

**Manchester - Boston Regional Airport
City of Manchester - Department of Aviation**

**REPLACEMENT OF RUNWAY 6 DEPARTURE END
ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)**

FAA AIP No. 3-33-0011-XXX-2026

Bid # FY26-805-63



JUNE 2026

PREPARED BY:



**53 REGIONAL DRIVE
CONCORD, NH 03301**

THIS PAGE INTENTIONALLY LEFT BLANK

**REPLACEMENT OF RUNWAY 6 DEPARTURE END
ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)**

FAA AIP No. 3-33-0011-XXX-2026

Bid # FY26-805-63

SEALS

Civil



THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

ADVERTISEMENT FOR BIDS

INFORMATION FOR BIDDERS

1.01	Receipt and Opening of Bids	IB-1
1.02	Description of Work	IB-1
1.03	Preparation of Bid	IB-1
1.04	Subcontracts	IB-1
1.05	Bidder's Qualifications	IB-1
1.06	Bid Modification	IB-2
1.07	Proposal Guaranty Bid Security	IB-2
1.08	Time of Completion and Liquidated Damages	IB-2
1.09	Security for Faithful Performance	IB-2
1.10	Addenda and Interpretations	IB-2
1.11.	Power of Attorney	IB-3
1.12	Laws and Regulations	IB-3
1.13	Execution of Contract	IB-3
1.14	Approval of Contract	IB-3
1.15	Failure to Execute Contract	IB-3
1.16	Notice of Special Conditions	IB-3
1.17	Employment of Women	IB-4
1.18	Not Used	IB-4
1.19	Electronically Provided Bid Documents	IB-4

BID PROPOSAL

	Bid Bond	BP-1
	Certificate as to Corporate Principal – Bid Bond	BP-3
	Proposal	BP-5
	Acknowledgment of Addenda	BP-6
	Bid Forms	BP-7
	Bid Summary – Base Bid	BP-10
	Certificate as to Corporate Principal – Bid Proposal	BP-11

BID PROPOSAL CERTIFICATES OF COMPLIANCE FOR AIP PROJECTS

	Certification of Bidding Requirements Signature Page	BPC-1
	Certification of Compliance with Federally Required Contract Requirements	BPC-3
	Certificate of Buy American Compliance – Construction Projects	BPC-4
	Certification for Debarment and Suspension	BPC-6
	Goals and Assurances for Disadvantaged Business Enterprises	BPC-7
	Proposed Disadvantaged Business Enterprise (DBE) Utilization – DBE Neutral Projects	BPC-8
	DBE Letter of Intent	BPC-9
	Bidder's Project Subcontractors & Suppliers	BPC-10
	Disclosure of Lobbying Activities	BPC-11
	Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions	BPC-13
	Trade Restriction Certification	BPC-14
	Non-Collusion Affidavit	BPC-15

CONTRACT DOCUMENTS

Contract Agreement	C-1
Contract Signatures	C-3
Certificate of Insurance	C-4
Safety Responsibility Covenant	C-5
Contract Bonds	C-7
Form of Performance Bond	C-9
Certificate as to Corporate Principal – Performance Bond	C-11
Form of Payment Bond	C-13
Certificate as to Corporate Principal – Payment Bond	C-16

GENERAL CONTRACT PROVISIONS

10	Definition of Terms	GC-1
20	Proposal Requirements and Conditions	GC-7
30	Award and Execution of Contract	GC-11
40	Scope of Work	GC-13
50	Control of Work	GC-17
60	Control of Materials	GC-23
70	Legal Regulations and Responsibility to Public	GC-27
80	Execution and Progress	GC-33
90	Measurement and Payment	GC-39

REQUIRED CONTRACT PROVISIONS FOR AIP PROJECTS

A1.	Access to Records and Reports	RCP-2
A2.	Breach of Contract Terms	RCP-3
A3.	Buy American Preference	RCP-4
A4.	Civil Rights-General	RCP-7
A5.	Civil Rights-Title VI Assurances	RCP-7
A6.	Clean Air and Water Pollution Control	RCP-10
A7.	Contract Workhours and Safety Standards Act Requirements	RCP-11
A8.	Copeland “Anti-kickback” Act	RCP-12
A9.	Davis-Bacon Requirements	RCP-13
A10.	Debarment and Suspension	RCP-18
A11.	Disadvantaged Business Enterprise	RCP-19
A12.	Distracted Driving	RCP-21
A13.	Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment	RCP-22
A14.	<i>Drug Free Workplace Requirements (No Contract Clause)</i>	
A15.	Federal Fair Labor Standards Act (Federal Minimum Wage)	RCP-23
A16.	Lobbying and Influencing Federal Employees	RCP-24
A17.	Occupational Safety and Health Act of 1970	RCP-25
A18.	Procurement of Recovered Materials	RCP-26
A19.	Rights to Inventions (<i>Not Applicable for this Contract</i>)	RCP-27
A20.	Seismic Safety (<i>Not Applicable for this Contract</i>)	RCP-28
A21.	Tax Delinquency and Felony Convictions	RCP-29
A22.	Termination of Contract	RCP-30
A23.	Trade Restriction Certification	RCP-32
A24.	Veteran’s Preference	RCP-34
A25.	Domestic Preference for Procurements	RCP-35
A26.	Prohibition of Covered Unmanned Aircraft Systems (UAS)	RCP-36

CONTRACT REFERENCE DOCUMENTS

I Disadvantaged Business Enterprise (49 CFR Part 26)

RD1-1

DAVIS-BACON ACT WAGE RATE SCHEDULE – ROCKINGHAM HIGHWAY

SUPPLEMENTAL PROVISIONS

I	Contract Document Drawings	SP-1
II	Special Inspection Requirements	SP-1
III	“Or Equal” Clause	SP-2
IV	Contractor Agreement Negligence & Wrongdoing Indemnification During Prosecution of the Work	SP-2
V	Insurance Requirements	SP-2
VI	Special Hazards	SP-4
VII	Protection of Lives and Health	SP-4
VIII	Pricing of Construction Contract Change Order or Supplemental Agreement	SP-4
IX	Airport Security	SP-6
X	Security Badging Requirements	SP-8

TECHNICAL SPECIFICATIONS

M-100	Gate Guard
M-200	Maintenance and Protection of Traffic
C-100	Contractor Quality Control Program (CQCP)
C-102	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control
C-105	Mobilization
P-101	Preparation/Removal of Existing Pavements
P-403	Asphalt Mix Pavement Surface Course
P-603	Emulsified Asphalt Tack Coat
P-605	Joint Sealants for Pavements
P-610	Concrete for Miscellaneous Structures
P-620	Runway and Taxiway Marking
P-621	Saw-Cut Grooves
T-901	Seeding
T-905	Topsoil
T-908	Mulching
L-125	Installation of Airport Lighting Systems
S-001	Installation of Proposed EMAS System
P-555	EMAS Installation Plan

ATTACHMENTS

Attachment A	Existing EMAS System - Record Drawings
Attachment B	Construction Safety and Phasing Plan

THIS PAGE INTENTIONALLY LEFT BLANK

**ADVERTISEMENT FOR BIDS
CITY OF MANCHESTER - DEPARTMENT OF AVIATION**

**REQUEST FOR BIDS FOR
REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING SYSTEM
(EMAS)**

At

MANCHESTER-BOSTON REGIONAL AIRPORT

AIP # 3-33-0011-XXX-2026

City Bid # FY26-805-63

The City of Manchester, New Hampshire, Department of Aviation is seeking bids for the completion of the proposed Replacement of Runway 6 Departure End Engineered Material Arresting System (EMAS) at the Manchester-Boston Regional Airport (MHT). The scope of work for the project includes all of the associated work with the following components: removal and disposal of the existing EMAS system; existing asphalt pavement milling and crack sealing; proposed asphalt pavement overlay; installation of new owner-provided EMAS system; installation of retro-reflective markers; pavement grooving; pavement markings; and all other incidental work.

Bids will be accepted only from contractors that have been pre-qualified with the Department of Aviation. Refer to the Information for Bidders Section 1.05 or the Manchester-Boston Regional Airport website at <https://www.flymanchester.com/doing-business-with-mht/procurement-services/> for pre-qualification requirements. Each bidder must deposit with his/her bid, security in the amount of 5% of the total bid. A 100% performance and payment bond will be required with the contract.

Bid documents are available for direct download upon registration at the McFarland Johnson Bid Portal (<https://bidportal.mjinc.com/bidportal/index>) at no cost on or after **Wednesday, June 3, 2026** and by providing the Contractor's email address as part of the registration. Contract documents may also be viewed and downloaded, at no cost, in Portable Document Format at the Manchester-Boston Regional Airport's website link located at <https://www.flymanchester.com/doing-business-with-mht/procurement-opportunities/>. It is the bidder's sole responsibility to provide an e-mail address to the Engineer, as noted above, for use in issuance of any addenda.

A pre-bid informational meeting will be held at the Airport Administrative Offices boardroom, located on the third floor of the Airport terminal at One Airport Road, Manchester, NH. The meeting will be held on **Wednesday, June 10, 2026 at 2:00 PM**. Prospective bidders shall RSVP, not less 24 hours prior to the meeting, through Ms. Christina Adams at (603) 624-6539 Ext. 307 or cadams@flymanchester.com. It is anticipated that a "site walk" will be performed after the pre-bid informational meeting. No individual "on-site" visits will be provided for the project.

Bids will be publicly opened and read aloud on **Wednesday, June 24, 2026 at 2:00 PM (local time)** at the Airport Administrative Offices boardroom, located on the third floor of the Airport terminal at One Airport Road, Manchester, NH. The contract will be awarded to the lowest responsive and responsible bidder.

The Owner reserves the right to waive any informality in the bidding or to reject any or all bids.

In this bid process and the resulting Contract, if executed, all Bidders and Contractors must fully comply with the Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects and contained within the Contract Documents. All requirements of the Federal funding and, as well as all administrative regulations shall apply to this project, as if herein written out in full. The attention of prospective bidders is called to the fact that this project is to be bid upon and the contract executed, under the Federal Funding Rules and Regulations for carrying out the provisions of:

- Buy American Preference (Title 49 United States Code, §50101, Executive Order 14005, IJJA, & BABA)
- Title VI Provisions of the Civil Rights Act of 1964, as amended and supplemented (Title 49 United States Code, § 47123 & FAA Order 1400.11)
- Davis-Bacon Act (2 CFR Part 200, Appendix II(D), 29 CFR Part 5, 49 USC § 47112 (b), 40 USC §§ 3141-3144, 3146, and 3147)

- Debarment and Suspension (2 CFR Part 180 (Subpart B), 2 CFR Part 1200, DOT Order 4200.5, Executive Orders 12549 and 12689)
- Disadvantaged Business Enterprise (49 CFR Part 26, 49 USC § 47113)
- Federal Fair Labor Standards Act (29 USC§ 201, et seq; 2 CFR § 200.430)
- Lobbying and Influencing Federal Employees (Title 31 United States Code, §1352-Byrd Anti-Lobbying Amendment, 2 CFR Part 200, Appendix II(I), and 49 CFR Part 20, Appendix A)
- Prohibition of Covered Unmanned Aircraft Systems (UAS) (FAA Reauthorization Act of 2024 (Public Law 118-63, Section 936)
- Procurement of Recovered Materials (2 CFR § 200.323, 2 CFR Part 200, Appendix II(J), 40 CFR Part 247, 42 USC § 6901, et seq (Resource Conservation and Recovery Act (RCRA)))
- Foreign Trade Restriction (49 USC §50104 and 49 CFR Part 30)

TITLE VI SOLICITATION NOTICE:

The Manchester-Boston Regional Airport, 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), 28 CFR § 50.3, and 49 CFR Part 21, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, all contractors will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of the owner’s race, color, national origin, sex, creed, age, or disability in consideration for an award.

DISADVANTAGED BUSINESS ENTERPRISE:

The requirements of 49 CFR Part 26 including any amendments thereto apply to this contract. It is the policy of the Manchester-Boston Regional Airport 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. **There is no specific DBE goal for this project.**

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE):

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

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

TRADE RESTRICTION CERTIFICATION:

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

1. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
2. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
3. has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

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

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

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR §

30.17, no contract shall be awarded to an Offeror or subcontractor:

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

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

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

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

PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS):

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 (Public Law 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.

All requests for information should be directed in writing to: David Rich, McFarland Johnson, located at 53 Regional Drive, Concord, NH 03301, by email @ drich@mjinc.com with a cc: copy to Luis Elguezabal, Deputy Aviation Director/Chief Operating Officer, by email @ lelguezabal@flymanchester.com.

END OF SECTION

THIS PAGE INTENTIONALLY LEFT BLANK

INFORMATION FOR BIDDERS

THIS PAGE INTENTIONALLY LEFT BLANK

INFORMATION FOR BIDDERS

1.01 RECEIPT AND OPENING BIDS

The City of Manchester, Department of Aviation, Manchester, New Hampshire (herein called the Owner), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Manchester-Boston Regional Airport Administration Office at One Airport Road Manchester, NH until **Wednesday, June 24, 2026 at 2:00 PM (local time)** and then at said office publicly opened and read aloud.

The envelopes containing the bid must be sealed, addressed and designated as:

REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)

The Owner may consider irregular any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. After submitting a bid, no Bidder may withdraw a bid for one-hundred eighty (180) calendar days.

1.02 DESCRIPTION OF WORK

The work involves the removal and replacement of the Runway 6 Departure End EMAS system. The scope of work for the project includes all of the associated work with the following components: removal and disposal of the existing EMAS system; existing asphalt pavement milling and crack sealing; proposed asphalt pavement overlay; installation of new owner-provided EMAS system; installation of retro-reflective markers; pavement grooving; pavement markings; and all other incidental work.

All areas of the airport disturbed by the Contractor's operations not within the construction limits as set forth by the Owner shall be restored at least equal to original condition at no cost to the Owner.

Attention shall be directed to the Contract Documents for specific information of the work to be performed.

1.03 PREPARATION OF BID

Each bid must be prepared in strict accordance with the requirements of Section 20 of the General Provisions of these specifications.

1.04 SUBCONTRACTS

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Owner and the Federal Aviation Administration.

The successful bidder will be required to submit a list of his/her potential subcontractors as part of the Bid Package for the opening of Bids and finalize the subcontractors before the award of a contract. The successful bidder will be required to submit all subcontracts to the Engineer for review after the contract is awarded.

1.05 BIDDER'S QUALIFICATIONS

All Bidders for projects with an estimated cost in excess of \$250,000 must be qualified. Refer to Section 20-02 of the FAA General Contract Provisions for additional information. In addition, the Bidder shall complete the Qualification Statement and submit it as part of the Bid Proposal Submission.

1.06 BID MODIFICATION

Any bidder may modify his/her bid by written communication at any time prior to the schedule closing time for receipt of bids, providing such written communication is received by the Owner prior to the bid closing time. The written communication should not reveal the bid price but should provide the addition or subtraction or any other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened.

1.07 PROPOSAL GUARANTY BID SECURITY

Each bid must be accompanied by cash, certified check of the bidder, or a bid bond prepared on the form of bid bond included in the Contract Documents in the amount of five percent (5%) of the bid, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner. The bid bond shall be executed or countersigned for the surety by a person who has current power of attorney for the surety.

The bid security will be returned to all bidders, except the two lowest bidders, within three (3) days after the opening of bids, and the remaining cash, checks, or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the Contract, or, if no award has been made prior to **One Hundred Eighty (180) calendar days after the bid opening**, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

1.08 TIME OF COMPLETION AND LIQUIDATED DAMAGES

It is anticipated that the project will be constructed in 2027. The scheduling of the construction phase noted below will be determined by the Contractor, but in accordance with other limitations noted in the Contract Documents.

Overall Project Completion

The bidder must agree to commence work on a date to be specified in the written Notice to Proceed of the Owner and to fully complete the project within **sixty (60) consecutive calendar days**. Bidders must agree to pay to the Owner as liquidated damages with the amount of money **as identified in the Contract** for each and every calendar day the work remains incomplete beyond the above specified time for all work to obtain substantial completion for function use.

1.09 SECURITY FOR FAITHFUL PERFORMANCE

Simultaneously with his/her delivery of the executed Contract, the successful bidder shall furnish Surety bonds as security for faithful performance of this Contract and for the payment of all persons performing labor on the project under this Contract and furnishing materials in connection with this Contract, as specified in the General Provisions included herein. The bonds shall be of the form provided hereinafter and shall be executed by Surety acceptable to the Owner. The bonds shall be executed by or countersigned by an agent for Surety and said agent to have current power of attorney for the Surety. Each bond shall be in the amount of one hundred percent (100%) of Contract awarded. Contractors should also submit with all bonds evidence showing the financial strength of the Surety.

1.10 ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally. Every request for such interpretation shall be in writing addressed to David Rich, Project Manager with McFarland Johnson, 53 Regional Drive, Concord, NH 03301, by email drich@mjinc.com and to be given consideration, **must be received no later than 5:00 PM (EST) on Wednesday, June 17, 2026**. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the contract documents which, if issued, will be posted to the McFarland Johnson Bid Portal. Prospective bidders are responsible for checking the Bid Portal for addenda, and the failure of any bidder

to receive any such addenda or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the Contract Documents.

1.11 POWER OF ATTORNEY

Attorneys-in-fact or others who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

1.12 LAWS AND REGULATIONS

The bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though therein written out in Full. The Contractor shall be responsible for payment of all taxes, fees, and assessments as levied by Federal, State and Local authorities.

1.13 EXECUTION OF CONTRACT

The individual, firm, partnership, or corporation to whom or to which the Contract has been awarded shall sign the necessary agreements entering into a Contract with the Owner and return them to the Office of the Owner (with the required contract bonds) within fifteen (15) calendar days after the Contract is mailed.

1.14 APPROVAL OF CONTRACT

Approval of the Contract shall be in accordance with paragraph 30-07 of the General Provisions. No Contract is binding upon the Owner until it has been executed by the Owner and delivered to the Contractor.

1.15 FAILURE TO EXECUTE CONTRACT

Failure of a bidder to comply with any of the requirements of the proposal, failure to execute the Contract within fifteen (15) calendar days after mailing, as specified, or failure to furnish contract bonds as required shall be just cause for the annulment of the award. In the event of such annulment of the award, the amount of bid security shall become the property of the Owner, not as a penalty but as fixed and agreed liquidated damages. Award may then be made to the next best qualified bidder, or the work re-bid, or otherwise handled as the Owner may elect.

1.16 NOTICE OF SPECIAL CONDITIONS

Attention is particularly called to those parts of the Contract Documents which deal with the following:

- a. Inspection of work.
- b. Insurance requirements.
- c. Scheduling the contract work.
- d. Liquidated damages for failure to complete the various portions of the specified times.
- e. Airport safety and security.
- f. Buy American Act.
- g. Wage Rates.

1.17 EMPLOYMENT OF WOMEN

Women will be afforded equal opportunity in all areas of employment. However, the employment of women shall not diminish the standards or requirements for the employment of minorities.

1.18 NOT USED

1.19 ELECTRONICALLY PROVIDED BID DOCUMENTS

Bid Documents provided electronically are provided as a convenience to the Bidder and are not the controlling data for the contract. The original hard copy (paper) contract plans and specifications and modifications thereto reviewed and signed by the Engineer are the legal construction documents and shall be used for interpretations and determinations for the project, overriding any alterable electronic files. Bidder agrees to accept full responsibility for their use of the electronic files and the completeness, correctness, and/or readability of the electronic media file, and shall indemnify, defend and hold harmless, McFarland Johnson Inc. and the Owner from any and all claims (including third party) arising from discrepancies between the electronic media file and the sealed drawings or report.

END OF INFORMATION FOR BIDDERS

BID PROPOSAL

THIS PAGE INTENTIONALLY LEFT BLANK

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED,

(Name of Principal)

as PRINCIPAL, and

(Name of Surety)

as SURETY, are held and are firmly bound unto **The City of Manchester, New Hampshire, Department of Aviation** hereinafter called the Owner, in the penal sum of

lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying Bid, for:

Replacement of Runway 6 Departure End Engineered Material Arresting System (EMAS)

MHT Bid No. FY26-805-63

NOW, THEREFORE, if the Principal shall not withdraw said bid within 180 calendar days after the opening thereof, and shall within fifteen (15) calendar days after the prescribed forms are presented to him/her for signature, enter into a written Contract with the Owner in accordance with the bid as accepted, and give bonds with good and sufficient Surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such Contract and give such bonds within the time specified, if the Principal shall pay the Owner the difference between the amount specified in said bid and the amount for which the Owner may procure the required work or supplies or both, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above named Principal and Surety have executed this instrument under their several seals this _____day of _____, name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In presence of:

Individual Principal SEAL

Business Address

Individual Principal SEAL

Business Address

Attest:

Corporate Principal

Business Address

**Affix
Corporate
Seal**

By: _____

Corporate Surety

Business Address

**Affix
Corporate
Seal**

By: _____

Attorney-in-Fact

* Power of attorney for person(s) signing for surety company must be attached to this bond.

CERTIFICATE AS TO CORPORATE PRINCIPAL

BID BOND

I, _____, certify that I am the
_____ of the Corporation named as principal in the within
bond; that _____, who signed the said bond on
behalf of the Principal was then _____
of said Corporation; that I know his/her signature, and his/her signature thereto is genuine, and
that said bond was duly signed, sealed, and attested to for and in behalf of said Corporation by
authority of its governing body.

**Affix
Corporate
Seal**

THIS PAGE INTENTIONALLY LEFT BLANK

BID PROPOSAL

for

***REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL
ARRESTING SYSTEM (EMAS)***

at

Manchester-Boston Regional Airport

Proposal of _____* (hereinafter called "Bidder") a corporation organized under the laws of the State of _____, a partnership, or an individual** doing business as _____, to the **City of Manchester, New Hampshire, Department of Aviation** (hereinafter called "Owner").

The bidder in compliance with your invitation for bids for the construction of airport improvements having examined the plans and specifications with related documents and the site of the proposed work if required, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials, and labor, hereby proposes to furnish all plant, labor, materials, supplies, equipment, services, and to construct the work in accordance with the Contract Documents, within the time set forth therein, and at the amount in U.S. dollars provided herein. This price is to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.

Time of Completion and Liquidated Damages

Bidder hereby agrees to commence work under this Contract on the date to be specified in written "Notice to Proceed" of the Owner, and to fully complete the project within:

Replacement of Runway 6 Departure End Engineered Material Arresting System: Sixty (60) calendar days.

Bidder further agrees to pay to the Owner, as liquidated damages:

For the project, the sum of **two thousand five hundred dollars (\$2,500.00)** for each and every **calendar day** that the work remains incomplete beyond the time specified for milestone dates and completion as hereinafter provided in the Contract Documents.

Bidder acknowledges receipt of the addenda shown on the attached form entitled:

ACKNOWLEDGMENT OF ADDENDA.

Bidder agrees to perform all the work described in the specifications, shown on the plans or directed, for the following unit prices:

****The name of the bidder must be exactly the same as the name under which the bidder was pre-qualified with the City of Manchester.***

***** Strike out inapplicable terms.***

ACKNOWLEDGMENT OF ADDENDA

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Addendum No. _____ Date:

Manchester-Boston Regional Airport
**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING
SYSTEM (EMAS)
BASE BID – PROPOSAL FORM**

ITEM NO.	ESTIMATED QUANTITY/ UNIT	DESCRIPTION AND UNIT PRICE (IN WORDS)	FIGURES			
			UNIT PRICE		EXTENSION	
			Dollars	Cents	Dollars	Cents
M-100-1	1 LS	GATE GUARD _____ Dollars and _____ Cents per Lump Sum				
M-200-1	1 LS	MAINTENANCE AND PROTECTION OF TRAFFIC _____ Dollars and _____ Cents per Lump Sum				
M-200-2	1 LS	TEMPORARY HAUL ROAD _____ Dollars and _____ Cents per Lump Sum				
C-100-1	1 LS	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP) _____ Dollars and _____ Cents per Lump Sum				
C-102-5.1	20 EA	INSTALLATION AND REMOVAL OF INLET PROTECTION _____ Dollars and _____ Cents per Each				
C-102-5.2	200 LF	INSTALLATION AND REMOVAL OF EROSION CONTROL LOGS _____ Dollars and _____ Cents per Linear Foot				
C-105-1	1 LS	MOBILIZATION (5% MAXIMUM) _____ Dollars and _____ Cents per Lump Sum				
P-101-5.1	4,000 LF	JOINT AND CRACK REPAIR _____ Dollars and _____ Cents per Linear Foot				

Manchester-Boston Regional Airport
**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING
SYSTEM (EMAS)
BASE BID – PROPOSAL FORM**

ITEM NO.	ESTIMATED QUANTITY/ UNIT	DESCRIPTION AND UNIT PRICE (IN WORDS)	FIGURES			
			UNIT PRICE		EXTENSION	
			Dollars	Cents	Dollars	Cents
P-101-5.2	11,600 SY	VARIABLE DEPTH COLD MILLING _____ Dollars and _____ Cents per Square Yard				
P-101-5.3	1 LS	REMOVAL OF EXISTING EMAS SYSTEM _____ Dollars and _____ Cents per Lump Sum				
P-403-8.1	2,350 TON	ASPHALT MIXTURE SURFACE COURSE _____ Dollars and _____ Cents per Ton				
P-603-5.1	1,400 GAL	EMULSIFIED ASPHALT TACK COAT _____ Dollars and _____ Cents per Gallon				
P-605-5.1	850 LF	JOINT SEALING FILLER (SAW & SEAL) _____ Dollars and _____ Cents per Linear Foot				
P-620-5.1	19,200 SF	SURFACE PREPARATION _____ Dollars and _____ Cents per Square Foot				
P-620-5.2	46,500 SF	MARKINGS _____ Dollars and _____ Cents per Square Foot				
P-620-5.3	350 LBS	REFLECTIVE MEDIA _____ Dollars and _____ Cents per Pound				

Manchester-Boston Regional Airport
**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING
SYSTEM (EMAS)
BASE BID – PROPOSAL FORM**

ITEM NO.	ESTIMATED QUANTITY/ UNIT	DESCRIPTION AND UNIT PRICE (IN WORDS)	FIGURES			
			UNIT PRICE		EXTENSION	
			Dollars	Cents	Dollars	Cents
P-621-5.1	720 SY	GROOVING _____ Dollars and _____ Cents per Square Yard				
T-901-5.1	9,000 SF	SEEDING _____ Dollars and _____ Cents per Square Foot				
T-905-5.1	120 CY	TOPSOIL (FURNISHED FROM OFF THE SITE) _____ Dollars and _____ Cents per Cubic Yard				
L-125-5.1	168 EA	RETROREFLECTIVE MARKER _____ Dollars and _____ Cents per Each				
S-001-5.1	1 LS	INSTALLATION OF PROPOSED EMAS SYSTEM _____ Dollars and _____ Cents per Lump Sum				

BASE BID SUBTOTAL (Pages BP-7 to BP-9)

\$ _____

BID SUMMARY – BASE BID

TOTAL BASE BID:

_____ **dollars**
(amount in words)
(\$ _____).
(amount in figures)

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn prior to a period of one-hundred eighty (180) calendar days after the bid opening.

The Bidder agrees that the Owner may reduce the quantities or may delete work items altogether if necessary to bring the contract awarded within funds available to finance the project. Such reduction or deletion of work shall not constitute a basis for withdrawal of this proposal.

Upon receipt of written notice of acceptance of this Bid, Bidder will execute the formal contract attached within fifteen (15) calendar days and deliver the Surety Bonds as required by the General Provisions. The bid security attached in the sum of _____ is to become the property of the Owner in the event the contract and bonds are not executed within the time above set forth, as liquidated damages for the delay and additional expenses to the Owner caused thereby.

Respectfully submitted:

Name of Bidder: _____

By: _____

Name and Title: _____

Business Address: _____

(Affix corporate seal if bid is by a corporation)

CERTIFICATE AS TO CORPORATE PRINCIPAL

BID PROPOSAL

I, _____ certify that I am the _____ of the corporation named as Bidder in the above Proposal; that who signed the said Proposal on behalf of the Bidder was then of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said Proposal was duly signed, sealed and attested to for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporate powers.

_____ (Corporate Seal)
(Signature)

THIS PAGE INTENTIONALL LEFT BLANK

**BID PROPOSAL CERTIFICATES OF COMPLIANCE
FOR AIP PROJECTS**

THIS PAGE INTENTIONALLY LEFT BLANK

**BID PROPOSAL CERTIFICATES OF COMPLIANCE FOR AIP PROJECTS
CERTIFICATION OF BIDDING REQUIREMENTS SIGNATURE PAGE**

This signature page is included in this Contract Document to provide assistance to all Bidders in the form of a checklist and to stipulate that if any of the items mentioned below, but not limited to, are incomplete or otherwise incorrect, the Manchester-Boston Regional Airport may reject the bid.

I. REQUIRED FORMS AND SIGNATURE

- A. Certification of Bidding Requirements Signature Page..... BPC-1
- B. Bid BondBP-1 to BP-3
- C. Bid Proposal Forms and SummariesBP-5 to BP-10
- D. Certificate as to Corporate Principal – Bid Proposal (If applicable) BP-11
- E. Certification of Compliance with Federally Required Contract Requirements BPC-3
- F. Buy American Certification BPC-4 to BPC-5
- G. Certification Regarding Debarment and Suspension BPC-6
- H. Proposed Disadvantaged Business (DBE) Utilization - DBE-Neutral Projects BPC-8
- I. DBE Letter of Intent BPC-9
- J. Bidder's Project Subcontractors and Suppliers BPC-10
- K. Disclosure of Lobbying Activities BPC-11 to BPC-12
- L. Certification of Offerer/Bidder Regarding Tax Delinquency and Felony Convictions BPC-13
- M. Trade Restriction Certification BPC-14
- N. Non-Collusion Affidavit BPC-15

II. BID PROPOSAL FORMS

Unit Price Bids will be considered to be incomplete if any of the following conditions exist:

- A. All written words and figures shall be in INK or TYPED
- B. Unit price in words is omitted
- C. Unit price in figures is omitted
- D. A zero, *N/A*, or blank is used as a bid price

III. CERTIFICATION SUMMARY

I hereby certify that I have read all of the above requirements and understand that it affects the acceptability of my bid(s).

Contractor's Signature

Date

CERTIFICATIONS TO ACCOMPANY PROPOSAL BID FORMS

1.01 ALL CONTRACTS

- a. The bidder (proposer) must supply all the information required by the proposal forms and specifications.
- b. The City of Manchester Department of Aviation, New Hampshire, in accordance with Title VI of the Civil Rights Act of 1964, hereby notifies all bidders that they (bidders) must affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full 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 award.

1.02 INSTRUCTIONS TO BIDDERS

- a. Section 60-1.7(b) of the Regulations of the Secretary of Labor required each bidder or prospective prime Contractor and proposed subcontractors, where appropriate, to state in the bid whether it had participated in any previous contract or subcontract subject to the equal opportunity clause; and if so, whether it has filed with the Joint Reporting Committee, the Director, an agency, or the former President's Committee on Equal Employment Opportunity all reports due under the applicable filing requirements. Although Executive Order 11246 has been revoked, as of the date of these bid documents, EEO-1 reporting is still required. Bidders shall comply with all current requirements of the U.S. Equal Employment Opportunity Commission (EEOC).
- b. To achieve these requirements, the Bidder shall complete and sign the attached statements.

**CERTIFICATION OF COMPLIANCE WITH
FEDERALLY REQUIRED CONTRACT REQUIREMENTS**

The bidder certifies, by submission of this proposal or acceptance of this, that he/she has read the federally mandated contract requirements as listed in within these Bid Documents. Federal Contract Conditions and that compliance with said references will be incorporated into the terms of the Contract Documents.

I hereby certify that I have read and will comply with all of the above requirements.

Signature of Authorized Contractor and/or Consultant Representative

Date

Certificate of Buy American Compliance – 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 USC § 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 USC § 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 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To 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 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION (For Bids Exceeding \$25,000)**

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

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

Name and Title of Signer (Please type)

Signature

Date

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

GOALS AND ASSURANCES FOR DISADVANTAGED BUSINESS ENTERPRISES

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.

The requirements of CFR 49 Part 26, Regulations of the U. S. Department of Transportation, apply to this contract. It is the policy of The City of Manchester-Department of Aviation to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the requirements of this bid specification. These requirements apply to all bidders/offerors, including those who qualify as a DBE. The City of Manchester-Department of Aviation encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

There is no specific DBE goal for this project.

The successful Bidder or Offeror must provide written confirmation of participation from each of the DBE firms the Bidder or Offeror lists in its commitment within five (5) days after bid opening.

The Bidder or Offeror must submit the following information on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and

**PROPOSED DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION
DBE-NEUTRAL PROJECTS**

The undersigned Bidder/Offeror has made a good faith effort to make subcontracting and supplier opportunities available to all firms including, but not limited to, DBE's as defined in 49 CFR 26. As a result of these efforts:

- The Bidder/Offeror is committed to a minimum of _____% **DBE** utilization on this Contract.

Name of Bidder/Offeror's firm:

State Registration No. _____

By: _____
(Signature) (Title)

DBE LETTER OF INTENT

Name of bidder'/offeror's firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Name of DBE firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Description of work to be performed by DBE firm:

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

Affirmation

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

By: _____
(Signature) (Title)

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

(Submit this page for each DBE subcontractor.)

BIDDER'S PROJECT SUBCONTRACTORS & SUPPLIERS

The Bidder advises herein that the following Subcontractors are proposed for the item of work listed. Subcontractors are subject to review and approval per the requirements of the Contract Documents and the technical requirements specified. List firms that will supply labor at the site and major suppliers.

Failure to provide this information may result in the bid being considered non-responsive.

	<u>DBE</u>			
<u>SUBCONTRACTOR NAME</u>	<u>(Y/N)</u>	<u>TRADE</u>	<u>CONTRACT WORK ITEMS</u>	<u>VALUE (\$)</u>
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

RESPECTFULLY SUBMITTED:

(Bidder)

By: _____ Title: _____ Date: _____

**DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET**

Reporting Entity:

— Page _ of _____

Authorized for Local Reproduction Standard Form – LLL-A

**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 a Bidder responds in the affirmative to either of the above representations, the Bidder 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 Bidder 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 USC § 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.

Date

Signature

Company Name

Title

TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

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

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

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

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the 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.

Date	Signature
Company Name	Title

**NON-COLLUSION AFFIDAVIT
(Bidder or Offeror)**

I, (enter full legal name), _____
representing (name of person, firm, association, or corporation) _____
of (Town or City and State) _____

being duly sworn, depose and certify that, under the penalties of perjury under the laws of this state and the United States that on behalf of, the person, firm, association, or corporation submitting this bid, that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with submitting a bid for this project.

**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL
ARRESTING SYSTEM (EMAS)
Manchester-Boston Regional Airport**

Name of Individual, Partnership, or Corporation (Please Print or Type)

Signature of Official Authorized to Sign Contracts and Agreements

Name of Individual Signing Affidavit

Title of Individual Signing Affidavit

Sworn to before me this _____ day of _____, 20__

THIS PAGE INTENTIONALLY LEFT BLANK

CONTRACT DOCUMENTS
REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL
ARRESTING SYSTEM (EMAS)

THIS PAGE INTENTIONALLY LEFT BLANK

CONTRACT AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2026, (execution date by Owner) by and between **City of Manchester - Department of Aviation**, hereinafter called "OWNER" and _____

doing business as a corporation hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the project entitled:

***REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL ARRESTING
SYSTEM (EMAS)
City Bid # FY26-805-63***

2. CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS on or before a date to be specified in the NOTICE TO PROCEED and will complete the work within the **SIXTY (60) calendar days** from the effective date of the NOTICE TO PROCEED unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS. The final completion date will be only extended by a modification to the CONTRACT DOCUMENTS.

The CONTRACTOR shall pay as liquidated damages the sum of **two thousand five hundred dollars (\$2,500.00)** for each and every calendar day that the work remains incomplete beyond the above specified time and the noted date certain, as provided in the General Provisions of the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of _____, or as shown in the BID Schedule.

5. The term "CONTRACT DOCUMENTS" means and includes the following:

- (A) This Contract Agreement
- (B) Addenda as listed herein
- (C) Advertisement for Bids
- (D) Information for Bidders
- (E) Signed Copy of Bid Proposal
- (F) Bid Proposal Certificates of Compliance
- (G) Contract Documents (Bonds, Insurance)
- (H) General Contract Provisions
- (I) Supplemental Provisions
- (J) FAA Required Contract Provisions for AIP Projects
- (K) Construction Safety and Phasing Plan (CSPP)
- (L) Safety Plan Compliance Document (SPCD)
- (M) Technical Specifications
- (N) Contract Drawings (as listed in Schedule of Drawings)

In the event that any provision in any component part of the CONTRACT DOCUMENTS conflicts with any provision of any other component part, the provision of the component part first enumerated in this Paragraph 5 shall govern. The various provisions in Addenda shall be construed in the order of preference of the component part of the CONTRACT DOCUMENTS which each modified.

Addenda Issued:

Addendum No.	Dated
_____	_____
_____	_____
_____	_____
_____	_____

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Provisions such amounts as required by the CONTRACT DOCUMENTS.

7. This Contract Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. The CONTRACTOR shall indemnify, hold harmless and defend the OWNER, the United States of America, the Engineer, the Engineer's consultants, and their officers, board members, agents and employees (the "Indemnities") from and against all losses, suits, claims, liabilities, penalties, fines, judgments, costs and expenses, including without limitation attorneys' fees, consultants' fees and experts' fees arising out of, or in any manner predicated upon personal injury, death or property damage resulting from, relating to, caused by or arising out of (or which may be claimed to arise out of) the CONTRACTOR's performance of its obligations under this Contract Agreement; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, its subcontractors, anyone directly or indirectly employed by either the CONTRACTOR or its subcontractors, or anyone for whose acts any of the foregoing may be liable. The agreements contained in the preceding sentence do not extend to claims for damages caused by gross negligence or willful misconduct of the Indemnities without contributory fault on the part of any person, firm, or corporation.

In any and all claims against the Indemnitee or any one of the Indemnitees by any employee of the CONTRACTOR, its subcontractors, anyone directly or indirectly employed by an employee or subcontractor of the CONTRACTOR, or anyone for whose acts of such employees and subcontractors may be liable, the indemnification obligation shall not be limited to in any way by a limitation on the amount of damages, compensation or benefits payable by or for the CONTRACTOR or any subcontractor under workers compensation acts, disability benefit acts or other employee benefits acts.

In the event that any action or proceeding is brought against the Indemnitee or any one of the Indemnitee by reason of any matter for which the CONTRACTOR has hereby agreed to indemnify, hold harmless and defend, the CONTRACTOR, upon notice from the Indemnitee or any one of them, covenants to resist or defend such action or proceeding with counsel acceptable to the Indemnitee or any one of them as the case may be.

Notwithstanding the foregoing, nothing herein shall be deemed to constitute a waiver of the sovereign immunity of the **City of Manchester - Department of Aviation** which is hereby reserved to the **City of Manchester - Department of Aviation**.

The provision of this indemnification shall survive the expiration or termination of this Contract Agreement, and the CONTRACTOR's obligations hereunder shall apply whenever any one of the Indemnitees incurs costs or liabilities described above.

9. This Contract Agreement is executed in a number of counterparts, each of which is an original and constitutes the entire agreement between the parties. This Contract Agreement shall be construed according to the laws of the **City of Manchester - Department of Aviation**. No portion of this Contract Agreement shall be understood to waive the sovereign immunity of the **City of Manchester - Department of Aviation**. This Contract Agreement shall not be amended, except as specified in the FAA General Contract Provisions.

10. Disadvantaged Business Enterprise (DBE).

**DISADVANTAGED BUSINESS ENTERPRISES
(49 CFR part 26)**

On October 3, 2025, the United States Department of Transportation (“USDOT”) issued an Interim Final Rule (“IFR”) making substantial modifications to the Disadvantaged Business Enterprise (“DBE”) Program. The IFR removed the presumption of disadvantage through which many DBEs were certified and requires all DBEs to be certified based on an individualized determination after showing by the proposed DBE that its owner is socially and economically disadvantaged. All current DBEs must be reevaluated by the applicable Unified Certification Program (“UCP”). Until this reevaluation is complete, the Owner must set a 0% DBE utilization goal and may not collect or report certain information related to proposers for prime contracts or their subcontractors until all DBEs have been reevaluated by their home jurisdiction UCP and the Owner has set a new DBE goal. MHT reserve the right to further modify the DBE requirements of the Agreement resulting from this procurement as may be required by further modifications to the DBE Program or upon completion of the reevaluation of current DBEs and re- commencement of the setting of contract-specific goals for the utilization of DBEs. Until that time, the terms and conditions applicable to the DBE Program required by the USDOT shall apply, as may be modified in the future by the USDOT.

DBE Goal

The DBE Goal for this project is **0%**. MHT reserves the right, in its sole discretion, to modify the DBE Goal and any of the requirements of this Project Agreement, as necessary to comply with federal law and regulations and/or upon completion of the reevaluation of DBEs and reestablishment of MHTs’ overall DBE goal required by the IFR published by the U.S. Department of Transportation effective on October 3, 2025.

The Contractor agrees to meet MHTs’ DBE goal stated above or make an adequate good faith effort in accordance with 49 CFR Section 26.53 and Appendix A of 49 CFR part 26.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in Four (4) Originals on the date first above written.

**CITY OF MANCHESTER –
DEPARTMENT OF AVIATION**

Witnessed:

By: _____

Notary Public

Name: _____

My Commission Expires: _____

(type or print)

(SEAL)

Title: _____

CONTRACTOR

Witnessed:

By: _____

Notary Public

Name: _____

My Commission Expires: _____

(type or print)

(SEAL)

Title: _____

SAFETY RESPONSIBILITY COVENANT

It is hereby understood and agreed that the CONTRACTOR is responsible for health and safety on this project including, but not limited to, compliance with all applicable federal, state, and local regulations, codes, rules, orders, laws and ordinances regarding health and safety and shall, at all times, exercise and enforce reasonable precautions for the safety and welfare of all persons and property associated with or affected by this project. The CONTRACTOR's responsibility shall include providing adequate equipment and facilities necessary (including, if required, removal to a hospital) to furnish first aid to any person or person's who may be injured on the project site.

The CONTRACTOR further agrees to defend, indemnify and hold harmless the OWNER and the ENGINEER from any expense, cost or loss including but not limited to fines, demands, suits, legal fees, or penalties, including costs of corrective measures, that the CONTRACTOR, OWNER or ENGINEER may sustain by reason of the CONTRACTOR's failure to provide a safe workplace or to comply with all health and safety laws, rules and regulations in connection with the performance of this Contract Agreement.

To achieve the safety goals for this project, the CONTRACTOR shall designate a SAFETY OFFICER whose duty shall be to monitor the project on a daily basis in order to insure that all required safety measures are strictly adhered to and site safety is insured. The SAFETY OFFICER shall act for the CONTRACTOR on safety issues and shall have the right to shut down work on the site until safety deficiencies have been corrected. The project SAFETY OFFICER is designated as:

NAME: _____

TITLE: _____

SIGNED: _____

DATE: _____

THIS PAGE INTENTIONALLY LEFT BLANK

CONTRACT BONDS

THIS PAGE INTENTIONALLY LEFT BLANK

FORM OF PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

That we, _____
an individual*, a partnership*, a corporation* organized under the laws of the State of _____
_____ having a usual place of business in the State of _____
_____ as Principal, and _____

a corporation organized under the laws of the State of _____
and having a usual place of business in the State of _____

as Surety, are holden and stand firmly bound and obligated unto the **City of Manchester, New Hampshire, Department of Aviation** (hereinafter the Owner), its successors and assigns, in the sum of _____
_____ ---- Dollars

(\$ _____).

lawful money of the United States of America, to and for the true payment whereof, we bind ourselves and each of us, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents. WHEREAS, the said Principal has by means of a written agreement dated _____
_____, 2026, entered into a Contract Agreement with the Owner for:

**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL
ARRESTING SYSTEM (EMAS)
at Manchester-Boston Regional Airport**

A copy of which Contract Agreement is attached hereto and by reference made a part hereon.

*Strike out inapplicable terms.

NOW, THEREFORE, THE CONDITION of this obligation is such that if the said Principal and his/her subcontractors shall well and truly keep and perform all the agreements, terms and conditions in said Contract Agreement set forth and specified to be by said Principal kept and performed, and shall well and truly indemnify and save harmless the Owner against all counsel fees paid or incurred by the Owner as a result of a breach of any condition of this bond, and against all claims and suits for damage to person or property arising from carelessness or want of due care, or any act or omission on the part of said Principal during the performance of said Contract Agreement, then this obligation shall be void; otherwise, it shall remain in full force and virtue.

PROVIDED, FURTHER, that said Surety, for value received, hereby stipulates and agrees that no extension of time, or change in, alteration or addition to the terms of the Contract Agreement or to the work to be performed there under or the Contract Documents accompanying the same and no failure or refusal of the Owner to withhold any monies from the Principal shall in any way affect its obligations on this bond, and it does hereby waive notice of any such extension of time, change, alterations or addition to the terms of the Contract Agreement or the work or to the Contract Documents.

In the event that the Contract Agreement is abandoned by the Principal, or is terminated by the Owner under the provisions of said Contract Agreement, said Surety hereby further agrees that said Surety shall, if requested in writing by the Owner, take action as is necessary to complete said Contract Agreement.

This bond shall become effective at the same time as the Contract Agreement annexed hereto for the work hereinbefore mentioned.

IN WITNESS WHEREOF, we have hereunto set out hands and seals to this bond this _____ day of _____, 2026.

WITNESS:

Name of Principal (SEAL)

By: _____

WITNESS:

Name of Surety (SEAL)

Power of Attorney for person signing for the Surety Company must be attached.

CERTIFICATE AS TO CORPORATE PRINCIPAL

PERFORMANCE BOND

I, _____, certify that I am the _____ of the Corporation named as Principal in the within bond; that, _____ who signed the said bond on behalf of the principal was then _____, of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested to for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporate powers.

_____ SEAL

(Power of attorney of person(s) signing Bond for Surety Company must be attached.)

NOTE: Date of Bond must not be prior to date of Contract Agreement. If Principal is Partnership, all partners must execute bond.

THIS PAGE INTENTIONALLY LEFT BLANK

FORM OF PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS

That we _____
an individual*, a partnership*, a corporation* organized under the laws of the State of _____

_____ having a usual place of business in the State of _____
as Principal, and _____

a corporation organized under the laws of the State of _____
and having a usual place of business in the State of _____

as Surety, are holden and stand firmly bound and obligated unto the **City of Manchester, New Hampshire, Department of Aviation** (hereinafter the Owner), its successors and assigns, in the sum of _____ Dollars (\$ _____), lawful money of the United States of America, to and for the true payment whereof, we bind ourselves and each of us, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has by means of a written agreement dated _____, 2026 entered into a Contract Agreement with the Owner for:

**REPLACEMENT OF RUNWAY 6 DEPARTURE END ENGINEERED MATERIAL
ARRESTING SYSTEM (EMAS)
at Manchester-Boston Regional Airport**

A copy of which Contract Agreement is attached hereto and by reference made a part hereof.

* Strike out inapplicable terms.

NOW, THEREFORE, THE CONDITION Of this obligation is such that is the said Principal and his/her subcontractors shall pay for all labor performed or furnished, for all equipment hired, including trucks, for all material used or employed in such construction, including lumber so employed which is not incorporated in the work, and for fuels, lubricants, power, tools, hardware, and supplies purchased by said principal and used in carrying out said Contract Agreement, and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said Contract Agreement, this agreement to make such payments being in compliance with the requirements of Section 16 of Chapter 447, of New Hampshire Revised Statutes, Annotated, 1955, to furnish security there under and being in fact such security, and if said Principal shall well and fully indemnify and save harmless the Owner against all counsel fees paid or incurred by the Owner as a result of a breach of any condition of this bond, and against all claims and suits for damage to person or property arising from carelessness or want of due care, or any act or omission on the part of said Principal during the performance of said Contract Agreement, then this obligation shall be void; otherwise, it shall remain in full force and virtue.

PROVIDED, FURTHER, that said Surety, for value received, hereby stipulates and agrees (1) that no extension of time, or change in, alteration or addition to the terms of the Contract Agreement or to the work to be performed there under or the Contract Documents accompanying the same and no failure or refusal of the Owner to withhold any monies from the Principal shall in any way affect its obligations on this bond, and it does hereby waive notice of any such extension of time, change, alterations, or addition to the terms of the Contract Agreement or the work or to the Contract Documents; (2) that in case of liabilities not covered by said Section 16 of Chapter 447 RSA, as amended, but covered by this bond, then the provisions of this bond shall control.

In addition to the obligations of the undersigned enumerated above, the bond is also made for the use and benefit of all persons, firms and corporations, who may furnish any material or perform any labor on account of said Contract Agreement, or rent or hire out any appliances or equipment used or employed in the execution of said Contract Agreement and they and each of them are hereby made Obligees hereunder the same as if their own proper respective names were written herein as such, and they and each of them may proceed or sue hereon, and in case of failure of said Principal to carry out the foregoing provisions made for the use and benefit of any said persons, firms and corporations, the Owner as an additional remedy may maintain an action against the undersigned in its own name, but in trust for and for the benefit of said persons, firms and corporations.

This bond shall become effective at the same time as the Contract Agreement annexed hereto for the work hereinbefore mentioned.

IN WITNESS WHEREOF, we have set our hands and seals to this bond, this _____ day of _____, 2026
In presence of:

Individual Principal SEAL

Business Address

Individual Principal SEAL

Business Address

Attest:

Corporate Principal SEAL

By: _____

Attest:

Corporate Surety SEAL

Business Address

Countersigned:

By: _____

By: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

PAYMENT BOND

I, _____, certify that I am the
_____ of the Corporation named as Principal in
the within bond; that, _____ who signed the said
bond on behalf of the principal was then _____,
of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said
bond was duly signed, sealed and attested to for and in behalf of said Corporation by authority of its
governing body and is within the scope of its corporate powers.

_____ SEAL

(Power of attorney of person(s) signing Bond for Surety Company must be attached.)

NOTE: Date of Bond must not be prior to date of Contract Agreement. If Principal is Partnership, all partners must execute bond.

FAA GENERAL CONTRACT PROVISIONS
(Advisory Circular 150-5370-10H dated 12/21/2018)

THIS PAGE INTENTIONALLY LEFT BLANK

FAA GENERAL CONTRACT PROVISIONS
TABLE OF CONTENTS

Section 10 Definition of Terms.....	1
Section 20 Proposal Requirements and Conditions	7
Section 30 Award and Execution of Contract.....	11
Section 40 Scope of Work	13
Section 50 Control of Work.....	17
Section 60 Control of Materials	23
Section 70 Legal Regulations and Responsibility to Public	27
Section 80 Execution and Progress.....	33
Section 90 Measurement and Payment	39

THIS PAGE INTENTIONALLY LEFT BLANK

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.
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.

Paragraph Number	Term	Definition
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, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, 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	<p>a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p>b. Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	Intention of Terms	<p>Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner.</p> <p>Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard</p>

Paragraph Number	Term	Definition
		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: City of Manchester, NH – Department of Aviation d/b/a Manchester-Boston Regional Airport
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.
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.'

Paragraph Number	Term	Definition
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.
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.

Paragraph Number	Term	Definition
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 RPR, 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.
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.

END OF SECTION 10

Section 20 Proposal Requirements and Conditions

20-01 Advertisement (Notice to Bidders). See Advertisement for Bids and Instruction to Bidders of these specifications.

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.

Each bidder shall submit their qualifications. Refer to the Bid Proposal for the qualification forms.

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

A prebid conference is required on this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. Refer to the Advertisement of Bids for the time, date, and place of the meeting.

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

a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.

b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.

c. Documented record of Contractor default under previous contracts with the Owner.

d. Documented record of unsatisfactory work on previous contracts with the Owner.

20-05 Interpretation of estimated proposal quantities. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

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

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 bond, certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral, shall be made payable to the Owner.

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

20-12 Withdrawal or revision of proposals. A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing 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 the number of days outlined in the Advertisement of Bids 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.

THIS PAGE INTENTIONALLY LEFT BLANK

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 within **One Hundred Eighty (180) calendar days** of the date specified for publicly opening proposals, unless otherwise specified herein.

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

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

30-04 Return of proposal guaranty. All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the paragraph 30-01, *Consideration of Proposals*. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in paragraph 30-05, *Requirements of Contract Bonds*.

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

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

Supplemental agreements shall be approved by the FAA and shall include all applicable Federal contract provisions for procurement and contracting required under AIP. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds.

40-03 Omitted items. The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

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

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work

that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

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

All change orders, supplemental agreements, and contract modifications must be reviewed by the FAA.

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). The Contractor shall also refer to AC 150/5210-5 (latest revision), *Painting, Marking and Lighting of Vehicles Used on an Airport* and AC 150/5370-2 (latest revision), *Operational Safety on Airports During Construction* for applicable standards.

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

40-06 Removal of existing structures. All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior

to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

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

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

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

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

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

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

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

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

40-08 Final cleanup. Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

END OF SECTION 40

THIS PAGE INTENTIONALLY LEFT BLANK

Section 50 Control of Work

50-01 Authority of the Resident Project Representative (RPR). The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

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

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

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

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

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

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

50-03 Coordination of contract, plans, and specifications. The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs

contained in the 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 RPR for an interpretation and decision, and such decision shall be final.

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

50-04 List of Special Provisions. Special Provisions (as applicable) are included in the Supplemental General Conditions and Special Provision Section of the Contract Documents.

50-05 Cooperation of Contractor. The Contractor shall be supplied with **five (5)** hard copies or an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

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

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

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

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

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

50-07 Construction layout and stakes. The Engineer/RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution and

control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

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

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

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

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

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

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

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

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

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

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

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

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

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

50-11 Load restrictions. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

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

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

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

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

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

50-14 Partial acceptance. If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being

complete, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

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

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

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

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

END OF SECTION 50

THIS PAGE INTENTIONALLY LEFT BLANK

Section 60 Control of Materials

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

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

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

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

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

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

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

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

All Contractor QC test data may be provided to the RPR in electronic PDF format, in lieu of hard copies.

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

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

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

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

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

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

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

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

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

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

- a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.
- c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.

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

60-05 Engineer/ Resident Project Representative (RPR) field office. An Engineer/RPR 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 RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor’s plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner’s permission.

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

60-07 Unacceptable materials. Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the RPR.

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

60-08 Owner furnished materials. The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

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

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

END OF SECTION 60

THIS PAGE INTENTIONALLY LEFT BLANK

Section 70 Legal Regulations and Responsibility to Public

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

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

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

70-04 Restoration of surfaces disturbed by others. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:

No other major work anticipated within or adjacent to the project location during construction.

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

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

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

of either party to the contract.

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

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

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

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

70-08 Construction Safety and Phasing Plan (CSPP). The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP is on the CS sheet(s) of the project plans and in the narrative located within the specifications.

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 must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

REFER TO THE PLANS, SPECIFICATIONS AND CSPP FOR THE SCHEDULE OF WORK FOR ALL PROJECT PHASING AND ALLOWED TIME.

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

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

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

The Contractor must conform to safety standards contained AC 150/5370-2 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 RPR’s final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall

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

70-15 Contractor's responsibility for utility service and facilities of others. As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

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

REFER TO THE PROJECT PLANS FOR ANY KNOWN UTILITY SERVICE LOCATIONS WITHIN THE PROJECT LIMITS AND 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 this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

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

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

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

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

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

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

70-15.1 FAA facilities and cable runs. The Contractor is hereby advised that the construction limits of the project include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The Contractor, during the execution of the project work, shall comply with the following:

a. The Contractor shall permit FAA maintenance personnel the right of access to the project work site for purposes of inspecting and maintaining all existing FAA owned facilities.

b. The Contractor shall provide notice to the FAA Air Traffic Organization (ATO)/Technical Operations/System Support Center (SSC) Point-of-Contact through the airport Owner a minimum of seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.

c. If execution of the project work requires a facility outage, the Contractor shall contact the FAA Point-of-Contact a minimum of 72 hours prior to the time of the required outage.

d. Any damage to FAA cables, access roads, or FAA facilities during construction caused by the Contractor's equipment or personnel whether by negligence or accident will require the Contractor to repair or replace the damaged cables, access road, or FAA facilities to FAA requirements. The Contractor shall not bear the cost to repair damage to underground facilities or utilities improperly located by the FAA.

e. If the project work requires the cutting or splicing of FAA owned cables, the FAA Point-of-Contact shall be contacted a minimum of 72 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA representative on site to observe the splicing of the cables as a condition of acceptance. All cable splices are to be accomplished in accordance with FAA specifications and require approval by the FAA Point-of-Contact as a condition of acceptance by the Owner. The Contractor is hereby advised that FAA restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA, the Contractor shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

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

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

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

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

70-19 Environmental protection. The Contractor shall comply with all federal, state, and local laws and

regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

70-20 Archaeological and historical findings. Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

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

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

70-21 Insurance Requirements. Refer to the Project Contract Agreement for the insurance requirements.

END OF SECTION 70

Section 80 Execution and Progress

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

The Contractor shall perform, with his organization, an amount of work equal to at least **twenty-five percent (25%)** of the total contract cost.

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

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

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

80-02 Notice to proceed (NTP). The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within **ten (10) days** of the NTP date. The Contractor shall notify the RPR at least **twenty-four (24) hours** in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

80-03 Execution and progress. Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least **ten (10) days** prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least **twenty-four (24) hours** in advance of resuming operations.

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

The project schedule shall be prepared as a network diagram in Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), or other format, or as otherwise specified. It shall include information on the sequence of work activities, milestone dates, and activity duration. The schedule shall

show all work items identified in the project proposal for each work area and shall include the project start date and end date.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a **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 RPR) at least **forty-eight (48) hours** prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

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) and as listed below, 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 follows:

REFER TO THE PROJECT PLANS FOR THE CSPP AND THE OPERATIONS IMPACTS.

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. The Owner shall coordinate any changes with the FAA.

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

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

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

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

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

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

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

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

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

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

80-07 Determination and extension of contract time. The **number of calendar days** shall be stated in the proposal and contract and shall be known as the Contract Time.

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

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

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

80-08 Failure to complete on time. For each calendar day 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.

REFER TO THE INFORMATION TO BIDDERS, BID PROPOSAL SUMMARY, AND CONTRACT AGREEMENT OF THE CONTRACT DOCUMENTS FOR THE LIQUIDATED DAMAGES AND ALLOWED CONSTRUCTION TIME.

The maximum construction time allowed for the Project will be the sum of the time allowed for individual phase schedules as outlined in the CSPP but not more than the overall calendar days allowed. 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 ten (10) days,
or

h. Makes an assignment for the benefit of creditors, or

i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

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

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

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

80-10 Termination for national emergencies. The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

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

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

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

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

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

plan and coordinate work in accordance with the approved CSPP and SPCD.

END OF SECTION 80

Section 90 Measurement and Payment

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

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

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

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

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

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

Measurement and Payment Terms

Term	Description
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 RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
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.
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

Term	Description
	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	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end. Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p> <p>All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other</p>

Term	Description
	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 <i>Payment for Extra Work</i> .
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 RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

90-02 Scope of payment. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

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

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

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

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

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

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR’s order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

90-05 Payment for extra work. Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

90-06 Partial payments. Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

a. From the total of the amount determined to be payable on a partial payment, **ten percent (10%)** 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 RPR that supports the value of retainage held by the Owner for partially accepted work.

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

b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than thirty (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 thirty (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 ninety-five percent (95%) of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

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

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

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

90-07 Payment for materials on hand. Partial payments may be made to the extent of the delivered cost

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

a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.

b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.

c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.

d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.

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

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

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

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

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

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

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

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

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

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

90-09 Acceptance and final payment. When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within thirty (30) calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and*

Disputes.

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

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

90-10 Construction warranty.

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

b. This warranty shall continue for a period of one (1) 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 (1) 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 fourteen (14) days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

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

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

90-11 Contractor Final Project Documentation. Approval of final payment to the Contractor is

contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

- a.** Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.
- b.** Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.
- c.** Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.
- d.** Complete all punch list items identified during the Final Inspection.
- e.** Provide complete release of all claims for labor and material arising out of the Contract.
- f.** Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.
- g.** When applicable per state requirements, return copies of sales tax completion forms.
- h.** Manufacturer's certifications for all items incorporated in the work.
- i.** All required record drawings, as-built drawings or as-constructed drawings.
- j.** Project Operation and Maintenance (O&M) Manual(s).
- k.** Security for Construction Warranty.
- l.** Equipment commissioning documentation submitted, if required.

END OF SECTION 90

THIS PAGE INTENTIONALLY LEFT BLANK



FAA Airports

Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects

(Issued on March 17, 2026)

Contents

A1. ACCESS TO RECORDS AND REPORTS	RCP-2
A2. BREACH OF CONTRACT TERMS.....	RCP-3
A3. BUY AMERICAN PREFERENCE.....	RCP-4
A4. CIVIL RIGHTS - GENERAL.....	RCP-7
A5. CIVIL RIGHTS – TITLE VI ASSURANCES	RCP-7
A6. CLEAN AIR AND WATER POLLUTION CONTROL	RCP-10
A7. CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS	RCP-11
A8. COPELAND “ANTI-KICKBACK” ACT	RCP-12
A9. DAVIS-BACON REQUIREMENTS	RCP-13
A10. DEBARMENT AND SUSPENSION.....	RCP-18
A11. DISADVANTAGED BUSINESS ENTERPRISE.....	RCP-19
A12. DISTRACTED DRIVING	RCP-21
A13. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT	RCP-22
A14. <i>DRUG FREE WORKPLACE (NO CONTRACT CLAUSE)</i>	
A15. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE).....	RCP-23
A16. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES	RCP-24
A17. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.....	RCP-25
A18. PROCUREMENT OF RECOVERED MATERIALS	RCP-26
A19. RIGHTS TO INVENTIONS - <i>Not applicable to this contract</i>	RCP-27
A20. SEISMIC SAFETY - <i>Not applicable to this contract</i>	RCP-28
A21. TAX DELINQUENCY AND FELONY CONVICTIONS	RCP-29
A22. TERMINATION OF CONTRACT	RCP-30
A23. TRADE RESTRICTION CERTIFICATION	RCP-32
A24. VETERAN’S PREFERENCE	RCP-34
A25. DOMESTIC PREFERENCE FOR PROCUREMENTS.....	RCP-35
A26. PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS).....	RCP-36

FAA REQUIRED CONTRACT PROVISIONS

ACCESS TO RECORDS AND REPORTS **(2 CFR § 200.333, 2 CFR § 200.337, FAA Order 5100.38)**

CONTRACT CLAUSE

(Required for all FAA Airport Improvement Program funded projects)

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.

FAA REQUIRED CONTRACT PROVISIONS

BREACH OF CONTRACT TERMS

(2 CFR § 200 Appendix II(A))

(Required for all FAA Airport Improvement Program funded projects that exceed the simplified acquisition threshold)

CONTRACT CLAUSE

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.

FAA REQUIRED CONTRACT PROVISIONS

BUY AMERICAN PREFERENCE

**(Title 49 USC § 50101, Executive Order 14005,
Infrastructure Investment and Jobs Act (IIJA) (Pub. L. No. 117-58), Build America, Buy America
(BABA))**

(Required for all FAA Airport Improvement Program funded projects)

FAA BUY AMERICAN PREFERENCE

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,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.

FAA REQUIRED CONTRACT PROVISIONS

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 USC § 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 or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- Only installing iron, steel and manufactured products produced in the United States;
 - 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.
 - 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
 - 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:

- To provide to the Airport Sponsor or FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
 - To faithfully comply with providing U.S. domestic products.
 - To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
 - Certify that all construction materials used in the project are manufactured in the U.S.
- The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- 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.
 - 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.
 - To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
 - To furnish U.S. domestic product for any waiver request that the FAA rejects.

FAA REQUIRED CONTRACT PROVISIONS

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

Date

Signature

Company Name

Title

FAA REQUIRED CONTRACT PROVISIONS

CIVIL RIGHTS - GENERAL

(49 USC § 47123)

(Required for ALL projects – regardless of Funding)

CONTRACT CLAUSES

GENERAL CIVIL RIGHTS PROVISIONS

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.

CIVIL RIGHTS – TITLE VI ASSURANCES

(49 USC § 47123, FAA Order 1400.11)

(Required for ALL projects – regardless of funding)

TITLE VI SOLICITATION NOTICE:

The City of Manchester - Department of Aviation, 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), 28 CFR § 50.3, and 49 CFR Part 21, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, all contractors will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of the owner's race, color, national origin, sex, creed, 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 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964); including amendments thereto;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

FAA REQUIRED CONTRACT PROVISIONS

- 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.*)

TITLE VI CONTRACT CLAUSES 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,

FAA REQUIRED CONTRACT PROVISIONS

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.

FAA REQUIRED CONTRACT PROVISIONS

CLEAN AIR AND WATER POLLUTION CONTROL

(2 CFR § 200, Appendix II(G), 42 USC § 7401, 33 USC § 1251)

(Required for all FAA Airport Improvement Program funded contracts and lower tier contracts that exceed \$150,000)

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

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

FAA REQUIRED CONTRACT PROVISIONS

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS (2 CFR § 200, Appendix II(E); 29 CFR § 5.5(b)(2); 29 CFR § 5.8(a); 40 USC § 3702(c); 40 USC § 3704)

(Required for all FAA Airport Improvement Program funded contracts and lower tier contracts that exceed \$100,000 and employ laborers, mechanics, watchmen, and guards)

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

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.

FAA REQUIRED CONTRACT PROVISIONS

COPELAND “ANTI-KICKBACK” ACT

(2 CFR § 200, Appendix II(D), 29 CFR Parts 3 and 5)

(Required for all FAA Airport Improvement Program funded construction contracts and subcontracts that exceed \$2,000)

COPELAND “ANTI-KICKBACK” ACT

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

FAA REQUIRED CONTRACT PROVISIONS

DAVIS-BACON REQUIREMENTS **(2 CFR § 200, Appendix II(D); 29 CFR Part 5; 49 USC§ 47112(b);** **40 USC §§ 3141-3144, 3146, and 3147)**

(Required for all FAA Airport Improvement Program funded construction contracts and subcontracts that exceed \$2,000)

DAVIS-BACON REQUIREMENTS

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.

FAA REQUIRED CONTRACT PROVISIONS

(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

FAA REQUIRED CONTRACT PROVISIONS

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 arned, 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

FAA REQUIRED CONTRACT PROVISIONS

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

FAA REQUIRED CONTRACT PROVISIONS

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 USC § 1001.

FAA REQUIRED CONTRACT PROVISIONS

DEBARMENT AND SUSPENSION

**(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)**

*(Required for all FAA Airport Improvement Program funded contracts expected to equal or exceed
\$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.

FAA REQUIRED CONTRACT PROVISIONS

DISADVANTAGED BUSINESS ENTERPRISE

(49 CFR part 26, 49 U.S.C. § 47113)

(Required for all FAA Airport Improvement Program funded projects)

SOLICITATION LANGUAGE (SOLICITATIONS WITH NO DBE CONTRACT GOAL)

The requirements of 49 CFR Part 26 including any amendments thereto apply to this contract. It is the policy of the **City of Manchester - Department of Aviation** 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.

PRIME CONTRACT PROVISIONS

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 **thirty (30) calendar** days from the receipt of each payment the prime contractor receives from the **City of Manchester - Department of Aviation**. The prime contractor agrees further to return retainage payments to each subcontractor within **thirty (30) calendar** 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 **City of Manchester - Department of Aviation**. This clause applies to both DBE and non-DBE subcontractors.

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

The prime contractor must not terminate a DBE subcontractor listed in response to this Solicitation (or an approved substitute DBE firm) without prior written consent of the **City of Manchester - Department of Aviation**. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains written consent of the **City of Manchester - Department of Aviation**. Unless the **City of Manchester - Department of Aviation** consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The **City of Manchester - Department of Aviation** may provide such written consent only if the **City of Manchester - Department of Aviation** agrees, for reasons stated in the concurrence document, that the

FAA REQUIRED CONTRACT PROVISIONS

prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the **City of Manchester - Department of Aviation** its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to the **City of Manchester - Department of Aviation**, of its intent to request to terminate and/or substitute, and the reason for the request.

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

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

FAA REQUIRED CONTRACT PROVISIONS

DISTRACTED DRIVING

(Executive Order 13513, DOT Order 3902.10)

(Required for all FAA Airport Improvement Program funded contracts that exceed the micro-purchase threshold of 2 CFR § 200.320, currently set at \$15,000)

TEXTING WHEN DRIVING

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

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$15,000 that involve driving a motor vehicle in performance of work activities associated with the project.

FAA REQUIRED CONTRACT PROVISIONS

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

(2 CFR § 200, Appendix II(K); 2 CFR 200.216)

(Required for ALL contracts – regardless of funding)

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

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

FAA REQUIRED CONTRACT PROVISIONS

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

(29 USC § 201, et seq; 2 CFR 200.430)

(Required for ALL contracts – regardless of funding)

SOLICITATION CLAUSE

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.

FAA REQUIRED CONTRACT PROVISIONS

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

**(31 USC § 1352 – Byrd Anti-Lobbying Amendment; 2 CFR part 200, Appendix II(i);
49 CFR part 20, Appendix A)**

(Required for all FAA Airport Improvement Program funded contracts - \$100,000 or Greater)

CERTIFICATION REGARDING LOBBYING

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

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

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 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.

FAA REQUIRED CONTRACT PROVISIONS

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

(29 CFR part 1910)

(Required for ALL contracts – regardless of funding)

CONTRACT CLAUSE

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 (20 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.

FAA REQUIRED CONTRACT PROVISIONS

PROCUREMENT OF RECOVERED MATERIALS

(2 CFR § 200.323; 2 CFR Part 200, Appendix II(J); 40 CFR part 247;

42 USC § 6901, et seq (Resource Conservation and Recovery Act (RCRA)))

(Required for all FAA Airport Improvement Program funded contracts exceeding \$10,000)

PROCUREMENT OF RECOVERED MATERIALS

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.

FAA REQUIRED CONTRACT PROVISIONS

RIGHT TO INVENTIONS

(2 CFR Part 200, Appendix II(F); 37 CFR part 401)

(Limited for FAA Airport Improvement Program funded projects)

THIS SECTION IS NOT APPLICABLE FOR THIS CONTRACT.

RIGHTS TO INVENTIONS

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

FAA REQUIRED CONTRACT PROVISIONS

SEISMIC SAFETY

(49 CFR Part 41)

(Limited to FAA Airport Improvement Program funded)

(Applicable to construction of new buildings and additions to existing buildings)

THIS SECTION IS NOT APPLICABLE FOR THIS CONTRACT.

SEISMIC SAFETY

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

FAA REQUIRED CONTRACT PROVISIONS

TAX DELINQUENCY AND FELONY CONVICTIONS

(Sections 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)

(Required for all FAA Airport Improvement Program funded contracts)

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 USC § 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.

FAA REQUIRED CONTRACT PROVISIONS

TERMINATION OF CONTRACT

(2 CFR § 200 Appendix II(B); FAA Advisory Circular 150/5370-10 Sections 80-90)

(Required for all FAA Airport Improvement Program funded contracts in excess of \$10,000)

TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)

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)

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.

FAA REQUIRED CONTRACT PROVISIONS

TERMINATION FOR CAUSE (EQUIPMENT)

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract 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.

FAA REQUIRED CONTRACT PROVISIONS

TRADE RESTRICTION CERTIFICATION

(49 USC § 50104; 49 CFR part 30)

(Required for all FAA Airport Improvement Program funded projects)

TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

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

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

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

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the 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.

FAA REQUIRED CONTRACT PROVISIONS

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.

FAA REQUIRED CONTRACT PROVISIONS

VETERAN'S PREFERENCE

(49 USC § 47112(c))

(Required for all FAA Airport Improvement Program funded projects)

VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within 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.

FAA REQUIRED CONTRACT PROVISIONS

DOMESTIC PREFERENCE FOR PROCUREMENTS

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

(Required for all FAA Airport Improvement Program funded contracts)

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

FAA REQUIRED CONTRACT PROVISIONS

PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS)
(FAA Reauthorization Act of 2024 (Public Law 118-3), Section 936; 49 U.S.C. § 44801 note)
(Required for all FAA Airport Improvement Program funded contracts)

CONTRACT CLAUSE

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 (Public Law 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.

CONTRACT REFERENCE DOCUMENTS

THIS PAGE LEFT INTENTIONALLY BLANK

This content is from the eCFR and is authoritative but unofficial.

Title 49 –Transportation

Subtitle A –Office of the Secretary of Transportation

Part 26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs

Subpart A General

- § 26.1 What are the objectives of this part?
- § 26.3 To whom does this part apply?
- § 26.5 Definitions.
- § 26.7 What discriminatory actions are forbidden?
- § 26.9 How does the Department issue guidance and interpretations under this part?
- § 26.11 What records do recipients keep and report?
- § 26.13 What assurances must recipients and contractors make?
- § 26.15 How can recipients apply for exemptions or waivers?

Subpart B Administrative Requirements for DBE Programs for Federally Assisted Contracting

- § 26.21 Who must have a DBE program?
- § 26.23 What is the requirement for a policy statement?
- § 26.25 What is the requirement for a liaison officer?
- § 26.27 What efforts must recipients make concerning DBE financial institutions?
- § 26.29 What prompt payment mechanisms must recipients have?
- § 26.31 What information must a UCP include in its DBE/ACDBE directory?
- § 26.33 What steps must a recipient take to address overconcentration of DBEs in certain types of work?
- § 26.35 What role do business development and mentor-protégé programs have in the DBE program?
- § 26.37 What are a recipient's responsibilities for monitoring?
- § 26.39 Fostering small business participation.

Subpart C Goals, Good Faith Efforts, and Counting

- § 26.41 What is the role of the statutory 10 percent goal in this program?
- § 26.43 Can recipients use set-asides or quotas as part of this program?
- § 26.45 How do recipients set overall goals?
- § 26.47 Can recipients be penalized for failing to meet overall goals?
- § 26.49 What are the requirements for transit vehicle manufactures (TVMs) and for awarding DOT-assisted contracts to TVMs?
- § 26.51 What means do recipients use to meet overall goals?
- § 26.53 What are the good faith efforts procedures recipients follow in situations where there

are contract goals?

§ 26.55 How is DBE participation counted toward goals?

Subpart D Certification Standards

§ 26.61 Burden of proof

§ 26.63 General certification rules.

§ 26.65 Business size determinations.

§ 26.67 Social and economic disadvantage.

§ 26.68 Personal net worth.

§ 26.69 Ownership.

§ 26.70 Debt-financed investments.

§ 26.71 Control.

§ 26.73 NAICS codes.

Subpart E Certification Procedures

§ 26.81 Unified Certification Programs.

§ 26.83 What procedures do certifiers follow in making certification decisions?

§ 26.85 Interstate certification.

§ 26.86 Decision letters.

§ 26.87 Decertification.

§ 26.88 Summary suspension of certification.

§ 26.89 Appeals to the Department.

§ 26.91 What actions do certifiers take following DOT certification appeal decisions?

Subpart F Compliance and Enforcement

§ 26.101 What compliance procedures apply to recipients?

§ 26.103 What enforcement actions apply in FHWA and FTA programs?

§ 26.105 What enforcement actions apply in FAA programs?

§ 26.107 What enforcement actions apply to firms participating in the DBE program?

§ 26.109 What are the rules governing information, confidentiality, cooperation, and intimidation or retaliation?

§ 26.111 DBE reevaluation process.

Appendix A to Part 26

Guidance Concerning Good Faith Efforts

Appendix B to Part 26 [Reserved]

Appendix C to Part 26

DBE Business Development Program Guidelines

Appendix D to Part 26

Mentor-Protégé Program Guidelines

PART 26—PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN DEPARTMENT OF TRANSPORTATION FINANCIAL ASSISTANCE PROGRAMS

Authority: 23 U.S.C. 304 and 324; 42 U.S.C. 2000d, *et seq.*; 49 U.S.C. 47113, 47123; Sec. 1101(b), Pub. L. 114-94, 129 Stat. 1312, 1324 (23 U.S.C. 101 note); Sec. 150, Pub. L. 115-254, 132 Stat. 3215 (23 U.S.C. 101 note); Pub. L. 117-58, 135 Stat. 429 (23 U.S.C. 101 note).

Source: 64 FR 5126, Feb. 2, 1999, unless otherwise noted.

Subpart A—General

§ 26.1 What are the objectives of this part?

This part seeks to achieve several objectives:

- (a) To ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department's highway, transit, and airport financial assistance programs;
- (b) To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
- (c) To ensure that the Department's DBE program operates in a nondiscriminatory manner and without regard to race or sex, while maximizing efficiency of service;
- (d) To ensure that only firms that fully meet this part's eligibility standards are permitted to participate as DBEs;
- (e) To help remove barriers to the participation of DBEs in DOT-assisted contracts;
- (f) To promote the use of DBEs in all types of federally assisted contracts and procurement activities conducted by recipients.
- (g) To assist the development of firms that can compete successfully in the marketplace outside the DBE program; and
- (h) To provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.

[64 FR 5126, Feb. 2, 1999, as amended at 79 FR 59592, Oct. 2, 2014; 89 FR 24963, Apr. 9, 2024; 90 FR 47979, Oct. 3, 2025]

§ 26.3 To whom does this part apply?

- (a) If you are a recipient of any of the following types of funds, this part applies to you:
 - (1) Federal-aid highway funds authorized under Titles I (other than Part B) and V of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Public Law 102-240, 105 Stat. 1914, or Titles I, III, and V of the Transportation Equity Act for the 21st Century (TEA-21), Public Law 105-178, 112 Stat. 107. Titles I, III, and V of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law 109-59, 119 Stat. 1144; Divisions A and B of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. 112-141, 126 Stat. 405; Titles I, II, III,

and VI of the Fixing America's Surface Transportation Act (FAST Act) Public Law 114-94; and Divisions A and C of the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58.

(2) Federal transit funds authorized by Titles I, III, V and VI of ISTEA, Public Law 102-240 or by Federal transit laws in Title 49, U.S. Code, or Titles I, III, and V of the TEA-21, Public Law 105-178. Titles I, III, and V of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law 109-59, 119 Stat. 1144; Divisions A and B of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, 126 Stat. 405; Titles I, II, III, and VI of the Fixing America's Surface Transportation Act (FAST Act) Public Law 114-94; and Divisions A and C of the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117-58), Public Law 117-58.

(3) Airport funds authorized by 49 U.S.C. 47101, *et seq.*

(b) [Reserved]

(c) If you are letting a contract, and that contract is to be performed entirely outside the United States, its territories and possessions, Puerto Rico, Guam, or the Northern Mariana Islands, this part does not apply to the contract.

(d) If you are letting a contract in which DOT financial assistance does not participate, this part does not apply to the contract.

[89 FR 24963, Apr. 9, 2024]

§ 26.5 Definitions.

Affiliation has the same meaning the term has in the Small Business Administration (SBA) regulations, 13 CFR part 121.

(1) Except as otherwise provided in 13 CFR part 121, concerns are affiliates of each other when, either directly or indirectly:

(i) One concern controls or has the power to control the other; or

(ii) A third party or parties controls or has the power to control both; or

(iii) An identity of interest between or among parties exists such that affiliation may be found.

(2) In determining whether affiliation exists, it is necessary to consider all appropriate factors, including common ownership, common management, and contractual relationships. Affiliates must be considered together in determining whether a concern meets small business size criteria and the statutory cap on the participation of firms in the DBE program.

Alaska Native means a citizen of the United States who is a person of one-fourth degree or more Alaskan Indian (including Tsimshian Indians not enrolled in the Metlakatla Indian Community), Eskimo, or Aleut blood, or a combination of those bloodlines. The term includes, in the absence of proof of a minimum blood quantum, any citizen whom a Native village or Native group regards as an Alaska Native if their father or mother is regarded as an Alaska Native.

Alaska Native Corporation (ANC) means any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the State of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, *et seq.*).

Assets mean all the property of a person available for paying debts or for distribution, including one's respective share of jointly held assets. This includes, but is not limited to, cash on hand and in banks, savings accounts, IRA or other retirement accounts, accounts receivable, life insurance, stocks and bonds, real estate, and personal property.

Business, business concern or business enterprise means an entity organized for profit with a place of business located in the United States, and which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials, or labor.

Compliance means that a recipient has correctly implemented the requirements of this part.

Contingent Liability means a liability that depends on the occurrence of a future and uncertain event. This includes, but is not limited to, guaranty for debts owed by the applicant concern, legal claims and judgments, and provisions for federal income tax.

Contract means a legally binding relationship obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them. For purposes of this part, a lease is considered to be a contract.

Contractor means one who participates, through a contract or subcontract (at any tier), in a DOT-assisted highway, transit, or airport program.

Days mean calendar days. In computing any period of time described in this part, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal holiday. Similarly, in circumstances where the recipient's offices are closed for all or part of the last day, the period extends to the next day on which the agency is open.

DBE-conscious measure or program is one that is focused specifically on assisting only DBEs.

DBE-neutral measure or program is one that is, or can be, used to assist all small businesses.

Department or DOT means the U.S. Department of Transportation, including the Office of the Secretary, the Departmental Office of Civil Rights, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA).

Disadvantaged Business Enterprise or DBE means a for-profit small business concern—

- (1) That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged; and
- (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

DOT-assisted contract means any contract between a recipient and a contractor (at any tier) funded in whole or in part with DOT financial assistance, including letters of credit or loan guarantees, except a contract solely for the purchase of land.

FTA Tier I recipient means an FTA recipient to whom this part applies that will award prime contracts (excluding transit vehicle purchases) the cumulative total value of which exceeds \$670,000 in FTA funds in a Federal fiscal year.

FTA Tier II recipient means an FTA recipient to whom this part applies who will award prime contracts (excluding transit vehicle purchases) the cumulative total value of which does not exceed \$670,000 in FTA funds in a Federal fiscal year.

Good faith efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Immediate family member means father, mother, husband, wife, son, daughter, brother, sister, grandfather, grandmother, father-in-law, mother-in-law, sister-in-law, brother-in-law, and domestic partner and civil unions recognized under State law.

Indian Tribe or Native American Tribe means any federally or State-recognized Tribe, band, nation, or other organized group of Indians (Native Americans), or an ANC.

Joint venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Liabilities mean financial or pecuniary obligations. This includes, but is not limited to, accounts payable, notes payable to bank or others, installment accounts, mortgages on real estate, and unpaid taxes.

Native Hawaiian means any individual whose ancestors were natives, prior to 1778, of the area which now comprises the State of Hawaii.

Native Hawaiian Organization means any community service organization serving Native Hawaiians in the State of Hawaii which is a not-for-profit organization chartered by the State of Hawaii, is controlled by Native Hawaiians, and whose business activities will principally benefit such Native Hawaiians.

Noncompliance means that a recipient has not correctly implemented the requirements of this part.

Notice of decision or NOD means determination that denies a firm's application or decertifies a DBE.

Notice of intent or NOI means recipients letter informing a DBE of a suspension or proposed decertification.

Operating Administration or OA means any of the following parts of DOT: the Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA). The "Administrator" of an operating administration includes his or her designees.

Personal net worth or PNW means the net value of an individual's reportable assets and liabilities, per the calculation rules in § 26.68.

Primary industry classification means the most current North American Industry Classification System (NAICS) designation which best describes the primary business of a firm. The NAICS is described in the North American Industry Classification Manual—United States, which is available online on the U.S. Census Bureau website: www.census.gov/naics/.

Primary recipient means a recipient which receives DOT financial assistance and passes some or all of it on to another recipient.

Principal place of business means the business location where the individuals who manage the firm's day-to-day operations spend most working hours. If the offices from which management is directed and where the business records are kept are in different locations, the recipient will determine the principal place of business. The term does not include construction trailers or other temporary construction sites.

Program means any undertaking on a recipient's part to use DOT financial assistance, authorized by the laws to which this part applies.

Recipient means any entity, public or private, to which DOT financial assistance is extended, whether directly or through another recipient, through the programs of the FAA, FHWA, or FTA, or that has applied for such assistance.

Secretary means DOT's Secretary of Transportation or the Secretary's designee.

Set-aside means a contracting practice restricting eligibility for the competitive award of a contract solely to DBE firms.

Small Business Administration or SBA means the United States Small Business Administration.

SBA certified firm refers to firms that have a current, valid certification from or recognized by the SBA under the 8(a) BD or SDB programs.

Small business concern means, with respect to firms seeking to participate as DBEs in DOT-assisted contracts, a small business concern as defined pursuant to section 3 of the Small Business Act and Small Business Administration regulations implementing it (13 CFR part 121) that also does not exceed the cap on average annual gross receipts specified in § 26.65(b).

Socially and economically disadvantaged individual means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who a certifier finds to be socially and economically disadvantaged on a case-by-case basis. A determination that an individual is socially and economically disadvantaged must not be based in whole or in part on race or sex. For that reason, all applicants shall qualify as socially and economically disadvantaged if they can meet the relevant criteria described in § 26.67. Being born in a particular country does not, standing alone, mean that a person is necessarily socially and economically disadvantaged.

Spouse means a married person, including a person in a domestic partnership or a civil union recognized under State law.

Transit vehicle manufacturer (TVM) means any manufacturer whose primary business purpose is to manufacture vehicles built for mass transportation. Such vehicles include, but are not limited to buses, rail cars, trolleys, ferries, and vehicles manufactured specifically for paratransit purposes. Businesses that perform retrofitting or post-production alterations to vehicles so that such vehicles may be used for public transportation purposes are also considered TVMs. Businesses that manufacture, mass-produce, or distribute vehicles primarily for personal use are not considered TVMs.

Tribally-owned concern means any concern at least 51 percent owned by an Indian tribe as defined in this section.

Unsworn declaration means an unsworn statement, dated and in writing, subscribed as true under penalty of perjury.

You refers to a recipient, unless a statement in the text of this part or the context requires otherwise (i.e., 'You must do XYZ' means that recipients must do XYZ).

[64 FR 5126, Feb. 2, 1999, as amended at 64 FR 34570, June 28, 1999; 68 FR 35553, June 16, 2003; 76 FR 5096, Jan. 28, 2011; 79 FR 59592, Oct. 2, 2014; 89 FR 24963, Apr. 9, 2024; 90 FR 47979, Oct. 3, 2025]

§ 26.7 What discriminatory actions are forbidden?

- (a) You must never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by this part on the basis of race, color, sex, or national origin.
- (b) In administering your DBE program, you must not, directly or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to individuals of a particular race, color, sex, or national origin.

§ 26.9 How does the Department issue guidance and interpretations under this part?

- (a) Only guidance and interpretations (including interpretations set forth in certification appeal decisions) consistent with this part 26 and issued after March 4, 1999 express the official positions and views of the Department of Transportation or any of its operating administrations.
- (b) The Secretary of Transportation, Office of the Secretary of Transportation, FHWA, FTA, and FAA may issue written interpretations of or written guidance concerning this part. Written interpretations and guidance are valid, and express the official positions and views of the Department of Transportation or any of its operating administrations, only if they are issued over the signature of the Secretary of Transportation or if they contain the following statement:

The General Counsel of the Department of Transportation has reviewed this document and approved it as consistent with the language and intent of 49 CFR part 26.

[72 FR 15617, Apr. 2, 2007]

§ 26.11 What records do recipients keep and report?

- (a) You must submit a report on DBE participation to the concerned Operating Administration containing all the information described in the Uniform Report to this part. This report must be submitted at the intervals required by, and in the format acceptable to, the concerned Operating Administration.
- (b) You must continue to provide data about your DBE program to the Department as directed by DOT Operating Administrations.
- (c) You must obtain bidders list information as described in paragraph (c)(2) of this section and enter it into a system designated by the Department.
 - (1) The purpose of this bidders list information is to compile as accurate data as possible about the universe of DBE and non-DBE contractors and subcontractors who seek to work on your federally assisted contracts for use in helping you set your overall goals, and to provide the Department with data for evaluating the extent to which the objectives of § 26.1 are being achieved.
 - (2) You must obtain the following bidders list information about all DBE and non-DBEs who bid as prime contractors and subcontractors on each of your federally assisted contracts:
 - (i) Firm name;
 - (ii) Firm address including ZIP code;

- (iii) Firm's status as a DBE or non-DBE;
 - (iv) NAICS code applicable to each scope of work the firm sought to perform in its bid;
 - (v) Age of the firm; and
 - (vi) The annual gross receipts of the firm. You may obtain this information by asking each firm to indicate into what gross receipts bracket they fit (e.g., less than \$1 million; \$1-3 million; \$3-6 million; \$6-10 million; etc.) rather than requesting an exact figure from the firm.
- (3) You must collect the data from all bidders for your federally assisted contracts by requiring the information in paragraph (c)(2) of this section to be submitted with their bids or initial responses to negotiated procurements. You must enter this data in the Department's designated system no later than December 1 following the fiscal year in which the relevant contract was awarded. In the case of a "design-build" contracting situation where subcontracts will be solicited throughout the contract period as defined in a DBE Performance Plan pursuant to § 26.53(e), the data must be entered no later than December 1 following the fiscal year in which the design-build contractor awards the relevant subcontract(s).
- (d) You must maintain records documenting a firm's compliance with the requirements of this part. At a minimum, you must keep a complete application package for each certified firm and all Declarations of Eligibility, change notices, and on-site visit reports. These records must be retained in accordance with applicable record retention requirements for the recipient's financial assistance agreement. Other certification or compliance related records must be retained for a minimum of three (3) years unless otherwise provided by applicable record retention requirements for the recipient's financial assistance agreement, whichever is longer.
- (e) The State department of transportation in each Unified Certification Program (UCP) established pursuant to § 26.81 must report to DOT's Departmental Office of Civil Rights each year, the following information:
- (1) The number of DBE certification applications received from in-state and out-of-state firms and the number found eligible and ineligible;
 - (2) The number of decertified firms:
 - (i) Total in-state and out-of-state firms decertified;
 - (ii) Names of in-state and out-of-state firms decertified because SEDO exceeded the personal net worth cap;
 - (iii) Names of in-state and out-of-state firms decertified for excess gross receipts beyond the relevant size standard.
 - (3) The number of in-state and out-of-state firms summarily suspended;

[89 FR 24964, Apr. 9, 2024, as amended at 90 FR 47979, Oct. 3, 2025]

§ 26.13 What assurances must recipients and contractors make?

- (a) Each financial assistance agreement you sign with a DOT operating administration (or a primary recipient) must include the following assurance: The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of

DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under 49 CFR part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

- (b) Each contract you sign with a contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
 - (1) Withholding monthly progress payments;
 - (2) Assessing sanctions;
 - (3) Liquidated damages; and/or
 - (4) Disqualifying the contractor from future bidding as non-responsible.

[79 FR 59593, Oct. 2, 2014]

§ 26.15 How can recipients apply for exemptions or waivers?

- (a) You can apply for an exemption from any provision of this part. To apply, you must request the exemption in writing from the Office of the Secretary of Transportation, FHWA, FTA, or FAA. The Secretary will grant the request only if it documents special or exceptional circumstances, not likely to be generally applicable, and not contemplated in connection with the rulemaking that established this part, that make your compliance with a specific provision of this part impractical. You must agree to take any steps that the Department specifies to comply with the intent of the provision from which an exemption is granted. The Secretary will issue a written response to all exemption requests.
- (b) You can apply for a waiver of any provision of Subpart B or C of this part including, but not limited to, any provisions regarding administrative requirements, overall goals, contract goals or good faith efforts. Program waivers are for the purpose of authorizing you to operate a DBE program that achieves the objectives of this part by means that may differ from one or more of the requirements of Subpart B or C of this part. To receive a program waiver, you must follow these procedures:
 - (1) You must apply through the concerned operating administration. The application must include a specific program proposal and address how you will meet the criteria of paragraph (b)(2) of this section. Before submitting your application, you must have had public participation in developing your proposal, including consultation with the DBE community and at least one public hearing. Your application must include a summary of the public participation process and the information gathered through it.
 - (2) Your application must show that—

- (i) There is a reasonable basis to conclude that you could achieve a level of DBE participation consistent with the objectives of this part using different or innovative means other than those that are provided in subpart B or C of this part;
 - (ii) Conditions in your jurisdiction are appropriate for implementing the proposal;
 - (iii) Your proposal would prevent discrimination against any individual or group in access to contracting opportunities or other benefits of the program; and
 - (iv) Your proposal is consistent with applicable law and program requirements of the concerned operating administration's financial assistance program.
- (3) The Secretary has the authority to approve your application. If the Secretary grants your application, you may administer your DBE program as provided in your proposal, subject to the following conditions:
- (i) DBE eligibility is determined as provided in subparts D and E of this part, and DBE participation is counted as provided in § 26.49;
 - (ii) Your level of DBE participation continues to be consistent with the objectives of this part;
 - (iii) There is a reasonable limitation on the duration of your modified program; and
 - (iv) Any other conditions the Secretary makes on the grant of the waiver.
- (4) The Secretary may end a program waiver at any time and require you to comply with this part's provisions. The Secretary may also extend the waiver, if he or she determines that all requirements of paragraphs (b)(2) and (3) of this section continue to be met. Any such extension shall be for no longer than period originally set for the duration of the program.

Subpart B—Administrative Requirements for DBE Programs for Federally Assisted Contracting

§ 26.21 Who must have a DBE program?

- (a) If you are in one of these categories and let DOT-assisted contracts, you must have a DBE program meeting the requirements of this part:
 - (1) All FHWA primary recipients receiving funds authorized by a statute to which this part applies;
 - (2) All FTA recipients receiving planning, capital and/or operating assistance must maintain a DBE program.
 - (i) FTA Tier I recipients must have a DBE program meeting all the requirements of this part.
 - (ii) Beginning 180 days after the publication of the final rule, FTA Tier II recipients must maintain a program locally meeting the following requirements of this part:
 - (A) Reporting and recordkeeping under § 26.11;
 - (B) Contract assurances under § 26.13;
 - (C) Policy statement under § 26.23;
 - (D) Fostering small business participation under § 26.39; and
 - (E) Transit vehicle procurements under § 26.49.

- (3) FAA recipients receiving grants for airport planning or development that will award prime contracts the cumulative total value of which exceeds \$250,000 in FAA funds in a Federal fiscal year.

(b)

- (1) You must submit a conforming DBE program to the concerned Operating Administration (OA). Once the OA has approved your program, the approval counts for all of your DOT-assisted programs (except goals that are reviewed by the relevant OA).
- (2) You do not have to submit regular updates of your DBE program plan if you remain in compliance with this part. However, you must submit significant changes to the relevant OA for approval.

- (c) You are not eligible to receive DOT financial assistance unless DOT has approved your DBE program and you are in compliance with it and this part. You must continue to carry out your DBE program until all funds from DOT financial assistance have been expended.

[89 FR 24965, Apr. 9, 2024]

§ 26.23 What is the requirement for a policy statement?

You must issue a signed and dated policy statement that expresses your commitment to your DBE program, states its objectives, and outlines responsibilities for its implementation. You must circulate the statement throughout your organization and to the DBE and non-DBE business communities that perform work on your DOT-assisted contracts.

§ 26.25 What is the requirement for a liaison officer?

You must have a DBE liaison officer, who shall have direct, independent access to your Chief Executive Officer concerning DBE program matters. The liaison officer shall be responsible for implementing all aspects of your DBE program. You must also have adequate staff to administer the program in compliance with this part.

§ 26.27 What efforts must recipients make concerning DBE financial institutions?

You must thoroughly investigate the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in your community and make reasonable efforts to use these institutions. You must also encourage prime contractors to use such institutions.

§ 26.29 What prompt payment mechanisms must recipients have?

- (a) You must establish, as part of your DBE program, a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment you make to the prime contractor.
- (b) You must ensure prompt and full payment of retainage from the prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. You must use one of the following methods to comply with this requirement:
 - (1) You may decline to hold retainage from prime contractors and prohibit prime contractors from holding retainage from subcontractors.

- (2) You may decline to hold retainage from prime contractors and require a contract clause obligating prime contractors to make prompt and full payment of any retainage kept by prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed.
- (3) You may hold retainage from prime contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime contractors based on these acceptances, and require a contract clause obligating the prime contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 30 days after your payment to the prime contractor.
- (c) For purposes of this section, 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 recipient. When a recipient 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.
- (d) Your DBE program must include the mechanisms you will use for proactive monitoring and oversight of a prime contractor's compliance with subcontractor prompt payment and return of retainage requirements in this part. Reliance on complaints or notifications from subcontractors about a contractor's failure to comply with prompt payment and retainage requirements is not a sufficient monitoring and oversight mechanism.
- (e) Your DBE program must provide appropriate means to enforce the requirements of this section. These means must be described in your DBE program and should include appropriate penalties for failure to comply, the terms and conditions of which you set. Your program may also provide that any delay or postponement of payment among the parties may take place only for good cause, with your prior written approval.
- (f) Prompt payment and return of retainage requirements in this part also apply to all lower-tier subcontractors.
- (g) You may also establish, as part of your DBE program, any of the following additional mechanisms to ensure prompt payment:
 - (1) A contract clause that requires prime contractors to include in their subcontracts language providing that prime contractors and subcontractors will use appropriate alternative dispute resolution mechanisms to resolve payment disputes. You may specify the nature of such mechanisms.
 - (2) A contract clause providing that the prime contractor will not be reimbursed for work performed by subcontractors unless and until the prime contractor ensures that the subcontractors are promptly paid for the work they have performed.
 - (3) Other mechanisms, consistent with this part and applicable state and local law, to ensure that DBEs and other contractors are fully and promptly paid.

[68 FR 35553, June 16, 2003, as amended at 89 FR 24965, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.31 What information must a UCP include in its DBE/ACDBE directory?

- (a) In the directory required under § 26.81(g), you must list all firms eligible to participate as a DBE and/or ACDBE in your program. In the listing for each firm, you must include its business address, business phone number, firm website(s), and the types of work the firm has been certified to perform as a DBE and/or ACDBE.

- (b) You must list each type of work a DBE and/or ACDBE is eligible to perform by using the most specific NAICS code available to describe each type of work the firm performs. Pursuant to § 26.73(a), your directory must allow for NAICS codes to be supplemented with specific descriptions of the type(s) of work the firm performs.
- (c) Your directory may include additional data fields of other items readily verifiable in State or locally maintained databases, such as State licenses held, Prequalifications, and Bonding capacity.
- (d) Your directory must be an online system that permits the public to search and/or filter for DBEs by:
 - (1) Physical location;
 - (2) NAICS code(s);
 - (3) Work descriptions; and
 - (4) All optional information added pursuant to paragraph (c) of this section. The directory must include a prominently displayed disclaimer (e.g., large type, bold font) that states the information within the directory is not a guarantee of the DBE's capacity and ability to perform work.
- (e) You must make any changes to your current directory entries by November 5, 2024.

[89 FR 24965, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.33 What steps must a recipient take to address overconcentration of DBEs in certain types of work?

- (a) If you determine that DBE firms are so overconcentrated in a certain type of work as to unduly burden the opportunity of non-DBE firms to participate in this type of work, you must devise appropriate measures to address this overconcentration.
- (b) These measures may include the use of incentives, technical assistance, business development programs, mentor-protégé programs, and other appropriate measures designed to assist DBEs in performing work outside of the specific field in which you have determined that non-DBEs are unduly burdened. You may also consider varying your use of contract goals, to the extent consistent with § 26.51, to ensure that non-DBEs are not unfairly prevented from competing for subcontracts.
- (c) You must obtain the approval of the concerned DOT operating administration for your determination of overconcentration and the measures you devise to address it. Once approved, the measures become part of your DBE program.

§ 26.35 What role do business development and mentor-protégé programs have in the DBE program?

- (a) You may or, if an operating administration directs you to, you must establish a DBE business development program (BDP) to assist firms in gaining the ability to compete successfully in the marketplace outside the DBE program. You may require a DBE firm, as a condition of receiving assistance through the BDP, to agree to terminate its participation in the DBE program after a certain time has passed or certain objectives have been reached. See Appendix C of this part for guidance on administering BDP programs.
- (b) As part of a BDP or separately, you may establish a "mentor-protégé" program, in which another DBE or non-DBE firm is the principal source of business development assistance to a DBE firm.

- (1) Only firms you have certified as DBEs before they are proposed for participation in a mentor-protégé program are eligible to participate in the mentor-protégé program.
 - (2) In the mentor-protégé relationship, you must:
 - (i) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than one half of its goal on any contract let by the recipient; and
 - (ii) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than every other contract performed by the protégé firm.
 - (3) For purposes of making determinations of business size under this part, you must not treat protégé firms as affiliates of mentor firms, when both firms are participating under an approved mentor-protégé program. See [Appendix D](#) of this part for guidance concerning the operation of mentor-protégé programs.
- (c) Your BDPs and mentor-protégé programs must be approved by the concerned operating administration before you implement them. Once approved, they become part of your DBE program.

[64 FR 5126, Feb. 2, 1999, as amended at 89 FR 24966, Apr. 9, 2024]

§ 26.37 What are a recipient's responsibilities for monitoring?

- (a) A recipient must implement appropriate mechanisms to ensure compliance with the requirements in this part by all program participants (e.g., applying legal and contract remedies available under Federal, State, and local law). The recipient must set forth these mechanisms in its DBE program.
- (b) A recipient's DBE program must also include a monitoring and enforcement mechanism to ensure that work committed, or in the case of DBE-neutral participation, the work subcontracted, to all DBEs at contract award or subsequently is performed by the DBEs to which the work was committed or subcontracted to, and such work is counted according to the requirements of [§ 26.55](#). This mechanism must include a written verification that you have reviewed contracting records and monitored the work site to ensure the counting of each DBE's participation is consistent with its function on the contract. The monitoring to which this [paragraph \(b\)](#) refers may be conducted in conjunction with monitoring of contract performance for other purposes such as a commercially useful function review.
- (c) You must effectively implement the following running tally mechanisms:
 - (1) With respect to achieving your overall goal, you must use a running tally that provides for a frequent comparison of cumulative DBE awards/commitments to DOT-assisted prime contract awards to determine whether your current implementation of contract goals is projected to be sufficient to meet your annual goal. This mechanism should inform your decisions to implement goals on contracts to be advertised according to your established contract goal-setting process.
 - (2) With respect to each DBE commitment, you must use a running tally that provides for a frequent comparison of payments made to each listed DBE relative to the progress of work, including payments for such work to the prime contractor to determine whether the contractor is on track with meeting its DBE commitment and whether any projected shortfall exists that requires the prime contractor's good faith efforts to address to meet the contract goal pursuant to [§ 26.53\(g\)](#).

[89 FR 24966, Apr. 9, 2024, as amended at 90 FR 47979, Oct. 3, 2025]

§ 26.39 Fostering small business participation.

- (a) Your DBE program must include an element to structure contracting requirements to facilitate competition by small business concerns, taking all reasonable steps to eliminate obstacles to their participation, including unnecessary and unjustified bundling of contract requirements that may preclude small business participation in procurements as prime contractors or subcontractors.
- (b) This element must be submitted to the appropriate DOT operating administration for approval as a part of your DBE program. As part of this program element you may include, but are not limited to, the following strategies:
 - (1) Establishing a DBE-neutral small business set-aside for prime contracts under a stated amount (e.g., \$1 million).
 - (2) In multi-year design-build contracts or other large contracts (e.g., for “megaprojects”) requiring bidders on the prime contract to specify elements of the contract or specific subcontracts that are of a size that small businesses, including DBEs, can reasonably perform.
 - (3) On prime contracts not having DBE contract goals, requiring the prime contractor to provide subcontracting opportunities of a size that small businesses, including DBEs, can reasonably perform, rather than self-performing all the work involved.
 - (4) Identifying alternative acquisition strategies and structuring procurements to facilitate the ability of consortia or joint ventures consisting of small businesses, including DBEs, to compete for and perform prime contracts.
 - (5) To meet the portion of your overall goal you project to meet through DBE-neutral measures, ensuring that a reasonable number of prime contracts are of a size that small businesses, including DBEs, can reasonably perform.
- (c) You must actively implement your program elements to foster small business participation. Doing so is a requirement of good faith implementation of your DBE program.

[76 FR 5097, Jan. 28, 2011, as amended at 89 FR 24966, Apr. 9, 2024; 90 FR 47980, Oct. 3, 2025]

Subpart C—Goals, Good Faith Efforts, and Counting

§ 26.41 What is the role of the statutory 10 percent goal in this program?

- (a) The statutes authorizing this program provide that, except to the extent the Secretary determines otherwise, not less than 10 percent of the authorized funds are to be expended with DBEs.
- (b) This 10 percent goal is an aspirational goal at the national level, which the Department uses as a tool in evaluating and monitoring DBEs' opportunities to participate in DOT-assisted contracts.
- (c) The national 10 percent goal does not authorize or require recipients to set overall or contract goals at the 10 percent level, or any other particular level, or to take any special administrative steps if their goals are above or below 10 percent.

§ 26.43 Can recipients use set-asides or quotas as part of this program?

- (a) You are not permitted to use quotas for DBEs on DOT-assisted contracts subject to this part.

- (b) You may not set-aside contracts for DBEs on DOT-assisted contracts subject to this part, except that, in limited and extreme circumstances, you may use set-asides when no other method could be reasonably expected to redress egregious instances of discrimination.

§ 26.45 How do recipients set overall goals?

(a) *General rule.*

- (1) Except as provided in paragraph (a)(2) of this section, you must set an overall goal for DBE participation in your DOT-assisted contracts.
- (2) If you are an FTA Tier II recipient who intends to operate a DBE-neutral program, or if you are an FAA recipient who reasonably anticipates awarding \$250,000 or less in FAA prime contract funds in a Federal fiscal year, you are not required to develop overall goals for FTA or FAA, respectively, for that Federal fiscal year.

- (b) Your overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on your DOT-assisted contracts (hereafter, the “relative availability of DBEs”). The goal must reflect your determination of the level of DBE participation you would expect absent the effects of social and economic disadvantage. You cannot simply rely on either the 10 percent national goal, your previous overall goal, or past DBE participation rates in your program without reference to the relative availability of DBEs in your market.

- (c) **Step 1.** You must begin your goal setting process by determining a base figure for the relative availability of DBEs. The following are examples of approaches that you may take toward determining a base figure. These examples are provided as a starting point for your goal setting process. Any percentage figure derived from one of these examples should be considered a basis from which you begin when examining all evidence available in your jurisdiction. These examples are not intended as an exhaustive list. Other methods or combinations of methods to determine a base figure may be used, subject to approval by the concerned operating administration.

- (1) **Use DBE Directories and Census Bureau Data.** Determine the number of ready, willing and able DBEs in your market from your DBE directory. Using the Census Bureau's County Business Pattern (CBP) data base, determine the number of all ready, willing and able businesses available in your market that perform work in the same NAICS codes. (Information about the CBP data base may be obtained from the Census Bureau at their web site, <https://www.census.gov/programs-surveys/cbp.html>;) Divide the number of DBEs by the number of all businesses to derive a base figure for the relative availability of DBEs in your market.
- (2) **Use a bidders list.** Determine the number of DBEs that have bid or quoted (successful and unsuccessful) on your DOT-assisted prime contracts or subcontracts in the past three years. Determine the number of all businesses that have bid or quoted (successful and unsuccessful) on prime or subcontracts in the same time period. Divide the number of DBE bidders and quoters by the number of all businesses to derive a base figure for the relative availability of DBEs in your market. When using this approach, you must establish a mechanism (documented in your goal submission) to directly capture data on DBE and non-DBE prime and subcontractors that submitted bids or quotes on your DOT-assisted contracts.
- (3) Use data from a disparity study. Use a percentage figure derived from data in a valid, applicable disparity study. Any disparity study utilized must provide a detailed capacity analysis, including the methodology used.

- (4) **Use the goal of another DOT recipient.** If another DOT recipient in the same, or substantially similar, market has set an overall goal in compliance with this rule, you may use that goal as a base figure for your goal.
 - (5) **Alternative methods.** Except as otherwise provided in this paragraph, you may use other methods to determine a base figure for your overall goal. Any methodology you choose must be based on demonstrable evidence of local market conditions and be designed to ultimately attain a goal that is rationally related to the relative availability of DBEs in your market. The exclusive use of a list of prequalified contractors or plan holders, or a bidders list that does not comply with the requirements of paragraph (c)(2) of this section, is not an acceptable alternative means of determining the availability of DBEs.
- (d) **Step 2.** Once you have calculated a base figure, you must examine all of the evidence available in your jurisdiction to determine what adjustment, if any, is needed to the base figure to arrive at your overall goal. If the evidence does not suggest an adjustment is necessary, then no adjustment shall be made.
- (1) There are many types of evidence that must be considered when adjusting the base figure. These include:
 - (i) The current capacity of DBEs to perform work in your DOT-assisted contracting program, as measured by the volume of work DBEs have performed in recent years;
 - (ii) Evidence from disparity studies conducted anywhere within your jurisdiction, to the extent it is not already accounted for in your base figure. To the extent that the disparity study provides a detailed capacity analysis, include the methodology used;
 - (iii) If your base figure is the goal of another recipient, you must adjust it for differences in your local market and your contracting program.
 - (2) If available, you must consider evidence from related fields that affect the opportunities for DBEs to form, grow and compete. These include, but are not limited to:
 - (i) Statistical disparities in the ability of DBEs to get the financing, bonding and insurance required to participate in your program;
 - (ii) Data on employment, self-employment, education, training and union apprenticeship programs, to the extent you can relate it to the opportunities for DBEs to perform in your program.
 - (3) If you attempt to make an adjustment to your base figure to account for the effects of an ongoing DBE program, the adjustment must be based on demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought.
- (e) Once you have determined a percentage figure in accordance with paragraphs (c) and (d) of this section, you should express your overall goal as follows:
- (1) If you are an FHWA recipient, as a percentage of all Federal-aid highway funds you will expend in FHWA-assisted contracts in the forthcoming three fiscal years.
 - (2) If you are an FTA or FAA recipient, as a percentage of all FT or FAA funds (exclusive of FTA funds to be used for the purchase of transit vehicles) that you will expend in FTA or FAA-assisted contracts in the three forthcoming fiscal years.

- (3) In appropriate cases, the FHWA, FTA or FAA Administrator may permit or require you to express your overall goal as a percentage of funds for a particular grant or project or group of grants and/or projects, including entire projects. Like other overall goals, a project goal may be adjusted to reflect changed circumstances, with the concurrence of the appropriate operating administration.
 - (i) A project goal is an overall goal, and must meet all the substantive and procedural requirements of this section pertaining to overall goals.
 - (ii) A project goal covers the entire length of the project to which it applies.
 - (iii) The project goal should include a projection of the DBE participation anticipated to be obtained during each fiscal year covered by the project goal.
 - (iv) The funds for the project to which the project goal pertains are separated from the base from which your regular overall goal, applicable to contracts not part of the project covered by a project goal, is calculated.

(f)

(1)

- (i) If you set your overall goal on a fiscal year basis, you must submit it to the applicable DOT operating administration by August 1 at three-year intervals, based on a schedule established by the FHWA, FTA, or FAA, as applicable, and posted on that agency's website.
 - (ii) You may adjust your three-year overall goal during the three-year period to which it applies, in order to reflect changed circumstances. You must submit such an adjustment to the concerned operating administration for review and approval.
 - (iii) The operating administration may direct you to undertake a review of your goal if necessary to ensure that the goal continues to fit your circumstances appropriately.
 - (iv) While you are required to submit an overall goal to FHWA, FTA, or FAA only every three years, the overall goal and the provisions of Sec. 26.47(c) apply to each year during that three-year period.
 - (v) You may make, for informational purposes, projections of your expected DBE achievements during each of the three years covered by your overall goal. However, it is the overall goal itself, and not these informational projections, to which the provisions of section 26.47(c) of this part apply.
- (2) If you are a recipient and set your overall goal on a project or grant basis as provided in paragraph (e)(3) of this section, you must submit the goal for review at a time determined by the FHWA, FTA or FAA Administrator, as applicable.
 - (3) You must include with your overall goal submission a description of the methodology you used to establish the goal, including your base figure and the evidence with which it was calculated, and the adjustments you made to the base figure and the evidence you relied on for the adjustments. You should also include a summary listing of the relevant available evidence in your jurisdiction and, where applicable, an explanation of why you did not use that evidence to adjust your base figure. You must also include your projection of the portions of the overall goal you expect to meet through DBE-neutral and DBE-conscious measures, respectively (see § 26.51(c)).

- (4) You are not required to obtain prior operating administration concurrence with your overall goal. However, if the operating administration's review suggests that your overall goal has not been correctly calculated or that your method for calculating goals is inadequate, the operating administration may, after consulting with you, adjust your overall goal or require that you do so. The adjusted overall goal is binding on you. In evaluating the adequacy or soundness of the methodology used to derive the overall goal, the operating administration will be guided by goal setting principles and best practices identified by the Department in guidance issued pursuant to § 26.9.
- (5) If you need additional time to collect data or take other steps to develop an approach to setting overall goals, you may request the approval of the concerned operating administration for an interim goal and/or goal-setting mechanism. Such a mechanism must:
 - (i) Reflect the relative availability of DBEs in your local market to the maximum extent feasible given the data available to you; and
 - (ii) Avoid imposing undue burdens on non-DBEs.
- (6) Timely submission and operating administration approval of your overall goal is a condition of eligibility for DOT financial assistance.
- (7) If you fail to establish and implement goals as provided in this section, you are not in compliance with this part. If you establish and implement goals in a way different from that provided in this part, you are not in compliance with this part. If you fail to comply with this requirement, you are not eligible to receive DOT financial assistance.

(g)

- (1) In establishing an overall goal, you must provide for consultation and publication. This includes:
 - (i) Consultation with general contractor groups, community organizations, and other officials or organizations that could be expected to have information concerning the availability of disadvantaged and non-disadvantaged businesses and your efforts to establish a level playing field for the participation of DBEs. The consultation must include a scheduled, direct, interactive exchange (e.g., a face-to-face meeting, video conference, teleconference) with as many interested stakeholders as possible focused on obtaining information relevant to the goal setting process, and it must occur before you are required to submit your methodology to the operating administration for review pursuant to paragraph (f) of this section. You must document in your goal submission the consultation process you engaged in. Notwithstanding paragraph (f)(4) of this section, you may not implement your proposed goal until you have complied with this requirement.
 - (ii) A published notice announcing your proposed overall goal before submission to the operating administration on August 1st. The notice must be posted on your official internet website and may be posted in any other sources (e.g., trade association publications). If the proposed goal changes following review by the operating administration, the revised goal must be posted on your official internet website.
- (2) At your discretion, you may inform the public that the proposed overall goal and its rationale are available for inspection during normal business hours at your principal office and for a 30-day comment period. Notice of the comment period must include addresses to which comments may be sent. The public comment period will not extend the August 1st deadline set in paragraph (f) of this section.

- (h) Effective October 3, 2025 you are not required to update your overall goals until the UCP that covers you has completed the reevaluation process described in § 26.111.

[64 FR 5126, Feb. 2, 1999, as amended at 64 FR 34570, June 28, 1999; 65 FR 68951, Nov. 15, 2000; 68 FR 35553, June 16, 2003; 75 FR 5536, Feb. 3, 2010; 76 FR 5097, Jan. 28, 2011; 79 FR 59593, Oct. 2, 2014; 89 FR 24966, Apr. 9, 2024; 89 FR 55089, July 3, 2024; 90 FR 47980, Oct. 3, 2025]

§ 26.47 Can recipients be penalized for failing to meet overall goals?

- (a) You cannot be penalized, or treated by the Department as being in noncompliance with this rule, because your DBE participation falls short of your overall goal, unless you have failed to administer your program in good faith.
- (b) If you do not have an approved DBE program or overall goal, or if you fail to implement your program in good faith, you are in noncompliance with this part.
- (c) If the awards and commitments shown on your Uniform Report of Awards or Commitments and Payments at the end of any fiscal year are less than the overall goal applicable to that fiscal year, you must do the following in order to be regarded by the Department as implementing your DBE program in good faith:
 - (1) Analyze in detail the reasons for the difference between the overall goal and your awards and commitments in that fiscal year;
 - (2) Establish specific steps and milestones to correct the problems you have identified in your analysis and to enable you to meet fully your goal for the new fiscal year;
 - (3)
 - (i) If you are a state highway agency; one of the 50 largest transit authorities as determined by the FTA; or an CORE 30 airport or other airport designated by the FAA, you must submit, within 90 days of the end of the fiscal year, the analysis and corrective actions developed under paragraphs (c)(1) and (2) of this section to the appropriate operating administration for approval. If the operating administration approves the report, you will be regarded as complying with the requirements of this section for the remainder of the fiscal year.
 - (ii) As a transit authority or airport not meeting the criteria of paragraph (c)(3)(i) of this section, you must retain analysis and corrective actions in your records for three years and make it available to FTA or FAA on request for their review.
 - (4) FHWA, FTA, or FAA may impose conditions on the recipient as part of its approval of the recipient's analysis and corrective actions including, but not limited to, modifications to your overall goal methodology, changes in your DBE-conscious/DBE-neutral split, or the introduction of additional DBE-neutral or DBE-conscious measures.
 - (5) You may be regarded as being in noncompliance with this Part, and therefore subject to the remedies in § 26.103 or § 26.105 of this part and other applicable regulations, for failing to implement your DBE program in good faith if any of the following things occur:
 - (i) You do not submit your analysis and corrective actions to FHWA, FTA, or FAA in a timely manner as required under paragraph (c)(3) of this section;
 - (ii) FHWA, FTA, or FAA disapproves your analysis or corrective actions; or

- (iii) You do not fully implement the corrective actions to which you have committed or conditions that FHWA, FTA, or FAA has imposed following review of your analysis and corrective actions.
- (d) If, as recipient, your Uniform Report of DBE Awards or Commitments and Payments or other information coming to the attention of FTA, FHWA, or FAA, demonstrates that current trends make it unlikely that you will achieve DBE awards and commitments that would be necessary to allow you to meet your overall goal at the end of the fiscal year, FHWA, FTA, or FAA, as applicable, may require you to make further good faith efforts, such as by modifying your DBE-conscious/DBE-neutral or introducing additional DBE-neutral or DBE-conscious measures for the remainder of the fiscal year.
- (e) Effective October 3, 2025, you are not subject to this section until the UCP that covers you has completed the reevaluation process described in § 26.111.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5098, Jan. 28, 2011; 89 FR 24966, Apr. 9, 2024; 90 FR 47980, Oct. 3, 2025]

§ 26.49 What are the requirements for transit vehicle manufactures (TVMs) and for awarding DOT-assisted contracts to TVMs?

- (a) If you are an FTA recipient, you must require in your DBE program that each TVM, as a condition of being authorized to bid or propose on FTA assisted transit vehicle procurements, certify that it has complied with the requirements of this section. You do not include FTA assistance used in transit vehicle procurements in the base amount from which your overall goal is calculated.
 - (1) Only those TVMs listed on FTA's list of eligible TVMs, or that have submitted a goal methodology to FTA that has been approved or has not been disapproved at the time of solicitation are eligible to bid.
 - (2) A TVM that fails to follow the requirements of this section and this part will be deemed as non-compliant, which will result in removal from FTA's eligible TVMs list and ineligibility to bid.
 - (3) An FTA recipient's failure to comply with the requirements set forth in paragraph (a) of this section may result in formal enforcement action or appropriate sanction as determined by FTA (e.g., FTA declining to participate in the vehicle procurement).
 - (4) Within 30 days of becoming contractually required to procure a transit vehicle, an FTA recipient must report to FTA:
 - (i) The name of the TVM that was the successful bidder; and
 - (ii) The Federal share of the contractual commitment at that time.
- (b) If you are a TVM, you must establish and submit to FTA an annual overall percentage goal for DBE participation.
 - (1) In setting your overall goal, you should be guided, to the extent applicable, by the principles underlying § 26.45. The base from which you calculate this goal is the amount of FTA financial assistance included in transit vehicle contracts on which you will bid on during the fiscal year in question, less the portion(s) attributable to the manufacturing process performed entirely by your own forces.
 - (i) You must consider and include in your base figure all domestic contracting opportunities made available to non-DBEs.

- (ii) You must exclude from this base figure funds attributable to work performed outside the United States and its territories, possessions, and commonwealths.
 - (iii) In establishing an overall goal, you must provide for public participation. This includes consultation with interested parties consistent with § 26.45(g).
- (2) The requirements of this part with respect to submission and approval of overall goals apply to you as they do to recipients, except that TVMs set and submit their goals annually and not on a triennial basis.
- (c) TVMs must comply with the reporting requirements of § 26.11, including the requirement to submit the Uniform Report of DBE Awards or Commitments and Payments, in order to remain eligible to bid on FTA assisted transit vehicle procurements.
 - (d) TVMs must implement all other requirements of this part, except those relating to UCPs and DBE certification procedures.
 - (e) If you are an FHWA or FAA recipient, you may, with FHWA or FAA approval, use the procedures of this section with respect to procurements of vehicles or specialized equipment. If you choose to do so, then the manufacturers of the equipment must meet the same requirements (including goal approval by FHWA or FAA) that TVMs must meet in FTA assisted procurements.
 - (f) Recipients may establish project-specific goals for DBE participation in the procurement of transit vehicles from specialized manufacturers when a TVM cannot be identified.
 - (1) Project-specific goals established pursuant to this section are subject to the same review and approval and must be established as prescribed in the project goal provisions of § 26.45.
 - (2) FTA must approve the decision to use a project goal before the recipient issues a public solicitation for the vehicles in question.
 - (3) To support the request to develop a project goal, recipients must demonstrate that no TVMs are available to manufacture the vehicle.

[89 FR 24966, Apr. 9, 2024]

§ 26.51 What means do recipients use to meet overall goals?

- (a) You must meet the maximum feasible portion of your overall goal by using DBE-neutral means of facilitating DBE-neutral participation. DBE-neutral participation includes any time a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.
- (b) DBE-neutral means include, but are not limited to, the following:
 - (1) Arranging solicitations, times for the presentation of bids, quantities, specifications, and delivery schedules in ways that facilitate participation by DBEs and other small businesses and by making contracts more accessible to small businesses, by means such as those provided under § 26.39 of this part.
 - (2) Providing assistance in overcoming limitations such as inability to obtain bonding or financing (e.g., by such means as simplifying the bonding process, reducing bonding requirements, eliminating the impact of surety costs from bids, and providing services to help DBEs, and other small businesses, obtain bonding and financing);

- (3) Providing technical assistance and other services;
 - (4) Carrying out information and communications programs on contracting procedures and specific contract opportunities (e.g., ensuring the inclusion of DBEs, and other small businesses, on recipient mailing lists for bidders; ensuring the dissemination to bidders on prime contracts of lists of potential subcontractors; provision of information in languages other than English, where appropriate);
 - (5) Implementing a supportive services program to develop and improve immediate and long-term business management, record keeping, and financial and accounting capability for DBEs and other small businesses;
 - (6) Providing services to help DBEs, and other small businesses, improve long-term development, increase opportunities to participate in a variety of kinds of work, handle increasingly significant projects, and achieve eventual self-sufficiency;
 - (7) Establishing a program to assist new, start-up firms, particularly in fields in which DBE participation has historically been low;
 - (8) Ensuring distribution of your DBE directory, through print and electronic means, to the widest feasible universe of potential prime contractors; and
 - (9) Assisting DBEs, and other small businesses, to develop their capability to utilize emerging technology and conduct business through electronic media.
- (c) Each time you submit your overall goal for review by the concerned operating administration, you must also submit your projection of the portion of the goal that you expect to meet through DBE-neutral means and your basis for that projection. This projection is subject to approval by the concerned operating administration, in conjunction with its review of your overall goal.
- (d) You must establish contract goals to meet any portion of your overall goal you do not project being able to meet using DBE-neutral means.
- (e) The following provisions apply to the use of contract goals:
- (1) You may use contract goals only on those DOT-assisted contracts that have subcontracting possibilities.
 - (2) You are not required to set a contract goal on every DOT-assisted contract. You are not required to set each contract goal at the same percentage level as the overall goal. The goal for a specific contract may be higher or lower than that percentage level of the overall goal, depending on such factors as the type of work involved, the location of the work, and the availability of DBEs for the work of the particular contract. However, over the period covered by your overall goal, you must set contract goals so that they will cumulatively result in meeting any portion of your overall goal you do not project being able to meet through the use of DBE-neutral means.
 - (3) Operating administration approval of each contract goal is not necessarily required. However, operating administrations may review and approve or disapprove any contract goal you establish.
 - (4) Your contract goals must provide for participation by all certified DBEs and must not be subdivided into group-specific goals.
- (f) To ensure that your DBE program continues to be narrowly tailored to overcome the effects of social and economic disadvantage, you must adjust your use of contract goals as follows:

- (1) If your approved projection under paragraph (c) of this section estimates that you can meet your entire overall goal for a given year through DBE-neutral means, you must implement your program without setting contract goals during that year, unless it becomes necessary in order meet your overall goal.

Example 1 to paragraph (f)(1): Your overall goal for Year I is 12 percent. You estimate that you can obtain 12 percent or more DBE participation through DBE-neutral measures, without any use of contract goals. In this case, you do not set any contract goals for the contracts that will be performed in Year I. However, if part way through Year I, your DBE awards or commitments are not at a level that would permit you to achieve your overall goal for Year I, you could begin setting DBE-conscious contract goals during the remainder of the year as part of your obligation to implement your program in good faith.

- (2) If, during any year in which you are using contract goals, you determine that you will exceed your overall goal, you must reduce or eliminate the use of contract goals to the extent necessary to ensure that the use of contract goals does not result in exceeding the overall goal. If you determine that you will fall short of your overall goal, then you must make appropriate modifications in your use of DBE-neutral or DBE-conscious measures to allow you to meet the overall goal.

Example 2 to paragraph (f)(2): In Year II, your overall goal is 12 percent. You have estimated that you can obtain 5 percent DBE participation through use of DBE-neutral measures. You therefore plan to obtain the remaining 7 percent participation through use of DBE goals. By September, you have already obtained 11 percent DBE participation for the year. For contracts let during the remainder of the year, you use contract goals only to the extent necessary to obtain an additional one percent DBE participation. However, if you determine in September that your participation for the year is likely to be only 8 percent total, then you would increase your use of DBE-neutral or DBE-conscious means during the remainder of the year in order to achieve your overall goal.

- (3) If the DBE participation you have obtained by DBE-neutral means alone meets or exceeds your overall goals for two consecutive years, you are not required to make a projection of the amount of your goal you can meet using such means in the next year. You do not set contract goals on any contracts in the next year. You continue using only DBE-neutral means to meet your overall goals unless and until you do not meet your overall goal for a year.

Example 3 to paragraph (f)(3): Your overall goal for Years I and Year II is 10 percent. The DBE participation you obtain through DBE-neutral measures alone is 10 percent or more in each year. (For this purpose, it does not matter whether you obtained additional DBE participation through using contract goals in these years.) In Year III and following years, you do not need to make a projection under paragraph (c) of this section of the portion of your overall goal you expect to meet using DBE-neutral means. You simply use DBE-neutral means to achieve your overall goals. However, if in Year VI your DBE participation falls short of your overall goal, then you must make a paragraph (c) of this section projection for Year VII and, if necessary, resume use of contract goals in that year.

- (4) If you obtain DBE participation that exceeds your overall goal in two consecutive years using contract goals (*i.e.*, not through DBE-neutral means alone), you must reduce your use of contract goals proportionately in the following year.

Example 4 to paragraph (f)(4): In Years I and II, your overall goal is 12 percent, and you obtain 14 and 16 percent DBE participation, respectively. You have exceeded your goals over the two-year period by an average of 25 percent. In Year III, your overall goal is again 12 percent, and your paragraph (c) of this section projection estimates that you will obtain 4 percent DBE participation through DBE-neutral means and 8 percent through contract goals. You then reduce the contract goal projection by 25 percent (*i.e.*, from 8 to 6 percent) and set contract goals accordingly during the year. If in Year III you obtain 11 percent participation, you do not use this contract goal adjustment mechanism for Year IV, because there have not been two consecutive years of exceeding overall goals.

- (g) In any year in which you project meeting part of your goal through DBE-neutral means and the remainder through contract goals, you must maintain data separately on DBE achievements in those contracts with and without contract goals, respectively. You must report this data to the concerned operating administration as provided in § 26.11.
- (h) Effective October 3, 2025, you may not set any contract goals until the UCP that covers you has completed the reevaluation process described in § 26.111.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5098, Jan. 28, 2011; 79 FR 59595, Oct. 2, 2014; 89 FR 24967, Apr. 9, 2024; 90 FR 47981, Oct. 3, 2025]

§ 26.53 What are the good faith efforts procedures recipients follow in situations where there are contract goals?

- (a) When you have established a DBE contract goal, you must award the contract only to a bidder/offeror who makes good faith efforts to meet it. You must determine that a bidder/offeror has made good faith efforts if the bidder/offeror does either of the following things:
 - (1) Documents that it has obtained enough DBE participation to meet the goal; or
 - (2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so. If the bidder/offeror does document adequate good faith efforts, you must not deny award of the contract on the basis that the bidder/offeror failed to meet the goal. See appendix A of this part for guidance in determining the adequacy of a bidder/offeror's good faith efforts.
- (b) In your solicitations for DOT-assisted contracts for which a contract goal has been established, you must require the following:
 - (1) Award of the contract will be conditioned on meeting the requirements of this section;
 - (2) All bidders or offerors will be required to submit the following information to the recipient, at the time provided in paragraph (b)(3) of this section:
 - (i) The names and addresses of DBE firms that will participate in the contract;
 - (ii) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
 - (iii) The dollar amount of the participation of each DBE firm participating;

- (iv) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; and
- (v) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment. Each DBE listed to perform work as a regular dealer or distributor must confirm its participation according to the requirements of paragraph (c)(1) of this section.
- (vi) If the contract goal is not met, evidence of good faith efforts (see Appendix A of this part). The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract; and

(3)

- (i) At your discretion, the bidder/offeror must present the information required by paragraph (b)(2) of this section—

- (A) Under sealed bid procedures, as a matter of responsiveness, or with initial proposals, under contract negotiation procedures; or

- (B) No later than 7 days after bid opening as a matter of responsibility. The 7 days shall be reduced to 5 days beginning January 1, 2017.

- (ii) Provided that, in a negotiated procurement, such as a procurement for professional services, the bidder/offeror may make a contractually binding commitment to meet the goal at the time of bid submission or the presentation of initial proposals but provide the information required by paragraph (b)(2) of this section before the final selection for the contract is made by the recipient. This paragraph (b)(3)(ii) does not apply to a design-build procurement, which must follow the provisions in paragraph (e) of this section.

- (c) You must make sure all information is complete and accurate and adequately documents the bidder/offeror's good faith efforts before committing yourself to the performance of the contract by the bidder/offeror.

- (1) For each DBE listed as a regular dealer or distributor you must make a preliminary counting determination to assess its eligibility for 60 or 40 percent credit, respectively, of the cost of materials and supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in § 26.55(e)(2)(iv)(A), (B), and (C) and (e)(3) under the contract at issue. Your preliminary determination shall be made based on the DBE's written responses to relevant questions and its affirmation that its subsequent performance of a commercially useful function will be consistent with the preliminary counting of such participation. Where the DBE supplier does not affirm that its participation will meet the specific requirements of either a regular dealer or distributor, you are required to make appropriate adjustments in counting such participation toward the bidder's good faith efforts to meet the contract goal. The bidder is responsible for verifying that the information provided by the DBE supplier is consistent with the counting of such participation toward the contract goal.

- (2) [Reserved]

- (d) If you determine that the apparent successful bidder/offeror has failed to meet the requirements of paragraph (a) of this section, you must, before awarding the contract, provide the bidder/offeror an opportunity for administrative reconsideration.

- (1) As part of this reconsideration, the bidder/offeror must have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so.
 - (2) Your decision on reconsideration must be made by an official who did not take part in the original determination that the bidder/offeror failed to meet the goal or make adequate good faith efforts to do so.
 - (3) The bidder/offeror must have the opportunity to meet in person with your reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so.
 - (4) You must send the bidder/offeror a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.
 - (5) The result of the reconsideration process is not administratively appealable to the Department of Transportation.
- (e) In a design-build contracting situation, in which the recipient solicits proposals to design and build a project with minimal-project details at time of letting, the recipient may set a DBE goal that proposers must meet by submitting a DBE Open-Ended DBE Performance Plan (OEPP) with the proposal. The OEPP replaces the requirement to provide the information required in paragraph (b) of this section that applies to design-bid-build contracts. To be considered responsive, the OEPP must include a commitment to meet the goal and provide details of the types of subcontracting work or services (with projected dollar amount) that the proposer will solicit DBEs to perform. The OEPP must include an estimated time frame in which actual DBE subcontracts would be executed. Once the design-build contract is awarded, the recipient must provide ongoing monitoring and oversight to evaluate whether the design-builder is using good faith efforts to comply with the OEPP and schedule. The recipient and the design-builder may agree to make written revisions of the OEPP throughout the life of the project, e.g., replacing the type of work items the design-builder will solicit DBEs to perform and/or adjusting the proposed schedule, as long as the design-builder continues to use good faith efforts to meet the goal.
- (f)
- (1)
 - (i) You must require that a prime contractor not terminate a DBE or any portion of its work listed in response to paragraph (b)(2) of this section (or an approved substitute DBE firm per paragraph (g) of this section) without your prior written consent, unless you cause the termination or reduction. A termination includes any reduction or underrun in work listed for a DBE not caused by a material change to the prime contract by the recipient. This requirement applies to instances that include, but are not limited to, when a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.
 - (ii) You must include in each prime contract a provision stating that:
 - (A) The contractor must utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains your written consent as provided in this paragraph (f); and
 - (B) Unless your consent is provided under this paragraph (f), the prime contractor must not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

- (2) You may provide such written consent only if you agree, for reasons stated in your concurrence document, that the prime contractor has good cause to terminate the listed DBE or any portion of its work.
- (3) Good cause does not exist if the prime contractor seeks to terminate a DBE or any portion of its work that it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the DBE contractor was engaged, or so that the prime contractor can substitute another DBE or non-DBE contractor after contract award. For purposes of this paragraph (f)(3), good cause includes the following circumstances:
 - (i) The listed DBE subcontractor fails or refuses to execute a written contract;
 - (ii) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
 - (iii) The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
 - (iv) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
 - (v) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR parts 180, 215, and 1200 or applicable State law;
 - (vi) You have determined that the listed DBE subcontractor is not a responsible contractor;
 - (vii) The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal;
 - (viii) The listed DBE is ineligible to receive DBE credit for the type of work required;
 - (ix) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
 - (x) Other documented good cause that you determine compels the termination of the DBE subcontractor.
- (4) Before transmitting to you its request to terminate a DBE subcontractor or any portion of its work, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to you sent concurrently, of its intent to request to terminate and the reason for the proposed request.
- (5) The prime contractor's written notice must give the DBE 5 days to respond, advising you and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract/or portion thereof and why you should not approve the prime contractor's request. If required in a particular case as a matter of public necessity (e.g., safety), you may provide a response period shorter than 5 days.
- (6) In addition to post-award terminations, the provisions of this section apply to pre-award deletions or changes to DBEs or their listed work put forward by offerors in negotiated procurements.
- (g) When a DBE subcontractor or any portion of its work is terminated by the prime contractor as provided in paragraph (f) of this section, or the firm fails to complete its work on the contract for any reason, including when work committed to a DBE is not countable or reduced due to overestimations made prior

to award, the prime contractor must use good faith efforts to include additional DBE participation to the extent needed to meet the contract goal. The good faith efforts shall be documented by the contractor. If the recipient requests documentation under this provision, the contractor shall submit the documentation within 7 days, which may be extended for an additional 7 days, if necessary, at the request of the contractor, and the recipient shall provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated.

- (h) You must include in each prime contract the contract clause required by § 26.13(b) stating that failure by the contractor to carry out the requirements of this part is a material breach of the contract and may result in the termination of the contract or such other remedies set forth in that section you deem appropriate if the prime contractor fails to comply with the requirements of this section.
- (i) You must apply the requirements of this section to DBE bidders/offers for prime contracts. In determining whether a DBE bidder/offeror for a prime contract has met a contract goal, you count the work the DBE has committed to performing with its own forces as well as the work that it has committed to be performed by DBE subcontractors and DBE suppliers.
- (j) You must require the contractor awarded the contract to make available upon request a copy of all DBE subcontracts. The subcontractor shall ensure that all subcontracts or an agreement with DBEs to supply labor or materials require that the subcontract and all lower tier subcontractors be performed in accordance with this part's provisions.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5098, Jan. 28, 2011; 79 FR 59595, Oct. 2, 2014; 89 FR 24967, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.55 How is DBE participation counted toward goals?

- (a) When a DBE participates in a contract, you count only the value of the work performed by the DBE toward DBE goals.
 - (1) Count the entire amount of that portion of a construction contract (or other contract not covered by paragraph (a)(2) of this section) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
 - (2) Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, toward DBE goals, provided you determine the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
 - (3) When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- (b) When a DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.
- (c) Count expenditures to a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function on that contract.

- (1) A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - (2) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, you must examine similar transactions, particularly those in which DBEs do not participate.
 - (3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected within normal industry practice for the type of work involved, you must presume that it is not performing a commercially useful function.
 - (4) When a DBE is presumed not to be performing a commercially useful function as provided in paragraph (c)(3) of this section, the DBE may present evidence to rebut this presumption. You may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.
 - (5) Your decisions on commercially useful function matters are subject to review by the concerned operating administration, but are not administratively appealable to DOT.
- (d) Use the following factors in determining whether a DBE trucking company is performing a commercially useful function:
- (1) The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.
 - (2) The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
 - (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
 - (4) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (5) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers

receives credit only for the fee or commission it receives as a result of the lease arrangement. If a recipient chooses this approach, it must obtain written consent from the appropriate DOT operating administration.

Example to paragraph (d)(5): DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks equipped with drivers from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

- (6) The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example to paragraph (d)(6): DBE Firm X uses two of its own trucks on a contract. It leases two additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all four trucks.

- (7) For purposes of this paragraph (d), a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

- (e) Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:

(1)

- (i) If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies.
- (ii) For purposes of this paragraph (e)(1), a manufacturer is a firm that owns (or leases) and operates a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications. Manufacturing includes blending or modifying raw materials or assembling components to create the product to meet contract specifications. When a DBE makes minor modifications to the materials, supplies, articles, or equipment, the DBE is not a manufacturer. Minor modifications are additional changes to a manufactured product that are small in scope and add minimal value to the final product.

(2)

- (i) If the materials or supplies are purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies (including transportation costs).
- (ii) For purposes of this section, a regular dealer is a firm that owns (or leases) and operates, a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in sufficient quantities, and regularly sold or leased to the public in the usual course of business.

- (iii) Items kept and regularly sold by the DBE are of the "general character" when they share the same material characteristics and application as the items specified by the contract.
- (iv) You must establish a system to determine that a DBE regular dealer per paragraph (e)(2)(iv)(A) of this section, over a reasonable period of time, keeps sufficient quantities and regularly sells the items in question. This system must also ensure that a regular dealer of bulk items per (e)(2)(iv)(B) of this section owns/leases and operates distribution equipment for the products it sells. This requirement may be administered through questionnaires, inventory records reviews, or other methods to determine whether each DBE supplier has the demonstrated capacity to perform a commercially useful function (CUF) as a regular dealer prior to its participation. The system you implement must be maintained and used to identify all DBE suppliers with capacity to be eligible for 60 percent credit, contingent upon the performance of a CUF. This requirement is a programmatic safeguard apart from that described in § 26.53(c)(1).
 - (A) To be a regular dealer, the firm must be an established business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A DBE supplier performs a CUF as a regular dealer and receives credit for 60 percent of the cost of materials or supplies (including transportation cost) when all, or at least 51 percent of, the items under a purchase order or subcontract are provided from the DBE's inventory, and when necessary, any minor quantities delivered from and by other sources are of the general character as those provided from the DBE's inventory.
 - (B) A DBE may be a regular dealer in such bulk items as petroleum products, steel, concrete or concrete products, gravel, stone, or asphalt without owning and operating a place of business as provided in paragraph (e)(2)(ii) of this section if the firm both owns and operates distribution equipment used to deliver the products. Any supplementing of regular dealers' own distribution equipment must be by a long-term operating lease and not on an ad hoc or contract-by-contract basis.
 - (C) A DBE supplier of items that are not typically stocked due to their unique characteristics (e.g., limited shelf life or items ordered to specification) should be considered in the same manner as a regular dealer of bulk items per paragraph (e)(2)(iv)(B) of this section. If the DBE supplier of these items does not own or lease distribution equipment, as described above, it is not a regular dealer.
 - (D) Packagers, brokers, manufacturers' representatives, or other persons who arrange, facilitate, or expedite transactions are not regular dealers within the meaning of paragraph (e)(2) of this section.
- (3) If the materials or supplies are purchased from a DBE distributor that neither maintains sufficient inventory nor uses its own distribution equipment for the products in question, count 40 percent of the cost of materials or supplies (including transportation costs). A DBE distributor is an established business that engages in the regular sale or lease of the items specified by the contract. A DBE distributor assumes responsibility for the items it purchases once they leave the point of origin (e.g., a manufacturer's facility), making it liable for any loss or damage not covered by the carrier's insurance. A DBE distributor performs a CUF when it demonstrates ownership of the items in question and assumes all risk for loss or damage during transportation, evidenced by the terms of the purchase order or a bill of lading (BOL) from a third party, indicating Free on Board (FOB) at the point of origin or similar terms that transfer responsibility of the items in question to the DBE

distributor. If these conditions are met, DBE distributors may receive 40 percent for drop-shipped items. Terms that transfer liability to the distributor at the delivery destination (e.g., FOB destination), or deliveries made or arranged by the manufacturer or another seller do not satisfy this requirement.

- (4) With respect to materials or supplies purchased from a DBE that is neither a manufacturer, a regular dealer, nor a distributor, count the entire amount of fees or commissions charged that you deem to be reasonable, including transportation charges for the delivery of materials or supplies. Do not count any portion of the cost of the materials and supplies themselves.
- (5) You must determine the amount of credit awarded to a firm for the provisions of materials and supplies (e.g., whether a firm is acting as a regular dealer, distributor, or a transaction facilitator) on a contract-by-contract basis.
- (f) If a firm is not currently certified as a DBE in accordance with the standards of subpart D of this part at the time of the execution of the contract, do not count the firm's participation toward any DBE goals, except as provided for in § 26.87(j).
- (g) Do not count the dollar value of work performed under a contract with a firm after it has ceased to be certified toward your overall goal.
- (h) Do not count the participation of a DBE subcontractor toward a contractor's final compliance with its DBE obligations on a contract until the contractor has paid the DBE the amount being counted.
- (i) Effective October 3, 2025, you may not count any DBE participation toward DBE goals until the UCP that covers you has completed the reevaluation process described in § 26.111.

[64 FR 5126, Feb. 2, 1999, as amended at 65 FR 68951, Nov. 15, 2000; 68 FR 35554, June 16, 2003; 79 FR 59595, Oct. 2, 2014; 89 FR 24968, Apr. 9, 2024; 89 FR 55089, July 3, 2024; 90 FR 47982, Oct. 3, 2025]

Subpart D—Certification Standards

§ 26.61 Burden of proof

- (a) In determining whether to certify a firm, the certifier must apply the standards of this subpart. Unless the context indicates otherwise, singular terms include their plural forms and vice versa.
- (b) The firm has the burden of demonstrating, by a preponderance of the evidence, *i.e.*, more likely than not, that it satisfies all of the requirements in this subpart. In determining whether the firm has met its burden, the certifier must consider all the information in the record, viewed as a whole. In a decertification proceeding the certifier bears the burden of proving, by a preponderance of the evidence, that the firm is no longer eligible for certification under the rules of this part.

[89 FR 24969, Apr. 9, 2024, as amended at 90 FR 47982, Oct. 3, 2025]

§ 26.63 General certification rules.

- (a) **General rules.** Except as otherwise provided:
 - (1) The firm must be for-profit and engaged in business activities.
 - (2) In making eligibility determinations, a certifier may not consider whether a firm performs a commercially useful function (CUF), or the potential effect on goals or counting.

- (3) A certifier cannot condition eligibility on State prequalification requirements for bidding on contracts.
 - (4) Certification is not a warranty of competence or suitability.
 - (5) A certifier determines eligibility based on the evidence it has at the time of its decision, not on the basis of historical or outdated information, giving full effect to the “curative measures” provisions of this part.
 - (6) Entering into a fraudulent transaction or presenting false information to obtain or maintain DBE certification is disqualifying.
- (b) **Indirect ownership.** A subsidiary (*i.e.*, S) that SEDOs own and control indirectly is eligible, if it satisfies the other requirements of this part and only under the following circumstances.
- (1) **Look-through.** SEDOs own at least 51 percent of S through their ownership of P (*i.e.*, the parent firm) as shown in the examples following.
 - (2) **Control.** SEDOs control P, and P controls S.
 - (3) **One tier of separation.** The SEDOs indirectly own S through P and no other intermediary. That is, no applicant or DBE may be more than one entity (P) removed from its individual SEDOs.
 - (4) **Examples.** The following examples assume that S and its SEDOs satisfy all other requirements in this part.
 - (i) **Example 1 to paragraph (b)(4).** SEDOs own 100 percent of P, and P owns 100 percent of S. S is eligible for certification.
 - (ii) **Example 2 to paragraph (b)(4).** Same facts as Example 1, except P owns 51 percent of S. S is eligible.
 - (iii) **Example 3 to paragraph (b)(4).** SEDOs own 80 percent of P, and P owns 70 percent of S. S is eligible because SEDOs indirectly own 56 percent of S. The calculation is 80 percent of 70 percent or $.8 \times .7 = .56$.
 - (iv) **Example 4 to paragraph (b)(4).** SEDOs own and control P, and they own 52 percent of S by operation of this paragraph (b). However, a non-SEDO controls S. S is ineligible.
 - (v) **Example 5 to paragraph (b)(4).** SEDOs own 60 percent of P, and P owns 51 percent of S. S is ineligible because SEDOs own just 31 percent of S.
 - (vi) **Example 6 to paragraph (b)(4).** P indirectly owns and controls S and has other affiliates. S is eligible only if its gross receipts, plus those of all of its affiliates, do not exceed the applicable small business size cap of § 26.65. Note that all of P's affiliates are affiliates of S by virtue of P's ownership and/or control of S.
- (c) **Indian Tribes, NHOs, and ANCs –**
- (1) **Indian Tribes and NHOs.** A firm that is owned by an Indian Tribe or Native Hawaiian organization (NHO), rather than by Indians or Native Hawaiians as individuals, is eligible if it meets all other certification requirements in this part.
 - (2) **Alaska Native Corporations (ANCs).**

- (i) Notwithstanding any other provisions of this subpart, a subsidiary corporation, joint venture, or partnership entity of an ANC is eligible for certification if it meets all the following requirements:
 - (A) The Settlement Common Stock of the underlying ANC and other stock of the ANC held by holders of the Settlement Common Stock and by Natives and descendants of Natives represents a majority of both the total equity of the ANC and the total voting power of the corporation for purposes of electing directors;
 - (B) The shares of stock or other units of common ownership interest in the subsidiary, joint venture, or partnership entity held by the ANC and by holders of its Settlement Common Stock represent a majority of both the total equity of the entity and the total voting power of the entity for the purpose of electing directors, the general partner, or principal officers; and
 - (C) The subsidiary, joint venture, or partnership entity has been certified by the Small Business Administration under the 8(a) or small disadvantaged business program.
- (ii) As a certifier to whom an ANC-related entity applies for certification, a certifier must not use the Uniform Certified Application. The certifier must obtain from the firm documentation sufficient to demonstrate that the entity meets the requirements of paragraph (c)(2)(i) of this section. The certifier must also obtain sufficient information about the firm to allow the certifier to administer its program (e.g., information that would appear in a UCP directory).
- (iii) If an ANC-related firm does not meet all the conditions of paragraph (c)(2)(i) of this section, then it must meet the requirements of paragraph (c)(1) of this section in order to be certified.

[89 FR 24969, Apr. 9, 2024]

§ 26.65 Business size determinations.

- (a) **By NAICS Code.** A firm (including its affiliates) must be a small business, as defined by the Small Business Administration (SBA). The certifier must apply the SBA business size limit in 13 CFR part 121 which corresponds to the applicable primary industry classifications (NAICS codes). The firm is ineligible when its affiliated "receipts" (computed on a cash basis), as defined in 13 CFR 121.104(a) and averaged over the firm's preceding five fiscal years, exceed the applicable SBA size cap(s).
- (b) **Statutory cap.** Even if a firm is a small business under paragraph (a) of this section, it is ineligible to perform DBE work on FHWA or FTA assisted contracts if its affiliated annual gross receipts, as defined in 13 CFR 121.104, averaged over the firm's previous three fiscal years exceed \$30.72 million (as of March 1, 2024). The Department will adjust this amount annually and post the adjusted amount on its website available at <https://www.transportation.gov/DBEsizestandards>.

[89 FR 24970, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.67 Social and economic disadvantage.

- (a) **Non-presumptive Disadvantage.** All applicants must demonstrate social and economic disadvantage (SED) affirmatively based on their own experiences and circumstances within American society, and without regard to race or sex.

- (1) To satisfy the SED requirement and ensure all determinations of disadvantage are not based in whole or in part on race or sex, an owner must provide the certifier a Personal Narrative (PN) that establishes the existence of disadvantage by a preponderance of the evidence based on individualized proof regarding specific instances of economic hardship, systemic barriers, and denied opportunities that impeded the owner's progress or success in education, employment, or business, including obtaining financing on terms available to similarly situated, non-disadvantaged persons.
- (2) The PN must state how and to what extent the impediments caused the owner economic harm, including a full description of type and magnitude, and must establish the owner is economically disadvantaged in fact relative to similarly situated non-disadvantaged individuals.
- (3) The owner must attach to the PN a current PNW statement and any other financial information he considers relevant.

(b) [Reserved]

[90 FR 47982, Oct. 3, 2025]

§ 26.68 Personal net worth.

- (a) **General.** An owner whose PNW exceeds \$2,047,000 is not presumed economically disadvantaged. The Department will adjust the PNW cap pursuant to paragraph (d) of this section.
- (b) **Required documents.** Each owner on whom the firm relies for certification must submit a DOE and a corroborating personal net worth (PNW) statement, including required attachments. The owner must report PNW on the form, available at <https://www.Transportation.gov/DBEFORMS>. A certifier may require an owner to provide additional information on a case-by-case basis to verify the accuracy and completeness of the PNW statement. The certifier must have a legitimate and demonstrable need for the additional information.
- (c) **Reporting.** The following rules apply without regard to State community property, equitable distribution, or similar rules. The owner reports assets and liabilities that she owns or is deemed to own. Ownership tracks title to the asset or obligor status on the liability except where otherwise provided or when the transaction results in evasion or abuse.

(1) The owner excludes her ownership interest in the applicant or DBE.

(2) The owner excludes her share of the equity in her primary residence. There is no exclusion when the SEDO does not own the home.

Example 1 to paragraph (c)(2): The owner and her spouse hold joint title to their primary residence, for which they paid \$300,000 and are coequal debtors on a bank mortgage and a home equity line of credit with current combined balances of \$150,000. The owner may exclude her \$75,000 share of the \$150,000 of total equity.

(3) The owner includes the full value of the contents of her primary residence unless she cohabits with a spouse or domestic partner, in which case she excludes only 50 percent of those assets.

(4) The owner includes the value of all motor vehicles, including watercraft and ATVs, titled in her name or of which she is the principal operator.

- (5) The owner excludes the liabilities of any other party and those contingent on a future event or of undetermined value as of the date of the PNW Statement.
- (6) The owner includes her proportional share of the balance of a debt on which she shares joint and severable liability with other primary debtors.

Example 2 to paragraph (c)(6): When the owner co-signs a debt instrument with two other individuals, the rule considers her liable for one-third of the current loan balance.

- (7) The owner includes assets transferred to relatives or related entities within the two years preceding any UCA or DOE, when the assets so transferred during the period have an aggregate value of more than \$20,000. Relatives include the owner's spouse or domestic partner, children (whether biological, adopted or stepchildren), siblings (including stepsiblings and those of the spouse or domestic partner), and parents (including stepparents and those of the spouse or domestic partner). Related entities include for-profit privately held companies of which any relative is an owner, officer, director, or equivalent; and family or other trusts of which the owner or any relative is grantor, trustee, or beneficiary, except when the transfer is irrevocable.
- (8) The owner excludes direct payments, on behalf of immediate family members or their children, to unrelated providers of healthcare, education, or legal services.
- (9) The owner excludes direct payments to providers of goods and services directly related to a celebration of an immediate family member's or that family member's child's significant, normally non-recurring life event.
- (10) The owner excludes from net worth all assets in qualified retirement accounts but must report those accounts, the value of assets in them, and any significant terms and restrictions concerning the assets' use, to the certifier.

(d) **Regulatory adjustments.**

- (1) The Department will adjust the PNW cap by May 9, 2027 by multiplying \$1,600,000 by the growth in total household net worth since 2019 as described by "Financial Accounts of the United States: Balance Sheet of Households (Supplementary Table B.101.h)" produced by the Board of Governors of the Federal Reserve (<https://www.federalreserve.gov/releases/z1/>), and normalized by the total number of households as collected by the Census in "Families and Living Arrangements" (<https://www.census.gov/topics/families/families-and-households.html>) to account for population growth. The Department will adjust the PNW cap every 3 years on the anniversary of the adjustment date described in this section. The Department will post the adjustments on the Departmental Office of Civil Rights' web page, available at <https://www.Transportation.gov/DBEPNW>. Each such adjustment will become the currently applicable PNW limit for purposes of this regulation.
- (2) The Department will use formula 1 to this paragraph (d)(2) to adjust the PNW limit:

Formula 1 to Paragraph (d)

Future Year PNW Cap = [\$1,600,000] *	Q1-Q4 Average Household Net Worth of Future Year / Total Households of Future Year
	Q1-Q4 Average Household Net worth of 2019 (\$106,722,704 million / Total Households of 2019 (128,579))

- (e) **Confidentiality.** Notwithstanding any provision of Federal or State law, a certifier must not release an individual's PNW statement nor any documents pertaining to it to any third party without the written consent of the submitter. Provided, that you must transmit this information to DOT in any certification appeal proceeding under § 26.89 or to any other State to which the individual's firm has applied for certification under § 26.85.

[89 FR 24971, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.69 Ownership.

- (a) **General rule.** A SEDO must own at least 51 percent of each class of ownership of the firm. Each SEDO whose ownership is necessary to the firm's eligibility must demonstrate that her ownership satisfies the requirements of this section. If not, the firm is ineligible.
- (b) **Overall Requirements.** A SEDO's acquisition and maintenance of an ownership interest meets the requirements of this section only if the SEDO demonstrates the following:
- (1) **Acquisition.** The SEDO acquires ownership at fair value and by one or more "investments," as defined in paragraph (c) of this section.
 - (2) **Proportion.** No owner derives benefits or bears burdens that are clearly disproportionate to their ownership shares.
 - (3) **Maintenance.** This section's requirements continue to apply after the SEDO's acquisition and the firm's certification. That is, the SEDO must maintain her investment and its proportion relative to those of other owners.
 - (i) The SEDO may not withdraw or revoke her investment.
 - (ii) When an existing co-owner contributes significant, additional, post-acquisition cash or property to the firm, the SEDO must increase her own investment to a level not clearly disproportionate to the non-SEDO's investment.
 - (A) **Example 1 to paragraph (b)(3)(ii).** SEDO and non-SEDO own DBE 60/40. Their respective investments are approximately \$600,000 and \$400,000. The DBE has operated its business under this ownership and with this capitalization for 2 years. In Year 3, the non-SEDO contributes a \$2 million asset to the business. The SEDO, as a result, owns 60 percent of a \$2 million asset without any additional outlay. Her ownership interest, assuming no other pertinent facts, is worth \$1.2 million more than it was before. Unless the SEDO increases her investment significantly, it is clearly disproportionate to the non-SEDO's investment and to her nominal 60 percent ownership. She has not maintained her investment.

(B) **Example 2 to paragraph (b)(3)(ii).** Same facts except that the DBE purchases the asset with a combination of 30 percent operating income and 70 percent proceeds of a bank loan. The SEDO maintains her investment because it remains in proportion to the non-SEDO's investment and to the value of her 60 percent ownership interest.

(C) **Example 3 to paragraph (b)(3)(ii).** Same facts except that the non-SEDO, not a bank, is the DBE's creditor. The SEDO has not maintained her investment because the benefits and burdens of her ownership are clearly disproportionate to those of the non-SEDO. The transaction may also raise § 26.71 concerns.

(iii) An organic increase in the value of the business does not affect maintenance because the value of the owners' investments remains proportional. In Example 2 above, the SEDO and the non-SEDO own the new asset at 60 percent and 40 percent of its net value of \$60,000.

(c) **Investments.** A SEDO may acquire ownership by purchase, capital contribution, or gift. Subject to the other requirements of this section, each is considered an "investment" in the firm, as are additional purchases, contributions, and qualifying gifts.

(1) Investments are unconditional and at full risk of loss.

(2) Investments include a significant outlay of the SEDO's own money.

(3) For purposes of this part, title determines ownership of assets used for investments and of ownership interests themselves. This rule applies regardless of contrary community property, equitable distribution, banking, contract, or similar laws, rules, or principles.

(i) The person who has title to the asset owns it in proportion to her share of title.

(ii) However, the title rule is deemed not to apply when it produces a certification result that is manifestly unjust.

(4) If the SEDO jointly (50/50) owns an investment of cash or property, the SEDO may claim at least a 51 percent ownership interest only if the other joint owner formally transfers to the SEDO enough of his ownership in the invested asset(s) to bring the SEDO's investment to at least 51 percent of all investments in the firm. Such transfers may be gifts described in paragraph (e) of this section.

(d) **Purchases and capital contributions.**

(1) A purchase of an ownership interest is an investment when the consideration is entirely monetary and not a trade of property or services.

(2) Capital that the SEDO contributes directly to the company is an investment when the contribution is all cash or a combination of cash and tangible property and/or realty.

(3) Contributions of time, labor, services, and the like are not investments or components of investments.

(4) Loans are not investments. The proceeds of loans may be investments to the extent that they finance the SEDO's qualifying purchase or capital contribution.

(5) Debt-financed purchases or capital contributions are investments when they comply with the rules in this section and in § 26.70.

(6) Guarantees are not investments.

- (7) The firm's purchases or sales of property, including ownership in itself or other companies, are not the SEDO's investments.
 - (8) Other persons' or entities' purchases or capital contributions are not the SEDO's investments.
- (e) **Gifts.** A gift to the SEDO is an investment when it meets the requirements of this section. The gift rules apply to partial gifts, bequests, inheritances, trust distributions, and transfers for inadequate consideration. They apply to gifts of ownership interests and to gifts of cash or property that the SEDO invests. The following requirements apply to gifts on which the SEDO relies for her investment.
- (1) The transferor/donor is or immediately becomes uninvolved with the firm in any capacity and in any other business that contracts with the firm other than as a lessor or provider of standard support services;
 - (2) The transferor does not derive undue benefit; and
 - (3) A writing documents the gift. When the SEDO cannot reasonably produce better evidence, a receipt, cancelled check, or transfer confirmation suffices, if the writing identifies transferor, transferee, amount or value, and date.
- (f) **Curative measures.** The rules of this section do not prohibit transactions that further the objectives of, and compliance with, the provisions of this part. A SEDO or firm may enter into legitimate transactions, alter the terms of ownership, make additional investments, or bolster underlying documentation in a good faith effort to remove, surmount, or correct defects in eligibility, as long as the actions are consistent with this part.
- (1) The certifier may notify the firm of eligibility concerns and give the firm time, if the firm wishes, to attempt to remedy impediments to certification.
 - (2) The firm may, of its own volition, take curative action up to the time of the certifier's decision. However, it must present evidence of curation before the certifier's decision.
 - (3) The certifier may provide general assistance and guidance but not professional (legal, accounting, valuation, etc.) advice or opinions.
 - (4) While the certifier may not affirmatively impede attempts to cure, it may maintain its decision timeline and make its decision based on available evidence.
 - (5) The certifier must deny or remove certification when the firm's efforts or submissions violate the rules in paragraph (g) of this section.
- (g) **Anti-abuse rules.**
- (1) The substance and not the form of transactions drives the eligibility determination.
 - (2) The certifier must deny applications based on sham transactions or false representations, and it must decertify DBEs that engage in or make them. Transactions or representations designed to evade or materially mislead subject the firm to the same consequences.
 - (3) Fraud renders the firm ineligible and subjects it to sanctions, suspension, debarment, criminal prosecution, civil litigation, and any other consequence or recourse not proscribed in this part.

Example 1 to paragraph (g)(3): SEDO claims an investment consisting of a contribution of equipment and a significant amount of her own cash. She shows that she transferred title to the equipment and wrote a check from an account she alone owns. She does not disclose that her brother-in-law lent her the money and she must repay him. The firm is ineligible under paragraphs (g)(1) and (2) of this section.

[89 FR 24972, Apr. 9, 2024]

§ 26.70 Debt-financed investments.

- (a) Subject to the other provisions of this subpart, a SEDO may borrow money to *finance* a § 26.69(c) investment entirely or partially if the SEDO has paid, on a net basis, at least 15 percent of the total value of the investment by the time the firm applies for certification.

Example 1 to paragraph (a) introductory text: A SEDO who borrows \$9,000 of her \$10,000 cash investment in Applicant, Inc., must have repaid, from her own funds, at least \$500 of the loan's principal by the time Applicant, Inc. applies for certification.

Example 2 to paragraph (a) introductory text: A SEDO who finances \$8,000 of a \$10,000 investment in Applicant may apply for Applicant's certification at any time.

Example 3 to paragraph (a) introductory text: A SEDO who contributes to the Applicant equipment worth \$40,000, which she purchased with \$10,000 of her own money and \$30,000 of seller financing may apply for Applicant's certification at any time.

- (1) The SEDO pays the net 15 percent portion of the investment to Seller or Applicant (as the case may be) from her own, not borrowed, money.
 - (2) Money that the SEDO receives as a § 26.69(e) gift is her own money.
 - (3) The firm, whether Applicant or DBE, does not finance any part of the investment, directly or indirectly.
- (b) The loan is real, enforceable, not in default, not offset by another agreement, and on standard commercial, arm's length terms. The following conditions also apply.
- (1) The SEDO is the sole debtor.
 - (2) The firm is not party to the loan in any capacity, including as a guarantor.
 - (3) The SEDO does not rely on the company's credit or other resources to repay any part of the debt or otherwise to finance any part of her investment.
 - (4) The loan agreement requires level, regularly recurring payments of principal and interest, according to a standard amortization schedule, at least until the SEDO satisfies requirements in paragraph (a) of this section.
 - (5) The loan agreement permits prepayments, including by refinancing.
- (c) If the creditor forgives or cancels all or part of the debt, or the SEDO defaults, the entire debt-financed portion of the SEDO's purchase or capital contribution is no longer an investment.

Example 4 to paragraph (c): SEDO finances \$40,000 of a \$50,000 investment, and the firm becomes certified. When the SEDO has repaid half of the loan's principal and associated interest, the creditor forgives the remaining \$20,000 debt. The SEDO's investment is now \$10,000.

- (d) Paragraph (c) of the section does not prohibit refinancing with debt that meets the requirements of this section or preclude prompt curation under § 26.69(f).

[89 FR 24973, Apr. 9, 2024]

§ 26.71 Control.

(a) *General rules.*

- (1) One or more SEDOs of the firm must control it.
- (2) Control determinations must consider all pertinent facts, viewed together and in context.
- (3) A firm must have operations in the business for which it seeks certification at the time it applies. Certifiers do not certify plans or intentions, or issue contingent or conditional certifications.

- (b) *SEDO as final decision maker.* A SEDO must be the ultimate decision maker in fact, regardless of operational, policy, or delegation arrangements.

- (c) *Governance.* Governance provisions may not require that any SEDO obtain concurrence or consent from a non-SEDO to transact business on behalf of the firm.

- (1) *Highest officer position.* A SEDO must hold the highest officer position in the company (e.g., chief executive officer or president).
- (2) *Board of directors.* Except as detailed in paragraph (c)(4) of this section, a SEDO must have present control of the firm's board of directors, or other governing body, through the number of eligible votes.
 - (i) *Quorum requirements.* Provisions for the establishment of a quorum must not block the SEDO from calling a meeting to vote and transact business on behalf of the firm.
 - (ii) *Shareholder actions.* A SEDO's authority to change the firm's composition via shareholder action does not prove control within the meaning of paragraph (c) of this section.
- (3) *Partnerships.* In a partnership, at least one SEDO must serve as a general partner, with control over all partnership decisions.
- (4) *Exception.* Bylaws or other governing provisions that require non-SEDO consent for extraordinary actions generally do not contravene the rules in paragraph (c) of this section. Non-exclusive examples are a sale of the company or substantially all of its assets, mergers, and a sudden, wholesale change of type of business.

- (d) *Expertise.* At least one SEDO must have an overall understanding of the business and its essential operations sufficient to make sound managerial decisions not primarily of an administrative nature. The requirements of this paragraph (d) vary with type of business, degree of technological complexity, and scale.

- (e) *SEDO decisions.* The firm must show that the SEDO critically analyzes information provided by non-SEDOs and uses that analysis to make independent decisions.

- (f) *Delegation.* A SEDO may delegate administrative activities or operational oversight to a non-SED individual as long as at least one SEDO retains unilateral power to fire the delegate(s), and the chain of command is evident to all participants in the company and to all persons and entities with whom the firm conducts business.

- (1) No non-SED participant may have power equal to or greater than that of a SEDO, considering all the circumstances. Aggregate magnitude and significance govern; a numerical tally does not.
- (2) Non-SED participants may not make non-routine purchases or disbursements, enter into substantial contracts, or make decisions that affect company viability without the SEDO's consent.
- (3) Written provisions or policies that specify the terms under which non-SED participants may sign or act on the SEDO's behalf with respect to recurring matters generally do not violate this paragraph (f), as long as they are consistent with the SEDO having ultimate responsibility for the action.

(g) **Independent business.**

- (1) If the firm receives from or shares personnel, facilities, equipment, financial support, or other essential resources, with another business (whether a DBE or non-DBE firm) or individual on other than commercially reasonable terms, the firm must prove that it would be viable as a going concern without the arrangement.
- (2) The firm must not regularly use another firm's business-critical vehicles, equipment, machinery, or facilities to provide a product or service under contract to the same firm or one in a substantially similar business.
 - (i) **Exception 1.** Paragraphs (g)(1) and (2) of this section do not preclude the firm from providing services to a single customer or to a small number of them, provided that the firm is not merely a conduit, captive, or unnecessary third party acting on behalf of another firm or individual. Similarly, providing a volume discount to such a customer does not impair viability unless the firm repeatedly provides the service at a significant and unsustainable loss.
 - (ii) **Exception 2.** A firm may share essential resources and deal exclusively with another firm that a SEDO controls and of which the SEDO owns at least 51 percent ownership.

- (h) **Franchise and license agreements.** A business operating under a franchise or license agreement may be certified if it meets the standards in this subpart and the franchiser or licensor is not affiliated with the franchisee or licensee. In determining whether affiliation exists, the certifier should generally not consider the restraints relating to standardized quality, advertising, accounting format, and other provisions imposed on the franchisee or licensee by the franchise agreement or license, if the franchisee or licensee has the right to profit from its efforts and bears the risk of loss commensurate with ownership. Alternatively, even though a franchisee or licensee may not be controlled by virtue of such provisions in the franchise agreement or license, affiliation could arise through other means, such as common management or excessive restrictions on the sale or transfer of the franchise interest or license.

[89 FR 24973, Apr. 9, 2024]

§ 26.73 NAICS codes.

- (a) A certifier must grant certification to a firm only for specific types of work that the SEDO controls. To become certified in an additional type of work, the firm must demonstrate to the certifier only that its SEDO controls the firm with respect to that type of work. The certifier must not require that the firm be recertified or submit a new application for certification but must verify the SEDO's control of the firm in the additional type of work.

- (1) A correct NAICS code is the one that describes, as specifically as possible, the principal goods or services which the firm would provide to DOT recipients. Multiple NAICS codes may be assigned where appropriate. Program participants must rely on, and not depart from, the plain meaning of NAICS code descriptions in determining the scope of a firm's certification.
- (2) If there is not a NAICS code that fully, clearly, or sufficiently narrowly describes the type(s) of work for which the firm seeks certification, the certifier must supplement or limit the assigned NAICS code(s) with a clear, specific, and concise narrative description of the type of work in which the firm is certified. A vague, general, or confusing description is insufficient.
- (3) Firms and certifiers must check carefully to make sure that the NAICS codes cited in a certification are kept up-to-date and accurately reflect work which the UCP has determined the firm's owners can control. The firm bears the burden of providing detailed company information the certifying agency needs to make an appropriate NAICS code designation.
- (4) A certifier may change a certification classification or description if there is a factual basis in the record, in which case it must notify the firm 30 days before making the change. Certifiers may not apply such changes retroactively.
- (5) In addition to applying the appropriate NAICS code, the certifier may apply a descriptor from a classification scheme of equivalent detail and specificity. Such a descriptor (e.g., a "work code") does not supersede or limit the types of work for which a DBE is eligible under an appropriate NAICS code.

(b) [Reserved]

[89 FR 24974, Apr. 9, 2024]

Subpart E—Certification Procedures

§ 26.81 Unified Certification Programs.

- (a) You and all other DOT recipients in your state must participate in a Unified Certification Program (UCP).
 - (1) All recipients in the same jurisdiction (normally a State) must sign an agreement establishing a UCP and submit the agreement to the Secretary for approval.
 - (2) The agreement must provide for the establishment of a UCP meeting all the requirements of this section. The agreement must specify that the UCP will follow all certification procedures and standards of this part, on the same basis as recipients; that the UCP shall cooperate fully with oversight, review, and monitoring activities of DOT and its operating administrations; and that the UCP shall implement DOT directives and guidance concerning certification matters. The agreement shall also commit recipients to ensuring that the UCP has sufficient resources and expertise to carry out the requirements of this part. The agreement shall include an implementation schedule ensuring that the UCP is fully operational no later than 18 months following the approval of the agreement by the Secretary.
 - (3) Subject to approval by the Secretary, the UCP in each state may take any form acceptable to the recipients in that state.
 - (4) The Secretary shall review the UCP and approve it, disapprove it, or remand it to the recipients in the state for revisions. A complete agreement which is not disapproved or remanded within 180 days of its receipt is deemed to be accepted.

- (b) The UCP shall make all certification decisions on behalf of all DOT recipients in the state with respect to participation in the DOT DBE Program.
 - (1) Certification decisions by the UCP shall be binding on all DOT recipients within the state.
 - (2) The UCP shall provide "one-stop shopping" to applicants for certification, such that an applicant is required to apply only once for a DBE certification that will be honored by all recipients in the state.
 - (3) All obligations of recipients with respect to certification and nondiscrimination must be carried out by UCPs, and recipients may use only UCPs that comply with the certification and nondiscrimination requirements of this part.
- (c) All certifications by UCPs shall be pre-certifications; i.e., certifications that have been made final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.
- (d) A UCP is not required to process an application for certification from a firm having its principal place of business outside the state if the firm is not certified by the UCP in the state in which it maintains its principal place of business. The Jurisdiction of Original Certification UCP shall share its information and documents concerning the firm with other UCPs that are considering the firm's application.
- (e) Subject to DOT approval as provided in this section, recipients in two or more states may form a regional UCP. UCPs may also enter into written reciprocity agreements with other UCPs. Such an agreement shall outline the specific responsibilities of each participant. A UCP may accept the certification of any other UCP or DOT recipient.
- (f) Pending the establishment of UCPs meeting the requirements of this section, you may enter into agreements with other recipients, on a regional or inter-jurisdictional basis, to perform certification functions required by this part. You may also grant reciprocity to other recipient's certification decisions.
- (g) Each UCP must maintain a unified DBE directory containing, for all firms certified by the UCP (including those from other States certified under the provisions of this part), the information required by § 26.31. The UCP must make the directory available to the public electronically, on the internet. The UCP must update the electronic version of the directory by including additions, deletions, and other changes as soon as they are made.
- (h) Except as otherwise specified in this section, all provisions of this subpart and subpart D of this part pertaining to recipients also apply to UCPs.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5100, Jan. 28, 2011; 89 FR 24974, Apr. 9, 2024; 89 FR 55089, July 3, 2024]

§ 26.83 What procedures do certifiers follow in making certification decisions?

- (a) You must ensure that only firms certified as eligible DBEs under this section participate as DBEs in your program.
- (b) You must determine the eligibility of firms as DBEs consistent with the standards of subpart D of this part. When a UCP is formed, the UCP must meet all the requirements of subpart D of this part and this subpart that recipients are required to meet.
- (c)
 - (1) You must take all the following steps in determining whether a DBE firm meets the standards of subpart D of this part:

- (i) A certifier must visit the firm's principal place of business, virtually or in person, and interview the SEDO, officers, and key personnel. The certifier must review those persons' résumés and/or work histories. The certifier must maintain a complete audio recording of the interview. The certifier must also visit one or more active job sites (if there is one). These activities comprise the "on-site review" (OSR), a written report of which the certifier must keep in its files.
 - (ii) Analyze documentation related to the legal structure, ownership, and control of the applicant firm. This includes, but is not limited to, Articles of Incorporation/Organization; corporate by-laws or operating agreements; organizational, annual and board/member meeting records; stock ledgers and certificates; and State-issued Certificates of Good Standing
 - (iii) Analyze the bonding and financial capacity of the firm; lease and loan agreements; bank account signature cards;
 - (iv) Determine the work history of the firm, including contracts it has received, work it has completed; and payroll records;
 - (v) Obtain a statement from the firm of the type of work it prefers to perform as part of the DBE program and its preferred locations for performing the work, if any.
 - (vi) Obtain or compile a list of the equipment owned by or available to the firm and the licenses the firm and its key personnel possess to perform the work it seeks to do as part of the DBE program;
 - (vii) Obtain complete Federal income tax returns (or requests for extensions) filed by the firm, its affiliates, and the socially and economically disadvantaged owners for the last 3 years. A complete return includes all forms, schedules, and statements filed with the Internal Revenue Service.
 - (viii) Require potential DBEs to complete and submit an appropriate application form, except as otherwise provided in § 26.85 of this part.
- (2) You must use the application form available at <https://transportation.gov/DBEFORMS> without change or revision. However, you may provide in your DBE program, with the written approval of the concerned operating administration, for supplementing the form by requesting specified additional information not inconsistent with this part.
 - (3) The certifier must ensure that the SEDO signs the Declaration of Eligibility (DOE) at the end of the Uniform Certification Application (UCA), subscribed to as true under penalty of perjury that all information provided is current, accurate, and complete.
 - (4) You must review all information on the form prior to making a decision about the eligibility of the firm. You may request clarification of information contained in the application at any time in the application process.
- (d) When another certifier, in connection with its consideration of the eligibility of a firm, makes a written request for certification information you have obtained about that firm (e.g., including application materials or the report of a site visit, if you have made one to the firm), you must promptly make the information available to the other certifier.
 - (e) [Reserved]
 - (f) Subject to the approval of the concerned operating administration as part of your DBE program, you may impose a reasonable application fee for certification. Fee waivers shall be made in appropriate cases.

- (g) You must safeguard from disclosure to unauthorized persons information gathered as part of the certification process that may reasonably be regarded as proprietary or other confidential business information, consistent with applicable Federal, state, and local law.
- (h)
 - (1) Once a certifier has certified a firm, the firm remains certified unless and/or until the certifier removes certification, in whole or in part (*i.e.*, NAICS code removal), through the procedures of § 26.87.
 - (2) The certifier may not require a DBE to reapply for certification, renew its certification, undergo a recertification, or impose any functionally equivalent requirement. The certifier may, however, conduct a certification review at any reasonable time and/or at regular intervals of at least two years. The certification review may, at the certifier's discretion, include a new OSR. The certifier may also make an unannounced visit to the DBE's offices and/or job site. The certifier may also rely on another certifier's report of its OSR of the DBE.
- (i) If you are a DBE, you must inform the certifier or UCP in writing of any change in circumstances affecting your ability to meet size, disadvantaged status, ownership, or control requirements of this part or any material change in the information provided in your application form.
 - (1) Changes in management responsibility among members of a limited liability company are covered by this requirement.
 - (2) You must attach supporting documentation describing in detail the nature of such changes.
 - (3) The DBE must notify the certifier of a material change in its circumstances that affects its continued eligibility within 30 days of its occurrence, explain the change fully, and include a duly executed DOE with the notice. The DBE's non-compliance is a § 26.109(c) failure to cooperate.
- (j) A DBE must provide its certifier(s), every year on the anniversary of its original certification, a new DOE along with the specified documentation in § 26.65(a), including gross receipts for its most recently completed fiscal year, calculated on a cash basis regardless of the DBE's overall accounting method. The sufficiency of documentation (and its probative value) may vary by business type, size, history, resources, and overall circumstances. However, the following documents may generally be considered "safe harbors," provided that they include all reportable receipts, properly calculated, for the full reporting period: audited financial statements, a CPA's signed attestation of correctness and completeness, or all income-related portions of one or more (when there are affiliates) signed Federal income tax returns as filed. Non-compliance, whether full or partial, is a § 26.109(c) failure to cooperate.
- (k) The certifier must advise each applicant within 30 days of filing whether the application is complete and suitable for evaluation and, if not, what additional information or action is required.
- (l)
 - (1) The certifier must render a final eligibility decision within 90 days of receiving all information required from the applicant under this part. The certifier may extend this time period once, for no more than an additional 30 days, upon written notice to the firm, explaining fully and specifically the reasons for the extension. On a case-by-case basis, the concerned OA may give the certifier one deadline extension if it approves a written request explaining why the certifier needs more time. The certifier's failure to issue a compliant decision by the applicable deadline is a constructive denial of the application, appealable to DOT under § 26.89. In this case, the certifier may be subject to enforcement actions described in §§ 26.103 and 26.105.

(2) [Reserved]

(m)

(1) A certifier may notify the applicant about ineligibility concerns and allow the firm to rectify deficiencies within the period in paragraph (l) of this section.

(2) If a firm takes curative measures before the certifier renders a decision, the certifier must consider any evidence it submits of having taken such measures. The certifier must not automatically construe curative measures as successful or abusive.

(i) **Example 1 to paragraph (m)(2).** The firm may obtain proof of an investment, transaction, or other fact on which its eligibility depends.

(ii) **Example 2 to paragraph (m)(2).** An owner or related party may create a legally enforceable document of irrevocable transfer to the SEDO.

(iii) **Example 3 to paragraph (m)(2).** The firm may amend an operating agreement, bylaw provision, or other governance document, provided that the amendment accurately reflects the parties' relationships, powers, responsibilities, and other pertinent circumstances.

(n) Except as otherwise provided in this paragraph (n), if an applicant for DBE certification withdraws its application before the certifier issues a decision, the applicant can resubmit the application at any time. However, the certifier may place the reapplication at the "end of the line," behind other applications that have been made since the firm's previous application was withdrawn. The certifier may apply the § 26.86(c) waiting period to a firm that has established a pattern of withdrawing applications before its decision.

[64 FR 5126, Feb. 2, 1999, as amended at 68 FR 35555, June 16, 2003; 76 FR 5100, Jan. 28, 2011; 79 FR 59598, Oct. 2, 2014; 89 FR 24974, Apr. 9, 2024; 89 FR 55090, July 3, 2024]

§ 26.85 Interstate certification.

(a) **Applicability.** This section applies to a DBE certified in any UCP.

(b) **General rule.** When a DBE applies to another UCP for certification, the new UCP must accept the DBE's certification from its jurisdiction of original certification (JOC). The JOC is the State in which the firm maintains its principal place of business at the time of application unless and until the firm loses certification in that jurisdiction.

(c) **Application procedure.** To obtain certification by an additional UCP, the DBE must provide:

(1) A cover letter that specifies that the DBE is applying for interstate certification, identifies all UCPs in which the DBE is certified (including the UCP that originally certified it)

(2) An electronic image of the UCP directory of the original UCP that shows the DBE certification; and

(3) A new DOE.

(d) **Confirmation of eligibility.** Within 10 business days of receiving the documents required under paragraph (c) of this section, the additional UCP must confirm the certification of the DBE preferably by reference to the UCP directory of the JOC.

- (e) **Certification.** If the DBE fulfills the requirements of paragraph (c) of this section and the UCP confirms the DBE's certification per paragraph (d) of this section, the UCP must certify the DBE immediately without undergoing further procedures and provide the DBE with a letter documenting its certification.
- (f) **Noncompliance.** Failure of the additional UCP to comply with paragraphs (d) and (e) of this section is considered non-compliance with this part.
- (g) **Post-interstate certification proceedings.**
 - (1) After the additional UCP certifies the DBE, the UCP may request a fully unredacted copy of all, or a portion of, the DBE's certification file from any other UCP in which the DBE is certified.
 - (2) A UCP must provide a complete unredacted copy of the DBE's certification materials to the additional UCP within 30 days of receiving the request. Confidentiality requirements of §§ 26.83(d) and 26.109(b) do not apply.
 - (3) Once the new UCP certifies, then it must treat the DBE as it treats other DBEs, for all purposes.
 - (4) The DBE must provide an annual DOE with documentation of gross receipts, under § 26.83(j), to certifying UCPs on the anniversary date of the DBE's original certification by its JOC.
- (h) **Decertifications.**
 - (1) If any UCP has reasonable cause to remove a DBE's certification, in whole or in part (*i.e.*, NAICS code removal), it must notify the other UCPs in which the DBE is certified ("other jurisdictions") via email. The notice must explain the UCP's reasons for believing the DBE's certification should be removed.
 - (2) Within 30 days of receiving the notice, the other jurisdictions must email the UCP contemplating decertification a concurrence or non-concurrence with the proposed action. The other jurisdictions' responses may provide written arguments and evidence and may propose additional reasons to remove certification. A jurisdiction's failure to timely respond to the reasonable cause notice will be deemed to be a concurrence.
 - (3) After a UCP receives all timely responses, it must make an independent decision whether to issue a NOI and what grounds to include.
 - (4) Other UCPs may, before the hearing, submit written arguments and evidence concerning whether the firms should remain certified, but may not participate in the hearing.
 - (5) If the UCP finds the firm ineligible the firm immediately loses certification in all jurisdictions in which it is certified. The NOD must include appeal instructions provided on the Departmental Office of Civil Rights' web page, available at <https://www.transportation.gov/dbeappeal>. The UCP must email a copy of its decision to the other jurisdictions within 3 business days.
 - (6) The rules of paragraph (h) do not apply to attempts to decertify based upon a DBE's actions or inactions pertaining to §§ 26.83(j) (Declaration of Eligibility) and 26.109(c) (failure to cooperate).
 - (7) Decertifications under this paragraph (h) must provide due process to DBEs.
 - (i) If a UCP decides not to issue a NOD removing the DBE's certification, no jurisdiction may initiate decertification proceedings, within one year, on the same or similar grounds and underlying facts.
 - (ii) If a DBE believes a UCP unfairly targets it with repeated decertification attempts, the DBE may file a complaint to the appropriate OA.

- (8) The Department's appeal decisions are binding on all UCPs unless stated otherwise.

[89 FR 24975, Apr. 9, 2024; 89 FR 55090, July 3, 2024]

§ 26.86 Decision letters.

- (a) When a certifier denies a firm's request for certification or decertifies the firm, the certifier must provide the firm a NOD explaining the reasons for the adverse decision, specifically referencing the evidence in the record that supports each reason. A certifier must also include, verbatim, the instructions found on the Departmental Office of Civil Rights' web page, available at <https://www.transportation.gov/dbeappeal>.
- (b) The certifier must promptly provide the applicant copies of all documents and other information on which it based the denial if the applicant requests them.
- (c) The certifier must establish a waiting period for reapplication of no more than 12 months. That period begins to run the day after the date of the decision letter is emailed. After the waiting period expires, the denied firm may reapply to any member of the UCP that denied the application. The certifier must inform the applicant of that right, and specify the date the waiting period ends, in its decision letter.
- (d) An appeal does not extend the waiting period.

[89 FR 24976, Apr. 9, 2024]

§ 26.87 Decertification.

- (a) **Burden of proof.** To decertify a DBE, the certifier bears the burden of proving, by a preponderance of the evidence, that the DBE does not meet the certification standards of this part.
- (b) **Initiation of decertification proceedings.**
- (1) A certifier may determine on its own that it has reasonable cause to decertify a DBE.
- (2) If an OA determines that there is reasonable cause to believe that a DBE does not meet the eligibility criteria of this part, the OA may direct the certifier to initiate a proceeding to remove the DBE's certification.
- (i) The OA must provide the certifier and the DBE written notice describing the reasons for the directive, including any relevant documentation or other information.
- (ii) The certifier must immediately commence a proceeding to decertify as provided by paragraph (e) of this section.
- (3) Any person may file a complaint explaining, with specificity, why the certifier should decertify a DBE. The certifier need not act on a general allegation or an anonymous complaint. The certifier must keep complainants' identities confidential as provided in § 26.109(b).
- (i) The certifier must review its records concerning the DBE, any material the DBE and/or complainant provides, and any other available information. The certifier may request additional information from the DBE or conduct any other investigation that it deems necessary.
- (ii) If the certifier determines that there is reasonable cause to decertify the DBE, it initiates a decertification proceeding. If it determines that there is not such reasonable cause, it notifies the complainant and the DBE in writing of its decisions and the reasons for it.

- (c) **Notice of intent (NOI).** A certifier's first step in any decertification proceeding must be to email a notice of intent (NOI) to the DBE.
- (1) The NOI must clearly and succinctly state each reason for the proposed action, and specifically identify the supporting evidence for each reason.
 - (2) The NOI must notify the DBE of its right to respond in writing, at an informal hearing, or both.
 - (3) The NOI must inform the DBE of the hearing scheduled on a date no fewer than 30 days and no more than 45 days from the date of the NOI.
 - (4) If the ground for decertification is that the DBE has been suspended or debarred for conduct related to the DBE program, the certifier issues a NOD decertifying the DBE. In this case, there is no NOI or opportunity for a hearing or written response.
- (d) **Response to NOI.**
- (1) If the DBE wants a hearing, it must email the certifier saying so within 10 days of the NOI. If the DBE does not do so, it loses its opportunity for a hearing.
 - (2) The certifier and DBE may negotiate a different hearing date from that stated in the NOI. Parties must not engage in dilatory tactics.
 - (3) If the DBE does not want a hearing, or does not give timely notice to the certifier that it wants one, the DBE may still provide written information and arguments to the certifier rebutting the reasons for decertification stated in the NOI.
- (e) **Hearings.**
- (1) The purpose of the hearing is for the certifier to present its case and for the DBE to rebut the certifier's allegations.
 - (2) The hearing is an informal proceeding with rules set by the hearing officer. The SEDO's attorney, a non-SEDO, or other individuals involved with the DBE may attend the hearing and answer questions related to their own experience or more generally about the DBE's ownership, structure and operations.
 - (3) The certifier must maintain a complete record of the hearing, either in writing, video or audio. If the DBE appeals to DOT under § 26.89, the certifier must provide that record to DOT and to the DBE.
- (f) **Separation of functions.** The certifier must ensure that the decision in a decertification case is made by an individual who did not take part in actions leading to or seeking to implement the proposal to decertify the DBE and is not subject, with respect to the matter, to direction from the office or personnel who did take part in these actions.
- (1) The certifier's method of implementing this requirement must be made part of its DBE program and approved by the appropriate OA.
 - (2) The decisionmaker must be an individual who is knowledgeable about the certification requirements of this part.
- (g) **Notice of decision.** The certifier must send the firm a NOD no later than 30 days of the informal hearing and/or receiving written arguments/evidence from the firm in response to the NOI.

- (1) The NOD must describe with particularity the reason(s) for the certifier's decision, including specific references to the evidence in the record that supports each reason. The NOD must also inform the firm of the consequences of the decision under paragraph (i) of this section and of its appeal rights under § 26.89.
 - (2) The certifier must send copies of the NOD to the complainant in an ineligibility complaint or to the OA that directed the certifier to initiate the proceeding.
 - (3) When sending a copy of an NOD to a complainant other than an OA, the certifier must not include information reasonably construed as confidential business information, unless the certifier has the written consent of the firm that submitted the information.
 - (4) The certifier must make an entry in DOCR's Online Portal within 5 days of the action. The certifier must enter the name of the firm, names(s) of the firm's owner(s), date of decision, and the reason(s) for its decision.
- (h) **Status of firm during proceeding.** A DBE remains certified until the certifier issues a NOD.
- (i) [Reserved]
- (j) **Consequences.** Decertification has the following effects on contract and overall goals and DBE participation:
- (1) When a prime contractor has made a commitment to use a DBE, but a subcontract has not been executed before the certifier issues the NOD as provided for in paragraph (g) of this section, the committed firm does not count toward the contract goal. The recipient must direct the prime contractor to meet the contract goal with an eligible DBE or demonstrate to the recipient that it has made good faith efforts to do so.
 - (2) When the recipient has made a commitment to using a DBE prime contractor, but a contract has not been executed before the certifier issues the NOD, the decertified firm does not count toward the recipient's overall DBE goal.
 - (3) If a prime contractor has executed a subcontract with a DBE before the certifier issues the NOD, the prime contractor may continue to receive credit toward the contract goal for the firm's work. In this case, however, the prime contractor may not extend or add work to the contract without prior written consent from the recipient.
 - (4) If a prime contractor has executed a subcontract with a DBE before the certifier issues the NOD, the prime contractor may continue to receive credit toward the contract goal as set forth in paragraph (j)(3) of this section; however, the portion of the decertified firm's continued performance of the contract must not count toward the recipient's overall goal.
 - (5) If the recipient executed a prime contract with a DBE that was later decertified, the portion of the decertified firm's performance of the contract remaining after the certifier issued the NOD must not count toward an overall goal, but the DBE's performance of the contract may continue to count toward satisfying any contract goal.
 - (6) The following exceptions apply to this paragraph (j):
 - (i) If a certifier decertifies a firm solely because it exceeds the business size standard during the performance of the contract, the recipient may continue to count the portion of the decertified firm's performance of the contract remaining after the certifier issued the NOD toward the recipient's overall goal as well as toward the contract goal.

- (ii) If the certifier decertifies the DBE because it was acquired by or merged with a non-DBE, the recipient may not continue to count the portion of the decertified firm's performance on the contract remaining, after the certifier issued a NOD, toward either the contract goal or the overall goal, even if a prime contractor has executed a subcontract with the firm or the recipient has executed a prime contract with the DBE that was later decertified. In this case, if eliminating the credit of the decertified firm will affect the prime contractor's ability to meet the contract goal, the recipient must direct the prime contractor to subcontract to an eligible DBE to the extent needed to meet the contract goal or demonstrate to the recipient that it has made good faith efforts to do so.

[89 FR 24976, Apr. 9, 2024; 89 FR 55090, July 3, 2024]

§ 26.88 Summary suspension of certification.

- (a) **Definition.** Summary suspension is an extraordinary remedy for lapses in compliance that cannot reasonably or adequately be resolved in a timely manner by other means.
 - (1) A firm's certification is suspended under this part as soon as the certifier transmits electronic notice to its owner at the last known email address.
 - (2) During the suspension period, the DBE may not be considered to meet a contract or participation goal on contracts executed during the suspension period.
- (b) **Mandatory and elective suspensions –**
 - (1) **Mandatory.** The certifier must summarily suspend a DBE's certification when:
 - (i) The certifier has clear and credible evidence of the DBE's or its SEDO's involvement in fraud or other serious criminal activity.
 - (ii) The OA with oversight so directs.
 - (2) **Elective.**
 - (i) The certifier has discretion to suspend summarily if it has clear and credible evidence that the DBE's continued certification poses a substantial threat to program integrity.
 - (ii) An owner upon whom the firm relies for eligibility does not timely file the declaration and gross receipts documentation that § 26.83(j) requires.
- (c) **Coordination with other remedies.** In most cases, a simple information request or a § 26.87 NOI is a sufficient response to events described in paragraphs (b)(1) and (2) of this section. The certifier should consider the burden to the DBE and to itself in determining whether summary suspension is a more prudent and proportionate, effective response. The certifier may *elect* to suspend the same DBE just once in any 12-month period.
- (d) **Procedures –**
 - (1) **Notice.** The certifier must notify the firm, by email, of its summary suspension notice (SSN) on a business day during regular business hours. The SSN must explain the action, the reason for it, the consequences, and the evidence on which the certifier relies.
 - (i) Elective SSNs may not cite more than one reason for the action.
 - (ii) Mandatory SSNs may state multiple reasons.

- (iii) The SSN, regardless of type, must demand that the DBE show cause why it should remain certified and provide the time and date of a virtual show-cause hearing at which the firm may present information and arguments concerning why the certifier should lift the suspension. The SSN must also advise that the DBE may provide written information and arguments in lieu of or in addition to attending the hearing.
- (2) **Hearing.** The hearing date must be a business day that is at least 15 but not more than 25 days after the date of the notice. The DBE may respond in writing in lieu of or in addition to attending the hearing; however, it will have waived its right to a hearing if it does not confirm its attendance within 10 days of the notice and will have forfeited its certification if it does not acknowledge the notice within 15 days. The show-cause hearing must be conducted as a video conference on a standard commercial platform that the DBE may readily access at no cost.
- (3) **Response.** The DBE may provide information and arguments concerning its continuing eligibility until the 15th day following the suspension notice or the day of the hearing, if any, whichever is later. The DBE must email any written response it provides. Email submissions correctly addressed are effective when sent. The certifier may permit additional submissions after the hearing, as long as the extension ends on a business day that is not more than 30 days after the notice.
- (4) **Scope and burdens.**
 - (i) Suspension proceedings are limited to the suspension ground specified in the notice.
 - (ii) The certifier may not amend its reason(s) for summarily suspending certification, nor may it electively suspend the firm again during the 12-month period following the notice.
 - (iii) The DBE has the burden of producing information and/or making arguments concerning its continued eligibility, but it need only contest the reason cited.
 - (iv) The certifier has the burden of proving its case by a preponderance of the evidence. It must issue an NOD within 30 days of the suspension notice or lift the suspension. Any NOD must rely only on the reason given in the summary suspension notice.
 - (v) The DBE's failure to provide information contesting the suspension does not impair the certifier's ability to prove its case. That is, the uncontested evidence upon which the certifier relies in its notice, if substantial, will constitute a preponderance of the evidence for purposes of the NOD.
- (5) **Duration.** The DBE remains suspended during the proceedings described in this section but in no case for more than 30 days. If the certifier has not lifted the suspension or provided a rule-compliant NOD by 4:30 p.m. on the 30th day, then it must lift the suspension and amend applicable DBE lists and databases by 12 p.m. the following business day.

(e) **Recourse** –

- (1) **Appeal.** The DBE may appeal a final decision under paragraph (d)(4)(iv) of this section, as provided in § 26.89(a), but may *not* appeal the suspension itself, unless paragraph (e)(2) of this section applies.
- (2) **Enforcement.**
 - (i) The DBE may immediately petition the Department for an order to vacate a certifier's action if:
 - (A) The certifier sends a second elective SSN within 12 months, or
 - (B) Cites multiple reasons in an elective SSN contrary to paragraph (d)(1)(i) of this section.

- (ii) The DBE may also petition to the Department for an order to compel if the certifier fails to act within the time specified in paragraph (d)(5) of this section.
- (3) In either case, the DBE must:
 - (i) Email the request under the subject line, "REQUEST FOR ENFORCEMENT ORDER" in all caps;
 - (ii) Limit the request to a one-page explanation that includes:
 - (A) The certifier's name and the suspension dates;
 - (B) Contact information for the certifier, the DBE, and the DBE's SEDO(s); and
 - (C) The general nature and date of the firm's response, if any, to the second suspension notice; and
 - (D) The suspension notice(s).

[89 FR 24977, Apr. 9, 2024; 89 FR 55090, July 3, 2024]

§ 26.89 Appeals to the Department.

- (a)
 - (1) Applicants and decertified firms may appeal adverse NODs to the Department.
 - (2) An ineligibility complainant or applicable Operating Administration (the latter by the terms of § 26.87(c)) may appeal to the Department if the certifier does not find reasonable cause to issue an NOI to decertify or affirmatively determines that the DBE remains eligible.
 - (3) Appellants must email appeals as directed in the certifier's decision letter within 45 days of the date of the letter. The appeal must at a minimum include a narrative that explains fully and specifically why the firm believes the decision is in error, what outcome-determinative facts the certifier did not consider, and/or what part 26 provisions the certifier misapplied.
 - (4) The certifier's decision remains in effect until the Department resolves the appeal or the certifier reverses itself.
- (b) When it receives an appeal, the Department requests a copy of the certifier's complete administrative record including a video, audio, or transcript of any hearing, which the certifier must provide within 20 days of the Department's request. The Department may extend this time period when the certifier demonstrates good cause. The certifier must ensure that the administrative record is well organized, indexed, and paginated and the certifier must provide the appellant a copy of any supplemental information it provides to DOT.
- (c)
 - (1) The Department may accept an untimely or incomplete appeal if it determines, in its sole discretion, that doing so is in the interest of justice.
 - (2) The Department may dismiss non-compliant or frivolous appeals without further proceedings.
- (d) The Department will avail itself of whatever remedies for noncompliance it considers appropriate.

- (e) The Department decides only the issue(s) presented on appeal. It does not conduct a *de novo* review of the matter, assess all eligibility requirements, or hold hearings. It considers the administrative record and any additional information that it considers relevant.
- (f)
 - (1) The Department affirms the certifier's decision if it determines that the decision is consistent with applicable rules and supported by substantial evidence.
 - (2) The Department reverses decisions that do not meet the standard in paragraph (f)(1) of this section.
 - (3) The Department need not reverse if an error or omission did not result in fundamental unfairness or undue prejudice.
 - (4) The Department may remand the case with instructions for further action. When the Department specifies further actions, the certifier must take them without delay.
 - (5) The Department generally does not uphold the certifier's decision based on grounds not specified in its decision.
 - (6) The Department resolves appeals on the basis of facts demonstrated, and evidence presented, at the time of the certifier's decision.
 - (7) The Department may summarily dismiss an appeal. Reasons for doing so include, but are not limited to, non-compliance, abuse of process, appellant or certifier request, and failure to state a claim upon which relief can be granted.
- (g) The Department does not issue advisory opinions.
- (h) All decisions described in paragraph (f) of this section are administratively final unless they say otherwise.
- (i) DOCR posts final decisions to its website, available at <https://www.transportation.gov/DBEDecisions>.

[89 FR 24978, Apr. 9, 2024]

§ 26.91 What actions do certifiers take following DOT certification appeal decisions?

- (a) If you are the certifier from whose action an appeal under § 26.89 is taken, the decision is binding. It is not binding on other certifiers.
- (b) If you are a certifier to which a DOT determination under § 26.89 is applicable, you must take the following action:
 - (1) If the Department determines that you erroneously certified a firm, you must remove the firm's eligibility on receipt of the determination, without further proceedings on your part. Effective on the date of your receipt of the Department's determination, the consequences of a removal of eligibility set forth in § 26.87(j) take effect.
 - (2) If the Department determines that you erroneously failed to find reasonable cause to remove the firm's eligibility, you must expeditiously commence a proceeding to determine whether the firm's eligibility should be removed, as provided in § 26.87.
 - (3) If the Department determines that you erroneously declined to certify or removed the eligibility of the firm, you must certify the firm, effective on the date of your receipt of the written notice of Department's determination.

- (4) If the Department determines that you erroneously determined that the presumption of social and economic disadvantage either should or should not be deemed rebutted, you must take appropriate corrective action as determined by the Department.
- (5) If the Department affirms your determination, no further action is necessary.
- (c) Where DOT has upheld your denial of certification to or removal of eligibility from a firm, or directed the removal of a firm's eligibility, other certifiers with whom the firm is certified may commence a proceeding to remove the firm's eligibility under § 26.87. Such certifiers must not remove the firm's eligibility absent such a proceeding. Where DOT has reversed your denial of certification to or removal of eligibility from a firm, other certifiers must take the DOT action into account in any certification action involving the firm. However, other certifiers are not required to certify the firm based on the DOT decision.

[64 FR 5126, Feb. 2, 1999, as amended at 89 FR 24979, Apr. 9, 2024]

Subpart F—Compliance and Enforcement

§ 26.101 What compliance procedures apply to recipients?

- (a) If you fail to comply with any requirement of this part, you may be subject to formal enforcement action under § 26.103 or § 26.105 or appropriate program sanctions by the concerned operating administration, such as the suspension or termination of Federal funds, or refusal to approve projects, grants or contracts until deficiencies are remedied. Program sanctions may include, in the case of the FHWA program, actions provided for under 23 CFR 1.36; in the case of the FAA program, actions consistent with 49 U.S.C. 47106(d), 47111(d), and 47122; and in the case of the FTA program, any actions permitted under 49 U.S.C. chapter 53 or applicable FTA program requirements.
- (b) As provided in statute, you will not be subject to compliance actions or sanctions for failing to carry out any requirement of this part because you have been prevented from complying because a Federal court has issued a final order in which the court found that the requirement is unconstitutional.

§ 26.103 What enforcement actions apply in FHWA and FTA programs?

The provisions of this section apply to enforcement actions under FHWA and FTA programs:

- (a) **Noncompliance complaints.** Any person who believes that a recipient has failed to comply with its obligations under this part may file a written complaint with the concerned operating administration's Office of Civil Rights. If you want to file a complaint, you must do so no later than 180 days after the date of the alleged violation or the date on which you learned of a continuing course of conduct in violation of this part. In response to your written request, the Office of Civil Rights may extend the time for filing in the interest of justice, specifying in writing the reason for so doing. The Office of Civil Rights may protect the confidentiality of your identity as provided in § 26.109(b). Complaints under this part are limited to allegations of violation of the provisions of this part.
- (b) **Compliance reviews.** The concerned operating administration may review the recipient's compliance with this part at any time, including reviews of paperwork and on-site reviews, as appropriate. The Office of Civil Rights may direct the operating administration to initiate a compliance review based on complaints received.

- (c) **Reasonable cause notice.** If it appears, from the investigation of a complaint or the results of a compliance review, that you, as a recipient, are in noncompliance with this part, the appropriate DOT office promptly sends you, return receipt requested, a written notice advising you that there is reasonable cause to find you in noncompliance. The notice states the reasons for this finding and directs you to reply within 30 days concerning whether you wish to begin conciliation.
- (d) **Conciliation.**
- (1) If you request conciliation, the appropriate DOT office shall pursue conciliation for at least 30, but not more than 120, days from the date of your request. The appropriate DOT office may extend the conciliation period for up to 30 days for good cause, consistent with applicable statutes.
 - (2) If you and the appropriate DOT office sign a conciliation agreement, then the matter is regarded as closed and you are regarded as complying. The conciliation agreement sets forth the measures you have taken or will take to ensure compliance. While a conciliation agreement is in effect, you remain eligible for FHWA or FTA financial assistance.
 - (3) The concerned operating administration shall monitor your implementation of the conciliation agreement and ensure that its terms are complied with. If you fail to carry out the terms of a conciliation agreement, you are in noncompliance.
 - (4) If you do not request conciliation, or a conciliation agreement is not signed within the time provided in paragraph (d)(1) of this section, then enforcement proceedings begin.
- (e) **Enforcement actions.**
- (1) Enforcement actions are taken as provided in this subpart.
 - (2) Applicable findings in enforcement proceedings are binding on all DOT offices.

[64 FR 5126, Feb. 2, 1999, as amended at 89 FR 24979, Apr. 9, 2024]

§ 26.105 What enforcement actions apply in FAA programs?

- (a) Compliance with all requirements of this part by airport sponsors and other recipients of FAA financial assistance is enforced through the procedures of Title 49 of the United States Code, including 49 U.S.C. 47106(d), 47111(d), and 47122, and regulations implementing them.
- (b) The provisions of § 26.103(b) and this section apply to enforcement actions in FAA programs.
- (c) Any person who knows of a violation of this part by a recipient of FAA funds may file a complaint under 14 CFR part 16 with the Federal Aviation Administration Office of Chief Counsel.

§ 26.107 What enforcement actions apply to firms participating in the DBE program?

- (a) If you are a firm that does not meet the eligibility criteria of subpart D of this part and that attempts to participate in a DOT-assisted program as a DBE on the basis of false, fraudulent, or deceitful statements or representations or under circumstances indicating a serious lack of business integrity or honesty, the Department may initiate suspension or debarment proceedings against you under 2 CFR parts 180 and 1200.

- (b) If you are a firm that, in order to meet DBE contract goals or other DBE program requirements, uses or attempts to use, on the basis of false, fraudulent or deceitful statements or representations or under circumstances indicating a serious lack of business integrity or honesty, another firm that does not meet the eligibility criteria of subpart D of this part, the Department may initiate suspension or debarment proceedings against you under 2 CFR parts 180 and 1200.
- (c) In a suspension or debarment proceeding brought under paragraph (a) or (b) of this section, the concerned operating administration may consider the fact that a purported DBE has been certified by a recipient. Such certification does not preclude the Department from determining that the purported DBE, or another firm that has used or attempted to use it to meet DBE goals, should be suspended or debarred.
- (d) The Department may take enforcement action under 49 CFR Part 31, Program Fraud and Civil Remedies, against any participant in the DBE program whose conduct is subject to such action under 49 CFR part 31.
- (e) The Department may refer to the Department of Justice, for prosecution under 18 U.S.C. 1001 or other applicable provisions of law, any person who makes a false or fraudulent statement in connection with participation of a DBE in any DOT-assisted program or otherwise violates applicable Federal statutes.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5101, Jan. 28, 2011]

§ 26.109 What are the rules governing information, confidentiality, cooperation, and intimidation or retaliation?

- (a) **Availability of records.**
 - (1) In responding to requests for information concerning any aspect of the DBE program, the Department complies with provisions of the Federal Freedom of Information and Privacy Acts (5 U.S.C. 552 and 552a). The Department may make available to the public any information concerning the DBE program release of which is not prohibited by Federal law.
 - (2) Notwithstanding any provision of Federal or state law, you must not release any information that may reasonably be construed as confidential business information to any third party without the written consent of the firm that submitted the information. This includes applications for DBE certification and supporting information. However, you must transmit this information to DOT in any certification appeal proceeding under § 26.89 of this part or to any other state to which the individual's firm has applied for certification under § 26.85 of this part.
- (b) **Confidentiality of information on complainants.** Notwithstanding the provisions of paragraph (a) of this section, the identity of complainants shall be kept confidential, at their election. If such confidentiality will hinder the investigation, proceeding or hearing, or result in a denial of appropriate administrative due process to other parties, the complainant must be advised for the purpose of waiving the privilege. Complainants are advised that, in some circumstances, failure to waive the privilege may result in the closure of the investigation or dismissal of the proceeding or hearing. FAA follows the procedures of 14 CFR part 16 with respect to confidentiality of information in complaints.
- (c) **Cooperation.** All participants in the Department's DBE program (including, but not limited to, recipients, DBE firms and applicants for DBE certification, complainants and appellants, and contractors using DBE firms to meet contract goals) are required to cooperate fully and promptly with DOT and recipient compliance reviews, certification reviews, investigations, and other requests for information. Failure to do so shall be a ground for appropriate action against the party involved (e.g., with respect to recipients, a

finding of noncompliance; with respect to DBE firms, denial of certification or removal of eligibility and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a contractor which uses DBE firms to meet goals, findings of non-responsibility for future contracts and/or suspension and debarment).

- (d) **Intimidation and retaliation.** If you are a recipient, contractor, or any other participant in the program, you must not intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by this part or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under this part. If you violate this prohibition, you are in noncompliance with this part.

[64 FR 5126, Feb. 2, 1999, as amended at 68 FR 35556, June 16, 2003; 76 FR 5101, Jan. 28, 2011]

§ 26.111 DBE reevaluation process.

- (a) Effective October 3, 2025, each UCP must:
- (1) Identify each currently certified DBE;
 - (2) Provide each firm identified pursuant to subparagraph (a)(1) with the opportunity to submit documentation demonstrating its DBE eligibility under the standards set forth in this part;
 - (3) Determine whether each firm identified pursuant to subparagraph (a)(1) meets the DBE eligibility standards set forth in this part; and
 - (4) Issue a written decision to each firm reevaluated pursuant to subparagraph (a)(3), indicating that it has either been recertified or is decertified.
- (b) The provisions of § 26.87 of this part shall not apply to any action taken pursuant to paragraph (a).
- (c) Each UCP must reevaluate each firm identified pursuant to subparagraph (a)(1) as quickly as practicable and must promptly notify the Department when it has done so. The Department reserves the right to review a UCP's reevaluation process.

[90 FR 47982, Oct. 3, 2025]

Appendix A to Part 26—Guidance Concerning Good Faith Efforts

- I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

- II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (*i.e.*, obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

- A.

- (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

- (2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

- B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

- C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

- D.

- (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.
- (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E.

- (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.
- (2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds

the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in § 26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

- VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts except in design-build procurement.

[79 FR 59600, Oct. 2, 2014, as amended at 89 FR 24979, Apr. 9, 2024]

Appendix B to Part 26 [Reserved]

Appendix C to Part 26—DBE Business Development Program Guidelines

The purpose of this program element is to further the development of DBEs, including but not limited to assisting them to move into non-traditional areas of work and/or compete in the marketplace outside the DBE program, via the provision of training and assistance from the recipient.

- (A) Each firm that participates in a recipient's business development program (BDP) program is subject to a program term determined by the recipient. The term should consist of two stages; a developmental stage and a transitional stage.
- (B) In order for a firm to remain eligible for program participation, it must continue to meet all eligibility criteria contained in part 26.
- (C) By no later than 6 months of program entry, the participant should develop and submit to the recipient a comprehensive business plan setting forth the participant's business targets, objectives and goals. The participant will not be eligible for program benefits until such business plan is submitted and approved by the recipient. The approved business plan will constitute the participant's short and long term goals and the strategy for developmental growth to the point of economic viability in non-traditional areas of work and/or work outside the DBE program.
- (D) The business plan should contain at least the following:
 - (1) An analysis of market potential, competitive environment and other business analyses estimating the program participant's prospects for profitable operation during the term of program participation and after graduation from the program.
 - (2) An analysis of the firm's strengths and weaknesses, with particular attention paid to the means of correcting any financial, managerial, technical, or labor conditions which could impede the participant from receiving contracts other than those in traditional areas of DBE participation.
 - (3) Specific targets, objectives, and goals for the business development of the participant during the next two years, utilizing the results of the analysis conducted pursuant to paragraphs (C) and (D)(1) of this appendix;
 - (4) Estimates of contract awards from the DBE program and from other sources which are needed to meet the objectives and goals for the years covered by the business plan; and
 - (5) Such other information as the recipient may require.

- (E) Each participant should annually review its currently approved business plan with the recipient and modify the plan as may be appropriate to account for any changes in the firm's structure and redefined needs. The currently approved plan should be considered the applicable plan for all program purposes until the recipient approves in writing a modified plan. The recipient should establish an anniversary date for review of the participant's business plan and contract forecasts.
- (F) Each participant should annually forecast in writing its need for contract awards for the next program year and the succeeding program year during the review of its business plan conducted under paragraph (E) of this appendix. Such forecast should be included in the participant's business plan. The forecast should include:
 - (1) The aggregate dollar value of contracts to be sought under the DBE program, reflecting compliance with the business plan;
 - (2) The aggregate dollar value of contracts to be sought in areas other than traditional areas of DBE participation;
 - (3) The types of contract opportunities being sought, based on the firm's primary line of business; and
 - (4) Such other information as may be requested by the recipient to aid in providing effective business development assistance to the participant.
- (G) Program participation is divided into two stages;
 - (1) a developmental stage and
 - (2) a transitional stage. The developmental stage is designed to assist participants to overcome their social and economic disadvantage by providing such assistance as may be necessary and appropriate to enable them to access relevant markets and strengthen their financial and managerial skills. The transitional stage of program participation follows the developmental stage and is designed to assist participants to overcome, insofar as practical, their social and economic disadvantage and to prepare the participant for leaving the program.
- (H) The length of service in the program term should not be a pre-set time frame for either the developmental or transitional stages but should be figured on the number of years considered necessary in normal progression of achieving the firm's established goals and objectives. The setting of such time could be factored on such items as, but not limited to, the number of contracts, aggregate amount of the contract received, years in business, growth potential, etc.
- (I) Beginning in the first year of the transitional stage of program participation, each participant should annually submit for inclusion in its business plan a transition management plan outlining specific steps to promote profitable business operations in areas other than traditional areas of DBE participation after graduation from the program. The transition management plan should be submitted to the recipient at the same time other modifications are submitted pursuant to the annual review under paragraph (E) of this section. The plan should set forth the same information as required under paragraph (F) of steps the participant will take to continue its business development after the expiration of its program term.
- (J) When a participant is recognized as successfully completing the program by substantially achieving the targets, objectives and goals set forth in its program term, and has demonstrated the ability to compete in the marketplace, its further participation within the program may be determined by the recipient.
- (K) In determining whether a concern has substantially achieved the goals and objectives of its business plan, the following factors, among others, should be considered by the recipient:

- (1) Profitability;
 - (2) Sales, including improved ratio of non-traditional contracts to traditional-type contracts;
 - (3) Net worth, financial ratios, working capital, capitalization, access to credit and capital;
 - (4) Ability to obtain bonding;
 - (5) A positive comparison of the DBE's business and financial profile with profiles of non-DBE businesses in the same area or similar business category; and
 - (6) Good management capacity and capability.
- (L) Upon determination by the recipient that the participant should be graduated from the developmental program, the recipient should notify the participant in writing of its intent to graduate the firm in a letter of notification. The letter of notification should set forth findings, based on the facts, for every material issue relating to the basis of the program graduation with specific reasons for each finding. The letter of notification should also provide the participant 45 days from the date of service of the letter to submit in writing information that would explain why the proposed basis of graduation is not warranted.
- (M) Participation of a DBE firm in the program may be discontinued by the recipient prior to expiration of the firm's program term for good cause due to the failure of the firm to engage in business practices that will promote its competitiveness within a reasonable period of time as evidenced by, among other indicators, a pattern of inadequate performance or unjustified delinquent performance. Also, the recipient can discontinue the participation of a firm that does not actively pursue and bid on contracts, and a firm that, without justification, regularly fails to respond to solicitations in the type of work it is qualified for and in the geographical areas where it has indicated availability under its approved business plan. The recipient should take such action if over a 2-year period a DBE firm exhibits such a pattern.

Appendix D to Part 26—Mentor-Protégé Program Guidelines

- (A) The purpose of this program element is to further the development of DBEs, including but not limited to assisting them to move into non-traditional areas of work and/or compete in the marketplace outside the DBE program, via the provision of training and assistance from other firms. To operate a mentor-protégé program, a recipient must obtain the approval of the concerned operating administration.
- (B)
- (1) Any mentor-protégé relationship shall be based on a written development plan, approved by the recipient, which clearly sets forth the objectives of the parties and their respective roles, the duration of the arrangement and the services and resources to be provided by the mentor to the protégé. The formal mentor-protégé agreement may set a fee schedule to cover the direct and indirect cost for such services rendered by the mentor for specific training and assistance to the protégé through the life of the agreement. Services provided by the mentor may be reimbursable under the FTA, FHWA, and FAA programs.
 - (2) To be eligible for reimbursement, the mentor's services provided and associated costs must be directly attributable and properly allowable to specific individual contracts. The recipient may establish a line item for the mentor to quote the portion of the fee schedule expected to be provided during the life of the contract. The amount claimed shall be verified by the recipient and paid on an incremental basis representing the time the protégé is working on the contract. The total individual contract figures accumulated over the life of the agreement shall not exceed the amount stipulated in the original mentor/protégé agreement.

- (C) DBEs involved in a mentor-protégé agreement must be independent business entities which meet the requirements for certification as defined in subpart D of this part. A protégé firm must be certified *before* it begins participation in a mentor-protégé arrangement. If the recipient chooses to recognize mentor/protégé agreements, it should establish formal general program guidelines. These guidelines must be submitted to the operating administration for approval prior to the recipient executing an individual contractor/ subcontractor mentor-protégé agreement.

THIS PAGE LEFT INTENTIONALLY BLANK

DAVIS-BACON ACT WAGE RATE SCHEDULE

**STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY – HIGHWAY
NH20260040 05/18/2026**

THIS PAGE INTENTIONALLY LEFT BLANK

General Decision Number: NH20260040 05/18/2026

State: New Hampshire

Construction Types: Highway

Counties: New Hampshire Counties of
Rockingham

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

SUNH2019-009 11/22/2022

	Rates	Fringes
TRUCK DRIVER: LOWBOY TRUCK	\$ 22.76	5.07
TRUCK DRIVER: DUMP TRUCK.....	\$ 19.47	3.22
TRAFFIC CONTROL: FLAGGER.....	\$ 13.17	1.37
PAINTER: SPRAY.....	\$ 27.29	6.95
OPERATOR: ROLLER.....	\$ 23.35	5.98
OPERATOR: POUNDER.....	\$ 36.82	10.41
OPERATOR: PAVER (ASPHALT, AGGREGATE, AND CONCRETE).....	\$ 25.32	6.23
OPERATOR: MILLING MACHINE.....	\$ 28.55	6.88
OPERATOR: MECHANIC.....	\$ 24.53	8.36
OPERATOR: LOADER.....	\$ 25.69	6.28
OPERATOR: GRADER/BLADE.....	\$ 27.77	6.79
OPERATOR: CRANE.....	\$ 29.56	3.29
OPERATOR: BULLDOZER.....	\$ 25.99	6.75
OPERATOR: BUCKET.....	\$ 30.00	0.00
OPERATOR: BROOM/SWEEPER.....	\$ 25.73	0.00
OPERATOR: BOBCAT/SKID STEER/SKID LOADER.....	\$ 21.54	7.11
OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE.....	\$ 26.98	6.50
OPERATOR: AUGER.....	\$ 26.07	3.42
LABORER: PIPELAYER.....	\$ 19.66	5.28
LABORER: LANDSCAPE.....	\$ 18.06	0.00
LABORER: COMMON OR GENERAL.....	\$ 19.15	2.60
LABORER: ASPHALT, INCLUDES RAKER, SHOVELER, SPREADER AND DISTRIBUTOR.....	\$ 18.30	2.75
IRONWORKER, STRUCTURAL.....	\$ 34.45	17.20
IRONWORKER, REINFORCING.....	\$ 22.71	8.19
INSTALLER - GUARDRAIL.....	\$ 31.12	9.72
HIGHWAY/PARKING LOT STRIPING: PAINTER.....	\$ 21.63	0.00
FENCE ERECTOR (CHAIN LINK FENCE).....	\$ 19.59	0.00
ELECTRICIAN.....	\$ 28.08	2.78
CEMENT MASON/CONCRETE FINISHER.....	\$ 22.44	0.00

CARPENTER, EXCLUDES FORM WORK.....	\$ 26.09	2.51
CARPENTER (FORM WORK ONLY).....	\$ 24.02	2.82

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

=====

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

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 □SU□, □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:

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

THIS PAGE INTENTIONALLY LEFT BLANK

SUPPLEMENTAL PROVISIONS

THIS PAGE INTENTIONALLY LEFT BLANK

SUPPLEMENTAL PROVISIONS

I. CONTRACT DOCUMENT DRAWINGS

Attention shall be directed to the General Provisions, FAA Required Contract Provisions for AIP Project, and these Supplemental Provisions for complete definition and enumeration of the Contract Documents. Attention shall be paid to the drawings, specifications, and addenda and other items enumerated in Contract Agreement which also form a part of this Contract.

A. Dimensions

The drawings are made to scale, unless otherwise noted, but all working dimensions shall be taken from the figured dimensions or by actual measurements at the work, and in no case by scaling the prints. The CONTRACTOR (and his/her subcontractors) shall study and compare all drawings and verify all figures before laying out or constructing the work and shall be responsible for any and all errors in the Contract work which might have been avoided thereby. Whether or not an error is believed to exist, deviations from the drawings and the dimensions given thereon shall be made only after approval in writing is obtained from the Engineer. The CONTRACTOR (and his/her subcontractors) shall take all measurements of existing established conditions notwithstanding the figured dimensions are not in agreement with the CONTRACTOR's (or his/her subcontractors) measurements, the Engineer shall be immediately notified and the Engineer will promptly adjust same.

B. Diagrammatic Drawings

1. Work and Materials Included

Plans or drawings where the work is shown diagrammatically indicate approved working systems. Every piece of material, fitting, fixture or small equipment is not shown nor is every difficulty or interference that may be encountered. To carry out the true intent and purpose of the Contract Documents, all necessary parts to make complete, approved working systems, or installations shall be included as if detailed on the drawings.

2. Location of Construction

The location of construction or installations shown on the drawings, unless exactly dimensioned, shall be considered as approximate only. The CONTRACTOR (and his/her subcontractors) shall adjust the position of the construction and installation in accordance with good working practices and as directed or approved by the Engineer to meet interferences, provide proper clearance and provide proper access space for operations and maintenance.

C. Typical Details

Where shown on the drawings, typical details shall apply to each and every item of the Contract work where such items are incorporated and the detail is applicable. Unless noted otherwise, such typical details shall be applicable in full.

II. SPECIAL INSPECTION REQUIREMENTS

A. The project will be financially aided by grants from the Federal Aviation Administration (U. S. Government) and from the New Hampshire Department of Transportation, Bureau of Aeronautics. All work done under this Contract will be subject to the rules and regulations and the approval of said Administration and Department. The CONTRACTOR shall provide authorized representatives of said Administration and Department with proper access to the work for inspection purposes at any time during the preparation for or progress on the Contract work.

B. The Contractor shall throughout the course of the work give proper notice to the Engineer and all others having jurisdiction of his/her schedule of operations. It shall be the Contractor's responsibility to have all parts of the work inspected and approved by the proper authorities as required.

C. All applicable inspection and certification requirements of the Standard Specifications referred to herein

will be enforced, in addition to any other inspections or certifications deemed necessary by the Engineer.

III. "OR EQUAL" CLAUSE

Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturer's or vendor's names, trade names, catalogue numbers, etc., it is intended merely to establish a standard; and, any material, article, or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so proposed, is, in the opinion of the Engineer, of equal substance and function. It shall not be purchased or installed by the Contractor without the Engineer's written approval. See FAA General Contract Provisions Section 60-03 for further information.

IV . CONTRACTOR AGREEMENT NEGLIGENCE & WRONGDOING INDEMNIFICATION DURING PROSECUTION OF THE WORK

In consideration of the utilization of CONTRACTOR's services by the City of Manchester, Department of Aviation (Owner) – Manchester-Boston Regional Airport (AIRPORT) and other valuable considerations, the receipt of which is hereby acknowledged, CONTRACTOR agrees that all persons furnished by CONTRACTOR shall be considered the CONTRACTOR's employees or agents and that CONTRACTOR shall be responsible for payment of all unemployment, social security and other payroll taxes including contributions from them when required by law.

CONTRACTOR hereby agrees to protect, defend, indemnify and hold the Owner, AIRPORT and Architect/Engineer and their respective employees, agents, officers and servants free and harmless **from their acts of negligence or wrongdoing to add airport operational risks during construction** and for any and all associated losses, claims, liens, demands and causes of action of every kind and character including but not limited to, the amounts of judgements, penalties, interests, court costs, legal fees and all other expenses incurred by the Owner, AIRPORT or Architect/Engineer arising in favor of any party, including claims, liens, debts, personal injuries, including employees of the Owner, AIRPORT and Architect/Engineer death or damages to property (including property of the Owner, AIRPORT and Architect/Engineer) and without limitation by enumeration, all other claims or demands of every character occurring or in any way incident to, in connection with or arising or directly indirectly out of the Contract Agreement for such negligence or wrongdoing in their performance by adding airport operational risk and any resulting associated costs.

CONTRACTOR agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suits at the sole handle, of the CONTRACTOR. CONTRACTOR also agrees to bear all other costs and expense related thereto. This provision is not intended to create any cause of action in favor of any third party against CONTRACTOR or the Owner/AIRPORT or to enlarge in any way the CONTRACTOR'S liability, but is intended solely to provide for indemnification of the Owner/AIRPORT from liability for damages or injuries to third persons or property arising from CONTRACTOR'S negligent or wrongdoing performance hereunder.

V. INSURANCE REQUIREMENTS

CONTRACTOR shall maintain in effect certain insurance coverage, which is described as follows:

COVERAGE	LIMIT OF LIABILITY
Commercial General Liability: Bodily and Personal Injury; Products and Completed Operations Coverage	Bodily Injury and Property Damage, Combined Limits of \$2,000,000 each Occurrence, and \$5,000,000 aggregate
Automobile Liability	\$1,000,000 combined single limit for: (1) Any Auto or (2) All Owned, Hired, and Non-Owned Autos
Excess Liability Coverage, or Umbrella Coverage, for Commercial General Liability and Automobile Liability	\$5,000,000.00
All-Risks or Builder's Risk	Not Applicable for this Project
Workers' Compensation	Statutory for Workers' Compensation
Aggregate Limits are per 12-month policy period unless otherwise indicated.	

At all times during the term of the Contract Agreement and any extensions or renewals, CONTRACTOR shall provide and maintain insurance coverage that meets the Contract Agreement requirements. Prior to beginning performance under this Contract Agreement or any extensions thereof, or at any time upon the AIRPORT'S request, or each time coverage is renewed or updated, the CONTRACTOR shall furnish to the AIRPORT current certificates of insurance, endorsements, all policies, or other policy documents evidencing adequate coverage, as necessary. CONTRACTOR shall be responsible for and pay (a) all premiums and (b) any claims or losses to the extent of any deductible amounts. CONTRACTOR waives any claim it may have for premiums or deductibles against the OWNER, its officers, agents, or employees.

Subcontractor's Commercial General Liability and Property Damage Insurance and Automobile Liability Insurance

The CONTRACTOR shall either: (a) require each of his/her subcontractors to procure, and to maintain during the life of his/her subcontract, Subcontractor's Public Liability and Property Damage Insurance and Automobile Liability and Property Damage Insurance of the types and amount specified above, or (b) insure the activities of all subcontractors under the CONTRACTOR's own policies as specified above.

Form of Insurance. The form of the insurance shall be approved by the AIRPORT; such approval (or lack thereof) shall never (a) excuse non-compliance with the terms of this Section, or (b) waive or estop the Owner from asserting its rights to terminate the Contract Agreement. The policy issuer shall (1) have a Certificate of Authority to transact insurance business in the State of New Hampshire, or (2) be an eligible non-admitted insurer in the State of New Hampshire and have a Best's rating of at least B+, and a Best's Financial Size Category of Class VI or better, according to the most current Best's Key Rating Guide.

Required Coverage. The Owner, AIRPORT and the Architect/Engineer shall be an Additional Insured under this Contract Agreement, and all policies, except Worker's Compensation, shall explicitly name the Owner, AIRPORT and Architect/Engineer as an Additional Insured. The Owner, AIRPORT and Architect/Engineer shall enjoy the same coverage as the Named Insured without regard to other contract provisions. CONTRACTOR waives any claim or right of subrogation to recover against the OWNER, its officers, agents, or employees. Each of CONTRACTOR'S insurance policies, except Worker's Compensation, must contain coverage waiving such claim. Each policy, except Workers' Compensation, must also contain an endorsement that the policy is primary to any other insurance available to the Additional Insured with respect to claims arising under the Contract Agreement.

Notice. CONTRACTOR SHALL GIVE 30 DAYS' ADVANCE WRITTEN NOTICE TO THE AIRPORT IF ANY OF ITS INSURANCE POLICIES ARE CANCELED OR NON-RENEWED. Within the 30-day period, CONTRACTOR shall provide other suitable policies in order to maintain the required coverage. If CONTRACTOR does not comply with this requirement, the AIRPORT, at their sole discretion, may immediately suspend CONTRACTOR from any further performance under the Contract Agreement and begin procedures to terminate the Contract Agreement for default.

VI. SPECIAL HAZARDS

The Contractor's and Subcontractor's Public Liability, Property Damage, Automobile Liability, and Automobile Property Damage insurance coverages shall provide adequate protection against the following special hazards:

- A. Damage or injury to aircraft or persons in aircraft operating on or near the project site, resulting from any operations under this Contract.
- B. Damage or injury resulting from the use, storage, handling or transportation of explosives in connection with the Contract work, as applicable.

VII. PROTECTION OF LIVES AND HEALTH

In order to protect the lives and health of his/her employees under the contract, the CONTRACTOR shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. He/she alone shall be responsible for the safety, efficiency, and adequacy of his/her plant, appliances, and methods, and for any damage which may result from their failure of their improper construction, maintenance or operation.

VIII. PRICING OF CONSTRUCTION CONTRACT CHANGE ORDER OR SUPPLEMENTAL AGREEMENT DOCUMENTATION

A. GENERAL

1. The contract language contained in this Section will supplement and take precedence over all other Change Order (CO) or Supplemental Agreement (SA) pricing contract provisions in the Contract Documents provided by the Owner, Design-Builder (CONTRACTOR), Construction Manager (CONTRACTOR), General Contractor (CONTRACTOR) and/or Architect/Engineer. It is understood that these contract provisions will govern the pricing and administration of all change order proposals to be submitted by the Construction Manager and/or the General Contractor and/or the Trade Contractors and/or the Subcontractors and/or all other lower tier sub-subcontractors (All referred to as "CONTRACTOR" in this Section). In the event of a conflict between the other Contract Documents used for the Project, the change order pricing contract provisions in this Section shall govern.
2. Contractor agrees that it will incorporate the provisions of this Section into all agreements with lower tier Contractors. It is understood that these change order pricing provisions apply to all types of contracts and/or subcontracts specifically including lump sum (or fixed price contracts), and/or, unit price contracts. It is further understood that these change order provisions will apply to all methods of change order pricing specifically including lump sum change order proposals and unit price change order proposals.
3. Whenever change order or Supplemental Agreement proposals to adjust the contract price become necessary, the Owner will have the right to select the method of pricing to be used by the Contractor in accordance with the pricing provisions found in this Section. The options will be (1) lump sum change order proposal, or (2) unit price change order proposal as defined in the following provisions.
4. The words "Change Order" in this Section applies to both Change Orders and Supplemental Agreements as defined by Section 10-12 and 10-48 of the General Provisions of these specifications.

B. CHANGE ORDER TYPES

1. Lump Sum Change Orders. Provides a single lump sum amount for extra work that comprises of multiple task and a well-defined amount of effort.
2. Unit Price Change Orders. Provides a per unit amount for a single task that will be measured for payment upon completion of the task.
3. If a CO proposal is not acceptable to the Owner and prompt agreement between the two parties cannot be reached, the Owner at its sole option, may order the Contractor to proceed with the work

on a "Time and Material" basis. The resulting CO will be treated as a Lump Sum CO for determining cost. A Time and Material worksheet will be used to track time and materials on a daily basis and must be signed by the Contractor and the Engineer each day.

C. CHANGE ORDER PROPOSALS

1. The following will apply to all types of Change Orders:
 - a. For all labor the Contractor shall receive the rate of the personnel reasonably anticipated to perform the work, or in the case of Time and Materials, the wage actually paid as shown by his certified payroll, which shall be at least the minimum rate established by the Contract Documents.
 - i. The labor rate shall include allowable overhead labor burden defined as employer's net actual cost of payroll taxes (FICA, Medicare, SUTA, FUTA), net actual cost for employer's cost of union benefits (or other usual and customary fringe benefits if the employees are not union employees), and net actual cost to employer for worker's compensation insurance.
 - ii. For all foremen in direct charge of the work the Contractor shall receive the actual wage paid the foremen, as shown on (his certified payroll). No part of the salary or expense of anyone above the grade of foreman and having general supervision of the work will be included in the labor item.
 - iii. Contractor shall receive the actual cost of such labor and labor burden, to which shall be added a maximum of fifteen percent (15%) of the sum thereof.
 - b. For all materials used by the Contractor, he shall receive the actual cost of such materials, less any allowable cash discounts, delivered on the work, including delivery charges as shown by original receipted bills, to which shall be added a maximum of five percent (5%) of the sum thereof.
 - c. For any major power operated machinery, trucks or equipment, which it may be necessary to use, the Owner shall allow the Contractor the rental price as set forth in the standard schedule of equipment rental prices established by the Rental Rate Blue Book for Construction Equipment, current edition as published by Dataquest, or equivalent publication.
 - i. Should the proper completion of the work require equipment of a type not covered by the above-mentioned schedule, the Owner shall allow the Contractor a reasonable rental price to be agreed upon in writing before the work is begun.
 - ii. No percentage shall be added to the amounts of any of the above stated equipment rental prices, but the price as set forth in the schedule or agreed upon shall be total compensation allowed for the use of such equipment.
 - iii. Major equipment is defined as tools and equipment with an individual purchase cost of more than \$750.
 - d. For all cost of all insurance, bonds, and taxes imposed by law on labor employed on the work, the Contractor shall receive the actual amount paid without being marked up.
 - i. In the event the Contractor has been required to furnish comprehensive general liability insurance and/or performance and/or payment bonds as part of the base contract price, a final contract change order will be processed to account for the Contractor's net increase or decrease in comprehensive general liability insurance costs and/or bond premium costs associated with change orders to Contractor's base contract price.
 - e. All extra work performed by a subcontractor will be according to the above requirements as if the work were performed directly by the Contractor. Extra work performed by a subcontractor may be marked up by the General Contractor by a maximum of five percent (5%). If there are second and third tier subcontractors, subcontractors can markup lower tier subcontractors by a maximum of five percent (5%), the aggregate mark-up of all subcontractors involved shall be a maximum of twenty percent (20%), including the General Contractors markup. The maximum mark-up for all labor, materials and subcontractors is twenty-five percent (25%).
 - f. In no event will any lump sum or percentage amounts for "contingency" be allowed to be added as a separate line item in change order estimates. Unknowns attributable to labor hours will be accounted for when estimating labor hours anticipated performing the work. Unknowns attributable to material scrap and waste will be estimated as part of material costs.
 - g. The Contractor's proposals for changes in the contract amount or time shall be submitted within

seven (7) calendar days of the Owner's request, unless the Owner extends such period of time due to the circumstances involved. If such proposals are not received in a timely manner, if the proposals are not acceptable to Owner, or if the changed work should be started immediately to avoid damage to the project or costly delay, the Owner may direct the Contractor to proceed with the changes without waiting for the Contractor's proposal or for the formal change order to be issued. In the case of an unacceptable Contractor proposal, the Owner may direct the Contractor to proceed with the changed work on a time and material basis with an agreed upon "not-to-exceed" price for the work to be performed. Such directions to the Contractor by the Owner shall be confirmed in writing within seven (7) calendar days. The cost or credit, and or time extensions will be determined by negotiations as soon as practical thereafter and incorporated in a Change Order to the Contract.

D. UNAUTHORIZED CHANGES IN THE WORK

1. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented.

IX. AIRPORT SECURITY

A. DESCRIPTION

1. The Contractor shall comply with all applicable federal (FAA, TSA, etc.), state and local laws. This includes but is not limited to: 14 CFR Part 77 (Obstructions to Navigable Airspace), 14 CFR Part 139 (Certification of Airports), 49 CFR 1540 (Civil Aviation Security – General Rules) and 49 CFR Part 1542 (Airport Security), as amended.
2. Provide protection for materials, tools and equipment being employed on the Project including the tools of workers. The Owner shall not be held to have incurred any liability for loss of, and damage to, materials, tools and equipment of the Contractor, or of those employed by him, by contract or otherwise.
3. The Contractor shall employ such security service as he may deem necessary to properly protect and safeguard the work. The Owner shall not in any way be liable or responsible for the damage or loss to the work due to trespass or theft.
4. The Owner may provide such security service as they deem necessary to protect his/her interest during the progress of the work. Any protection provided by the Owner shall not in any way relieve the Contractor of the responsibility for the safety of the work and acceptance thereof.
5. The Contractor shall be responsible for controlling access to the work area and insuring that airport security is maintained at all times, including set-back security clearances enforced at the Airport, parking garage(s) and parking lots. The Federal Aviation Administration (FAA) and Transportation Security Administration (TSA) may impose fines of \$11,000.00 or more for security violations and incursions into active aircraft operation areas. In addition, the Owner may impose additional fines and/or penalties for such violations. The Contractor shall pay all fines assessed against the Airport due to violations caused by the Contractor and his personnel, subcontractors, and vendors.
6. Parking of personal cars at the work sites will not be permitted, except in areas indicated on Contract Drawings. The Contractor, as a subsidiary obligation shall provide adequate and safe transportation for his employees from the area where the cars are parked, to and from the work area. Employees and drivers of work vehicles will be instructed as to proper access roads and will be cautioned that unauthorized use of aircraft pavements or other areas outside the designated work area may lead to their arrest and subsequent payment of fines.
7. Trucks delivering material to an actual work area will be subject to search and provided with an escort.
8. All orders for material shall instruct the supplier of the procedures to be followed.
9. The Contractor shall submit to the Owner within ten (10) days after signing of the contract a written Safety Plan Compliance Document (SPCD) detailing his methods of operations including but not limited the precautions the Contractor proposes for the control of vehicle traffic including flag person, signs, escorts and any other measures the Contractor proposes. After Owner approval of the operations, the Contractor shall follow it explicitly. The Owner may close the work at any time this schedule is violated so as not to endanger airport or aircraft operations. Such closure shall not be

considered a valid reason for extending the contract time or for any claim for extras by the Contractor.

10. All security arrangements shall be subject to the approval of the Owner.
11. The Contractor's personnel and vehicles will not have access to the entire airport, but shall be limited to work areas and the staging area.
12. In addition to the information contained herein, the Contractor shall reference the requirements of the Manchester-Boston Regional Airport Safety and Security Phasing Plan, including for the project badging and gate security requirements.
13. This section contains supplemental information and/or requirements for Airport Improvement Program (AIP) projects on the AOA.

B. PROTECTION

1. Continuously maintain protection as necessary to protect the work as a whole and in part, and adjacent property and improvements from accidents, injuries or damage.
2. Properly protect the work:
 - a. With lights approved by the Owner, guard rails, temporary covers, and barricades.
 - b. Enclose excavations with proper barricades.
 - c. Brace and secure all parts of the work against storm and accident.
 - d. Provide such additional forms of protection which may be necessary under existing circumstances.
3. Provide and maintain in good condition all protective measures required to adequately protect the public from hazards resulting from the work and to exclude unauthorized persons from the work area. When regulated by Building Code, OSHA or other authority, such legal requirements for protection shall be considered as minimum requirements; be responsible for the protection in excess of such minimum requirements as required

C. WORK IN THE AIR OPERATIONS AREA

1. If the Contractor is required to perform work within the AIR OPERATIONS AREA (AOA), the Contractor shall be required to follow the requirements outlined herein and in accordance with Section X. entitled Security Badging Requirements. These requirements include, but are not limited to, the following:
 - a. Badging and identifying Contractor personnel;
 - b. Securing access point to the AOA.

D. CONTROL OF SITE

1. The Contractor shall ensure that no alcohol, firearm, weapon or controlled substance enters or is used at the Project site. The Contractor shall immediately remove from the site and terminate the employment of any employee found in violation of this provision.
2. Install approved temporary enclosure of partially completed construction areas to prevent unauthorized entrance, vandalism and theft.
3. Secure temporary storage areas as required to prevent theft.
4. To the extent possible through reasonable control and protection methods, supervise performance of work in a manner and by means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposures during construction period. Such exposures include (where applicable, but not by way of limitation) static loading, dynamic loading, internal pressures, external pressures, high or low temperatures, thermal shock, high or low humidity, air contamination or pollution, water, solvents, chemicals, light, radiation, puncture, abrasion, heavy traffic, soiling, bacteria, insect infestation, combustion, electrical current, high-speed operation, improper lubrication, unusual wear, misuse, incompatible interface, destructive testing, misalignment excessive weathering, unprotected storage, improper shipping and handling, theft and vandalism.
5. The airfield is a completely secured and controlled access site. The primary means for controlling access to the site is the surrounding fence and gates. For any given work area, the access for vehicles, equipment, materials, and manpower shall be restricted to the routes depicted in the plans and in the Construction Safety and Phasing Plan (CSPP).

6. Controlled access points to the work area that impact the AOA shall be manned by an approved and trained gate guard. The Contractor shall provide gate guard(s) to control access to the work areas through gates that are identified as contractor access points. See Item M-001 Gate Guard for further information. Any and all vehicles entering the airfield are subject to search by gate guards or Owner personnel.
7. Failure to provide sufficient security and safety can result in serious penalties and fines of up to \$10,000 per incident. If for any reason, the Owner is fined for actions or inactions of the Contractor, the Contractor shall be liable for any and all fines incurred.

X. SECURITY BADGING REQUIREMENTS

A. AIRPORT SECURITY IDENTIFICATION DISPLAY AREA (SIDA) BADGES:

Full-time competent and responsible employees of the Contractor, such as superintendents and foremen, and all subcontractors supervisory personnel being on-site for at least 2 continuous weeks, shall obtain an Airport SIDA badge. The SIDA badge requires fingerprint screening, a criminal history check, and successful completion of security training upon receiving approval to undergo the training. The badge application process may take up to fourteen (14) days, the Contractor shall plan accordingly.

The Contractor shall have a minimum of 1/2 (50%) of on-site workers submit to the badging process, unless otherwise approved by MHT Operations Management. Badged individuals must display their Airport issued badges on their outermost garment at all times while on the airfield.

At all times while on the airfield, non-badged workers must be escorted by a badged worker and comply with the following:

1. Within 100 ft of a badged worker
2. Within visual contact of a badged worker
3. Able to respond to the requests of a badged worker
4. Able to command the attention of a badged worker

Any non-badged workers will not be allowed on the airfield without valid picture identification acceptable to the TSA (current and valid driver's license, passport, etc.), and shall remain with a badged worker or Airport escort at all times. All non-badged workers under escort of a badged worker and will be required to have a temporary construction badge approved by the Owner.

Refer to the Construction Safety and Phasing Plan (CSPP) documents for more information associated with obtaining badges and vehicle permit stickers or inspections. The Contractor will need to appoint a badge coordinator that will coordinate with the Airport Security Badging Office. The cost for a New Badge application process and training is \$45 per applicant and will be billed directly to the Contractor.

The Contractor is responsible for the cost of security badges, including replacements thereof at no cost to the Owner. The Contractor's personnel and its Subcontractor's personnel losing badges will be charged for replacement and/or lost badges at the current rate at no cost to the Owner. All badging costs (including the complete application process and training) shall be considered incidental to the cost of the contract and shall not be measured or paid for separately.

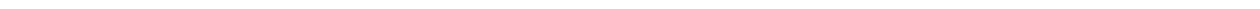
B. IDENTIFICATION OF EMPLOYEES

The Contractor shall provide the Owner with a list of all employees on the job site and their badge number. The list shall include subcontractors and temporary badged employees. The list shall be updated and submitted weekly.

END OF SECTION

TECHNICAL SPECIFICATIONS

THIS PAGE INTENTIONALLY LEFT BLANK



TECHNICAL SPECIFICATIONS
TABLE OF CONTENTS

M-100	Gate Guard
M-200	Maintenance and Protection of Traffic
C-100	Contractor Quality Control Program (CQCP)
C-102	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control
C-105	Mobilization
P-101	Preparation/Removal of Existing Pavements
P-403	Asphalt Mix Pavement Surface Course
P-603	Emulsified Asphalt Tack Coat
P-605	Joint Sealants for Pavements
P-610	Concrete for Miscellaneous Structures
P-620	Runway and Taxiway Marking
P-621	Saw-Cut Grooves
T-901	Seeding
T-905	Topsoil
T-908	Mulching
L-125	Installation of Airport Lighting Systems
S-001	Installation of Proposed EMAS System
P-555	EMAS Installation Plan

THIS PAGE LEFT BLANK INTENTIONALLY

**ITEM M-100
GATE GUARD**

CONTRACT DOCUMENTS

100-0.1 This section of these Specifications is a part of the Contract Documents as defined in the General Provisions. All applicable parts of the balance of the Contract Documents are equally as binding for this section as for all other sections.

DESCRIPTION

100-1.1 Under this item, the Contractor shall coordinate with Manchester-Boston Regional Airport and their approved gate guard security company to provide a gate guard or gate guard(s) for the project in accordance with the requirements of the plans, specifications and Construction Safety and Phasing Plan (CSPP). Depending on the activity of the day, the Contractor may require additional MHT approved gate guards or qualified contractor person or persons to efficiently process vehicles entering the work area. The Contractor shall coordinate with the gate guard security company regarding scheduling the gate guard(s) and when the gate guard(s) will be required to be performing their duties.

MATERIALS

100-2.1 Not Used.

CONSTRUCTION DETAILS

100-3.1 Not Used.

METHOD OF MEASUREMENT

100-4.1 Measurement for gate guards will be based on a lump sum. There shall be no separate measurement for the Contractor's cost to coordinate and administer the scheduling of the gate guards, and it shall be considered incidental to the overall project. There shall be no additional compensation to the Contractor for providing gate guards outside of the allowable work hours, should the Contractor request and receive approval to work additional hours (such as nights or weekends).

BASIS OF PAYMENT

100-5.1 The amount paid to the Contractor shall be based upon the contract lump sum price for "Gate Guard". Partial payments will be allowed based on a percentage of completion of the 60-calendar day duration.

Payment will be made under:

Project Item M-100-1 Gate Guard per Lump Sum

END OF ITEM M-100

THIS PAGE LEFT BLANK INTENTIONALLY

ITEM M-200
MAINTENANCE AND PROTECTION OF TRAFFIC

CONTRACT DOCUMENTS

200-0.1 This section of these Specifications is a part of the Contract Documents as defined in the General Provisions. All applicable parts of the balance of the Contract Documents are equally as binding for this section as for all other sections.

DESCRIPTION

200-1.1 GENERAL. This work shall consist of maintaining aircraft and vehicular traffic and protecting the public from damage to person and property within the limits of and for the duration of the Contract.

The Contractor shall comply with all guidelines regarding construction safety set forth in FAA Advisory Circular 150/5370-2 (latest revision), *Operational Safety on Airports During Construction* and Special Provisions.

The following items are specifically included without limiting the generality implied by these Specifications and the Contract Drawings.

- Compliance with requirements of the Construction Safety and Phasing Plan (CSPP)
- Preparation of the Safety Plan Compliance Document with submission to the Engineer and Airport for review and implementation. This document will address all construction phasing compliance requirements.
- Providing, installing, relocating (as necessary), maintenance and removal of ballasted lighted safety barricades, lighted runway closure markers, no entry signs, warning signs, hazard markings/markers, and taxiway closure markers. The materials and equipment are to be supplied by the Contractor. All barricades, lighted runway closure markers, temporary signs, or other materials furnished for the project by the Contractor will remain the property of the Contractor at the completion of the project.
- Prepare temporary haul route and roadway traffic control plan, including construction phasing requirements, for review and approval by the Resident Project Representative (RPR) and Owner.
- Providing qualified flag persons, if required, at the locations shown on the plans or as directed by the Owner's representative.
- Providing a qualified Contractor person or persons to supplement and assist the MHT approved Security Gate Guard, as outlined in Section M-100. The Contractor shall determine the number of personnel at the gate location to efficiently control access to the site after proper screening of personnel working within the Airport Operations Area (AOA). Each person entering the AOA will have their MHT issued badge confirmed with the MHT Communication Center that it is valid. All others entering the AOA will be issued a temporary badge while in the AOA that must be returned upon leaving the AOA.
- Locating and marking of existing underground electric and lighting, including all other types of airfield circuits or FAA communication lines, within the project work areas.
- Staged or phased construction as outlined in the Contract Documents or as directed by the RPR and Owner.
- Off-peak construction periods, including both day and night shift work

- Temporary construction lighting for night shift construction periods, if applicable.
- Installation, relocation, maintenance and removal of temporary work zone delineation markers, including the furnishing of stakes and cones which will remain the property of the Contractor at the completion of the project.
- Temporary alteration or decommissioning of any existing Runway or Taxiway lighting and signage and coordination with MHT Ops/FAA Tech Ops for NAVAIDs shutdowns, if required.
- Provision of materials, maintenance, and removal of temporary lights and lighting circuits, including “jumpers” of circuits as required.
- Provision of materials, installation, maintenance, and removal of temporary guidance sign coverings including blank sign panels.
- Provision of materials, installation, maintenance, and removal of temporary light coverings.
- Provision of materials, installation, maintenance, and removal of temporary lights and lighting.
- Testing and maintenance of existing, temporary, and new lighting circuitry.
- Provision of materials, installation, maintenance, and removal of any temporary pavement tapers, transitions or temporary accesses to any airport facilities, if applicable.
- Provision of materials, installation, maintenance, and removal of any temporary asphalt pavement tapers and/or transitions in accordance with FAA Advisory Circular 150/5370-13 - *Off-Peak Construction using Hot Mix Asphalt* (latest revision).
- Provision of materials, maintenance, and removal of any temporary drainage, including, ditches, swales, piping and de-watering of work areas.
- Alteration, adjustment, maintenance of any drainage inlets, structures or systems necessary to maintain runway drainage during construction.
- Cleaning and maintenance of all areas within construction limits and haul routes or areas disturbed by the Contractor's operation via Contractor provided vacuum sweeper trucks.
- Restoration of all surfaces disturbed, including haul routes, because of the Contractor's Operations, which are not otherwise paid for under a specific item.
- Provide temporary stake-mounted threshold lights and other edge lighting revisions, if required.
- Placement of temporary markings, including removals or black primer coatings, prior to placing the temporary marking as shown on the plans, in accordance with FAA AC 150/5340-1 *Standards for Airport Markings* (latest revision), and meeting the requirements of Specification Section P-620, if required.
- Removal of temporary markings by approved techniques, as shown on the Plans, in accordance with FAA Advisory Circular 150/5340-1 *Standards for Airport Markings* (latest revision) and meeting the requirements of Specification Section P-620, if required.

200-1.2 TEMPORARY HAUL ROAD. This work shall consist of constructing a temporary haul road at the location shown in the plans, and in accordance with the detail on drawing TS-02. The final location and alignment of the temporary haul road shall be as approved by the RPR. The contractor shall excavate as needed to construct the new pavement section. At the completion of the project, the haul road shall be removed and restored to original condition.

METHOD OF MEASUREMENT

200-2.1 MAINTENANCE AND PROTECTION OF TRAFFIC. Measurement for payment of the maintenance and protection of traffic will be made on a lump sum basis. The lump sum shall include all items required to satisfy this Specification. Measurement for this item will be made in proportion to the total amount of contract work completed, less any deductions for unsatisfactory maintenance and protection of traffic defined below.

200-2.2 TEMPORARY HAUL ROAD. Measurement for payment of the Temporary Haul Road will be made on a lump sum basis.

BASIS OF PAYMENT

200-3.1 MAINTENANCE AND PROTECTION OF TRAFFIC. The payment for the lump sum price for maintenance and protection of traffic shall include all equipment, materials, and labor necessary to adequately and safely maintain and protect traffic. Progress payments will be made for this item in proportion to the total amount of contract work completed, less any deductions for unsatisfactory maintenance and protection of traffic.

In the event the contract completion date is extended, no additional payment will be made for maintenance and protection of traffic.

No payment will be made under maintenance and protection of traffic for each calendar day during which there are substantial deficiencies in compliance with the Specification requirements of any subsection of this Section as determined by the Engineer. The amount of such calendar day non-payment will be determined by dividing the lump sum amount bid for maintenance and protection of traffic by the number of calendar days between the date the Contractor commences work and the date of completion as designated in this proposal, without regard to any extension of time. If the Contractor fails to maintain and protect traffic adequately and safely, all contract work may be stopped by direct order of the Owner or RPR.

200-3.2 TEMPORARY HAUL ROAD. Payment Temporary Haul Road will be made at the contract unit price per lump sum. This price shall be full compensation for all excavation, stockpiling, disposal, pavement surface course and gravel base course, surface restoration with topsoil and seed, for furnishing all materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Project Item M-200-1	Maintenance and Protection of Traffic - per Lump Sum
Project Item M-200-2	Temporary Haul Road - per Lump Sum

END OF SECTION M-200

THIS PAGE INTENTIONALLY LEFT BLANK

Item C-100 Contractor Quality Control Program (CQCP)

100-1 General. Quality is more than test results. Quality is the combination of proper materials, testing, workmanship, equipment, inspection, and documentation of the project. Establishing and maintaining a culture of quality is key to achieving a quality project. The Contractor shall establish, provide, and maintain an effective Contractor Quality Control Program (CQCP) that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified here and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The Contractor shall establish a CQCP that will:

- a. Provide qualified personnel to develop and implement the CQCP.
- b. Provide for the production of acceptable quality materials.
- c. Provide sufficient information to assure that the specification requirements can be met.
- d. Document the CQCP process.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the CQCP has been reviewed and approved by the Resident Project Representative (RPR). No partial payment will be made for materials subject to specific quality control (QC) requirements until the CQCP has been reviewed and approved.

The QC requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the quality assurance (QA) testing requirements. QA testing requirements are the responsibility of the RPR or Contractor as specified in the specifications.

A Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Resident Project Representative (RPR), Contractor, subcontractors, testing laboratories, and Owner's representative must be held prior to start of construction. The QC/QA workshop will be facilitated by the Contractor. The Contractor shall coordinate with the Airport and the RPR on time and location of the QC/QA workshop. Items to be addressed, at a minimum, will include:

- a. Review of the CQCP including submittals, QC Testing, Action & Suspension Limits for Production, Corrective Action Plans, Distribution of QC reports, and Control Charts.
- b. Discussion of the QA program.
- c. Discussion of the QC and QA Organization and authority including coordination and information exchange between QC and QA.
- d. Establish regular meetings to discuss control of materials, methods and testing.
- e. Establishment of the overall QC culture.

100-2 Description of program.

a. General description. The Contractor shall establish a CQCP to perform QC inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. The CQCP shall ensure conformance to applicable specifications and plans with respect to materials, off-site fabrication, workmanship, construction, finish, and functional performance. The CQCP shall be effective for control of all construction work performed under this Contract and shall specifically include

surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of QC.

b. Contractor Quality Control Program (CQCP). The Contractor shall describe the CQCP in a written document that shall be reviewed and approved by the RPR prior to the start of any production, construction, or off-site fabrication. The written CQCP shall be submitted to the RPR for review and approval at least 14 calendar days before the CQCP Workshop. The Contractor's CQCP and QC testing laboratory must be approved in writing by the RPR prior to the Notice to Proceed (NTP).

The CQCP shall be organized to address, as a minimum, the following:

1. QC organization and resumes of key staff
2. Project progress schedule
3. Submittals schedule
4. Inspection requirements
5. QC testing plan
6. Documentation of QC activities and distribution of QC reports
7. Requirements for corrective action when QC and/or QA acceptance criteria are not met
8. Material quality and construction means and methods. Address all elements applicable to the project that affect the quality of the pavement structure including subgrade, subbase, base, and surface course. Some elements that must be addressed include, but is not limited to mix design, aggregate grading, stockpile management, mixing and transporting, placing and finishing, quality control testing and inspection, smoothness, laydown plan, equipment, and temperature management plan.

The Contractor must add any additional elements to the CQCP that is necessary to adequately control all production and/or construction processes required by this contract.

100-3 CQCP organization. The CQCP shall be implemented by the establishment of a QC organization. An organizational chart shall be developed to show all QC personnel, their authority, and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all QC staff by name and function, and shall indicate the total staff required to implement all elements of the CQCP, including inspection and testing for each item of work. If necessary, different technicians can be used for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the CQCP, the personnel assigned shall be subject to the qualification requirements of paragraphs 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The QC organization shall, as a minimum, consist of the following personnel:

a. Program Administrator. The Contractor Quality Control Program Administrator (CQCPA) must be a full-time on-site employee of the Contractor, or a consultant engaged by the Contractor. The CQCPA must have a minimum of five (5) years of experience in QC pavement construction with prior QC experience on a project of comparable size and scope as the contract.

Included in the five (5) years of paving/QC experience, the CQCPA must meet at least one of the following requirements:

- (1) Professional Engineer with one (1) year of airport paving experience.

(2) Engineer-in-training with two (2) years of airport paving experience.

(3) National Institute for Certification in Engineering Technologies (NICET) Civil Engineering Technology Level IV with three (3) years of airport paving experience.

(4) An individual with four (4) years of airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

The CQCPA must have full authority to institute any and all actions necessary for the successful implementation of the CQCP to ensure compliance with the contract plans and technical specifications. The CQCPA authority must include the ability to immediately stop production until materials and/or processes are in compliance with contract specifications. The CQCPA must report directly to a principal officer of the construction firm. The CQCPA may supervise the Quality Control Program on more than one project provided that person can be at the job site within two (2) hours after being notified of a problem.

b. QC technicians. A sufficient number of QC technicians necessary to adequately implement the CQCP must be provided. These personnel must be either Engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II in Civil Engineering Technology or higher, and shall have a minimum of two (2) years of experience in their area of expertise.

The QC technicians must report directly to the CQCPA and shall perform the following functions:

(1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by paragraph 100-6.

(2) Performance of all QC tests as required by the technical specifications and paragraph 100-8.

(3) Performance of tests for the RPR when required by the technical specifications.

Certification at an equivalent level of qualification and experience by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

c. Staffing levels. The Contractor shall provide sufficient qualified QC personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The CQCP shall state where different technicians will be required for different work elements.

100-4 Project progress schedule. Critical QC activities must be shown on the project schedule as required by Section 80, paragraph 80-03, *Execution and Progress*.

100-5 Submittals schedule. The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include as a minimum:

- a. Specification item number
- b. Item description
- c. Description of submittal
- d. Specification paragraph requiring submittal
- e. Scheduled date of submittal

100-6 Inspection requirements. QC inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by paragraph 100-9.

Inspections shall be performed as needed to ensure continuing compliance with contract requirements until completion of the particular feature of work. Inspections shall include the following minimum requirements:

a. During plant operation for material production, QC test results and periodic inspections shall be used to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment used in proportioning and mixing shall be inspected to ensure its proper operating condition. The CQCP shall detail how these and other QC functions will be accomplished and used.

b. During field operations, QC test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The CQCP shall document how these and other QC functions will be accomplished and used.

100-7 Contractor QC testing facility.

a. For projects that include Item P-401, Item P-403, and Item P-404, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM D3666, *Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*:

- 8.1.3 Equipment Calibration and Checks;
- 8.1.9 Equipment Calibration, Standardization, and Check Records;
- 8.1.12 Test Methods and Procedures

b. For projects that include P-501, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM C1077, *Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation*:

- 7 Test Methods and Procedures
- 8 Facilities, Equipment, and Supplemental Procedures

100-8 QC testing plan. As a part of the overall CQCP, the Contractor shall implement a QC testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional QC tests that the Contractor deems necessary to adequately control production and/or construction processes.

The QC testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

- a. Specification item number (e.g., P-401)
- b. Item description (e.g., Hot Mix Asphalt Pavements)
- c. Test type (e.g., gradation, grade, asphalt content)
- d. Test standard (e.g., ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)
- e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated)
- f. Responsibility (e.g., plant technician)

g. Control requirements (e.g., target, permissible deviations)

The QC testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The RPR shall be provided the opportunity to witness QC sampling and testing.

All QC test results shall be documented by the Contractor as required by paragraph 100-9.

100-9 Documentation. The Contractor shall maintain current QC records of all inspections and tests performed. These records shall include factual evidence that the required QC inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

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 RPR daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the CQCPA.

Contractor QC records required for the contract shall include, but are not necessarily limited to, the following records:

a. Daily inspection reports. Each Contractor QC technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. These technician's daily reports shall provide factual evidence that continuous QC inspections have been performed and shall, as a minimum, include the following:

- (1) Technical specification item number and description
- (2) Compliance with approved submittals
- (3) Proper storage of materials and equipment
- (4) Proper operation of all equipment
- (5) Adherence to plans and technical specifications
- (6) Summary of any necessary corrective actions
- (7) Safety inspection.
- (8) Photographs and/or video

The daily inspection reports shall identify all QC inspections and QC tests conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible QC technician and the CQCPA. The RPR shall be provided at least one copy of each daily inspection report on the work day following the day of record. When QC inspection and test results are recorded and transmitted electronically, the results must be archived.

b. Daily test reports. The Contractor shall be responsible for establishing a system that will record all QC test results. Daily test reports shall document the following information:

- (1) Technical specification item number and description
- (2) Test designation
- (3) Location
- (4) Date of test
- (5) Control requirements

- (6) Test results
- (7) Causes for rejection
- (8) Recommended remedial actions
- (9) Retests

Test results from each day's work period shall be submitted to the RPR prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical QC charts. When QC daily test results are recorded and transmitted electronically, the results must be archived.

100-10 Corrective action requirements. The CQCP shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the CQCP as a whole, and for individual items of work contained in the technical specifications.

The CQCP shall detail how the results of QC inspections and tests will be used for determining the need for corrective action and shall contain clear rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and use statistical QC charts for individual QC tests. The requirements for corrective action shall be linked to the control charts.

100-11 Inspection and/or observations by the RPR. All items of material and equipment are subject to inspection and/or observation by the RPR at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate QC system in conformance with the requirements detailed here and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to inspection and/or observation by the RPR at the site for the same purpose.

Inspection and/or observations by the RPR does not relieve the Contractor of performing QC inspections of either on-site or off-site Contractor's or subcontractor's work.

100-12 Noncompliance.

a. The Resident Project Representative (RPR) will provide written notice to the Contractor of any noncompliance with their CQCP. After receipt of such notice, the Contractor must take corrective action.

b. When QC activities do not comply with either the CQCP or the contract provisions or when the Contractor fails to properly operate and maintain an effective CQCP, and no effective corrective actions have been taken after notification of non-compliance, the RPR will recommend the Owner take the following actions:

- (1) Order the Contractor to replace ineffective or unqualified QC personnel or subcontractors and/or
- (2) Order the Contractor to stop operations until appropriate corrective actions are taken.

METHOD OF MEASUREMENT

100-13 Basis of measurement and payment. Contractor Quality Control Program (CQCP) is for the personnel, tests, facilities and documentation required to implement the CQCP. The CQCP will be paid as a lump sum with the following schedule of partial payments:

- a.** With first pay request, 25% with approval of CQCP and completion of the Quality Control (QC)/Quality Assurance (QA) workshop.

- 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 20%.
- d. When 75% or more of the original contract is earned, an additional 20%
- e. After final inspection and acceptance of project, the final 10%.

BASIS OF PAYMENT

100-14 Payment will be made under:

Item C-100-1 Contractor Quality Control Program (CQCP) 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.

National Institute for Certification in Engineering Technologies (NICET)

ASTM International (ASTM)

ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

END OF ITEM C-100

THIS PAGE INTENTIONALLY LEFT BLANK

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

102-1. This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) 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 RPR 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 RPR 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 RPR.

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 RPR 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 RPR.

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 RPR. 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 RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR 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 (41 cm) and a maximum of 34 inches (86 cm) above the ground surface. Posts shall be set no more than 10 feet (3 m) 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 (300-mm) overlap and securely sealed. A trench shall be excavated approximately 4 inches (100 mm) deep by 4 inches (100 mm) 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 RPR.

METHOD OF MEASUREMENT

102-4.1 Temporary erosion and pollution control work required will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured as follows:

- a. Inlet Protection will be measured per each.
- b. Erosion Control Log will be measured by the linear foot.

102-4.2 Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor.

BASIS OF PAYMENT

102-5.1 Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the RPR and measured as provided in paragraph 102-4.1 will be paid for under:

- | | |
|----------------|--|
| Item C-102-5.1 | Installation and Removal of Inlet Protection - per each |
| Item C-102-5.2 | Installation and Removal of Erosion Control Logs – per linear foot |

Where other directed work falls within the specifications for a work item that has a contract price, the units of work shall be measured and paid for at the contract unit price bid for the various items.

Temporary control features not covered by contract items that are ordered by the RPR will be paid for in accordance with Section 90, paragraph 90-05 *Payment for Extra Work*.

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*

Replacement of Runway 6-24 Departure End EMAS

Temporary Air and Water Pollution,
Soil Erosion, and Siltation Control

Manchester-Boston Regional Airport

Section C-102

United States Department of Agriculture (USDA)

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

END OF ITEM C-102

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 5 percent of the total project cost.

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

105-5.1 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-105-1 Mobilization (5% Maximum) 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

Item P-101 Preparation/Removal of Existing Pavements

DESCRIPTION

101-1 This item shall consist of preparation of existing pavement surfaces for overlay, surface treatments, removal of existing pavement, and other miscellaneous items. The work shall be accomplished in accordance with these specifications and the applicable plans.

EQUIPMENT AND MATERIALS

101-2 All equipment and materials shall be specified here and in the following paragraphs or approved by the Resident Project Representative (RPR). The equipment shall not cause damage to the pavement to remain in place.

CONSTRUCTION

101-3.1 Removal of existing pavement.

The Contractor's removal operation shall be controlled to not damage adjacent pavement structure, and base material, cables, utility ducts, pipelines, or drainage structures which are to remain under the pavement.

a. Concrete pavement removal. Full depth saw cuts shall be made perpendicular to the slab surface. The Contractor shall saw through the full depth of the slab including any dowels at the joint, removing the pavement and installing new dowels as shown on the plans and per the specifications. Where the perimeter of the removal limits is not located on the joint and there are no dowels present, the perimeter shall be saw cut the full depth of the pavement. The pavement inside the saw cut shall be removed by methods which will not cause distress in the pavement which is to remain in place. If the material is to be wasted on the airport site, it shall be reduced to a maximum size of 3". Concrete slabs that are damaged by under breaking shall be repaired or removed and replaced as directed by the RPR.

The edge of existing concrete pavement against which new pavement abuts shall be protected from damage at all times. Spall and underbreak repair shall be in accordance with the plans. Any underlying material that is to remain in place, shall be recompact and/or replaced as shown on the plans. Adjacent areas damaged during repair shall be repaired or replaced at the Contractor's expense.

b. Asphalt pavement removal. Asphalt pavement to be removed shall be cut to the full depth of the asphalt pavement around the perimeter of the area to be removed.

c. Repair or removal of Base, Subbase, and/or Subgrade. All failed material including surface, base course, subbase course, and subgrade shall be removed and repaired as shown on the plans or as directed by the RPR. Materials and methods of construction shall comply with the applicable sections of these specifications. Any damage caused by Contractor's removal process shall be repaired at the Contractor's expense.

101-3.2 Preparation of joints and cracks prior to overlay/surface treatment. Remove all vegetation and debris from cracks to a minimum depth of 1 inch (25 mm). If extensive vegetation exists, treat the specific area with a concentrated solution of a water-based herbicide approved by the RPR. Fill all cracks

greater than 1/4 inch (6 mm) wide) with a crack sealant per ASTM D6690. The crack sealant, preparation, and application shall be compatible with the surface treatment/overlay to be used. To minimize contamination of the asphalt with the crack sealant, underfill the crack sealant a minimum of 1/8 inch (3 mm), not to exceed 1/4 inch (6 mm). Any excess joint or crack sealer shall be removed from the pavement surface.

Wider cracks (over 1-1/2 inch wide (38 mm)), along with soft or sunken spots, indicate that the pavement or the pavement base should be repaired or replaced as stated below.

Cracks and joints may be filled with a mixture of emulsified asphalt and aggregate. The aggregate shall consist of limestone, volcanic ash, sand, or other material that will cure to form a hard substance. The combined gradation shall be as shown in the following table.

Gradation

Sieve Size	Percent Passing
No. 4 (4.75 mm)	100
No. 8 (2.36 mm)	90-100
No. 16 (1.18 mm)	65-90
No. 30 (600 μm)	40-60
No. 50 (300 μm)	25-42
No. 100 (150 μm)	15-30
No. 200 (75 μm)	10-20

Up to 3% cement can be added to accelerate the set time. The mixture shall not contain more than 20% natural sand without approval in writing from the RPR.

The proportions of asphalt emulsion and aggregate shall be determined in the field and may be varied to facilitate construction requirements. Normally, these proportions will be approximately one part asphalt emulsion to five parts aggregate by volume. The material shall be poured or placed into the joints or cracks and compacted to form a voidless mass. The joint or crack shall be filled to within +0 to -1/8 inches (+0 to -3 mm) of the surface. Any material spilled outside the width of the joint shall be removed from the pavement surface prior to constructing the overlay. Where concrete overlays are to be constructed, only the excess joint material on the pavement surface and vegetation in the joints need to be removed.

101-3.3 Removal of Foreign Substances/contaminates prior to overlay and remarking. Removal of foreign substances/contaminates from existing pavement that will affect the bond of the new treatment shall consist of removal of rubber, fuel spills, oil, crack sealer, at least 90% of paint, and other foreign substances from the surface of the pavement. Areas that require removal are designated on the plans and as directed by the RPR in the field during construction.

Rotary grinding may be used. Removal methods used shall not cause major damage to the pavement, or to any structure or utility within or adjacent to the work area. Major damage is defined as changing the properties of the pavement, removal of asphalt causing the aggregate to ravel, or removing pavement over 1/8 inch (3 mm) deep. If it is deemed by the RPR that damage to the existing pavement is caused by operational error, such as permitting the application method to dwell in one location for too long, the Contractor shall repair the damaged area without compensation and as directed by the RPR.

Removal of foreign substances shall not proceed until approved by the RPR. Water used for high-pressure water equipment shall be provided by the Contractor at the Contractor's expense. No material shall be

deposited on the pavement shoulders. All wastes shall be disposed of in areas indicated in this specification or shown on the plans.

101-3.4 Concrete spall or failed asphaltic concrete pavement repair.

a. Repair of concrete spalls in areas to be overlaid with asphalt. The Contractor shall repair all spalled concrete as shown on the plans or as directed by the RPR. The perimeter of the repair shall be saw cut a minimum of 2 inches (50 mm) outside the affected area and 2 inches (50 mm) deep. The deteriorated material shall be removed to a depth where the existing material is firm or cannot be easily removed with a geologist pick. The removed area shall be filled with asphalt mixture with aggregate sized appropriately for the depth of the patch. The material shall be compacted with equipment approved by the RPR until the material is dense and no movement or marks are visible. The material shall not be placed in lifts over 4 inches (100 mm) in depth. This method of repair applies only to pavement to be overlaid.

b. Asphalt pavement repair. The Contractor shall repair all spalled concrete as shown on the plans or as directed by the RPR. The failed areas shall be removed as specified in paragraph 101-3.1b. All failed material including surface, base course, subbase course, and subgrade shall be removed. Materials and methods of construction shall comply with the applicable sections of these specifications.

101-3.5 Cold milling. Milling shall be performed with a power-operated milling machine or grinder, capable of producing a uniform finished surface. The milling machine or grinder shall operate without tearing or gouging the underlying surface. The milling machine or grinder shall be equipped with grade and slope controls, and a positive means of dust control. All millings shall be removed and disposed off Airport property. If the Contractor mills or grinds deeper or wider than the plans specify, the Contractor shall replace the material removed with new material at the Contractor's Expense.

a. Patching. The milling machine shall be capable of cutting a vertical edge without chipping or spalling the edges of the remaining pavement and it shall have a positive method of controlling the depth of cut. The RPR shall layout the area to be milled with a straightedge in increments of 1-foot (30 cm) widths. The area to be milled shall cover only the failed area. Any excessive area that is milled because the Contractor doesn't have the appropriate milling machine, or areas that are damaged because of his negligence, shall be repaired by the Contractor at the Contractor's Expense.

b. Profiling, grade correction, or surface correction. The milling machine shall have a minimum width of 7 feet and it shall be equipped with electronic grade control devices that will cut the surface to the grade specified. The tolerances shall be maintained within +0 inch and -1/4 inch (+0 mm and -6mm) of the specified grade. The machine must cut vertical edges and have a positive method of dust control. The machine must have the ability to remove the millings or cuttings from the pavement and load them into a truck. All millings shall be removed and disposed of off the airport.

c. Clean-up. The Contractor shall sweep the milled surface daily and immediately after the milling until all residual materials are removed from the pavement surface. Prior to paving, the Contractor shall wet down the milled pavement and thoroughly sweep and/or blow the surface to remove loose residual material. Waste materials shall be collected and removed from the pavement surface and adjacent areas by sweeping or vacuuming. Waste materials shall be removed and disposed off Airport property.

101-3.6. Preparation of asphalt pavement surfaces prior to surface treatment. Existing asphalt pavements to be treated with a surface treatment shall be prepared as follows:

a. Patch asphalt pavement surfaces that have been softened by petroleum derivatives or have failed due to any other cause. Remove damaged pavement to the full depth of the damage and replace with new asphalt pavement similar to that of the existing pavement in accordance with paragraph 101-3.4b.

b. Repair joints and cracks in accordance with paragraph 101-3.2.

c. Remove oil or grease that has not penetrated the asphalt pavement by scrubbing with a detergent and washing thoroughly with clean water. After cleaning, treat these areas with an oil spot primer.

d. Clean pavement surface immediately prior to placing the surface treatment so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film.

101-3.7 Maintenance. The Contractor shall perform all maintenance work necessary to keep the pavement in a satisfactory condition until the full section is complete and accepted by the RPR. The surface shall be kept clean and free from foreign material. The pavement shall be properly drained at all times. If cleaning is necessary or if the pavement becomes disturbed, any work repairs necessary shall be performed at the Contractor's expense.

101-3.8 Preparation of Joints in Rigid Pavement prior to resealing. Prior to application of sealant material, clean and dry the joints of all scale, dirt, dust, old sealant, curing compound, moisture and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method used cleans the joint and does not damage the joint.

101-3.8.1 Removal of Existing Joint Sealant. All existing joint sealants will be removed by plowing or use of hand tools. Any remaining sealant and or debris will be removed by use of wire brushes or other tools as necessary. Resaw joints removing no more than 1/16 inch (2 mm) from each joint face. Immediately after sawing, flush out joint with water and other tools as necessary to completely remove the slurry.

101-3.8.2 Cleaning prior to sealing. Immediately before sealing, joints shall be cleaned by removing any remaining laitance and other foreign material. Allow sufficient time to dry out joints prior to sealing. Joint surfaces will be surface-dry prior to installation of sealant.

101-3.8.3 Joint sealant. Joint material and installation will be in accordance with Item P-605.

101-3.9 Preparation of Cracks in Flexible Pavement prior to sealing. Prior to application of sealant material, clean and dry the joints of all scale, dirt, dust, old sealant, curing compound, moisture and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method used cleans the cracks and does not damage the pavement.

101-3.9.1 Preparation of Crack. Widen crack with router by removing a minimum of 1/16 inch (2 mm) from each side of crack. Immediately before sealing, cracks will be blown out with a hot air lance combined with oil and water-free compressed air.

101-3.9.2 Removal of Existing Crack Sealant. Existing sealants will be removed by routing. Following routing any remaining debris will be removed by use of a hot lance combined with oil and water-free compressed air.

101-3.9.3 Crack Sealant. Crack sealant material and installation will be in accordance with Item P-605.

101-3.9.4 Removal of Pipe and other Buried Structures. – Not Used.

101-3.10 Removal of Existing EMAS System. Existing EMAS blocks, sealant materials, deflector shield, retroreflective markers, partial demo of existing concrete anchor beam, and all other incidentals shall be excavated/removed and disposed of legally off-site. Contractor shall cover all triaxle or trailer beds prior to leaving the airport for disposal. Contractor is responsible for determining proper disposal location for all existing materials. It shall be the Contractor's responsibility to remove and/or clean off the existing pavement surface of all adhesives and sealants after existing EMAS blocks are removed and prior to milling, if necessary. For approximate size and configuration of existing EMAS system, see record drawings in Attachment A of these specifications.

METHOD OF MEASUREMENT

101-4.1 Joint and crack repair. The unit of measurement for joint and crack repair shall be the linear foot (meter) of joint.

101-4.2 Variable Depth Cold milling. The unit of measure for variable depth cold milling shall be measured regardless of depth of milling, per square yard (square meter). The location and average depth of the cold milling shall be as shown on the plans. If the initial cut does not correct the condition, the Contractor shall re-mill the area and will be paid for the total depth of milling.

101-4.3 Removal of Existing EMAS System. The unit of measure for Removal of Existing EMAS System shall be measured per lump sum. This pay item shall include all removal and legal off-site disposal of existing EMAS blocks, sealants, coverings, deflector shield, partial demolition of existing concrete anchor beam, sawcutting existing anchor beam bolts, removal and disposal of existing retro reflective markers, and all incidentals required to demolish and remove the existing EMAS system.

BASIS OF PAYMENT

101-5.1 Payment. Payment shall be made at contract unit price for the unit of measurement as specified above. This price shall be full compensation for furnishing all materials and for all preparation, hauling, and placing of the material and for all labor, equipment, tools, and incidentals necessary to complete this item.

Item P 101-5.1	Joint and Crack Repair – per linear foot
Item P-101-5.2	Variable Depth Cold Milling – per square yard
Item P-101-5.3	Removal of Existing EMAS System – 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.

Advisory Circulars (AC)

AC 150/5380-6 Guidelines and Procedures for Maintenance of Airport Pavements.

ASTM International (ASTM)

ASTM D6690 Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements

END OF ITEM P-101

THIS PAGE INTENTIONALLY LEFT BLANK

Item P-403 Asphalt Mix Pavement Surface Course

DESCRIPTION

403-1.1 This item shall consist of pavement courses composed of mineral aggregate and asphalt binder mixed in a central mixing plant and placed on a prepared course in accordance with these specifications and shall conform to the lines, grades, thicknesses, and typical cross-sections shown on the plans. Each course shall be constructed to the depth, typical section, and elevation required by the plans and shall be rolled, finished, and approved before the placement of the next course.

MATERIALS

403-2.1 Aggregate. Aggregates shall consist of crushed stone, crushed gravel, crushed slag, screenings, natural sand and mineral filler, as required. The aggregates should have no known history of detrimental pavement staining due to ferrous sulfides, such as pyrite. Coarse aggregate is the material retained on the No. 4 (4.75 mm) sieve. Fine aggregate is the material passing the No. 4 (4.75 mm) sieve.

a. Coarse aggregate. Coarse aggregate shall consist of sound, tough, durable particles, free from films of matter that would prevent thorough coating and bonding with the asphalt material and free from organic matter and other deleterious substances. Coarse aggregate material requirements are given in the table below.

Coarse Aggregate Material Requirements

Material Test	Requirement	Standard
Resistance to Degradation	Loss: 40% maximum for surface, asphalt binder, and leveling course Loss: 50% maximum for base course	ASTM C131
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 12% maximum using Sodium sulfate - or - 18% maximum using magnesium sulfate	ASTM C88
Clay lumps and friable particles	1.0 % maximum	ASTM C142
Percentage of Fractured Particles	For pavements designed for aircraft gross weights of 60,000 pounds (27200 kg) or more: Minimum 75% by weight of particles with at least two fractured faces and 85% with at least one fractured face ¹	ASTM D5821
	For pavements designed for aircraft gross weights less than 60,000 pounds (27200 kg): Minimum 50% by weight of particles with at least two fractured faces and 65% with at least one fractured face ¹	
Flat, Elongated, or Flat and Elongated Particles	8% maximum, by weight, of flat, elongated, or flat and elongated particles with a value of 5:1 ²	ASTM D4791
Bulk density of slag ³	Weigh not less than 70 pounds per cubic foot (1.12 Mg/cubic meter)	ASTM C29.

¹ The area of each face shall be equal to at least 75% of the smallest mid-sectional area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 degrees to count as two fractured faces.

² A flat particle is one having a ratio of width to thickness greater than five (5); an elongated particle is one having a ratio of length to width greater than five (5).

³ Only required if slag is specified.

b. Fine aggregate. Fine aggregate shall consist of clean, sound, tough, durable, angular shaped particles produced by crushing stone, slag, or gravel and shall be free from coatings of clay, silt, or other objectionable matter. Natural (non-manufactured) sand may be used to obtain the gradation of the aggregate blend or to improve the workability of the mix. Fine aggregate material requirements are listed in the table below.

Fine Aggregate Material Requirements

Material Test	Requirement	Standard
Liquid limit	25 maximum	ASTM D4318
Plasticity Index	4 maximum	ASTM D4318
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 10% maximum using Sodium sulfate - or - 15% maximum using magnesium sulfate	ASTM C88
Clay lumps and friable particles	1.0 % maximum	ASTM C142
Sand equivalent	45 minimum	ASTM D2419
Natural Sand	0 to 15% maximum by weight of total aggregate	ASTM D1073

c. Sampling. ASTM D75 shall be used in sampling coarse and fine aggregate, and ASTM C183 shall be used in sampling mineral filler.

403-2.2 Mineral filler. Mineral filler (baghouse fines) may be added in addition to material naturally present in the aggregate. Mineral filler shall meet the requirements of ASTM D242.

Mineral filler Requirements

Material Test	Requirement	Standard
Plasticity Index	4 maximum	ASTM D4318

403-2.3 Asphalt binder. Asphalt binder shall conform to ASTM D6373 Performance Grade (PG) **64-28**.

Asphalt Binder PG Plus Test Requirements

Material Test	Requirement	Standard
Elastic Recovery	75% minimum	ASTM D6084 ¹

¹ Follow procedure B on RTFO aged binder.

403-2.4 Anti-stripping agent. Any anti-stripping agent or additive (anti-strip) shall be heat stable and shall not change the asphalt binder grade beyond specifications. Anti-strip shall be an approved material of the Department of Transportation of the State in which the project is located.

COMPOSITION

403-3.1 Composition of mixture. The asphalt plant mix shall be composed of a mixture of well-graded aggregate, filler and anti-strip agent if required, and asphalt binder. The several aggregate fractions shall be sized, handled in separate size groups, and combined in such proportions that the resulting mixture meets the grading requirements of the job mix formula (JMF).

403-3.2 Job mix formula (JMF) laboratory. The laboratory used to develop the JMF shall possess a current certificate of accreditation, listing D3666 from a national accrediting authority and all test methods required for developing the JMF, and listed on the accrediting authority’s website. A copy of the

laboratory's current accreditation and accredited test methods shall be submitted to the RPR prior to start of construction.

403-3.3 Job mix formula (JMF). No asphalt mixture shall be placed until an acceptable mix design has been submitted to the RPR for review and accepted in writing. The RPR's review shall not relieve the Contractor of the responsibility to select and proportion the materials to comply with this section.

When the project requires asphalt mixtures of differing aggregate gradations and/or binders, a separate JMF shall be submitted for each mix. Add anti-stripping agent to meet tensile strength requirements.

The JMF shall be prepared by an accredited laboratory that meets the requirements of paragraph 403-3.2. The asphalt mixture shall be designed using procedures contained in Asphalt Institute MS-2 Mix Design Manual, 7th Edition. Samples shall be prepared and compacted using the gyratory compactor in accordance with ASTM D6925 .

Should a change in sources of materials be made, a new JMF must be submitted to the RPR for review and accepted in writing before the new material is used. After the initial production JMF has been approved by the RPR and a new or modified JMF is required for whatever reason, the subsequent cost of the new or modified JMF, including a new control strip when required by the RPR, will be borne by the Contractor.

The RPR may request samples at any time for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

The JMF shall be submitted in writing by the Contractor at least 30 days prior to the start of paving operations. The JMF shall be developed within the same construction season using aggregates proposed for project use.

The submitted JMF shall be dated, and stamped or sealed by the responsible professional Engineer of the laboratory and shall include the following items as a minimum:

- Manufacturer's Certificate of Analysis (COA) for the asphalt binder used in the JMF in accordance with paragraph 403-2.3. Certificate of asphalt performance grade is with modifier already added, if used and must indicate compliance with ASTM D6373. For plant modified asphalt binder, certified test report indicating grade certification of modified asphalt binder.
- Manufacturer's Certificate of Analysis (COA) for the anti-stripping agent if used in the JMF in accordance with paragraph 403-2.4.
- Certified material test reports for the course and fine aggregate and mineral filler in accordance with paragraphs 403-2.1 and 403-2.2.
- Percent passing each sieve size for individual gradation of each aggregate cold feed and/or hot bin; percent by weight of each cold feed and/or hot bin used; and the total combined gradation in the JMF.
- Specific Gravity and absorption of each course and fine aggregate.
- Percent natural sand.
- Percent fractured faces.
- Percent by weight of flat particles, elongated particles, and flat and elongated particles (and criteria).
- Percent of asphalt.
- Number of blows or gyrations.

- Laboratory mixing and compaction temperatures.
- Supplier recommended mixing and compaction temperatures.
- Plot of the combined gradation on the 0.45 power gradation curve.
- Graphical plots of air voids, voids in the mineral aggregate (VMA), and unit weight versus asphalt content. To achieve minimum VMA during production, the mix design needs to account for material breakdown during production.
- Tensile Strength Ratio (TSR).
- Type and amount of Anti-strip agent when used.
- Asphalt Pavement Analyzer (APA) results.
- Date the JMF was developed. Mix designs that are not dated or which are from a prior construction season shall not be accepted.
- Percentage and properties (asphalt content, asphalt binder properties, and aggregate properties) of reclaimed asphalt pavement (RAP) in accordance with paragraph 403-3.4, Reclaimed Hot-Mix Asphalt, if RAP is used.

Table 1. Asphalt Design Criteria

Test Property	Value	Test Method
Number of blows/gyrations	75	
Air voids (%)	3.5	ASTM D3203
Percent voids in mineral aggregate (VMA), minimum	See Table 2	ASTM D6995
TSR ¹	not less than 80 at a saturation of 70-80%	ASTM D4867
[Asphalt Pavement Analyzer (APA) ^{2,3}]	Less than 10 mm @ 4000 passes	[AASHTO T340 at 250 psi hose pressure at 64°C test temperature]

¹ Test specimens for TSR shall be compacted at 7 ± 1.0 % air voids. In areas subject to freeze-thaw, use freeze-thaw conditioning in lieu of moisture conditioning per ASTM D4867.

² AASHTO T340 at 100 psi hose pressure at 64°C test temperature may be used in the interim. If this method is used the required Value shall be less than 5 mm @ 8000 passes

³ Where APA not available, use Hamburg wheel test (AASHTO T 324) 10 mm@ 20,000 passes at 50°C.

The mineral aggregate shall be of such size that the percentage composition by weight, as determined by laboratory sieves, will conform to the gradation or gradations specified in Table 2 when tested in accordance with ASTM C136 and ASTM C117.

The gradations in Table 2 represent the limits that shall determine the suitability of aggregate for use from the sources of supply, be well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve, or vice versa.

Table 2. Aggregate - Asphalt Pavements

Sieve Size	Percentage by Weight Passing Sieve
1 inch (25.0 mm)	--
3/4 inch (19.0 mm)	100
1/2 inch (12.5 mm)	90-100
3/8 inch (9.5 mm)	72-88
No. 4 (4.75 mm)	53-73
No. 8 (2.36 mm)	38-60
No. 16 (1.18 mm)	26-48
No. 30 (600 µm)	18-38
No. 50 (300 µm)	11-27
No. 100 (150 µm)	6-18
No. 200 (75 µm)	3-6
Voids in Mineral Aggregate (VMA)¹	15
Asphalt Percent:	
Stone or gravel	5.0-7.5
Slag	6.5-9.5
Recommended Minimum Construction Lift Thickness	2 inch

¹To achieve minimum VMA during production, the mix design needs to account for material breakdown during production.

The aggregate gradations shown are based on aggregates of uniform specific gravity. The percentages passing the various sieves shall be corrected when aggregates of varying specific gravities are used, as indicated in the Asphalt Institute MS-2 Mix Design Manual, 7th Edition.

403-3.4 Reclaimed Asphalt Pavement (RAP). Reclaimed asphalt pavement shall consist of reclaimed asphalt pavement (RAP), coarse aggregate, fine aggregate, mineral filler, and asphalt. Recycled asphalt shingles (RAS) shall not be allowed. The RAP shall be of a consistent gradation and asphalt content and properties. When RAP is fed into the plant, the maximum RAP chunk size shall not exceed 1-1/2 inches (38 mm). The reclaimed asphalt mix shall be designed using procedures contained in the Asphalt Institute MS-2 Mix Design Manual, 7th Edition. The percentage of asphalt in the RAP shall be established for the mixture design according to ASTM D2172 using the appropriate dust correction procedure. The JMF shall meet the requirements of paragraph 403-3.3. RAP should only be used for shoulder surface course mixes and for any intermediate courses. The use of RAP containing Coal Tar shall not be allowed. Coal Tar surface treatments must be removed prior to recycling underlying asphalt material. The amount of RAP shall be limited to **5** percent.

In addition to the requirements of paragraph 403-3.3, the JMF shall indicate the percent of reclaimed asphalt pavement and the percent and grade of new asphalt binder.

For the PG graded asphalt binder selected in paragraph 403-2.3, adjust as follows:

- a. For 0-20% RAP, there is no change in virgin asphalt binder content.

b. For >20 to 30% RAP, select asphalt binder one grade softer, i.e., PG 64-22 would soften to PG 58-28.

403-3.5 Control strip. A control strip is not required.

CONSTRUCTION METHODS

403-4.1 Weather limitations. The asphalt shall not be placed upon a wet surface or when the surface temperature of the underlying course is less than specified in Table 4. The temperature requirements may be waived by the RPR, if requested; however, all other requirements including compaction shall be met.

Table 4. Surface Temperature Limitations of Underlying Course

Mat Thickness	Base Temperature (Minimum)	
	Degrees F	Degrees C
3 inches (7.5 cm) or greater	40	4
Greater than 2 inches (50 mm) but less than 3 inches (7.5 cm)	45	7

403-4.2 Asphalt plant. Plants used for the preparation of asphalt shall conform to the requirements of American Association of State Highway and Transportation Officials (AASHTO) M156 including the following items:

a. Inspection of plant. The RPR, or RPR’s authorized representative, shall have access, at all times, to all areas of the plant for checking adequacy of equipment; inspecting operation of the plant: verifying weights, proportions, and material properties; and checking the temperatures maintained in the preparation of the mixtures.

b. Storage bins and surge bins. The asphalt mixture stored in storage and/or surge bins shall meet the same requirements as asphalt mixture loaded directly into trucks. Asphalt mixture shall not be stored in storage and/or surge bins for a period greater than twelve (12) hours. If the RPR determines there is an excessive heat loss, segregation or oxidation of the asphalt mixture due to temporary storage, temporary storage shall not be allowed.

403-4.3 Aggregate stockpile management. Aggregate stockpiles shall be constructed in such a manner that prevents segregation and intermixing of deleterious materials. Aggregates from different sources shall be stockpiled, weighed and batched separately at the concrete batch plant. Aggregates that have become segregated or mixed with earth or foreign material shall not be used.

A continuous supply of materials shall be provided to the work to ensure continuous placement.

403-4.4 Hauling equipment. Trucks used for hauling asphalt shall have tight, clean, and smooth metal beds. To prevent the asphalt from sticking to the truck beds, the truck beds shall be lightly coated with a minimum amount of paraffin oil, lime solution, or other material approved by the RPR. Petroleum products shall not be used for coating truck beds. Each truck shall have a suitable cover to protect the mixture from adverse weather. When necessary, to ensure that the mixture will be delivered to the site at the specified temperature, truck beds shall be insulated or heated and covers shall be securely fastened.

403-4.4.1 Material transfer vehicle (MTV). Material transfer Vehicles shall be required due to the improvement in smoothness and decrease in both physical and thermal segregation. To transfer the material from the hauling equipment to the paver, use a self-propelled, material transfer vehicle with a swing conveyor that can deliver material to the paver without making contact with the paver. The MTV

shall be able to move back and forth between the hauling equipment and the paver providing material transfer to the paver, while allowing the paver to operate at a constant speed. The Material Transfer Vehicle will have remixing and storage capability to prevent physical and thermal segregation.

403-4.5 Asphalt pavers. Asphalt pavers shall be self-propelled with an activated heated screed, capable of spreading and finishing courses of asphalt that will meet the specified thickness, smoothness, and grade. The paver shall have sufficient power to propel itself and the hauling equipment without adversely affecting the finished surface. The asphalt paver shall be equipped with a control system capable of automatically maintaining the specified screed grade and elevation.

If the spreading and finishing equipment in use leaves tracks or indented areas, or produces other blemishes in the pavement that are not satisfactorily corrected by the scheduled operations, the use of such equipment shall be discontinued.

The paver shall be capable of paving to a minimum width specified in paragraph 401-4.11.

403-4.6 Rollers. The number, type, and weight of rollers shall be sufficient to compact the asphalt to the required density while it is still in a workable condition without crushing of the aggregate, depressions or other damage to the pavement surface. Rollers shall be in good condition, capable of operating at slow speeds to avoid displacement of the asphalt. All rollers shall be specifically designed and suitable for compacting asphalt concrete and shall be properly used. Rollers that impair the stability of any layer of a pavement structure or underlying soils shall not be used.

403-4.6.1 Density device. The Contractor shall have on site a density gauge during all paving operations in order to assist in the determination of the optimum rolling pattern, type of roller and frequencies, as well as to monitor the effect of the rolling operations during production paving. The Contractor shall also supply a qualified technician during all paving operations to calibrate the density gauge and obtain accurate density readings for all new asphalt. These densities shall be supplied to the RPR upon request at any time during construction. No separate payment will be made for supplying the density gauge and technician.

403-4.7 Preparation of asphalt binder. The asphalt binder shall be heated in a manner that will avoid local overheating and provide a continuous supply of the asphalt material to the mixer at a uniform temperature. The temperature of the unmodified asphalt binder delivered to the mixer shall be sufficient to provide a suitable viscosity for adequate coating of the aggregate particles, but shall not exceed 325°F (160°C) when added to the aggregate. The temperature of modified asphalt binder shall be no more than 350°F (175°C) when added to the aggregate.

403-4.8 Preparation of mineral aggregate. The aggregate for the asphalt shall be heated and dried. The maximum temperature and rate of heating shall be such that no damage occurs to the aggregates. The temperature of the aggregate and mineral filler shall not exceed 350°F (175°C) when the asphalt binder is added. Particular care shall be taken that aggregates high in calcium or magnesium content are not damaged by overheating. The temperature shall not be lower than is required to obtain complete coating and uniform distribution on the aggregate particles and to provide a mixture of satisfactory workability.

403-4.9 Preparation of asphalt mixture. The aggregates and the asphalt binder shall be weighed or metered and introduced into the mixer in the amount specified by the JMF. The combined materials shall be mixed until the aggregate obtains a uniform coating of asphalt binder and is thoroughly distributed throughout the mixture. Wet mixing time shall be the shortest time that will produce a satisfactory mixture, but not less than 25 seconds for batch plants. The wet mixing time for all plants shall be established by the Contractor, based on the procedure for determining the percentage of coated particles described in ASTM D2489, for each individual plant and for each type of aggregate used. The wet mixing time will be set to achieve 95% of coated particles. For continuous mix plants, the minimum mixing time shall be determined by dividing the weight of its contents at operating level by the weight of the mixture

delivered per second by the mixer. The moisture content of all asphalt upon discharge shall not exceed 0.5%.

403-4.10 Application of Prime and Tack Coat. Immediately before placing the asphalt mixture, the underlying course shall be cleaned of all dust and debris.

A tack coat shall be applied in accordance with Item P-603 to all vertical and horizontal asphalt and concrete surfaces prior to placement of the first and each subsequent lift of asphalt mixture.

403-4.11 Laydown plan, transporting, placing, and finishing. Prior to the placement of the asphalt, the Contractor shall prepare a laydown plan with the sequence of paving lanes and width to minimize the number of cold joints; the location of any temporary ramps; laydown temperature; and estimated time of completion for each portion of the work (milling, paving, rolling, cooling, etc.). The laydown plan and any modifications shall be approved by the RPR.

Deliveries shall be scheduled so that placing and compacting of asphalt is uniform with minimum stopping and starting of the paver. Hauling over freshly placed material shall not be permitted until the material has been compacted, as specified, and allowed to cool to approximately ambient temperature. The Contractor, at their expense, shall be responsible for repair of any damage to the pavement caused by hauling operations.

Contractor shall survey each lift of asphalt surface course and certify to RPR that every lot of each lift meets the grade tolerances of paragraph 401-6.2e before the next lift can be placed.

Edges of existing asphalt pavement abutting the new work shall be saw cut and the cut off material and laitance removed. Apply a tack coat in accordance with P-603 before new asphalt material is placed against it.

The speed of the paver shall be regulated to eliminate pulling and tearing of the asphalt mat. Placement of the asphalt mix shall begin along the centerline of a crowned section or on the high side of areas with a one way slope unless shown otherwise on the laydown plan as accepted by the RPR. The asphalt mix shall be placed in consecutive adjacent lanes having a minimum width of 10 feet except where edge lanes require less width to complete the area. Additional screed sections attached to widen the paver to meet the minimum lane width requirements must include additional auger sections to move the asphalt mixture uniformly along the screed extension.

The longitudinal joint in one course shall offset the longitudinal joint in the course immediately below by at least 1 foot (30 cm); however, the joint in the surface top course shall be at the centerline of crowned pavements. Transverse joints in one course shall be offset by at least 10 feet (3 m) from transverse joints in the previous course. Transverse joints in adjacent lanes shall be offset a minimum of 10 feet (3 m). On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the asphalt may be spread and luted by hand tools.

The RPR may at any time, reject any batch of asphalt, on the truck or placed in the mat, which is rendered unfit for use due to contamination, segregation, incomplete coating of aggregate, or overheated asphalt mixture. Such rejection may be based on only visual inspection or temperature measurements. In the event of such rejection, the Contractor may take a representative sample of the rejected material in the presence of the RPR, and if it can be demonstrated in the laboratory, in the presence of the RPR, that such material was erroneously rejected, payment will be made for the material at the contract unit price.

Areas of segregation in the surface course, as determined by the RPR, shall be removed and replaced at the Contractor's expense. The area shall be removed by saw cutting and milling a minimum of the construction lift thickness as specified in paragraph 401-3.3, Table 2 for the approved mix design. The area to be removed and replaced shall be a minimum width of the paver and a minimum of 10 feet (3 m) long.

403-4.12 Compaction of asphalt mixture. After placing, the asphalt mixture shall be thoroughly and uniformly compacted by self-propelled rollers. The surface shall be compacted as soon as possible when the asphalt has attained sufficient stability so that the rolling does not cause undue displacement, cracking or shoving. The sequence of rolling operations and the type of rollers used shall be at the discretion of the Contractor. The speed of the roller shall, at all times, be sufficiently slow to avoid displacement of the hot mixture and be effective in compaction. Any surface defects and/or displacement occurring as a result of the roller, or from any other cause, shall be corrected at the Contractor's expense.

Sufficient rollers shall be furnished to handle the output of the plant. Rolling shall continue until the surface is of uniform texture, true to grade and cross-section, and the required field density is obtained. To prevent adhesion of the asphalt to the roller, the wheels shall be equipped with a scraper and kept moistened with water as necessary.

In areas not accessible to the roller, the mixture shall be thoroughly compacted with approved power tampers.

Any asphalt that becomes loose and broken, mixed with dirt, contains check-cracking, or in any way defective shall be removed and replaced with fresh hot mixture and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.

403-4.13 Joints. The formation of all joints shall be made in such a manner as to ensure a continuous bond between the courses and obtain the required density. All joints shall have the same texture as other sections of the course and meet the requirements for smoothness and grade.

The roller shall not pass over the unprotected end of the freshly laid asphalt except when necessary to form a transverse joint. When necessary to form a transverse joint, it shall be made by means of placing a bulkhead or by tapering the course. The tapered edge shall be cut back to its full depth and width on a straight line to expose a vertical face prior to placing the adjacent lane. In both methods, all contact surfaces shall be coated with an asphalt tack coat before placing any fresh asphalt against the joint.

Longitudinal joints which are have been left exposed for more than four (4) hours; the surface temperature has cooled to less than 175°F (80°C); or are irregular, damaged, uncompacted or otherwise defective shall be cut back with a cutting wheel or pavement saw a maximum of 3 inches (75 mm) to expose a clean, sound, uniform vertical surface for the full depth of the course. All cutback material and any laitance produced from cutting joints shall be removed from the project. An asphalt tack coat or other product approved by the RPR shall be applied to the clean, dry joint prior to placing any additional fresh asphalt against the joint. The cost of this work shall be considered incidental to the cost of the asphalt.

403-4.14 Saw-cut grooving. Saw-cut grooves shall be provided as specified in Item P-621.

403-4.15 Diamond grinding. Diamond grinding shall be completed prior to pavement grooving. Diamond grinding shall be accomplished by sawing with saw blades impregnated with industrial diamond abrasive.

Diamond grinding shall be performed with a machine designed specifically for diamond grinding capable of cutting a path at least 3 feet (0.9 m) wide. The saw blades shall be 1/8-inch (3-mm) wide with a minimum of 55 to 60 blades per 12 inches (300 mm) of cutting head width; grooves between 0.090 and 0.130 inches (2 and 3.5 mm) wide; and peaks and ridges approximately 1/32 inch (1 mm) higher than the bottom of the grinding cut. The actual number of blades will be determined by the Contractor and depend on the hardness of the aggregate. Equipment or grinding procedures that causes ravels, aggregate fractures, spalls or disturbance to the pavement will not be permitted.

Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The slurry resulting from the grinding operation shall be continuously removed and the pavement left in a

clean condition. The Contractor shall apply a surface treatment per P-608 to all areas that have been subject to grinding.

403-4.16 Nighttime Paving Requirements. The Contractor shall provide adequate lighting during any nighttime construction. A lighting plan shall be submitted by the Contractor and approved by the RPR prior to the start of any nighttime work. All work shall be in accordance with the approved CSPP and lighting plan.

CONTRACTOR QUALITY CONTROL (CQC)

403-5.1 General. The Contractor shall develop a CQCP in accordance with Item C-100. No partial payment will be made for materials that are subject to specific QC requirements without an approved CQCP.

403-5.2 Contractor quality control (QC) facilities. The Contractor shall provide or contract for testing facilities in accordance with Item C-100. The RPR shall be permitted unrestricted access to inspect the Contractor's QC facilities and witness QC activities. The RPR will advise the Contractor in writing of any noted deficiencies concerning the QC facility, equipment, supplies, or testing personnel and procedures. When the deficiencies are serious enough to be adversely affecting the test results, the incorporation of the materials into the work shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

403-5.3 Quality Control (QC) testing. The Contractor shall perform all QC tests necessary to control the production and construction processes applicable to these specifications and as set forth in the approved CQCP. The testing program shall include, but not necessarily be limited to, tests for the control of asphalt content, aggregate gradation, temperatures, aggregate moisture, field compaction, and surface smoothness. A QC Testing Plan shall be developed as part of the CQCP.

a. Asphalt content. A minimum of two tests shall be performed per day in accordance with ASTM D6307 or ASTM D2172 for determination of asphalt content. When using ASTM D6307, the correction factor shall be determined as part of the first test performed at the beginning of plant production; and as part of every tenth test performed thereafter. The asphalt content for the day will be determined by averaging the test results.

b. Gradation. Aggregate gradations shall be determined a minimum of twice per lot from mechanical analysis of extracted aggregate in accordance with ASTM D5444 and ASTM C136, and ASTM C117.

c. Moisture content of aggregate. The moisture content of aggregate used for production shall be determined a minimum of once per lot in accordance with ASTM C566.

d. Moisture content of asphalt. The moisture content of the asphalt shall be determined once per lot in accordance with AASHTO T329 or ASTM D1461.

e. Temperatures. Temperatures shall be checked, at least four times per lot, at necessary locations to determine the temperatures of the dryer, the asphalt binder in the storage tank, the asphalt at the plant, and the asphalt at the job site.

f. In-place density monitoring. The Contractor shall conduct any necessary testing to ensure that the specified density is being achieved. A nuclear gauge may be used to monitor the pavement density in accordance with ASTM D2950.

g. Smoothness for Contractor Quality Control.

The Contractor shall perform smoothness testing in transverse and longitudinal directions daily to verify that the construction processes are producing pavement with variances less than ¼ inch in 12 feet,

identifying areas that may pond water which could lead to hydroplaning of aircraft. If the smoothness criteria is not met, appropriate changes and corrections to the construction process shall be made by the Contractor before construction continues

The Contractor may use a 12-foot (3.7 m) “straightedge, a rolling inclinometer meeting the requirements of ASTM E2133 or rolling external reference device that can simulate a 12-foot (3.7m) straightedge approved by the RPR. Straight-edge testing shall start with one-half the length of the straightedge at the edge of pavement section being tested and then moved ahead one-half the length of the straightedge for each successive measurement. Testing shall be continuous across all joints. The surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on the pavement surface and allowing it to rest upon the two highest spots covered by its length, and measuring the maximum gap between the straightedge and the pavement surface in the area between the two high points. If the rolling inclinometer or external reference device is used, the data may be evaluated using the FAA profile program, ProFAA, using the 12-foot straightedge simulation function.

Smoothness readings shall not be made across grade changes or cross slope transitions. The transition between new and existing pavement and between the start and stop of lanes place shall be evaluated separately for conformance with the plans.

(1) Transverse measurements. Transverse measurements shall be taken for each day’s production placed. Transverse measurements will be taken perpendicular to the pavement centerline each 50 feet (15 m) or more often as determined by the RPR. The joint between lanes shall be tested separately to facilitate smoothness between lanes.

(2) Longitudinal measurements. Longitudinal measurements shall be taken for each day’s production placed. Longitudinal tests will be parallel to the centerline of paving; at the center of paving lanes when widths of paving lanes are less than 20 feet (6 m); and at the third points of paving lanes when widths of paving lanes are 20 ft (6 m) or greater. When placement abuts previously placed material the first measurement shall start with one half the length of the straight edge on the previously placed material.

Deviations on the final surface course in either the transverse or longitudinal direction that will trap water greater than 1/4 inch (6 mm) shall be corrected with diamond grinding per paragraph 403-4.15 or by removing and replacing the surface course to full depth. Grinding shall be tapered in all directions to provide smooth transitions to areas not requiring grinding. All areas in which diamond grinding has been performed shall be subject to the final pavement thickness tolerances specified in paragraph 401-6.1d(3) Areas that have been ground shall be sealed with a surface treatment in accordance with Item P-608. To avoid the surface treatment creating any conflict with runway or taxiway markings, it may be necessary to seal a larger area.

Control charts shall be kept to show area of each day’s placement and the percentage of corrective grinding required. Corrections to production and placement shall be initiated when corrective grinding is required. If the Contractor’s machines and/or methods produce significant areas that need corrective actions in excess of 10 percent of a day’s production, production shall be stopped until corrective measures are implemented by the Contractor.

h. Grade. Grade shall be evaluated daily to allow adjustments to paving operations when grade measurements do not meet specifications. As a minimum, grade shall be evaluated prior to the placement of the first lift and then prior to and after placement of the surface lift.

Measurements will be taken at appropriate grade lines (as a minimum at center and edges of paving lane) and longitudinal spacing as shown on cross-sections and plans. The final surface of the pavement will not vary from the grade line elevations and cross-sections shown on the plans by more than 1/2 inch (12 mm) vertically and 0.1 feet (30 mm) laterally . The documentation will be provided by the Contractor to the RPR within 24 hours

Areas with humps or depressions that exceed grade or smoothness criteria and that retain water on the surface must be ground off provided the course thickness after grinding is not more than 1/2 inch (12 mm) less than the thickness specified on the plans. Grinding shall be in accordance with paragraph 403-4.15.

The Contractor shall repair low areas or areas that cannot be corrected by grinding by removal of deficient areas to the depth of the final course plus 1/2 inch and replacing with new material. Skin patching is not allowed.

403-5.4 Sampling. When directed by the RPR, the Contractor shall sample and test any material that appears inconsistent with similar material being sampled, unless such material is voluntarily removed and replaced or deficiencies corrected by the Contractor. All sampling shall be in accordance with standard procedures specified.

403-5.5 Control charts. The Contractor shall maintain linear control charts both for individual measurements and range (i.e., difference between highest and lowest measurements) for aggregate gradation, asphalt content, and VMA. The VMA for each day shall be calculated and monitored by the QC laboratory.

Control charts shall be posted in a location satisfactory to the RPR and kept current. As a minimum, the control charts shall identify the project number, the contract item number, the test number, each test parameter, the Action and Suspension Limits applicable to each test parameter, and the Contractor’s test results. The Contractor shall use the control charts as part of a process control system for identifying potential problems and assignable causes before they occur. If the Contractor’s projected data during production indicates a problem and the Contractor is not taking satisfactory corrective action, the RPR may suspend production or acceptance of the material.

a. Individual measurements. Control charts for individual measurements shall be established to maintain process control within tolerance for aggregate gradation, asphalt content, and VMA. The control charts shall use the JMF target values as indicators of central tendency for the following test parameters with associated Action and Suspension Limits:

Control Chart Limits for Individual Measurements

Sieve	Action Limit	Suspension Limit
3/4 inch (19.0 mm)	±6%	±9%
1/2 inch (12.5 mm)	±6%	±9%
3/8 inch (9.5 mm)	±6%	±9%
No. 4 (4.75 mm)	±6%	±9%
No. 16 (1.18 mm)	±5%	±7.5%
No. 50 (300 μm)	±3%	±4.5%
No. 200 (75 μm)	±2%	±3%
Asphalt Content	±0.45%	±0.70%
Minimum VMA	-0.5%	-1.0%

b. Range. Control charts for range shall be established to control process variability for the test parameters and Suspension Limits listed below. The range shall be computed for each lot as the difference between the two test results for each control parameter. The Suspension Limits specified below are based on a sample size of n = 2. Should the Contractor elect to perform more than two tests per lot, the Suspension Limits shall be adjusted by multiplying the Suspension Limit by 1.18 for n = 3 and by 1.27 for n = 4.

**Control Chart Limits Based on Range
(n = 2)**

Sieve	Suspension Limit
1/2 inch (12.5 mm)	11%
3/8 inch (9.5 mm)	11%
No. 4 (4.75 mm)	11%
No. 16 (1.18 mm)	9%
No. 50 (300 µm)	6%
No. 200 (75 µm)	3.5%
Asphalt Content	0.8%

c. Corrective action. The CQCP shall indicate that appropriate action shall be taken when the process is believed to be out of tolerance. The Plan shall contain sets of rules to gauge when a process is out of control and detail what action will be taken to bring the process into control. As a minimum, a process shall be deemed out of control and production stopped and corrective action taken, if:

- (1) One point falls outside the Suspension Limit line for individual measurements or range; or
- (2) Two points in a row fall outside the Action Limit line for individual measurements.

403-5.6 Quality control (QC) reports. The Contractor shall maintain records and shall submit reports of QC activities daily in accordance with the CQCP described in Item C-100.

MATERIAL ACCEPTANCE

403-6.1. Quality Assurance Acceptance sampling and testing. Unless otherwise specified, all acceptance sampling and testing necessary to determine conformance with the requirements specified in this section will be performed by the RPR at no cost to the Contractor except that coring as required in this section shall be completed and paid for by the Contractor.

a. Quality Assurance (QA) testing laboratory. The QA testing laboratory performing these acceptance tests will be accredited in accordance with ASTM D3666. The QA laboratory accreditation will be current and listed on the accrediting authority’s website. All test methods required for acceptance sampling and testing will be listed on the lab accreditation.

b. Lot Size. A standard lot will be equal to one day’s production divided into approximately equal sublots of between 400 to 600 tons. When only one or two sublots are produced in a day’s production, the sublots will be combined with the production lot from the previous or next day.

Where more than one plant is simultaneously producing asphalt for the job, the lot sizes will apply separately for each plant.

c. Asphalt air voids. Plant-produced asphalt will be tested for air voids on a subplot basis.

(1) Sampling. Material from each subplot shall be sampled in accordance with ASTM D3665. Samples shall be taken from material deposited into trucks at the plant or at the job site in accordance with ASTM D979. The sample of asphalt may be put in a covered metal tin and placed in an oven for not less than 30 minutes nor more than 60 minutes to maintain the material at or above the compaction temperature as specified in the JMF.

(2) Testing. Air voids will be determined for each subplot in accordance with ASTM D3203 for a set of three compacted specimens prepared in accordance with ASTM D6925.

d. In-place asphalt mat and joint density. Each subplot will be tested for in-place mat and joint density as a percentage of the theoretical maximum density (TMD).

(1) Sampling. The Contractor will cut minimum 5 inches (125 mm) diameter samples in accordance with ASTM D5361. The Contractor shall furnish all tools, labor, and materials for cleaning, and filling the cored pavement. Laitance produced by the coring operation shall be removed immediately after coring, and core holes shall be filled within one day after sampling in a manner acceptable to the RPR.

(2) Bond. Each lift of asphalt shall be bonded to the underlying layer. If cores reveal that the surface is not bonded, additional cores shall be taken as directed by the RPR to determine the extent of unbonded areas. Unbonded areas shall be removed by milling and replaced at no additional cost as directed by the RPR.

(3) Thickness. Thickness of each lift of surface course will be evaluated by the RPR for compliance to the requirements shown on the plans after any necessary corrections for grade. Measurements of thickness will be made using the cores extracted for each subplot for density measurement. The maximum allowable deficiency at any point will not be more than 1/4 inch (6 mm) less than the thickness indicated for the lift. Average thickness of lift, or combined lifts, will not be less than the indicated thickness. Where the thickness tolerances are not met, the lot or subplot shall be corrected by the Contractor at his expense by removing the deficient area and replacing with new pavement. The Contractor, at his expense, may take additional cores as approved by the RPR to circumscribe the deficient area.

(4) Mat density. One core shall be taken from each subplot. Core locations will be determined by the RPR in accordance with ASTM D3665. Cores for mat density shall not be taken closer than one foot (30 cm) from a transverse or longitudinal joint. The bulk specific gravity of each cored sample will be determined in accordance with ASTM D2726. The percent compaction (density) of each sample will be determined by dividing the bulk specific gravity of each subplot sample by the TMD for that subplot.

(5) Joint density. One core centered over the longitudinal joint shall be taken for each subplot which contains a longitudinal joint. Core locations will be determined by the RPR in accordance with ASTM D3665. The bulk specific gravity of each core sample will be determined in accordance with ASTM D2726. The percent compaction (density) of each sample will be determined by dividing the bulk specific gravity of each joint density sample by the average TMD for the lot. The TMD used to determine the joint density at joints formed between lots will be the lower of the average TMD values from the adjacent lots.

403-6.2 Acceptance criteria.

a. General. Acceptance will be based on the implementation of the Contractor Quality Control Program (CQCP) and the following characteristics of the asphalt and completed pavements: air voids, mat density, joint density, grade.

b. Air voids. Acceptance of each lot of plant produced material for air voids will be based upon the average air void from the sublots. If the average air voids of the lot are equal to or greater than 2% and equal to or less than 5%, then the lot will be acceptable. If the average is below 2% or greater than 5%, the lot shall be removed and replaced at the Contractor's expense.

c. Mat density. Acceptance of each lot of plant produced material for mat density will be based on the average of all of the densities taken from the sublots. If the average mat density of the lot so established equals or exceeds 94%, the lot will be acceptable. If the average mat density of the lot is below 94%, the lot shall be removed and replaced at the Contractor's expense.

d. Joint density. Acceptance of each lot of plant produced asphalt for joint density will be based on the average of all of the joint densities taken from the sublots. If the average joint density of the lot so

established equals or exceeds 92%, the lot will be acceptable. If the average joint density of the lot is less than 92%, the Contractor shall stop production and evaluate the method of compacting joints. Production may resume once the reason for poor compaction has been determined and appropriate measures have been taken to ensure proper compaction.

e. Grade. The final finished surface of the pavement of the completed project shall be surveyed to verify that the grade elevations and cross-sections shown on the plans do not deviate more than 1/2 inch (12 mm) vertically or 0.1 feet (30 mm) laterally.

Cross-sections of the pavement shall be taken at a minimum 50-foot longitudinal spacing and at all longitudinal grade breaks. Minimum cross-section grade points shall include grade at centerline, ± 10 feet of centerline, and edge of runway pavement.

The survey and documentation shall be stamped and signed by a licensed surveyor. Payment for sublots that do not meet grade for over 25% of the sublot shall not be more than 95%.

403-6.3 Resampling Pavement for Mat Density.

a. General. Resampling of a lot of pavement will only be allowed for mat density and then, only if the Contractor requests same in writing, within 48 hours after receiving the written test results from the RPR. A retest will consist of all the sampling and testing procedures contained in paragraphs 403-6.1. Only one resampling per lot will be permitted.

(1) A redefined mat density will be calculated for the resampled lot. The number of tests used to calculate the redefined mat density will include the initial tests made for that lot plus the retests.

(2) The cost for resampling and retesting shall be borne by the Contractor.

b. Payment for resampled lots. The redefined mat density for a resampled lot will be used to evaluate the acceptance of that lot in accordance with paragraph 403-6.2.

c. Outliers. Check for outliers in accordance with ASTM E178, at a significance level of 5%. Outliers will be discarded and density determined using the remaining test values.

METHOD OF MEASUREMENT

403-7.1 Measurement. Plant mix asphalt mix pavement shall be measured by the number of tons (kg) of asphalt pavement used in the accepted work. Recorded batch weights or truck scale weights will be used to determine the basis for the tonnage.

BASIS OF PAYMENT

403-8.1 Payment. Payment for a lot of asphalt mixture meeting all acceptance criteria as specified in paragraph 403-6.2 shall be made at the contract unit price per ton (kg) for asphalt. The price shall be compensation for furnishing all materials, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-403-8.1 Asphalt Mixture Surface Course - per ton

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 C29	Standard Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate
ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Standard Test Method for Materials Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM C183	Standard Practice for Sampling and the Amount of Testing of Hydraulic Cement
ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D242	Standard Specification for Mineral Filler for Bituminous Paving Mixtures
ASTM D946	Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction
ASTM D979	Standard Practice for Sampling Bituminous Paving Mixtures
ASTM D1073	Standard Specification for Fine Aggregate for Bituminous Paving Mixtures
ASTM D1074	Standard Test Method for Compressive Strength of Bituminous Mixtures
ASTM D1461	Standard Test Method for Moisture or Volatile Distillates in Bituminous Paving Mixtures
ASTM D2041	Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D2172	Standard Test Method for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
ASTM D2489	Standard Practice for Estimating Degree of Particle Coating of Bituminous-Aggregate Mixtures
ASTM D2726	Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D2950	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods
ASTM D3203	Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures

ASTM D3381	Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
ASTM D4125	Standard Test Methods for Asphalt Content of Bituminous mixtures by the Nuclear Method
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4552	Standard Practice for Classifying Hot-Mix Recycling Agents
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D4867	Standard Test Method for Effect of Moisture on Asphalt Concrete Paving Mixtures
ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate
ASTM D5581	Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 inch-Diameter Specimen)
ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
ASTM D6307	Standard Test Method for Asphalt Content of Hot-Mix Asphalt by Ignition Method
ASTM D6373	Standard Specification for Performance Graded Asphalt Binder
ASTM D6752	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Automatic Vacuum Sealing Method
ASTM D6925	Standard Test Method for Preparation and Determination of the Relative Density of Hot Mix Asphalt (HMA) Specimens by Means of the SuperPave Gyratory Compactor
ASTM D6926	Standard Practice for Preparation of Bituminous Specimens Using Marshall Apparatus
ASTM D6927	Standard Test Method for Marshall Stability and Flow of Bituminous Mixtures
ASTM D6995	Standard Test Method for Determining Field VMA based on the Maximum Specific Gravity of the Mix (Gmm)
ASTM E11	Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
ASTM E178	Standard Practice for Dealing with Outlying Observations
ASTM E2133	Standard Test Method for Using a Rolling Inclinometer to Measure Longitudinal and Transverse Profiles of a Traveled Surface
American Association of State Highway and Transportation Officials (AASHTO)	
AASHTO M156	Standard Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures

AASHTO T329 Standard Method of Test for Moisture Content of Hot Mix Asphalt (HMA) by
Oven Method

AASHTO T 340 Standard Method of Test for Determining the Rutting Susceptibility of Hot Mix
Asphalt (APA) Using the Asphalt Pavement Analyzer (APA)

Asphalt Institute (AI)

MS-2 Mix Design Manual, 7th Edition

MS-26 Asphalt Binder Handbook
AI State Binder Specification Database

FAA Orders

5300.1 Modifications to Agency Airport Design, Construction, and Equipment Standards

Federal Highway Administration (FHWA)

Long Term Pavement Performance Binder program

Software

FAARFIELD

END OF ITEM P-403

THIS PAGE INTENTIONALLY LEFT BLANK

Item P-603 Emulsified Asphalt Tack Coat

DESCRIPTION

603-1.1 This item shall consist of preparing and treating an asphalt or concrete surface with asphalt material in accordance with these specifications and in reasonably close conformity to the lines shown on the plans.

MATERIALS

603-2.1 Asphalt materials. The asphalt material shall be an emulsified asphalt as specified in ASTM D3628 as an asphalt application for tack coat appropriate to local conditions. The emulsified asphalt shall not be diluted. The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for the asphalt material to the Resident Project Representative (RPR) before the asphalt material is applied for review and acceptance. The furnishing of COA for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

CONSTRUCTION METHODS

603-3.1 Weather limitations. The tack coat shall be applied only when the existing surface is dry and the atmospheric temperature is 50°F (10°C) or above; the temperature has not been below 35°F (2°C) for the 12 hours prior to application; and when the weather is not foggy or rainy. The temperature requirements may be waived when directed by the RPR.

603-3.2 Equipment. The Contractor shall provide equipment for heating and applying the emulsified asphalt material. The emulsion shall be applied with a manufacturer-approved computer rate-controlled asphalt distributor. The equipment shall be in good working order and contain no contaminants or diluents in the tank. Spray bar tips must be clean, free of burrs, and of a size to maintain an even distribution of the emulsion. Any type of tip or pressure source is suitable that will maintain predetermined flow rates and constant pressure during the application process with application speeds under eight (8) miles per hour (13 km per hour) or seven (700) feet per minute (213 m per minute).

The equipment will be tested under pressure for leaks and to ensure proper set-up before use to verify truck set-up (via a test-shot area), including but not limited to, nozzle tip size appropriate for application, spray-bar height and pressure and pump speed, evidence of triple-overlap spray pattern, lack of leaks, and any other factors relevant to ensure the truck is in good working order before use.

The distributor truck shall be equipped with a minimum 12-foot (3.7-m) spreader spray bar with individual nozzle control with computer-controlled application rates. The distributor truck shall have an easily accessible thermometer that constantly monitors the temperature of the emulsion, and have an operable mechanical tank gauge that can be used to cross-check the computer accuracy. If the distributor is not equipped with an operable quick shutoff valve, the prime operations shall be started and stopped on building paper.

The distributor truck shall be equipped to effectively heat and mix the material to the required temperature prior to application as required. Heating and mixing shall be done in accordance with the manufacturer’s recommendations. Do not overheat or over mix the material.

The distributor shall be equipped with a hand sprayer.

Asphalt distributors must be calibrated annually in accordance with ASTM D2995. The Contractor must furnish a current calibration certification for the asphalt distributor truck from any State or other agency as approved by the RPR.

A power broom and/or power blower suitable for cleaning the surfaces to which the asphalt tack coat is to be applied shall be provided.

603-3.3 Application of emulsified asphalt material. The emulsified asphalt shall not be diluted. Immediately before applying the emulsified asphalt tack coat, the full width of surface to be treated shall be swept with a power broom and/or power blower to remove all loose dirt and other objectionable material.

The emulsified asphalt material shall be uniformly applied with an asphalt distributor at the rates appropriate for the conditions and surface specified in the table below. The type of asphalt material and application rate shall be approved by the RPR prior to application.

Emulsified Asphalt

Surface Type	Residual Rate, gal/SY (L/square meter)	Emulsion Application Bar Rate, gal/SY (L/square meter)
New asphalt	0.02-0.05 (0.09-0.23)	0.03-0.07 (0.13-0.32)
Existing asphalt	0.04-0.07 (0.18-0.32)	0.06-0.11 (0.27-0.50)
Milled Surface	0.04-0.08 (0.18-0.36)	.06-0.12 (0.27-0.54)
Concrete	0.03-0.05 (0.13-0.23)	0.05-0.08 (0.23-0.36)

After application of the tack coat, the surface shall be allowed to cure without being disturbed for the period of time necessary to permit drying and setting of the tack coat. This period shall be determined by the RPR. The Contractor shall protect the tack coat and maintain the surface until the next course has been placed. When the tack coat has been disturbed by the Contractor, tack coat shall be reapplied at the Contractor’s expense.

603-3.4 Freight and waybills The Contractor shall submit waybills and delivery tickets, during progress of the work. Before the final statement is allowed, file with the RPR certified waybills and certified delivery tickets for all emulsified asphalt materials used in the construction of the pavement covered by the contract. Do not remove emulsified asphalt material from storage until the initial outage and temperature measurements have been taken. The delivery or storage units will not be released until the final outage has been taken.

METHOD OF MEASUREMENT

603-4.1 The emulsified asphalt material for tack coat shall be measured by the gallon (liter). Volume shall be corrected to the volume at 60°F (16°C) in accordance with ASTM D1250. The emulsified asphalt material paid for will be the measured quantities used in the accepted work, provided that the measured quantities are not 10% over the specified application rate. Any amount of emulsified asphalt material more than 10% over the specified application rate for each application will be deducted from the

measured quantities, except for irregular areas where hand spraying of the emulsified asphalt material is necessary. Water added to emulsified asphalt will not be measured for payment.

BASIS OF PAYMENT

603.5-1 Payment shall be made at the contract unit price per gallon (liter) of emulsified asphalt material. This price shall be full compensation for furnishing all materials, for all preparation, delivery, and application of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-603-5.1 Emulsified Asphalt Tack Coat – per gallon

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 D1250 Standard Guide for Use of the Petroleum Measurement Tables

ASTM D2995 Standard Practice for Estimating Application Rate and Residual Application Rate of Bituminous Distributors

ASTM D3628 Standard Practice for Selection and Use of Emulsified Asphalts

END ITEM P-603

THIS PAGE INTENTIONALLY LEFT BLANK

Item P-605 Joint Sealants for Pavements

DESCRIPTION

605-1.1 This item shall consist of providing and installing a resilient and adhesive joint sealing material capable of effectively sealing joints in pavement; joints between different types of pavements; and cracks in existing pavement.

MATERIALS

605-2.1 Joint sealants. Joint sealant materials shall meet the requirements of ASTM 6690.

Each lot or batch of sealant shall be delivered to the jobsite in the manufacturer's original sealed container. Each container shall be marked with the manufacturer's name, batch or lot number, the safe heating temperature, and shall be accompanied by the manufacturer's certification stating that the sealant meets the requirements of this specification.

605-2.2 Backer rod. The material furnished shall be a compressible, non-shrinking, non-staining, non-absorbing material that is non-reactive with the joint sealant in accordance with ASTM D5249. The backer-rod material shall be $25\% \pm 5\%$ larger in diameter than the nominal width of the joint.

CONSTRUCTION METHODS

605-3.1 Time of application. Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction equipment. The pavement temperature shall be 50°F (10°C) and rising at the time of application of the poured joint sealing material. Do not apply sealant if moisture is observed in the joint.

605-3.2 Equipment. Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and maintained in satisfactory condition at all times. Submit a list of proposed equipment to be used in performance of construction work including descriptive data, 30 days prior to use on the project.

a. Tractor-mounted routing tool. Provide a routing tool, used for removing old sealant from the joints, of such shape and dimensions and so mounted on the tractor that it will not damage the sides of the joints. The tool shall be designed so that it can be adjusted to remove the old material to varying depths as required. The use of V-shaped tools or rotary impact routing devices will not be permitted. Hand-operated spindle routing devices may be used to clean and enlarge random cracks.

b. Concrete saw. Provide a self-propelled power saw, with water-cooled diamond or abrasive saw blades, for cutting joints to the depths and widths specified.

c. Sandblasting equipment. The Contractor must demonstrate sandblasting equipment including the air compressor, hose, guide and nozzle size, under job conditions, before approval in accordance with paragraph 605-3.3. The Contractor shall demonstrate, in the presence of the Resident Project Representative (RPR), that the method cleans the joint and does not damage the joint.

d. Hand tools. Hand tools may be used, when approved, for removing defective sealant from a crack and repairing or cleaning the crack faces. Hand tools should be carefully evaluated for potential spalling effects prior to approval for use.

e. Hot-poured sealing equipment. The unit applicators used for heating and installing ASTM D6690 joint sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer; a direct-connected pressure-type extruding device with a nozzle shaped for inserting in the joint to be filled; positive temperature devices for controlling the temperature of the transfer oil and sealant; and a recording type thermometer for indicating the temperature of the sealant. The applicator unit shall be designed so that the sealant will circulate through the delivery hose and return to the inner kettle when not in use.

605-3.3 Preparation of joints. Pavement joints for application of material in this specification must be dry, clean of all scale, dirt, dust, curing compound, and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method cleans the joint and does not damage the joint.

a. Sawing. All joints shall be sawed in accordance with specifications and plan details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

b. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, filler, protrusions of hardened concrete, old sealant and other foreign material from the sides and upper edges of the joint space to be sealed. Cleaning shall be accomplished by routing and sawing as specified in paragraph 605-3.2. The newly exposed concrete joint faces and the pavement surface extending a minimum of 1/2 inch (12 mm) from the joint edge shall be sandblasted clean. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches (75 mm) from it. After final cleaning and immediately prior to sealing, blow out the joints with compressed air and leave them completely free of debris and water. The joint faces shall be surface dry when the seal is applied.

c. Backer Rod. When the joint opening is of a greater depth than indicated for the sealant depth, plug or seal off the lower portion of the joint opening using a backer rod in accordance with paragraph 605-2.2 to prevent the entrance of the sealant below the specified depth. Take care to ensure that the backer rod is placed at the specified depth and is not stretched or twisted during installation.

d. Bond-breaking tape. Where inserts or filler materials contain bitumen, or the depth of the joint opening does not allow for the use of a backup material, insert a bond-separating tape breaker in accordance with paragraph 605-2.3 to prevent incompatibility with the filler materials and three-sided adhesion of the sealant. Securely bond the tape to the bottom of the joint opening so it will not float up into the new sealant.

605-3.4 Installation of sealants. Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the RPR before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

Immediately preceding, but not more than 50 feet (15 m) ahead of the joint sealing operations, perform a final cleaning with compressed air. Fill the joints from the bottom up to 1/4 inch (3 mm) \pm 1/16 inch (2 mm) below the top of pavement surface; or bottom of groove for grooved pavement. Remove and discard excess or spilled sealant from the pavement by approved methods. Install the sealant in such a manner as to prevent the formation of voids and entrapped air. In no case shall gravity methods or pouring pots be used to install the sealant material. Traffic shall not be permitted over newly sealed pavement until authorized by the RPR. When a primer is recommended by the manufacturer, apply it evenly to the joint faces in accordance with the manufacturer's instructions. Check the joints frequently to ensure that the newly installed sealant is cured to a tack-free condition within the time specified.

605-3.5 Inspection. The Contractor shall inspect the joint sealant for proper rate of cure and set, bonding to the joint walls, cohesive separation within the sealant, reversion to liquid, entrapped air and voids. Sealants exhibiting any of these deficiencies at any time prior to the final acceptance of the project shall be removed from the joint, wasted, and replaced as specified at no additional cost to the airport.

605-3.6 Clean-up. Upon completion of the project, remove all unused materials from the site and leave the pavement in a clean condition.

METHOD OF MEASUREMENT

605-4.1 Joint sealing material shall be measured by the linear foot of sealant in place, completed, and accepted.

BASIS OF PAYMENT

605-5.1 Payment for joint sealing material shall be made at the contract unit price per linear foot. The price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-605-5.1	Joint Sealing Filler (Saw & Seal) per linear foot
----------------	---

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 D789	Standard Test Method for Determination of Relative Viscosity of Polyamide (PA)
ASTM D5249	Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints
ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt

Advisory Circulars (AC)

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

END ITEM P-605

THIS PAGE INTENTIONALLY LEFT BLANK

Item P-610 Concrete for Miscellaneous Structures

DESCRIPTION

610-1.1 This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all concrete other than airfield pavement which are cast-in-place.

MATERIALS

610-2.1 General. Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Resident Project Representative (RPR) before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

a. Reactivity. Fine aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix.

If the expansion is greater than 0.20%, the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

610-2.2 Coarse aggregate. The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.

Coarse Aggregate Grading Requirements

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 1/2 inch (37.5 mm)	467 or 4 and 67
1 inch (25 mm)	57
3/4 inch (19 mm)	67
1/2 inch (12.5 mm)	7

610-2.2.1 Coarse Aggregate susceptibility to durability (D) cracking.

Coarse aggregate may only be accepted from sources that have a 20-year service history for the same gradation to be supplied with no history of D-Cracking. Aggregates that do not have a 20-year record of service free from major repairs (less than 5% of slabs replaced) in similar conditions without D-cracking shall not be used unless the material currently being produced has a durability factor greater than or equal to 95 per ASTM C666. The Contractor shall submit a current certification and test results to verify the aggregate acceptability. Test results will only be accepted from a State Department of Transportation (DOT) materials laboratory or an accredited laboratory. Certification and test results which are not dated or which are over one (1) year old or which are for different gradations will not be accepted.

Crushed granite, calcite cemented sandstone, quartzite, basalt, diabase, rhyolite or trap rock are considered to meet the D-cracking test requirements but must meet all other quality tests specified in Item P-501.

610-2.3 Fine aggregate. The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.

610-2.4 Cement. Cement shall conform to the requirements of ASTM C150 Type II.

610-2.5 Cementitious materials.

a. Fly ash. Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash shall have a Calcium Oxide (CaO) content of less than 15% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the RPR.

b. Slag cement (ground granulated blast furnace (GGBF)). Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.

610-2.6 Water. Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

610-2.7 Admixtures. The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the

requirements of the cited specifications. Subsequent tests may be made of samples taken by the RPR from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

a. Air-entraining admixtures. Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

b. Water-reducing admixtures. Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

c. Other chemical admixtures. The use of set retarding, and set-accelerating admixtures shall be approved by the RPR. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.

610-2.8 Premolded joint material. Premolded joint material for expansion joints shall meet the requirements of ASTM D1751.

610-2.9 Joint filler. The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

610-2.10 Steel reinforcement. Reinforcing shall consist of **Reinforcing Steel** conforming to the requirements of **ASTM A615, A706, A775, and A934.**

610-2.11 Materials for curing concrete. Curing materials shall conform to **ASTM C309.**

CONSTRUCTION METHODS

610-3.1 General. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the RPR.

610-3.2 Concrete Mixture. The concrete shall develop a compressive strength of 4000 psi 28 MPa in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cementitious material per cubic yard (280 kg per cubic meter). The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches (100 mm) as determined by ASTM C143.

610-3.3 Mixing. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94 or ASTM C685.

The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F (4°C) without the RPRs approval. If approval is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F (10°C) nor more than 100°F (38°C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

610-3.4 Forms. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface.

610-3.5 Placing reinforcement. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

610-3.6 Embedded items. Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

610-3.7 Concrete Consistency. The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.

610-3.8 Placing concrete. All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the RPR. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet (1.5 m). Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

610-3.9 Vibration. Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.

610-3.10 Joints. Joints shall be constructed as indicated on the plans.

610-3.11 Finishing. All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated.

610-3.12 Curing and protection. All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.

610-3.13 Cold weather placing. When concrete is placed at temperatures below 40°F (4°C), follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.

610-3.14 Hot weather placing. When concrete is placed in hot weather greater than 85°F (30 °C), follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

QUALITY ASSURANCE (QA)

610-4.1 Quality Assurance sampling and testing. Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content in accordance with ASTM C231; make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

610-4.2 Defective work. Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

METHOD OF MEASUREMENT

610-5.1 Concrete shall not be measured separately for payment, but shall be considered incidental to other pay items.

BASIS OF PAYMENT

610-6.1 Payment shall not be made separately for concrete, as concrete shall be considered incidental to other applicable pay items.

REFERENCES

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

ASTM International (ASTM)

ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars

ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)

ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)
ASTM D1752	Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction

American Concrete Institute (ACI)

ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 308R	Guide to External Curing of Concrete
ACI 309R	Guide for Consolidation of Concrete

END OF ITEM P-610

THIS PAGE INTENTIONALLY LEFT BLANK

Item P-620 Runway and Taxiway Marking

DESCRIPTION

620-1.1 This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR). The terms “paint” and “marking material” as well as “painting” and “application of markings” are interchangeable throughout this specification.

MATERIALS

620-2.1 Materials acceptance. The Contractor shall furnish manufacturer’s certified test reports, for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. This certification along with a copy of the paint manufacturer’s surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

620-2.2 Marking materials.

Table 1. Marking Materials

Paint ¹				Glass Beads ^{2,3}	
Type	Color	Fed Std. 595 Number	Application Rate Maximum	Type	Application Rate Minimum
Waterborne Type II	White	37925	115 ft ² /gal	Type I, Gradation A	7 lb/gal
Waterborne Type II	Red	31136	115 ft ² /gal	Type I, Gradation A	7 lb/gal
Waterborne Type II	Yellow	33538 or 33655	115 ft ² /gal	Type I, Gradation A	7 lb/gal
Waterborne Type II	Black	37038	115 ft ² /gal	No beads	No beads

¹ See paragraph 620-2.2a

² See paragraph 620-2.2b

³ Type III glass beads at 10 lb/gal shall be used for white paint associated with surface painted hold signs (if needed)

a. Paint. Paint shall be waterborne in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595.

Waterborne. Paint shall meet the requirements of Federal Specification TT-P-1952F, Type II. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis.

b. Reflective media. Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D Type I, Gradation A.

Glass beads for red and pink paint shall meet the requirements for Type I, Gradation A.

Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Glass beads shall not be used in black and green paint.

Type III glass beads shall not be used in red and pink paint.

CONSTRUCTION METHODS

620-3.1 Weather limitations. Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

620-3.2 Equipment. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

620-3.3 Preparation of surfaces. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminants that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

a. Preparation of new pavement surfaces. The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

b. Preparation of pavement to remove existing markings. Existing pavement markings shall be removed by rotary grinding, water blasting, or by other methods approved by the RPR minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

c. Preparation of pavement markings prior to remarking. Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

620-3.4 Layout of markings. The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

620-3.5 Application. A period of 30 days shall elapse between placement of surface course or seal coat and application of the permanent paint markings. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m), and marking dimensions and spacing shall be within the following tolerances:

Marking Dimensions and Spacing Tolerance

Dimension and Spacing	Tolerance
36 inch (910 mm) or less	±1/2 inch (12 mm)
greater than 36 inch to 6 feet (910 mm to 1.85 m)	±1 inch (25 mm)
greater than 6 feet to 60 feet (1.85 m to 18.3 m)	±2 inch (50 mm)
greater than 60 feet (18.3 m)	±3 inch (76 mm)

The paint shall be mixed in accordance with the manufacturer’s instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment and distribution should be performed.

620-3.6 Application--preformed thermoplastic airport pavement markings.

Preformed thermoplastic pavement markings not used.

620-3.7 Control strip. Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

620-3.8 Retro-reflectance. Reflectance shall be measured with a portable retro-reflectometer meeting ASTM E1710 (or equivalent). A total of 6 readings shall be taken over a 6 square foot area with 3

readings taken from each direction. The average shall be equal to or above the minimum levels of all readings which are within 30% of each other.

Minimum Retro-Reflectance Values

Material	Retro-reflectance mcd/m ² /lux		
	White	Yellow	Red
Initial Type I	300	175	35
Initial Type III	600	300	35
Initial Thermoplastic	225	100	35
All materials, remark when less than ¹	100	75	10

¹ Prior to remarking determine if removal of contaminants on markings will restore retro-reflectance.

620-3.9 Protection and cleanup. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

METHOD OF MEASUREMENT

620-4.1 The quantity of surface preparation shall be measured by the number of square feet (square meters) for each type of surface preparation specified in paragraph 620-3.3.

620-4.2 The quantity of markings shall be paid for shall be measured by the number of square feet (square meters) of painting.

620-4.3 The quantity of reflective media shall be paid for by the number of pounds (km) of reflective media.

620-4.4 Temporary markings are not required.

BASIS OF PAYMENT

620-5.0 This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

620-5.1 Payment for surface preparation shall be made at the contract price for the number of square feet (square meters) for each type of surface preparation specified in paragraph 620-3.3.

620-5.2 Payment for markings shall be made at the contract price for the number of square feet (square meters) of painting and the number of pounds (km) of reflective media.

620-5.3 Payment for reflective media shall be made at the contract unit price for the number of pounds (km) of reflective media.

620-5.4 Temporary markings are not required.

Payment will be made under:

Item P-620-5.1	Surface Preparation per square foot (square meter)
Item P-620-5.2	Marking per square foot (square meter)
Item P-620-5.3	Reflective Media per pound (kg)

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 D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products
ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1652	Standard Test Method for Epoxy Content of Epoxy Resins
ASTM D2074	Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D7585	Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments
ASTM E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
ASTM E1710	Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer
ASTM E2302	Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

Code of Federal Regulations (CFR)

40 CFR Part 60, Appendix A-7, Method 24	Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings
---	--

29 CFR Part 1910.1200 Hazard Communication

Federal Specifications (FED SPEC)

FED SPEC TT-B-1325D	Beads (Glass Spheres) Retro-Reflective
FED SPEC TT-P-1952F	Paint, Traffic and Airfield Marking, Waterborne
FED STD 595	Colors used in Government Procurement

Commercial Item Description

A-A-2886B Paint, Traffic, Solvent Based

Advisory Circulars (AC)

AC 150/5340-1 Standards for Airport Markings

AC 150/5320-12 Measurement, Construction, and Maintenance of Skid Resistant Airport
Pavement Surfaces

END OF ITEM P-620

Item P-621 Saw-Cut Grooves

DESCRIPTION

621-1.1 This item consists of constructing saw-cut grooves to minimize hydroplaning during wet weather, providing a skid resistant surface in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR).

CONSTRUCTION METHODS

621-2.1 Procedures. The Contractor shall submit to the RPR the grooving sequence and method of placing guide lines to control grooving operation. Transverse grooves saw-cut in the pavement must form a 1/4 inch (+1/16 inch, -0 inch) wide by 1/4 inch ($\pm 1/16$ inch) deep by 1-1/2 inch (-1/8 inch, +0 inch) center-to-center configuration. The grooves must be continuous for the entire runway length. They must be saw-cut transversely (perpendicular to centerline) in the runway and high-speed taxiway pavement to not less than 10 feet (3 m) from the runway pavement edge to allow adequate space for equipment operation.

The saw-cut grooves must meet the following tolerances. The tolerances apply to each day's production and to each piece of grooving equipment used for production. The Contractor is responsible for all controls and process adjustments necessary to meet these tolerances. The Contractor shall routinely spot check for compliance each time the equipment aligns for a grooving pass.

a. Alignment tolerance. The grooves shall not vary more than $\pm 1-1/2$ inch (38 mm) in alignment for 75 feet (23 m) along the runway length, allowing for realignment every 500 feet (150 m) along the runway length.

b. Groove tolerance.

(1) Depth. The standard depth is 1/4 inch (6 mm). At least 90% of the grooves must be at least 3/16 inch (5 mm), at least 60% of the grooves must be at least 1/4 inch (6 mm), and not more than 10% of the grooves may exceed 5/16 inch (8 mm).

(2) Width. The standard width is 1/4 inch (6 mm). At least 90% of the grooves must be at least 3/16 inch (5 mm), at least 60% of the grooves must be at least 1/4 inch (6 mm), and not more than 10% of the grooves may exceed 5/16 inch (8 mm).

(3) Center-to-center spacing. The standard spacing is 1-1/2 inch (38 mm). Minimum spacing 1-3/8 inch (34 mm). Maximum spacing 1-1/2 inch (38 mm).

Saw-cut grooves must not be closer than 3 inches (8 cm) or more than 9 inches (23 cm) from transverse joints in concrete pavements. Grooves must not be closer than 6 inches (150 mm) and no more than 18 inches (0.5 m) from in-pavement light fixtures. Grooves may be continued through longitudinal construction joints. Where neoprene compression seals have been installed and the compression seals are recessed sufficiently to prevent damage from the grooving operation, grooves may be continued through the longitudinal joints. Where neoprene compression seals have been installed and the compression seals are not recessed sufficiently to prevent damage from the grooving operation, grooves must not be closer than 3 inches (8 cm) or more than 5 inches (125 mm) from the longitudinal joints. Where lighting cables are installed, grooving through longitudinal or diagonal saw kerfs shall not be allowed.

621-2.2 Environmental requirements. Grooving operations will not be permitted when freezing conditions prevent the immediate removal of debris and/or drainage of water from the grooved area. Discharge and disposal of waste slurry shall be the Contractor's responsibility.

621-2.3 Control strip. Groove a control strip in an area of the pavement outside of the trafficked area, as approved by the RPR. The area shall be **130** feet long by two lanes wide. Demonstrate the setup and alignment process, the grooving operation, and the waste slurry disposal.

621-2.4 Existing pavements. Bumps, depressed areas, bad or faulted joints, and badly cracked and/or spalled areas in the pavement shall not be grooved until such areas are adequately repaired or replaced.

621-2.5 New pavements. New asphalt and Portland cement concrete pavements shall be allowed to cure for a minimum of 30 days before grooving, to allow the material to become stable enough to prevent closing of the grooves under normal use. If it can be demonstrated that grooves are stable, and can be installed with no spalling, tearing or raveling of the groove edge, grooving may occur sooner than 30 days with approval of the RPR. All grade corrections must be completed prior to grooving. Spalling along or tearing or raveling of the groove edges shall not be allowed.

621-2.6 Grooving machine. Provide a grooving machine that is power driven, self-propelled, specifically designed and manufactured for pavement grooving, and has a self-contained and integrated continuous slurry vacuum system as the primary method for removing waste slurry. The grooving machine shall be equipped with diamond-saw cutting blades, and capable of making at least 18 inches (0.5 m) in width of multiple parallel grooves in one pass of the machine. Thickness of the cutting blades shall be capable of making the required width and depth of grooves in one pass of the machine. The cutting head shall not contain a mixture of new and worn blades or blades of unequal wear or diameter. Match the blade type and configuration with the hardness of the existing airfield pavement. The wheels on the grooving machine shall be of a design that will not scar or spall the pavement. Provide the machine with devices to control depth of groove and alignment.

621-2.7 Water supply. Water for the grooving operation shall be provided by the Contractor.

621-2.8 Clean-up. During and after installation of saw-cut grooves, the Contractor must remove from the pavement all debris, waste, and by-products generated by the operations to the satisfaction of the RPR. Cleanup of waste material must be continuous during the grooving operation. Flush debris produced by the machine to the edge of the grooved area or pick it up as it forms. The dust coating remaining shall be picked up or flushed to the edge of the area if the resultant accumulation is not detrimental to the vegetation or storm drainage system. Accomplish all flushing operations in a manner to prevent erosion on the shoulders or damage to vegetation. Waste material must be disposed of in an approved manner. Waste material must not be allowed to enter the airport storm sewer system. The Contractor must dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations

621-2.9 Repair of damaged pavement. Grooving must be stopped and damaged pavement repaired at the Contractor's expense when directed by the RPR.

ACCEPTANCE

621-3.1 Acceptance testing. Grooves will be accepted based on results of zone testing. All acceptance testing necessary to determine conformance with the groove tolerances specified will be performed by the RPR.

Instruments for measuring groove width and depth must have a range of at least 0.5 inch (12 mm) and a resolution of at least 0.005 inch (0.13 mm). Gauge blocks or gauges machined to standard grooves width, depth, and spacing may be used.

Instruments for measuring center-to-center spacing must have a range of at least 3 inches (8 cm) and a resolution of at least 0.02 inch (0.5 mm).

The RPR will measure grooves in five zones across the pavement width. Measurements will be made at least three times during each day's production. Measurements in all zones will be made for each cutting head on each piece of grooving equipment used for each day's production.

The five zones are as follows:

- Zone 1 Centerline to 5 feet (1.5 m) left or right of the centerline.
- Zone 2 5 feet (1.5 m) to 25 feet (7.5 m) left of the centerline.
- Zone 3 5 feet (1.5 m) 25 feet (7.5 m) right of the centerline.
- Zone 4 25 feet (7.5 m) to edge of grooving left of the centerline.
- Zone 5 25 feet (7.5 m) to edge of grooving right of the centerline.

At a random location within each zone, five consecutive grooves sawed by each cutting head on each piece of grooving equipment will be measured for width, depth, and spacing. The five consecutive measurements must be located about the middle blade of each cutting head ± 4 inches (100 mm). Measurements will be made along a line perpendicular to the grooves.

- Width or depth measurements less than 0.170 inch (4 mm) shall be considered less than 3/16 inch (5 mm).
- Width or depth measurements more than 0.330 inch (8 mm) shall be considered more than 5/16 inch (8 mm).
- Width or depth measurements more than 0.235 inch (6 mm) shall be considered more than 1/4 inch (6 mm).

Production must be adjusted when more than one groove on a cutting head fails to meet the standard depth, width, or spacing in more than one zone.

METHOD OF MEASUREMENT

621-4.1 The quantity of grooving to be paid for shall be the number of square yards (square meters) of grooving performed in accordance with the specifications and accepted by the RPR per paragraph 621-3.1.

BASIS OF PAYMENT

621-5.1 Payment for saw-cut grooving. Payment for saw-cut grooving will be made at the contract unit price per square yard (square meter) for saw-cut grooving. This price shall be full compensation for furnishing all materials, and for all preparation, delivering, and application of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

- Item P-621-5.1 Grooving, unit price per square yard (square meter)

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 150/5320-12

Measurement, Construction, and Maintenance of Skid Resistant Airport
Pavement Surfaces

END OF ITEM P-621

Item T-901 Seeding

DESCRIPTION

901-1.1 This item shall consist of soil preparation, seeding the areas shown on the plans or as directed by the RPR 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 RPR 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	Rate of Application lb./1000 SF
Creeping Red Fescue	96	85	35 (44%)	0.80 (44%)
Perennial Ryegrass	98	90	30 (38%)	0.69 (38%)
Redtop	95	80	5 (6%)	0.11 (6%)
Alsike Clover	97	90	5 (6%)	0.11 (6%)
Birdsfoot Trefoil	98	80	5 (6%)	0.11 (6%)
TOTAL			80 lbs/acre	1.84 lbs/1000 SF

Seeding shall be performed during the period between spring and late summer (prior to September 15th, unless otherwise approved by the RPR.

901-2.2 Lime. Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 (850 µm) mesh sieve and 50% will pass

through a No. 100 (150 µm) mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate as shown in table 1. All liming materials shall conform to the requirements of ASTM C602.

Table 1 – Supplemental Lime

Existing Soil pH	Limestone to be Added	
	Tons/Acre	Pounds/1000 SF
4.0 – 4.4	3	138
4.5 – 4.9	2	92
5.0 – 5.4	1	46

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 commercial fertilizer and shall be spread at the rate of as shown in Table 2 as specific site conditions require.

Table 2 – Fertilizer Application Information

Percent of Nutrients		Minimum Application Rate (Lbs per 1000 Sq. Ft.)	Measurement Factor
Initial	Refertilization		
10-10-10		20.0	1.0
15-15-15		13.4	1.5
19-19-19		10.5	1.9
	10-3-6	20.0	1.0
	12-2-8	16.7	1.2
	12-4-8	16.7	1.2

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 RPR 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 including 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. Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds that have previously been prepared as described above. The lime shall then be worked into the top 3 inches (75 mm) of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.

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 RPR all sources of water at least two (2) weeks prior to use. The RPR 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 RPR 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 RPR, 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 RPR. 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 RPR. 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 The quantity of seeding to be paid for shall be the number of square feet measured on the ground surface, completed and accepted.

BASIS OF PAYMENT

901-5.1 Payment shall be made at the contract unit price per square foot (sq m) or fraction thereof, which price and payment shall be full compensation for furnishing and placing all material and for all labor, equipment, tools, and incidentals necessary to complete the work prescribed in this item.

Payment will be made under:

Item 901-5.1 Seeding - per square foot (sq m)

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-905 Topsoil

DESCRIPTION

905-1.1 This item shall consist of preparing the ground surface for topsoil application, removing topsoil from designated stockpiles or areas to be stripped on the site or from approved sources off the site, and placing and spreading the topsoil on prepared areas in accordance with this specification at the locations shown on the plans or as directed by the RPR.

MATERIALS

905-2.1 Topsoil. Topsoil shall be the surface layer of soil with no admixture of refuse or any material toxic to plant growth, and it shall be reasonably free from subsoil and stumps, roots, brush, stones (2 inches (50 mm) or more in diameter), and clay lumps or similar objects. Brush and other vegetation that will not be incorporated with the soil during handling operations shall be cut and removed. Ordinary sod and herbaceous growth such as grass and weeds are not to be removed, but shall be thoroughly broken up and intermixed with the soil during handling operations. Heavy sod or other cover, which cannot be incorporated into the topsoil by discing or other means, shall be removed. The topsoil or soil mixture, unless otherwise specified or approved, shall have a pH range of approximately 5.5 pH to 7.6 pH, when tested in accordance with the methods of testing of the Association of Official Agricultural Chemists in effect on the date of invitation of bids. The organic content shall be not less than 3% nor more than 20% as determined by the wet-combustion method (chromic acid reduction). There shall be not less than 20% nor more than 80% of the material passing the 200 mesh (75 μ m) sieve as determined by the wash test in accordance with ASTM C117.

Natural topsoil may be amended by the Contractor with approved materials and methods to meet the above specifications.

905-2.2 Inspection and tests. Within 10 days following acceptance of the bid, the RPR shall be notified of the source of topsoil to be furnished by the Contractor. The topsoil shall be inspected to determine if the selected soil meets the requirements specified and to determine the depth to which stripping will be permitted. At this time, the Contractor may be required to take representative soil samples from several locations within the area under consideration and to the proposed stripping depths, for testing purposes as specified in paragraph 905-2.1.

CONSTRUCTION METHODS

905-3.1 General. Areas to be topsoiled shall be shown on the plans. If topsoil is available on the site, the location of the stockpiles or areas to be stripped of topsoil and the stripping depths shall be shown on the plans.

Suitable equipment necessary for proper preparation and treatment of the ground surface, stripping of topsoil, and for the handling and placing of all required materials shall be on hand, in good condition, and approved by the RPR before the various operations are started.

905-3.2 Preparing the ground surface. Immediately prior to dumping and spreading the topsoil on any area, the surface shall be loosened by discs or spike-tooth harrows, or by other means approved by the

RPR, to a minimum depth of 2 inches (50 mm) to facilitate bonding of the topsoil to the covered subgrade soil. The surface of the area to be topsoiled shall be cleared of all stones larger than 2 inches (50 mm) in any diameter and all litter or other material which may be detrimental to proper bonding, the rise of capillary moisture, or the proper growth of the desired planting. Limited areas, as shown on the plans, which are too compact to respond to these operations shall receive special scarification.

Grades on the area to be topsoiled, which have been established by others as shown on the plans, shall be maintained in a true and even condition. Where grades have not been established, the areas shall be smooth-graded and the surface left at the prescribed grades in an even and compacted condition to prevent the formation of low places or pockets where water will stand.

905-3.3 Obtaining topsoil. Prior to the stripping of topsoil from designated areas, any vegetation, briars, stumps and large roots, rubbish or stones found on such areas, which may interfere with subsequent operations, shall be removed using methods approved by the RPR. Heavy sod or other cover, which cannot be incorporated into the topsoil by discing or other means shall be removed.

When suitable topsoil is available on the site, the Contractor shall remove this material from the designated areas and to the depth as directed by the RPR. The topsoil shall be spread on areas already tilled and smooth-graded, or stockpiled in areas approved by the RPR. Any topsoil stockpiled by the Contractor shall be rehandled and placed without additional compensation. Any topsoil that has been stockpiled on the site by others, and is required for topsoil purposes, shall be removed and placed by the Contractor. The sites of all stockpiles and areas adjacent thereto which have been disturbed by the Contractor shall be graded if required and put into a condition acceptable for seeding.

When suitable topsoil is secured off the airport site, the Contractor shall locate and obtain the supply, subject to the approval of the RPR. The Contractor shall notify the RPR sufficiently in advance of operations in order that necessary measurements and tests can be made. The Contractor shall remove the topsoil from approved areas and to the depth as directed. The topsoil shall be hauled to the site of the work and placed for spreading, or spread as required. Any topsoil hauled to the site of the work and stockpiled shall be rehandled and placed without additional compensation.

905-3.4 Placing topsoil. The topsoil shall be evenly spread on the prepared areas to a uniform depth of 2 inches (50 mm) after compaction, unless otherwise shown on the plans or stated in the special provisions. Spreading shall not be done when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to the work. Spreading shall be carried on so that turving operations can proceed with a minimum of soil preparation or tilling.

After spreading, any large, stiff clods and hard lumps shall be broken with a pulverizer or by other effective means, and all stones or rocks (2 inches (50 mm) or more in diameter), roots, litter, or any foreign matter shall be raked up and disposed of by the Contractor. After spreading is completed, the topsoil shall be satisfactorily compacted by rolling with a cultipacker or by other means approved by the RPR. The compacted topsoil surface shall conform to the required lines, grades, and cross-sections. Any topsoil or other dirt falling upon pavements as a result of hauling or handling of topsoil shall be promptly removed.

METHOD OF MEASUREMENT

905-4.1 Topsoil obtained on the site shall be measured by the number of cubic yards (cubic meters) of topsoil measured in its original position and stripped or excavated. Topsoil stockpiled by others and removed for topsoil by the Contractor shall be measured by the number of cubic yards (cubic meters) of topsoil measured in the stockpile. Topsoil shall be measured by volume in cubic yards (cubic meters) computed by the method of end areas.

905-4.2 Topsoil obtained off the site shall be measured by the number of cubic yards (cubic meters) of topsoil measured in its original position and stripped or excavated. Topsoil shall be measured by volume in cubic yards (meters) computed by the method of end areas.

BASIS OF PAYMENT

905-5.1 Payment will be made at the contract unit price per cubic yard (cubic meter) for topsoil (obtained on the site). This price shall be full compensation for furnishing all materials and for all preparation, placing, and spreading of the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

905-5.2 Payment will be made at the contract unit price per cubic yard (cubic meter) for topsoil (obtained off the site). This price shall be full compensation for furnishing all materials and for all preparation, placing, and spreading of the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item T-905-5.1 Topsoil (Furnished from Off the Site) - per cubic yard (cubic meter)

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 C117 Materials Finer than 75 μm (No. 200) Sieve in Mineral Aggregates by Washing

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-905

THIS PAGE INTENTIONALLY LEFT BLANK

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 RPR.

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

908-2.2 Inspection. The RPR 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 RPR 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 RPR. 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 RPR. 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 RPR. 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 RPR, 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 RPR, 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 RPR, 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 RPR, 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 Mulching shall not be measured separately for payment, but shall be considered incidental to the Seeding pay item.

BASIS OF PAYMENT

908-5.1 No separate payment will be made for mulching, as it shall be considered incidental to the Seeding pay item.

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

THIS PAGE INTENTIONALLY LEFT BLANK

Item L-125 Installation of Airport Lighting Systems

DESCRIPTION

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

EQUIPMENT AND MATERIALS

125-2.1 General.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

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

c. All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in electronic PDF format, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

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

EQUIPMENT AND MATERIALS

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

INSTALLATION

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

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

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

METHOD OF MEASUREMENT

125-4.1 Reflective markers will be measured by the number installed as completed units in place, ready for operation, and accepted by the RPR.

BASIS OF PAYMENT

125-5.1 Payment will be made at the Contract unit price for each reflective marker (regardless of color) installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

L-125-5.1 Retroreflective Marker – per each

REFERENCES

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

Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems

AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program
Engineering Brief (EB)	
EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures

END OF ITEM L-125

THIS PAGE INTENTIONALLY LEFT BLANK

Item S-001 Installation of Proposed EMAS System

DESCRIPTION

001-1.1 Installation of the proposed EMAS system shall be performed by the Contractor in accordance with drawings QS101 and QS501 and specification Item P-555.

MATERIALS AND EQUIPMENT

001-2.1 EMAS Materials. Refer to Item P-555.

001-2.2 Reinforced Concrete. Concrete and reinforcement material specifications for concrete anchor beam shall conform to Item P-610 Concrete for Miscellaneous Structures.

001-2.3 Equipment for EMAS Installation. Refer to Item P-555, Section 555-4.6.

CONSTRUCTION METHODS

001-3.1 Concrete Anchor Beam. Concrete anchor beam shall be constructed as shown on drawings QS101 and QS501. Contractor's surveyor shall layout existing limits of proposed anchor beam once P-403 paving is complete. Asphalt pavement shall be neatly sawcut along the lengths of the proposed anchor beam to expose a clean vertical face. Contractor shall carefully excavate to the depth shown in the details using a small rubber tire backhoe or excavator. Contractor shall not damage abutting pavement; RPR reserves the right to require hand-excavation if any damage is caused by the contractor's excavating equipment. Any loose or uncompacted material at the bottom of the trench shall be re-compacted prior to installing proposed rebar and placing concrete.

001-3.2 Transportation of EMAS Blocks. As further described in Item P-555, the Owner-provided EMAS blocks will be stored in the new EMAS block storage area as shown on drawing GP-01. The Contractor shall be responsible for transporting the EMAS blocks (and other materials as described in Item P-555) from the new EMAS block storage area to the project site as needed for installation.

METHOD OF MEASUREMENT

001-4.1 Installation of Proposed EMAS System shall be measured per lump sum, and shall include all work associated with constructing the concrete anchor beam and for transportation and installation of owner-furnished EMAS blocks, sealants, coverings, deflector shield, and other ancillary materials.

BASIS OF PAYMENT

001-5.1 Payment will be made at the contract lump sum price for Installation of Proposed EMAS System. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

S-001-5.1 Installation of Proposed EMAS System – per lump sum

END OF ITEM S-001

ITEM P-555 - EMAS INSTALLATION PLAN
MANCHESTER-BOSTON (MHT) AIRPORT RUNWAY 06 DEPARTURE END EMAS

DESCRIPTION

555-1.0 This item shall consist of the installation of an Engineered Material Arresting System (EMAS) at the Departure End of Runway 06, in accordance with these specifications, manufacturer's requirements, and the contract drawings, at the locations and to the form and dimensions shown on the plans. This item shall include all labor, transporting materials from the designated staging area to final placement, and installation of the materials for the EMASMAX as well as the necessary tools and fuel to complete the installation and maintain materials at proper conditions on site.

MATERIALS

555-2.0 SPECIFICATIONS. The EMAS materials shall be manufactured in compliance with FAA Advisory Circular 150/5220-22B. Additionally, the following materials shall conform to the requirements of the following specifications:

555.2.1 SUBMITTALS. The CONTRACTOR shall submit the following drawings:

- The CONTRACTOR shall submit daily survey reports based on residuals from known control points in order to meet Runway Safe's tolerance of 3 mm (1/8 in).

CONSTRUCTION METHODS

555-3.0 WEATHER LIMITATIONS. The surface of the asphalt pavement that is to receive the EMASMAX blocks must be dry and above 40 degrees F (5 degrees C), and rising, before EMAS block installation may begin.

555-4.0 INSTALLING EMAS

555-4.1 WORK SUMMARY FOR MHT RUNWAY 06 DEPARTURE END

The EMAS installations at MHT Airport Runway 06 Departure End involve the receiving and placing of 4494 pre-cast cellular concrete blocks. The blocks are manufactured by Runway Safe Group. The blocks are nominally 4 ft. (1.2 m) wide x 4 ft. (1.2 m) long x 3 in. (76 mm) up to 20 in. (508 mm) in height. Contingency will be shipped to adjust for blocks damaged during shipping and installation. Pallets, extra material, and extra blocks will be repackaged for transport back to Runway Safe Group by the CONTRACTOR (to be defined in the contract). EMAS blocks are shipped stacked on pallets. The largest pallet of stacked blocks is nominally 4 ft (1.2 m) x 4 ft (1.2 m) x 77 in (2 m) and weighs approximately 2000 lbs. (900 kg.). Receiving the pallets of blocks will need to be determined by the CONTRACTOR with concurrence by Runway Safe Group and the Resident Project Representative (RPR). Other constraints, such as the available storage area provided by the customer, shall also be considered and discussed with Runway Safe Group. One shipping container will be refrigerated to maintain the environmental conditions necessary for the joint sealant. During installation, any fuel needed for tools, generators, refrigeration containers, etc. will be supplied by the CONTRACTOR.

Runway Safe Group will have a field representative on-site during the installation of the EMAS to train the CONTRACTOR's personnel on the proper handling of the EMAS blocks and installation

technique. In addition, Runway Safe Group field representative(s) will inspect the installation progress and quality of the work throughout the installation. Training and familiarization with the EMAS product by the CONTRACTOR on the proper handling and installation procedures is crucial to having a quality installation. The training will occur in the initial phases of the EMAS block placement process. It is required that the CONTRACTOR's personnel perform the installation in strict conformance with Runway Safe Group's installation specifications and the project submittals approved by Runway Safe Group. There will be no deviations from these specifications without prior written approval from Runway Safe Group and the RPR. In the event there is a material loss during the installation work due to non-conformance with the handling or installation specifications of the EMAS product, the CONTRACTOR shall replace all material losses at no additional cost to the customer.

Dates for access to the work site and EMAS block installation will be set by the contract bidding documents. EMAS block installation work shifts are TBD with an expected one hour of prep and one hour of clean-up, excluding Saturdays and Sundays until job completion. The estimate will not include the 1-2 hours of runway preparation and clean-up prior to reopening the runway. It is expected the CONTRACTOR will make appropriate adjustments to the labor and material requirements to meet the installation schedule. In the following labor breakdown estimate, with some arrangements for an early start for the asphalt cement melting kettle warm-up operation. Utilizing one block installation crew (16 workers), normally 250-300 EMAS blocks can be installed per shift except for a planned first block laying day quota of 42 blocks, second day quota of 126 blocks, and all subsequent days having a daily expected installation of 250-300 blocks. Dependent on crew performance, some shifts may have reduced block installation. Because training and familiarization with the EMAS block placement is crucial to correct installation, CONTRACTOR may be required to revert to 42 blocks per shift quotas without additional compensation after any significant crew changes, subject to the RPR's assessment. Specifically, if a new crew, in whole or in part, is put in place after initial start-up, the RPR has the unilateral authority to reduce the daily installation quota to ensure proper training is accomplished. That decision will be based upon the magnitude of the crew change and the CONTRACTOR's demonstrated performance. Additionally, the RPR shall have the authority to identify and retrain any CONTRACTOR representative who is unable to provide and maintain quality workmanship in the assigned tasks.

EMAS joint sealing must be done to required standards. EMASMAX joints are not typical construction joints that may be found at pavement locations and shall not be considered the same. EMAS joints and vertical side wall sealing are to be done to the best condition possible to mitigate water intrusion. All the top joints of all the blocks will be sealed. The side and rear (vertical) joints will be sealed with self-adhering tape (side coating). The sealing joint tape must be installed with minimum overlapping of joints. The specialty self-adhesive joint sealing tape is adhered to the adjoining blocks. This seam sealing material cannot be stretched and requires a careful installer. Full and careful consideration of which Contractor personnel to assign to this sealing work is encouraged, as experience has shown workmen not fully experienced in sealing usually do not meet Runway Safe Group's quality or workmanship standards thus leading to job delays and rework. Runway Safe Group's experience has shown that this sealing effort will be the task which paces the job.

If night work is required, the CONTRACTOR shall provide adequate portable lighting for use at the work site before dawn and after dusk. For EMAS installation and finishing work, six large self-contained four-bulb light plants, such as the Allmand MLT 3060 or similar, is the minimum. In addition, if night work is required, Runway Safe Group's experience has shown that installation pace will typically slow down, and workmanship is more likely to deteriorate by the CONTRACTOR.

Before any shut-down of contract operations, all equipment and materials used at the work site shall be moved by the CONTRACTOR to the designated airport mobilization site, to ensure safe aircraft operations between the contractor's work shifts.

Initial receiving operations at the staging area can be at any time allowed by the airport until installation commences. Upon commencement of block installation receiving operations would be expanded to include access control, which must be coordinated with the work periods at the work site.

The CONTRACTOR is responsible for setting up the staging area and providing access control, a dumpster, all trash collection and rubbish removal, portable lavatory, and all other requirements for the duration of this project. Control of Foreign Object Damage (FOD) construction materials (block packaging materials, paper wrappers, hand tools, small parts, etc.) that are used during the installation of the EMAS must be controlled. It will be necessary for the CONTRACTOR to provide covered containers to hold all construction debris and reuse at the worksite and/or airport property.

The sequence for installation of the EMAS will be as follows:

- Validate smoothness of EMAS support pavement
- Installation of jet blast debris deflector
- Mark-out of installation grid (centerline, sidelines, rear edge line, and every block corner with a grid system of 4.05 ft x 4.05 ft (1.2 m x 1.2 m))
- Installation of the EMAS blocks including
 - Installation of corner protector material along perimeter
 - Installation of joint sealant
 - Installation of side coating
 - Complete any "punch-list" work
- Painting of safety area markings (under a separate specification)
- Site clean-up and demobilization

Specific works are as detailed on the following pages. Note: where this specification conflicts with the contract drawings, the contract drawings shall govern.

555-4.3 RECEIVING AND LAYOUT FOR RUNWAY 06 DEPARTURE END

- a. **RECEIVING.** The CONTRACTOR, at a designated staging area, will receive the shipping containers containing pre-cast EMAS blocks and installation materials. After receiving the EMAS blocks and installation materials, the CONTRACTOR will assume immediate responsibility and control for the EMAS blocks and installation materials, including the protection of the EMAS materials by securing the staging location during the storage time and prior to installation.

- b. LAYOUT.** The paved surface upon which the EMAS blocks are to be placed must comply with the slope requirements set forth in the project drawings prior to the block grid layout and placement of any EMAS blocks. Runway Safe Group personnel will check the installation surface using a straightedge.

Careful layout of extended runway centerline, sides and back edges of the bed rows and steps shall be augmented by field marking the perimeter of each block location for all the blocks. Because the sides of the blocks are not designed to be altered in the field, the field marking for block corners will be crucial for correct block placement, while edge layout lines will provide side and back block placement guidance. A surveyor shall establish the control points for field layout marking lines. These control points shall establish the extended runway centerline through the EMAS, EMAS perimeter, and interim points both perpendicular and parallel to runway centerline within the confines of the EMAS on a **20.25 ft x 20.25 ft (6.17 m x 6.17 m)** grid pattern **within a tolerance of +/- 1/8 in. (3.18 mm)**. PK nails shall be used to mark these points.

NOTE: Prior to establishing the points perpendicular to runway centerline, check with Runway Safe Group to ensure the debris deflector has been satisfactorily installed and accepted. The grid points will reference the back of the debris deflector channels. For marking the grid lines, the CONTRACTOR should use a durable marking system. Chalk lines and other such marking systems will not remain visible after the large amount of foot and vehicular traffic associated with this installation. Experience has shown that a white, painted 1/8 in. (3 mm) string line grid on the pavement with block heights painted in each box is the most simple and effective method. A walk behind spray paint unit is recommended and works best in windy conditions.

LAYOUT LABOR FOR RUNWAY 06 DEPARTURE END

# Of Personnel	Task	Days	Area
6	Survey & Grid Laying	5-6	EMAS Site

LAYOUT EQUIPMENT FOR RUNWAY 06 DEPARTURE END

- Horizontal Survey Equipment with +/- 1/8 in. (3 mm) accuracy over the area occupied by the EMAS Bed.
- Surveyor’s choice of waterproof and durable grid marking devices (see recommendation above); **however, all major points 20.25 ft. (6 m) grid intersections, rear corner, and centerline point shall be marked with PK nails.**

555-4.4 INSTALLATION PHASE FOR RUNWAY 06 DEPARTURE END

The shipping units containing EMAS blocks will be received in the designated staging area. The CONTRACTOR will be responsible for moving these units to the EMAS installation site as they are needed. The CONTRACTOR will unload the EMAS blocks and installation materials using a pallet jack and forklift. Great care must be taken when off-loading the EMAS blocks to prevent damage. It is strongly encouraged that the shipping units be located on a solid surface to allow for ease of forklift movements. The sides of the EMAS block are particularly vulnerable. Anyone walking on the EMAS must have soft-soled shoes with no sharp heels (Sneakers or flat-soled boots preferred). At no time shall any vehicle be allowed to drive on the EMAS.

The jet blast debris deflector channels supplied by Runway Safe Group must be installed before the block layout grid is started and before any blocks are installed. This will provide a starting point for the grid layout. The debris deflector panels will be secured after a select number of blocks have been installed at the discretion of the Runway Safe Group field representative. The main task involved in the installation of the two-piece Debris Deflector sections will be drilling holes for the concrete screws that will secure the assembly to the concrete beam. Once drilled, these holes must be clear of dust, debris, and water. It is highly encouraged to use a pneumatic air compressor with a long nozzle to clean out each hole prior to securing the anchors. Due to its frangible nature, stepping on the Debris Deflector Assembly must be avoided. The Debris Deflector Assembly comes pre-marked with "NO STEP." Prior to placement of the debris deflector sections, a bead of adhesive shall be applied to the surface of the grade beam such that the channel and panel sections of the deflector receive a continuous seal from one edge to the other. Following placement of the debris deflector sections, a bead of adhesive shall be applied to the joints between the panel sections.

- a. **BLOCK PLACEMENT.** Blocks will be placed into position using one of the four (4) CONTRACTOR Supplied forklifts. Each block will be pushed into its final position as marked on the pavement grid by hand.

Prior to the placement of any blocks, the tar kettle should be purged to remove any excess or foreign material. The kettle should then be filled with 100 gallons (379 liters) of EMASMAX standard adhesive material, mixed and purged again.

Immediately prior to placing blocks, EMASMAX standard adhesive, a hot asphalt cement augmented with a crack sealing additive, shall be applied to cover (minimum 90%) the area where the block will be placed at a rate of approximately 1 to 1.50 gallons (4.75 to 5.70 liters) per block and a temperature ranging from 360⁰F to 380⁰F (182⁰C to 193⁰C). The hot asphalt cement/crack sealer coating is the bond or anchor device between the overrun surface and the EMAS blocks. The asphalt cement, while still hot, acts as a lubricant between the block and the existing pavement so that blocks will slide into their final position when pushed. Runway Safe Group's experience has shown that the total elapsed

time from when the hot asphalt cement is placed to when the block must be in its final position is approximately 20 to 25 seconds, depending upon ambient temperatures. After that time, the asphalt cement will have cooled sufficiently to bond the block to the pavement, and it will not slide easily. If this occurs before the block is in the correct position, the block will have to be removed and replaced with a new block.

NOTE: An adhered block cannot be removed without being destroyed.

NOTE: All blocks have a particular orientation when installed; the backside of the block (the side away from the debris deflector) has the nominal height of the block, in inches, marked on that side. The forklift operator should always be facing the side of the block when picking up the block for placement. The block side with the serial (or batch) number faces the runway. The forklift slot in the tray shall be oriented when the block is placed so that it is perpendicular to the runway centerline.

Next, a specialty coating will be adhered to all vertical sides of the completed bed along with 2 in. (50 mm) of overlap onto adjoining horizontal block surfaces.

Finally, the appropriate pavement marking paint will be applied. This last painting phase consists of applying marking paint to indicate the EMAS as unusable pavement. The CONTRACTOR will supply the marking paint, any reflectorized beads to be used with it, and all labor under a separate pay item.

Lastly, return of materials. The empty pallets are neatly stacked eleven (11) high, banded and loaded back onto shipping containers as well as any Runway Safe Group tools and remaining installation materials by the CONTRACTOR for shipment back to the EMAS production facility. The cardboard spacers shipped between the blocks need to be collected, stacked, and banded for return shipment to Runway Safe Group.

NOTE: Some blocks may be damaged during transport, off-loading and installation. The CONTRACTOR must exercise care to minimize these losses for blocks under their care. The CONTRACTOR is responsible for the removal of and disposal of any damaged block material. Extra pallets of good blocks left over at completion of installation will be stacked, corner-protected, plastic-wrapped, and re-loaded by the CONTRACTOR and transported back to Runway Safe Group.

- b. DEBRIS DISPOSAL** It is the CONTRACTOR'S responsibility to ensure all stretch wrap,

plastic padding, and cardboard corner protectors (packing material) used to protect the blocks during transit, and all other debris generated by this project be collected at the work site, including the staging area, and properly disposed of. All debris transport and disposal shall be in accordance with all applicable federal, state, and local regulations. Recycling of materials, especially cardboard products, is strongly encouraged. While within the aircraft operations area, care must be taken to ensure that all debris is collected and stored in covered containers to mitigate Foreign Object Damage (FOD) to aircraft.

555-4.5 CONTRACTOR-PROVIDED INSTALLATION LABOR FOR RUNWAY 06

# Of Personnel	Task	Installation Days	Area	Responsibility
1	Foreman	21-24	Work Site	Coordination and Supervision
1	Truck Driver	21-24	Work Site & Staging Area	Transport Blocks and Materials to/from Staging Area and Installation Site
4	Forklift Operators	21-24	Work Site	Team of two: Unload containers, place pallets, and push blocks; team of two: place blocks
4	Laborers	21-24	Work Site	Operate pallet jack during container loading and unloading, remove and dispose of shrink wrap, collect, and dispose of padding between blocks, install debris deflector, apply hot asphalt cement, install blocks, plastic edge piece, and cleanup
6	Caulkers/Tappers	21-24	Work Site	Install joint sealant and side coating as described

555-4.6 CONTRACTOR-PROVIDED INSTALLATION EQUIPMENT FOR RUNWAY 06 DEPARTURE END

EQUIPMENT & ASSOCIATED ITEMS	QUANTITY Recommended for Installation
Skid Steer; Forklift, 5000 lbs. (2500 kg.) capacity (fork tynes convertible, lateral shifting)	4
Fuel for all forklifts (propane, gas, or diesel as required)	As required
Carry-on-Trailer for block movement	1
Portable Electric Generator, 5000 watts	1
Hot Mix Asphalt Truck/trailer with dispensing wand	1
Fuel for Hot Mix Truck & Refrigerated Materials Trailers	As required
Dumpster, 40 cubic yard (31 cubic meter) volume	As required
Portable Air Compressor, 100 psi (7 kPa) minimum	1
Air Hose, 15 meter minimum	2
Air Nozzle	1
60-meter-long string line	4
5-meter Aluminum Straight Edge	1
Light Plants with fuel (if needed)	6
Shop Vac	1

HAND TOOLS	QUANTITY Recommended for Installation
Torch, Propane (Rosebud style wand)	2
Hammer Drill, 1/2-inch (13mm) chuck, electric, variable speed; SDS-plus shank compatible shank	2
Drill, cordless	4
Masonry Drill Bit, 3/8-inch diameter (must be 3/8" per anchor manufacturer's instructions; cannot be substituted with 9.5mm diameter bits) x 8 inches (20cm) long	8
9/16-inch (14mm) size Hex Socket for Impact Gun, 1/2-inch (13mm) drive	2
3/8-inch (9.5mm) drive extension, 4 inches (10cm) long	2
9/16-inch (14mm) size Hex Socket for 3/8-inch (9.5mm) drive	2
3/8-inch (9.5mm) drive ratchet wrench	2
Gas Leaf Blower	2
1/2-inch (13mm) impact drill, corded and battery powered	2
Cutting bit, Black-Oxide High-Speed Steel, F size (for rivets)	20
Blind Rivet Tool 2660-20, Milwaukee M18 FUEL, 1/4-inch (7mm)	2
Saw, reciprocating with blades	1
Saw, circular with blades (aluminum, composite)	1
Torque Wrench capable of applying up to 40 ft-lbs. (55 newton-meters) of torque	1
Angle grinder for rivet removal	1

CAULKING/SEALING TOOLS	QUANTITY Recommended for Installation
Caulk Gun, Battery Powered, 10.3 oz. (31 centiliters) w/Battery Chargers	6
5cm Round Seam Rollers, broom handle attachable	6
Extra 12V or 24V (dependent upon 10 oz. caulk gun type) Batteries for Caulk Guns	6

NOTE:

- All forklifts must have lateral load shift capability.
- One pallet jack supplied by Runway Safe Group. 2nd pallet jack is optional – will expedite handling.
- To the maximum extent practical, all equipment should be on site at the start of the installation phase to ensure that it will be available when needed.

**555-4.7 SUGGESTED CONSTRUCTION SCHEDULE FOR RUNWAY 06 DEPARTURE
END**

DAY	ACTIVITIES
1-3	Surveyors check the grade beam. Laborers install debris deflector.
4-7	Surveyors establish grid layout points. Laborers start marking grid.
8	Train Tapers & Forklift Operators.
9-(21-24)	Install blocks and encapsulation system (seam sealant, side coating).
24	Inspection/Punch list.

555-5.0 QUALITY CONTROL. CONTRACTOR must place and finish the EMAS bed under the guidance of the EMAS manufacturer’s technical support.

MATERIAL REQUIREMENTS

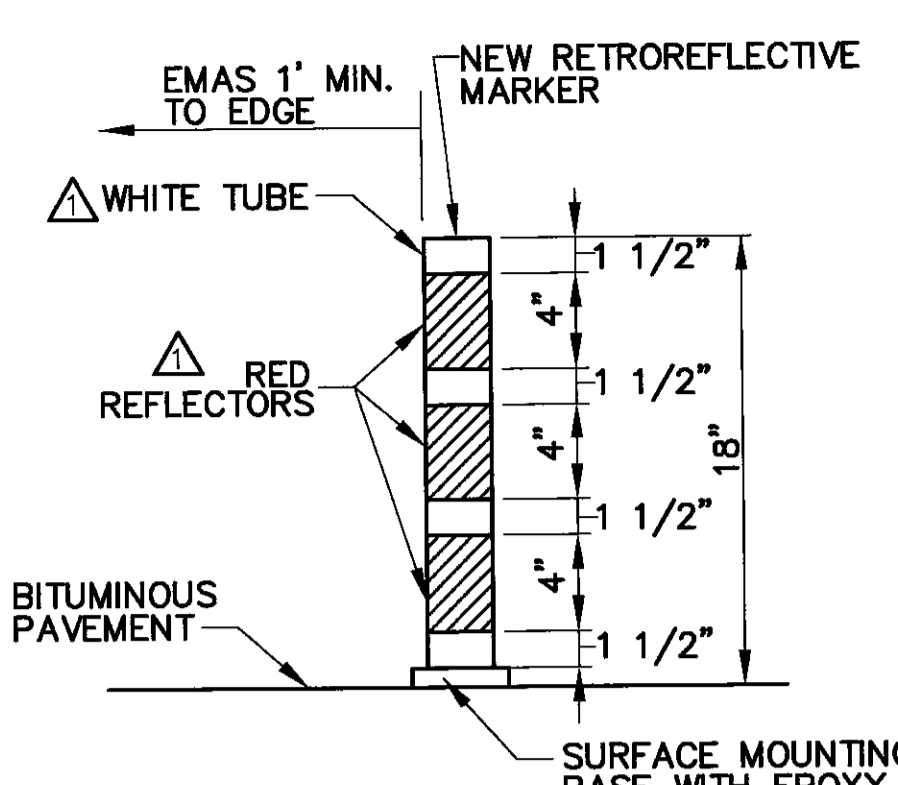
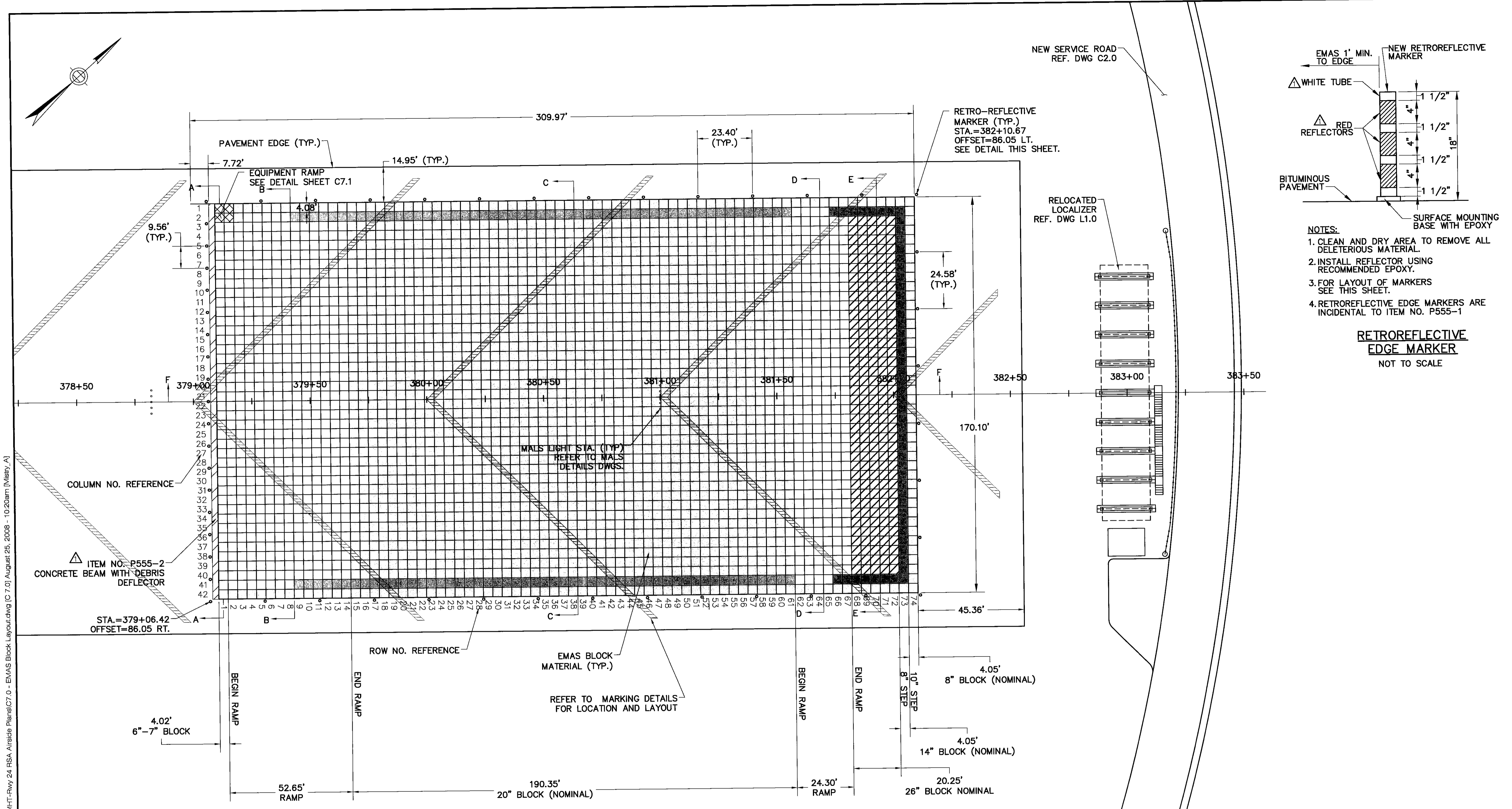
ASTM D 946 Asphalt Cement for Use in Pavement Construction

ATTACHMENT A

EXISTING EMAS SYSTEM - RECORD DRAWINGS

THIS PAGE INTENTIONALLY LEFT BLANK

Edwards & Kelcey - N:\CM\021 - Runway 24 Construction Admin\Bulk\Airsides\VT-Rwy 24 RSA Airside Plans\C7.0 - EMAS Block Layout.dwg [C 7.0] August 25, 2008 - 10:20am [Misry_A]



- NOTES:**
- CLEAN AND DRY AREA TO REMOVE ALL DELETERIOUS MATERIAL.
 - INSTALL REFLECTOR USING RECOMMENDED EPOXY.
 - FOR LAYOUT OF MARKERS SEE THIS SHEET.
 - RETROREFLECTIVE EDGE MARKERS ARE INCIDENTAL TO ITEM NO. P555-1

RETROREFLECTIVE EDGE MARKER
NOT TO SCALE

EMAS LAYOUT PLAN
SCALE: 1" = 20'

NOTE:

- FOR COLUMNS 3 THROUGH 40, ROWS 2 THROUGH 74, REFER TO EMAS PROFILE, DWG C7.3, SECTION F-F FOR BLOCK HEIGHTS.
- EMAS BLOCKS ARE OWNER FURNISHED AND CONTRACTOR INSTALLED. REFERENCE SPECIFICATIONS P-555 FOR CONTRACTOR PROVIDED ITEMS.
- CONTRACTOR SHALL PROVIDE A LOCATION FOR PARKING OF DELIVERY TRAILERS ON A PAVED AND SECURED LOCATION. EACH TRAILER REQUIRES 12' X 60' SPACE. QUANTITY AT ONE TIME TO BE DETERMINED. DELIVERY AND TRUCKING BY THE OWNER.

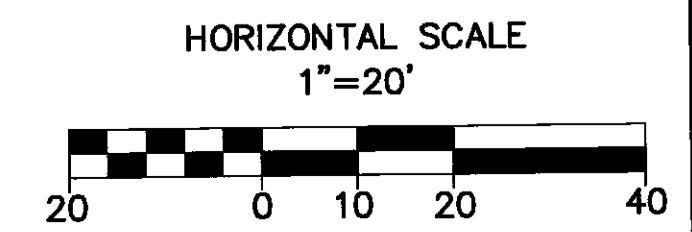
LEGEND:

- 8" HIGH BLOCK
- 14" HIGH BLOCK
- 18" HIGH BLOCK
- 20" HIGH BLOCK
- 26" HIGH BLOCK
- EQUIPMENT RAMP

AS-BUILT
RECORD DRAWING
AUGUST 20, 2008

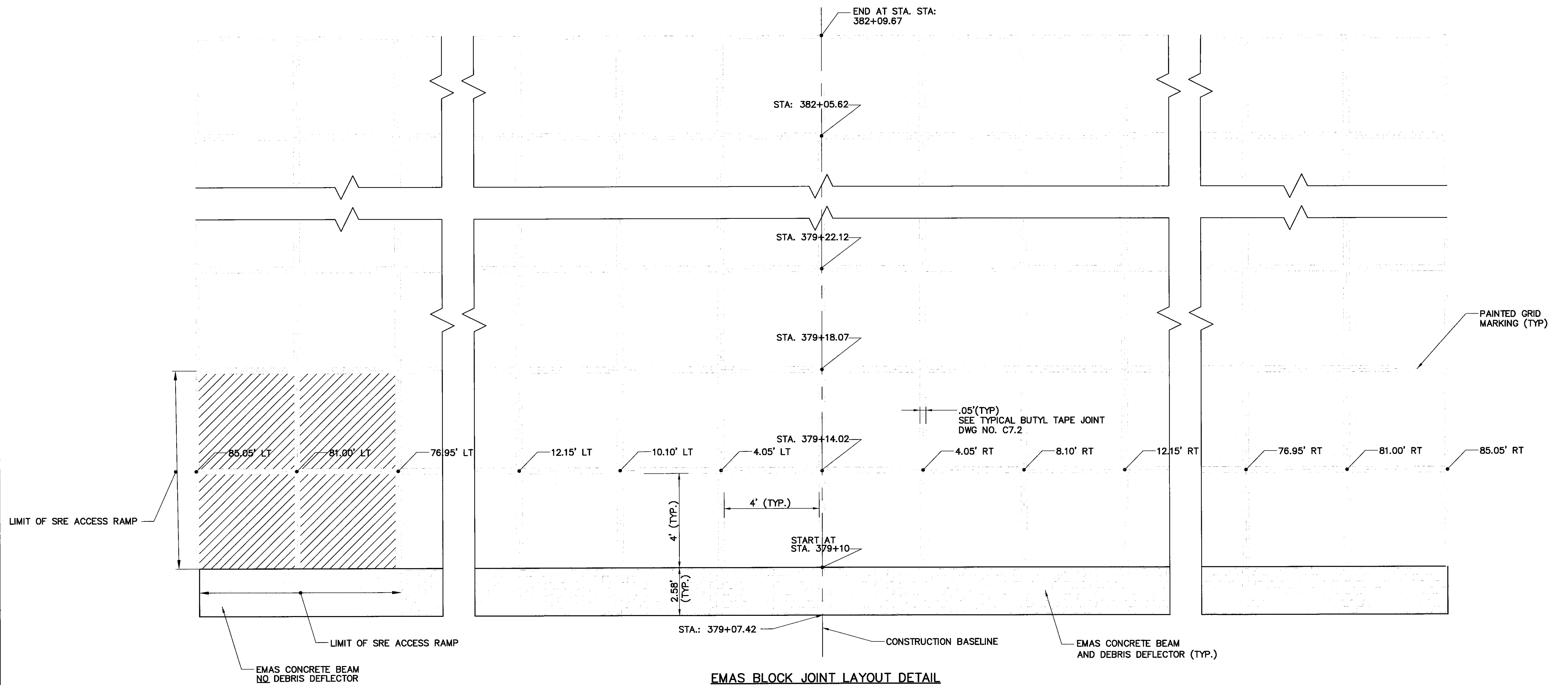
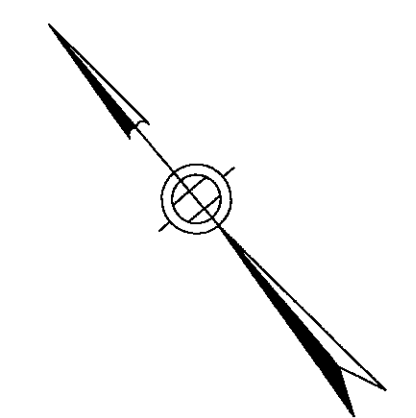
THE DETAILS NOTES AND DIRECTIONS SHOWN ON THIS DRAWING WERE FOLLOWED BY THE INSTALLATION CONTRACTORS FOR THE MANCHESTER - BOSTON REGIONAL AIRPORT RUNWAY 6-24 SAFETY AREA IMPROVEMENT PROJECT IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS UNLESS NOTED OTHERWISE.

RECORD DRAWING
AUGUST 20, 2008



PROJECT DESIGNER:	1 Sandall Avenue, Suite 410 Manchester, NH 03103 Tel: (603) 966-7151 Fax: (603) 966-7155
SCALE: 1"=20'	DATE: APR 07
DESIGNED BY: ZJB	DRAWN BY: ZJB
CHECKED BY: JWG	APPROVED: CAT
MANCHESTER - BOSTON REGIONAL AIRPORT MANCHESTER, NH	
MANCHESTER RUNWAY 6/24 SAFETY AREA PROJECT	
EMAS LAYOUT PLAN	
REVISIONS	BY LAG
DESCRIPTION	ADDENDUM #2 - NOTES ADDED/MODIFIED
DATE	4/13
REV. NO.	1
PROJ. NO.: N/A	E.K. FILE: 070018027
AIP NO.: 3-33-0011-68	DRAWING NO. C7.0
SHEET 56 OF 101	

Edwards & Kelcey - N:\DM-021 - Runway 24 Construction Adm\AsBuilt\Airsides\HT-Rwy 24 RSA Airside Plans\C7.1 - EMAS Block Layout Detail.dwg [C7.1] August 25, 2008 - 10:21am [Mistry_A]



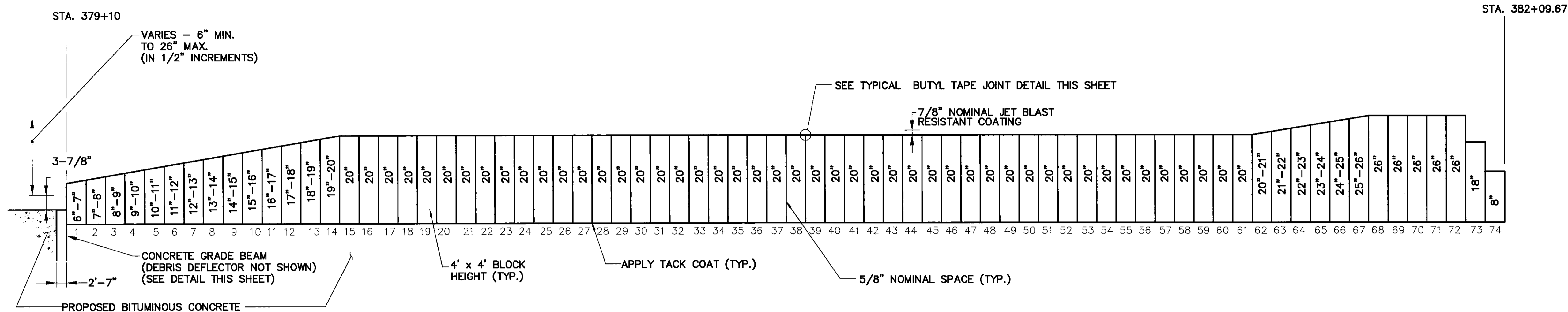
EMAS BLOCK JOINT LAYOUT DETAIL
NOT TO SCALE

- NOTES:**
- CONTRACTOR SHALL LAY OUT TRAVERSE BLOCK JOINTS AT 4.05' INTERVALS STARTING AT THE FRONT OF THE SECOND ROW AT STA. 379+14.02 AND ENDING AT STA. 382+09.67.
 - CONTRACTOR SHALL LAY OUT LONGITUDINAL BLOCK JOINTS AT 4.05' INTERVALS ENDING AT 85.05' LEFT AND RIGHT.
 - CONTRACTOR SHALL INSTALL PK NAILS AT A MINIMUM OF 48.60' JOINT INTERVALS FOR BOTH TRAVERSE AND LONGITUDINAL JOINTS WHICH ENABLE RELOCATION OF JOINTS WITH A STRINGLINE AND MARKING PAINT ON A DAILY BASIS.
 - LISTED BLOCK HEIGHTS ARE THE HEIGHTS AT WHICH THE BLOCKS ARE LABELED. ACTUAL BLOCK HEIGHTS WHICH INCLUDE THE JET BLAST RESISTANT COATING, ARE 7/8" (NOMINAL) HIGHER THAN NOTED ON THE PLAN. BLOCK JOINT WIDTH VARIES FROM 0" TO NO MORE THAN 1.25".

AS-BUILT
RECORD DRAWING
AUGUST 20, 2008
THE DETAILS NOTES AND DIRECTIONS SHOWN ON THIS DRAWING WERE FOLLOWED BY THE INSTALLATION CONTRACTORS FOR THE MANCHESTER - BOSTON REGIONAL AIRPORT RUNWAY 6-24 SAFETY AREA IMPROVEMENT PROJECT IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS UNLESS NOTED OTHERWISE.

RECORD DRAWING
AUGUST 20, 2008

PROJECT DESIGNER: Edwards & Kelcey	
1 South Main, Suite #10 Manchester, NH 03103 PHONE: (603) 662-7181 FAX: (603) 662-7185	
SCALE: N.T.S.	DATE: APR 07
DESIGNED BY: ZJB	DRAWN BY: ZJB
CHECKED BY: JWG	APPROVED: CAT
PROJECT: MANCHESTER - BOSTON REGIONAL AIRPORT MANCHESTER, NH	
SUBJECT: MANCHESTER RUNWAY 6/24 SAFETY AREA PROJECT	
DRAWING NO.: C7.1	
SHEET 57 OF 101	



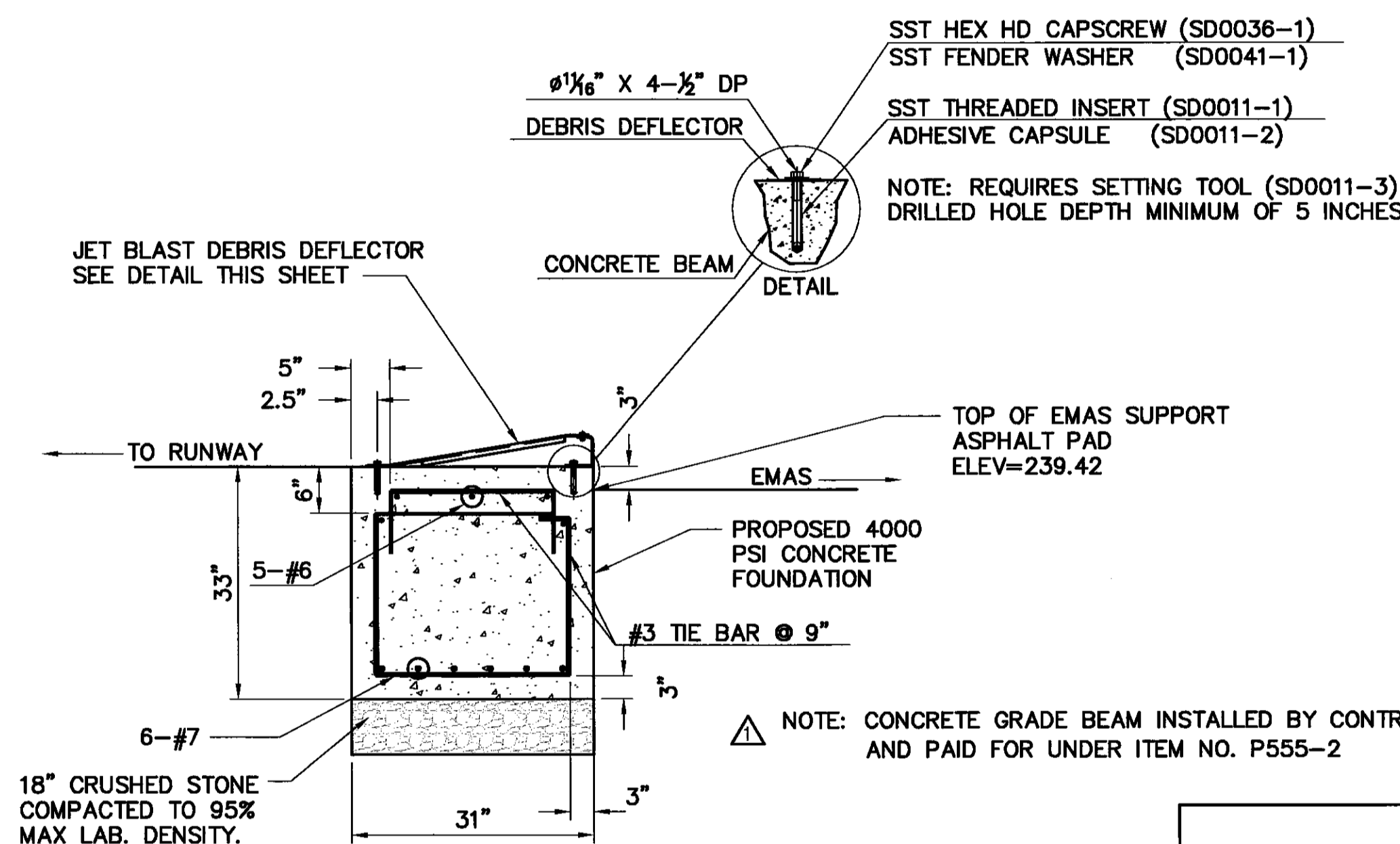
NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH EMAS MANUFACTURER TO SCHEDULE AND ACCEPT DELIVERY OF THE OWNER SUPPLIED EMAS BLOCKS.
2. THE CONTRACTOR SHALL BEGIN BLOCK INSTALLATION AT STATION 379+10 BUTTING THE FIRST ROW OF BLOCKS AGAINST THE PROPOSED CONCRETE BEAM.
3. AT THE END OF EACH WORKING SHIFT THE CONTRACTOR SHALL LEAVE THE WORK AREA IN A CONDITION SUCH THAT THE NUMBER AND HEIGHT OF INSTALLED BLOCKS IS SYMMETRICAL ABOUT THE RUNWAY CENTERLINE.
4. LISTED BLOCK HEIGHTS ARE THE HEIGHTS AT WHICH THE BLOCKS WILL BE LABELED. ACTUAL BLOCK HEIGHTS WHICH INCLUDE THE JET BLAST RESISTANT COATING, WILL BE 7/8" (NOMINAL) HIGHER THAN NOTED ON THE PLAN.

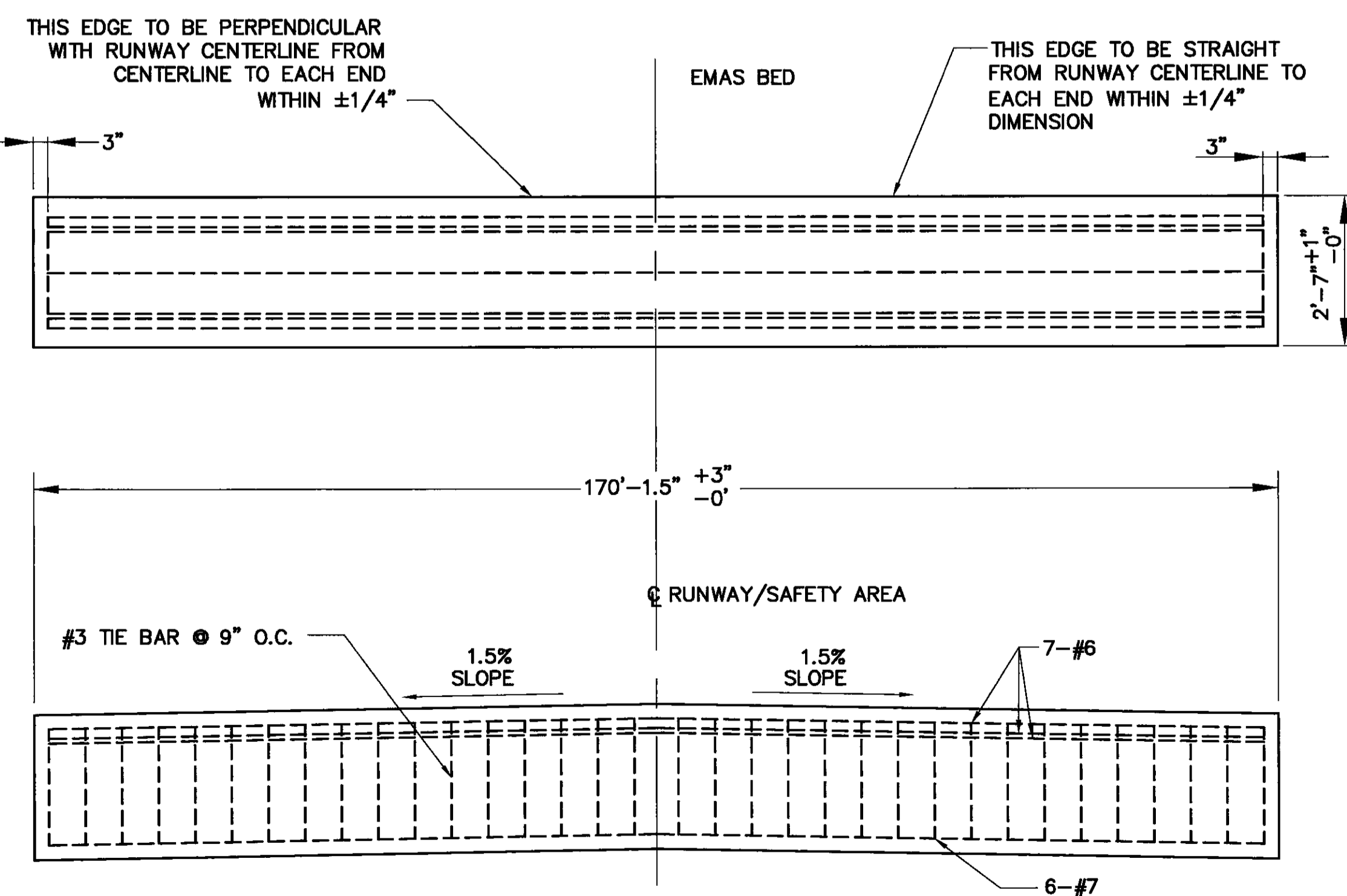
NOTES (CONT.)

5. AT THE CONCLUSION OF EACH DAY THE CONTRACTOR SHALL HAVE ALL SURFACE JOINTS SEALED. SEE TYPICAL JOINT DETAIL THIS SHEET
6. DEBRIS DEFLECTOR PANELS AND ANCHOR BOLTS WILL BE PROVIDED BY THE OWNER THROUGH THE EMAS MANUFACTURER.
7. EMAS BED LENGTH TOLERANCES ARE -0% TO +1%.
8. EMAS BLOCK HEIGHT TOLERANCES ARE -0" TO +3/4".
9. EMAS BLOCK ALIGNMENT TOLERANCES IS +1/2" OVER A 20' SPAN.
10. THIS PROFILE (SECTION F-F) DEPICTS A CUT SECTION OF BLOCK ROWS 3 THROUGH 40, COLUMNS 1 THROUGH 74. REFER TO DWG C7.0 FOR PLAN VIEW.

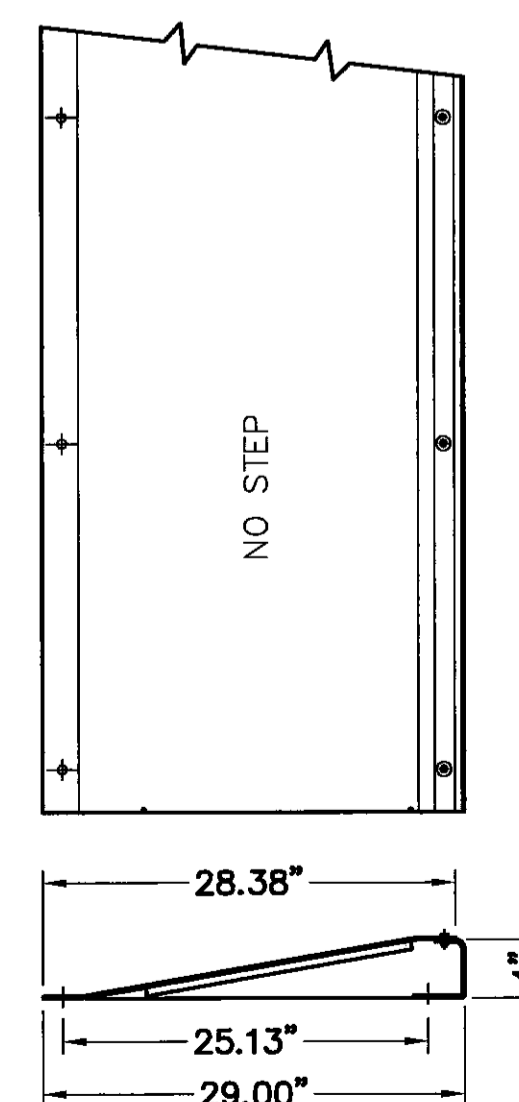
EMAS PROFILE (SECTION F-F)
NOT TO SCALE



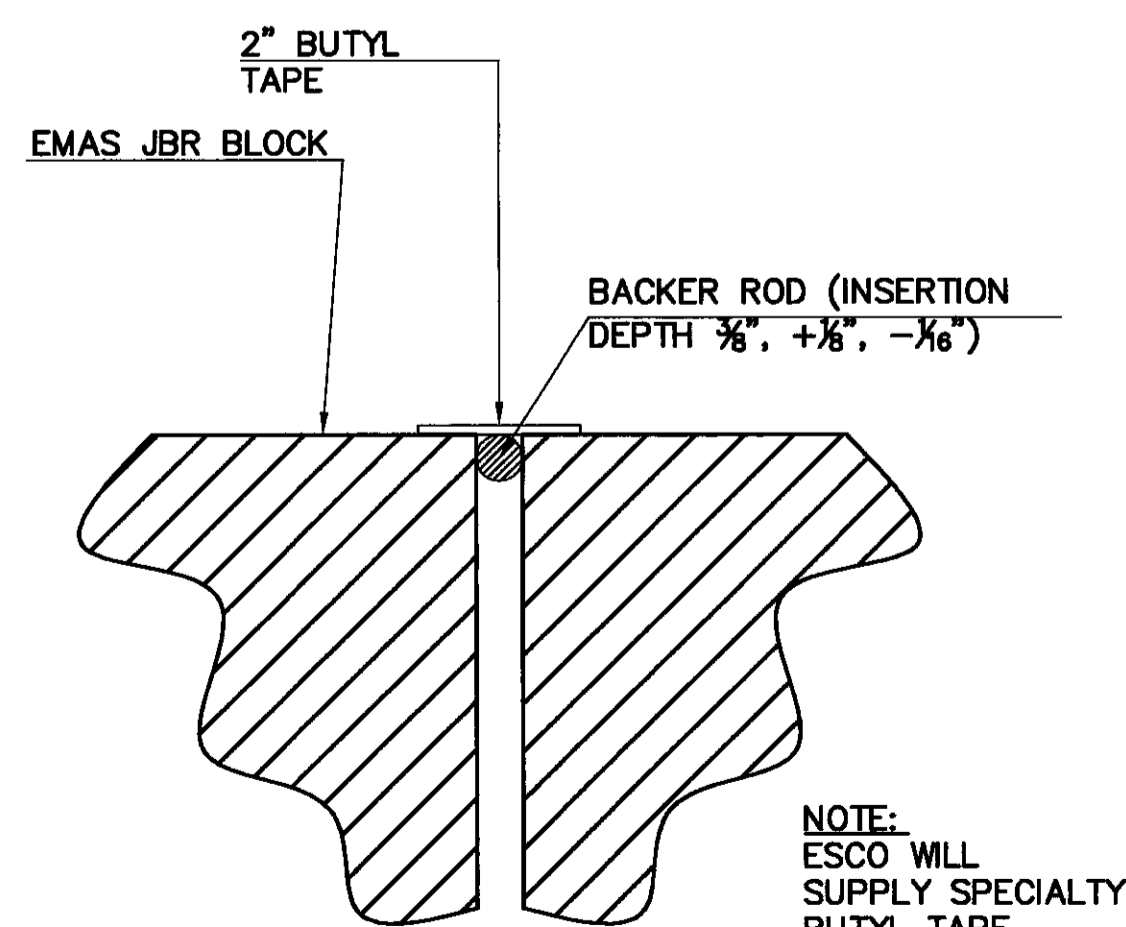
ALL BARS SHALL BE ASTM-A615, GRADE 60 (TYP.)
CONCRETE GRADE BEAM DETAIL SECTION
NOT TO SCALE



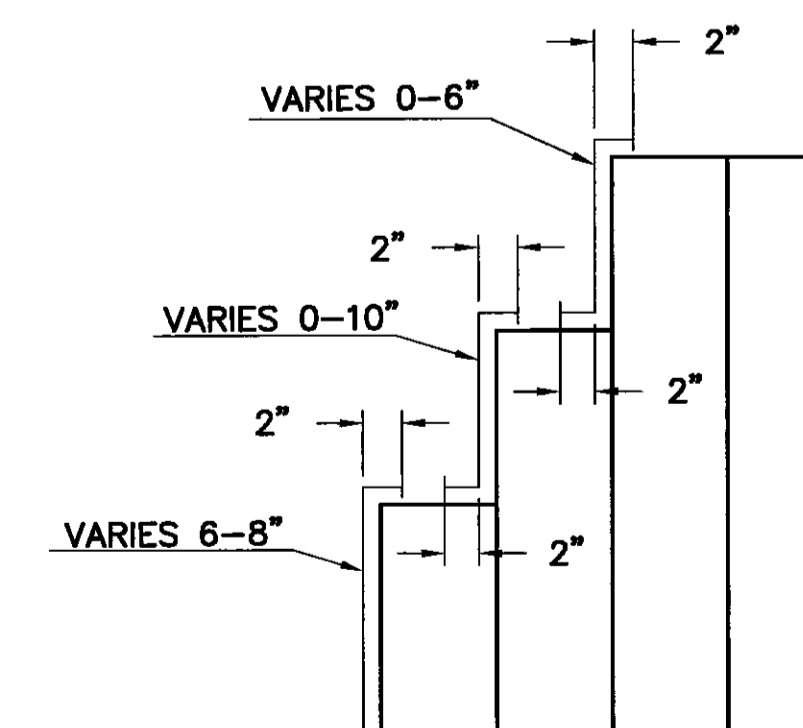
CONCRETE BEAM REBAR DETAILS
NOT TO SCALE



TYPICAL DEBRIS DEFLECTOR ASSEMBLY
NOT TO SCALE



TYPICAL BUTYL TAPE JOINT
NOT TO SCALE



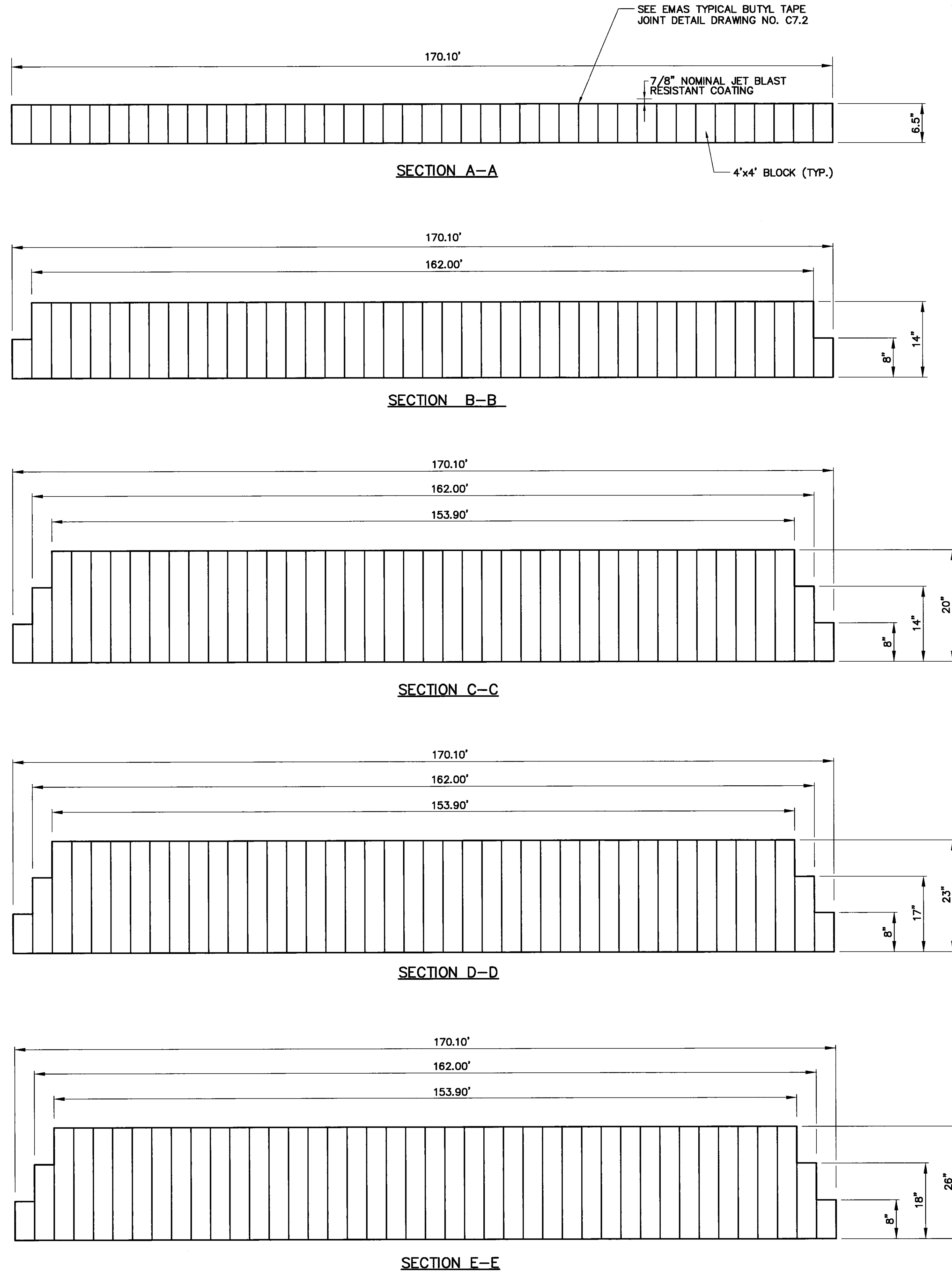
NOTE:
APPROXIMATELY 2,000 NET SQ. FT. OF EXTRUDED SILICONE SIDE COATING APPLIED TO VERTICAL SURFACES

SIDE COATING
NOT TO SCALE

AS-BUILT
RECORD DRAWING
AUGUST 20, 2008
THE DETAILS NOTES AND DIRECTIONS SHOWN ON THIS DRAWING WERE FOLLOWED BY THE INSTALLATION CONTRACTORS FOR THE MANCHESTER - BOSTON REGIONAL AIRPORT RUNWAY 6-24 SAFETY AREA IMPROVEMENT PROJECT IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS UNLESS NOTED OTHERWISE.

PROJECT DESIGNER: Edwards & Kelcey		PROJECT NO.: N/A	
SCALE: N.T.S.	DATE: APR 07	DESIGNED BY: ZJB	DRAWN BY: ZJB
		CHECKED BY: JWG	APPROVED: CAT
MANCHESTER - BOSTON REGIONAL AIRPORT MANCHESTER, NH		MANCHESTER RUNWAY 6/24 SAFETY AREA PROJECT	
BY: LAG		ADDENDUM #2 - NOTE ADDED	
DATE: 4/13	REV. NO. 1		
EX FILE: 070018027		AIP NO.: 3-33-0011-88	
DRAWING NO. C7.2		SHEET 58 OF 101	
RECORD DRAWING AUGUST 20, 2008			

Edwards & Kelcey - N:\DM-021 - Runway 24 Construction Acm\AsBuilt\Airsides\Airsides\VT-Rwy 24 RSA Airside Plans\C7.3 - EMAS Cross Sections.dwg [C7.3] August 25, 2008 - 10:22am [Mistry_A]



- NOTE:**
- LISTED BLOCK HEIGHTS ARE THE HEIGHTS AT WHICH THE BLOCKS ARE LABELED. ACTUAL BLOCK HEIGHTS WHICH INCLUDED THE JET BLAST RESISTANT COATING, WILL BE 7/8" (NOMINAL) HIGHER THAN NOTED ON THE PLAN.
 - EMAS BED WIDTH TOLERANCE IS 0% TO +1%.
 - FOR CROSS SECTION REFERENCES SEE EMAS BLOCK LAYOUT SHEET NO. C7.0

AS-BUILT
 RECORD DRAWING
 AUGUST 20, 2008
 THE DETAILS NOTES AND DIRECTIONS SHOWN ON THIS DRAWING WERE FOLLOWED BY THE INSTALLATION CONTRACTORS FOR THE MANCHESTER - BOSTON REGIONAL AIRPORT RUNWAY 6-24 SAFETY AREA IMPROVEMENT PROJECT IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS UNLESS NOTED OTHERWISE.

RECORD DRAWING
 AUGUST 20, 2008

PROJECT DESIGNER: Edwards & Kelcey <small>1 Sunnyside Avenue, Suite 410 Manchester, NH 03103 PHONE: (603) 662-7181 FAX: (603) 668-7188</small>											
SCALE:	N.T.S.	DATE:	APR 07	DESIGNED BY:	ZJB	DRAWN BY:	ZJB	CHECKED BY:	JWG	APPROVED:	CAT
MANCHESTER - BOSTON REGIONAL AIRPORT MANCHESTER, NH			MANCHESTER RUNWAY 6/24 SAFETY AREA PROJECT			EMAS - CROSS SECTIONS					
REVISIONS	DESCRIPTION	DATE	BY								
PROJ. NO.:		N/A									
EX. FILE:		070018027									
AIP NO.:		3-33-0011-68									
DRAWING NO.											
C7.3											
SHEET 59 OF 101											

ATTACHMENT B
CONSTRUCTION SAFETY AND PHASING PLAN

THIS PAGE INTENTIONALLY LEFT BLANK

CONSTRUCTION SAFETY & PHASING PLAN (CSPP)

For

Manchester Boston Regional Airport (MHT)

**Replacement of Runway 6 Departure End
Engineered Material Arresting System (EMAS)**

FAA AIP No. 3-33-0011-XXX-2026

PREPARED FOR:



1 Airport Rd, Manchester, NH 03103

PREPARED BY:



53 Regional Drive, Box 3 • Concord, NH 03301

www.mjinc.com

June 2026

Table Of Contents

1.	Purpose of the CSPP	1
2.	Project Description	1
3.	Coordination Before and During Construction	2
4.	Phasing	3
5.	Areas And Operations Affected by Construction	5
6.	Navigational Aid (Navaid) Protection	7
7.	Contractor Access	8
8.	Wildlife Management	11
9.	Foreign Object Debris (FOD) Management	12
10.	Hazardous Materials (Hazmat) Management	12
11.	Notification Of Construction Activities	13
12.	Inspection Requirements	14
13.	Underground Utilities	15
14.	Penalties	15
15.	Special Conditions	15
16.	Runway And Taxiway Visual Aids	16
17.	Markings and Signs for Access Routes	17
18.	Hazard Marking and Lighting	17
19.	Protection Of Areas, Zones, & Surfaces	17
20.	Other Limits on Construction	18
21.	Airport Watch Program	18

Appendices

Appendix A	Key Personnel Contact List
Appendix B	Construction Safety and Phasing Drawings
Appendix C	Daily Safety Inspection Checklist
Appendix D	Safety Plan Compliance Document

1. PURPOSE OF THE CSPP

The Construction Safety and Phasing Plan (CSPP) serves as a companion document to the plans and specifications and has been written in compliance with FAA AC 150-5370-2G, *Operational Safety on Airports During Construction*. The subsequent sections of this document will address scheduling, coordination, and airfield safety precautions as they relate to the Project.

This CSPP has been approved by the FAA. Any proposed changes to this CSPP will be coordinated with the Airport/Owner and the FAA. The FAA will review and approve of the CSPP before proposed changes can occur. Revisions to the CSPP may delay construction and the Contractor should plan accordingly.

2. PROJECT DESCRIPTION

The project consists of the replacement of the existing Runway 6-24 Engineered Material Arresting System (EMAS) at the Runway 6 departure end (or Runway 24 physical end) at the Manchester-Boston Regional Airport (MHT). The project also includes a mill and overlay of the existing pavement beyond the Runway 24 threshold, new pavement markings, and grooving of the new pavement. Topsoil and seed will be installed in all disturbed turf areas.

The scope of work items include, but are not limited to: Installation of runway closure markers and low profile barricades; installation of required jumpers and/or sign/light covers; installation of erosion control measures and BMPs; removal and disposal of the existing EMAS blocks and ancillary items; milling of existing pavement; repairing of cracks on milled surface as required; removal of existing pavement markings; installation of new bituminous pavement; installation of new EMAS system; installation of new pavement markings; grooving of new pavement; and installation of topsoil, seed, and mulch in disturbed turf areas.

The phasing of the project proposes full closures of Runway 6-24, Taxiway J1, and Taxiway M1, as well as partial closures of Taxiway J and Taxiway M as described in *Section 4. Phasing*.

3. COORDINATION BEFORE AND DURING CONSTRUCTION

Safety considerations are paramount during airfield construction projects. Careful planning, scheduling, and coordination of construction activities before and during construction can minimize disruption of normal aircraft operations and avoid situations that compromise the airport's operational safety.

A complete list of the project contacts, including local emergency responders, has been included in Appendix A. The successful Contractor will be provided with an electronic copy of this list and will update it to include contact information for its staff and sub-contractors including their Construction Safety Officer. The updated list will be included in an appendix of the Contractor's Safety Plan Compliance Document (SPCD).

Design Review Meetings

<i>Date</i>	<i>Attendees</i>	<i>Description</i>
05/07/2026	Airport, McFarland Johnson, and FAA	60% Design Review

Prebid Meeting

- To be held prior to the Bid Opening on Date/Time to be Determined.
- The CSPP will be reviewed and discussed as part of the meeting.
- Key attendees will include the Airport, McFarland Johnson, and Potential Bidders.

Preconstruction Meeting

- To be held prior to the issuance of the Notice to Proceed on Date/Time to be Determined.
- The CSPP and the Contractor's Safety Plan Compliance Document (SPCD) will be reviewed and discussed as part of the meeting. The Airport will approve of the SPCD before construction can begin.
- Key Attendees will include the Airport, McFarland Johnson, Resident Project Representative (RPR), Contractor Project Manager and Superintendent, Subcontractor Representative(s), FAA Airports Division and FAA Tech Ops Representative(s).
- At least 45 days prior to the start of construction activities, the Airport will notify the FAA Air Traffic Organization for the NAVAIDs impacted by construction.
- At least 10 days prior to the start of construction activities, the Contractor will provide a construction schedule for the project.
- At least 10 days prior to the start of construction activities, the Airport will notify the Aircraft Rescue and Fire Fighting (ARFF) of construction.

Tenant Coordination Meeting

- Held prior to the start of construction on a Date/Time to be Determined.
- The CSPP will be reviewed and discussed with the airport tenants.
- Key attendees will include the airport, McFarland Johnson, RPR, FAA Air Traffic Control Tower (ATCT), and MHT airport tenant representatives.
- Discussions will include proposed closures and durations, active work areas, safety implementations, and emergency contacts.

During Construction -- Daily Coordination Meetings

- Meetings will be held prior to starting work each day and will discuss the day's activities and all of the safety-related items for the project site. The Contractor will communicate the following at each meeting:
 - a. Work areas where construction is active/scheduled.
 - b. Major work items to be accomplished.
 - c. Number of personnel to be on site, including subcontractors.
 - d. Type and quantity of equipment to be on site.
 - e. Any anticipated closing of facilities that will be required.
 - f. Any anticipated power outages and/or system to be inoperable, including anticipated length of downtime in hours.
 - g. Other information requested by Airport Operations or RPR.
- Key attendees will include the RPR, Contractor Superintendent, and Subcontractor Representative(s) as applicable.

During Construction – Weekly Progress Meetings

- At each weekly meeting, a standing agenda item will be construction safety and project phasing.
- Key Attendees will include the Airport, McFarland Johnson, RPR, Contractor Superintendent, Subcontractor Representative(s), and FAA Tech Ops Representative(s).
- At each of the weekly project meetings, the Contractor will be required to provide at least a 2-week “look ahead” schedule. Should the overall schedule change during the course of construction, the overall schedule will be updated and distributed to stakeholders. Emergency personnel will be notified of any routes used that would be affected by the project construction or activities.

Potential Revisions to the CSPP

This CSPP has been approved by the FAA. Any proposed changes to this CSPP will be coordinated with the Airport/Owner and the FAA. The FAA will review and must approve the CSPP before proposed changes can occur, which can take 45 working days or longer. Revisions to the CSPP may delay construction and the Contractor should plan accordingly.

4. PHASING

The proposed construction sequencing has endeavored to minimize impacts on aircraft operations while maintaining a safe working environment during construction. To accomplish this construction is divided into one (1) work area. The sequence of work areas is presented in Table 1 below. The estimated start and end dates are dependent on the availability and release of funding; it is anticipated that the project will start in the Spring or Summer of 2027, but the start date could be subject to modification.

Table 1 – Anticipated Construction Schedule and Sequence of Work Areas

	Requirement to Start	Duration
Work Area 1	Notice to Proceed	60 Consecutive Calendar Days
Total Construction Duration		<i>60 Consecutive Calendar Days</i>

Calendar days are to be consecutive, unless otherwise noted in the Specifications. Once work has begun in an area the area must be worked continuously until the work area is complete, unless otherwise allowed by drawings in Appendix B. The Contractor's work hours shall be as shown on the phasing drawings.

Major work activities of Work Areas

- Install lighted runway closure markers and low-profile barricades
- Install required jumpers and sign/light covers
- Install erosion control measures and BMPs
- Remove and dispose of existing EMAS blocks and ancillary items
- Mill existing pavement
- Repair cracks on milled surface as required
- Install new bituminous pavement
- Install new EMAS system
- Groove new bituminous pavement
- Install new pavement markings
- Install new retroreflective markers
- Install new topsoil, seed, and mulch in disturbed turf areas

Work Area '1'

Work Area: Beyond Runway 24 Threshold

Closures:

- Runway 6-24 full closure
- Taxiway J between Taxiway K and Runway 24 end
- Taxiway J1
- Taxiway M between Terminal Apron and Runway 6 End
- Taxiway M1

Duration: Sixty (60) consecutive calendar days

Work Hours: 7:00 AM – 7:00 PM Mon-Fri unless otherwise authorized by the RPR and Owner.

5. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION

The affected aircraft operations areas, and other Airport areas, for this project are shown on the Construction Safety and Phasing drawings located in Appendix B. The work locations for the project located within the AOA Movement Area will require careful coordination and advanced notification in accordance with Section 3 – *Coordination Before and During Construction*.

Any Runway Safety Area (RSA) or Taxiway Safety Area (TSA) allowed to be opened during non-working hours will be temporarily graded and stabilized, if required, to provide a smooth transition without any pavement drops or ruts greater than 3 inches. No construction may occur within an RSA while the runway is open for aircraft operations. No construction may occur within the Taxiway Object Free Area (TOFA) while the taxiway is open for aircraft operations.

Refer to Section 11 - *Underground Utilities* for underground utilities impacted by the construction.

Contained within the tables below are anticipated operational impacts to Airport Operations throughout the course of the project. The Contractor is required to coordinate with Airport Operations prior to starting work in the next work area and before impacting operations on the Airport.

Table 2 – Runway Safety Areas (RSA), Runway Object Free Area (ROFA), and Runway Obstacle Free Zone (ROFZ)

Runway	Aircraft Approach Category	Airplane Design Group	Runway Safety Area Width	Runway Object Free Area Width	Runway Obstacle Free Zone Width	Runway Safety Area from Edge of Runway Pavement	Length Beyond/Prior to Threshold
Runway 6-24	C	IV	500	800	400	175	600/200
Runway 17-35	D	IV	500	800	400	175	1,000/214-637

Table 3 – Taxiway Safety Areas (TSA) and Taxiway Object Free Area (TOFA)

Taxiway	Taxiway Design Group (TDG)	Airplane Design Group	Taxiway Safety Area Width	Taxiway Object Free Area Width	Taxiway Safety Area from Edge of Taxiway Pavement
Taxiway J/J1	6	IV	171	243	48 (varies)
Taxiway M/M1	6	IV	171	243	48 (varies)
Taxiway H	6	IV	171	243	48 (varies)
Taxiway K	6	IV	171	243	48 (varies)
Taxiway Z	6	IV	171	243	48 (varies)

WORK AREA 1 – CONSTRUCTION IMPACTS		
PROJECT	Runway 6-24 EMAS Replacement	
WORK AREA	Work Area 1: RW 6-24 EMAS	
SCOPE OF WORK	Includes all work associated with the removal of the existing and installation of new Runway 6-24 EMAS Sixty (60) Consecutive Calendar Days	
OPERATIONAL REQUIREMENTS	Normal (Existing)	Work Area 1 (Anticipated)
RW 6-24 ARC	C-IV	CLOSED
RW 6 Declared Distances	TORA: 7,650' & TODA: 7,650' ASDA: 7,650' & LDA: 7,208'	CLOSED CLOSED
RW 6 Approach Procedures	ILS or LOC, RNAV (GPS)	CLOSED
RW 6 NAVAIDs	REIL / PAPI(P4L) / ILS – Class IT	CLOSED
RW 24 Declared Distances	TORA: 7,650' & TODA: 7,650' ASDA: 6,850' & LDA: 6,850'	CLOSED CLOSED
RW 24 Approach Procedures	RNAV (GPS)	CLOSED
RW 24 NAVAIDs	REIL / PAPI(P4L)	CLOSED
RW 17-35 ARC	D-IV	D-IV
RW 17 Declared Distances	TORA: 9,250' & TODA: 9,250' ASDA: 9,250' & LDA: 8,914'	TORA: 9,250' & TODA: 9,250' ASDA: 9,250' & LDA: 8,914'
RW 17 Approach Procedures	ILS or LOC/DME, RNAV(GPS), RNAV(RNP)	ILS or LOC/DME, RNAV(GPS), RNAV(RNP)
RW 17 NAVAIDs	MALSR / TDZL / PAPI(P4R) / ILS/DME – Class IE	MALSR / TDZL / PAPI(P4R) / ILS/DME – Class IE
RW 35 Declared Distances	TORA: 9,250' & TODA: 9,250' ASDA: 8,500' & LDA: 7,650'	TORA: 9,250' & TODA: 9,250' ASDA: 8,500' & LDA: 7,650'
RW 35 Approach Procedures	ILS or LOC, ILS (SA Cat I), ILS (Cat II or III), RNAV(GPS), RNAV(RNP), VOR	ILS or LOC, ILS (SA Cat I), ILS (Cat II or III), RNAV(GPS), RNAV(RNP), VOR
RW 35 NAVAIDs	ALSF2 / TDZL / PAPI(P4L) / ILS/DME – Class IIIE	ALSF2 / TDZL / PAPI(P4L) / ILS/DME – Class IIIE
Taxiway J ADG	IV	CLOSED Between Taxiway K and Runway 24 End
Taxiway J1 ADG	IV	CLOSED
Taxiway M ADG	IV	CLOSED Between Terminal Apron and Runway 6 End
Taxiway M1 ADG	IV	CLOSED
ARFF Index	C	C
Special Conditions	N/A	N/A

6. NAVIGATIONAL AID (NAVAID) PROTECTION

The Airport-owned and FAA-owned NAVAIDS noted below servicing Runway 6-24 will be shut off and inactive during work in Work Area 1. The Airport's NAVAIDS include:

Table 4 – NAVAID Ownership

NAVAID	Owner	Point of Contact
Runway 6 REILs	FAA	See Appendix A
Runway 6 PAPI	FAA	See Appendix A
Runway 6 ILS	FAA	See Appendix A
Runway 24 REILs	FAA	See Appendix A
Runway 24 PAPI	FAA	See Appendix A
Runway 17 MALSR	FAA	See Appendix A
Runway 17 TDZL	FAA	See Appendix A
Runway 17 PAPI	FAA	See Appendix A
Runway 17 ILS/DME	FAA	See Appendix A
Runway 35 ALSF2	FAA	See Appendix A
Runway 35 TDZL	FAA	See Appendix A
Runway 35 PAPI	FAA	See Appendix A
Runway 35 ILS/DME	FAA	See Appendix A

FAA-owned NAVAIDS will be turned off by local FAA Tech Ops personnel, as noted in *Section 1 – Coordination*. Airport-owned NAVAIDS will be turned off by Airport Operations.

When runways are operational, their associated NAVAIDS will also be operational. The Contractor will not be permitted within the critical areas of any active NAVAID.

There will be no construction activities, equipment operation, materials storage, or vehicle parking near any active NAVAID without notifying the Resident Project Representative.

Interference from construction equipment or activities which may affect any NAVAID for low visibility operations will require a shutdown notification through a NOTAM. If these conditions are absolutely necessary for the construction to progress, a NOTAM will need to be issued.

If necessary, before commencing construction activities or operating construction equipment near a NAVAID, the Contractor will coordinate, through the Airport, FAA, and Resident Project Representative to evaluate the effect of construction activity and the required distance to keep away from the NAVAID to protect it.

All construction activities near a NAVAID must not obstruct access to the equipment for

maintenance by Airport or FAA Tech Ops personnel.

The Contractor is solely responsible for locating all existing NAVAID feeds and other utilities within the project limits. Prior to initiation of any construction in the field, the Contractor will provide a written notice (return receipt requested) to each of the impacted utility companies, as applicable. The Contractor will provide the Resident Project Representative with a copy of the receipt of said written notification to each of the utility companies. This requirement is in addition to any other state laws regarding public notification prior to excavation.

7. CONTRACTOR ACCESS

Site Access

Refer to the Construction Safety and Phasing drawings in Appendix B for site access points, haul routes, and staging areas. Upon completion of the Project, the Contractor will restore access points, haul routes, and staging areas to their original, pre-construction conditions.

Ingress and Egress Procedures

MHT Operations and Maintenance will unlock and lock airport gates needed for access at the beginning and end of all shifts.

During working hours, the Contractor will control all construction access through the Airport gates at all times. Such gates will be closed and/or physically blocked by the Contractor-furnished Gate Guard, when not in use and opened only when access through the gates is needed. While a gate is open it will be continuously monitored by the Contractor-furnished Gate Guard to allow authorized personnel only access to the airfield. During non-working hours, gates will be closed and locked.

The Contractor will not allow any unauthorized vehicles to enter through the construction access gates. The Contractor is liable for any fines issued by the FAA and TSA for security violations.

Vehicle Operations within the AOA

All construction employee vehicles will park in the Contractor Parking Area only and are not allowed to drive in the AOA.

Airport Operations will immediately suspend all construction if 1) a Contractor's or subcontractor's employee enters the AOA outside of the designated work area without authorization or 2) any unescorted construction vehicle operates within the AOA. Airport Operations will allow construction work to resume only when the discrepancy is corrected.

Contractor's construction equipment will not be allowed access to portions of the Airport that have not been designated as a work area, haul route, or staging areas. Construction equipment cannot operate in areas that are open to aircraft traffic.

With the Resident Project Representative's approval, the Contractor is permitted to stage equipment in a work area if that equipment is needed for the immediate task at hand. At the end of each day or when not in regular use during the day, all equipment will park in the portion of the work area that is outside of controlled aircraft operations areas (RPZ, ROFA, TOFA, etc.).

Vehicle Identification

Each Contractor's motorized vehicle operating on airport property will be equipped with an operating yellow flashing beacon displayed in full view above the vehicle. The Contractor's construction equipment will have a checkered flag. The 3' x 3' flag will be made of 1'x 1' international orange and white squares. The flag should be placed at the highest point on the vehicle to allow for an unobstructed view of the flag. Any vehicles not meeting these criteria will be denied access to the work zones until the problem is rectified. Any vehicle operating on the movement areas during hours of darkness, or reduced visibility, must be equipped with a yellow flashing beacon, the color of which is in accordance with FAA Advisory Circular 150/5210-5D.

In addition, all Contractors vehicles operating on the airfield will have a company placard/logo plainly visible on both sides of the vehicle in order to identify the vehicle. The signage may be applied either by using tape or a water-soluble paint to facilitate removal. Magnetic signs are also acceptable.

Radio Communications

The Air Traffic Control Tower (ATCT) will communicate with and update pilots as required.

Radio escorts will be provided by MHT Operations and Maintenance and will communicate with ATCT when necessary. The RPR and the Contractor will not communicate with the ATCT at any time.

The RPR and Contractor superintendent will monitor air traffic ground control frequency of 121.9 MHz at all times to maintain situational awareness.

Granite Frequency:

- i. Granite Channel (1): General Airport Operations, building maintenance and emergency frequency.
- ii. Granite Channel (2): Backup frequency.
- iii. Granite Channel (3): Airport law enforcement unit communications.
- iv. Granite Channel (4): Airport operations and maintenance, construction coordination, and security communications.

Granite Frequency – Call Signs:

- i. Airport Communications Center: Granite 100.
- ii. Airport Emergency contact: Granite 100.
- iii. Security gate guard: Company, followed by gate number.
- iv. Contractor site superintendent: Company, followed by predetermined call sign/number.
- v. Airport Operations representative(s): Coordinate daily on site.

The ATCT will have direct communication with the MHT Operations and Maintenance personnel providing the contractor escorts and having operational safety oversight. This communication will take place on the MHT ground frequency.

Airport Security

All personnel with regular job duties and responsibilities within the Airport Operations Area (AOA), including contractors, subcontractors, general workers and/or security personnel will obtain an MHT Security Identification Badge. In addition, all applicants will attend an airport security briefing prior to being granted access to any secure area. Superintendents shall also be required to have driver training.

All authorized visitors and short-term workers will be issued a white temporary escorted badge. Issuance of escorted badges will be noted in the daily security access log. The log and badges will be returned to airport operations at the close of each work day. The Contractor's MHT badged supervisor(s) are required to coordinate AOA escort assignments with MHT Operations and Maintenance. An escorted worker will be informed (by the contractor) as to their MHT badged escort and will at all times remain within line of sight and within control of the escort.

All personnel and vehicles that are granted access to the AOA will submit to random security inspections conducted by airport law enforcement, security, operations, and Transportation Security Administration personnel. Random inspections may occur at any time and may take place at the perimeter gates, on the AOA, and/or within other secure areas of the airport. Mirrors will be used to ensure a thorough inspection of the undercarriage of vehicles.

The Access Gate as shown in the Contract Documents will be manned by an MHT Airport-approved Security Guard for Contractor access to the site. The following procedures will be followed for contractor access:

- a. MHT Airport-approved Security Guard will have an approved means of communication (i.e. "granite" radio contact) with his/her supervisors, the Contractor, MHT Operations and Maintenance personnel, and Airport Communications in the event of an emergency.
- b. Vehicle inspections will take place on the public side of the security fence prior to the gate being opened.
- c. All personnel entering an AOA access gate will sign the daily security/AOA access log (once per day for all personnel except when leaving the secured area or hauling material off site). The daily log will be maintained by MHT Airport-approved Security Guard and turned over to MHT Operations and Maintenance at the close of each work day.
- d. During periods of minimal activity, the Secure Access Gate shall be secured or have the MHT Airport-approved Security Guard's vehicle parked across the gate opening such that a vehicle cannot pass through the gate opening. Gates will be secured by MHT Operations and Maintenance at the beginning and ending of each work day.

Stockpile Locations

Material stockpiles will be located only in the Contractor's Staging Areas and outside of all active RPZs, ROFAs, RSAs, and TOFAs shown on the Construction Safety and Phasing drawings included in Appendix B. Stockpiles are limited to 15 feet tall. See Section 11 for stockpiles greater than 15 feet above ground level.

8. WILDLIFE MANAGEMENT

Outside of the work area, the Airport is responsible for wildlife management. Inside the work area, however, the Contractor is responsible for developing and maintaining procedures that prevent the attraction of wildlife as outlined in their SPCD. The SPCD will be in accordance with the Airport's wildlife hazard management plan and approved by the Airport prior to construction.

The Contractor's personnel and subcontractors must be aware of and avoid construction activities that can create wildlife hazards on airports, such as:

- Trash. Trash will be removed from the work areas daily and placed in a covered trash bin provided by the Contractor. The trash bin will be located inside the staging area and emptied weekly (at a minimum) by the Contractor. Should the Airport determine this frequency to be inadequate, the Contractor will be asked to increase trash removal to two or more times weekly.
- Standing Water. Standing water will not stand for more than 48 hours. The Contractor will take precautions and have ready, at no additional cost to the project, a pump to remove standing water from the project area by pumping to the nearest outfall location.
- Grass. The Contractor is responsible for maintaining the staging, parking, and work areas free from tall stands of grass. Grass in these areas will not be over 14 inches in height. When it reaches 14 inches tall, the Contractor will mow to a height no taller than 7 inches. The Airport may require the Contractor to collect grass clippings.
- Poorly Maintained Fencing and Gates. The Airport conducts periodic perimeter fence and gate inspections to ensure they are functioning correctly to keep wildlife from entering the AOA. The Contractor will operate those gates used for construction access in accordance with Section 7 to prevent wildlife from entering the AOA.
- Disruption of Existing Wildlife Habitat. While construction makes this unavoidable, the Contractor will immediately notify the Airport by phone of any wildlife sitting within the AOA. The Airport, not the Contractor, is responsible for harassing wildlife from the AOA.

9. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Description of FOD

FOD at airports includes any object found in an inappropriate location that can damage aircraft, equipment, or airport personnel. Related to construction, FOD is typically loose gravel, blowing sand, wire bristles from sweeper heads, food wrappers, and material packaging. The presence of FOD in the AOA poses a significant threat to air travel as it has the potential to damage aircraft during critical phases of flight. This can lead to catastrophic loss of life and/or aircraft. As such, everyone inside the AOA is responsible for removal of FOD immediately regardless of its origin.

Contractor's Responsibilities for Managing FOD

- The Contractor will maintain a clean project site free of FOD.
- All construction personnel will secure any FOD regardless of its source that could be carried by wind into the AOA.
- To reduce the risk of FOD, all construction vehicles will not drive on grass/dirt and then drive on airfield pavement.

- The Contractor will furnish and retain at the construction site, equipment for the removal of FOD from airfield pavement. The Contractor will use a vacuum powered street sweeper or approved alternative to clean airfield pavement closed to aircraft prior to re-opening them. The Airport has final authority on the acceptance of cleaned pavements and areas prior to re-opening them to aircraft.

Contractor's Responsibilities for Controlling Dust

- The Contractor will be responsible for dust control within the Staging Areas and work areas and along any construction access road of this Project. The operation of runways, taxiways, and associated NAVAIDs are especially sensitive to dust.
- The Contractor will furnish and retain at the construction site, equipment for the application of water to control dust within the construction site and on haul roads. The equipment will be equipped with a shut-off control valve controlled by the driver/operator. The Contractor will apply water for dust control as necessary to prevent dust from the construction site and/or haul roads from being a hazard to aircraft and from being a nuisance or hazard to the flying public as directed by the Resident Project Representative.
- The Resident Project Representative reserves the right to suspend construction activities to bring dust under control.

10. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

The Contractor's SPCD will address the management of hazardous and non-hazardous waste in accordance FAA AC 150/5320-15A, *Management of Airport Industrial Waste*. The management plan will address such issues as fuel deliveries, spill recovery procedures, availability of Material Safety Data Sheets (MSDS), and other considerations.

Other HAZMAT requirements:

- All construction vehicles will be fueled only in the Staging Areas. Care should be taken to prevent damage to existing pavements outside the project limits with construction equipment. Any repairs required will be completed at no expense to the Airport.
- Any vehicles transporting fuel or potentially harmful substances will be equipped with a spill control plan and required decontamination equipment as required by Federal, State and local regulations.
- The Contractor will immediately notify the Airport Manager by phone of all spills, regardless of quantity spilled.

11. NOTIFICATION OF CONSTRUCTION ACTIVITIES

Contact List and Emergency Notification

A list of Airport, Engineer, Resident Project Representative and Contractor personnel and emergency contacts is in Appendix A. The primary contact for construction activities is the Resident Project Representative. The contacts for the Airport will be as assigned by Airport Management.

Construction Schedule

The Contractor will be required to submit a construction schedule per the specifications (General

Provision 80-03) at least 10 days prior to the start of work.

Notification to Pilots

The Notice to Air Missions (NOTAM) system provides essential information to personnel concerned with flight and airport operations. NOTAMs provide timely information on unanticipated or temporary changes to components of or hazards to the National Airspace System, which includes temporary closure of runways.

The construction of this project will require NOTAMs to be issued. A minimum of 72 hours written notice (weekends excluded) of requested closing any portion of the airfield and NAVAIDs will be directed from the Contractor to the Airport. The Airport will issue all NOTAMs for the temporary closure of any portion of the airfield. The FAA will issue all NOTAMs for temporary FAA-owned NAVAID service outages and Flight Procedures changes.

Emergency Notification Procedures

In the event of an emergency requiring an immediate medical, fire, and/or police response the Contractor will call 911 and then Airport Operations.

Notification to FAA

Any construction project that affects navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment on airports. FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, can be used for this purpose. The Contractor must submit a plan to the Resident Project Representative showing where construction equipment reaching higher than 25 feet will be used and parked and stockpiles greater than 10 feet above ground level will be located. Should the Contractor want to stockpiled materials to exceed 10 feet tall, they will be required to submit Form 7640-1 electronically through the FAA's OE/AAA website to receive a determination letter and must be acceptable to the FAA PM prior to construction.

Cranes and other equipment taller than 25 feet (i.e. concrete pumpers, etc.) cannot be deployed without a Form 7460-1 approval determination letter. All equipment booms will be lowered at the close of each day's work or when stored. If the height of the equipment exceeds 25 feet, a Form 7460-1 approval determination letter must be obtained. The Engineer, on behalf of the Airport, will submit a Form 7460-1 electronically for construction equipment with a maximum height of 25 feet tall.

Notification to Airport Users

The Airport has been in contact with airport users and key stakeholders and will continue to keep them informed during construction. Airport emergency personnel will be notified of any construction and any conditions that may adversely affect the operational safety of the airport.

12. INSPECTION REQUIREMENTS

FOD Inspections

The Contractor will keep the project site and vehicles clean by employing a "clean as you go" approach during construction. The entire work area is to be inspected for FOD periodically

throughout the workday and at the end of each day's work.

Daily Inspections

- The Contractor, Airport Operations, and the Resident Project Representative will conduct joint daily airfield inspections. All airfield-paved areas, safety areas, and airfield lighting will be inspected to ensure safe operations.
- Before leaving the site each day, the Contractor will inspect all traffic control devices to ensure they are in the proper location and good working order. The Contractor should complete the daily safety checklist found in Appendix D of FAA Advisory Circular 150/5370-2G. The Contractor will provide an emergency contact for maintenance of traffic control devices after work hours.

Work Area Reopening Inspections

As soon as the work in a work area is completed, the area will be cleaned and made available for inspection. Pavements must be free of all dirt, sand, gravel, wire bristles or any other objects that could cause damage to aircraft engines. All soil areas must be free of dirt clods, ruts, or surface irregularities that could damage an aircraft should it leave the pavement. All airfield lighting and appropriate NAVAIDs will be in good working order.

Prior to re-opening work areas and pavements to aircraft operations, the Contractor will coordinate a joint inspection with Airport Operations and the Resident Project Representative. Upon acceptance by Airport Operations and the Resident Project Representative will be re-opened.

Final Inspection

Coordinate with Airport Operations and the Resident Project Representative the final inspection to determine if the work within a given work area is substantially complete to re-open and generate the punch list.

13. UNDERGROUND UTILITIES

Locations of utilities and underground cables shown are based on record documents and field survey. The accuracy of the utility locations is not guaranteed, nor warranted to be complete.

Prior to commencement of any excavation, the Contractor will verify utility locations. The Contractor will contact Dig Safe to delineate all utilities (even if all construction is "Airside") a minimum of seven (7) days prior to any excavation work. The Contractor's DIG SAFE # for the project is: _____ (to be filled in upon start of work).

The Contractor will coordinate all work on and in the vicinity of the underground utilities and cables with the Resident Project Representative and Airport Operations.

Should the Contractor damage any underground utilities, the Contractor will suspend all construction activity and notify the Resident Project Representative, who will in turn notify Airport Operations. The Contractor will then repair or replace the underground utility immediately prior to continuing any other work at his or her expense to the satisfaction of the Resident Project Representative.

14. PENALTIES

The penalty for non-compliance with the Airport's driving rules, regulations and/or safety plans may be suspension of driving privileges and/or suspension of all airport access.

During working hours, the Contractor is responsible for controlling access to the work area and ensuring that the security of all construction gates is maintained at all times. The FAA can impose fines of \$10,000 or more for security violations of the AOA.

The Contractor will pay all fines assessed against the Airport due to violations caused by the Contractor and his/her personnel, subcontractors, and vendors.

The airport has a zero-tolerance approach to FOD, and the Contractor may be subject to fines from the Airport, FAA, or other agencies for failure to properly manage FOD during construction.

15. SPECIAL CONDITIONS

Aircraft in Distress

Airport Operations, the Resident Project Representative, and/or the Contractor Superintendent will immediately clear all construction personnel of all runways and approach areas upon monitoring a distress call on the CTAF/UNICOM frequency.

Aircraft Accident

All construction personnel will immediately vacate airport property and remain off until cleared by the Airport. If an accident involves the Contractor, emergency authorities and the Airport will be contacted and all construction personnel not involved in the accident will immediately vacate airport property and remain off until cleared by the Airport.

Runway Incursion

A runway incursion is an occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft. here are four categories of runway incursions:

- Category A is a serious incident in which a collision was narrowly avoided.
- Category B is an incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.
- Category C is an incident characterized by ample time and/or distance to avoid a collision.
- Category D is an incident that meets the definition of runway incursion, such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft, but with no immediate safety consequences.

Incursions will be prevented by thorough training of ground vehicle operators; radio communication; coordination among all parties; and clearly marking the boundaries of construction operations established in this safety plan. In the event of a runway incursion, all construction personnel will immediately go to the Staging Area and remain until cleared to return to work by Airport Operations or Management. Construction related runway incursions will be

subject to penalties as described in Section 14, Penalties.

Vehicle / Pedestrian Deviation (V/PD)

Airport Operations or Management may temporarily suspend construction in the event of a non-construction related V/PD.

Blasting Operations

Blasting will not be allowed on this project.

Non-aircraft Emergencies

In the event of an emergency requiring an immediate medical, fire, and/or police response the Contractor will call 911 and then Airport Operations.

16. RUNWAY AND TAXIWAY VISUAL AIDS

Runway Closures:

Runway 6-24 will be closed during the entire project duration in accordance with the phasing plans as outlined herein and in Appendix B.

Runway closures will use temporary lighted runway closure markers and low-profile lighted barricades to delineate the closed pavements. Refer to Appendix B for details.

Temporary Taxiway Closures:

Full closures of Taxiway J1 and Taxiway M1 and partial closures of Taxiway J (between Taxiway K and the Runway 24 End) and Taxiway M (between the Terminal Apron and the Runway 6 End) take place as either a work area duration or daily/hourly basis as outlined in the phasing plans in Appendix B.

Taxiway closures will use low-profile barricades as outlined in Section 18, *Hazard Marking and Lighting*.

Runway Obstacle Free Zone (ROFZ):

The Contractor will delineate work areas that abut the Runway Object Free Zone, or other aircraft protection areas identified, with traffic cone/stake delineation or barricades, as indicated on Airside phasing plan, or other measures acceptable to Airport Operations or the Resident Project Representative.

Taxiway Visual Aids:

The Contractor will be required to provide temporary “jumpers”, as required, to keep portions of a taxiway edge light system operational in order to bypass closed portions of a taxiway. Where temporary jumpers are impractical, the Contractor will cover edge lights with sections of PVC to prevent light emission.

Guidance signs on taxiways, which are to be closed for the entire work area duration, will be covered or disconnected from its power supply. Guidance signs for taxiways and/or runways guidance signs for work areas having a daily closure on consecutive days will also be covered or

disconnected from their power supply.

Temporary Pavement Markings:

Temporary pavement markings will be necessary as outlined in the phasing plans referenced in Appendix B. Any temporary pavement markings will be installed per the requirements of the Pavement Marking specifications in the Project Documents.

17. MARKINGS AND SIGNS FOR ACCESS ROUTES

Prior to the start of construction, the Contractor will place construction traffic signage along Public Right-of-Way (R.O.W.) in accordance with the MUTCD and a temporary stop sign on the construction access road at the intersection with Public R.O.W. The construction access road does not need to be marked.

The Contractor will place lighted low-profile barricades, work area delineation markers, flagging, or other approved devices adjacent to active aircraft areas to restrict construction traffic from entering areas open to aircraft. The Contractor will provide additional markings or signs if the Resident Project Representative or Airport Operations determines a potential safety issue needs to be addressed.

18. HAZARD MARKING AND LIGHTING

Construction low-profile barricades will be used to delineate all closed construction airfield movement areas from the active aircraft. Barricades will be provided as shown in the Construction Safety and Phasing Plan Details sheet in Appendix B. These devices will delineate closed taxi routes that are not available to air traffic and will verify that the Contractor's vehicles will not interfere with any airport operations. Barricades will be weighted to protect against inadvertent movement from wind currents or prop/jet wash. These materials will be securely fastened to prevent FOD.

For night-time closures, low-profile barricades will be used per the phasing details.

Barricades will be used, as required, to limit vehicle movement from active aircraft areas. The Contractor will maintain all barricades as required and will have an "On-Call" person available for 24 hours/day, for emergency maintenance.

19. PROTECTION OF AREAS, ZONES, & SURFACES

Any construction-related Runway Incursion will require immediate suspension of all construction activity on the airport until a thorough investigation of the cause is completed. Any construction related delay costs will be the Contractor's responsibility.

The Airport will remain open during the project. Construction equipment will not penetrate any approach or departure surface. See Section 11, Notification of Construction Activities, for 7460 case file information.

All Safety Areas (SAs), Object Free Areas (OFAs) and Obstacle Free Zones (OFZs) of open aviation pavement will be protected from construction activity using the temporary barricades described in Section 18, Hazard Marking & Lighting, and as depicted on Phasing Plans and in Appendix B.

The existing perimeter fence is the Airport's secure perimeter and must remain intact. Any relocation efforts required for the fence will be planned to minimize the time the fence is removed. While the fence is being removed and relocated the Contractor will provide a watch to ensure there is no breach of the perimeter.

The Contractor will be responsible to instruct all workers and subcontractors on where travel is permitted on the Airport property. The Contractor will also instruct all subcontractors on the vehicle identification requirements as described in Section 7, Contractor Access.

Open trenches or excavations are not permitted within the safety area adjacent to active Runways or Taxiways. All trenching and excavation must be backfilled, covered by a heavy-duty road plate, or smoothly transitioned to existing grade before the Runway or Taxiway me be opened.

20. OTHER LIMITS ON CONSTRUCTION

Smoking is prohibited within the AOA.

The use of open flame welding or torches is prohibited unless fire safety precautions are provided, and Airport Operations has approved their use.

Night work procedures, including those as outlined in Appendix B and other Contractor requested times, must be approved by Airport Operations in advance and sufficient lighting must be provided to ensure a comparable degree of accuracy, workmanship, and conditions regarding safety as would be obtained in daylight. Nighttime construction will comply with paragraph 2.21 of AC 150/5370-2G.

21. AIRPORT WATCH PROGRAM

An "Airport Watch Program" will be established to visually remind all Airport employees, users, and tenants of their role in maintaining a safe and secure Airport. If you see something suspicious, report it to Airport Operations immediately. With the willing assistance of many watchful eyes and alert ears, the Airport will remain a safe and secure environment for all Airport users, employees, contractors, and the general public.

APPENDIX A

KEY PERSONNEL CONTACT LIST

PAGE LEFT BLANK INTENTIONALLY

CSPP Appendix A – Key Personnel Contact List
KEY PERSONNEL CONTACT LIST

Emergency: (24-hour line): (603) 628-6222

Non-Emergency: (24-hour line): (603) 624-6439

KEY PERSONNEL & CONTACT LIST		
Luis Elguezabal Office: Cell: E-Mail:	Deputy Aviation Director (603) 624-6539, Ext 306 (603) 815-1106 lelguezabal@flymanchester.com	Manchester Boston Regional Airport 1 Airport Road, Suite 300 Manchester, NH 03103
Andrew Fournier Office: Cell: E-Mail:	Airport Operations, Superintendent (603) 624-6592 (603) 344-3127 afournier@flymanchester.com	Manchester Boston Regional Airport Operations and Maintenance 402 Kelly Avenue Manchester, NH 03103
Mark Tower Office: Cell: E-Mail:	Airport Maintenance, Superintendent (603) 624-6592 (603) 660-7242 mtower@flymanchester.com	Manchester Boston Regional Airport Operations and Maintenance 402 Kelly Avenue Manchester, NH 03103
Mark Blad ATCT Gen. Phone: Office: Cell: E-Mail:	MHT ATC Air Traffic Manager (603) 621-1700 (603) 621-1701 (603) 779-4301 Mark.Blad@faa.gov	8 Ammon Drive Manchester, NH 03103
Jen Levie Office: Cell:	MHT FAA Technical Operations (603) 594-5494 (603) 759-4883	FAA Granite State SSC 25 Robert Milligan Pkwy Merrimack, NH 03054
Craig Pankey Office: Cell:	BCT MHT SSC A Manger, Acting (603) 594-5405	FAA Granite State SSC 25 Robert Milligan Pkwy Merrimack, NH 03054

Kevin Belanger Office: Cell: E-Mail:	Manchester SSC B Manager (603) 594-5404 (603) 493-8242 Kevin.belanger@faa.gov	FAA Granite State SSC 25 Robert Milligan Pkwy Merrimack, NH 03054
Sean Tiney Office: Cell: E-Mail:	FAA Airports Div., Project Manager 781-238-7626 New England Division Sean.S.Tiney@faa.gov	FAA Airports Division ANE-600 1200 District Avenue Burlington, MA 01803
Radio: MHT Ground (ATCT): 121.9 MHz		
UNICOM Frequency: 122.95 MHz		
Police (Manchester Airport): Non-Emergency: (603) 628-6349 <u>Emergencies:</u> CALL 911 or Comm Center (603) 628 - 6222		
Fire (Manchester Airport): Non-Emergency: (603) 624-1614 <u>Emergencies:</u> CALL 911 or Comm Center (603) 628 - 6222		
Airport Communications Center Non Emergency: (603) 628-6019 Emergencies: (603) 628-6222		

KEY PERSONNEL & CONTACT LIST – CONT.		
David Rich	Project Manager	McFarland Johnson 53 Regional Drive Concord, NH 03301
Office:	(603) 225-2978	
Cell:	(603) 260-2152	
E-Mail:	drich@mjinc.com	
TBD	Resident Project Representative	McFarland Johnson 53 Regional Drive Concord, NH 03301
Office:	TBD	
Cell:	TBD	
E-Mail:	TBD	
TBD	Contractor Site Superintendent	TBD
Office:	TBD	
Cell:	TBD	
E-Mail:	TBD	
TBD	Contractor Project Manager	TBD
Office:	TBD	
Cell:	TBD	
E-Mail:	TBD	

PAGE LEFT BLANK INTENTIONALLY

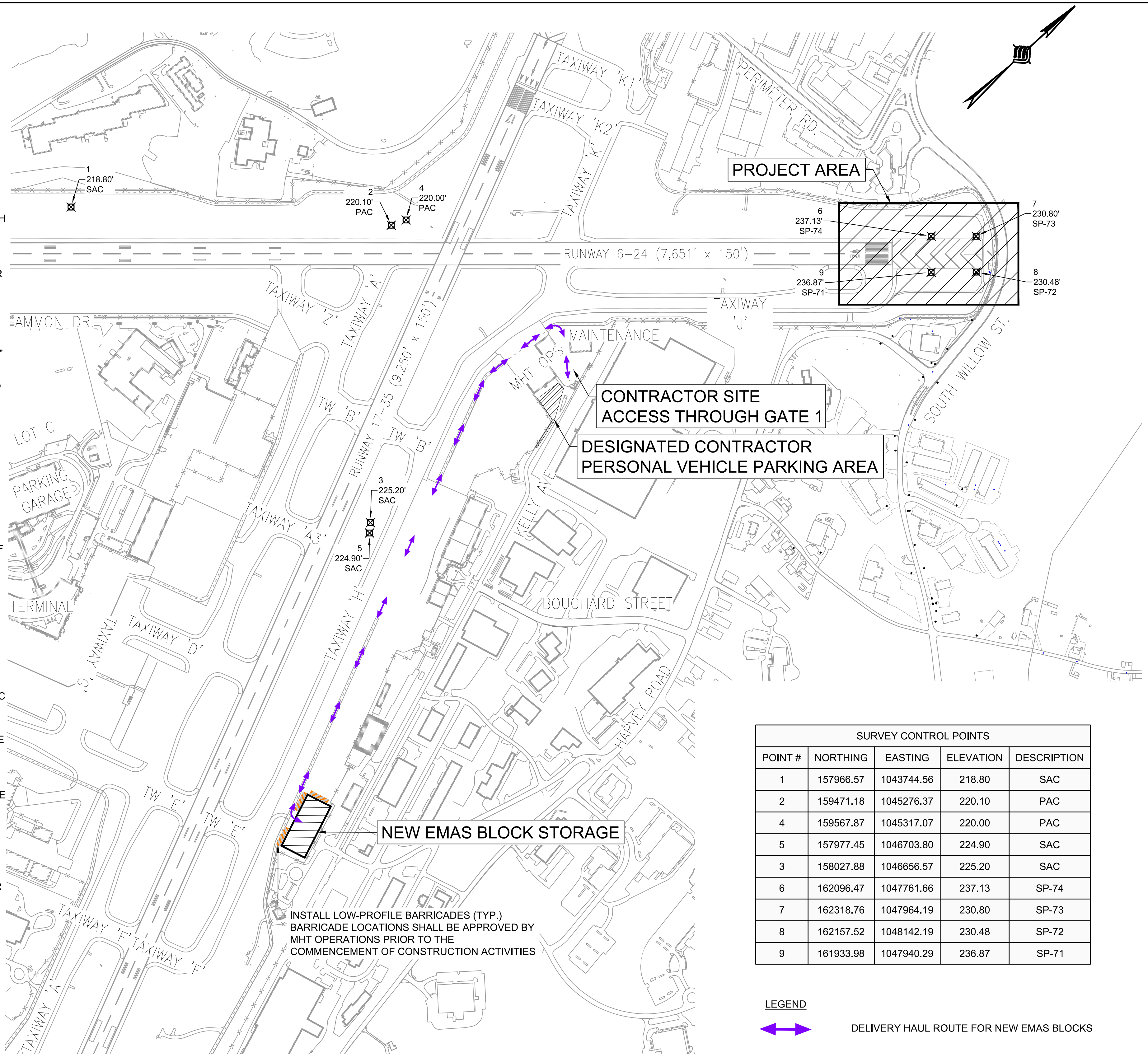
APPENDIX B

**CONSTRUCTION SAFETY
AND PHASING DRAWINGS**

PAGE LEFT BLANK INTENTIONALLY

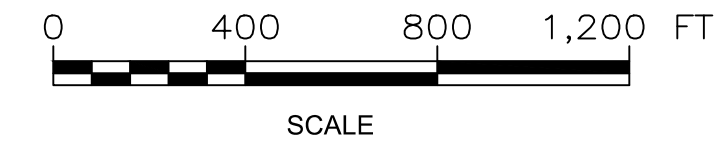
GENERAL NOTES:

1. THE CONTRACTOR SHALL CONDUCT THEIR OPERATION SO AS TO AFFORD COMPLETE UNRESTRICTED ACCESS BY EMERGENCY PERSONNEL AND EQUIPMENT.
2. THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT PROJECT REPRESENTATIVE (RPR) A PROPOSED WORK SCHEDULE FOR THE SUBSEQUENT 2-WEEK PERIOD A MINIMUM OF 48 HOURS PRIOR TO THE SCHEDULED PROJECT PROGRESS MEETING. THE SCHEDULE SHALL INCLUDE IDENTIFICATION OF WORK TASKS AND SKETCHES OF PROPOSED PAVEMENT CLOSURES, PROPOSED HAUL ROUTES AND PROPOSED LOCATION OF ALL SAFETY BARRICADES. THE LOOK AHEAD SCHEDULE SHALL BE REVIEWED AND APPROVED BY THE RPR AND MHT OPERATIONS. WORK NOT SHOWN ON THE APPROVED TWO (2) WEEK LOOK AHEAD SCHEDULE MAY BE DENIED FOR REASON OF INADEQUATE TIME TO COORDINATE WITH AIRPORT TENANTS AND AIRPORT USERS.
3. THE CONTRACTOR SHALL NOT BEGIN WORK IN ANY AREA UNTIL MHT OPERATIONS HAS APPROVED THE TEMPORARY MARKINGS AND SAFETY BARRICADES LAYOUT, AND CONFIRMED THAT TEMPORARY MARKINGS AND SAFETY BARRICADES HAVE BEEN PROPERLY PLACED. THE CONTRACTOR SHALL NOT ENTER THE WORK AREA TO COMMENCE OPERATIONS UNTIL OBTAINING APPROVAL FROM MHT OPERATIONS.
4. ALL VEHICLES ENTERING AND EXITING THE CONSTRUCTION WORK AREA SHALL BE CLEANED AND CLEAR FROM FOREIGN OBJECT DEBRIS (FOD). THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND OPERATE ONE VACUUM SWEEPER TRUCK WITH A DEDICATED OPERATOR ON A FULL-TIME BASIS FOR THE DURATION OF THE PROJECT AND SHALL UTILIZE IT TO REMOVE PROJECT DEBRIS FROM THE ACCESS ROUTE AND WORK AREA AS DIRECTED BY THE RPR OR MHT OPERATIONS.
5. AT THE COMPLETION OF EACH WORK DAY, THE CONTRACTOR SHALL INSPECT THE WORK SITE IN THE PRESENCE OF THE RPR AND MHT OPERATIONS TO VERIFY THAT ALL SAFETY BARRICADES AND SAFETY LIGHTS ARE IN PLACE AND IN PROPER WORKING ORDER. ACCESS ROUTES AND ALL PAVEMENTS ADJACENT TO THE WORK AREA SHALL BE INSPECTED FOR FOD. ALL DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO LEAVING THE WORK SITE FOR THE DAY. IN ADDITION, PRIOR TO THE COMPLETION OF EACH WORK DAY THE CONTRACTOR SHALL VERIFY WITH MHT OPERATIONS THAT ALL THE ELECTRICAL SERVICES AND NAVAIDS ARE FULLY OPERATIONAL.
6. THE CONTRACTOR'S ATTENTION IS CALLED TO THE SUPPLEMENTAL PROVISIONS, CONSTRUCTION SAFETY AND PHASING PLAN, AND SPECIAL WORK REQUIREMENTS OF THE CONTRACT DOCUMENTS WITH REGARD TO ANY "SPECIAL PROVISIONS" WHICH MAY BE SPECIFIC TO THE SAFETY AND PHASING OF THIS PROJECT.
7. NORMAL AIRCRAFT OPERATIONS WILL BE CONDUCTED ON THE AIRPORT DURING CONSTRUCTION. THE PROJECT PHASING HAS BEEN DESIGNED TO MINIMIZE INTERFERENCE WITH DAILY AIRPORT OPERATIONS. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS FOR THE SAFETY OF OPERATING AIRCRAFT AS WELL AS CONTRACTOR EQUIPMENT AND PERSONNEL. MINOR MODIFICATIONS AND/OR CHANGES TO THE CONSTRUCTION SAFETY AND PHASING PLAN MAY BE ALLOWED BUT ONLY IF IT MINIMIZES IMPACT TO AIRPORT OPERATIONS AND WILL BENEFIT MHT OPERATIONS. ALL SUCH CHANGES SHALL BE AT NO ADDITIONAL EXPENSE TO THE CITY OF MANCHESTER - DEPARTMENT OF AVIATION, AND SHALL BE APPROVED BY THE RPR, MHT OPERATIONS, AND FAA PRIOR TO ANY IMPLEMENTATION. ALL CHANGES SHALL BE DOCUMENTED.
8. NO CONSTRUCTION OPERATIONS SHALL BE PERFORMED WITHIN 121.5 FEET OF THE CENTERLINE OF ANY ACTIVE TAXIWAY, WITHIN 250 FEET OF THE CENTERLINE OF ANY ACTIVE RUNWAY OR WITHIN THE LIMITS OF ACTIVE RUNWAY APPROACH ZONES UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM MHT OPERATIONS. WHEN PERMISSION HAS BEEN GRANTED TO WORK INSIDE THESE LIMITS, NO EQUIPMENT SHALL BE LEFT WITHIN THE LIMITS WHEN NOT ACTUALLY WORKING. ALL BOOMS SHALL BE LOWERED WHEN THE EQUIPMENT IS NOT IN OPERATION. CONTRACTOR'S EQUIPMENT MAINTENANCE REQUIRING OPEN FLAME, WELDING, SPARKS OR BURNING, SHALL NOT BE PERFORMED WITHIN 150 FEET OF AIRCRAFT. ALL HOT WORK SHALL REQUIRE A PERMIT FROM THE MANCHESTER FIRE DEPARTMENT.
9. THE CONTRACTOR SHALL FOLLOW MANCHESTER AIRPORT OPERATIONS CONSTRUCTION TRAFFIC REQUIREMENTS AS THEY PERTAIN TO THE OPERATIONS AND ROUTES TO BE TAKEN BY EQUIPMENT TRAVELING ON AIRPORT PROPERTY. ANY SIGNS, LIGHTS, SIGNALS, MARKINGS, OR TRAFFIC CONTROL DEVICES TO ALLOW PERSONNEL AND EQUIPMENT TO SAFELY ACCESS/EGRESS THE WORK SITE SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE WORK AT NO ADDITIONAL COST TO THE CITY OF MANCHESTER, UNLESS SPECIFICALLY NOTED AS ELIGIBLE FOR PAYMENT. NO AIRCRAFT PAVEMENT OR NAVIGATION AID CURRENTLY IN SERVICE SHALL BE LEFT OUT OF SERVICE OVERNIGHT UNLESS PREVIOUSLY SCHEDULED AND APPROVED BY MHT OPERATIONS AND FAA REPRESENTATIVE, WHERE APPLICABLE.
10. PARKING OF PERSONAL VEHICLES INSIDE THE AOA WILL NOT BE PERMITTED. THE CONTRACTOR, AS A SUBSIDIARY OBLIGATION, SHALL PROVIDE TRANSPORTATION FOR HIS/HER EMPLOYEES TO AND FROM THE WORK AREA FROM A PUBLIC PARKING AREA, DESIGNATED CONTRACTOR EMPLOYEE PARKING AREA AT MHT ARFF/OPS BUILDING BY GATE ONE OR AS OTHERWISE APPROVED BY MHT OPS.
11. ALL EXCAVATIONS SHALL BE BACKFILLED, THE PAVEMENT REPAIRED, PROPERLY CURED, MARKED AND APPROVED BY THE RPR AND MHT OPERATIONS PRIOR TO THE WORK AREA BEING REOPENED TO TRAFFIC.
12. ALL EXCAVATED STRUCTURES, PAVEMENTS, AND UNUSED CONSTRUCTION DEBRIS SHALL BE IMMEDIATELY REMOVED FROM THE AIRFIELD AND BE LEGALLY RECYCLED OR DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY, OR TEMPORARILY STORED IN THE DESIGNATED CONTRACTOR STAGING AND EQUIPMENT STORAGE AREA (WORK AREA 1). THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR DISPOSAL OF CONSTRUCTION MATERIAL OFF THE AIRPORT. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR THE DISPOSAL, BUT RATHER THE DISPOSAL SHALL BE INCIDENTAL TO THE RESPECTIVE ITEM ASSOCIATED WITH THE MATERIAL.
13. LOCATION OF EXISTING UTILITIES AND INFRASTRUCTURE UNDERGROUND AND ABOVE GROUND ARE FROM SURVEY AND RECORD PLANS AND THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF ALL UTILITIES IN THE PROJECT AREA INCIDENTAL TO ALL PROJECT PAY ITEMS. ALL EXISTING UTILITIES AND INFRASTRUCTURE IN THE VICINITY OF ANY EXCAVATION SHALL BE CLEARLY MARKED BY THE CONTRACTOR ON THE GROUND PRIOR TO BEGINNING EXCAVATION. THE CONTRACTOR SHALL NOTIFY THE FAA AT LEAST 48 HOURS PRIOR TO BEGINNING EXCAVATION NEAR FAA NAVAIDS OR THEIR ASSOCIATED CABLES.
14. THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY UNDERGROUND UTILITIES DAMAGED BY THEIR OPERATIONS AND THEIR SUBCONTRACTOR'S OPERATIONS. ALL REPAIRS SHALL REQUIRE THE RPR'S AND UTILITY OWNER'S REVIEW AND APPROVAL.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE BY EQUIPMENT TO EXISTING PAVEMENT. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AND RPR, AT NO COST TO THE OWNER.
16. THE CONTRACTOR SHALL PERFORM DUST CONTROL THROUGHOUT THE PROJECT DURATION AS NECESSARY. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR DUST CONTROL. DUST CONTROL SHALL BE INCIDENTAL TO THE VARIOUS ITEMS ASSOCIATED WITH DUST GENERATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THEIR OWN WATER SOURCE.
17. ALL ENVIRONMENTAL EROSION CONTROL DEVICES SHALL BE INSTALLED AND APPROVED BY THE RPR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

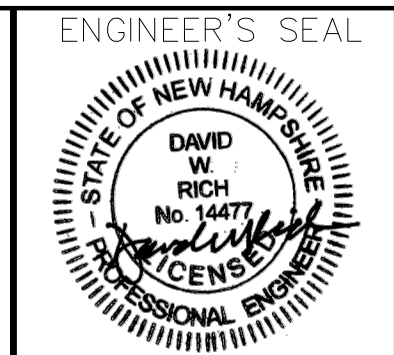


SURVEY CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	157966.57	1043744.56	218.80	SAC
2	159471.18	1045276.37	220.10	PAC
4	159567.87	1045317.07	220.00	PAC
5	157977.45	1046703.80	224.90	SAC
3	158027.88	1046656.57	225.20	SAC
6	162096.47	1047761.66	237.13	SP-74
7	162318.76	1047964.19	230.80	SP-73
8	162157.52	1048142.19	230.48	SP-72
9	161933.98	1047940.29	236.87	SP-71

LEGEND
 DELIVERY HAUL ROUTE FOR NEW EMAS BLOCKS



K:\MANCHESTER\1919\11 REPLACE RUNWAY 6-24 EMAS\DRAWINGS\SSHEET FILES\1919.11-GENR.DWG



PROJECT DESIGNER
McFarland Johnson
 53 REGIONAL DRIVE, CONCORD, NH 03301-5022
 PH: 603-225-2978 FAX: 603-225-0095
 DESIGNED BY: RHL
 DRAWN BY: RHL
 CHECKED BY: DWR



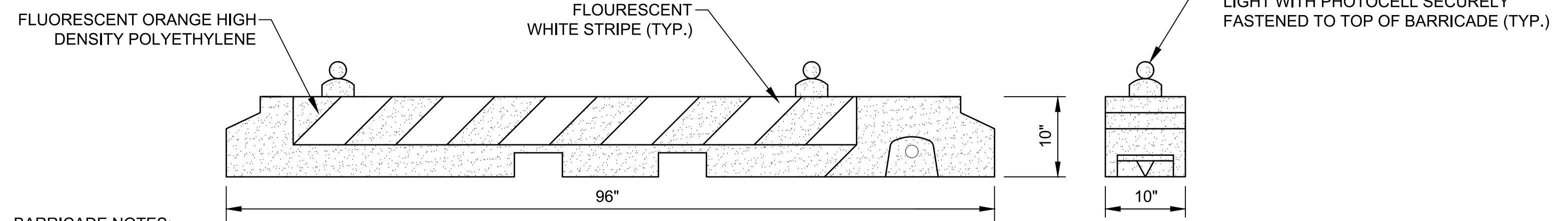
MANCHESTER-BOSTON REGIONAL AIRPORT
 REPLACEMENT OF RUNWAY 6 DEPARTURE END
 ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)
GENERAL PLAN
 SCALE: AS SHOWN
 DATE: JUNE 2026

REV. NO.	DATE	DESCRIPTION

M/J PROJ. No.: 19199.11
 FILE NAME:
 AIP No.: TBD
DRAWING NO.
 GP-01
SHEET 3 OF 20

CONSTRUCTION SAFETY AND PHASING NOTES:

- CONTRACTOR SHALL SUBMIT A WRITTEN SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO MOBILIZATION AND BEFORE ANY CONSTRUCTION IS ALLOWED TO BE PERFORMED. ANY DELAY IN THE ISSUANCE OF THE NOTICE TO PROCEED DUE TO THE FAILURE BY THE CONTRACTOR TO OBTAIN AN APPROVED SPCD WILL NOT BE GROUNDS FOR ANY CONTRACT TIME EXTENSION. THE CONTRACTOR SHALL BECOME KNOWLEDGEABLE OF THE REQUIREMENTS AND PROCEDURES OF THE FAA ADVISORY CIRCULAR NO. 150/5370-2G (OR CURRENT EDITION) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND THE APPROVED "CONSTRUCTION SAFETY AND PHASING PLAN" (CSPP), AND INCORPORATE RELEVANT ITEMS INTO THE SPCD WHICH MUST MEET OR EXCEED THE PROJECT'S CSPP REQUIREMENTS. THE SPCD SHALL BE MODIFIED AND UPDATED AS REQUIRED THROUGHOUT THE PROJECT TO ADDRESS EACH PHASE AND/OR SUB PHASE AS WORK PROGRESSES. SOME, BUT NOT ALL OF THE ITEMS, TO BE ADDRESSED IN THE SPCD ARE AS FOLLOWS:
 - IDENTIFICATION AND QUALIFICATIONS OF DEDICATED SAFETY & SECURITY POINT OF CONTACT.
 - WORK SCHEDULING, COORDINATION, AND NOTIFICATION PROCEDURES OF CONSTRUCTION ACTIVITIES.
 - AIRFIELD COMMUNICATIONS AND 24-HOUR EMERGENCY NOTIFICATION PROCEDURES.
 - CONSTRUCTION OPERATIONS ADJACENT TO OR WITHIN SAFETY AREAS, AND OBJECT FREE AREAS.
 - AREAS, NAVAID CRITICAL AREAS, AND APPROACH SURFACES. (I.E. GRADING, HAULING MATERIALS, ETC.).
 - METHODS AND REQUIREMENTS FOR SEPARATING CONSTRUCTION AREAS FROM AIRPORT OPERATIONS AREAS (AOA).
 - PREVENTING INTERFERENCE WITH FAA NAVAID (ILS OR OTHER) CRITICAL AREAS.
 - CONTROL OF FOREIGN OBJECT DEBRIS (FOD) AND DUST.
 - CONSTRUCTION VEHICLE REQUIREMENTS, PROCEDURES AND DRIVER TRAINING FOR ESCORT DRIVERS.
 - OPERATIONS WITHIN MOVEMENT AND NON-MOVEMENT AREAS TO PREVENT RUNWAY INCURSIONS.
 - CONTRACTOR ACCESS POINTS, VEHICLE CROSSING LOCATIONS, SECURITY FENCING AND GATES, AND EMPLOYEE SECURITY TRAINING.
 - PROCEDURES, REQUIREMENTS, AND COORDINATION OF RUNWAY AND/OR TAXIWAY CLOSURES, INCLUDING NOTICE TO AIRMEN (NOTAM) COORDINATION.
 - RSA DELINEATION MARKER PLACEMENT LOCATIONS, AND TEMPORARY CONSTRUCTION SIGN LOCATIONS.
 - PROCEDURES FOR MANAGING HAZARDOUS MATERIALS.
 - PROCEDURES FOR LOCATING & PROTECTING EXISTING UNDERGROUND UTILITIES.
- THE CONSTRUCTION SAFETY AND PHASING PLANS HAVE BEEN REVIEWED AND ACCEPTED BY THE FAA AND MHT OPERATIONS. COMBINING, MODIFYING, OR ALTERING WORK AREAS WILL NOT BE ALLOWED WITHOUT APPROVAL FROM THE FAA AND MHT OPERATIONS. THE CONTRACTOR SHALL PREPARE THEIR BID BASED ON THE CONSTRUCTION PHASING SHOWN IN THESE DOCUMENTS. APPROVED MODIFICATIONS AFTER THE BID SHALL RESULT IN NO ADDITIONAL COST TO THE OWNER. ANY PROPOSED CHANGES FROM THE CONTRACTOR SHALL BE SUBMITTED THROUGH THE RPR WHO SHALL SUBMIT IT TO THE AIRPORT AND FAA. REVIEW OF ANY REVISED CSPP MAY TAKE 45 WORKING DAYS OR LONGER. HOWEVER, CHANGES MAY NOT BE ACCEPTED.
- ALL OF THE CONTRACTOR'S AND SUBCONTRACTOR'S EMPLOYEES SHALL HAVE A "TAILGATE" SAFETY MEETING EVERY SHIFT CHANGE OR START OF EACH DAY PRIOR TO ANY WORK, WITH THE RPR AND MHT OPERATIONS PRESENT, TO REVIEW THE DAY'S WORK AND SAFETY PROCEDURES. THIS DAILY COORDINATION OF THE CONSTRUCTION ACTIVITIES SHALL BE HELD TO CLEARLY IDENTIFY THE LIMITS OF WORK FOR THE DAY. THE CONTRACTOR SHALL NOT EXCEED THE LIMITS OF WORK WITHOUT APPROVAL FROM THE RPR AND MHT OPERATIONS. IN ADDITION, A SIGN-IN SHEET SHALL BE KEPT FOR THE ATTENDANCE AT THIS MEETING.
- CONTRACTOR SHALL PROVIDE A COMPETENT SAFETY PERSON (WHO ALSO COULD BE THE SUPERINTENDENT OR OTHER SUPERVISORY PERSON) FAMILIAR WITH AIRPORT SAFETY TO MONITOR CONSTRUCTION ACTIVITIES. THIS INDIVIDUAL WILL BE RESPONSIBLE FOR MONITORING CONSTRUCTION ACTIVITIES AND PERSONNEL FOR COMPLIANCE WITH THE SAFETY REQUIREMENTS ESTABLISHED BY THE CONTRACT DOCUMENTS, THE SPCD, THE REGULATIONS AND REQUIREMENTS OF THE AIRPORT, FAA, AND OTHER APPLICABLE AGENCIES.
- CONTRACTOR SHALL PROVIDE A POINT OF CONTACT TO THE OWNER AND RPR WHO CAN BE CONTACTED AT ANY TIME THROUGHOUT THE COURSE OF THE CONTRACT. THIS INDIVIDUAL WILL BE CAPABLE OF COORDINATING AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT.
- THE PRIMARY ACCESS POINT SHALL BE THROUGH GATE 1. ALL VEHICLES ENTERING THE AIRFIELD SHALL BE ESCORTED TO AND FROM THE WORK AREA BY MHT OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PROJECT SUPPLIERS AND SUBCONTRACTORS OF THE HAUL ROUTE AND ACCESS POINT.
- THE CONTRACTOR SHALL PROVIDE A GATE GUARD WHO IS RESPONSIBLE FOR SECURING THE AIRFIELD FROM PEDESTRIAN OR UNAUTHORIZED VEHICLE TRAFFIC ENTERING THE AIRFIELD ERRANTLY OR MALICIOUSLY, AND SHALL BE RESPONSIBLE FOR QUEUING AND HOLDING TRAFFIC WHILE WAITING FOR AN ESCORT VEHICLE TO HAND OVER TRAFFIC ENTERING THE AIRFIELD. THE GATE GUARD SHALL EITHER LOCK AND SECURE THE GATE WHILE WAITING FOR VEHICLES TO ACCESS OR IMPEED ACCESS IN OTHER WAYS SUCH AS BLOCKING THE ACCESS WITH THEIR VEHICLE. WHEN THE GATE GUARD IS PERFORMING THIS ROLE, THAT IS THE EMPLOYEE'S SOLE FUNCTION. ONLY IF THE GATE IS CLOSE AND LOCKED CAN A GATE GUARD PROVIDE OTHER TASKS.
- ALL VEHICLES WILL BE INSPECTED PRIOR TO ENTERING AOA BY THE GATE GUARD AND/OR MHT OPERATIONS. TEMPORARY CONSTRUCTION BADGES WILL BE ISSUED TO INDIVIDUALS THAT DO NOT HAVE A MHT BADGE. INDIVIDUALS ENTERING THE AOA MUST BE IN A VEHICLE. WALKING THROUGH A VEHICLE GATE IS NOT PERMITTED.
- ALL CONTRACTOR'S MOTORIZED VEHICLES OPERATING IN AIRCRAFT MOVEMENT AREAS SHALL BE EQUIPPED WITH AN AMBER FLASHING LIGHT AND/OR A 3 SQUARE-FOOT FLAG CONSISTING OF INTERNATIONAL ORANGE AND WHITE SQUARES NOT LESS THAN ONE SQUARE-FOOT DISPLAYING IN FULL VIEW ABOVE THE VEHICLE. ALL CONTRACTOR VEHICLES SHALL HAVE THE COMPANY IDENTIFICATION AND TELEPHONE NUMBER PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE.
- UPON RECEIPT OF APPROVAL FOR A CLOSURE AND BEFORE EQUIPMENT ENTERS THE AIRFIELD AND CONSTRUCTION COMMENCES, THE WORK AREA SHALL BE SECURED. LIGHTING EQUIPMENT AND SAFETY BARRICADES SHALL BE PLACED AND OPERATIONAL AS APPLICABLE. THE WORK AREA SHALL BE CLEARLY DELINEATED AND ALL SAFETY REQUIREMENTS SHALL BE APPROVED BY THE RPR PRIOR TO BEGINNING ANY WORK.
- CONSTRUCTION SIGNS (I.E. "CONSTRUCTION TRAFFIC" WITH ARROWS, "NO UNAUTHORIZED VEHICLES BEYOND THIS POINT" OR OTHER STANDARD MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (MUTCD) SIGNS) SHALL BE LOCATED AT THE WORK AREA EGRESS/INGRESS POINTS. THERE SHALL BE NO SEPARATE PAYMENT FOR PROVIDING THESE SIGNS.
- CONTRACTOR SHALL ENSURE THAT NO PAVEMENT LIPS, PAVEMENT EDGES, SIGN FOUNDATIONS, STRUCTURES OR OTHER APPURTENANCES EXCEED 3 INCHES WITHIN ACTIVE AIRCRAFT OPERATIONAL AREAS.
- DAILY COORDINATION OF CONSTRUCTION ACTIVITIES SHALL BE HELD ON-SITE WITH THE RPR AND MHT OPERATIONS TO CLEARLY IDENTIFY THE LIMITS OF WORK FOR THE DAY. THE CONTRACTOR SHALL NOT EXCEED THE LIMITS OF WORK WITHOUT APPROVAL FROM THE RPR.
- TEMPORARY TAXIWAY CLOSURES OR CAUTIONS AND/OR RUNWAY CLOSURES IN ACCORDANCE WITH THE CSPP ARE SUBJECT TO WIND/WEATHER AVAILABILITY AND ARE SUBJECT TO A RECALL TIME TO BE DETERMINED BY MHT OPERATIONS.
- IF ALLOWED, WHEN WORKING UNDER A TAXIWAY CAUTION, ALL ADJACENT PAVEMENTS WILL BE AVAILABLE FOR UNLIMITED AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER THAT NO INTERFERENCE WITH AIRCRAFT OPERATIONS WILL OCCUR. THE CONTRACTOR SHALL BE ESCORTED BY MHT OPERATIONS AND THE CONTRACTOR SHALL RELOCATE PERSONNEL AND EQUIPMENT A MINIMUM OF 129.5 FEET FROM THE TAXIWAY CENTERLINE, OR A MINIMUM OF 250' FROM ACTIVE RUNWAY CENTERLINES, TO ALLOW FOR SAFE PASSAGE OF AIRCRAFT AS REQUIRED.
- DURING NIGHT WORK (IF ALLOWED), ALL LIGHTING EQUIPMENT UTILIZED SHALL BE CONTROLLED TO PREVENT STRAY LIGHT. THE CONTRACTOR SHALL DIRECT ALL LIGHTING AWAY FROM ADJACENT NEIGHBORHOODS AND IN A MANNER THAT DOES NOT INTERFERE WITH THE AIR TRAFFIC CONTROL TOWER AND AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL PREPARE A LIGHTING PLAN TO BE REVIEWED AND APPROVED BY MHT OPERATIONS. MHT OPERATIONS SHALL APPROVE THE LOCATION AND OPERATION OF ALL LIGHTING EQUIPMENT.
- IT SHOULD BE UNDERSTOOD BY THE CONTRACTOR THAT TRAINING OF A GATE GUARD OR OTHER BADGED EMPLOYEE MAY TAKE SIGNIFICANT EFFORT AND TIME AND SHOULD BE ACCOUNTED FOR UNDER MAINTENANCE AND PROTECTION OF TRAFFIC. NO ADDITIONAL COMPENSATION WILL BE ELIGIBLE DUE TO UNFORSEEN COSTS FOR TRAINING AND BADGING.

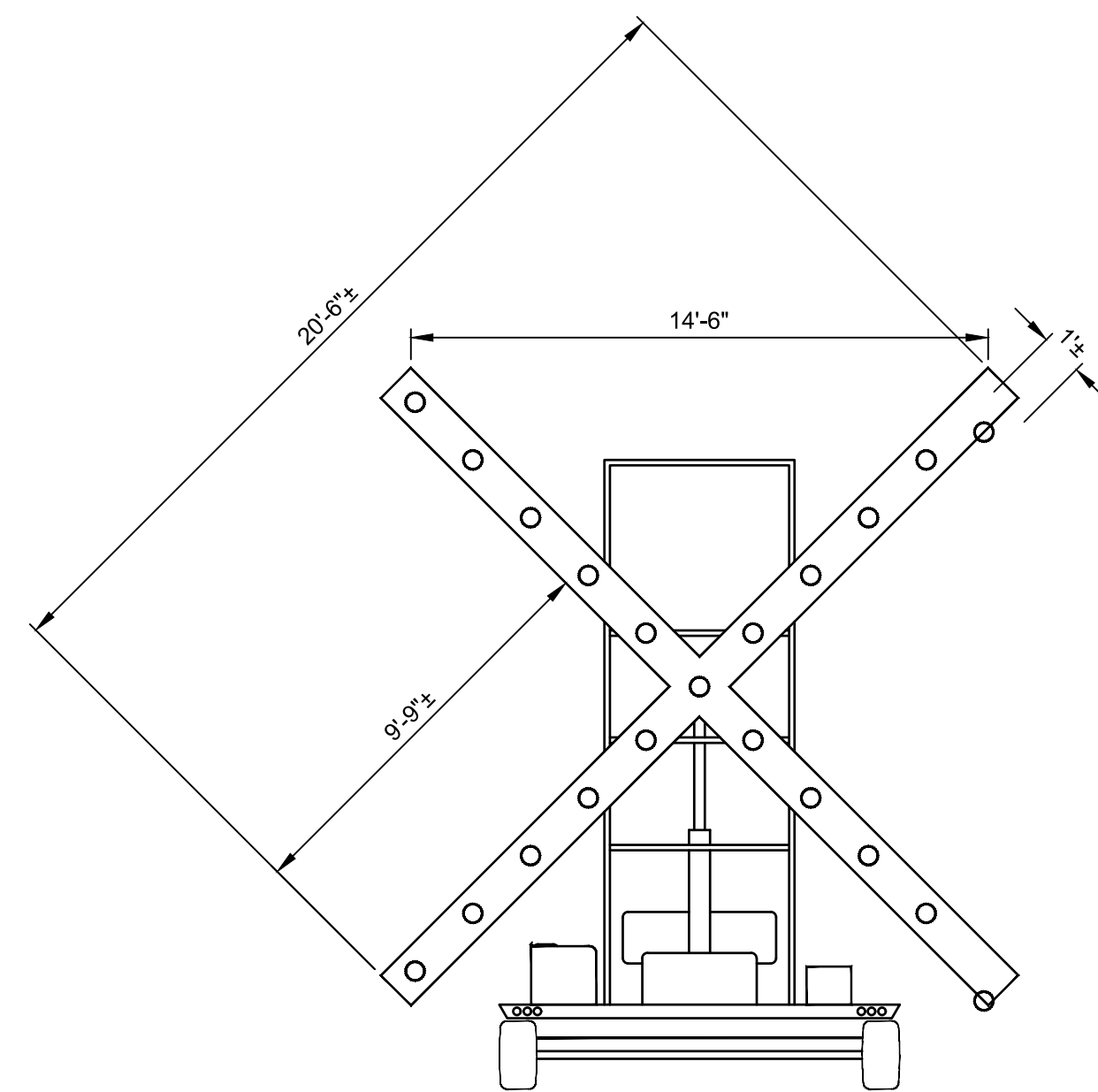


BARRICADE NOTES:

- BARRICADES SHALL BE MULTI-BARRIER SAFETY BARRICADES WITH REFLECTIVE STRIPING.
- BARRICADES SHALL BE INTERLOCKED WITH ADJACENT BARRICADES TO CREATE A CONTINUOUS BARRICADE.
- THE RPR AND MHT OPERATIONS WILL HAVE FINAL DETERMINATION WHERE BARRICADES WILL BE PLACED.
- BARRICADES SHALL BE BALLASTED WITH WATER OR OTHER APPROVED METHODS TO WITHSTAND HIGH WINDS AND/OR JET BLAST.
- ALL BARRICADES SHALL MEET REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2G (CURRENT EDITION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AN ADEQUATE NUMBER OF BARRICADES TO PROPERLY CLOSE AIRFIELD PAVEMENTS AS SHOWN ON SHEET CS-01.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF BARRICADES THROUGHOUT THE PROJECT DURATION. THE BARRICADES SHALL BE MOVED AT THE DIRECTION OF THE RPR OR AIRPORT OPERATIONS.
- CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE BARRICADES TO VERIFY LIGHTS ARE OPERATING EVERY NIGHT.
- CONTRACTOR SHALL PROVIDE AND INSTALL "NO ENTRY" SIGNS ON TAXIWAYS TO BE CLOSED AT THE REQUEST OF THE OWNER. SEE DETAIL ON THIS SHEET.

BALLASTED LIGHTED SAFETY BARRICADE

NOT TO SCALE

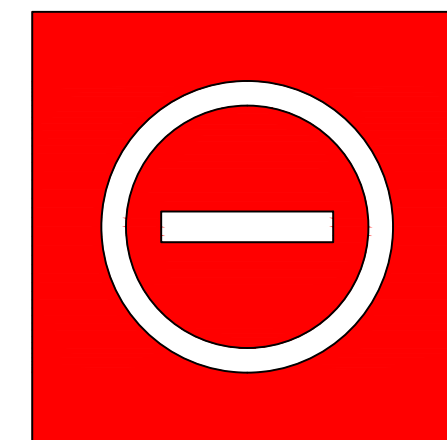


LIGHTED RUNWAY CLOSURE MARKER

NOT TO SCALE

RUNWAY CLOSURE MARKER NOTES:

- RUNWAY CLOSURE MARKER IS TO BE A TOWABLE UNIT WHICH CAN BE QUICKLY AND EFFICIENTLY SET UP AND REMOVED FROM THE RUNWAY. THE RUNWAY CLOSURE MARKER SHALL MEET THE REQUIREMENTS OF FAA AC 150/5345-55A (LATEST REVISION).
- RUNWAY CLOSURE MARKER MUST BE ABLE TO WITHSTAND A MINIMUM WIND SPEED OF 40 M.P.H. WITHOUT ADVERSELY AFFECTING AIMING OR OPERATION.
- RUNWAY CLOSURE MARKER WILL CONSIST OF 21 90-WATT PAR 38 CLEAR INCANDESCENT LAMPS OR LAMPS WHICH ARE CAPABLE OF TRANSMITTING AVIATION WHITE LIGHT PER SAE-AS25050. ARRANGED IN THE SHAPE OF THE LETTER "X" WITH ARMS CROSSED AT AN ANGLE APPROPRIATE TO MAKE THE "X" DISCERNIBLE TO APPROACHING AIRCRAFT. THE "X" FRAME CONTAINING THE LIGHTS IS TO BE PAINTED NO. 13538 AVIATION YELLOW, PER FED-STD-595, ON ALL SIDES TO ENSURE VISIBILITY.
- LIGHT FIXTURES MOUNTED IN "X" FRAME MUST INDIVIDUALLY BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM INTENSITIES:
 DAYTIME EFFECTIVE INTENSITY OF 70,000 CANDELA (cd)
 AT THE BEAM CENTER, 34,000 cd AT 10 DEGREES RADIUS, AND 13,000 cd AT 15 DEGREES RADIUS.
 NIGHTTIME EFFECTIVE INTENSITY OF 2,000 (cd) AT THE BEAM CENTER, 970 cd AT 10 DEGREES RADIUS, AND 370 cd AT 15 DEGREES RADIUS.
- LIGHT FIXTURES MOUNTED IN "X" FRAME MUST HAVE ALL LIGHT BULBS, SOCKETS, WIRING AND CONNECTIONS ENCLOSED IN WEATHER RESISTANT HOUSINGS.
- LIGHT FIXTURES MOUNTED IN "X" FRAME ARE TO BE IN A FLASHING MODE CONTROLLED BY A SOLID STATE FLASHER. FLASHER IS TO BE EQUIPPED WITH A FAIL SAFE ALLOWING LIGHTS TO REMAIN ON CONTINUOUS SHOULD FLASHER UNIT FAIL.
 FLASH INTERVAL TIME WILL BE:
 DAYTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF
 NIGHTTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF
- UNIT MUST BE EQUIPPED WITH A PHOTO CELL WHICH WILL REDUCE THE OUTPUT VOLTAGE TO 65 VOLTS DURING NIGHTTIME OPERATION.
- THE RUNWAY CLOSURE MARKER MUST BE EQUIPPED FOR A CONNECTION TO 120V AC POWER SOURCE TO ALLOW FOR BACK-UP POWER SOURCE CAPABILITY OR ON-SITE POWER SUPPLY IF AVAILABLE. RUNWAY CLOSURE MARKER IS TO BE ENERGIZED BY A PORTABLE DIESEL ENGINE POWER SUPPLY WITH AN ADEQUATE FUEL CAPACITY TO SUPPLY POWER TO THE UNIT AT FULL LOAD FOR A MINIMUM OF 120 HOURS OF CONTINUOUS OPERATION.
- RUNWAY CLOSURE MARKER IS TO BE EQUIPPED WITH 2 LIGHTS MOUNTED ON THE BACK SIDE OF THE TOP LEGS OF THE "X" FRAME. LIGHTS ARE TO BE WIRED SUCH THAT THEY REMAIN CONTINUOUSLY ON DURING CLOSURE MARKER OPERATION AS AN INDICATION OF POWER BEING SUPPLIED TO THE UNIT.
- UNIT IS TO BE EQUIPPED WITH SOLAR POWERED SAFETY BEACON MOUNTED IN A LOCATION VISIBLE TO ATCT OR AIRPORT PERSONNEL. BEACON IS TO BE WIRED SUCH THAT IT WILL BE ACTIVATED IN THE EVENT OF TOTAL POWER LOSS AND HAVE SUFFICIENT POWER TO OPERATE FOR A MINIMUM OF 140 HOURS DAY OR NIGHT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, MAINTAINING, MOVING AND FUELING. INCLUDING FUELING ON THE WEEKENDS AND MAINTENANCE ON THE WEEKEND.



NO ENTRY SIGN DIMENSIONS			
DESCRIPTION	DIMENSION (IN)	WIDTH (IN)	COLOR
OUTER SIDE LENGTH	40	N/A	N/A
DIAMETER	22	2	WHITE
DASH	15.5	3.3	WHITE

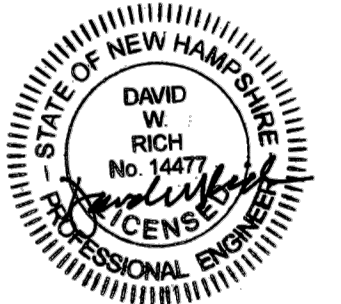
NO ENTRY SIGN NOTES:

- CONSTRUCT ACCORDING TO SIGN DIMENSION TABLE AND SIGN TYPE L-858R REQUIREMENTS.
- WHITE SYMBOLS SHALL HAVE A 3/4" BLACK BORDER.
- SIGN SHALL NOT BE MOUNTED TO THE ASPHALT SURFACE OR PAINTED ON THE PAVEMENT SURFACE.
- SIGN SHALL BE MOUNTED ON A SKID STYLE FRAME AND BE HELD DOWN TO WITHSTAND JET BLAST WHILE STILL BEING FRANGIBLE.
- SIGN SHALL BE INSTALLED AT BARRICADE LOCATIONS AS REQUESTED BY AIRPORT OPERATIONS.

NO ENTRY SIGN DETAIL

NOT TO SCALE

ENGINEER'S SEAL



PROJECT DESIGNER
McFARLAND JOHNSON
 53 REGIONAL DRIVE, CONCORD, NH 03301-5022
 PH: 603-225-2978 FAX: 603-225-0095
 DESIGNED BY: RHL
 DRAWN BY: RHL
 CHECKED BY: DWR



MANCHESTER-BOSTON REGIONAL AIRPORT
 REPLACEMENT OF RUNWAY 6 DEPARTURE END
 ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)
 CONSTRUCTION SAFETY AND PHASING
 PLAN - NOTES & DETAILS
 SCALE: N.T.S.
 DATE: JUNE 2026

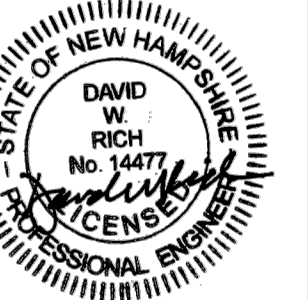
REV. NO.	DATE	DESCRIPTION

M/J PROJ. No.: 19199.11
 FILE NAME:
 AIP No.: TBD

DRAWING NO.

CS-00

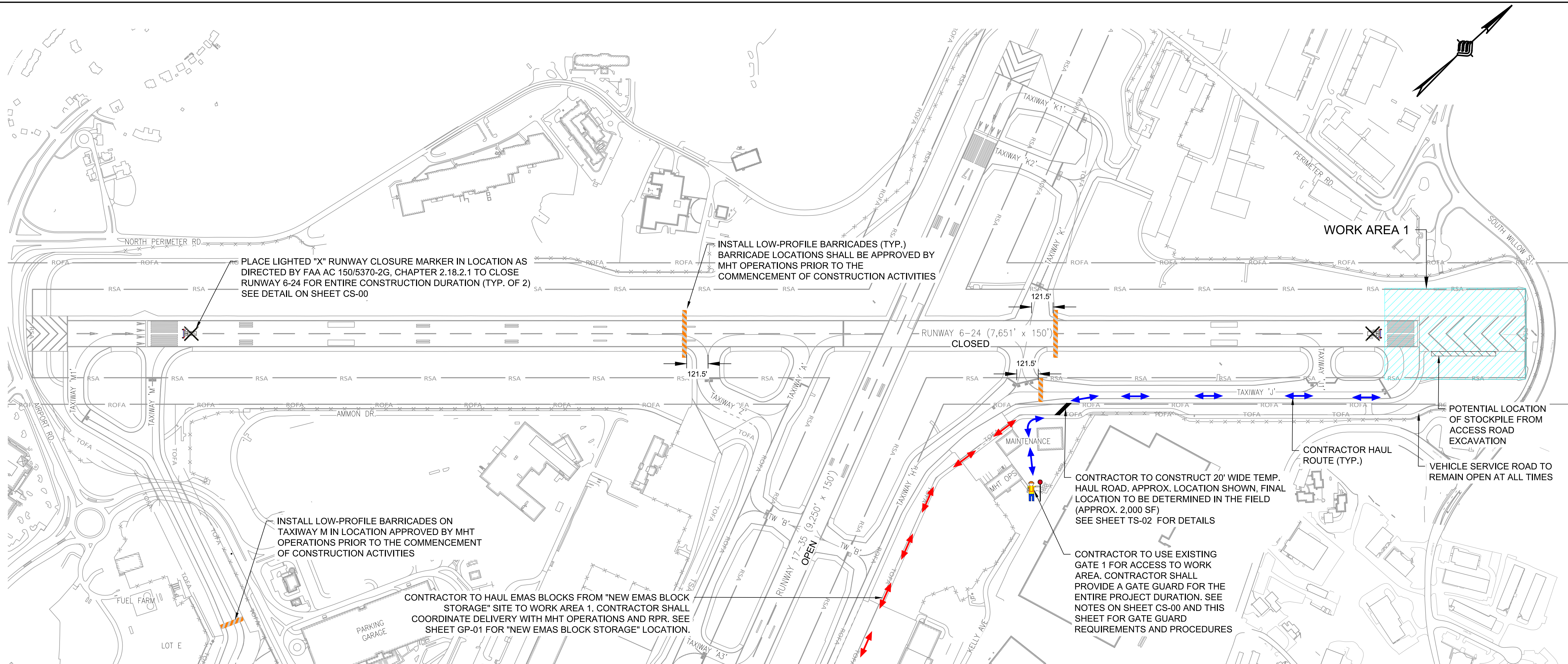
K:\MANCHESTER\19199.11 REPLACE RUNWAY 6&7 EMAS\DRAWINGS\SSHEET FILES\19199.11-GENR.DWG



PROJECT DESIGNER
McFarland Johnson
53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095
DESIGNED BY: RHL
DRAWN BY: RHL
CHECKED BY: DWR



MANCHESTER-BOSTON REGIONAL AIRPORT
REPLACEMENT OF RUNWAY 6 DEPARTURE END
ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS)
CONSTRUCTION SAFETY AND PHASING
PLAN
DATE: JUNE 2026
SCALE: 1" = 300'



OVERALL CONSTRUCTION SAFETY AND PHASING NOTES:

- ALL AIRFIELD MAINTENANCE AND PROTECTION OF TRAFFIC MEASURES, WHETHER SHOWN ON THE PLANS OR REQUESTED BY MHT OPERATIONS OR RESIDENT PROJECT REPRESENTATIVE (RPR), SHALL BE CONSIDERED INCIDENTAL TO MAINTENANCE AND PROTECTION OF TRAFFIC.
- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE HAUL ROUTE AND WORK AREA SHOWN ON THIS SHEET AT ALL TIMES UNLESS APPROVED AND ESCORTED BY MHT OPERATIONS.
- CONTRACTOR SHALL PLACE LIGHTED BARRICADES AND LIGHTED RUNWAY CLOSURE MARKERS AS SHOWN ON THIS SHEET AND TO THE APPROVAL OF MHT OPERATIONS PRIOR TO THE COMMENCEMENT OF WORK. SEE DETAILS ON SHEET CS-00.
- REFUELING OF THE LIGHTED RUNWAY CLOSURE MARKERS SHALL BE PERFORMED ON A REGULAR SCHEDULE APPROVED IN ADVANCE BY MHT OPERATIONS. CONTRACTOR PERSONNEL SHALL BE ESCORTED BY MHT OPERATIONS AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING A GATE GUARD TO MONITOR AND REGULATE ALL CONSTRUCTION VEHICLES AND PERSONNEL LEAVING OR ENTERING THE SITE AT ALL TIMES WHEN THE GATE IS UNLOCKED. GATE GUARD PAYMENT WILL BE UNDER THE GATE GUARD PAY ITEM.
- NO WORK MAY OCCUR WITHIN 121.5' OF THE CENTERLINE OF ANY OPEN TAXIWAY, OR WITHIN 250' OF THE CENTERLINE OF ANY OPEN RUNWAY, UNLESS EXPLICITLY DETAILED ON THE SAFETY AND PHASING PLANS.
- ALL WORK WITHIN RUNWAY OR TAXIWAY OBJECT FREE AREAS MUST BE COORDINATED WITH THE RPR AND AIRPORT OPERATIONS AT LEAST 72 HOUR IN ADVANCE TO THE START OF WORK.
- THE RUNWAY 6-24 CLOSURE SHALL BE COORDINATED WITH THE RPR AND MHT OPERATIONS A MINIMUM OF 72 HOURS IN ADVANCE.
- ALL VEHICLES FROM THE CONSTRUCTION WORK AREAS SHALL BE CLEAR FROM FOREIGN OBJECT DEBRIS (FOD) PRIOR TO ENTERING AND LEAVING THE SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FUNCTIONAL VACUUM SWEEPER WITH A DEDICATED OPERATOR AT ALL TIMES AND SHALL PROVIDE ADEQUATE SWEEPING AND MAINTENANCE OF THE HALL ROUTES AT ALL TIMES.
- ALL HAUL ROUTES SHALL BE RESTORED TO THEIR EXISTING CONDITION OR BETTER FOLLOWING CONSTRUCTION.
- ANY PAVEMENT OR OTHER STRUCTURE DAMAGED DUE TO CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- ANY PAVEMENT MARKING DAMAGED OR OBSCURED DUE TO HEAVY TRAFFIC SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- MHT OPERATIONS SHALL PROVIDE ESCORTS FOR THE ENTIRE CONSTRUCTION DURATION.
- STOCKPILE HEIGHTS SHALL NOT EXCEED A HEIGHT OF 25 FEET UNLESS OTHERWISE SHOWN ON THE PLANS.
- CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES PRIOR TO COMMENCEMENT OF WORK.
- EDGE LIGHTS AND AIRFIELD GUIDANCE SIGNS WITHIN THE WORK AREA OR DIRECTING AIRCRAFT INTO WORK AREA SHALL BE DISCONNECTED AND/OR REPLACED WITH BLANK PANELS. ALL TEMPORARY JUMPER LOCATIONS REQUIRED TO MAINTAIN OPERATIONAL LIGHTING CIRCUITS OUTSIDE OF THE WORK AREA SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE RPR AND AIRPORT OPERATIONS PRIOR TO INSTALLATION. ITEMS TO MAINTAIN AIRCRAFT GUIDANCE SHALL BE PAID FOR UNDER MAINTENANCE AND PROTECTION OF TRAFFIC.

WORK AREA 1

DESCRIPTION: INCLUDES ALL WORK ASSOCIATED WITH THE REMOVAL OF THE EXISTING AND INSTALLATION OF NEW RUNWAY 6-24 EMAS

DURATION: 60 CONSECUTIVE CALENDAR DAYS

WORK SCHEDULE: M-F 7:00 AM TO 7:00 PM
• WORK PERFORMED AT NIGHT, ON WEEKENDS, OR FOR DURATIONS OF UP TO 24 HOURS WILL BE SUBJECT TO OWNER REVIEW AND MAY BE APPROVED ON A CASE-BY-CASE BASIS.

- CLOSURES:**
- RUNWAY 6-24 FULL CLOSURE
 - TAXIWAY J BETWEEN TAXIWAY K AND RUNWAY 24 END
 - TAXIWAY J1
 - TAXIWAY M BETWEEN TERMINAL APRON AND RUNWAY 6 END
 - TAXIWAY M1

LIQUIDATED DAMAGES: REFER TO CONTRACT DOCUMENTS

- RESTRICTIONS:**
- CONTRACTOR SHALL ACCESS THE WORK AREA VIA GATE 1 UNLESS OTHERWISE APPROVED BY MHT OPERATIONS
 - CONTRACTOR SHALL REMAIN UNDER ESCORT OF MHT OPERATIONS AT ALL TIMES WHILE IN THE AIRCRAFT OPERATIONS AREA (AOA)
 - CONTRACTOR MUST KEEP ALL EQUIPMENT AND PERSONNEL A MINIMUM OF 10 FEET FROM THE AIRPORT SECURITY FENCE
 - CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS, AS APPLICABLE, TO MINIMIZE IMPACTS TO AIRPORT OPERATIONS
 - CONTRACTOR SHALL COORDINATE WITH MHT OPERATIONS IN THE EVENT OF MAJOR DELIVERIES

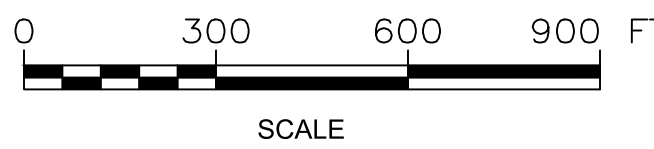
PRIMARY WORK TO BE COMPLETED:

- INSTALL LIGHTED RUNWAY CLOSURE MARKERS AND LOW PROFILE BARRICADES
- INSTALL REQUIRED JUMPERS AND SIGN/LIGHT COVERS
- INSTALL EROSION CONTROL MEASURES AND BMPs
- REMOVE AND DISPOSE OF EXISTING EMAS BLOCKS, ANCHOR BEAM AND ANCILLARY ITEMS
- MILL EXISTING PAVEMENT
- REPAIR CRACKS ON MILLED SURFACE AS REQUIRED
- REMOVE EXISTING PAVEMENT MARKINGS
- INSTALL NEW ANCHOR BEAM
- INSTALL NEW BITUMINOUS PAVEMENT
- INSTALL NEW EMAS SYSTEM
- INSTALL NEW PAVEMENT MARKINGS
- INSTALL NEW TOPSOIL, SEED, AND MULCH IN DISTURBED AREAS

NOTE:
1. REFERENCE SPECIFICATIONS FOR ADDITIONAL EMAS BLOCK INFORMATION AND BADGING REQUIREMENTS.

LEGEND

- WORK AREA
- LOW-PROFILE BARRICADE
- LIGHTED RUNWAY CLOSURE MARKER
- CONTRACTOR HAUL ROUTE
- CONTRACTOR NEW EMAS BLOCK HAUL ROUTE
- RSA
- ROFA
- TSA
- TOFA
- GATE GUARD



REV. NO.	DATE	DESCRIPTION	BY

M/J PROJ. No.: 19199.11
FILE NAME:
AIP No.: TBD
DRAWING NO.
CS-01
SHEET 5 OF 20

K:\MANCHESTER\19199.11 REPLACE RUNWAY 6-24 EMAS\DRAWINGS\SSHEET FILES\19199.11-CCSP-0203

PAGE LEFT BLANK INTENTIONALLY

APPENDIX C

DAILY SAFETY INSPECTION CHECKLIST

PAGE LEFT BLANK INTENTIONALLY

CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

(Taken from AC 150/5370-2G Appendix D)

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.

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 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.		

<p>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.</p>		
<p>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.</p>		
<p>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.</p>		
<p>Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.</p>		
<p>Obliterated or faded temporary markings on active operational areas.</p>		
<p>Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.</p>		
<p>Failure to issue, update, or cancel NOTAMS about airport or runway closures or other construction related airport conditions.</p>		
<p>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.</p>		
<p>Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.</p>		



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).		
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.		

PAGE LEFT BLANK INTENTIONALLY

APPENDIX D

SAFETY PLAN COMPLIANCE DOCUMENT

PAGE LEFT BLANK INTENTIONALLY

APPENDIX D

SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

This document **MUST** be submitted and approved prior to the Notice to Proceed being issued.

Name of Contractor: _____

Project Name: **Replacement of Runway 6 Departure End EMAS
Manchester-Boston Regional Airport, Manchester, NH**

Please check appropriate box for each of sections. If the Construction Phasing and Safety Plan will be followed without exception for any given topic, the “No Supplemental Information” box may be checked. If not, provide supplemental information components and comment as applicable (add attachments as needed). Any comments below will be discussed and require approval of the Airport prior to issuance of a Notice to Proceed.

(1) Coordination. Discuss details of proposed safety meetings with the airport operator and with contractor and subcontractor employees.

No Supplemental Information **Supplemental Information as follows:**

(2) Phasing. Discuss proposed construction schedule elements:

No Supplemental Information **Supplemental Information as follows:**

(a) Planned duration of each phase:

Provide anticipated duration for each work phase via attachment.

(b) Daily start and finish of construction, including “night only” construction:

Provide anticipated daily start/finish for each phase via attachment.

(c) Duration of construction activities during:

(i) Normal runway operations _____

(ii) Closed runway operations _____

(iii) Modified runway “Aircraft Reference Code” usage _____

(3) Areas and operations affected by the construction activity. Areas and operations are identified in the CSPP.

No Supplemental Information **Supplemental Information as follows:**

(4) **Protection of NAVAIDs.** Discuss specific methods proposed to protect operating NAVAIDs.

No Supplemental Information

Supplemental Information as follows:

(5) **Contractor access.** Provide the following:

No Supplemental Information

Supplemental Information as follows:

(a) Details on how the contractor will maintain the integrity of the airport security fence (gate guards, daily log of construction personnel, and other):

(b) Listing of individuals requiring driver training (for certificated airports and as requested). _____

(c) Radio communications.

(i) Types of radios and backup capabilities. _____

(ii) Who will be monitoring radios. _____

(iii) Whom to contact if the ATCT cannot reach the contractor's designated person by radio. _____

(d) Details on how the contractor will escort material delivery vehicles. _____

(6) **Wildlife management.** Discuss the following:

No Supplemental Information

Supplemental Information as follows:

(a) Methods and procedures to prevent wildlife attraction _____

(b) Wildlife reporting procedures _____

(7) **Foreign Object Debris (FOD) management.** Discuss equipment and methods for control of FOD, including construction debris and dust.

No Supplemental Information

Supplemental Information as follows:

Provide anticipated equipment and methods via attachment.

(8) **Hazardous material (HAZMAT) management.** Discuss equipment and methods for responding to hazardous spills.

No Supplemental Information **Supplemental Information as follows:**

(9) **Notification of construction activities.** Provide the following:

No Supplemental Information **Supplemental Information as follows:**

(a) Contractor points of contact _____

(b) Contractor emergency contact _____

(c) Listing of tall or other requested equipment proposed for use on the airport and the timeframe for submitting 7460-1 forms not previously submitted by the airport operator

(10) **Inspection requirements.** Discuss daily (or more frequent) inspections and special inspection procedures.

No Supplemental Information **Supplemental Information as follows:**

(11) **Underground utilities.** Discuss proposed methods of identifying and protecting underground utilities.

No Supplemental Information **Supplemental Information as follows:**

(12) **Penalties.** Penalties are identified in the CSPP.

No Supplemental Information **Supplemental Information as follows:**

(13) **Special conditions.** Discuss proposed actions for each special condition identified in the CSPP as required.

No Supplemental Information **Supplemental Information as follows:**

(14) Runway and taxiway visual aids. Including marking, lighting, signs, and visual NAVAIDs. Discuss proposed visual aids including the following:

(a) Equipment and methods for covering signage and airfield lights _____

(b) Equipment and methods for temporary closure markings (paint, fabric, other) _____

(c) Types of temporary Visual Guidance Slope Indicators (VGSI) _____

(15) Marking and signs for access routes. Discuss proposed methods of demarcating access routes for vehicle drivers.

No Supplemental Information **Supplemental Information as follows:**

(16) Hazard marking and lighting. Discuss proposed equipment and methods for identifying excavation areas.

No Supplemental Information **Supplemental Information as follows:**

(17) Protection of runway and taxiway safety areas. Including object free areas, obstacle free zones, and approach/departure surfaces. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

No Supplemental Information **Supplemental Information as follows:**

(a) Equipment and methods for maintaining Taxiway Safety Area standards _____

(b) Equipment and methods for separation of construction operations from aircraft operations, including details of barricades _____

Contractor's Certification and Acknowledgement

I have read the Project Construction Safety and Phasing Plan (CSPP) for the above referenced project, which has been approved by FAA on _____, 20____, and certify the Contractor and its subcontractors will abide by it as written, unless any additions and changes are approved by the Manchester-Boston Regional Airport in writing. This Safety Plan Compliance Document (SPCD) will conform to the CSPP and will provide additional safety information for the Project.

CONTRACTOR

Signature

Printed Name and Title

Date