work area by emergency vehicles may be affected during construction. Refer to the phasing plans (Attachment A) for requirements. There are no dedicated ARFF routes at the airport.

3.1.3. Approach/departure surfaces affected by heights of objects. Contractor equipment used in the project and/or staging area may impact approach/departure surfaces. Equipment locations shall not violate runway Part 77 surfaces except under special waiver conditions. FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, must be submitted by the airport operator to the FAA ADO, and approved prior to construction. Refer to the phasing plans (Attachment A) for requirements.

3.1.4. Construction areas. Construction areas, including actual construction, storage/stockpiles, employee parking, staging areas, and haul routes are located near active airfield surfaces. Refer to the phasing plans (Attachment A) for requirements.

3.2. Mitigation of Effects

Establishment of specific procedures is necessary to maintain the safety and efficiency of airport operations. All coordination pertaining to airport operations during construction shall be with the airport operator's designated representative. Specific contacts will be discussed in detail at the preconstruction meeting.

3.2.1. Temporary and permanent changes to runway and/or taxi operations. There are no anticipated impacts to runway/taxi operations (Attachment A).

3.2.2. Detours for ARFF and other airport vehicles. The project work site shall remain open to all firefighting and rescue vehicles in emergency situations. The Contractor is required to maintain access into the project work area for firefighting and rescue vehicles.

3.2.3. Maintenance of essential utilities. Special attention will be given by the Contractor to preventing unscheduled interruption of utility services and facilities. Where required by construction, the Contractor will follow prescribed procedures to locate all utilities (aboveground and underground) prior to working around them. All utility outages will be coordinated in advance in accordance with the procedures included in the plans and specifications. When a utility is damaged, it shall immediately be repaired by the Contractor in accordance with the procedures in the plans and specifications.

4. NAVIGATION AIDS (NAVAIDS) PROTECTION

Before beginning any construction activity, parking of equipment, or storing construction materials near a NAVAID, coordination with the appropriate FAA ATO to evaluate the effects of construction activity on the facility must take place. Necessary clearance distances will be coordinated at daily and weekly progress meetings (refer to Section 1, "Coordination"). No NAVAIDS are anticipated to be impacted by this project.

5. CONTRACTOR ACCESS

5.1. Location of Stockpiled Construction Materials

Stockpiled materials and equipment storage are not permitted within the safety area, obstacle free zone, or object free area of any active runway or taxiway. Stockpiled materials shall be stored at a location approved by the airport operator and constrained in a manner to prevent movement resulting either from prop wash, jet blast, or wind. Stockpile heights shall not exceed 5 feet and shall not penetrate protected airspace (refer to the plans for information on protected airspace). Stockpiled materials and equipment adjacent to these areas shall be prominently marked and lighted during hours of restricted visibility or darkness. Further reference is directed to Section 6, “Wildlife Management,” Section 7, “Foreign Object Debris Management,” and Section 17, “Protection of Runway and Taxiway Safety Areas.”

5.2. Vehicle and Pedestrian Operations

Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals into the AOA.

5.2.1. Construction site parking. Vehicle parking areas for Contractor employees shall be as shown on the plans or as designated by the airport operator.

5.2.2. Construction equipment parking. Equipment not in use shall be parked in the construction staging area shown on the plans.

5.2.3. Access and haul roads. Access routes used by contractors shall be clearly marked to prevent inadvertent entry to open aircraft operational areas. If the access routes share or cross any routes designated for use by ARFF, right of way shall be maintained at all times unless alternate routes have been established. The Contractor shall only use the access and haul roads designated by the airport operator. The airport operator will provide access to the Contractor only after the Contractor has received training from the airport operator. These haul routes are shown in the construction plans.

5.2.4. Marking and lighting of vehicles. Equipment and vehicles shall be marked with 3-foot by 3-foot orange and white checker flags (day only) or yellow flashing dome type lights (day or night). Additionally, all Contractor vehicles operating in the AOA shall be clearly labeled with the Contractor's name visible from 200 feet.

5.2.5. Description of proper vehicle operations. Vehicle operations shall be in accordance with Advisory Circular 150/5210-20 "Ground Vehicle Operations on Airports."

5.2.5.1. Normal conditions. Project haul routes and phasing have been established to prevent the crossing of any open airfield pavements. At no time will the Contractor enter an active runway or taxiway safety area.

5.2.5.2. Lost communications or emergency conditions. In the event that radio communications are lost, the driver shall pull onto the shoulder out of the way of any possible aircraft. The vehicle should then visually verify no aircraft are approaching the area and then proceed to a safe location on the airport. There is no air traffic control tower at this airport.

5.2.6. Required escorts. All untrained drivers shall be escorted at all times when on the AOA side of the security fence. Escorted vehicles shall be marked and lighted in accordance with this Section 5.

5.2.7. Training requirements. The airport operator will provide access to the Contractor only after the Contractor has received safety and security training from the Owner.

5.2.8. Situational awareness. Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

5.2.9. Two-way radio communication procedures.

Given the nature of the construction the Contractor is not required to maintain radio communications with aircraft.

5.2.10. Maintenance of the secured area of the airport

5.2.10.1. Care shall be taken to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates shall be equipped so that they can be securely closed and locked to prevent access by animals and unauthorized persons. Procedures shall be established to ensure that only authorized persons and vehicles have access to the AOA and that vehicles are allowed through the gate one at a time, i.e. no “piggybacking” behind another person or vehicle. The Contractor is responsible for ensuring that all employees of the Contractor and Subcontractors use only the authorized access point to the AOA and verifying that the access point is secure immediately after use. Gates that fail shall be reported immediately to the airport operator and shall be guarded by the Contractor until the airport operator mobilizes to secure the opening.

5.2.10.2. The Contractor shall maintain separation between the airside and non-secure side of the airport at all times. The perimeter fence shall be maintained on a continuous basis with any temporary opening being continuously guarded by the Contractor’s designated employee. The airport is subject to FAA security requirements and rigid adherence is mandatory. Any fines for unauthorized personnel entering through the Contractor’s entrance points will be deducted from monies due the Contractor. Reference is directed to Section 5. Temporary openings and construction gates shall be secured and locked at the completion of work each day.

5.2.10.3. The Contractor shall delineate limits of construction prior to beginning work each day. The Contractor’s personnel shall not be beyond the limits of construction without authorization from the Owner. Violators are subject to removal from the jobsite and loss of AOA working privileges.

5.2.10.4. The Airport reserves the right to require all personnel working inside the AOA to security training from the Airport. The Airport also reserves the right to bar personnel from the Airport for any security-related reason.

6. WILDLIFE MANAGEMENT

6.1. Trash

Food scraps shall be collected from construction personnel activity. Trash shall be disposed of weekly, or more frequently if necessary, to discourage wildlife encroachment.

6.2. Standing Water

Areas of standing water shall be kept to a minimum so as not to attract wildlife.

6.3. Tall Grass and Seeds

Only the grasses specified on the plans and in the specifications may be used for either temporary or permanent seeding. Incompatible plants could be an unwanted bird attractant.

6.4. Poorly Maintained Fencing and Gates

Reference is directed to Section 5 “Contractor Access” in regard to the importance of maintaining security on the airport so as to discourage access by wildlife.

6.5. Disruption of Existing Wildlife Habitat / Wildlife Sightings

Contractor personnel shall immediately notify the airport operator of significant wildlife sightings.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Materials capable of creating FOD shall be continuously removed during the project and must not be left or placed near active aircraft movement areas. The following measures will be utilized to control and monitor FOD:

- Worksite housekeeping
- Ground vehicle tire inspections
- Runway and taxiway sweeps

Inspection requirements are outlined in Section 10.

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

The Contractor shall be prepared to immediately contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Provisions for HAZMAT management shall be addressed in the Contractor's Storm Water Pollution Prevention Plan (SWPPP). The HAZMAT management procedures shall include, but not be limited to the following:

- Fuel deliveries
- Spill recovery procedures
- Material Safety Data Sheets (MSDS) availability

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

This section outlines procedures for maintaining communication in the event that airport users and the FAA must be notified immediately of any conditions adversely affecting the operational safety of the airport.

9.1. Contact List

The Contractor shall provide a list of responsible representatives/points of contact for all involved parties, and procedures for contacting each of them, including after hours. The Contractor must have someone available to take emergency calls from the airport operator throughout the entire construction time period. The Contractor's list shall also include the airport point of contact, ATCT (if applicable), and the Engineer to ensure that Contractor personnel have the contacts that they need in the event of a safety related event.

Airport points of contact are as follows:

- Emergency Telephone Number (Police/Fire/Rescue): 911
- Information, Compliance, and Assistance:
 - Airport Manager: 207-350-1415 (Tom Wallace)

9.2. NOTAMs

The airport operator shall be responsible for the issuance of all NOTAMs. Only the airport operator may initiate or cancel NOTAMs on airport conditions and is the only entity that can open or close a runway. The airport operator shall coordinate the issuance, maintenance, and cancellation of NOTAMs

regarding airport conditions resulting from construction activities with tenants and provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) for issuance of NOTAMs.

9.3. Emergency notification procedures

In the event of an emergency, the Contractor shall call 911. Additional notification procedures will be reviewed at the preconstruction meeting, and periodically at construction progress meetings, and distributed to all appropriate parties.

9.4. Notification to the FAA

9.4.1. Part 77. Any proposed construction or alteration of objects that affect navigable airspace, as defined in FAR Part 77, shall be coordinated with the FAA by submitting FAA Form 7460-1, “Notice of Proposed Construction or Alteration” to the appropriate FAA Airports Regional or District Office. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, and other equipment) on the airport.

9.4.2. NAVAIDS. No NAVAIDS are anticipated to be impacted by this project.

10. INSPECTION REQUIREMENTS

10.1. Daily Inspections

Inspections shall be conducted by the Contractor at least daily to ensure compliance with the CSPP. A sample checklist is provided in Attachment B. In addition, daily inspections will be conducted by the airport operator or their Representative to ensure compliance with the CSPP and the SPCD.

10.2. Final Inspections

A Final Inspection will be conducted by the airport operator, Engineer, FAA, and State upon substantial completion of the project.

11. UNDERGROUND UTILITIES

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. The Contractor shall locate, or arrange for the location of underground utilities, cables, wires, pipelines, and other underground facilities located in excavation areas shall be located. This shall include coordination

with public utilities, “One Call” or “Miss Utility” services. FAA ATO/Technical Operations shall be contacted for location and marking of FAA NAVAID cables. Full coordination between the airport operator’s representatives and construction personnel will take place to ensure that these items are protected at all times during construction. If the Contractor damages any active utility during construction, immediate action shall be taken by the Contractor to repair the utility. Refer to Section 9 “Notification of Construction Activities” for contact information.

12. PENALTIES

12.1. Failure on the part of the Contractor to adhere to the requirements of this CSPP, and the plans and specifications, may have consequences that jeopardize the health and safety of persons on or near the construction site. Penalties for such actions are established by the airport operator and may include fines, suspension of construction, and/or removal from the job site. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.2. Unauthorized personnel entering through the Contractor’s access point is a violation of this CSPP and may result in a fine. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.3. Contractor personnel found to be beyond the limits of construction without authorization from the Owner are subject to removal from the jobsite and loss of security badge and/or secured area working privileges.

13. SPECIAL CONDITIONS

Special conditions that require safety mitigation action include the following:

- Low-visibility operations
- Snow removal
- Aircraft in distress
- Aircraft accident
- Security breach
- Vehicle/pedestrian deviation (VPD)

During these events the Contractor will be required to suspend operations, clear active construction zones, or other measures as directed by the airport operator. Notification procedures in Section 9 shall be followed. See also Sections 5, “Contractor Access,” and 14, “Runway and Taxiway Visual Aids.”

14. RUNWAY AND TAXIWAY VISUAL AIDS

14.1. General

Those areas where aircraft will be operating shall be clearly marked to separate them from construction areas. Airport markings, lighting, signs, and visual NAVAIDs shall be clearly visible to pilots and not misleading, confusing, or deceptive. This shall be verified throughout the construction of the project. All facilities shall be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents. The facilities shall be constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

14.2. Markings

Temporary markings are not required.

14.2.1. Temporarily Closed or New Taxiways. For temporarily closed taxiways or new taxiways prior to opening, an X shall be placed at the entrance to each taxiway as indicated in the phasing plans.

14.3. Lighting and Signage.

Temporary lighting is required. Refer to the phasing plans (Attachment A) for details on temporary lighting for the project.

14.3.1. Temporarily Closed Taxiways. Temporary closed taxiways shall have their lights de-energized or covered. Directional sign panels associated with temporary closed pavements shall be removed and replaced with a blank panel or covered.

14.4. NAVAIDs.

No temporary NAVAIDs are required.

15. MARKING AND SIGNS FOR ACCESS ROUTES

Pavement markings and signs for construction personnel shall conform to AC 150/5340-18 on the runway and taxiway. Elsewhere, access route marking and signs shall conform to the Federal Highway

Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications. Signs adjacent to areas used by aircraft shall comply with the frangibility requirements on AC 150/5220-23, “Frangible Connections.” The height of temporary signage shall be restricted so as not to penetrate any avigational surfaces (avigational surfaces are described in the phasing plans in Attachment A). Temporary markings and signage are indicated in the phasing plans.

16. HAZARD MARKING, LIGHTING, AND SIGNAGE

16.1. Purpose

The purpose for delineating work areas is to prevent pilots and other airport personnel who do not belong in the construction area from entering. Work areas will be delineated with closed markers, aviation barricades, and bucket barricades. The first item of work in any work area will be the installation of the necessary closed markers and barricades to isolate the areas of proposed construction. All runway and taxiway closures will be fully coordinated with the airport operator to ensure that the proper NOTAMs are issued.

16.2. Barricades

Barricades are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.3. Lights

Lights shall be red, either steady burning or flashing, and meet the luminance requirements of the State Highway Department. Lights shall be mounted on barricades and spaced at no more than ten (10) feet apart. Lights shall be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations.

16.4. Signs

The barricades shall be supplemented with signs (for example “No Entry,” “No Vehicles”) as necessary. Signs shall conform to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications.

16.5. Air Operations Area – General

Barricades are not permitted in any active safety area. Within a runway or taxiway object free area, and on aprons, the following shall be used to separate all construction/maintenance areas from the movement area:

- Orange traffic cones
- Flashing or steady burning red lights
- Collapsible barricades with diagonal, alternating orange & white stripes
- Signs

All barricades adjacent to an open runway or taxiway / taxilane safety area or apron shall be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags. Barricades shall be of low mass; easily collapsible upon contact with aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. Barricades affixed to the surface shall be frangible at grade level or as low as possible, but not to exceed 3 inches above the ground. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.6. Air Operations Area – Runway / Taxiway Intersections

Highly reflective barricades with lights shall be used to close taxiways where work is occurring in the TLSA. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.7. Air Operations Area – Other

For areas outside runway and taxiway object free areas and safety areas and aprons, barricades intended for construction vehicles and personnel may consist of different shapes and may be constructed from various materials, including railroad ties, sawhorses, jersey barriers, or barrels. The Contractor shall coordinate these barricades, and their locations with the airport operator's representative.

16.8. Maintenance

The construction specifications include a provision requiring the Contractor to have personnel on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades.

Refer to the phasing plans in Attachment A for graphical depictions of hazard marking, lighting, and signage.

17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS

17.1. Runway Safety Area. Construction activities within the existing RSA are subject to the following conditions:

17.1.1. No activity is permitted while the runway is open for aircraft operations. Reference is directed to Section 5 for information on Contractor access to runway safety areas. No construction is proposed within an RSA at any time.

17.1.2. Excavations

17.1.2.1. Stockpiling of materials, open trenches, or excavations are not permitted within the RSA while the runway is open. Stockpiled materials shall be removed prior to opening the runway. Trenches shall be either backfilled or covered prior to opening the runway. If the runway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

17.1.2.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.1.3. Erosion Control

Soil erosion shall be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and be capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.1.4. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected along the runway edges:

Runway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	RSA Width in Feet Divided by 2
17	A	I-Small	60
35	A	I-Small	60

17.1.5. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected before the runway threshold:

Runway End Number	Airplane Design Group I, II, III, or IV	Aircraft Approach Category A, B, C, or D	Minimum Safety Area Prior to the Threshold (ft)	Minimum Distance to Threshold Based on Required Approach Slope
17	I-Small	B	240	1,000 ft 20:1
35	I-Small	B	240	1,000 ft 20:1

17.2. Runway Object Free Area (ROFA)

Construction, including excavations, may be permitted in the ROFA only if performed in accordance with the requirements in the phasing plans (Attachment A). Equipment must be removed from the ROFA when not in use, and material shall not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA shall not occur until a 7460-1 form and justification is provided to the appropriate FAA Airports Regional or District Office and approved. ROFA dimensions shall be as identified in the following table, which is in accordance with FAA Advisory Circular 150/5300-13.

Runway	ROFA Distance from Centerline (ft)	ROFA Width (ft)	ROFA Length from End of Runway (ft)
17	125	250	240
35	125	250	240

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17.3. Taxiway Safety Area (TSA)

17.3.1. No construction is permitted within the taxiway safety area while the taxiway is open for aircraft operations. No construction is proposed in an open TSA.

Excavations

17.3.1.1. Stockpiling of materials, open trenches, or excavations are not permitted within the TSA while the taxiway is open. Stockpiled materials shall be removed prior to opening the taxiway. Trenches shall be either backfilled or covered prior to opening the taxiway. If the taxiway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft.

17.3.1.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.3.2. Erosion Control

Soil erosion shall be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.3.3. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway edges:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TSA Width in Feet Divided by 2
All taxiways	A	I	24.5

17.4. Taxiway Object Free Area (TOFA)

No work is permitted inside the TOFA without the taxiway being closed. No work is proposed within an open TOFA. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TOFA Width in Feet Divided by 2
All taxiways	A	I	44.5

17.5. Obstacle Free Zone (OFZ)

Typically, no personnel, equipment, or material shall be permitted inside the OFZ while the runway is open for aircraft operations. If access is required, the express permission of the airport operator shall be obtained. Any request for such permission shall be submitted in writing by the Contractor, along with justification in order for the owner to coordinate the request with FAA. The Runway OFZ is the airspace above the runway whose elevation at any point is the same as the elevation of the nearest point on the runway centerline. For this project, the OFZ dimensions (in accordance with FAA Advisory Circular 150/5300-13) are as follows:

Runway	OFZ Distance from Centerline (ft)	OFZ Width (ft)	OFZ Length from End of Runway (ft)
17	125	250	200
35	125	250	200

Dimensions for applicable inner-approach and inner-transitional OFZ's are shown on the phasing plans in Attachment A. This information is in accordance with FAA Advisory Circular 150/5300-13.

17.6. Runway Approach/ Departure Areas and Clearways

All personnel, equipment, and material shall remain outside the protected approaches and surfaces as shown on the phasing plans in Attachment A. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Prior to placing such objects, a 7460-1 form and justification must be provided to the appropriate FAA Airports Regional or District Office and approved. Particular attention is called to the placement of cranes, excavators, and other tall equipment.

18. OTHER LIMITATIONS ON CONSTRUCTION

18.1. Prohibitions.

The following are prohibited:

18.1.1. No use of tall equipment (cranes, concrete pumps, etc.) unless a 7460-1 determination letter is issued for such equipment.

18.1.2. No uses of open flame welding or torches unless fire safety precautions are provided, and the airport operator has approved their use.

18.1.3. No use of electrical blasting caps on or within 1,000 feet (300 meters) of the airport property.

18.1.4. No use of flare pots within the AOA.

18.2. Restrictions.

The following are restricted:

18.2.1. Activities during special condition events as outlined in Section 13.

18.2.2. Areas that cannot be worked on simultaneously as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.3. Day or night construction restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.4. Work area restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

ATTACHMENT A – PHASING PLANS



(Bid Set - see Work Area Milestone Plan Sheets)

ATTACHMENT B – SAMPLE CHECKLISTS



APPENDIX C. SAFETY AND PHASING PLAN CHECKLIST

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	
General Considerations					
Requirements for predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	<u>2.5</u>				
Operational safety is a standing agenda item for construction progress meetings.	<u>2.5</u>				
Scheduling of the construction phases is properly addressed.	<u>2.6</u>				
Any formal agreements are established.	<u>2.5.3</u>				
Areas and Operations Affected by Construction Activity					
Drawings showing affected areas are included.	<u>2.7.1</u>				
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	<u>2.7.1.1</u>				
Access routes used by ARFF vehicles affected by the project are addressed.	<u>2.7.1.2</u>				
Access routes used by airport and airline support vehicles affected by the project are addressed.	<u>2.7.1.3</u>				
Underground utilities, including water supplies for firefighting and drainage.	<u>2.7.1.4</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	<u>2.7.1.5</u>				
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	<u>2.7.1</u>				
Temporary changes to taxi operations are addressed.	<u>2.7.2.1</u>				
Detours for ARFF and other airport vehicles are identified.	<u>2.7.2.2</u>				
Maintenance of essential utilities and underground infrastructure is addressed.	<u>2.7.2.3</u>				
Temporary changes to air traffic control procedures are addressed.	<u>2.7.2.4</u>				
NAVAIDs					
Critical areas for NAVAIDs are depicted on drawings.	<u>2.8</u>				
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	<u>2.8</u>				
Protection of NAVAID facilities is addressed.	<u>2.8</u>				
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	<u>2.8</u>				
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>				
Contractor Access					
The CSPP addresses areas to which contractor will have access and how	<u>2.9</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
the areas will be accessed.					
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	<u>2.9</u>				
The location of stockpiled construction materials is depicted on drawings.	<u>2.9.1</u>				
The requirement for stockpiles in the ROFA to be approved by FAA is included.	<u>2.9.1</u>				
Requirements for proper stockpiling of materials are included.	<u>2.9.1</u>				
Construction site parking is addressed.	<u>2.9.2.1</u>				
Construction equipment parking is addressed.	<u>2.9.2.2</u>				
Access and haul roads are addressed.	<u>2.9.2.3</u>				
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>				
Proper vehicle operations, including requirements for escorts, are described.	<u>2.9.2.5, 2.9.2.6</u>				
Training requirements for vehicle drivers are addressed.	<u>2.9.2.7</u>				
Two-way radio communications procedures are described.	<u>2.9.2.9</u>				
Maintenance of the secured area of the airport is addressed.	<u>2.9.2.10</u>				
Wildlife Management					
The airport operator's wildlife management procedures are addressed.	<u>2.10</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Foreign Object Debris Management					
The airport operator’s FOD management procedures are addressed.	<u>2.11</u>				
Hazardous Materials Management					
The airport operator’s hazardous materials management procedures are addressed.	<u>2.12</u>				
Notification of Construction Activities					
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>				
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>				
A list of local ATO/Technical Operations personnel is included.	<u>2.13.1</u>				
A list of ATCT managers on duty is included.	<u>2.13.1</u>				
A list of authorized representatives to the OCC is included.	<u>2.13.2</u>				
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>				
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>				
Emergency notification procedures for medical, fire fighting, and police	<u>2.13.3</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
response are addressed.					
Coordination with ARFF personnel for non-emergency issues is addressed.	<u>2.13.4</u>				
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	<u>2.13.5</u>				
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	<u>2.13.5.3.2</u>				
Inspection Requirements					
Daily and interim inspections by both the airport operator and contractor are specified.	<u>2.14.1, 2.14.2</u>				
Final inspections at certificated airports are specified when required.	<u>2.14.3</u>				
Underground Utilities					
Procedures for protecting existing underground facilities in excavation areas are described.	<u>2.15</u>				
Penalties					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	<u>2.16</u>				
Special Conditions					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	<u>2.17</u>				
Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDs					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDs is addressed.	<u>2.18.1</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The requirement for markings to be in compliance with <u>AC 150/5340-1</u> , <i>Standards for Airport Markings</i> , is specified.	<u>2.18.2</u>				
Detailed specifications for materials and methods for temporary markings are provided.	<u>2.18.2</u>				
The requirement for lighting to conform to <u>AC 150/5340-30</u> , <i>Design and Installation Details for Airport Visual Aids</i> ; <u>AC 150/5345-50</u> , <i>Specification for Portable Runway and Taxiway Lights</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.3</u>				
The use of a lighted X is specified where appropriate.	<u>2.18.2.1.2</u> , <u>2.18.3.2</u>				
The requirement for signs to conform to <u>AC 150/5345-44</u> , <i>Specification for Runway and Taxiway Signs</i> ; <u>AC 150/5340-18</u> , <i>Standards for Airport Sign Systems</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.4</u>				
Marking and Signs For Access Routes					
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>				
Hazard Marking and Lighting					
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>				

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>				
The CSPP considers less obvious construction-related hazards.	<u>2.20.1</u>				
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>				
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	<u>2.20.2.1</u>				
Red lights meeting the luminance requirements of the State Highway Department are specified.	<u>2.20.2.2</u>				
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>				
Barricades are specified to indicate construction locations in which no part of an aircraft may enter.	<u>2.20.2.3</u>				
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	<u>2.20.2.5</u>				
Markings for temporary closures are specified.	<u>2.20.2.5</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Work Zone Lighting for Nighttime Construction					
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>				
Protection of Runway and Taxiway Safety Areas					
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>				
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>				
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	<u>2.22.3.3</u>				
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>				
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>				
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	<u>2.22.1.4</u>				
Grading and soil erosion control to maintain RSA/TSA standards are	<u>2.22.3.5</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
addressed.					
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	<u>2.22.2</u>				
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>				
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	<u>2.22.4</u>				
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>				
Provisions for protection of runway approach/departure areas and clearways are included.	<u>2.22.6</u>				
Other Limitations on Construction					
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>				
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft (300 m) of the airport property.	<u>2.23.1.3</u>				

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

Item	Action Required (Describe)	No Action Required (Check)
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		

Item	Action Required (Describe)	No Action Required (Check)
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.		

Item	Action Required (Describe)	No Action Required (Check)
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).		

Item	Action Required (Describe)	No Action Required (Check)
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.		

**Appendix C - Construction Safety and Phasing Plan
(Central Maine Airport)**

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CONSTRUCTION SAFETY & PHASING PLAN

Construct AWOS-III – Bid Package 2

Central Maine Regional Airport

Norridgewock, Maine

Maine WIN No. 018717.12

Delta Project No. 24038

May 2026

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INTRODUCTION

Aviation safety is a primary consideration at airports, especially during construction. In accordance with FAA Advisory Circular (AC) 150/5370-2G, “Operational Safety on Airports During Construction,” a Construction Safety and Phasing Plan (CSPP) must be developed on each on-airfield construction project funded by the Airport Improvement Program (AIP), Passenger Facility Charge (PFC) program or for any project located on an airport certificated under Part 139.

The CSPP sets forth benchmarks and requirements for the project and is the airport operator’s guideline for developing the highest levels of safety, security, and efficiency at the airport during project construction. The CSPP is to be used by all personnel involved in the project, including construction personnel, inspection personnel, and airport staff. This document has been developed for this construction project in order to minimize interruptions to airport operations, control construction costs, and maximize the performance and safety of construction activity.

The Contractor shall be required to submit a Safety Plan Compliance Document (SPCD) to the airport operator describing how the Contractor will comply with the requirements set forth in this CSPP. The SPCD must be submitted to and approved by the airport operator prior to issuance of the Notice to Proceed. The SPCD includes a certification statement by the Contractor that indicates it understands the operational safety requirements of the CSPP and asserts it will not deviate from the approved CSPP and SPCD unless written approval is granted by the airport operator.

In the event the Contractor’s activities are found in non-compliance with the provisions of the CSPP or the SPCD, the Contractor shall immediately cease those operations in violation. In addition, the Contractor will conduct a safety meeting, with the airport operator’s representative present, and review those provisions in the CSPP/SPCD which were violated. The Contractor will not be allowed to resume construction operations until conclusion of the safety meeting and implementation of corrective actions.

PROJECT SCOPE

This CSPP has been prepared for upcoming airfield projects at the Central Maine Regional Airport Airport in Norridgewock, Maine. The project includes the construction of an AWOS-III weather observing system.

The Central Maine Regional Airport Airport is an Airport Reference Code (ARC) B-II, small general aviation facility with general aviation activity. The airport has two runways, 15-33 which is 4,000' long by 100' wide and 3-21 which is 3998' long by 80' wide.

1. COORDINATION

Coordination of safety issues will occur throughout all stages of the project. Key conferences and meetings include:

1.1. Design Coordination

Design coordination will be completed with the affected agencies and organizations to discuss operational safety. Participants will include tenants, funding agencies, FAA District Office, State Aviation personnel, the Engineer, and airport operator staff. Input will be solicited on key safety issues to be considered, methods to ensure safety during construction, required protocols, advance notices, and other requirements that need to be incorporated in the contract bid documents.

1.2. Prebid Meeting

A prebid meeting with potential bidders and construction contractors will take place. The meeting will be held approximately 10 days prior to the bid opening date. During the meeting, safety will be discussed, with an emphasis on the unique aspects of construction on an active airfield. FAA Advisory Circular 150/5370-2G will be reviewed, as will the requirements for the Contractor-prepared SPCD. It will be made clear in both the contract documents as well as the pre-bid meeting that the SPCD is the responsibility of the Contractor.

1.3. Preconstruction Meeting

A preconstruction meeting will be held once a construction contract has been awarded, but prior to the start of construction. Invitees will include users, tenants, prime contractor, subcontractors, funding agencies, FAA District Office, State Aviation personnel, the Engineer, Resident Project Representative,

and the airport operator staff. The FAA Airports District Office should ensure that all appropriate FAA offices and Federal agencies that may have an interest in the project are notified.

The airport operator, or authorized agent will prepare an agenda prior to the preconstruction meeting.

This will include, but not be limited to:

- a. project scope and phasing requirements;
- b. relationship between airport operator, airport operator's authorized agent, and the Contractor;
- c. relationship between the airport operator and the FAA;
- d. identification of Contractor's superintendent and discussion of authority and responsibilities;
- e. designation of airport operator representative responsible for notifying the Flight Service Station of any circumstances requiring a NOTAM;
- f. scheduling of work and phasing requirements;
- g. notice to proceed date;
- h. safety during construction, including responsibility for marking and lighting of closed and hazardous areas, all in accordance with FAA AC 150/5370-2G *Operational Safety on Airports During Construction*;
- i. security requirements;
- j. communications and documentation protocols, including contact information for all key personnel.

Emphasis will be placed on compliance with the established CSPP and approved SPCD.

1.4. Contractor Progress Meetings

Progress meetings will be held throughout the construction phase, with operational safety as a standing agenda item. Given the sequence of the work, standing meetings are not anticipated and may occur to address key phases of the work. Current compliance issues and upcoming critical work will be reviewed. Meeting participants will include the Engineer, the Resident Project Representative, the Contractor, and the airport operator. Daily meetings between the Resident Project Representative and key Contractor personnel will also occur to address daily work schedules and associated operational concerns. When necessary, appropriate FAA/State personnel, airport staff, or affected tenants will attend progress meetings.

1.5. Scope or Schedule Changes

Coordination between the Engineer, Contractor, FAA, and the airport operator will occur in the event of any scope or schedule changes. It will be determined if revisions to either the CSPP or the SPCD are required as a result of any scope or schedule changes. Revisions to these documents will be routed through the appropriate approval channels prior to beginning construction in areas of impact.

2. PHASING (CONSTRUCTION SEQUENCING)

This discussion reviews the construction phasing and work areas defined for the project. The phasing generally provides the desired sequencing for the project. The defined work areas address work limitations. These limitations are primarily associated with operational safety, focusing on maintaining adequate separation between the Contractor's activities and aircraft operations and limiting the time that Contractor activities impact airport operations. Refer to the phasing plans in Attachment A for work areas. General elements of this sequencing and phasing are described in the following subsections.

2.1. Construction Staging Areas

Refer to the phasing plans in Attachment A for staging area locations and general safety and security notes concerning use of the staging areas. Construction staging areas and Contractor employee parking areas are to remain outside of all object free areas and all safety areas for all active airfield surfaces.

2.2. Construction Access and Haul Routes

Refer to phasing plans in Attachment A for access and haul route locations and general safety and security notes concerning use of access and haul routes. Applicable control along haul routes for both safety and security must be maintained at all times.

2.3. Firefighting Access Routes

Emergency firefighting access in and around the site will be maintained by the Contractor, as required, for the duration of this project. Construction contractors must prominently mark open trenches and excavations within the construction site, with approval from the airport operator, and light them with red lights during hours of restricted visibility or darkness. There are no designated ARFF or EMS routes on the airport.

2.4. Required Hazard Marking and Lighting

Refer to the phasing plans in Attachment A for required hazard marking and lighting. Reference Sections 15, 16, and 17 of this CSPP for additional information.

2.5. Work Area Phasing.

Work areas have been defined to limit the Contractor's activities and minimize impact to airport operations. The project includes two work areas: one adjacent to the terminal building/apron and another at midfield between the runways. The Contractor will be required to cross both runway 15-33 and runway 3-21 to access the AWOS site. Prior to crossing any runway, confirm no aircraft are utilizing the runways visually and by radio.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

Runways and taxiways shall remain in use to the maximum extent possible without compromising safety. See Table 3-1 for a summary of effects on airport operations created by this project. Meetings with the Engineer, Contractor, and the airport operator will occur before construction begins on each phase. Items discussed during these meetings are described below:

3.1. Identification of Affected Areas

The affected areas for each construction phase are identified in the phasing plans in Attachment A.

3.1.1. Closing or partial closing of runways, taxiways, and aprons. See Attachment A.

3.1.2. Closing of firefighting access routes. Access into, through, and/or around the project work area by emergency vehicles may be affected during construction. Refer to the phasing plans (Attachment A) for requirements. There are no dedicated ARFF routes at the airport.

3.1.3. Approach/departure surfaces affected by heights of objects. Contractor equipment used in the project and/or staging area may impact approach/departure surfaces. Equipment locations shall not violate runway Part 77 surfaces except under special waiver conditions. FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, must be submitted by the airport operator to the FAA ADO, and approved prior to construction. Refer to the phasing plans (Attachment A) for requirements.

3.1.4. Construction areas. Construction areas, including actual construction, storage/stockpiles, employee parking, staging areas, and haul routes are located near active airfield surfaces. Refer to the phasing plans (Attachment A) for requirements.

3.2. Mitigation of Effects

Establishment of specific procedures is necessary to maintain the safety and efficiency of airport operations. All coordination pertaining to airport operations during construction shall be with the airport operator's designated representative. Specific contacts will be discussed in detail at the preconstruction meeting.

3.2.1. Temporary and permanent changes to runway and/or taxi operations. There will be no impact to runway or taxi operations. (Attachment A).

3.2.2. Detours for ARFF and other airport vehicles. The project work site shall remain open to all firefighting and rescue vehicles in emergency situations. The Contractor is required to maintain access into the project work area for firefighting and rescue vehicles.

3.2.3. Maintenance of essential utilities. Special attention will be given by the Contractor to preventing unscheduled interruption of utility services and facilities. Where required by construction, the Contractor will follow prescribed procedures to locate all utilities (aboveground and underground) prior to working around them. All utility outages will be coordinated in advance in accordance with the procedures included in the plans and specifications. When a utility is damaged, it shall immediately be repaired by the Contractor in accordance with the procedures in the plans and specifications.

4. NAVIGATION AIDS (NAVAIDS) PROTECTION

Before beginning any construction activity, parking of equipment, or storing construction materials near a NAVAID, coordination with the appropriate FAA ATO to evaluate the effects of construction activity on the facility must take place. Necessary clearance distances will be coordinated at daily and weekly progress meetings (refer to Section 1, "Coordination"). No NAVAIDS are anticipated to be impacted by this project.

5. CONTRACTOR ACCESS

5.1. Location of Stockpiled Construction Materials

Stockpiled materials and equipment storage are not permitted within the safety area, obstacle free zone, or object free area of any active runway or taxiway. Stockpiled materials shall be stored at a location approved by the airport operator and constrained in a manner to prevent movement resulting either from prop wash, jet blast, or wind. Stockpile heights shall not exceed 5 feet and shall not penetrate protected airspace (refer to the plans for information on protected airspace). Stockpiled materials and equipment adjacent to these areas shall be prominently marked and lighted during hours of restricted visibility or darkness. Further reference is directed to Section 6, “Wildlife Management,” Section 7, “Foreign Object Debris Management,” and Section 17, “Protection of Runway and Taxiway Safety Areas.”

5.2. Vehicle and Pedestrian Operations

Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals into the AOA.

5.2.1. Construction site parking. Vehicle parking areas for Contractor employees shall be as shown on the plans or as designated by the airport operator.

5.2.2. Construction equipment parking. Equipment not in use shall be parked in the construction staging area shown on the plans.

5.2.3. Access and haul roads. Access routes used by contractors shall be clearly marked to prevent inadvertent entry to open aircraft operational areas. If the access routes share or cross any routes designated for use by ARFF, right of way shall be maintained at all times unless alternate routes have been established. The Contractor shall only use the access and haul roads designated by the airport operator. The airport operator will provide access to the Contractor only after the Contractor has received training from the airport operator. These haul routes are shown in the construction plans.

5.2.4. Marking and lighting of vehicles. Equipment and vehicles shall be marked with 3-foot by 3-foot orange and white checker flags (day only) or yellow flashing dome type lights (day or night). Additionally, all Contractor vehicles operating in the AOA shall be clearly labeled with the Contractor's name visible from 200 feet.

5.2.5. Description of proper vehicle operations. Vehicle operations shall be in accordance with Advisory Circular 150/5210-20 "Ground Vehicle Operations on Airports."

5.2.5.1. Normal conditions. The Contractor will be required to drive along taxiways and Runway 3-21 in addition to crossing Runway 15-33. All drivers must obey all runway holding markings and ensure the runway is not in use visually and by radio prior to crossing.

5.2.5.2. Lost communications or emergency conditions. In the event that radio communications are lost, the driver shall pull onto the shoulder out of the way of any possible aircraft. The vehicle should then visually verify no aircraft are approaching the area and then proceed to a safe location on the airport. There is no air traffic control tower at this airport.

5.2.6. Required escorts. All untrained drivers shall be escorted at all times when on the AOA side of the security fence. Escorted vehicles shall be marked and lighted in accordance with this Section 5.

5.2.7. Training requirements. The airport operator will provide access to the Contractor only after the Contractor has received safety and security training from the Owner.

5.2.8. Situational awareness. Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

5.2.9. Two-way radio communication procedures.

Given the nature of the construction the Contractor is not required to maintain radio communications with aircraft.

5.2.10. Maintenance of the secured area of the airport

5.2.10.1. Care shall be taken to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates shall be equipped so that they can be securely closed and locked to prevent access by animals and unauthorized persons. Procedures shall be established to ensure that only authorized persons and vehicles have access to the AOA and that vehicles are allowed through the gate one at a time, i.e. no “piggybacking” behind another person or vehicle. The Contractor is responsible for ensuring that all employees of the Contractor and Subcontractors use only the authorized access point to the AOA and verifying that the access point is secure immediately after use. Gates that fail shall be reported immediately to the airport operator and shall be guarded by the Contractor until the airport operator mobilizes to secure the opening.

5.2.10.2. The Contractor shall maintain separation between the airside and non-secure side of the airport at all times. The perimeter fence shall be maintained on a continuous basis with any temporary opening being continuously guarded by the Contractor’s designated employee. The airport is subject to FAA security requirements and rigid adherence is mandatory. Any fines for unauthorized personnel entering through the Contractor’s entrance points will be deducted from monies due the Contractor. Reference is directed to Section 5. Temporary openings and construction gates shall be secured and locked at the completion of work each day.

5.2.10.3. The Contractor shall delineate limits of construction prior to beginning work each day. The Contractor’s personnel shall not be beyond the limits of construction without authorization from the Owner. Violators are subject to removal from the jobsite and loss of AOA working privileges.

5.2.10.4. The Airport reserves the right to require all personnel working inside the AOA to security training from the Airport. The Airport also reserves the right to bar personnel from the Airport for any security-related reason.

6. WILDLIFE MANAGEMENT

6.1. Trash

Food scraps shall be collected from construction personnel activity. Trash shall be disposed of weekly, or more frequently if necessary, to discourage wildlife encroachment.

6.2. Standing Water

Areas of standing water shall be kept to a minimum so as not to attract wildlife.

6.3. Tall Grass and Seeds

Only the grasses specified on the plans and in the specifications may be used for either temporary or permanent seeding. Incompatible plants could be an unwanted bird attractant.

6.4. Poorly Maintained Fencing and Gates

Reference is directed to Section 5 “Contractor Access” in regard to the importance of maintaining security on the airport so as to discourage access by wildlife.

6.5. Disruption of Existing Wildlife Habitat / Wildlife Sightings

Contractor personnel shall immediately notify the airport operator of significant wildlife sightings.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Materials capable of creating FOD shall be continuously removed during the project and must not be left or placed near active aircraft movement areas. The following measures will be utilized to control and monitor FOD:

- Worksite housekeeping
- Ground vehicle tire inspections
- Runway and taxiway sweeps

Inspection requirements are outlined in Section 10.

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

The Contractor shall be prepared to immediately contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Provisions for HAZMAT management shall be addressed in the Contractor's Storm Water Pollution Prevention Plan (SWPPP). The HAZMAT management procedures shall include, but not be limited to the following:

- Fuel deliveries
- Spill recovery procedures
- Material Safety Data Sheets (MSDS) availability

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

This section outlines procedures for maintaining communication in the event that airport users and the FAA must be notified immediately of any conditions adversely affecting the operational safety of the airport.

9.1. Contact List

The Contractor shall provide a list of responsible representatives/points of contact for all involved parties, and procedures for contacting each of them, including after hours. The Contractor must have someone available to take emergency calls from the airport operator throughout the entire construction time period. The Contractor's list shall also include the airport point of contact, ATCT (if applicable), and the Engineer to ensure that Contractor personnel have the contacts that they need in the event of a safety related event.

Airport points of contact are as follows:

- Emergency Telephone Number (Police/Fire/Rescue): 911
- Information, Compliance, and Assistance:
 - Airport Manager: 207-634-2252 (Richard Labelle)

9.2. NOTAMs

The airport operator shall be responsible for the issuance of all NOTAMs. Only the airport operator may initiate or cancel NOTAMs on airport conditions and is the only entity that can open or close a runway. The airport operator shall coordinate the issuance, maintenance, and cancellation of NOTAMs

regarding airport conditions resulting from construction activities with tenants and provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) for issuance of NOTAMs.

9.3. Emergency notification procedures

In the event of an emergency, the Contractor shall call 911. Additional notification procedures will be reviewed at the preconstruction meeting, and periodically at construction progress meetings, and distributed to all appropriate parties.

9.4. Notification to the FAA

9.4.1. Part 77. Any proposed construction or alteration of objects that affect navigable airspace, as defined in FAR Part 77, shall be coordinated with the FAA by submitting FAA Form 7460-1, “Notice of Proposed Construction or Alteration” to the appropriate FAA Airports Regional or District Office. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, and other equipment) on the airport.

9.4.2. NAVAIDS. No NAVAIDS are anticipated to be impacted by this project.

10. INSPECTION REQUIREMENTS

10.1. Daily Inspections

Inspections shall be conducted by the Contractor at least daily to ensure compliance with the CSPP. A sample checklist is provided in Attachment B. In addition, daily inspections will be conducted by the airport operator or their Representative to ensure compliance with the CSPP and the SPCD.

10.2. Final Inspections

A Final Inspection will be conducted by the airport operator, Engineer, FAA, and State upon substantial completion of the project.

11. UNDERGROUND UTILITIES

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. The Contractor shall locate, or arrange for the location of underground utilities, cables, wires, pipelines, and other underground facilities located in excavation areas shall be located. This shall include coordination

with public utilities, “One Call” or “Miss Utility” services. FAA ATO/Technical Operations shall be contacted for location and marking of FAA NAVAID cables. Full coordination between the airport operator’s representatives and construction personnel will take place to ensure that these items are protected at all times during construction. If the Contractor damages any active utility during construction, immediate action shall be taken by the Contractor to repair the utility. Refer to Section 9 “Notification of Construction Activities” for contact information.

12. PENALTIES

12.1. Failure on the part of the Contractor to adhere to the requirements of this CSPP, and the plans and specifications, may have consequences that jeopardize the health and safety of persons on or near the construction site. Penalties for such actions are established by the airport operator and may include fines, suspension of construction, and/or removal from the job site. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.2. Unauthorized personnel entering through the Contractor’s access point is a violation of this CSPP and may result in a fine. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.3. Contractor personnel found to be beyond the limits of construction without authorization from the Owner are subject to removal from the jobsite and loss of security badge and/or secured area working privileges.

13. SPECIAL CONDITIONS

Special conditions that require safety mitigation action include the following:

- Low-visibility operations
- Snow removal
- Aircraft in distress
- Aircraft accident
- Security breach
- Vehicle/pedestrian deviation (VPD)

During these events the Contractor will be required to suspend operations, clear active construction zones, or other measures as directed by the airport operator. Notification procedures in Section 9 shall be followed. See also Sections 5, “Contractor Access,” and 14, “Runway and Taxiway Visual Aids.”

14. RUNWAY AND TAXIWAY VISUAL AIDS

14.1. General

Those areas where aircraft will be operating shall be clearly marked to separate them from construction areas. Airport markings, lighting, signs, and visual NAVAIDs shall be clearly visible to pilots and not misleading, confusing, or deceptive. This shall be verified throughout the construction of the project. All facilities shall be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents. The facilities shall be constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

14.2. Markings

Temporary markings are not required.

14.2.1. Temporarily Closed or New Taxiways. For temporarily closed taxiways or new taxiways prior to opening, an X shall be placed at the entrance to each taxiway as indicated in the phasing plans.

14.3. Lighting and Signage.

Temporary lighting is required. Refer to the phasing plans (Attachment A) for details on temporary lighting for the project.

14.3.1. Temporarily Closed Taxiways. Temporary closed taxiways shall have their lights de-energized or covered. Directional sign panels associated with temporary closed pavements shall be removed and replaced with a blank panel or covered.

14.4. NAVAIDs.

No temporary NAVAIDs are required.

15. MARKING AND SIGNS FOR ACCESS ROUTES

Pavement markings and signs for construction personnel shall conform to AC 150/5340-18 on the runway and taxiway. Elsewhere, access route marking and signs shall conform to the Federal Highway

Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications. Signs adjacent to areas used by aircraft shall comply with the frangibility requirements on AC 150/5220-23, “Frangible Connections.” The height of temporary signage shall be restricted so as not to penetrate any avigational surfaces (avigational surfaces are described in the phasing plans in Attachment A). Temporary markings and signage are indicated in the phasing plans.

16. HAZARD MARKING, LIGHTING, AND SIGNAGE

16.1. Purpose

The purpose for delineating work areas is to prevent pilots and other airport personnel who do not belong in the construction area from entering. Work areas will be delineated with closed markers, aviation barricades, and bucket barricades. The first item of work in any work area will be the installation of the necessary closed markers and barricades to isolate the areas of proposed construction. All runway and taxiway closures will be fully coordinated with the airport operator to ensure that the proper NOTAMs are issued.

16.2. Barricades

Barricades are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.3. Lights

Lights shall be red, either steady burning or flashing, and meet the luminance requirements of the State Highway Department. Lights shall be mounted on barricades and spaced at no more than ten (10) feet apart. Lights shall be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations.

16.4. Signs

The barricades shall be supplemented with signs (for example “No Entry,” “No Vehicles”) as necessary. Signs shall conform to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications.

16.5. Air Operations Area – General

Barricades are not permitted in any active safety area. Within a runway or taxiway object free area, and on aprons, the following shall be used to separate all construction/maintenance areas from the movement area:

- Orange traffic cones
- Flashing or steady burning red lights
- Collapsible barricades with diagonal, alternating orange & white stripes
- Signs

All barricades adjacent to an open runway or taxiway / taxilane safety area or apron shall be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags. Barricades shall be of low mass; easily collapsible upon contact with aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. Barricades affixed to the surface shall be frangible at grade level or as low as possible, but not to exceed 3 inches above the ground. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.6. Air Operations Area – Runway / Taxiway Intersections

Highly reflective barricades with lights shall be used to close taxiways leading to closed runways. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.7. Air Operations Area – Other

For areas outside runway and taxiway object free areas and safety areas and aprons, barricades intended for construction vehicles and personnel may consist of different shapes and may be constructed from various materials, including railroad ties, sawhorses, jersey barriers, or barrels. The Contractor shall coordinate these barricades, and their locations with the airport operator's representative.

16.8. Maintenance

The construction specifications include a provision requiring the Contractor to have personnel on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades.

Refer to the phasing plans in Attachment A for graphical depictions of hazard marking, lighting, and signage.

17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS

17.1. Runway Safety Area. Construction activities within the existing RSA are subject to the following conditions:

17.1.1. No activity is permitted while the runway is open for aircraft operations. Reference is directed to Section 5 for information on Contractor access to runway safety areas. No construction is proposed within an RSA at any time.

17.1.2. Excavations

17.1.2.1. Stockpiling of materials, open trenches, or excavations are not permitted within the RSA while the runway is open. Stockpiled materials shall be removed prior to opening the runway. Trenches shall be either backfilled or covered prior to opening the runway. If the runway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

17.1.2.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.1.3. Erosion Control

Soil erosion shall be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and be capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.1.4. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected along the runway edges:

Runway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	RSA Width in Feet Divided by 2
15	B	II-Small	75
33	B	II-Small	75
3	B	II-Small	75
21	B	II-Small	75

17.1.5. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected before the runway threshold:

Runway End Number	Airplane Design Group I, II, III, or IV	Aircraft Approach Category A, B, C, or D	Minimum Safety Area Prior to the Threshold	Minimum Distance to Threshold Based on Required Approach Slope
15	II-Small	B	300	1,000 ft 20:1
33	II-Small	B	300	1,000 ft 20:1
3	II-Small	B	300	1,000 ft 20:1
21	II-Small	B	300	1,000 ft 20:1

17.2. Runway Object Free Area (ROFA)

Construction, including excavations, may be permitted in the ROFA only if performed in accordance with the requirements in the phasing plans (Attachment A). Equipment must be removed from the ROFA when not in use, and material shall not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA shall not occur until a 7460-1 form and justification is provided to the appropriate FAA Airports Regional or District Office and approved. ROFA dimensions shall be as identified in the following table, which is in accordance with FAA Advisory Circular 150/5300-13.

Runway	ROFA Distance from Centerline (ft)	ROFA Width (ft)	ROFA Length from End of Runway (ft)
15	250	500	300
33	250	500	300
3	250	500	300
21	250	500	300

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17.3. Taxiway Safety Area (TSA)

17.3.1. No construction is permitted within the taxiway safety area while the taxiway is open for aircraft operations. No construction is proposed in an open TSA.

Excavations

17.3.1.1. Stockpiling of materials, open trenches, or excavations are not permitted within the TSA while the taxiway is open. Stockpiled materials shall be removed prior to opening the taxiway. Trenches shall be either backfilled or covered prior to opening the taxiway. If the taxiway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft.

17.3.1.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.3.2. Erosion Control

Soil erosion shall be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.3.3. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway edges:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TSA Width in Feet Divided by 2
All taxiways	B	II	39.5

17.4. Taxiway Object Free Area (TOFA)

No work is permitted inside the TOFA without the taxiway being closed. No work is proposed within an open TOFA. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TOFA Width in Feet Divided by 2
All taxiways	B	II	62

17.5. Obstacle Free Zone (OFZ)

Typically, no personnel, equipment, or material shall be permitted inside the OFZ while the runway is open for aircraft operations. If access is required, the express permission of the airport operator shall be obtained. Any request for such permission shall be submitted in writing by the Contractor, along with justification in order for the owner to coordinate the request with FAA. The Runway OFZ is the airspace above the runway whose elevation at any point is the same as the elevation of the nearest point on the runway centerline. For this project, the OFZ dimensions (in accordance with FAA Advisory Circular 150/5300-13) are as follows:

Runway	OFZ Distance from Centerline (ft)	OFZ Width (ft)	OFZ Length from End of Runway (ft)
15	125	250	200
33	125	250	200
3	125	250	200
21	125	250	200

Dimensions for applicable inner-approach and inner-transitional OFZ's are shown on the phasing plans in Attachment A. This information is in accordance with FAA Advisory Circular 150/5300-13.

17.6. Runway Approach/ Departure Areas and Clearways

All personnel, equipment, and material shall remain outside the protected approaches and surfaces as shown on the phasing plans in Attachment A. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Prior to placing such objects, a 7460-1 form and justification must be provided to the appropriate FAA Airports Regional or District Office and approved. Particular attention is called to the placement of cranes, excavators, and other tall equipment.

18. OTHER LIMITATIONS ON CONSTRUCTION

18.1. Prohibitions.

The following are prohibited:

18.1.1. No use of tall equipment (cranes, concrete pumps, etc.) unless a 7460-1 determination letter is issued for such equipment.

18.1.2. No uses of open flame welding or torches unless fire safety precautions are provided, and the airport operator has approved their use.

18.1.3. No use of electrical blasting caps on or within 1,000 feet (300 meters) of the airport property.

18.1.4. No use of flare pots within the AOA.

18.2. Restrictions.

The following are restricted:

18.2.1. Activities during special condition events as outlined in Section 13.

18.2.2. Areas that cannot be worked on simultaneously as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.3. Day or night construction restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.4. Work area restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

ATTACHMENT A – PHASING PLANS



(Bid Set - see Work Area Milestone Plan Sheets)

ATTACHMENT B – SAMPLE CHECKLISTS



APPENDIX C. SAFETY AND PHASING PLAN CHECKLIST

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	
General Considerations					
Requirements for predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	<u>2.5</u>				
Operational safety is a standing agenda item for construction progress meetings.	<u>2.5</u>				
Scheduling of the construction phases is properly addressed.	<u>2.6</u>				
Any formal agreements are established.	<u>2.5.3</u>				
Areas and Operations Affected by Construction Activity					
Drawings showing affected areas are included.	<u>2.7.1</u>				
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	<u>2.7.1.1</u>				
Access routes used by ARFF vehicles affected by the project are addressed.	<u>2.7.1.2</u>				
Access routes used by airport and airline support vehicles affected by the project are addressed.	<u>2.7.1.3</u>				
Underground utilities, including water supplies for firefighting and drainage.	<u>2.7.1.4</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	<u>2.7.1.5</u>				
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	<u>2.7.1</u>				
Temporary changes to taxi operations are addressed.	<u>2.7.2.1</u>				
Detours for ARFF and other airport vehicles are identified.	<u>2.7.2.2</u>				
Maintenance of essential utilities and underground infrastructure is addressed.	<u>2.7.2.3</u>				
Temporary changes to air traffic control procedures are addressed.	<u>2.7.2.4</u>				
NAVAIDs					
Critical areas for NAVAIDs are depicted on drawings.	<u>2.8</u>				
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	<u>2.8</u>				
Protection of NAVAID facilities is addressed.	<u>2.8</u>				
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	<u>2.8</u>				
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>				
Contractor Access					
The CSPP addresses areas to which contractor will have access and how	<u>2.9</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
the areas will be accessed.					
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	<u>2.9</u>				
The location of stockpiled construction materials is depicted on drawings.	<u>2.9.1</u>				
The requirement for stockpiles in the ROFA to be approved by FAA is included.	<u>2.9.1</u>				
Requirements for proper stockpiling of materials are included.	<u>2.9.1</u>				
Construction site parking is addressed.	<u>2.9.2.1</u>				
Construction equipment parking is addressed.	<u>2.9.2.2</u>				
Access and haul roads are addressed.	<u>2.9.2.3</u>				
A requirement for marking and lighting of vehicles to comply with <i>AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport</i> , is included.	<u>2.9.2.4</u>				
Proper vehicle operations, including requirements for escorts, are described.	<u>2.9.2.5, 2.9.2.6</u>				
Training requirements for vehicle drivers are addressed.	<u>2.9.2.7</u>				
Two-way radio communications procedures are described.	<u>2.9.2.9</u>				
Maintenance of the secured area of the airport is addressed.	<u>2.9.2.10</u>				
Wildlife Management					
The airport operator's wildlife management procedures are addressed.	<u>2.10</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Foreign Object Debris Management					
The airport operator’s FOD management procedures are addressed.	<u>2.11</u>				
Hazardous Materials Management					
The airport operator’s hazardous materials management procedures are addressed.	<u>2.12</u>				
Notification of Construction Activities					
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>				
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>				
A list of local ATO/Technical Operations personnel is included.	<u>2.13.1</u>				
A list of ATCT managers on duty is included.	<u>2.13.1</u>				
A list of authorized representatives to the OCC is included.	<u>2.13.2</u>				
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>				
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>				
Emergency notification procedures for medical, fire fighting, and police	<u>2.13.3</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
response are addressed.					
Coordination with ARFF personnel for non-emergency issues is addressed.	<u>2.13.4</u>				
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	<u>2.13.5</u>				
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	<u>2.13.5.3.2</u>				
Inspection Requirements					
Daily and interim inspections by both the airport operator and contractor are specified.	<u>2.14.1, 2.14.2</u>				
Final inspections at certificated airports are specified when required.	<u>2.14.3</u>				
Underground Utilities					
Procedures for protecting existing underground facilities in excavation areas are described.	<u>2.15</u>				
Penalties					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	<u>2.16</u>				
Special Conditions					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	<u>2.17</u>				
Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDs					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDs is addressed.	<u>2.18.1</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The requirement for markings to be in compliance with <u>AC 150/5340-1</u> , <i>Standards for Airport Markings</i> , is specified.	<u>2.18.2</u>				
Detailed specifications for materials and methods for temporary markings are provided.	<u>2.18.2</u>				
The requirement for lighting to conform to <u>AC 150/5340-30</u> , <i>Design and Installation Details for Airport Visual Aids</i> ; <u>AC 150/5345-50</u> , <i>Specification for Portable Runway and Taxiway Lights</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.3</u>				
The use of a lighted X is specified where appropriate.	<u>2.18.2.1.2</u> , <u>2.18.3.2</u>				
The requirement for signs to conform to <u>AC 150/5345-44</u> , <i>Specification for Runway and Taxiway Signs</i> ; <u>AC 150/5340-18</u> , <i>Standards for Airport Sign Systems</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.4</u>				
Marking and Signs For Access Routes					
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>				
Hazard Marking and Lighting					
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>				

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>				
The CSPP considers less obvious construction-related hazards.	<u>2.20.1</u>				
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>				
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	<u>2.20.2.1</u>				
Red lights meeting the luminance requirements of the State Highway Department are specified.	<u>2.20.2.2</u>				
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>				
Barricades are specified to indicate construction locations in which no part of an aircraft may enter.	<u>2.20.2.3</u>				
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	<u>2.20.2.5</u>				
Markings for temporary closures are specified.	<u>2.20.2.5</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Work Zone Lighting for Nighttime Construction					
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>				
Protection of Runway and Taxiway Safety Areas					
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>				
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>				
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	<u>2.22.3.3</u>				
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>				
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>				
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	<u>2.22.1.4</u>				
Grading and soil erosion control to maintain RSA/TSA standards are	<u>2.22.3.5</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
addressed.					
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	<u>2.22.2</u>				
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>				
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	<u>2.22.4</u>				
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>				
Provisions for protection of runway approach/departure areas and clearways are included.	<u>2.22.6</u>				
Other Limitations on Construction					
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>				
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft (300 m) of the airport property.	<u>2.23.1.3</u>				

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

Item	Action Required (Describe)	No Action Required (Check)
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		

Item	Action Required (Describe)	No Action Required (Check)
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.		

Item	Action Required (Describe)	No Action Required (Check)
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).		

Item	Action Required (Describe)	No Action Required (Check)
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.		

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**Appendix D - Construction Safety and Phasing Plan
(Greenville Municipal Airport)**

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CONSTRUCTION SAFETY & PHASING PLAN

Construct AWOS-III – Bid Package 2

Greenville Municipal Airport

Greenville, Maine

Maine WIN No. 018717.12

Delta Project No. 24038

May 2026

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INTRODUCTION

Aviation safety is a primary consideration at airports, especially during construction. In accordance with FAA Advisory Circular (AC) 150/5370-2G, “Operational Safety on Airports During Construction,” a Construction Safety and Phasing Plan (CSPP) must be developed on each on-airfield construction project funded by the Airport Improvement Program (AIP), Passenger Facility Charge (PFC) program or for any project located on an airport certificated under Part 139.

The CSPP sets forth benchmarks and requirements for the project and is the airport operator’s guideline for developing the highest levels of safety, security, and efficiency at the airport during project construction. The CSPP is to be used by all personnel involved in the project, including construction personnel, inspection personnel, and airport staff. This document has been developed for this construction project in order to minimize interruptions to airport operations, control construction costs, and maximize the performance and safety of construction activity.

The Contractor shall be required to submit a Safety Plan Compliance Document (SPCD) to the airport operator describing how the Contractor will comply with the requirements set forth in this CSPP. The SPCD must be submitted to and approved by the airport operator prior to issuance of the Notice to Proceed. The SPCD includes a certification statement by the Contractor that indicates it understands the operational safety requirements of the CSPP and asserts it will not deviate from the approved CSPP and SPCD unless written approval is granted by the airport operator.

In the event the Contractor’s activities are found in non-compliance with the provisions of the CSPP or the SPCD, the Contractor shall immediately cease those operations in violation. In addition, the Contractor will conduct a safety meeting, with the airport operator’s representative present, and review those provisions in the CSPP/SPCD which were violated. The Contractor will not be allowed to resume construction operations until conclusion of the safety meeting and implementation of corrective actions.

PROJECT SCOPE

This CSPP has been prepared for upcoming airfield projects at the Greenville Municipal Airport Airport in Greenville, Maine. The project includes the construction of an AWOS-III weather observing system.

The Greenville Municipal Airport Airport is an Airport Reference Code (ARC) B-II, small general aviation facility with general aviation activity. The airport has two runways, 3-21 which is 4,000' long by 100' wide and 3/21 which is 3998' long by 80' wide.

1. COORDINATION

Coordination of safety issues will occur throughout all stages of the project. Key conferences and meetings include:

1.1. Design Coordination

Design coordination will be completed with the affected agencies and organizations to discuss operational safety. Participants will include tenants, funding agencies, FAA District Office, State Aviation personnel, the Engineer, and airport operator staff. Input will be solicited on key safety issues to be considered, methods to ensure safety during construction, required protocols, advance notices, and other requirements that need to be incorporated in the contract bid documents.

1.2. Prebid Meeting

A prebid meeting with potential bidders and construction contractors will take place. The meeting will be held approximately 10 days prior to the bid opening date. During the meeting, safety will be discussed, with an emphasis on the unique aspects of construction on an active airfield. FAA Advisory Circular 150/5370-2G will be reviewed, as will the requirements for the Contractor-prepared SPCD. It will be made clear in both the contract documents as well as the pre-bid meeting that the SPCD is the responsibility of the Contractor.

1.3. Preconstruction Meeting

A preconstruction meeting will be held once a construction contract has been awarded, but prior to the start of construction. Invitees will include users, tenants, prime contractor, subcontractors, funding agencies, FAA District Office, State Aviation personnel, the Engineer, Resident Project Representative,

and the airport operator staff. The FAA Airports District Office should ensure that all appropriate FAA offices and Federal agencies that may have an interest in the project are notified.

The airport operator, or authorized agent will prepare an agenda prior to the preconstruction meeting. This will include, but not be limited to:

- a. project scope and phasing requirements;
- b. relationship between airport operator, airport operator's authorized agent, and the Contractor;
- c. relationship between the airport operator and the FAA;
- d. identification of Contractor's superintendent and discussion of authority and responsibilities;
- e. designation of airport operator representative responsible for notifying the Flight Service Station of any circumstances requiring a NOTAM;
- f. scheduling of work and phasing requirements;
- g. notice to proceed date;
- h. safety during construction, including responsibility for marking and lighting of closed and hazardous areas, all in accordance with FAA AC 150/5370-2G *Operational Safety on Airports During Construction*;
- i. security requirements;
- j. communications and documentation protocols, including contact information for all key personnel.

Emphasis will be placed on compliance with the established CSPP and approved SPCD.

1.4. Contractor Progress Meetings

Progress meetings will be held throughout the construction phase, with operational safety as a standing agenda item. Given the sequence of the work, standing meetings are not anticipated and may occur to address key phases of the work. Current compliance issues and upcoming critical work will be reviewed. Meeting participants will include the Engineer, the Resident Project Representative, the Contractor, and the airport operator. Daily meetings between the Resident Project Representative and key Contractor personnel will also occur to address daily work schedules and associated operational concerns. When necessary, appropriate FAA/State personnel, airport staff, or affected tenants will attend progress meetings.

1.5. Scope or Schedule Changes

Coordination between the Engineer, Contractor, FAA, and the airport operator will occur in the event of any scope or schedule changes. It will be determined if revisions to either the CSPP or the SPCD are required as a result of any scope or schedule changes. Revisions to these documents will be routed through the appropriate approval channels prior to beginning construction in areas of impact.

2. PHASING (CONSTRUCTION SEQUENCING)

This discussion reviews the construction phasing and work areas defined for the project. The phasing generally provides the desired sequencing for the project. The defined work areas address work limitations. These limitations are primarily associated with operational safety, focusing on maintaining adequate separation between the Contractor's activities and aircraft operations and limiting the time that Contractor activities impact airport operations. Refer to the phasing plans in Attachment A for work areas. General elements of this sequencing and phasing are described in the following subsections.

2.1. Construction Staging Areas

Refer to the phasing plans in Attachment A for staging area locations and general safety and security notes concerning use of the staging areas. Construction staging areas and Contractor employee parking areas are to remain outside of all object free areas and all safety areas for all active airfield surfaces.

2.2. Construction Access and Haul Routes

Refer to phasing plans in Attachment A for access and haul route locations and general safety and security notes concerning use of access and haul routes. Applicable control along haul routes for both safety and security must be maintained at all times.

2.3. Firefighting Access Routes

Emergency firefighting access in and around the site will be maintained by the Contractor, as required, for the duration of this project. Construction contractors must prominently mark open trenches and excavations within the construction site, with approval from the airport operator, and light them with red lights during hours of restricted visibility or darkness. There are no designated ARFF or EMS routes on the airport.

2.4. Required Hazard Marking and Lighting

Refer to the phasing plans in Attachment A for required hazard marking and lighting. Reference Sections 15, 16, and 17 of this CSPP for additional information.

2.5. Work Area Phasing.

Work areas have been defined to limit the Contractor's activities and minimize impact to airport operations. The project includes two work areas: one located located in the center of the airfield. The Contractor will be required to cross Runway 3-21 to access the AWOS site. Prior to crossing, confirm no aircraft are utilizing the runway visually and by radio.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

Runways and taxiways shall remain in use to the maximum extent possible without compromising safety. Meetings with the Engineer, Contractor, and the airport operator will occur before construction begins on each phase. Items discussed during these meetings are described below:

3.1. Identification of Affected Areas

The affected areas for each construction phase are identified in the phasing plans in Attachment A.

3.1.1. Closing or partial closing of runways, taxiways, and aprons. The Contractor will need to cross Runway 3-21 to access the AWOS site and yield to all aircraft. See Attachment A for details.

3.1.2. Closing of firefighting access routes. Access into, through, and/or around the project work area by emergency vehicles may be affected during construction. Refer to the phasing plans (Attachment A) for requirements. There are no dedicated ARFF routes at the airport.

3.1.3. Approach/departure surfaces affected by heights of objects. Contractor equipment used in the project and/or staging area may impact approach/departure surfaces. Equipment locations shall not violate runway Part 77 surfaces except under special waiver conditions. FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, must be submitted by the airport operator to the FAA ADO, and approved prior to construction. Refer to the phasing plans (Attachment A) for requirements.

3.1.4. Construction areas. Construction areas, including actual construction, storage/stockpiles, employee parking, staging areas, and haul routes are located near active airfield surfaces. Refer to the phasing plans (Attachment A) for requirements.

3.2. Mitigation of Effects

Establishment of specific procedures is necessary to maintain the safety and efficiency of airport operations. All coordination pertaining to airport operations during construction shall be with the airport operator's designated representative. Specific contacts will be discussed in detail at the preconstruction meeting.

3.2.1. Temporary and permanent changes to runway and/or taxi operations. No changes will be necessary.

3.2.2. Detours for ARFF and other airport vehicles. The project work site shall remain open to all firefighting and rescue vehicles in emergency situations. The Contractor is required to maintain access into the project work area for firefighting and rescue vehicles.

3.2.3. Maintenance of essential utilities. Special attention will be given by the Contractor to preventing unscheduled interruption of utility services and facilities. Where required by construction, the Contractor will follow prescribed procedures to locate all utilities (aboveground and underground) prior to working around them. All utility outages will be coordinated in advance in accordance with the procedures included in the plans and specifications. When a utility is damaged, it shall immediately be repaired by the Contractor in accordance with the procedures in the plans and specifications.

4. NAVIGATION AIDS (NAVAIDS) PROTECTION

Before beginning any construction activity, parking of equipment, or storing construction materials near a NAVAID, coordination with the appropriate FAA ATO to evaluate the effects of construction activity on the facility must take place. Necessary clearance distances will be coordinated at daily and weekly progress meetings (refer to Section 1, "Coordination"). No NAVAIDS are anticipated to be impacted by this project.

5. CONTRACTOR ACCESS

5.1. Location of Stockpiled Construction Materials

Stockpiled materials and equipment storage are not permitted within the safety area, obstacle free zone, or object free area of any active runway or taxiway. Stockpiled materials shall be stored at a location approved by the airport operator and constrained in a manner to prevent movement resulting either from prop wash, jet blast, or wind. Stockpile heights shall not exceed 5 feet and shall not penetrate protected airspace (refer to the plans for information on protected airspace). Stockpiled materials and equipment adjacent to these areas shall be prominently marked and lighted during hours of restricted visibility or darkness. Further reference is directed to Section 6, “Wildlife Management,” Section 7, “Foreign Object Debris Management,” and Section 17, “Protection of Runway and Taxiway Safety Areas.”

5.2. Vehicle and Pedestrian Operations

Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals into the AOA.

5.2.1. Construction site parking. Vehicle parking areas for Contractor employees shall be as shown on the plans or as designated by the airport operator.

5.2.2. Construction equipment parking. Equipment not in use shall be parked in the construction staging area shown on the plans.

5.2.3. Access and haul roads. Access routes used by contractors shall be clearly marked to prevent inadvertent entry to open aircraft operational areas. If the access routes share or cross any routes designated for use by ARFF, right of way shall be maintained at all times unless alternate routes have been established. The Contractor shall only use the access and haul roads designated by the airport operator. The airport operator will provide access to the Contractor only after the Contractor has received training from the airport operator. These haul routes are shown in the construction plans.

5.2.4. Marking and lighting of vehicles. Equipment and vehicles shall be marked with 3-foot by 3-foot orange and white checker flags (day only) or yellow flashing dome type lights (day or night). Additionally, all Contractor vehicles operating in the AOA shall be clearly labeled with the Contractor's name visible from 200 feet.

5.2.5. Description of proper vehicle operations. Vehicle operations shall be in accordance with Advisory Circular 150/5210-20 "Ground Vehicle Operations on Airports."

5.2.5.1. Normal conditions. The Contractor will be required to cross Runway 3-21 to access the AWOS site. Prior to crossing, drivers should confirm visually and by radio no aircraft are utilizing the runway. Aircraft always have the right of way.

5.2.5.2. Lost communications or emergency conditions. In the event that radio communications are lost, the driver shall pull onto the shoulder out of the way of any possible aircraft. The vehicle should then visually verify no aircraft are approaching the area and then proceed to a safe location on the airport. There is no air traffic control tower at this airport.

5.2.6. Required escorts. All untrained drivers shall be escorted at all times when on the AOA side of the security fence. Escorted vehicles shall be marked and lighted in accordance with this Section 5.

5.2.7. Training requirements. The airport operator will provide access to the Contractor only after the Contractor has received safety and security training from the Owner.

5.2.8. Situational awareness. Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

5.2.9. Two-way radio communication procedures.

Given the nature of the construction the Contractor is not required to maintain radio communications with aircraft.

5.2.10. Maintenance of the secured area of the airport

5.2.10.1. Care shall be taken to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates shall be equipped so that they can be securely closed and locked to prevent access by animals and unauthorized persons. Procedures shall be established to ensure that only authorized persons and vehicles have access to the AOA and that vehicles are allowed through the gate one at a time, i.e. no “piggybacking” behind another person or vehicle. The Contractor is responsible for ensuring that all employees of the Contractor and Subcontractors use only the authorized access point to the AOA and verifying that the access point is secure immediately after use. Gates that fail shall be reported immediately to the airport operator and shall be guarded by the Contractor until the airport operator mobilizes to secure the opening.

5.2.10.2. The Contractor shall maintain separation between the airside and non-secure side of the airport at all times. The perimeter fence shall be maintained on a continuous basis with any temporary opening being continuously guarded by the Contractor’s designated employee. The airport is subject to FAA security requirements and rigid adherence is mandatory. Any fines for unauthorized personnel entering through the Contractor’s entrance points will be deducted from monies due the Contractor. Reference is directed to Section 5. Temporary openings and construction gates shall be secured and locked at the completion of work each day.

5.2.10.3. The Contractor shall delineate limits of construction prior to beginning work each day. The Contractor’s personnel shall not be beyond the limits of construction without authorization from the Owner. Violators are subject to removal from the jobsite and loss of AOA working privileges.

5.2.10.4. The Airport reserves the right to require all personnel working inside the AOA to security training from the Airport. The Airport also reserves the right to bar personnel from the Airport for any security-related reason.

6. WILDLIFE MANAGEMENT

6.1. Trash

Food scraps shall be collected from construction personnel activity. Trash shall be disposed of weekly, or more frequently if necessary, to discourage wildlife encroachment.

6.2. Standing Water

Areas of standing water shall be kept to a minimum so as not to attract wildlife.

6.3. Tall Grass and Seeds

Only the grasses specified on the plans and in the specifications may be used for either temporary or permanent seeding. Incompatible plants could be an unwanted bird attractant.

6.4. Poorly Maintained Fencing and Gates

Reference is directed to Section 5 “Contractor Access” in regard to the importance of maintaining security on the airport so as to discourage access by wildlife.

6.5. Disruption of Existing Wildlife Habitat / Wildlife Sightings

Contractor personnel shall immediately notify the airport operator of significant wildlife sightings.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Materials capable of creating FOD shall be continuously removed during the project and must not be left or placed near active aircraft movement areas. The following measures will be utilized to control and monitor FOD:

- Worksite housekeeping
- Ground vehicle tire inspections
- Runway and taxiway sweeps

Inspection requirements are outlined in Section 10.

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

The Contractor shall be prepared to immediately contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Provisions for HAZMAT management shall be addressed in the Contractor's Storm Water Pollution Prevention Plan (SWPPP). The HAZMAT management procedures shall include, but not be limited to the following:

- Fuel deliveries
- Spill recovery procedures
- Material Safety Data Sheets (MSDS) availability

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

This section outlines procedures for maintaining communication in the event that airport users and the FAA must be notified immediately of any conditions adversely affecting the operational safety of the airport.

9.1. Contact List

The Contractor shall provide a list of responsible representatives/points of contact for all involved parties, and procedures for contacting each of them, including after hours. The Contractor must have someone available to take emergency calls from the airport operator throughout the entire construction time period. The Contractor's list shall also include the airport point of contact, ATCT (if applicable), and the Engineer to ensure that Contractor personnel have the contacts that they need in the event of a safety related event.

Airport points of contact are as follows:

- Emergency Telephone Number (Police/Fire/Rescue): 911
- Information, Compliance, and Assistance:
 - Airport Manager: 207-695-2421 (Mike Roy)

9.2. NOTAMs

The airport operator shall be responsible for the issuance of all NOTAMs. Only the airport operator may initiate or cancel NOTAMs on airport conditions and is the only entity that can open or close a runway. The airport operator shall coordinate the issuance, maintenance, and cancellation of NOTAMs

regarding airport conditions resulting from construction activities with tenants and provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) for issuance of NOTAMs.

9.3. Emergency notification procedures

In the event of an emergency, the Contractor shall call 911. Additional notification procedures will be reviewed at the preconstruction meeting, and periodically at construction progress meetings, and distributed to all appropriate parties.

9.4. Notification to the FAA

9.4.1. Part 77. Any proposed construction or alteration of objects that affect navigable airspace, as defined in FAR Part 77, shall be coordinated with the FAA by submitting FAA Form 7460-1, “Notice of Proposed Construction or Alteration” to the appropriate FAA Airports Regional or District Office. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, and other equipment) on the airport.

9.4.2. NAVAIDS. No NAVAIDS are anticipated to be impacted by this project.

10. INSPECTION REQUIREMENTS

10.1. Daily Inspections

Inspections shall be conducted by the Contractor at least daily to ensure compliance with the CSPP. A sample checklist is provided in Attachment B. In addition, daily inspections will be conducted by the airport operator or their Representative to ensure compliance with the CSPP and the SPCD.

10.2. Final Inspections

A Final Inspection will be conducted by the airport operator, Engineer, FAA, and State upon substantial completion of the project.

11. UNDERGROUND UTILITIES

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. The Contractor shall locate, or arrange for the location of underground utilities, cables, wires, pipelines, and other underground facilities located in excavation areas shall be located. This shall include coordination

with public utilities, “One Call” or “Miss Utility” services. FAA ATO/Technical Operations shall be contacted for location and marking of FAA NAVAID cables. Full coordination between the airport operator’s representatives and construction personnel will take place to ensure that these items are protected at all times during construction. If the Contractor damages any active utility during construction, immediate action shall be taken by the Contractor to repair the utility. Refer to Section 9 “Notification of Construction Activities” for contact information.

12. PENALTIES

12.1. Failure on the part of the Contractor to adhere to the requirements of this CSPP, and the plans and specifications, may have consequences that jeopardize the health and safety of persons on or near the construction site. Penalties for such actions are established by the airport operator and may include fines, suspension of construction, and/or removal from the job site. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.2. Unauthorized personnel entering through the Contractor’s access point is a violation of this CSPP and may result in a fine. The airport operator reserves the right to deduct fines from money due to the Contractor.

12.3. Contractor personnel found to be beyond the limits of construction without authorization from the Owner are subject to removal from the jobsite and loss of security badge and/or secured area working privileges.

13. SPECIAL CONDITIONS

Special conditions that require safety mitigation action include the following:

- Low-visibility operations
- Snow removal
- Aircraft in distress
- Aircraft accident
- Security breach
- Vehicle/pedestrian deviation (VPD)

During these events the Contractor will be required to suspend operations, clear active construction zones, or other measures as directed by the airport operator. Notification procedures in Section 9 shall be followed. See also Sections 5, “Contractor Access,” and 14, “Runway and Taxiway Visual Aids.”

14. RUNWAY AND TAXIWAY VISUAL AIDS

14.1. General

Those areas where aircraft will be operating shall be clearly marked to separate them from construction areas. Airport markings, lighting, signs, and visual NAVAIDs shall be clearly visible to pilots and not misleading, confusing, or deceptive. This shall be verified throughout the construction of the project. All facilities shall be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents. The facilities shall be constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

14.2. Markings

Temporary markings are not required.

14.2.1. Temporarily Closed or New Taxiways. For temporarily closed taxiways or new taxiways prior to opening, an X shall be placed at the entrance to each taxiway as indicated in the phasing plans.

14.3. Lighting and Signage.

Temporary lighting is required. Refer to the phasing plans (Attachment A) for details on temporary lighting for the project.

14.3.1. Temporarily Closed Taxiways. Temporary closed taxiways shall have their lights de-energized or covered. Directional sign panels associated with temporary closed pavements shall be removed and replaced with a blank panel or covered.

14.4. NAVAIDs.

No temporary NAVAIDs are required.

15. MARKING AND SIGNS FOR ACCESS ROUTES

Pavement markings and signs for construction personnel shall conform to AC 150/5340-18 on the runway and taxiway. Elsewhere, access route marking and signs shall conform to the Federal Highway

Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications. Signs adjacent to areas used by aircraft shall comply with the frangibility requirements on AC 150/5220-23, “Frangible Connections.” The height of temporary signage shall be restricted so as not to penetrate any avigational surfaces (avigational surfaces are described in the phasing plans in Attachment A). Temporary markings and signage are indicated in the phasing plans.

16. HAZARD MARKING, LIGHTING, AND SIGNAGE

16.1. Purpose

The purpose for delineating work areas is to prevent pilots and other airport personnel who do not belong in the construction area from entering. Work areas will be delineated with closed markers, aviation barricades, and bucket barricades. The first item of work in any work area will be the installation of the necessary closed markers and barricades to isolate the areas of proposed construction. All runway and taxiway closures will be fully coordinated with the airport operator to ensure that the proper NOTAMs are issued.

16.2. Barricades

Barricades are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.3. Lights

Lights shall be red, either steady burning or flashing, and meet the luminance requirements of the State Highway Department. Lights shall be mounted on barricades and spaced at no more than ten (10) feet apart. Lights shall be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations.

16.4. Signs

The barricades shall be supplemented with signs (for example “No Entry,” “No Vehicles”) as necessary. Signs shall conform to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications.

16.5. Air Operations Area – General

Barricades are not permitted in any active safety area. Within a runway or taxiway object free area, and on aprons, the following shall be used to separate all construction/maintenance areas from the movement area:

- Orange traffic cones
- Flashing or steady burning red lights
- Collapsible barricades with diagonal, alternating orange & white stripes
- Signs

All barricades adjacent to an open runway or taxiway / taxilane safety area or apron shall be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags. Barricades shall be of low mass; easily collapsible upon contact with aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. Barricades affixed to the surface shall be frangible at grade level or as low as possible, but not to exceed 3 inches above the ground. The types of barricades allowed are detailed on the phasing plans (Attachment A).

16.6. Air Operations Area – Runway / Taxiway Intersections

No taxiway barricades are needed.

16.7. Air Operations Area – Other

For areas outside runway and taxiway object free areas and safety areas and aprons, barricades intended for construction vehicles and personnel may consist of different shapes and may be constructed from various materials, including railroad ties, sawhorses, jersey barriers, or barrels. The Contractor shall coordinate these barricades, and their locations with the airport operator's representative.

16.8. Maintenance

The construction specifications include a provision requiring the Contractor to have personnel on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades.

Refer to the phasing plans in Attachment A for graphical depictions of hazard marking, lighting, and signage.

17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS

17.1. Runway Safety Area. Construction activities within the existing RSA are subject to the following conditions:

17.1.1. No activity is permitted while the runway is open for aircraft operations. Reference is directed to Section 5 for information on Contractor access to runway safety areas. No construction is proposed within an RSA at any time.

17.1.2. Excavations

17.1.2.1. Stockpiling of materials, open trenches, or excavations are not permitted within the RSA while the runway is open. Stockpiled materials shall be removed prior to opening the runway. Trenches shall be either backfilled or covered prior to opening the runway. If the runway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

17.1.2.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.1.3. Erosion Control

Soil erosion shall be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and be capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.1.4. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected along the runway edges:

Runway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	RSA Width in Feet Divided by 2
14	B	II-Small	75
32	B	II-Small	75
3	A	I-Small	60
21	A	I-Small	60

17.1.5. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13), must be protected before the runway threshold:

Runway End Number	Airplane Design Group I, II, III, or IV	Aircraft Approach Category A, B, C, or D	Minimum Safety Area Prior to the Threshold	Minimum Distance to Threshold Based on Required Approach Slope
14	II-Small	B	300	1,000 ft 20:1
32	II-Small	B	300	1,000 ft 20:1
3	I-Small	A	240	1,000 ft 20:1
21	I-Small	A	240	1,000 ft 20:1

17.2. Runway Object Free Area (ROFA)

Construction, including excavations, may be permitted in the ROFA only if performed in accordance with the requirements in the phasing plans (Attachment A). Equipment must be removed from the ROFA when not in use, and material shall not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA shall not occur until a 7460-1 form and justification is provided to the appropriate FAA Airports Regional or District Office and approved. ROFA dimensions shall be as identified in the following table, which is in accordance with FAA Advisory Circular 150/5300-13.

Runway	ROFA Distance from Centerline (ft)	ROFA Width (ft)	ROFA Length from End of Runway (ft)
14	250	500	300
32	250	500	300
3	125	250	240
21	125	250	240

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17.3. Taxiway Safety Area (TSA)

17.3.1. No construction is permitted within the taxiway safety area while the taxiway is open for aircraft operations. No construction is proposed in an open TSA.

Excavations

17.3.1.1. Stockpiling of materials, open trenches, or excavations are not permitted within the TSA while the taxiway is open. Stockpiled materials shall be removed prior to opening the taxiway. Trenches shall be either backfilled or covered prior to opening the taxiway. If the taxiway must be reopened before excavations are backfilled, the excavations shall be covered appropriately. Covering for open trenches shall be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft.

17.3.1.2. Open trenches and excavations at the construction site shall be prominently marked by the Contractor with red or orange flags, as approved by the Owner, and lighted with red lights during hours of restricted visibility or darkness. Refer to Section 16 for additional information on hazard marking and lighting.

17.3.2. Erosion Control

Soil erosion shall be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the equipment or aircraft.

17.3.3. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway edges:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TSA Width in Feet Divided by 2
All taxiways	B	II	39.5

17.4. Taxiway Object Free Area (TOFA)

No work is permitted inside the TOFA without the taxiway being closed. No work is proposed within an open TOFA. For this project, the following distances (in accordance with FAA Advisory Circular 150/5300-13) must be protected along the taxiway:

Taxiway	Aircraft Approach Category A, B, C, or D	Airplane Design Group I, II, III, or IV	TOFA Width in Feet Divided by 2
All taxiways	B	II	62

17.5. Obstacle Free Zone (OFZ)

Typically, no personnel, equipment, or material shall be permitted inside the OFZ while the runway is open for aircraft operations. If access is required, the express permission of the airport operator shall be obtained. Any request for such permission shall be submitted in writing by the Contractor, along with justification in order for the owner to coordinate the request with FAA. The Runway OFZ is the airspace above the runway whose elevation at any point is the same as the elevation of the nearest point on the runway centerline. For this project, the OFZ dimensions (in accordance with FAA Advisory Circular 150/5300-13) are as follows:

Runway	OFZ Distance from Centerline (ft)	OFZ Width (ft)	OFZ Length from End of Runway (ft)
14	125	250	200
32	125	250	200
3	125	250	200
21	125	250	200

Dimensions for applicable inner-approach and inner-transitional OFZ's are shown on the phasing plans in Attachment A. This information is in accordance with FAA Advisory Circular 150/5300-13.

17.6. Runway Approach/ Departure Areas and Clearways

All personnel, equipment, and material shall remain outside the protected approaches and surfaces as shown on the phasing plans in Attachment A. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Prior to placing such objects, a 7460-1 form and justification must be provided to the appropriate FAA Airports Regional or District Office and approved. Particular attention is called to the placement of cranes, excavators, and other tall equipment.

18. OTHER LIMITATIONS ON CONSTRUCTION

18.1. Prohibitions.

The following are prohibited:

18.1.1. No use of tall equipment (cranes, concrete pumps, etc.) unless a 7460-1 determination letter is issued for such equipment.

18.1.2. No uses of open flame welding or torches unless fire safety precautions are provided, and the airport operator has approved their use.

18.1.3. No use of electrical blasting caps on or within 1,000 feet (300 meters) of the airport property.

18.1.4. No use of flare pots within the AOA.

18.2. Restrictions.

The following are restricted:

18.2.1. Activities during special condition events as outlined in Section 13.

18.2.2. Areas that cannot be worked on simultaneously as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.3. Day or night construction restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

18.2.4. Work area restrictions as outlined in the phasing plans. Also refer to Section 2, “Phasing.”

ATTACHMENT A – PHASING PLANS



(Bid Set - see Work Area Milestone Plan Sheets)

ATTACHMENT B – SAMPLE CHECKLISTS



APPENDIX C. SAFETY AND PHASING PLAN CHECKLIST

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	
General Considerations					
Requirements for predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	<u>2.5</u>				
Operational safety is a standing agenda item for construction progress meetings.	<u>2.5</u>				
Scheduling of the construction phases is properly addressed.	<u>2.6</u>				
Any formal agreements are established.	<u>2.5.3</u>				
Areas and Operations Affected by Construction Activity					
Drawings showing affected areas are included.	<u>2.7.1</u>				
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	<u>2.7.1.1</u>				
Access routes used by ARFF vehicles affected by the project are addressed.	<u>2.7.1.2</u>				
Access routes used by airport and airline support vehicles affected by the project are addressed.	<u>2.7.1.3</u>				
Underground utilities, including water supplies for firefighting and drainage.	<u>2.7.1.4</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	<u>2.7.1.5</u>				
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	<u>2.7.1</u>				
Temporary changes to taxi operations are addressed.	<u>2.7.2.1</u>				
Detours for ARFF and other airport vehicles are identified.	<u>2.7.2.2</u>				
Maintenance of essential utilities and underground infrastructure is addressed.	<u>2.7.2.3</u>				
Temporary changes to air traffic control procedures are addressed.	<u>2.7.2.4</u>				
NAVAIDs					
Critical areas for NAVAIDs are depicted on drawings.	<u>2.8</u>				
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	<u>2.8</u>				
Protection of NAVAID facilities is addressed.	<u>2.8</u>				
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	<u>2.8</u>				
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>				
Contractor Access					
The CSPP addresses areas to which contractor will have access and how	<u>2.9</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
the areas will be accessed.					
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	<u>2.9</u>				
The location of stockpiled construction materials is depicted on drawings.	<u>2.9.1</u>				
The requirement for stockpiles in the ROFA to be approved by FAA is included.	<u>2.9.1</u>				
Requirements for proper stockpiling of materials are included.	<u>2.9.1</u>				
Construction site parking is addressed.	<u>2.9.2.1</u>				
Construction equipment parking is addressed.	<u>2.9.2.2</u>				
Access and haul roads are addressed.	<u>2.9.2.3</u>				
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>				
Proper vehicle operations, including requirements for escorts, are described.	<u>2.9.2.5, 2.9.2.6</u>				
Training requirements for vehicle drivers are addressed.	<u>2.9.2.7</u>				
Two-way radio communications procedures are described.	<u>2.9.2.9</u>				
Maintenance of the secured area of the airport is addressed.	<u>2.9.2.10</u>				
Wildlife Management					
The airport operator's wildlife management procedures are addressed.	<u>2.10</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Foreign Object Debris Management					
The airport operator’s FOD management procedures are addressed.	<u>2.11</u>				
Hazardous Materials Management					
The airport operator’s hazardous materials management procedures are addressed.	<u>2.12</u>				
Notification of Construction Activities					
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>				
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>				
A list of local ATO/Technical Operations personnel is included.	<u>2.13.1</u>				
A list of ATCT managers on duty is included.	<u>2.13.1</u>				
A list of authorized representatives to the OCC is included.	<u>2.13.2</u>				
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>				
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>				
Emergency notification procedures for medical, fire fighting, and police	<u>2.13.3</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
response are addressed.					
Coordination with ARFF personnel for non-emergency issues is addressed.	<u>2.13.4</u>				
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	<u>2.13.5</u>				
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	<u>2.13.5.3.2</u>				
Inspection Requirements					
Daily and interim inspections by both the airport operator and contractor are specified.	<u>2.14.1, 2.14.2</u>				
Final inspections at certificated airports are specified when required.	<u>2.14.3</u>				
Underground Utilities					
Procedures for protecting existing underground facilities in excavation areas are described.	<u>2.15</u>				
Penalties					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	<u>2.16</u>				
Special Conditions					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	<u>2.17</u>				
Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDs					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDs is addressed.	<u>2.18.1</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The requirement for markings to be in compliance with <u>AC 150/5340-1</u> , <i>Standards for Airport Markings</i> , is specified.	<u>2.18.2</u>				
Detailed specifications for materials and methods for temporary markings are provided.	<u>2.18.2</u>				
The requirement for lighting to conform to <u>AC 150/5340-30</u> , <i>Design and Installation Details for Airport Visual Aids</i> ; <u>AC 150/5345-50</u> , <i>Specification for Portable Runway and Taxiway Lights</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.3</u>				
The use of a lighted X is specified where appropriate.	<u>2.18.2.1.2</u> , <u>2.18.3.2</u>				
The requirement for signs to conform to <u>AC 150/5345-44</u> , <i>Specification for Runway and Taxiway Signs</i> ; <u>AC 150/5340-18</u> , <i>Standards for Airport Sign Systems</i> ; and <u>AC 150/5345-53</u> , <i>Airport Lighting Certification Program</i> , is specified.	<u>2.18.4</u>				
Marking and Signs For Access Routes					
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>				
Hazard Marking and Lighting					
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>				

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>				
The CSPP considers less obvious construction-related hazards.	<u>2.20.1</u>				
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>				
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	<u>2.20.2.1</u>				
Red lights meeting the luminance requirements of the State Highway Department are specified.	<u>2.20.2.2</u>				
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>				
Barricades are specified to indicate construction locations in which no part of an aircraft may enter.	<u>2.20.2.3</u>				
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	<u>2.20.2.5</u>				
Markings for temporary closures are specified.	<u>2.20.2.5</u>				
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>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Work Zone Lighting for Nighttime Construction					
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>				
Protection of Runway and Taxiway Safety Areas					
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>				
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>				
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	<u>2.22.3.3</u>				
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>				
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>				
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	<u>2.22.1.4</u>				
Grading and soil erosion control to maintain RSA/TSA standards are	<u>2.22.3.5</u>				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
addressed.					
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	<u>2.22.2</u>				
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>				
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	<u>2.22.4</u>				
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>				
Provisions for protection of runway approach/departure areas and clearways are included.	<u>2.22.6</u>				
Other Limitations on Construction					
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>				
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft (300 m) of the airport property.	<u>2.23.1.3</u>				

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

Item	Action Required (Describe)	No Action Required (Check)
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		

Item	Action Required (Describe)	No Action Required (Check)
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.		

Item	Action Required (Describe)	No Action Required (Check)
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).		

Item	Action Required (Describe)	No Action Required (Check)
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.		