CITY OF MESA
MESA, ARIZONA

REHABILITATE WEST VEHICLE SERVICES ROAD (VSR)
4800 E FALCON DRIVE

CITY OF MESA PROJECT NO. CP1225GPH1
FAA AIP NO. 3-04-0023-037-2025
ADOT GRANT NO. E6M3S01D

ADVERTISEMENT FOR BIDS

NOTICE IS HEREBY GIVEN that sealed bids will be received until Thursday, May 28, 2026, at 1:30 p.m. All sealed bids will be received electronically at EngineeringBids@mesaaz.gov . Bids must be submitted as an unencrypted PDF attachment with a maximum size limit of 20MB. Any bid received after the time specified will be returned without any consideration.

This contract shall be for furnishing all labor, materials, transportation and services for the construction and/or installation of the following work:

Rehabilitate and re-pave the West Vehicle Service Road at Falcon Field Airport.

The Engineer's Estimate range is $725,000.00 – 810,000.00.

For all technical, contract, bid-related, or other questions, please contact Tracy Gumeringer at Tracy.Gumeringer@mesaaz.gov.

Contact with City Employees. All firms interested in this project (including the firm's employees, representatives, agents, lobbyists, attorneys, and subconsultants) will refrain, under penalty of disqualification, from direct or indirect contact for the purpose of influencing the selection or creating bias in the selection process with any person who may play a part in the selection process. This policy is intended to create a level playing field for all potential firms, to assure that contract decisions are made in public, and to protect the integrity of the selection process. All contact on this selection process should be addressed to the authorized representative identified above.

Contractors desiring to submit proposals may purchase sets of the Bid Documents from **ARC Document Solutions, LLC,** at https://order.e-arc.com/arcEOC/PWELL_Main.asp?mem=29. Click on "Go" for the Public Planroom to access plans. **NOTE: In order to be placed on the Plan Holders List and to receive notifications and updates regarding this bid (such as addenda) during the bidding period, an order must be placed**. The cost of each Bid Set will be no more than $36.00, which is non-refundable. **Partial bid packages are not sold.** You can view documents on-line (at no cost), order Bid Sets, and access the Plan Holders List on the website at the address listed above. Please verify print lead time prior to arriving for pick-up. For a list of locations nearest you, go to www.e-arc.com.

One set of the Contract Documents is also available for viewing at the City of Mesa's Engineering Department at 20 East Main Street, Mesa, AZ. Please call 480-644-2251 prior to arriving to ensure that the documents are available for viewing.

In order for the City to consider alternate products in the bidding process, please follow Arizona Revised Statutes §34.104c.

If a pre-bid review of the site has been scheduled, details can be referenced in Project Specific Provision Section #3, titled "Pre-Bid Conference."

Work shall be completed within 120 consecutive calendar days, beginning with the day following the starting date specified in the Notice to Proceed.

Bids must be submitted on the Proposal Form provided and be accompanied by the Bid Bond for not less than ten percent (10%) of the total bid, payable to the City of Mesa, Arizona, or a certified or cashier's check. PERSONAL OR INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.

The successful bidder will be required to execute the standard form of contract for construction within ten (10) days after formal award of contract. In addition, the successful bidder must be registered in the City of Mesa Vendor Self-Service (VSS) System (http://mesaaz.gov/business/purchasing/vendor-self-service).

The successful bidder, simultaneously with the execution of the Contract, will be required to furnish a Payment Bond in the amount equal to one hundred percent (100%) of the Contract Price, a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Price, and the most recent ACORD® Certificate of Liability Insurance form with additional insured endorsements.

The right is hereby reserved to accept or reject any or all bids or parts thereto, to waive any informalities in any proposal and reject the bids of any persons who have been delinquent or unfaithful to any contract with the City of Mesa.

The City of Mesa, 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 race, color, national origin, sex, creed, age, or disability in consideration for an award. The requirements of 49 CFR Part 26 including any amendments thereto apply to this contract. The City of Mesa encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

LANCE WEBB
City Engineer

ATTEST:
Holly Moseley
City Clerk

CONTRACTOR CHECKLIST

Proposal and Bid Schedule
(for Design-Bid-Build Projects)

This checklist is for FAA-funded projects only.

Please be sure to attach the following at the designated times.

1. At Time of Bid:
   A. Signed Proposal Acknowledgement sheet (see attached)
      - Include signature for Acknowledgement of Addenda, if applicable
   B. Bid Schedule
   C. Bid Bond (Sealed Original)
   D. Non-Collusion Bidding Certification
   E. Certification Regarding Debarment
   F. Certification of Foreign Trade Restriction
   G. Certification of Compliance with Buy American Preference
   H. On-Line Bidders List Email Confirmation (AZUTRACS)

2. Upon Contract Award (**if awarded**):
   A. Completed and Signed ACORD® Certificate of Liability Insurance form with applicable endorsements per Contract requirements. Refer to Exhibit B, Construction Services Contract.
   B. Signed and Sealed Form of Performance Bond. Refer to Appendix 5, General Conditions.*
   C. Signed and Sealed Form of Payment Bond. Refer to Appendix 6, General Conditions.*

3. Upon Contract Completion (**if awarded**):
   A. Signed and Notarized Contractors Affidavit Regarding Settlement of Claims. Refer to Appendix 4, General Conditions.*
   B. Asbestos-Free Facility Material Certification

*General Conditions Appendices
http://mesaaz.gov/business/engineering/engineering-contracts

CITY OF MESA
MESA, ARIZONA

PROPOSAL ACKNOWLEDGEMENT

REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)

CITY OF MESA PROJECT NO. CP1225GPH1
FAA AIP NO. 3-04-0023-037-2025
ADOT GRANT NO. E6M3S01D

PROPOSAL to the City Engineer of the City of Mesa,
In compliance with the Advertisement for Bids, the undersigned bidder:

Having examined the contract documents, site of work, and being familiar with the conditions to be met, hereby submits the following Proposal for furnishing the material, equipment, labor and everything necessary for the completion of the Work listed and agrees to execute the contract documents and furnish the required bonds and certificates of insurance for the completion of said Work, at the locations and for the prices set forth herein.

Understands that construction of this project shall be in accordance with all applicable Uniform Standard Specifications and Standard Details except as otherwise required by the Project Plans and Project Specific Provisions.

Understands that the Proposal shall be submitted with a Proposal guarantee of cash, certified check, cashier's check, or surety bond for an amount of not less than ten percent (10%) of the amount bid.

Agrees that upon receipt of Notice of Award from the City of Mesa, the undersigned bidder will execute the contract documents with no exceptions.

Work shall be completed within 120 consecutive calendar days, beginning with the day following the start date specified in the Notice to Proceed.

Acknowledges that bid prices submitted include all applicable sales and/or use taxes, and no further compensation will be approved for these items.

The Bidder hereby acknowledges receipt of and agrees that the submitter's Proposal is based on the following Addenda:

CITY OF MESA

MESA, ARIZONA

REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)

CITY OF MESA PROJECT NO. CP1225GPH1
FAA AIP 03-04-0023-037-2025
ADOT GRANT No. E6M3S01D
BID SCHEDULE

ITEM NO.		DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
SCHEDULE - Rehabilitate West Vehicle Service Road					
1.	C-100	Contractor Quality Control Program (CQCP)	LUMP SUM	$ LUMP SUM	$ _____
2.	C-102	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control	LUMP SUM	$ LUMP SUM	$ _____
3.	C-105	Mobilization	LUMP SUM	$ LUMP SUM	$ _____
4.	Mesa PSP - 2	Dust Control and Stormwater Construction Permits	ALLOWANCE	$ 10,000.00	$ 10,000.00
5.	Mesa PSP - 21	Survey and Construction Staking	LUMP SUM	$ LUMP SUM	$ _____
6.	MAG 401	Traffic Control (Airside)	LUMP SUM	$ LUMP SUM	$ _____
7.	MAG 205	Roadway Excavation	165 CY	$ _____	$ _____
8.	MAG 301	Subgrade Preparation (6" Depth)	970 SY	$ _____	$ _____
9.	MAG 301	Existing Aggregate Base Course Preparation (4" Depth)	4,620 SY	$ _____	$ _____
10.	MAG 310	Placement and Construction of Aggregate Base Course (2" Depth)	223 CY	$ _____	$ _____
11.	MAG 310	Placement and Construction of Leveling Aggregate Base Course (0"-3", Depth Varies)	25 CY	$ _____	$ _____
12.	MAG 310	Placement and Construction of Aggregate Base Course (6" Depth)	160 CY	$ _____	$ _____
13.	MAG 310	Placement and Construction of Salvaged AC Millings (Depth Varies)	169 CY	$ _____	$ _____
14.	MAG 317	Asphalt Milling (3" Depth)	4,980 SY	$ _____	$ _____

CITY OF MESA

MESA, ARIZONA

REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)

CITY OF MESA PROJECT NO. CP1225GPH1
FAA AIP 03-04-0023-037-2025
ADOT GRANT No. E6M3S01D
BID SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY		UNIT PRICE	TOTAL PRICE
15. MAG 321	Placement and Construction of Asphalt Concrete Pavement (3" Depth Overlay)	400	TON	$ _____	$ _____
16. MAG 321	Placement and Construction of Asphalt Concrete Pavement (4" Depth)	1,080	TON	$ _____	$ _____
17. MAG 329	Tack Coat	6,810	SY	$ _____	$ _____
18. MAG 337	Asphalt Pavement Crack Sealing and Crack Filling (TYPE 2)	570	LF	$ _____	$ _____
19. MAG 337	Asphalt Pavement Crack Sealing and Crack Filling (TYPE 3)	2,080	LF	$ _____	$ _____
20. MAG 350	Removal of Existing Improvements (AC Pavement, 3-inch Existing Roadway)	600	SY	$ _____	$ _____

TOTAL BASE BID (Items 1 through 20)

$ _____

This signed Proposal is submitted by _____,
a corporation organized under the laws of the State of _____, a partnership consisting of
_____ or individual trading
as: _____; of the City of _____, and is the
holder of Arizona State Contractor's License: Classification _____
No. _____.

Joint venture bid proposals will not be accepted for projects bidding in the amount (for base bid) of less than $5 million dollars.

Contractors are reminded it is a violation of State law to submit a bid if not properly licensed. Bids submitted without designating the Contractor's license classification and number, in the spaces provided above, shall be rejected. Bids submitted by Contractors without the required license shall be rejected.

Contractor acknowledges by signing below that bid prices submitted include all applicable sales and/or use taxes, and no further compensation shall be approved for these items. Per MAG 102.3, payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished in accordance with the contract at the unit bid price in the proposal. If there is a conflict between the unit bid price and the unit price extension for a particular pay item, the unit prices shall govern, per MAG 102.5. Also, per MAG 102.7, a proposal shall be considered irregular and may be rejected if there are unauthorized additions, statements, conditional or alternate bids, or irregularities of any kind.

Respectfully submitted,

_____
Firm

_____
Federal Tax ID Number

_____
Address

_____
City, State and Zip Code

_____
Phone

_____
Fax

_____
By (Signature Required)

_____
Name and Title (Print)

_____
Email Address

NON-COLLUSION BIDDING CERTIFICATION

STATE OF _____)
) ss
COUNTY OF _____)

I, _____ of the City of _____,

in the County of _____, and the State of _____, of full age, being

duly sworn according to the law on my oath depose and say that:

I am a _____
(Title, Position, Etc.)

of the firm of _____,

the Bidder making the bid for: MESA-FALCON FIELD AIRPORT (FFZ)
REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)
CITY OF MESA PROJECT NO. CP1225GPH1
FAA AIP NO. 03-04-0023-037-2025
ADOT GRANT NO. E6M3S01D

and that I executed said Bid with full authority so to do; that said Bidder has not, 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 the above named Project; and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that the City of Mesa relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the Contract for the said Project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement of understanding, for commission, percentage, brokerage or contingent fee, except bonafide employees or bonafide established commercial or selling agencies maintained by:

_____
(Signature of Bidder)

_____
(Printed or Typed Name of Bidder)
(Seal if Corporation)

Sworn to before me this _____ day of _____, 20___ in the County of _____,
State of _____.

_____
(Notary Public)

My Commission Expires: _____

CERTIFICATION REGARDING DEBARMENT

CERTIFICATION OF BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder 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 verify 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 Certificate Regarding Debarment and Suspension (Bidder), above *(i.e. copies of this form with original signature)*
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA 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.

Date	Signature
Company Name	Title

CERTIFICATION OF FOREIGN TRADE RESTRICTION

As required by 49 CFR 30

By submission of a bid, the Bidder certifies that with respect to this solicitation and any resultant contract, the Bidder –

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 Bidder/Contractor must provide immediate written notice to the City of Mesa if the Bidder/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 Bidder 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 City cancellation of the contract or subcontract for default at no cost to the City or the FAA.

_____ _____

Date Contractor

CERTIFICATION OF COMPLIANCE WITH
FAA BUY AMERICAN PREFERENCE - CONSTRUCTION PROJECTS

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

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

a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.

b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.

c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.

d) To furnish U.S. domestic product for any waiver request that the FAA rejects.

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

Required Documentation

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

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

Type 3 Waiver - The cost of 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

CITY OF MESA, ARIZONA

REHABILITATE WEST VEHICLE SERVICES ROAD (VSR)

CONSTRUCTION SERVICES CONTRACT

(Design-Bid-Build Projects)

PROJECT NO. CP1225GPH1

FAA AIP NO. 3-04-0023-037-2025

ADOT GRANT NO. E6M3S01D

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EXHIBIT

A – SCOPE OF WORK AND PROJECT SCHEDULE (1 PAGE)

B – INSURANCE REQUIREMENTS (4 PAGES)

C – COMPLIANCE WITH SPECIFIC GOVERNMENT PROVISIONS (35 PAGES)

D – PROJECT SPECIFIC PROVISIONS AND PROJECT PLANS AND SPECIFICATIONS (315 PAGES)

City of Mesa, Arizona
Engineering Department

CONSTRUCTION SERVICES CONTRACT
PROJECT NO.: CP1225GPH1

THIS CONTRACT is made and entered into on the _____ day of _____, 2026, by and between City of Mesa, an Arizona municipal corporation, hereinafter called "City" and the "Contractor" designated below.

City and Contractor agree as follows:

ARTICLE 1 – PARTICIPANTS AND PROJECT

CITY: **City of Mesa**
Project Manager:
Telephone:
E-mail:

CONTRACTOR: **(Name)**
(Address)
Arizona ROC No.:
Federal Tax ID No.:
Contractor Representative:
Telephone:
E-mail:

(Prior to execution of the Contract Contractor must provide to City's Engineering Department its Contractor's License Classification and number and its Federal Tax I.D. number.)

DESIGN PROFESSIONAL: **(Name)**
(Address)
Design Professional Representative:
Telephone:
E-mail:

PROJECT DESCRIPTION: Rehabilitate and re-pave the West Vehicle Service Road at Falcon Field Airport.

PROJECT LOCATION: 4800 E Falcon Drive

SAMPLE

ARTICLE 2 – CONTRACT DOCUMENTS

2.1 CONTRACT DOCUMENTS

The Contract between City and Contractor shall consist of the following Contract Documents:

1. This Contract and all of its Exhibits, including Technical Specifications and Plans
2. General Conditions, dated 12/31/2025, and General Conditions Appendices, incorporated by reference.*
3. Project Specific Provisions
4. Project Bid Proposal

* http://mesaaz.gov/business/engineering/engineering-contracts

2.2 DEFINITIONS

The definitions in Section 2 of the General Conditions apply to all the Contract Documents, including this Agreement. Additional definitions or defined terms applicable to all the Contract Documents for this Project, if any, include the following:

NA

2.3 PROJECT SPECIFIC PROVISIONS

If there are any additional conditions that apply to this Project, they are set forth in the attached Exhibit D, and are incorporated herein.

2.4 PROJECT PLANS AND SPECIFICATIONS

A detailed list of the Plans and Specifications for this Project are set forth in the attached Exhibit D.

ARTICLE 3 – PRE-CONSTRUCTION SERVICES

Contractor is not providing any Pre-Construction Services to the City in relation to this Project.

ARTICLE 4 – CONSTRUCTION SERVICES

4.1 GENERAL

4.1.1 Contractor agrees that this is a Unit Price Contract. Per MAG 102.3, payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished in accordance with the contract at the unit bid price in the proposal. Contractor agrees at its own cost and expense, to do all Work necessary required to fully, timely and properly complete the construction of the Project in strict accordance with the Contract Documents in a good and workmanlike manner, free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified, within the Contract time.

4.1.2 Contractor shall provide all of the labor and materials, and perform the Work in accordance with Section 4 of the General Conditions. Some, but not all, of the major components of the Construction Services and the corresponding subsections of Section 4 of the General Conditions are set forth below.

4.1.3 At all times relevant to this Contract and performance of the Work, the Contactor shall fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project and the Contract, including, without limitation, those set forth on attached Exhibit C.

4.1.4 Contractor shall perform the Work under this Contract using only those firms, team members and individuals designated by Contractor consistent with Contractor's accepted Bid, or otherwise, approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

SAMPLE

4.1.5 Contractor will comply with all terms and conditions of the General Conditions.

4.1.6 In the event of a conflict between this Contract and the General Conditions or an exhibit hereto or appendix thereto, the terms of this Contract shall control.

4.1.7 **Ownership of Work Product.** Notwithstanding anything to the contrary in this Contract, all Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" shall include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product shall be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. § 101 (Copyright Act). If for any reason, any such Work is found not to be a Work Made for Hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

4.2 CONTRACTOR'S PRE-CONTRACT AND PRE-WORK DELIVERABLES

4.2.1 The Contractor shall provide the Deliverables in accordance with Section 4.2 of the General Conditions.

4.2.2 Any additional items which Contractor must deliver to City prior to commencing the Work on this Project, if any, include the following:

NA

4.3 PRE-CONSTRUCTION CONFERENCE

Contractor shall attend the Pre-Construction Conference in accordance with Section 4.3 of the General Conditions.

4.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

Contractor shall perform the Work in accordance with Section 4.4 of the General Conditions.

4.5 CONTROL OF THE PROJECT SITE

Contractor shall control and maintain the Project Site in accordance with Section 4.5 of the General Conditions.

4.6 PROJECT SAFETY

Contractor shall implement and enforce Project safety in accordance with Section 4.6 of the General Conditions.

4.7 MATERIALS QUALITY, SUBSTITUTIONS AND SHOP DRAWINGS

Contractor shall provide materials testing and submit substitute materials and Shop Drawings in accordance with Section 4.7 of the General Conditions.

4.8 PROJECT RECORD DOCUMENTS

Contractor shall maintain and make available the Project Record Documents in accordance with Section 4.8 of the General Conditions.

4.9 WARRANTY AND CORRECTION OF DEFECTIVE WORK

Contractor shall provide warranties and correct defective Work in accordance with Section 4.9 of the General Conditions.

SAMPLE

ARTICLE 5 – CITY RESPONSIBILITIES

5.1 City shall have the responsibilities, and provide the information specified in, and subject to the conditions set forth in, Section 5 of the General Conditions.

5.2 Additional services to be provided or responsibilities assumed, by City, if any, are listed below:

NA

5.3 Additional information to be provided by City, if any, is listed below:

NA

ARTICLE 6 – CONTRACT TIME

Contract Duration is **120 Calendar Days**.

6.1 CONTRACT TIME

6.1.1 The Contract Time shall start with the Notice to Proceed (NTP) and end with Final Acceptance, as set forth in Article 6.4 below. The Notice to Proceed cannot be issued until approval and acceptance by City of the Bid.

6.1.2 The Contract Time shall be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through Final Acceptance within the Contract Time.

6.1.3 Time is of the essence of this Contract for the Project, and for each phase and/or designated Milestone thereof.

6.1.4 Failure on the part of Contractor to adhere to the approved Project Schedule will be deemed a material breach and sufficient grounds for termination of this Contract by City.

6.2 PROJECT SCHEDULE

The Project Schedule, attached hereto as part of Exhibit A, shall be updated and maintained throughout Contractor's performance under this Contract in accordance with Section 6.2 of the General Conditions.

6.3 SUBSTANTIAL COMPLETION

☐ APPLIES
☒ DOES NOT APPLY

Substantial Completion shall be achieved no later than the Substantial Completion Date set forth in the Project Schedule. Substantial Completion shall be determined in accordance with Section 6.3 of the General Conditions.

6.4 FINAL ACCEPTANCE

6.4.1 Final Acceptance will be obtained within the time period set forth in the Project Schedule.

6.4.2 Final Acceptance will be issued pursuant to Section 6.4 of the General Conditions.

6.5 LIQUIDATED DAMAGES

6.5.1 **Substantial Completion Liquidated Damages.** Contractor acknowledges and agrees that if Contractor fails to achieve Substantial Completion of the Work in accordance with General Conditions Section 6.3, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City

SAMPLE

and Contractor agree that if Contractor fails to achieve Substantial Completion of the Work within the Contract Time, City shall be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the following per diem amounts commencing from the Substantial Completion Date required under the Contract until the actual date of Substantial Completion:

See Below

6.5.2 **Final Acceptance Liquidated Damages.** For the same reasons set forth in Article 6.5.1 above, City and Contractor further agree that if Contractor fails to achieve Final Acceptance of the Work within the Contract Time, City shall be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the following per diem amounts commencing from the actual date of Substantial Completion or Final Acceptance as required under the Contract.

TBD

6.5.3 **MAG Liquidated Damages.** If no liquidated damages are specified in Articles 6.5.1 and/or 6.5.2 above, then the liquidated damages provisions in MAG § 108.9 shall apply.

6.5.4 City may deduct liquidated damages described in this Article 6.5 above from any unpaid amounts then or thereafter due Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due Contractor shall be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable by Contractor.

6.6 MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES ONLY

6.6.1 Contractor and City waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes.

1. Damages incurred by City for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. Damages incurred by Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

6.6.2 This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Contract. Nothing contained in this Article 6.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with Article 6.5 above.

6.6.3 Nothing herein shall be deemed to constitute a waiver of any other remedy available to City in the event of Contractor's default under this Contract prior to full performance of the Work including, as applicable, specific performance or completion of the Work on behalf of Contractor, the cost and expense of which shall be offset against any monies then or thereafter due to Contractor (if any) and otherwise immediately reimbursed to City by Contractor.

ARTICLE 7 – CONTRACT PRICE

7.1 CONTRACT PRICE

7.1.1 In exchange for Contractor's full, timely, and acceptable performances and construction of the Work under this Contract, and subject to all of the terms of this Contract, City will pay Contractor the "Contract Price," which is **$TBD**.

SAMPLE

7.1.2 The Contract Price is all-inclusive and specifically includes all fees, cost, insurance and bond premiums, and taxes of any type necessary to fully, properly and timely perform and construct Work.

7.2 COSTS

For any portion of the Work which, either through this Contract, Change Order or otherwise, is performed and paid for on a cost, or time and materials basis, the costs which may be reimbursed to Contractor and/or chargeable against the Contract Price shall be determined as set forth in Section 7.3 of the General Conditions.

ARTICLE 8 – PAYMENT

Payments shall be made to Contractor in accordance with Section 8 of the General Conditions.

ARTICLE 9 – CHANGES TO THE CONTRACT

Changes to the Contract may be made in strict accordance with Section 9 of the General Conditions.

ARTICLE 10 – SUSPENSION AND TERMINATION

This Contract may be suspended and/or terminated in accordance with Section 10 of the General Conditions.

ARTICLE 11 – INSURANCE AND BONDS

11.1 Contractor shall provide insurance as provided on the attached Exhibit B, and in accordance with Section 11.1 of the General Conditions. Contractor shall provide proof of such insurance and all required endorsements in forms acceptable to City prior to commencing any Work under this Contract.

11.2 Contractor shall provide performance and payment bonds to City in Accordance with Section 11.2 of the General Conditions and A.R.S. § 34-610(A).

11.3 Failure to provide proof of insurance and the required endorsements, or the required bonds, in forms acceptable to City, will be a material breach and grounds for termination for cause of this Contract.

ARTICLE 12 – INDEMNIFICATION

Contractor shall have and assume the indemnity obligations set forth in Section 12 of the General Conditions.

ARTICLE 13 – DISPUTE RESOLUTION

Any claims or disputes relating to this Contract shall be resolved according to the dispute resolution process set forth in Section 13 of, and Appendix 8 to, the General Conditions.

ARTICLE 14 – MISCELLANEOUS PROVISIONS

The miscellaneous provisions set forth in Section 14 of the General Conditions shall apply to this Contract.

SAMPLE

IN WITNESS WHEREOF, the parties hereto have executed this Contract through their duly authorized representatives and bind their respective entitles as of the effective date.

"CITY"
CITY OF MESA

Signature _____

Name _____

Title _____

"CONTRACTOR"
COMPANY NAME

Signature _____

Name _____

Title _____

SAMPLE

EXHIBIT A – SCOPE OF WORK AND PROJECT SCHEDULE

(1 PAGE)

All terms and conditions are set forth in the Contract. Any terms and conditions and/or exceptions noted in the Contractor's proposal, GMP, or other documents do not apply unless agreed to in this Contract or an approved addendum.

Section A.1 – Scope of Work:
Contractor shall perform all work in accordance with the plans and requirements identified in Exhibit D and as identified below.

Section A.2 – Project Schedule:
In accordance with General Conditions, Section 6.

SAMPLE

EXHIBIT B – INSURANCE REQUIREMENTS

(4 PAGES, INCLUDING THIS PAGE)
MINIMUM INSURANCE REQUIREMENTS

Some of the following requirements apply to only design professionals and some apply only to contractors. Requirements will be enforced based on the type of contract.

Contractor/Design Professional shall obtain and submit to City before any Work is performed, certificates from the Contractor's/Design Professional's insurance carriers indicating the presence of coverages and limits of liability as follows.

The City only accepts the most recent version of ACORD® Certificate of Liability Insurance form with additional insured endorsements. The Builder's Risk policy (if required) shall remain in effect during construction through the date of project Final Acceptance. The remainder of the insurance policies shall remain in effect during construction and through the one-year warranty period that follows project Final Acceptance, unless otherwise specified in contract documents. Proof of all required coverage(s) shall be provided by the Contractor/Design Professional.

Policy forms must include:

A. Premises and Operations coverage with no explosion, collapse or underground damage (XCU) exclusions;
B. Products and Completed Operations coverage. Contractor/Design Professional agrees to maintain this coverage for a minimum of 10 years following completion of the Contractor/Design Professional Work and to continue to name City as an Additional Insured for the entire 10-year period;
C. Blanket contractual coverage for the indemnity/hold harmless agreements assumed in this Subcontract and in the Prime Contract. Any Employee Exclusion will be deleted;
D. Broad Form Property Damage coverage, including completed operations or its equivalent;
E. An endorsement in a form acceptable to the City, naming City, any other party required to be named as an additional insured under the Contract Documents, and any other parties in interest as Additional Insured(s) under the coverage specified under Comprehensive General Liability or Commercial General Liability. Any form that does not grant additional insured status for both the ongoing operations and products/completed operations coverages IS NOT ACCEPTABLE;
F. An endorsement in a form acceptable to the City, stating: "Such coverage as is afforded by this policy for the benefit of the additional insured(s) is primary and except for any builder's risk property insurance coverage that may be purchased and maintained by City in connection with the Project, any other coverage maintained by such additional insured(s) shall be non-contributing with the coverage provided under this policy;"
G. Coverage SHALL BE on an "Occurrence" form. **"Claims Made"** and **"Modified Occurrence"** forms are not acceptable;
H. Coverage to include general aggregate limits on a "per project" basis;

1. Workers' Compensation (required for both Contractors/Design Professionals):

Coverage A. Statutory Benefits
Coverage B. Employer's Liability

Bodily Injury by accident	$1,000,000 each accident
Bodily Injury by disease	$1,000,000 policy limit
Bodily Injury by disease	$1,000,000 each employee

SAMPLE

2. Commercial Auto Coverage (required for both Contractors and Design Professionals):

Auto Liability limits of not less than $1,000,000 Combined Single Limit (Each Accident), combined Bodily Injury and Property Damage Liability insurance. Certificate to reflect coverage for "Any Auto, All Owned, Scheduled, Hired, or Non-Owned."

If the Contract Documents require Contractor/Design Professional to remove and haul hazardous waste from the Project site, or if the Project involves such similar environmental exposure, pollution liability coverage equivalent to that provided under the ISO Pollution Liability-Broadened Coverage for Covered Autos Endorsement shall be provided, and the Motor Carrier Act Endorsement (MCS 90) shall be attached.

3. Commercial General Liability (required for both Contractors/Design Professionals):

Each Occurrence Limit	$2,000,000
Personal Injury/Advertising Injury Limit	$2,000,000
Products/Completed Operations Aggregate Limit	$2,000,000
General Aggregate Limit (other than Products/Completed Operations)	$4,000,000

4. Excess Liability:

Umbrella or Excess Liability may be used to satisfy the above Auto and General Liability coverage requirements and limits to reach a total combined limit of:

Auto	Amount sufficient to cover difference in limits when compared to minimum coverage required.
Each Occurrence	Amount sufficient to cover difference in limits when compared to minimum coverage required.
Aggregate	Amount sufficient to cover difference in limits when compared to minimum coverage required.

5. Professional Liability (required for Design Professionals only):

(Applicable only to Design Professional services which are part of Work.)

Coverage provided must have no exclusion for design-build projects. Contractor/Design Professional must provide evidence of coverage for three (3) years beyond completion of the Project.

Coverage Amount: $2,000,000 per claim/$4,000,000 aggregate, unless higher coverage limits are required under the Contract Documents, in which case such higher limits shall apply.

6. Pollution Legal Liability: $1,000,000 per Occurrence
$1,000,000 Aggregate Limit

(Applicable to any pollutants or hazardous waste exposures as part of Work, except for CMAR Pre-Construction services work.)

Contractor shall maintain insurance covering losses caused by pollution conditions (including mold) that arise from the Work.

SAMPLE

7. Builders Risk (if required, will be required for Contractors only):

Contractor shall include in its Cost Proposal the cost to obtain builders risk or "all risk" or equivalent policy form coverage in the amount of the initial Contract Price. This required insurance coverage is required on projects that are typically outside the public rights-of-way whereby the City is constructing or modifying a public building. The City may, at the City's sole option, purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builders risk "all-risk" or equivalent policy form in the amount of the initial Contract Price, plus value of subsequent contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis. This insurance shall include interests of the City, Contractor and its subcontractors in the Project, and shall include, without limitation, insurance against the perils of fire and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal, including demolition occasioned by enforcement of any applicable legal requirements. City shall bear the responsibility for the deductible for such coverage when a loss affects the Work, provided, however, to the extent such loss is attributable to the negligent or wrongful acts or omissions of Contractor or someone for whom Contractor is responsible, Contractor shall bear the responsibility of the deductible. Such property insurance will not cover any tools or equipment owned or rented by Contractor that will not be incorporated into the Project, including trailers, excavators, scaffoldings, or forms. Contractor is responsible for providing insurance coverage for such items.

8. Other Requirements:

A. All policies must be written by insurance companies whose rating, in the most recent AM Best's Rating Guide, is not less than A-. All coverage forms must be acceptable to City.

B. ACORD® Certificate of Liability Insurance form with the required endorsements evidencing the required coverages must be PROVIDED to the City prior to commencement of any Work. Failure of City to demand such certificate or other evidence of full compliance with these insurance requirements or failure of City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's/Design Professional's obligation to maintain such insurance. City shall have the right, but not the obligation, to prohibit Contractor/Design Professional or any of its subcontractors from entering the Project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by City.

C. The policies shall provide waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay for the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

The following policies shall include Waiver of Subrogation endorsements:
Workers' Compensation
Commercial Auto Coverage
Commercial General Liability
Pollution Legal Liability

D. The following policies shall include Additional Insured endorsements:
Commercial Auto Coverage
Commercial General Liability
Excess Liability
Builders Risk

SAMPLE

E. Contractor/Design Professional shall be responsible for satisfying any deductible or self-insured retention with respect to any of the coverages required by the Contract Documents to be provided by Contractor/Design Professional.

F. City reserves the right, in its sole discretion, to require higher limits of liability coverage if, in City's opinion, operations by or on behalf of Contractor/Design Professional create higher than normal hazards and, to require Contractor/Design Professional to name additional parties in interest to be Additional Insureds.

G. In the event that rental of equipment is undertaken by Contractor/Design Professional or any Subcontractor to complete and/or perform the Work, Contractor/Design Professional agrees that it shall be solely responsible for such rental equipment. Such responsibility shall include, but not be limited to protection against theft, fire, vandalism and use by unauthorized persons.

H. In the event that materials or any other type of personal property ("personal property") is acquired for the Project or delivered to the Project site, Contractor/Design Professional agrees that it shall be solely responsible for such property until it becomes a fixture on the Project, or otherwise is installed and incorporated as a final part of the Project. Such responsibility shall include, but not be limited to protection against theft, fire, vandalism and use by unauthorized persons.

I. Any additional provisions specific to the Project are attached. In the event of any conflict between the attached terms and the terms of this Exhibit, Contractor/Design Professional shall comply with the more stringent provisions.

If a policy does expire, a renewal certificate of the required coverage shall be sent to the City of Mesa not less than five (5) days prior to the expiration date or, if a policy is to be cancelled, changed or not renewed, a proper notice of such action shall be sent to the City not less than ten (10) days prior to any such action by the insurance company.

Notice shall be sent to: City Engineer
City of Mesa
P.O. Box 1466
Mesa, AZ 85211-1466

SAMPLE

EXHIBIT C – COMPLIANCE WITH SPECIFIC GOVERNMENT PROVISIONS

(35 PAGES, INCLUDING THIS PAGE)

1. Federal Aviation Administration (FAA) Required Contract Provisions for Airport Improvement Program (AIP) and for Obligated Sponsors (27 pages)

2. Project Wage Determination (7 pages)

3. State of Arizona Requirements
   This project is partially funded with a matching grant from the *State of Arizona: Department of Transportation, Multimodal Planning Division, Aeronautics Group (ADOT)*, combined with local matching funds from the City, and the Contractor shall therefore comply with the following ADOT requirements at all times during performance of its services under this contract:

   A. The Contractor and its subcontractors shall comply at all times with the provisions of Arizona Executive Order 75-5, as amended by Executive Order 2009-09, relating to equal opportunity and nondiscrimination.

   B. The duly authorized representative(s) of the State of Arizona shall have access to any books, documents, papers, and records of the Contractor which are in any way pertinent to this contract for a period of five (5) years following the City's Letter of Acceptance (or payment of Contractor's final invoice), in accordance with A.R.S. 35-214, for the purpose of making inspections, audits, examinations, excerpts and transcripts.

   C. The Contractor certifies that any travel required during performance of the services under this contract, and any subsequent invoices requesting reimbursement of said travel expenses by City, shall be in accordance with the Arizona Revised Statues (A.R.S.) § 38-621 through § 38-627, the State of Arizona Accounting Manual (Section II-D, *Travel Policy*), and the policies and procedures set forth in *ADOT Policy No. FIN-6.02, Travel Authorization Policy*, dated November 19, 2024.

FAA Airports

Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects (Issued on March 17, 2026)

Applicability Matrix for Contract Provisions

CONTRACT PROVISIONS

A1	ACCESS TO RECORDS AND REPORTS
A2	BREACH OF CONTRACT
A3	BUY AMERICAN PREFERENCE
A4	CIVIL RIGHTS - GENERAL
A5	CIVIL RIGHTS – TITLE VI ASSURANCES
A6	CLEAN AIR AND WATER POLLUTION CONTROL
A7	CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS
A8	COPELAND “ANTI-KICKBACK” ACT
A9	DAVIS-BACON REQUIREMENTS
A10	DEBARMENT AND SUSPENSION
A11	DISADVANTAGED BUSINESS ENTERPRISE
A12	DISTRACTED DRIVING
A13	DOMESTIC PREFERENCES FOR PROCUREMENTS
A14	FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)
A15	FOREIGN TRADE RESTRICTION
A16	LOBBYING AND INFLUENCING FEDERAL EMPLOYEES
A17	OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970
A18	PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
A19	PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS)
A20	PROCUREMENT OF RECOVERED MATERIALS

A21 TAX DELINQUENCY AND FELONY CONVICTIONS

A22 TERMINATION OF CONTRACT

A23 VETERAN'S PREFERENCE

Applicability of Provisions

Provisions/Clauses	Dollar Threshold	Solicitation	Construction
Access to Records and Reports	$ 0	NIS	**REQD**
Breach of Contract	$350,000	NIS	**REQD**
Buy American Preferences	$ 0	**REF**	**REQD**
(1) Buy American Statement	$ 0	NIS	**REQD**
(2) Construction	$ 0	NIS	**REQD**
(3) Equipment/Building Projects	$ 0	NIS	**REQD**
Civil Rights – General	$ 0	NIS	**REQD**
Civil Rights - Title VI Assurances	$ 0	**REF**	**REQD**
(1) Notice - Solicitation	$ 0	**REQD**	**REQD**
(2) Clause - Contracts	$ 0	NIS	**REQD**
(6) List – Pertinent Authorities	$0	NIS	**REQD**
Clean Air/Water Pollution Control	$150,000	NIS	**REQD**
Contract Work Hours and Safety Standards	$100,000	NIS	**REQD**
Copeland Anti-Kickback	$ 2,000	NIS	**REQD**
Davis Bacon Requirements	$ 2,000	**REF**	**REQD**
Debarment and Suspension	$25,000	**REF**	**REQD**
Disadvantaged Business Enterprise	$0[1]	**REQD**	**REQD**
Distracted Driving	$15,000	NIS	**REQD**
Domestic Preferences for Procurements	$0	**NIS**	**REQD**
Federal Fair Labor Standards Act	$ 0	**REQD**	**REQD**
Foreign Trade Restriction	$ 0	**REQD**	**REQD**
Lobbying Federal Employees	$ 100,000	**REF**	**REQD**
Occupational Safety and Health Act	$ 0	NIS	**REQD**
Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment	$0	**NIS**	**REQD**
Prohibition of Covered Unmanned Aircraft Systems (UAS)	$0	**REQD**	**REQD**
Recovered Materials	$10,000	**REF**	**REQD**
Tax Delinquency and Felony Conviction	$ 0	NIS	**REQD**
Termination of Contract	$10,000	NIS	**REQD**
Veteran's Preference	$ 0	NIS	**REQD**

[1] Under 49 CFR §§ 26.13(b) and 26.21, any sponsor with more than $250,000 in total contracting opportunities in 1 year must incorporate required language in each contract, regardless of the particular contract's dollar value.

A1 ACCESS TO RECORDS AND REPORTS

Contract Types – This provision must be included in all contracts and subcontracts of AIP funded projects.

ACCESS TO RECORDS AND REPORTS

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

A2 BREACH OF CONTRACT TERMS

Contract Types – This provision is required for all contracts that exceed the simplified acquisition threshold as stated in 2 CFR Part 200, Appendix II (A). This threshold is currently $350,000.

BREACH OF CONTRACT TERMS

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

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

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

A3 BUY AMERICAN PREFERENCE

Contract Types – This provision applies to all AIP funded projects that require materials that are or consists primarily of iron, steel or manufactured goods and construction materials.

A3.1 Certification of Compliance with FAA Buy American Preference Statement

FAA BUY AMERICAN PREFERENCE

The Contractor certifies that its bid/offer is in compliance with 49 U.S.C. § 50101, BABA and other related Made in America Laws,[2] 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.

A3.2 Certification of Compliance with FAA Buy American Preference – Construction Projects

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

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

a) Only installing iron, steel and manufactured products produced in the United States;

b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.

c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or

d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

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

a) To the submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination 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.

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

A4 CIVIL RIGHTS - GENERAL

Contract Types – This provision applies to all Sponsor contracts *regardless* of funding source.

A4.1 General Clause that is used for Contracts, Lease Agreements, and Transfer Agreements

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.

A4.2 Specific Clause that is used for General Contract Agreements

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

A5 CIVIL RIGHTS – TITLE VI ASSURANCE

A5.1 Title VI List of Pertinent Nondiscrimination Acts and Authorities

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

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR Part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964) including amendments thereto;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 .U.S.C. § 6101 *et seq*.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);

- The Civil Rights Restoration Act of 1987 (P.L. 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR Parts 37 and 38;
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681, et seq).

A5.2 Nondiscrimination Requirements/Title VI Clauses for Compliance

Compliance with Nondiscrimination Requirements:

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

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin), creed, sex, age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21 including amendments thereto.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance: In** the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

    a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or

    b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

A6 CLEAN AIR AND WATER POLLUTION CONTROL

Contract Types – This provision is required for all contracts and lower tier contracts that exceed $150,000.

CLEAN AIR AND WATER POLLUTION CONTROL

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

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

A7 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

Contract Types – This provision applies to all 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.

A8 COPELAND "ANTI-KICKBACK" ACT

Contract Types – This provision applies to all construction contracts and subcontracts financed under the AIP 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.

A9 DAVIS-BACON REQUIREMENTS

Contract Types – This provision must be incorporated into all construction contracts and subcontracts that exceed $2,000 and include funding from the AIP.

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.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

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

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

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the

Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

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

3. Payrolls and Basic Records.

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

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (*e.g.,* the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional

Form WH–347 is available for this purpose from the Wage and Hour Division Web site at *https://www.dol.gov/agencies/whd/government-contracts/construction/payroll-certification* or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

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

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

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

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

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

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

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

required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination.

Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at no less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the

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

5. Compliance with Copeland Act Requirements.

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

6. Subcontracts.

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

7. Contract Termination: Debarment.

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

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

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

9. Disputes Concerning Labor Standards.

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

10. Certification of Eligibility.

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

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

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

A10 DEBARMENT AND SUSPENSION

Contract Types – This requirement applies to *covered transactions*, which are defined in 2 CFR part 180 (Subpart B). AIP funded contracts are non-procurement transactions, as defined by 2 CFR § 180.970. Covered transactions include any AIP-funded contract, regardless of tier, that is awarded by a contractor, subcontractor, supplier, consultant, or its agent or representative in any transaction, if the amount of the contract is expected to equal or exceed $25,000. This includes contracts associated with land acquisition projects.

A10.1 Bidder Certification

CERTIFICATION OF BIDDER REGARDING DEBARMENT

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

A10.2 Lower Tier Contract Certification

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

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

1. Checking the System for Award Management at website: http://www.sam.gov.
2. Collecting a certification statement similar to the Certification of Offeror /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

A11 DISADVANTAGED BUSINESS ENTERPRISE

Contract Types – Sponsors with a DBE program on file with the FAA must include the following provisions, if applicable, in solicitations that seek to obtain DBE participation without the use of a contract goal and in each prime contract.

A11.1 Prime Contracts (Contracts Covered by a DBE Program)

Contract Assurance (49 CFR § 26.13) –

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

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

Prompt Payment (49 CFR § 26.29) –
The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 7 days from the receipt of each payment the prime contractor receives from the City of Mesa. The prime contractor agrees further to return retainage payments to each subcontractor within 7 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 Mesa. This clause applies to both DBE and non-DBE subcontractors.

A12 DISTRACTED DRIVING

Contract Types – This provision must be included in all AIP 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.

A13 DOMESTIC PREFERENCES FOR PROCUREMENTS

Contract Types – This provision must be included in all subawards, including all contracts and purchase orders for work or products under the grant.

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.

A14 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

Contract Types – This provision must be included per the Department of Labor, for all employees of certain enterprises having workers engaged in interstate commerce; producing goods for interstate commerce; or handling, selling, or otherwise working on goods or materials that have been moved in or produced for such commerce by any person are covered by the FLSA.

FEDERAL FAIR LABOR STANDARDS ACT

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.

A15 FOREIGN TRADE RESTRICTION

Contract Types – The trade restriction certification and clause apply to all AIP 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 § 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.

A16 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

Contract Types – The Sponsor must incorporate this provision into all contracts exceeding $100,000.

CERTIFICATION REGARDING LOBBYING

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

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

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

A17 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Contract Types – All contracts and subcontracts must comply with the Occupational Safety and Health Act of 1970 (OSH). The U.S. Department of Labor Occupational Safety and Health Administration (OSHA) oversees the workplace health and safety standards wage provisions from OSH.

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

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

A18 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Contract Types – The Sponsor must include this provision in all AIP funded contracts and lower-tier contracts.

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)).

A19 PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS)

Contract Types – The Sponsor must include this provision in all AIP funded contracts and lower-tier contracts.

PROHIBITION OF COVERED UNMANNED AIRCRAFT SYSTEMS (UAS)

The Bidder 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.

A20 PROCUREMENT OF RECOVERED MATERIALS

Contract Types – This provision must be included in all construction and equipment projects.

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.

A21 TAX DELINQUENCY AND FELONY CONVICTIONS

Contract Types – This provision applies to all contracts funded in whole or part with AIP.

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 (ü) 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.

A22 TERMINATION OF CONTRACT

Contract Types – All contracts and subcontracts in excess of $10,000 must address *termination for cause* and *termination for convenience* by the Sponsor. The provision must address the manner (i.e., notice, opportunity to cure, and effective date) by which the Sponsor's contract will be affected and the basis for settlement (e.g., incurred expenses, completed work, profit, etc.).

A22.1 Termination for Convenience

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.

A22.2 Termination for Default

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.

A23 VETERAN'S PREFERENCE

Contract Types – This provision applies to all AIP funded projects that involve labor to carry out the project. This preference, which excludes executive, administrative, and supervisory positions, applies to covered veterans [as defined under § 47112(c)] only when they are readily available and qualified to accomplish the work required by the project.

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.

"General Decision Number: AZ20260045 01/02/2026

Superseded General Decision Number: AZ20250045

State: Arizona

Construction Type: Highway

County: Maricopa County in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/02/2026

CARP1912-003 07/01/2024

	Rates	Fringes
Carpenter, Excludes Formwork Concrete	$ 35.89	14.98

ENGI0012-046 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Bulldozer	$ 35.56	18.12

ENGI0012-053 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Tractor	$ 35.56	18.12

ENGI0012-063 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Oiler	$ 32.29	18.12

ENGI0012-065 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Field Equipment Serviceperson	$ 35.56	18.12

ENGI0012-066 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Backhoe/Backhoe & Loader Combo/Track Backhoe	$ 35.56	18.12

ENGI0012-069 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		

```
     Loader/Front End Loader.....$ 35.56            18.12
----------------------------------------------------------------
 ENGI0012-070 12/01/2024

                                  Rates          Fringes

TRUCK DRIVER
     Off Road Truck..............$ 35.56            18.12
----------------------------------------------------------------
 ENGI0012-071 12/01/2024

                                  Rates          Fringes

POWER EQUIPMENT OPERATOR:
     Crane/Derrick...............$ 36.64            18.12
----------------------------------------------------------------
 ENGI0012-072 12/01/2024

                                  Rates          Fringes

Power Equipment Operator:
Excavator/Trackhoe
     1/2 cubic yard or smaller...$ 35.56            18.12
     Greater than 1/2 cubic yard.$ 36.64            18.12
----------------------------------------------------------------
 ENGI0012-073 12/01/2024

                                  Rates          Fringes

POWER EQUIPMENT OPERATOR:
     Grade Checker...............$ 36.64            18.12
----------------------------------------------------------------
 ENGI0012-074 12/01/2024

                                  Rates          Fringes

POWER EQUIPMENT OPERATOR:
     Motor Grader/Blade..........$ 36.64            18.12
----------------------------------------------------------------
 ENGI0012-075 12/01/2024

                                  Rates          Fringes

POWER EQUIPMENT OPERATOR:
     Mechanic....................$ 37.67            18.12
----------------------------------------------------------------
 IRON0075-014 08/01/2025

                                  Rates          Fringes

Ironworker.......................$ 33.00            19.91
----------------------------------------------------------------
 LABO1184-016 06/01/2025

                                  Rates          Fringes

Power Equipment Operator:
     Horizontal Directional
     Drill.......................$ 31.98             9.26
----------------------------------------------------------------
 LABO1184-017 06/01/2025

                                  Rates          Fringes

Laborer: Fence Erector...........$ 27.41             9.26
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LABO1184-021 06/01/2025

	Rates	Fringes
Traffic Control	$ 27.41	9.26

LABO1184-025 06/01/2025

	Rates	Fringes
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 29.91	9.26

LABO1184-027 06/01/2025

	Rates	Fringes
Laborer: Grade Setter	$ 29.91	9.26

LABO1184-029 06/01/2025

	Rates	Fringes
LABORER: Guardrail Installer	$ 29.91	9.26

LABO1184-033 06/01/2025

	Rates	Fringes
Power Equipment Operator: Trencher	$ 30.88	9.26

LABO1184-044 06/01/2025

	Rates	Fringes
Power Equipment Operator: Forklift	$ 30.88	9.26

LABO1184-047 06/01/2025

	Rates	Fringes
Truck Driver: Concrete	$ 30.88	9.26

LABO1184-049 06/01/2025

	Rates	Fringes
Truck Driver: Water	$ 30.88	9.26

LABO1184-051 06/01/2025

	Rates	Fringes
General Laborers	$ 27.41	9.26

SUAZ2023-022 11/19/2024

	Rates	Fringes

Carpenter: Formwork Concrete.....$ 29.86 8.89

Cement Mason/Concrete finisher...$ 30.41 0.00

Electrician.....$ 29.00 7.58

Laborer: Concrete Saw (Hand
Held/Walk Behind).....$ 25.22 5.08

Laborer: Landscape Laborer.....$ 19.00 6.34

Laborer: Mason Tender.....$ 25.92 7.09

Laborer: Pipelayer.....$ 25.97 7.09

Painter: Pavement Marking.....$ 23.35 6.34

Painter: Sign and Display
Erector.....$ 18.03 0.00

Power Equipment Operator:
Bobcat/Skid Steer/Skid Loader....$ 29.91 9.11

Power Equipment Operator:
Boom/Crane Truck.....$ 43.11 10.87

Power Equipment Operator:
Broom/Sweeper.....$ 25.95 6.62

Power Equipment Operator:
Compactor/Roller.....$ 30.24 0.00

Power Equipment Operator:
Concrete Pump Truck.....$ 43.11 10.87

Power Equipment Operator:
Concrete Screed.....$ 26.41 7.64

Power Equipment Operator:
Drill Rig/Auger.....$ 36.80 13.07

Power Equipment Operator:
Milling Machine.....$ 31.16 0.00

Power Equipment Operator:
Paver/Spreader/Finish
equipment (asphalt,
aggregate, & concrete).....$ 32.67 0.00

Power Equipment Operator:
Scraper.....$ 29.69 0.00

Truck Driver: Dump.....$ 26.71 7.09

Truck Driver: Oil Distributor....$ 29.41 7.63

Truck Driver: Sweeper.....$ 20.24 5.48

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

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

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. 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.

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END OF GENERAL DECISION
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EXHIBIT D – PROJECT SPECIFIC PROVISIONS AND PROJECT PLANS AND SPECIFICATIONS

(315 PAGES; including this one)

1. **Special Conditions – See attached Project Specific Provisions (51 pages)**

2. **General Provisions (62 pages)**

3. **Technical Specifications (18 pages)**
   Specification Title: Rehabilitate West Vehicle Service Road (VSR) Date: 4/8/2026

4. **Construction Safety and Phasing Plan (43 pages)**

5. **FAA Advisory Circular AC 150/5210-5D (14 pages)**
   Date: 4/1/2010

6. **FAA Advisory Circular AC 150/5370-2G (95 pages)**
   Date: 12/13/2017

7. **Plans (31 pages)**
   Drawing Title: Rehabilitate West Vehicle Service Road (VSR) Date: 4/8/2026
   Project Number: CP1225GPH1 Drawing 'A' Number: A-309191 to A-309221

SAMPLE

CITY OF MESA, ARIZONA

REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)

4800 E FALCON FIELD DRIVE

PROJECT NO. CP1225GPH1

ADOT GRANT NO. E6M3S01D

FAA AIP NO. 3-04-0023-037-2025

PROJECT SPECIFIC PROVISIONS

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☐	5	Special Notice to Water Line Contractors
☐	6	Street Excavation, Backfilling and Pavement Replacement
☐	7	Open Trench and Asphalt Concrete Pavement Replacement
☐	8	Thickness Requirements for Asphalt Concrete Pavement Replacement
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☐	20	Frame and Cover Grade Adjustments
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☐	22	Arizona Pollutant Discharge Elimination System (AZPDES) De Minimis Permit Coverage
☐	23	Temporary Utilities for Construction
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☒	25	Asbestos-Free Facility Material Certification
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☒	52	Staging Area and Use of the Site
☐	53	No Staging Area Provided
☐	54	Locate/Verify Existing Sewer Service Lateral Crossings
☐	55	Video Existing Sewer Service Lateral Crossings
☐	56	Utility Crossings Using Boring Methods
☐	57	Asbestos Inspections
☐	58	Asbestos-Containing Materials
☐	59	NESHAP 10 Day Notification for Demolition and/or RACM Abatement
☐	60	Lead Paint
☐	61	Drywell Installation
☐	62	Removal of Unidentified Underground Storage Tanks
☐	63	Removal of Septic System
☐	64	Removal of Petroleum Contaminated Soil
☐	65	Disposal of Existing Fluorescent Light Ballasts and Bulbs
☐	66	Use of Cranes in Vicinity of Communications Towers
☐	67	Security and Confidentiality Protections
☐	68	Building Plaque
☐	69	Subcontractor Bonds
☒	70	Airport Driving Safety Training
☒	71	Airport Gate Access
☒	72	Construction Schedule
☒	73	Security and Confidentiality Protections
☒	74	Supplemental Instruction to Bidders Under Federal A.I.P. Projects
☒	75	Project Number
☒	76	Project Cleanliness
☒	77	Work Stoppage for Accidents
☒	78	Airport Construction Restrictions and Requirements
☒	79	Arizona State Requirements

ATTACHMENTS

Attachment A Release Form (1 page) NOT USED
Attachment B Background Check Guidelines and Security Forms (9 pages)
Attachment C Sewer Lateral Inspection Report (1 page) NOT USED

PROJECT SPECIFIC PROVISIONS

1. GAS LINE INSTALLATIONS: NOT USED

For those Projects including gas line installation, all gas system construction, installation, and testing shall comply with City of Mesa Gas Operations, Maintenance, Construction Practices and Emergency Plan Manual. Copies of this manual may be obtained from the Energy Resources Department at EnergyResourcesComplianceTraining@mesaaz.gov.

2. DUST CONTROL AND STORMWATER CONSTRUCTION PERMITS:

This project may involve the disturbance of surface/land area and as such the Contractors are advised that:

1. For Projects in Maricopa County: A Dust Control Permit and a Dust Control Plan is required by the Maricopa County Air Quality Department (MCAQD) for all projects that will disturb a surface area equal to or greater than 0.10 acre (4,356 square feet).
2. For Projects in Pinal County: A Dust Control Permit is required by the Pinal County Air Quality Control Department (PCAQCD) for all projects that will disturb a surface area equal to or greater than 0.10 acre (4,356 square feet) specifying the control measures that will be implemented to reduce fugitive dust emissions.
3. Coverage under the Arizona Department of Environmental Quality (ADEQ) Arizona Pollutant Discharge Elimination System General Permit for Discharge from Construction Activities to Waters of the United States (commonly referred to as the Construction General Permit, and herein referred to as the CGP) is required for projects that will disturb one or more acres of land, or that will disturb less than one acre but is part of a common plan of development or sale that will ultimately disturb one acre or more (e.g. single contract for multi-phase projects).
4. Projects that will disturb one or more acres of land, or will disturb less than one acre, but is part of a common plan of development or sale that will ultimately disturb one acre or more and that take place in any part of the urbanized areas of unincorporated Maricopa County are subject to the requirements of the Maricopa County Stormwater Quality Management and Discharge Control Regulation (Maricopa County Stormwater Regulation).

In calculating the area of surface/land (i.e. soil) disturbance, the Contractor must take into account storage and staging areas where surface/land disturbance will take place.

In addition to this project specification, the Contractor shall review, understand, and comply with dust and stormwater requirements as provided on the City's Environmental Requirements for Construction Activities webpage prior to submitting an offer to provide services to the City. That webpage is available at the following address: https://www.mesaaz.gov/business/environmental-requirements-for-construction-activities.

County Dust Permit and Dust Control Plan Requirements

The Contractor shall do one of the following:

1. Obtain a Dust Control Permit and:
   - Develop a Dust Control Plan, where required; and,
   - Submit a copy of these documents to the City for review.
2. Submit an exhibit to the City showing the location of all areas where surface disturbance activities will take place, including storage/staging areas, and a written and signed assurance that the project construction limits will not result in the disturbance of a surface area equal to or greater than 0.10 acre.

In addition to the above, for those projects requiring a dust control permit, the Contractor must submit a list of personnel to the City of those individuals having expertise and responsibility for compliance with dust control requirements as provided below:

1. If the project results in 0.1 acre or more of disturbed surface area, but less than 5 acres, the Contractor must submit to the City a copy of the individual(s) certification in Basic Dust Control pursuant to county requirements.

2. If the project results in 5 acres or more of disturbed surface area, the Contractor must submit to the City a copy of the individual(s) certification in Comprehensive Dust Control pursuant to county requirements.

The Contractor must ensure that a certified individual(s) meeting the above requirements, dependent on project size, is on site at all times dust generating activities are occurring. For each identified individual, the Contractor must submit proof of certification. The Contractor is responsible for ensuring that any subcontractor used for this project, and whose activities involve dust generating activities, is registered with the Maricopa County Air Quality Department. The Contractor must identify in its list of subcontractors all subcontractors so registered and provide the subcontractor's registration number.

ADEQ Construction General Permit Requirements

The Contractor shall do one of the following:

1. Obtain coverage under the CGP and:
   - Develop a Storm Water Pollution Prevention Plan (SWPPP) meeting ADEQ and City of Mesa requirements; and,
   - Submit a copy of the SWPPP to the City for review and approval as provided below. Be advised that this submittal is a Shop Drawing and subject to the review timeframes as provided in the General Conditions.
2. Apply for and obtain a permit waiver and submit a copy of the Permit Waiver Certification to the City for review and confirmation.
3. Submit an exhibit showing the location of all areas where land disturbance activities will take place, including storage/staging areas, and a written and signed assurance that the project construction limits will not result in the disturbance of a land area equal to or greater than 1 acre.

The City has determined that the City and the Contractor both meet the definition of an "operator" as defined in the CGP and are therefore co-permittees. As such, both the City and the Contractor are required to file for coverage under the CGP. The Contractor shall prepare a SWPPP in the format specifically identified in the City's Review of SWPPP Content Form and shall submit a completed copy of such form with the SWPPP for review and approval by the City. This document is also available at the website referenced above.

The SWPPP shall incorporate best management practices as provided in the Flood Control District of Maricopa County's *"Drainage Design Manual for Maricopa County, Erosion Control"* dated November 28, 2012 and City amendments provided in Title 8, Chapter 5 of the Mesa City Code and as incorporated into the City's *"Environmental Requirements for Construction Activities in the City of Mesa"* manual. The SWPPP shall be maintained and updated as needed. Any deficiencies identified by the City or other regulatory agency shall be adequately addressed in a timely manner. The Contractor shall comply with posting requirements and shall make the SWPPP and all associated reports available to City inspectors and other regulatory agencies upon request.

The Contractor shall notify the City prior to submitting a Notice of Termination form to the ADEQ to cease coverage under the CGP (e.g. at completion of construction activities, after establishment of final stabilization, or because of a change in operators). The City shall conduct a final stabilization inspection. Upon approval, and within 30 days of final inspection, the City and the Contractor shall submit a completed and signed NOT form to the ADEQ to terminate coverage under the CGP.

Maricopa County Stormwater Regulation Requirements

For all projects required to obtain coverage under the ADEQ CGP as provided above, including those where a Permit Waiver Authorization has been obtained by the ADEQ, and where any construction activities are conducted in any part of the urbanized areas of unincorporated Maricopa County, the Contractor shall do one of the following:

1. Obtain approval from the Maricopa County Environmental Services Department (MCESD) and:
   - Submit a copy of the SWPPP meeting ADEQ and City of Mesa requirements that has already been approved by the City to the MCESD for review;
   - Submit to the City and the MCESD any additional information as required in the MCESD Checklist for Stormwater Pre-Construction Application; and,
   - Submit to the City a copy of any notification of approval from the MCESD.

2. Submit a written and signed assurance that the project construction limits will not result in the disturbance of any land area in urbanized areas of unincorporated Maricopa County.

For any project that receives any notification or approval from the MCESD, as provided above, and that involves the installation, construction, or installation of new or additional impervious or semi-pervious surfaces (such as driveways, roadways, parking lots, recreation features); new buildings or additions to existing buildings; or permanent stormwater management facilities (i.e. retention basins, underground retention, etc.); the Contractor shall submit the following within fourteen (14) calendar days following the completion of land disturbing activities:

- One (1) copy of the SWPPP (final SWPPP including any significant changes made to it during construction);
- Two (2) sets of As-Built site plans;
- One (1) copy of a vicinity map (equivalent to that supplied under the Pre-Construction Application); and,
- One (1) copy of detailed driving instructions (equivalent to that supplied under the Pre-Construction Application).

This information is necessary for the City to submit its Post-Construction Application as required in the post-construction requirements established under the Maricopa County Stormwater Regulation. The City shall be responsible for forwarding this information to the MCESD when the City is the property owner, or will submit this information to the actual property owner(s) when the City is operating under an approved access agreement with another property owner(s).

Contractor Permit Applicability Assurances

Where the Contractor provides an assurance that the project will not require permitting under the MCAQD/PCAQCD dust rules, the ADEQ CGP, and/or the Maricopa County Stormwater Regulation, and it is later determined by a City inspector or regulatory agency that the project is subject to any such requirements, the Contractor shall obtain proper permits, certifications, or approvals, develop any required plans, and submit a copy of these documents to the City for review or approval at no additional cost to the City.

Dust Control and Stormwater Construction Permit Compliance Costs

The Contractor's pricing for compliance with dust and stormwater regulatory requirements shall include all material, labor, and other incidental costs related to:

- All dust and stormwater permit costs.
- Preparation of a Dust Control Plan and/or SWPPP.
- Modifications to the Dust Control Plan or SWPPP as required by the City or other outside regulatory agency, or updates/amendments as site conditions change.
- The installation and maintenance of dust control measures and structural stormwater BMPs and the implementation of non-structural stormwater BMPs as required in the CGP, identified in the SWPPP, or specified by the City or other outside regulatory agency.
- The removal of dust control measures and structural BMPs upon final stabilization and acceptance by the City.

All submittals required in this specification shall be submitted through the standard Shop Drawing submittal process.

3. PRE-BID CONFERENCE:

A Pre-Bid conference has been set for Thursday May 14, 2026, beginning at 3:00pm local time via TEAMS. Participants interested in participating shall email Tracy Gumeringer at Tracy.Gumeringer@mesaaz.gov to request an invitation. The Pre-Bid conference is recommended, but is not mandatory. No on-site visit will be scheduled.

4. RELOCATION AND/OR ADJUSTMENT OF EXISTING FACILITIES, SERVICES AND ACCESS: NOT USED

If relocation or adjustment of existing facilities is noted on the Plans, this is intended to include the relocation or adjustment of items appurtenant to the noted piece of Work, just as if they were specifically called out. If these appurtenant items are lost or broken during construction, they shall be replaced by Contractor with items of equal or better quality, at no additional cost to City.

5. SPECIAL NOTICE TO WATER LINE CONTRACTORS: NOT USED

Contractor is advised that the City of Mesa Water Resources Department requires a notice of seven (7) calendar days to coordinate the necessary exercising and checking of valves prior to shutting off any water valves.

Contractor shall review water maps (plats) with City Inspector and submit a written request to the City Inspector listing the valves that need to be exercised and when they need to be shut off for the Project. Requests shall be sent in time to allow the required seven (7) calendar day notification period.

Contractor shall also note that the City of Mesa Water Resources Department conducts water main sampling for bacteria tests from 8:00 a.m. to 3:00 p.m., Monday through Thursday, except holidays, and requires a minimum of two business days' notice prior to said sampling. Contractor shall schedule all required bacteria testing within this time frame. There shall be no additional payment or allotment of time to Contractor for failure to coordinate the sampling in accordance with the City's availability (as noted herein) to perform the sampling.

If Contractor schedules work such that sampling for bacteria tests is to be conducted on Friday, Saturday, or Sunday, Contractor may employ the services of a private laboratory to collect the samples and perform the required analytical tests. However, prior to using a private laboratory, Contractor shall submit the laboratory's information, credentials, and proposed test methods to the City for approval. The laboratory shall be certified by the Arizona Department of Health Services (ADHS) to perform coliform bacteria and Heterotrophic Plate Count (HPC) tests in accordance with American Water Works Association (AWWA), Standard C651-14, *Disinfecting Water Mains* (State certified). When available, test results from the private laboratory shall be sent via email to the City Inspector and shall also be emailed to WaterQualityVM@MesaAz.gov. Sampling and testing performed by the City is done at no cost to Contractor; whereas, the Contractor shall pay all costs (without any pass through to the City) for sampling and testing by the private laboratory.

6. STREET EXCAVATION BACKFILLING AND PAVEMENT REPLACEMENT: NOT USED

Contractor shall be responsible for backfilling and replacing pavement in all street excavations per City of Mesa Policy Statement for Street Trench Backfilling and Pavement Replacement, Revised September 29, 1999. Copies of this policy statement are available online at the link below or by calling 480-644-2251. A special permit is not required.

https://www.mesaaz.gov/files/assets/public/v/1/business-development/engineering/policiesforms/trenchbackfillingpavementreplacement.pdf

SPECIAL ATTENTION IS CALLED TO THE POLICY STATEMENT REQUIREMENTS FOR TRANSVERSE TRENCHES. BACKFILL IN ALL TRANSVERSE TRENCHES SHALL BE CONTROLLED LOW STRENGTH MATERIAL (CLSM) PER MAG SECTION 728, WITH ONE-HALF SACK OF CEMENT PER CUBIC YARD OF MIX. ALL COSTS FOR FURNISHING AND INSTALLING THE CLSM MIX SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE APPLICABLE ITEMS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THE CLSM MIX.

In addition, the pay width for pavement replacement shall be in accordance with the pay widths listed in MAG Uniform Standard Specifications Section 336.4 excluding any addition for "T"-top pavement replacement. In computing pay quantities by the square yard, the product of the length of pavement replacement measured along the centerline of the trench and the pay widths listed, excluding any addition for "T"-top pavement replacement, shall be used. No direct payment will be made for surface course pavement replacement outside of the specified pay widths. The Contractor shall include the cost for surface course pavement replacement and milling that is beyond the specified pay widths in the unit price bid per square yard of pavement replacement.

A cash bond, as stipulated in the policy statement, will not be required. However, if Contractor fails to comply with the Policy requirements, City will proceed to make the necessary corrections. Contractor will be billed for the corrective action, and the amount of the bill will be withheld from funds due Contractor.

The amount of each billing shall be either $1,000.00 or the actual accumulated charges for employee's time, materials, and equipment, whichever is greater. Employees' time will be billed at each individual's hourly rate plus the applicable City overhead rate. Any materials used will be billed at cost. Equipment rates will be based on the most recent schedule of equipment rental rates for forced account Work, as published by the Arizona Department of Transportation.

7. OPEN TRENCH AND ASPHALT CONCRETE PAVEMENT REPLACEMENT: NOT USED

The maximum length of open trench from the point of initial excavation to the point where finished grade of native and/or ABC backfill has been installed shall not exceed 300 feet.

Where pavement replacement is called for, the maximum length of exposed ABC backfill prior to the installation of base course asphalt concrete shall not exceed 300 feet. Surface course asphalt concrete shall not be installed sooner than two (2) weeks after base course, but not later than three (3) weeks. All trenches six (6) feet wide or greater shall have all courses of pavement replacement installed with a self-propelled laydown machine meeting the requirements of MAG Uniform Standard Specifications Subsection 321.8.1.

8. THICKNESS REQUIREMENTS FOR ASPHALT CONCRETE PAVEMENT REPLACEMENT: NOT USED

Unless otherwise specified on the Plans, final asphaltic concrete pavement replacement for this Project shall comply with City of Mesa Detail M-19.04.1 and M-19.04.2 (which also references COM Detail M-19.01). By way of additional clarification, the streets included in this Project have the following designations.

DESIGNATION/CLASSIFICATION	ROADWAY/STREET NAMES
Arterial Street	
Major Collector Street	
Collector Street	
Local Street – Commercial	
Local Street – Industrial	
Local Street – Residential	

9. NEW WATER METER PROCEDURES: NOT USED

Contractor shall sign a Meter Order at the Building Safety Division, 55 N. Center Street, at least seven (7) calendar days prior to requesting a preliminary inspection of the water service and vault. After inspection and approval of the service and vault, the City shall deliver the meter to Contractor for installation. Contractor will be charged for the meter; Contractor shall not be charged for any applicable Development Fees. Contractor will be billed for all water usage through the meter during the time of the Contract.

10. WATER METER REPLACEMENT PROCEDURES: NOT USED

Contractor shall be responsible to remove the existing water meters and reset them in the new water meter boxes in accordance to the following procedures:

1. Contractor shall install the new water service and water meter box. The existing water service shall remain operable while the new service is being installed.

2. Contractor shall tag the existing water meter with the site address prior to removal.

3. Contractor shall remove the existing water meter and immediately reinstall it in the new water meter box to make the new water service operable.

4. At the end of each Working day, Contractor shall provide a list to the City Inspector of the sites/addresses where the existing water meter has been transferred to the new water service.

5. City of Mesa will remove the existing water meters and replace them with new meters after Contractor is complete with his/her Work at no cost to Contractor.

If it is determined that Contractor has set an existing meter incorrectly (i.e. meter installed at the incorrect address, meter installed backwards, leaking meter, etc.) Contractor will be assessed a one-time fifty dollar ($50.00) fine per meter for City to investigate and rectify the problem. In addition, if Contractor does not make a proper connection between the relocation water meter and the existing private service line, or damages the customer's private service line, Contractor will be responsible to pay for the cost of the lost water as determined by City.

11. EXCAVATIONS ENCOUNTERING CALICHE: NOT USED

Contractor is advised that Caliche, which is a calcareous soil, is a common subsurface condition in the Mesa area and may exist within the limits of this Project. Caliche varies in density and in strength. Caliche soils may contain gravel and particles of rock cemented together by calcium carbonate.

As stipulated in Subsection 601.2.1, of MAG Uniform Standard Specifications, Contractor shall perform excavation of whatever substances encountered. This shall include Caliche. Encountering Caliche shall not be considered a "Differing Site Condition" and shall not be considered under the requirements of Section 9.4 of the General Conditions.

12. TRAFFIC CONTROL AND BARRICADES:

It shall be the responsibility of Contractor to comply with the City of Mesa's Temporary Traffic Control Manual (TTCM) (latest revision found at https://www.mesaaz.gov/business/temporary-traffic-control-permits) and, where noted, the Manual on Uniform Traffic Control Devices (MUTCD) (latest revision).

TEMPORARY TRAFFIC CONTROL (TTC) PERMIT

The Contractor shall obtain a Temporary Traffic Control (TTC) Permit from the City of Mesa Transportation Department, through DIMES (*Digital Innovation for Mesa Electronic Services;* https://aca.accela.com/mesa/), prior to restricting or closing any street, sidewalk, pedestrian pathway or alley within the City of Mesa. Individual plans shall be submitted for each unique traffic control configuration. This can be done with multiple Traffic Control Permits or with one permit under which multiple configurations are defined and approved. A Temporary Traffic Control Permit Application may be submitted online using the application process found on the City of Mesa Transportation web page (https://www.mesaaz.gov/residents/streets-transportation.) There is no fee for Temporary Traffic Control Permits for this Project.

Contractor shall submit a traffic control plan and project schedule to the Engineering Department for review and approval prior to submitting for the formal TTC for all Projects allowed to have traffic restrictions. This submittal shall show placement of all traffic control devices and proposed temporary striping during all phases of construction, including all conflicting signage to be covered/removed or relocated, or other features that may conflict with the placement of temporary signage. This plan shall be professionally drawn and shall be submitted to the Engineering Department (through the standard Shop Drawing submittal process and uploaded to Kahua) no later than fourteen (14) calendar days prior to any work commencing on site and fourteen (14) calendar days prior to any proposed changes thereto.

For any proposed arterial street closures, arterial half-street closures, arterial-to-arterial intersection closures, or other restrictions with similar major traffic impacts; a minimum lead time of thirty (30) calendar days shall be required for review and approval by the Engineering Department prior to work commencing. These requests will be reviewed on a case-by-case basis.

Any request to close left turn lanes is considered a major traffic restriction. Where approved by the City, the Contractor shall provide the City Inspector a written request and schedule indicating days, times and specific locations where left turns will be prohibited at signalized intersections. When left turns are prohibited at signalized

intersections with protected left-turn signals, Contractor will notify the City Inspector at least fourteen (14) calendar days in advance. The City Inspector will notify the City of Mesa Transportation-ITS Group (480-644-5888) to make arrangements for arrow indications to be turned off during the prohibited times.

The following are considered major traffic restrictions:

- Street closures
- Half-street closures
- Intersection closures
- Left-turn prohibition at an arterial / collector
- Peak hour reduction in through lanes

Additional City reviews, coordination, and field meetings may be required. Clear, complete and accurate supporting documentation is critical for the review of these requests. The restrictions discussed in this section shall be used only for the active prosecution of the Work. Restrictions shall not be in place unless necessary to prosecute the Work.

DESIGNATED RESPONSIBLE PERSON

In addition to the responsibilities detailed in the TTCM, the designated responsible person shall:

1. Inspect all barricading and traffic control devices twice daily, and submit a daily (including weekends and holidays) reports, in writing, to the City Inspector of all inspections the next workday;

2. Ensure that existing City-owned traffic signals do not conflict with barricades and signs or give misleading signals to pedestrians and motorists. He/she shall immediately bring conflicting conditions to the attention of the City Inspector. The City Inspector will coordinate with the City's Intelligent Transportation Systems (ITS) Group (480-644-2160) for any required changes to traffic signal sequencing, timing, or outages;

3. Ensure that flaggers, when employed, are trained in accordance with O.S.H.A. regulations (29 CFR 1926.201 Signaling); and shall submit proof of certification prior to the flagger beginning Work. Proof of certification shall be available at the Work site;

4. Immediately respond to all call-outs by the City Inspector, the stand-by City Inspector, Traffic Barricade Coordinator, or Base Operations; cooperate with Police or Fire Department Investigators; and, re-establish barricades and traffic control devices, as necessary, at no additional cost to City.

TRAFFIC SIGNALS

The cost for any damage to traffic signal equipment (loop detectors, pull boxes, conduit, etc.) is Contractor's responsibility. All repair Work will be done by Contractor at their own expense to the satisfaction of City of Mesa Traffic Signal Group. Copy of standards may be obtained from the City of Mesa's Transportation Department website at https://www.mesaaz.gov/residents/streets-transportation.

ADVANCE PUBLIC NOTICE

Unless an alternative is approved in the TTC permit, advance notice to the public via Portable Changeable Message Signs (PCMS) shall be required. The following notification requirements are in addition to the requirements detailed in the TTCM. as stipulated in the City of Mesa Temporary Traffic Control Manual, Section 2.6 Advance Notice for Restrictions.

Advance notice via PCMS may be required in other situations as determined solely by the Engineering Department.

The PCMS shall be placed at each ends of the Project and at adjoining arterial and collector roadways. Unless otherwise determined by City, the PCMS shall be removed 48-hours after the indicated traffic restrictions have commenced.

RESTRICTIONS AND CLOSURES

Any equipment and material not actively being used to prosecute the work shall not be stored in the right-of-way unless otherwise approved by the City Inspector. Roadway and sidewalk restrictions and closures are limited to construction activities and are not permitted for the purpose of staging or storing equipment or debris. The storage of Tracked Equipment may be allowed, as determined solely by City.

Fence panels (*chain link or otherwise*) shall not be used in any way to cover open excavation in the right of way. If not located in active traffic area and behind appropriate traffic control barricades, fence panels may be allowed, as determined solely by City. This fencing shall remain up-right and shall restrict all access to the excavation. Fence panels shall not be laid across excavation at any time during construction activities.

No flagging of traffic will be permitted on arterial or mid-section collector streets unless approved by the TTC Permit and the City Inspector. Flagging operations shall be in accordance with the TTCM.

COORDINATION

Contractor shall coordinate and schedule Work with other Contractors in the vicinity to avoid conflicts, ensure compatibility of traffic controls, avoid duplication of signing, and minimize disruption.

Other Work may include, but is not limited to other Contractors, Utilities, City crews, and private development. Conflicts between barricading permits will be resolved through the TTCP process. Current ongoing or proposed activities include the following:

1. _____
2. _____
3. _____

Contractor shall also review the City Mesa Traffic Restrictions, Alerts, and Closures Map (mtrac) and the current City Capital Improvement map.

https://gis.mesaaz.gov/mtrac/
https://gis.mesaaz.gov/active_CIP

LOCAL ACCESS REQUIREMENTS

In addition to the requirements specified in the City of Mesa Temporary Traffic Control Manual, the following apply:

Contractor shall restore full access as soon as possible or as determined by the City Inspector. Any local street restrictions imposed shall be such that local area traffic circulation is maintained.

Business access shall be maintained at all times in a manner acceptable to the City Inspector. Any business access restrictions shall be coordinated with the affected business in writing at least 72-hours prior but not earlier than one (1) week prior to imposing restrictions unless otherwise approved by the City Inspector.

Local access shall be maintained at all times on frontage roads. Frontage roads shall not be used for through traffic, equipment parking, material storage, or spoil stockpile area. Frontage roads shall follow the same notification requirements as described above.

Access to fire stations, police stations, hospitals, City parks, and churches shall be maintained at all times unless otherwise approved by the City Inspector. When access restrictions are necessary, Contractor shall notify and coordinate such access restrictions with the responsible person in charge of the affected facility, at least seven (7) calendar days prior to any restrictions and shall restore access as soon as possible or as directed by the City Inspector. Contractor shall maintain the emergency entrance to all hospitals by way of a paved lane for emergency vehicles at all times for the duration of the Project. Contact information is as follows:

Fire Station access:	Mesa Fire Department (480-644-3388 or 480-644-2405)
Police Station access:	Mesa Police Department (480-644-2211 or 480-644-4054)

Hospital access:	Hospital Administrators
City Parks access:	Mesa Parks Superintendent (480-644-3097)
Church access:	Church Clergy

SCHOOL ZONE REQUIREMENTS

Contractor shall schedule work impacting schools during times when school is not in session, or as approved by the City Inspector. Contractor shall provide safe school zones, crosswalks, and walkways for students attending nearby schools during all hours of school use unless otherwise approved by the City Inspector. If an existing school bus route is impacted by the Project, Contractor shall coordinate with Engineering Public Relations through City Inspector at least seven (7) calendar days prior to the Work. Contractor shall restore unrestricted access as soon as possible or as directed by the City Inspector.

TRANSIT SERVICES

Construction activities affecting public transit will need to be coordinated with the City Inspector and the City Transit Coordinator.

VERTICAL PAVEMENT DROP

In addition to the requirements specified in the City of Mesa Temporary Traffic Control Manual, longitudinal drops shall be avoided and will not be permitted.

SPECIAL EVENTS

When special events are scheduled to take place within or adjacent to the Project during the construction of the Project, Contractor shall coordinate and schedule his Work to mitigate any impact to the event at no additional cost to City.

BARRICADE MORATORIUMS

No traffic lane restrictions to this Project will be permitted on public roadways during the following:

Spring Training
Easter Pageant
Temple Lights

SOLID WASTE COLLECTION REQUIREMENTS

Contractor shall ensure sanitation pick-up is not affected by relocating trash containers, or by providing alternate measures acceptable to the Environmental Management and Sustainability Department (480-644-2688).

SIGNING AND PAVEMENT MARKING REQUIREMENTS

Contractor shall be responsible for maintaining the necessary traffic control devices until the area where treatment has been applied has been re-striped and re-signed. Coordination of re-striping and re-signing shall be handled by the City Inspector. Contractor, through the City Inspector, shall notify the Transportation Department at least seven (7) calendar days prior to the time the roadway signing and striping is scheduled. No additional payment shall be made to Contractor for this coordination. Unless otherwise specified on the Plans or in these Specifications, re-striping and re-signing shall be the responsibility of Contractor and the cost thereof included in appropriate bid items on the bid schedule.

BASIS OF PAYMENT

Except as otherwise noted within this contract, barricades, traffic control devices, salaries, and other Work or materials required by this section are non-pay items, the costs of which are to be included as incidental cost for associated item(s) included on the bid schedule or Schedule of Values. All costs to comply with these requirements shall be included in the Contractor's pricing.

13. TEMPORARY PAVEMENT MARKERS: NOT USED

Unless otherwise directed by the City Inspector, temporary pavement markers shall be installed immediately after paving to allow traffic barricades to be removed and traffic to use as many lanes as possible.

Unless otherwise determined by the City Inspector, temporary pavement markers shall be installed for all longitudinal lines including but not necessarily limited to two-way left turn lines, lane lines and gore lines at exclusive turn lanes.

The Contractor shall maintain the temporary pavement markings until permanent striping is installed and complete in-place. After the permanent striping is completed, Contractor shall remove any temporary markers that remain in-place that are not in-line with the permanent striping.

The requirements of this section shall be non-pay items.

14. OFF-DUTY MESA POLICE OFFICER AND PATROL CAR: NOT USED

The Contractor shall provide off-duty Mesa police officer(s) with or without official Mesa Police Department patrol car(s) (as determined solely by the City, acting through the City Inspector) to control traffic at signalized intersections when traffic is restricted in the intersection, when work is underway in the intersection, or as otherwise directed by the City Inspector. Contact Information, Hiring Requirements, Off-Duty Agreement are available at the link below.

The Contractor is responsible for contacting the Mesa Police Department to request off-duty Mesa police officer(s) and Mesa Police Department patrol car(s).

https://www.mesaazpolice.gov/services/off-duty-employment

The off-duty Mesa police officer(s) shall be responsible for transporting the official police patrol car(s). At no time will the Contractor be allowed access to or control of the official police patrol car(s). For the purposes of this section, unmarked police vehicles do not comply with the project requirements.

If no Mesa Police officers are available for a given date and time, off-duty State Department of Public Safety (DPS) officers or Maricopa County Sheriff's deputies may be used until the next date Mesa officers are available.

15. SECURITY OVERSIGHT BY OFF-DUTY MESA POLICE OFFICER: NOT USED

The Contractor shall provide off-duty Mesa Police Officer(s) and/or off-duty City of Mesa Municipal Security Officer(s) to escort and monitor all crews working on site. The Contractor is responsible for coordinating this effort and ensuring that all crew members are escorted while in the building and surrounding secured areas. Contact Information, Hiring Requirements, Off-Duty Agreement are available at the link below. The Contractor is responsible for contacting the Mesa Police Department to request off-duty Mesa police officer(s) and/or off-duty City of Mesa Municipal Security Officer (s).

https://www.mesaazpolice.gov/services/off-duty-employment

Off-duty City of Mesa Municipal Security Officer(s) used for this Project shall be limited to those individuals who, for their "on-duty" performance as municipal security officers, are directly employed by City as official City of Mesa employees and shall not include those who are employed by an outside firm that provides said services to City through Contract or by other mechanism.

Planning, staging and execution of the Work shall be such that no more than two security escort officers shall be required at any one time (e.g., for Contractor employees working in two areas of the building), as judged solely by the City Inspector.

16. HOT ASPHALT PAVEMENT: NOT USED

Unless otherwise noted, all hot asphalt pavement shall meet the latest approved "Hot Asphalt Mix Criteria," as established by the East Valley Asphalt Committee.

Copies of the "Hot Asphalt Mix Criteria" are available on the City of Mesa Engineering Web link: https://www.mesaaz.gov/files/assets/public/v/4/business-development/engineering/approvedproducts/evac-criteria-2025.pdf

17. OVERHEAD UTILITY LINES AND POLES: NOT USED

Contractor is advised that Work on this Project is expected to require coordination with Utility Companies who run and operate overhead lines and poles. The coordination may include, but not be limited to the following activities: pole bracing, de-energizing of lines, and temporary relocations.

Contractor is responsible to contact the applicable Utility Company representative and discuss his proposed construction methods; in Order to determine what actions the Utility Company must take and the costs related to those actions. Contractor shall include these costs in the applicable bid items for this Project.

The primary and the backup representatives for his review and cost determinations are as follows:

COMPANY	PERSONNEL	OFFICE	MOBILE	FAX
CenturyLink	1. Ronijean Grant-Sloan	480-768-4294	480-748-1352	
Salt River Power	1. SRP Safety Specialist	602-236-8117		

Contractor is advised the above list does not include local cable television companies. Contractor shall determine if cable television lines are involved in the Project limits and shall contact them for similar information.

18. HORIZONTAL CURB CUTS: NOT USED

Horizontal sawcutting of existing concrete curbs to accommodate installation of new driveways and sidewalk ramps shall comply with the following requirements.

1. Shall accommodate the dimensions of the driveway or sidewalk ramp as shown in the Approved Plans, Specifications and Standard Details.

2. The horizontal sawcut shall be made from backside of the existing curb to the flowline of the existing gutter.

3. The horizontal sawcut shall be made to provide the following dimensions at flowline of existing gutter:
   a. Provide zero-inch lip (flush) at flowline of existing gutter for new driveways.
   b. Provide zero-inch lip (flush) at flowline of existing gutter for new sidewalk ramps.

4. The new cut edge along both the front and back of curb shall be ground smooth and rounded to a 0.5-inch radius.

19. ASBESTOS CEMENT PIPE (ACP): NOT USED

The removal of Asbestos Cement Pipe (ACP) is regulated by under the Occupational Health and Safety (OSHA) Safety and Health Regulations for Construction Rule (29 CFR 1926) and is considered to be Class II asbestos work. Depending on the amount of asbestos and removal process, the United States Environment Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) Rule (40 CFR 61, subpart M) may apply.

The Industrial Commission of Arizona administers and enforces state laws relating to the protection of life, health, safety and welfare of Arizona's employees, including laws relating to occupational safety and health. The Maricopa County Air Quality Department regulates all asbestos renovation and demolition within Maricopa County. The Contractor is solely responsible for compliance with the above regulations.

The removal and disposal of ACP must be performed in accordance with the City's current Policy Statement for Removal and Disposal of Asbestos Cement Pipe. That policy statement is available on the Engineering Department's website at https://www.mesaaz.gov/files/assets/public/v/1/business-development/engineering/policiesforms/asbestoscementpipe.pdf.

Payment for removal and disposal of ACP shall be per the Bid Item "Removal and Disposal of Asbestos Cement Pipe" in the bid proposal on a per linear foot basis. This bid item shall be for the removal of the ACP and all appurtenances and shall include all costs for proper abatement procedures if necessary and all costs for disposal of the pipe and appurtenances.

20. FRAME AND COVER GRADE ADJUSTMENTS: NOT USED

All frames and covers for valves, survey monuments manholes, etc., in paved areas shall be adjusted to finished grade after placement of asphalt concrete pavement. Adjustments shall be based on two different types of frame and cover.

The first are "critical frames and covers", which are defined as all frames and covers on gas valves, pressurized and active large diameter (greater than 16-inches in diameter) water line valves and valves or manholes adjacent to traffic detector loops. All "critical frames and covers" shall be adjusted to finished grade two times: once after placement of the asphaltic concrete base course, and again after placement of the asphaltic concrete surface course.

The second are "non-critical frame and covers", which are defined as frames and covers on pressurized and active small diameter (equal to or less than 16-inches in diameter) water line valves, non-pressurized water lines greater than 16-inches in diameter, sewer and storm drain manholes, and survey monuments. All "non-critical frames and covers" shall be adjusted to finished grade once, after placement of asphaltic concrete surface course.

For sewer manhole frames and covers, Contractor shall install a debris shield over the base of the manhole to catch and falling debris during the adjustment process. The debris shield shall be constructed of solid, durable material capable of containing fallen debris and shall be of sufficient diameter to prevent any debris from entering the sewer lines ("Debris Shield" by Pipeline Support Products, Inc., or approved equal). A Shop Drawing of the debris shields to be used shall be submitted to the City Inspector for approval.

The debris shield shall be installed as soon as the manhole shaft is installed, or prior to beginning paving operations, or prior to removal of any adjusting rings, frames or covers (whichever comes first) and shall remain in place throughout the entire adjustment process. The debris shield shall not be removed until all debris has been removed from the manhole and the final adjustment has been completed and approved by the City Inspector. The cost of providing and using the debris shields shall be a non-pay item.

Contractor will be required to "Sawcut" all pavement removals for the cover grade adjustments at no additional cost to City. The following additional requirements shall also apply:

1. Within 48-hours after installation of asphaltic concrete base course, Contractor shall begin making frame and cover adjustments for the "critical frames and covers" unless otherwise approved in writing by the City Inspector.

2. Within 48-hours after installation of asphaltic concrete surface course, Contractor shall begin making all frame and cover adjustments unless otherwise approved in writing by the City Inspector.

3. Contractor shall complete all frame and cover adjustments in one traffic lane at a time before beginning frame and cover adjustments in other lanes.

4. The tolerance limits of all frame and cover adjustments shall not exceed **1/8-inch** above or below the existing asphaltic concrete surface course immediately adjacent to the concrete collar. Contractor shall verify that the frame and cover adjustment is within the tolerance limits prior to placement of the concrete collar. If the frame and cover adjustment is not within the tolerance limits, Contractor shall readjust the frame and cover to within the specified tolerance limits at no additional cost to City.

5. A minimum of seven (7) calendar days prior to installation of asphaltic concrete base course, Contractor shall provide temporary markings of all frames and covers and shall prepare and submit to the City Inspector a copy of swing ties to all frames and covers in a format acceptable to the City Inspector. These markings are for the benefit of City, to be used in emergency situations.

6. Payment for frame and cover adjustment shall be in accordance with the appropriate bid items in the bid schedule. For "critical frames and covers," payment will be made twice: once for the asphaltic concrete base course and again for the asphaltic concrete surface course. For adjustment of other frames and covers, payment will be made only once upon asphaltic concrete surface course adjustment.

7. For this project, frame and cover grade adjustments shall be a non-pay item.

21. CONSTRUCTION SURVEY AND STAKING:

Contractor is responsible for providing construction survey and staking services.

1. **GENERAL**
   Contractor shall furnish the services of a surveyor professionally licensed or registered to perform land surveying in the State of Arizona. Contractor shall advise the City in writing the name and license number of the person who will perform the survey Work as a submittal. City will initially provide the alignment control points and the control elevation benchmark(s). All other surveying in connection with this Contract shall be the responsibility of Contractor-provided surveying service (RLS). At a minimum these services shall include Pre-Construction Surveys, Construction Surveys and Post-Construction Surveys and their accuracy shall be third Order or better.

2. **PRE-CONSTRUCTION SURVEYS**
   Pre-Construction Surveys include, but are not limited to:

   a. Valve and manhole ties: Prior to the start of construction, the RLS will reference all existing valves and manholes, and survey monuments to a permanent feature. A copy of all reference ties shall be provided to the City Inspector and to Contractor.

   b. Topographic Survey: The RLS shall perform topographic surveys necessary to ascertain unforeseen conditions as requested by the Engineer. These requests shall be considered additional services. The cost for these additional services shall be agreed to by the Engineer prior to the Work being performed.

   c. Elevations: When it is a requirement of the Contract for Contractor to pothole existing utilities to verify their location and elevation, the RLS shall ascertain stationing and elevations of the existing utilities and compute slopes and distances to insure potential conflicts are identified. The RLS shall provide this data to the City Inspector and Contractor sufficiently in advance of construction that remedial action can be taken.

3. **CONSTRUCTION SURVEYS**
   During construction the RLS shall provide survey services including, but not limited to:

   a. Staking: The RLS shall provide all construction staking, including right-of-way and easements, slope staking, line and grade, and other staking, from which measurement of earthwork and structures can be taken conveniently by the construction force and which will ensure the Project is constructed according to the Plans.

   b. Quantity Surveys: Quantity survey shall be conducted, and the data derived from these surveys shall be used in computing the quantities of Work performed and the actual construction completed and in place.

(1) Contractor shall conduct the original and final surveys and surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All these surveys shall be conducted under the direction of a representative of the City Engineer, unless the City Engineer waives this requirement in a specific instance. Contactor shall make the computations based on the surveys for any periods for which progress payments are requested.

(2) Promptly upon completing a survey, Contractor shall furnish the originals of all field notes and all other records relating to the survey or the layout of the Work to the City Inspector, who shall use them as necessary to determine the amount of progress payments. Contractor shall retain copies of all such material furnished to the City Inspector.

4. **POST-CONSTRUCTION SURVEYS**
Upon completion of construction and prior to submittal of record drawings, the RLS shall conduct the necessary surveys to verify final alignment and grade, location and evaluation of underground utility stubouts and permanent ties for all City-owned valves, fire hydrants, flushing lines, corporation stops, and other features as directed by the City Inspector. Promptly upon completing the survey the RLS shall furnish the original of all field notes and records relating to the post-construction surveys to the City Inspector. A copy of the field notes and records shall be retained by Contractor for use in preparation of the record drawings.

5. **DATUM**
Unless otherwise specified, all surveys shall be conducted using NAVD88 vertical datum.

6. **QUALITY ASSURANCE**
From time to time the City of Mesa Chief Surveyor shall cause a quality assurance survey to be performed.

Such survey may include, but not be limited to:

a. Review of records, methods, procedures and techniques.
b. Verification of computations.
c. Resurveying by City crews using in-place hubs, stakes and monuments.

7. **DEFECTIVE WORK**
The Chief Surveyor will notify Contractor of any non-compliance with the foregoing provisions and the actions to be taken. Contractor shall, after receipt of such notice, immediately take corrective action. If Contractor fails or refuses to comply promptly, the Chief Surveyor may issue an Order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such Stop Orders, nor ANY WORK PERFORMED WHICH MUST BE REMOVED AND REPLACED AS A RESULT OF DEFECTIVE SURVEY WORK., shall be made the subject of a claim or extension of time or for excess costs or damages by Contractor. IF RECURRING DEFICIENCIES INDICATE THE REGISTERED LAND SURVEYOR IS NOT COMPETENT TO PERFORM THE REQUIRED SURVEYS, CORRECTIVE ACTION SHALL BE TAKEN AS DIRECTED AND PROGRESS PAYMENTS WILL BE WITHHELD UNTIL SUCH CORRECTIVE ACTION HAS BEEN COMPLETED.

8. **CERTIFICATION**
Upon completion of all survey Work on this Contract, the RLS shall submit a letter to the City Engineer, on letterhead stationery, containing the following paragraph:

> "I hereby certify that all elevations, dimensions, measurements, tabulations and computations provided by me on this Contract are true, correct and accurate to the best of my knowledge and belief."

_____
(Typed Name)
Registered Land Surveyor

This letter shall cite the City Project Name and Number and shall be stamped with the RLS's professional stamp.

22. ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) DE MINIMIS PERMIT COVERAGE:

NOT USED

This Project includes the discharge of non-stormwater to a water of the United States or a regulated municipal separate storm sewer system (MS4). These discharges are regulated by the Arizona Department of Environmental Quality (ADEQ) under their Arizona Pollutant Discharge Elimination System (AZPDES) De Minimis Program which requires a permit for these discharges. The Contractor shall apply for coverage for these discharges and shall develop and implement a Best Management Practices Plan (BMP Plan). The Contractor shall also conduct all monitoring required under the De Minimis permit.

In the case where the City determines, or that Contractor expects, that a single-source or project-wide discharge is expected to be continuous for a duration of more than four (4) days, or when a discharge will exceed 0.25 million gallons in any one day, the Contractor shall submit a signed BMP Plan, including copies of the ADEQ Authorization Certificate, to the City for approval prior to any work commencing on site that would result in any such discharge. In these cases, the Contractor shall also submit copies of all required monitoring records to City and make such records available for inspection throughout the duration of the project. Receipt of such records shall be a condition for processing progress payments related to Project Work.

The Contractor shall be responsible for properly filing for permit termination (Notice of Termination, or NOT) and for submitting all information required for filing permit termination to the ADEQ.

All submittals required in this specification shall be submitted through the standard Shop Drawing submittal process.

23. TEMPORARY UTILITIES FOR CONSTRUCTION: NOT USED

"Temporary utility service" shall be defined as any utility service or usage by Contractor prior to Final Acceptance of the facility/Project ("facility") by City. For convenience, temporary utility services are classified as either "Type 1" or "Type 2." A "Type 1" service is a utility service established by Contractor for their use during construction, which service will not become part of the permanent utility service lines for the facility. A "Type 2" service is a utility service line and/or meter which will become part of the utility service lines for the facility. Any use of a Type 2 service or meter by Contractor prior to Final Acceptance of the facility by City is included in the definition of "temporary utility service." Contractor shall be required to install and maintain both Type 1 and Type 2 temporary utility services as necessary for execution of the Work under this Contract.
In the case of Type 1 services, it shall be Contractor's sole responsibility to make all arrangements as necessary for electric, telephone, gas, cable, water, and other utility services, necessary for execution of the Project Work. Contractor's responsibility shall include the setting of temporary power and telephone poles, the temporary extension of utility lines, and installation of meters. Contractor shall pay all deposits, installation fees, service charges, usage charges, monthly flat rate, and all other expenses associated with such service for the duration thereof.

For Type 2 services, Contractor shall install the service lines and meters for the facility as required by the Project Plans and Specifications. For Type 2 services, Contractor will be required to open an account with the utility company (or companies, if applicable) in Contractor's name and maintain the account in Contractor's name until Final Acceptance of the facility by City. Contractor shall pay all deposits, installation fees, service charges, usage charges, monthly flat rates, and all other expenses associated with the service through Final Acceptance of the facility by City, including utility usage for final testing and startup. However, in the case of City owned utilities, unless otherwise noted on the Plans or in the Bid Schedule, Contractor shall not be required to pay for the cost of the meter, nor the development fees associated with meter installation. Upon Final Acceptance of the facility by City, the utility service accounts and meters for the facility will be transferred to City. Contractor shall pay to the utility companies all amounts incurred prior to the transfer, including any transfer charges.

If Contractor uses water from City's water system for construction water, Contractor shall obtain a fire hydrant meter from the Building Safety Division and place the meter in his name. All construction water shall be obtained through the hydrant meter. Contractor shall pay all fees related to the hydrant meter and all water bills for construction water. Construction water shall include, but not be limited to, water for pressure testing, leakage testing, chlorination, backfill and compaction of any material, dust control, cleaning, domestic use, and sanitary use.

24. FLOOD IRRIGATION: NOT USED

When the Project is within an area subject to flood irrigation, Contractor shall contact and obtain a schedule from the person(s) responsible for scheduling and/or delivery of the irrigation water. Contractor shall Work around those dates and protect their Work from water damage. Since flood irrigation is a scheduled event, **NO** additional time or compensation will be provided to Contractor for his coordination or protection of his Work.

25. ASBESTOS-FREE FACILITY MATERIAL CERTIFICATION:

The installation or use of any materials containing a detectable quantity of asbestos for this Project is strictly prohibited. A detectable quantity of asbestos is defined as any detectable amount of asbestos using the method specified in 40 CFR 763, Subpart E, Appendix E, Section 1 Polarized Light Microscopy.

The General Contractor is responsible for insuring and certifying that all materials installed and used for this project are free of any detectable quantities of asbestos. The certification is included as an attachment and covers all Work and materials provided by the General Contractor, their Subcontractors, or other under the direction of the General Contractor. If there is no General Contractor, all other Contractors performing Work on this Project shall provide the same certification. This certification form must be signed, notarized, and submitted prior to final payment.
The asbestos material prohibition shall supersede any material that might inadvertently be specified in the Project Plans. The City shall be notified in writing seven (7) days prior to ordering any material that may contain detectable quantities of asbestos if the Approved Plans specify the use of such material. The City shall have the discretion to prohibit the use any material containing detectable quantities of asbestos and shall approve or disapprove associated changes in costs.

Should the Contractor install material containing detectable quantities of asbestos without proper notification to the City, the Contractor shall remove and replace such materials with a material that does not contain detectable quantities of asbestos at no cost to City. The installation of asbestos cement pipe (ACP) is not subject to the above prohibition and may be installed where specified on City projects.

26. DEFERRED SUBMITTALS FOR THE BUILDING PERMIT PROCESS: NOT USED

Contractor shall submit the deferred submittals to the City's Engineering Department using the standard Shop Drawing Submittal Process outlined elsewhere in these specifications. The City's Engineering Department (and/or their representatives) will review said submittals to make sure they meet the City's needs, are in compliance with the Contract Documents, and are otherwise acceptable for further review by the Building Safety Division. If the City's Engineering Department requires corrections based on their review, Contractor shall make the corrections and resubmit the revised documents to the Engineering Department using the Shop Drawing Submittal Process. When the submittals are approved by the Engineering Department, the Engineering Department will route the submittals to the City's Building Safety Division for their review or will direct Contractor to take the submittal to the Building Safety Division. Multiple reviews by Engineering Department and/or the Building Safety Division may be required.

Review times by the City Building Safety Division can exceed four (4) weeks for each review cycle, Contractor shall submit the information related to deferred submittals expeditiously. Multiple reviews may be required if the initial submittal is incomplete, inaccurate, or otherwise unacceptable. Contractor shall schedule the deferred submittals and Work accordingly. City will not grant extra Contract time or additional compensation due to multiple review cycles.

Contractor shall include in each deferred submittal the following information: information required Section 4.7.3 of the General Conditions titled "Shop Drawings," information and calculations as required by the Project Specific Provisions and Specification, and any other information that is necessary to obtain approval from the Building Code

officials. To the extent required by State law, the deferred submittals shall be signed and sealed by registered engineers or architects properly licensed to perform such design and/or calculation Work within the State of Arizona.

There is no cost to Contractor for plan reviews by the City's Engineering Department and/or Building Safety Division or for the resultant building permit(s). Deferred submittals and the requirements of this section shall be at no additional cost to City.

27. BUILDING PERMIT: NOT USED

An approved, "no cost" building permit is available for this project from the City of Mesa Building Safety Division. The building permit number is _____. The Contractor is responsible to pick-up the permit, to comply with the conditions thereof and to schedule the required inspections by the Building Safety Division. These responsibilities shall be fully discharged by the Contractor at no additional cost to the City. The inspections by the Building Safety Division are separate and distinct from the project inspections by the City Inspector. The Contractor shall be responsible for arranging for both types of inspections.

28. SPECIAL INSPECTIONS: NOT USED

Special inspections of the Project Work are required, as required in Section 1701 of the International Building Code and as a noted condition of approval of the building permit for this Project. City or its representative will provide Special Inspections services for this Project. Contractor shall be aware of the required Special Inspections and shall coordinate with the City Inspector a minimum of two (2) business days in advance of any Work that will require a Special Inspection(s) relative to the required timing of the Special Inspections. It is Contractor's responsibility to ensure that all Work requiring Special Inspections remains uncovered and available for inspection until the Special Inspections are performed. Items covered prior to the performance of Special Inspections will be subject to uncovering at Contractor's expense.

29. CONSTRUCTION WASTE AND DEBRIS DISPOSAL:

For the purposes of this section only, construction waste and debris shall be divided into two categories, which shall be defined and managed as stated herein.

Category One – Category One construction waste and debris are those materials for which Contractor is solely responsible for storage, transport and disposal. Materials in this category include hazardous materials (as defined by state and federal laws and regulations), asbestos-containing materials, lead-containing materials, PCB-containing materials, vegetation/plant materials, and earthen materials (including soil, rock, boulders, caliche, etc.). Under the direction of the City Inspector, Contractor shall be solely responsible for onsite storage, offsite removal, transport, and ultimate disposal of all Category One materials in full compliance with all local, state and federal laws and regulations. Any materials classified as a hazardous waste must be stored in proper containers, properly labeled, and documented on hazardous waste manifest. That manifest must be signed by a Resource Conservation and Recovery Act (RCRA) certified City employee before being shipped off site. The Contractor is responsible for identifying such materials, conducting any required testing of such materials, and providing a copy of the hazardous waste manifest to the City after having reached the final treatment, storage, or disposal facility. The cost of managing, storing, transporting, and disposing of Category One materials is a non-pay item.

Category Two – Category Two materials are all other construction waste and debris materials generated by the Project that can be legally disposed of in a landfill that accepts clean construction debris and/or general, non-hazardous household wastes. **Contractor must utilize City of Mesa Solid Waste services for all Category Two materials.** Contractor shall be responsible to coordinate with City Solid Waste Division to obtain and set the roll-off containers onsite. City may (at City's sole discretion) provide separate roll-off containers for different classifications of Category Two materials. For example, City may provide separate containers for metals, cardboard, plastic, "inert materials," and/or other classifications of materials. For the purpose of this section, "inert materials" are defined as the following:

clean concrete, clean asphaltic pavement, cement block, clay brick, other masonry, clean stucco (no metal), clay or cementitious roof tiles, and other City-approved cementitious materials

After the containers have been filled, City will haul off and dispose of Category Two materials that are properly sorted and placed in the roll-off containers. Contractor shall be responsible for roll-off charges including set fee, haul fee, disposal fee and other applicable fees. Contractor shall also be held responsible for any improper sorting of Category Two materials (e.g., placing prohibited materials in the roll-off containers or improperly sorting materials), including the responsibility for corrective action (e.g., re-sorting the material) at no additional cost to City. Contractor must contact the Solid Waste Division at 480-644-6789 for specific questions or to initiate service for Category Two materials.

At the completion of construction, Contractor shall be responsible for the Project Site being cleaned of any debris or spoil resulting from construction, including the removal of all storage and roll-off containers.

For projects outside of City limits, Contractor is responsible for coordinating these services with waste disposal providers in the area.

Payment for Waste and Debris Disposal shall be per the "Construction Waste and Debris Disposal" item in the bid proposal.

30. PROGRESS MEETINGS:

At a time designated by the Engineering Department a Weekly Progress Meeting will be held at the job site, unless otherwise determined by the City. Contractor, together with representatives of their major Subcontractors, shall attend, as will other City Representatives. Contractor shall be responsible for notifying the Subcontractors of their required attendance and for conducting each meeting. The purpose of these meetings is to discuss the job progress, and to resolve any problems that may have developed since the last meeting.
Verbal authorizations or acknowledgements by anyone present shall not be binding; only written authorizations as required under the Contract Document shall be effective.

31. PROGRESS REPORT: NOT USED

For Work over 60 days, Contractor shall submit monthly an updated Progress Report indicating Work completed during the preceding month and indicate any revisions to the Construction Progress Schedule. Contractor shall also submit the Progress Report with the Request for Payment.

32. CLEANING: NOT USED

PART 1 – GENERAL

A. Work Specified Herein

This section outlines requirements for cleaning of the Project. This section is complementary to the MAG Specifications, Project Specific Provisions, and Specifications and nothing herein shall be considered to waive any requirements of those documents.

B. Requirements of Regulatory Agencies

Contractor shall:

Safety and Insurance Standards:

Maintain Project in accordance with the following safety and insurance standards.

- State Industrial Commission (or Arizona)
- OSHA

Fire Protection:

Store volatile waste in covered metal containers and remove from premises daily.

Pollution Control:

Conduct clean-up and disposal operations to comply with local ordinances and anti-pollution laws. Burning or burying of rubbish and waste material on the Project Site is not permitted. Disposal of volatile fluid waste (such as mineral spirits, oil or paint thinner) in storm or sanitary sewer systems or into streams or waterways is not permitted.

PART 2 – PRODUCTS – CLEANING MATERIAL

Contractor shall:

Use only cleaning materials recommended by manufacturer of surface to be cleaned. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 – EXECUTION

Contractor shall:

A. During Construction

- During the Construction Period, ensure that the material to be used in the Work shall be kept in an Orderly manner, neatly stacked or piled.
- Clean up frequently (at least weekly) all refuse, rubbish scrap materials, and debris caused by operations, to the end that at all times the site of the Work shall present a neat, Orderly and Workmanlike appearance. Sprinkle dusty debris with water.
- Provide for the disposal of all waste products, trash, debris, etc., and make necessary arrangement for legal disposal of same off the site. Never throw rubbish from windows or other parts of building. Lower waste materials in a controlled manner with as few handlings as possible.
- Remove all surplus material, false-Work, temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from operations and put the site in a neat, Orderly condition.
- Vacuum clean interior building areas when ready to receive finish painting and continue vacuum cleaning on an as-needed basis until building is ready for acceptance.
- Schedule cleaning operation so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
- Provide trash gondolas or containers for use by all trades.

B. Final Cleaning

- Use experienced Workmen, or professional cleaners for final cleaning.
- Besides general broom cleaning, do the following special cleaning for all trades at completion of Work:
- Remove putty stains from glass; wash, polish same, inside and outside. Exercise care not to scratch glass.
- Remove marks, stains, fingerprints, other soil, and dirt from painted, decorated, or stained Work.
- Clean, polish and wax woodwork.
- Clean and polish hardware for removal of stains, dust, dirt, paint and the like.
- Remove spots, soil, paint from tile and similar Work; wash same.
- Clean fixtures, equipment; remove stains, paint, dirt, and dust.
- Remove temporary floor protections.
- Clean and polish all floors.
- Remove all temporary protections at the site.

- Clean exterior and interior metal surfaces, including doors and windows, of oil, stains, dust, dirt, paint and the like.

- Clean and vacuum all carpeted areas.

- Make buildings ready for occupancy in all respects. Lay heavy building paper in main circulation areas to protect the floors until final inspection and acceptance.

All existing improvements, inside or outside the property which are disturbed, damaged or destroyed by the Work under the Contract shall be restored to the condition in which they originally were, or to the satisfaction of City.

33. APPROVED APPLICATORS: NOT USED

Where specific instructions in these specifications require that a particular product and/or material(s) be installed and/or applied by an approved applicator of the manufacturer, it shall be Contractor's responsibility to ensure that any Subcontractors used for such Work be approved applicators.

34. CHEMICAL USAGE IN THE BUILDING: NOT USED

Contractor shall submit material safety data sheets (MSDS) to City for all chemicals and products to be used in the building. All MSDS's shall be provided to the City Inspector at least one week prior to the scheduled use of the material. Contractor, Subcontractor, and the City Inspector will hold a meeting to review the MSDS prior to the material application.

Unless otherwise directed by the City Inspector, chemical usage in the building (including such things as paint, adhesives, cleaners, etc.) shall be limited to those chemicals specially mentioned in the Project documents. Contractor shall obtain permission from the City Inspector prior to using any other chemical or cleaner in the building. For such materials, Contractor shall submit a copy of MSDS and a sample of the material to the City Inspector. The MSDS shall include information about the anticipated "volatile organic compound" (VOC) emissions from the material or Contractor shall provide said VOC information to City from other manufacturer-provided data. Materials with offensive or excessive odors or emissions or other unacceptable properties (*e.g.,* containing hazardous substances), as judged solely by the City Inspector, will not be approved for use on this Project and Contractor shall use an approved alternative material at no additional cost to City.

35. WATERTIGHT-WEATHERTIGHT: NOT USED

Anything in the Contract Documents notwithstanding, Contractor accepts the responsibility of constructing a watertight, weathertight Project.

36. HEATING: NOT USED

Should it become necessary to do any Work in the building, such as plastering, cement Work, painting, etc., at times when the temperature is below 40 degrees F., Contractor shall provide temporary heat for such length of time as deemed necessary by the Design Professional for the protection of the Work, and pay all expenses for temporary apparatus, its installation, proper maintenance and operation and for fuel.

Should temporary heat be required after permanent heating system is installed and operating, this unit may be used; however, Contractor shall pay all fuel costs and be responsible for proper operation of all heating units or systems.

37. TEMPORARY FIELD OFFICES: NOT USED

For this Project, Contractor shall provide a temporary field office trailer for City's use and a separate temporary field office trailer for Contractor's use. This section sets forth the minimum requirements for these two facilities. Said temporary field office shall be provided at no additional cost to City, the cost of which shall be distributed across other appropriate bid items.

Temporary Field Office for City's Use

Contractor shall furnish and install for City's use a separate office trailer located onsite and equipped with lighting, 110-volt electricity, heating, cooling, cold water, wastewater service, furniture, security bars, exterior locks, and tile flooring. Said trailer and shall be available for City's use for the duration of the Project. At City's sole discretion, City may elect to allow joint use of said facility with the Design Architect or Engineer, or the testing firm or construction administration firm hired by City. At the completion of the Project, Contractor shall remove the trailer from the site and restore the site.

The temporary field office provided by Contractor for City's use with its associated furnishings and equipment shall meet the following minimum specifications:

1) Size:
Minimum of 10' x 30' with two entries equipped with stairs

2) HVAC, lighting and power:
Provide a heating system capable of maintaining a uniform indoor temperature of 68 degrees Fahrenheit, and an air conditioning system capable of maintaining an indoor temperature of 76 degrees Fahrenheit. Provide light fixtures capable of maintaining average illumination throughout the trailer of 20 foot-candles at desk height at all times. Provide 110-120 volt duplex outlets spaced at not more than 12 foot intervals.

3) Rooms:
Provide two offices, a toilet room, and a meeting room for four people.

4) Required furnishings:
Provide two 30" x 60" desks, two desk chairs, two plan racks, one plan table, one four-drawer filing cabinet, one two-door steel storage cabinet, one marker board, four-person conference table, four side chairs, and two sets of shelves each approximately 6' long x 4' high x a minimum of 12" deep with three shelves spaced at least 16" apart.

5) Required equipment:
Provide 1 each of the following – small refrigerator, microwave oven, bottled drinking water dispenser with hot and cold taps, high speed collating photocopy machine.

6) Telephone service:
Provide two telephone lines. Provide two telephones, each equipped with an answering machine.

7) Internet connection:
Provide one internet connection equal to or greater than 256K DSL connection.

8) Security and keys:
Provide interior blinds and security grills on all exterior windows. Provide three sets of keys to City to operate exterior entrance locks.

9) Provide weekly cleaning service for the duration of the Project.

Temporary Field Office for Contractor's Use and for Project Meetings:

Contractor will be required to provide a separate temporary field office trailer onsite for the duration of the Project for Contractor's use. Said trailer shall be separate from the trailer provided for City's use. The Project Superintendent's office shall be located in Contractor's trailer. Within said trailer, Contractor shall provide a room where Project meetings with City and others can be held. The room shall be at least 300 square feet in size with a conference table, 20 chairs, tack board at least six square feet in size, and a large white board. The room shall be equipped with HVAC, lighting and power meeting the same specifications as City's trailer specified above.

38. NOTIFICATION REQUIREMENTS TO PARTIES AFFECTED BY THE WORK: NOT USED

Contractor shall notify the adjacent property owners, businesses, tenants, City of Mesa Departments which may be affected by this Project (such as sanitation, police, fire department, etc.), the Mesa School District and any other parties which may be affected by this Project in writing and shall distribute the notice at least 48-hours prior to, but no earlier than one (1) week prior to, doing any Work on or in front of any driveway, performing Work on or removing any Concrete Masonry Unit (CMU) walls, fences or landscape screens, or enacting any street restrictions that will affect access to their property. Notification letters shall be reviewed and approved by the City of Mesa Engineering Public Relations Office at 480-644-3800 prior to distribution to the public.

The notification shall be for the purpose of allowing the referenced parties to relocate vehicle, reschedule routes, etc. as required, prior to construction and should specify the length of time the wall will be down or the driveway and/or street will be out of service. Alternate access shall be provided as directed by the City Inspector at no additional cost to City. If there are any delays in the construction, property owners shall be re-notified.

The notice shall include a description of the Work proposed, the timing and duration of Work impacting the property, Contractor's name, and the name and phone number of Contractor's contact person. The notice shall also include the name of the City's Engineering Public Relations representative and give the City of Mesa Engineering Public Relation's phone number 480-644-3800.

Contractor shall be prepared to answer questions from the property owner about how Contractor will handle modifications to existing improvements such as landscaping, sprinkler irrigation, walls, fences, driveways, etc.

Compliance with the requirements of this section shall be at no additional cost to City.

39. CONTRACTOR ACCESS TO PRIVATE PROPERTY: NOT USED

Contractor shall not access private property to execute the Work unless access agreements(s) have been obtained prior to construction. Temporary construction easements or other easements acquired by City are shown on the Plans or are identified in the Specifications. Other access agreements needed to execute the Work shall be acquired by Contractor prior to construction. Contractor shall provide City copies of any access agreements acquired by Contractor prior to construction. No other access to private properties is allowed.

40. EXISTING IMPROVEMENTS ON PRIVATE PROPERTY: NOT USED

Contractor will be required to work on private property. Temporary Construction Easements (TCE's) or other easements have been obtained for this Work as shown on the Approved Plans. Contractor shall not disturb existing landscaping or other improvements on private property unless otherwise noted on Plans. In areas where new construction is shown on the Plans on private property, the Contractor shall limit Work to the minimum area needed to perform the new construction and shall NOT indiscriminately disturb existing landscaping or other improvements within the TCE. Areas or improvements on private property that are damaged shall be restored by Contractor to pre-existing conditions.

41. RESTORATION OF EXISTING LANDSCAPING AND OTHER IMPROVEMENTS: NOT USED

Contractor will be required to remove and restore existing landscape and landscape irrigation that is disturbed by this Project. Said landscape and landscape irrigation shall be replaced in-kind and repaired to the satisfaction of the private property owner (if applicable) and the City Inspector. All repairs and restoration shall be performed by a registered Landscape Contractor who is properly licensed with the State of Arizona. Existing conditions defined herein shall include, but not be limited to, plants, pavestones, decorative boulders, rock, gravel, masonry walls, driveways, concrete borders, planters, electrical lines, lighting, underground sprinkler systems and other landscape materials.

Where the new street right-of-way line (ROW) has been re-aligned through existing private property, Contractor shall modify and restore the private landscape irrigation system from the back of new sidewalk to the limits of the disturbed landscaped areas.

Contractor shall provide and install all piping, plumbing, mounting hardware, fittings, connections, conduit, electrical equipment, junction boxes, valve boxes, covers, plates, sprinkler heads, emitters, and all other equipment, materials and labor as required to complete the Work in a workmanlike manner and suitable for the purpose for which it was intended. All irrigation systems (i.e., sprinkler heads, bubblers, emitters, controls, etc.) serving an area affected by this Project shall be restored as required to facilitate the continued operation for their intended use.

All equipment and materials damaged during construction shall be removed and disposed of and new equipment and materials installed in its place. New equipment and materials shall be of the same type and manufacturer as the items to be replaced and shall provide equal performance.

New sprinkler heads shall have the same precipitation output as the existing lawn heads to remain. All piping, pipe fittings, couplings, sprinklers, emitters, conduit, sleeving, low voltage control conductors, service line conductors, drip line, fixtures, etc. used in the repair and restoration of existing sprinkler and emitter systems shall be new, in perfect condition, and shall comply with MAG Specification Section 757.

All sprinkler heads in existing lawn areas in the path of the new construction shall be removed and relocated as required to provide complete coverage of the lawn area without overspray on sidewalks and walls. If the trees and plants being removed are served with drip irrigation or bubblers, said irrigation system shall be modified to eliminate the irrigation serving the removed tree and/or plant locations such that the remaining system remain in good Working Order to serve all other trees and/or plant materials.

All existing backflow prevention units, controllers, and irrigation control valves in the path of new construction shall be relocated into existing landscaped areas within Temporary Construction Easements away from proposed utilities and underground electrical lines. Completely remove the entire assembly and all accessories and connections leaving the entire space free from exposed parts. Provide and install all piping, plumbing apparatus, mounting hardware, fittings, connections, conduit, electrical apparatus, junction boxes, valve boxes, covers, plates, etc. as required to complete the Work in a Workmanlike manner and suitable for the purpose for which it was intended. All equipment damaged during relocation shall be removed and disposed of and new equipment installed in its place. New equipment shall be of the same type and manufacturer as the equipment to be replaced and provide equal performance and the new construction shall be in accordance with City of Mesa's Standard Details for landscape irrigation system backflow prevention devices.

Where decorative surface gravel or rock exists, Contractor shall remove existing gravel or rock away from the area to be disturbed and away from the area where excavated material will be placed. Any existing plastic under gravel or rock shall be pulled back or removed. The trenches shall be backfilled and compacted to 90% (minimum) of maximum density. After backfilling, the plastic shall be pulled back into place or replaced with 3-mil (minimum thickness) black plastic and the rock or gravel put back into place on top of the plastic. Contractor shall augment the rock or gravel with matched material, as necessary to cover/hide the plastic and underlying soil.

Protection and restoration of property and landscaping shall comply with MAG Specification Sections 107.9, 107.10 and 107.11. Unless otherwise noted on the Plans, all replacement plants, trees and shrubs shall be of the same species and equivalent size as the plant, tree or shrub being replaced, as determined by City Inspector. Notwithstanding said requirement, the minimum tree size shall be 24-inch box and the minimum shrub size shall be 5-gallon.

Restoration Work shall include rough and fine grading, placement of decomposed granite, planting and staking of plant materials, restoration of turf areas, etc. Unless otherwise stated on the Approved Plans, turf area shall be re-established and restored by re-seeding.

Contractor shall be required to provide a temporary water source to the vegetation (including hand watering, if necessary) until the landscape irrigation system is restored to full function at no additional cost to City.

Unless otherwise determined by the City Inspector, Contractor shall complete all repairs and/or restoration Work on damaged or disturbed landscape irrigation systems and damaged electrical lines and lighting within 24-hours of such damage or disruption.

For each parcel, unless otherwise determined by the City Inspector, Contractor shall complete repairs and restoration Work on landscaping within one week after completion of Project Work on that parcel. In addition, the total duration of Project (including disturbances to the landscape and landscape irrigation) on any one parcel shall not exceed 60 days, unless otherwise approved by the City Inspector.

Compliance with the provisions of this section shall be at no additional cost to City of Mesa.

42. RELEASE FORM FOR DISTURBANCES TO PRIVATE PROPERTY: NOT USED

Contractor shall provide all property owners whose private property is disturbed by the Project Work and/or related activities (referred to hereafter as "Project Work") with a copy of the attached Release Form.

In addition, if there are existing "qualifying improvements" within the public right-of-way (*i.e.*, not on private property) that are disturbed by the Work, Contractor shall provide the owner of the immediately adjacent private parcel with a copy of the attached Release Form. "Qualifying Improvements" shall include landscaping, landscape irrigation, residential driveways, business access drives/driveways, monument signs, privately-owned signage, business parking lot improvements, and other items (as judged solely by the City Inspector) that the adjacent property owner installed, constructed and/or maintains. "Qualifying improvements" shall not include public street improvements, or public utility lines.

The Release Form shall be used to address restoration of existing improvements on private property and restoration of "qualifying improvements" in public right-of-way and/or easements.

City will withhold 10% of the total payment for restoration of existing improvements on private property and restoration of "qualifying improvements" in public right-of-way and/or easements until Contractor has provided copies of all signed Release Forms to the City Inspector.

43. CITIZEN COMPLAINT RESOLUTION: NOT USED

Contractor shall respond to all customer/citizen calls or complaints resulting directly or indirectly from this Project within two hours of receipt and shall resolve any issues within 48 hours. Contractor shall keep the City Inspector and Engineering Public Relations Representative aware of all such calls and complaints within 24-hours of receipt and their resolution. Compliance with the requirements of this section shall be at no additional cost to City.

44. BUSINESS ACCESS: NOT USED

Business access signs (COM Detail M-24) and driveway access shall be provided for all businesses that are impacted by this construction, including impacts by traffic controls and restrictions. For each business access sign, the City of Mesa Inspector may also require the Contractor to provide and install a personalized business access sign (COM Detail M-24.01 or M-24.02).
Additionally, the contractor shall ensure that these access points are properly sized, swept and/or graded to provide a safe and smooth riding surface as required by the City of Mesa Inspector.

45. WATER SYSTEM SHUTDOWN: NOT USED

Contractor shall notify property owners and tenants in writing 48 hours in advance of any interruption in water service. The City Engineering Public Relations Representative at 480-644-3800 shall approve the notification letters prior to distribution.

Unless otherwise approved by the City Inspector, water service shall not be interrupted for more than a period of four (4) consecutive hours, and not more than once per 24-hour period.

46. HAZARDOUS LOCATIONS: NOT USED

The existing and any proposed wastewater (sewer) structures (including lift stations, diversion structures and manholes) shall be treated as hazardous locations. They are confined spaces and may have explosive and/or asphyxiating concentrations of methane gas, hydrogen sulfide gas, and/or other gases or vapors.

All Work shall be conducted in a safe and cautious manner consistent with the potential hazardous conditions. The Contractor shall be responsible to comply with all local, state, and federal laws and regulations that govern Work in such environments.

In Work operations in hazardous locations, spark-proof tools and explosion-proof temporary lighting shall be used. Electric power tools, open flame heaters, electric welding equipment, or other devices or methods that might conceivably cause ignition or explosion shall not be used. Welding Work is permitted provided all safety precautions and measures (in full compliance with all applicable federal, state and local laws and regulations) are practiced in conjunction with obtaining a Hot Work permit for the extent and duration of said welding Work.

The Work shall include sampling the atmosphere for hazardous gases and vapors. If the atmosphere proves unsafe, Contractor shall provide a safe Working atmosphere at no additional cost to City. The atmosphere shall be continually monitored during the Work period.
Smoking in or near the Work Area shall not be permitted. Suitable, prominent "No Smoking" signs shall be posted.

Contractor shall have a written policy and an active program for Confined Space Entry that complies with federal, state, and local laws and regulations. Contractor shall submit his/her policy and program, as a required Shop Drawing Submittal.

The City Inspector may have need to enter the manhole under Contractor's safety program to perform observations and/or testing. Contractor shall provide the necessary safety equipment, monitoring and safe Working atmosphere to allow the City Inspector to safely enter the manhole, at no additional cost to City. The City Inspector will provide Contractor with evidence of current Confined Space training.

Contractor is responsible for safety of the job site, including the responsibility to enforce and enact the provisions of Contractor's Confined Space Entry Program and the responsibilities to monitor the atmosphere within the structures and provide a safe Working atmosphere and environment. These safety measures shall be at no additional cost to City. City shall not be responsible for safety or for safety monitoring of the job site.

47. PROJECT IDENTIFICATION SIGN – TYPE 1: NOT USED

Unless otherwise determined by the City Inspector, Contractor shall install a Project identification sign(s), as specified herein, a minimum of one week prior to the start of construction. Unless otherwise directed by the City Inspector, for street Projects and similar "horizontal Work" Projects, the Project identification signs shall be placed at both ends of the Project. Unless otherwise directed by the City Inspector, for "vertical" construction Projects, one Project identification sign shall be placed at the main construction entrance to the site. Contractor shall obtain City Inspector approval for the proposed location(s) of the signs prior to installing them.

City has contracted with a sign company to provide the Project identification signs for City of Mesa Projects. The Contractor shall coordinate order and delivery of said signs with the City of Mesa Engineering Public Relations Representative at 480-644-3800. City will provide the sign(s) for the Project to Contractor at no cost to Contractor. Creation of the signs is estimated to take up to fourteen (14) calendar days. Contractor shall allow sufficient time in the Project Schedule for this activity.

Unless otherwise approved by the City Inspector, each sign shall be mounted either by rigid timber posts or a flexible system able to accommodate the size and weight of the sign. Rigid posts shall be two 4" x 6" timber posts and embedded in the ground. The flexible stand shall be Windmaster or approved equal. Both mountings shall be provided by Contractor at no cost to City.

48. PROJECT IDENTIFICATION SIGN – TYPE 2: NOT USED

Unless otherwise directed by the City Inspector, one Project identification sign (as specified herein) shall be placed at each end of the Project Work area on each street. Contractor shall obtain City Inspector approval for the proposed locations of the signs prior to placing them. For each street segment, unless otherwise approved, the signs shall be in-place a minimum of one week prior to the beginning of construction on that street segment and shall remain in place until construction is completed and approved on that street segment. When all Work on a

given street segment is complete as determined by the City Inspector, the sign for that street segment may be relocated elsewhere within the Project Site.

Contractor-provided signs shall be 4' x 4' in size. Each sign shall have the following information:

OFFICIAL PROJECT NAME

CITY OF MESA PROJECT NO. (FILL IN THE CORRECT INFO)

_____(DATE)_____ TO _____(DATE)_____
mm/dd/yy mm/dd/yy

FOR MORE INFORMATION, CALL (480) 644-3800

The letters shall be a minimum of 4-inches high. Lettering shall be black on a construction orange background. Sign material shall be reflectorized and shall be post mounted or on moveable bases, or as approved by the City Inspector.

The City of Mesa's Engineering Public Relations office (480-644-3800) shall review and approve the sign layout and verbiage before Contractor will be permitted to make the signs.

Compliance with the requirements of this section shall be at no additional cost to City.

49. RESPONSIBILITY FOR CABLING AND WIRING: NOT USED

City will provide and install the cabling and wiring for the following building systems for this Project.

- Radio communications

Said materials and labor provided by City shall not be included in the Contract Price. City will perform said labor with its own forces or by Contracting with outside third parties. This Work by City and/or its representatives will occur during the construction Contract for this Project.

Contract shall grant City or its representative's access to the building throughout the construction period so that City or its representatives can install the indicated cabling and wiring. Contractor and City shall coordinate schedules to avoid conflicting Working conditions and to avoid installation of conduits or wiring in conduit that is scheduled for disruptions or removal.

Unless otherwise noted in Contract Documents, the cabling and wiring for the following building systems included in this Project will be by Contractor, the cost of which shall be included in the Contract Price(s):

- Data
- Telephones
- Fire Alarm
- Cable television (CATV)
- Alert/dispatch system (for fire stations)
- Closed circuit television (CCTV)
- Security and access control system

50. SECURITY REQUIREMENTS – NO BADGES: NOT USED

This Project is Level 0 and does not require security clearances or badges for contract.

The required "Contractor Verification Form" is included at the end of Attachment B.0 and shall be submitted as a Submittal prior to beginning work. Contractor is required to submit the "Contractor Verification Form" for all Subcontractors.

51. SECURITY REQUIREMENTS – BADGES REQUIRED:

Special security requirements apply to this Project as outlined in this section. For the purpose of this section, Contractor includes all Contractor and Subcontractor staff.

The following checked City of Mesa Security Level shall apply to this Project (levels that are not checked do not apply). **Requirements are detailed for each of the security levels in Attachment B** attached to these Project Specific Provisions and in the remainder of this section.

☒ Level 1: (Attachment B.1)
☐ Level 2: (Attachment B.2)
☐ Level 3 Escorted: (Attachment B.3)

The required forms to be used with this Project are included in the attachments. The forms must be completed in entirety prior to submission. In lieu of completing the "Background Authorization" form, a contractor can provide a valid Arizona Department of Public Safety (DPS) Identity Verified Prints (IVP) Clearance Card for Level 1 or 2.

Every person requiring access to the Project site shall be required to obtain clearance per the procedures in Attachment B. Access to the site will not be permitted until clearance is granted by City. Contractor shall allow sufficient time for these processes, as detailed in Attachment B.

If any individuals are not permitted access to the site, as determined solely by City, or if Contractor has personnel changes, Contractor shall promptly submit the information required for replacement individuals following the same procedures outlined above and allow time for City review and background check. No additional cost or claims will be paid to Contractor related to individuals who are not permitted access to the site.

Except as otherwise specifically noted, compliance with the provisions of this section shall be a non-pay item.

Photo Identification Badges

After Contractor has received notification from City that an individual has passed the background check, Contractor shall follow the procedure in Attachment B to obtain a badge from the Badging Office. After Contractor has received notification from the Badging Office, Contractor can collect badges from the Badging Office at 340 E. Sixth Street. Contractor is advised to call 480-644-5113 prior to collection to ascertain the latest hours and days of operation for the Badging Office.

After obtaining a City of Mesa-issued photo identification badge, everyone shall wear their badge at all times while onsite.

The photo ID badges remain the property to City of Mesa and Final Payment to Contractor will not be made until the photo ID badges are returned to City. Failure to return Contractor and Subcontractor photo ID badges will result in liquidated damages retained in the amount of $100 per badge.

52. STAGING AREA AND USE OF THE SITE:

Contractor may use a portion of the site as a staging area, as shown on the coversheet of the Approved Plans. The area available to Contractor's for staging and storage is limited to the area shown on said plan sheet. If Contractor requires additional storage or staging area, they shall be solely responsible to provide it at an off-site location at its own expense.

Unless otherwise approved by the City Inspector, all equipment and stored materials left onsite when Contractor is not onsite shall be secured in said staging area. Contractor shall be responsible for the security of the Project Site and the staging area. At a minimum, the staging area shall be enclosed by a 6-foot (minimum) height temporary chain link fence with barbed security top and with lockable gates.

Contractor shall confine their Work, materials storage, and activities at the site to the designated staging area, plus the areas noted for construction on the Approved Plans. Contractor shall not unreasonably encumber the site, as determined solely by the City Inspector, with materials or equipment.

Unless otherwise approved by the City Inspector, equipment and material not actively being used to prosecute the Work shall not be stored in the right-of-way.

53. NO STAGING AREA PROVIDED: NOT USED

City has made no provisions for a staging area for this Project. If Contractor requires or desires a staging area, they shall make their own arrangements for a staging area. City will not be party to said arrangements or agreements with outside parties for a staging area. The City does, however require a copy of any lease agreements (or similar documents) for project staging areas.
Responsibility for the staging area shall be solely Contractor's. City shall bear no responsibility for the security or condition of the staging area during or after the Project. The staging area (if provided) shall be at no additional cost to City.

54. LOCATE/VERIFY EXISTING SEWER SERVICE LATERAL CROSSINGS: NOT USED

On all properties that will have a new gas service line installed, Contractor shall be required to locate the existing sewer service line from the existing sewer main to the home/business prior to installing the gas service line. If (after locating the existing sewer service line) the proposed gas service line will be located within 24-inches (vertically or horizontally) from the existing sewer service line, the Contractor shall be required to verify the gas service line has not encroached on the existing sewer service line using one of the following options as approved by the City of Mesa Gas Inspector:

A. If the proposed gas service line will be installed parallel to the existing sewer service line but will not cross the existing sewer service line, the Contractor shall expose the existing sewer service line at 10-foot intervals or at least three (3) separate locations (which ever results in the greater number of locations) along the encroachment to ensure the proposed gas service line maintains a minimum separation of 12-inches between the gas service line and the existing sewer service line.

B. If the proposed gas service line crosses the existing sewer service line, the Contractor shall expose the existing sewer service line at the point it crosses to ensure there is a minimum separation of 12-inches between the proposed gas service line and the existing sewer service line.

C. In the event an existing sewer service is not able to be located and with the approval of the City of Mesa Gas Inspector, the Contractor may proceed with the installation of the gas service line in one of the following final manners:

1. Install the gas service line per the approved plans and video the existing sewer service from the sewer main in the street to as close to the house/building as possible to ensure the new gas service line does not encroach on the existing sewer service line.

2. Install the gas service line in the location called out in the approved plans using open-cut trenching.

The Contractor shall be responsible for repairing any damage incurred to the existing sewer service line when installing the new gas service line at no additional cost to the City.

The Contractor may also use open cut installation of the gas service line in lieu of boring if horizontal or vertical separation of less than 24-inches will exist. Open cutting may be used only as directed and approved by the City of Mesa Gas Inspector and shall not be used as the normal means of installation of gas service lines.

The Contractor shall coordinate work with the Gas System Inspector to complete a Sewer Lateral Inspection Report (Attachment C) for each address where a new gas service line is installed. In addition, the Contractor shall provide the City of Mesa Gas Inspector an MP4 video of each sewer service line as required in C.1 above to be videoed with the service address clearly identified on the video. The Contractor shall include costs for locating/verifying the existing sewer service lines (in accordance with this Section) in the bid item titled "Locate/Verify Existing Sewer Service Lateral." Payment will be "per each" sewer service line thus located.

55. VIDEO EXISTING SEWER SERVICE LATERAL CROSSINGS: NOT USED

On all properties that will have a new gas service line installed, Contractor shall video camera existing sewer service laterals after installing the gas service line. Contractor shall video all sewer service lines from the sewer main in the street to as close to the house/building as possible as determined by the City of Mesa Gas Inspector.
If Contractor is unable to video the exiting sewer service line, Contractor shall notify the City of Mesa Gas Inspector for approval to verify minimum clearance requirements by other electronic locating means.

Contractor shall complete a Sewer Lateral Inspection Report (attached as Attachment "C") for each address where a new gas service line is installed. In addition, Contractor shall provide the City of Mesa Gas Inspector a Digital Video DVD of each sewer service line videoed with the service address clearly identified on the video.

Contractor shall include its costs for videoing the existing sewer service lines in the Contract Price.

56. UTILITY CROSSINGS USING BORING METHODS: NOT USED

Refer to Engineering Department Policy Statement posted on the City's Engineering Website:
https://www.mesaaz.gov/files/assets/public/v/1/business-development/engineering/policiesforms/streetutilitycrossings.pdf.

57. ASBESTOS INSPECTIONS: NOT USED

An inspection of this facility has been conducted by an Environmental Protection Agency certified Asbestos Hazard Emergency Response Act inspector(s). The results of that inspection are included in the Contract documents. The Contractor shall be provided a complete copy of this report and shall keep a copy of this report on-site during all demolition or renovation activities.

58. ASBESTOS-CONTAINING MATERIALS: NOT USED

This project is expected to potentially impact asbestos containing materials (ACM). ACM is any material that contains 1% or greater asbestos fibers. Only that ACM that will be disturbed as part of this project will be required to be abated. All ACM shall be managed in accordance with the City of Mesa Asbestos Abatement Procedures manual.
A copy of the most recent version of that manual and a pre-job submittal review of content form is available at the following address: https://www.mesaaz.gov/files/assets/public/v/1/environmental-sustainability/constructionrequirements/asbestosabatementprocedure.pdf. All submittals required in this specification or in the manual referenced herein shall be submitted through the standard Shop Drawing submittal process.

Additional abatement may be necessary if additional materials not previously sampled are discovered during demolition/renovation activities. If the Contractor identifies a suspect material that was not included in the report prepared for this project, the City shall be contacted within one (1) hour of the discovery of the new material.
The suspect material shall not be disturbed until further direction is received from the City. Newly identified materials may be sampled by the City to determine if they are ACM. The City will not pay for abatement of additional ACM unless they are reported and sampled as described herein.

59. NESHAP 10 DAY NOTIFICATION FOR DEMOLITION AND/OR RACM ABATEMENT: NOT USED

The Contractor is responsible for submittal of the National Emission Standards for Hazardous Air Pollutants (NESHAP) ten (10) day notification to the applicable regulatory agency for the demolition of any load-supporting structural member of a facility and/or abatement of threshold quantities of regulated asbestos containing material (RACM).

Copies of the NESHAP notification shall be submitted through the standard Shop Drawing submittal process. Copies of payment fees associated with NESHAP Notification shall be included with the submittals.

60. LEAD PAINT: NOT USED

An inspection of this facility has been conducted by an Environmental Protection Agency certified lead inspector(s) and/or a certified risk assessor. The results of that inspection are included in the contract documents.

This project is expected to impact lead-based paint (LBP) paint or other surface coatings. LBP contains lead equal to or in excess of 1.0 milligrams per square centimeter or more than 0.5 percent by weight (equivalent to 5,000 parts per million) as established by the U.S. Department of Housing and Urban Developmental and the U.S. Environmental Protection Agency. LBP, and/or the materials coated with LBP, is characterized as a Resource Conservation and Recovery (RCRA) hazardous waste if bulk sample analysis for lead using the Toxicity Characteristic Leaching Procedure (TCLP) exceeds 5.0 parts per million.

Only that LBP that will be disturbed as part of this project will be required to be abated. All LBP shall be managed in accordance with the City of Mesa Lead-Based Paint Abatement Procedures manual. A copy of the most recent version of that manual and a pre-job submittal review of content form is available at the following address: https://www.mesaaz.gov/files/assets/public/v/1/environmental-sustainability/constructionrequirements/leadbasedpaintabatement.pdf.

After the abatement is completed, appropriate waste disposal documentation shall be submitted to the City. Receipt of such shall be a condition for processing progress payments related to LBP abatement work. For LBP materials classified as a RCRA waste, the waste manifest must be signed by appropriately trained and certified City personnel prior to shipment from the point of generation.

61. DRYWELL INSTALLATION: NOT USED

This project involves the installation, upgrade, or removal of a drywell system(s). Drywells must be registered with the Arizona Department of Environmental Quality (ADEQ), except those used in conjunction with golf course maintenance activities.

Additionally, a permit under the ADEQ's Aquifer Protection Permit (APP) program is required for drywells draining areas where:

1. Hazardous materials are used, stored, or loaded;
2. Motor fuel dispensing operations occur;
3. Motor fuels are used, stored, or loaded; or
4. Vehicle and equipment washing occur.

The City is responsible for ensuring drywells are properly registered and permitted.

The Contractor shall be responsible for supplying the following information to the City after drywells have been constructed to ensure that drywells can be accurately registered, permitted, and properly maintained.

- Facility name;
- Facility address;
- Cadastral location [ie: Township, Range, Section (ie: section, ¼, ¼, ¼)];
- Site plan showing location of each drywell;
- Manufacturer and model of each drywell;

- Lat/Long coordinates (in NAD 1983) of the standpipe in each drywell
- As-built diagrams of the drywell (vertical profile) to include the following:
  - All chambers and manway accesses;
  - All subsurface inlets;
  - Total depth and diameter of borehole(s);

  - Total depth and diameter of each chamber;
  - Drainage pipe and screened sections;
  - Depth, length and diameter of all connector pipes (where used);
  - Base seal type (e.g. geotextile, poly liner or concrete slurry);
  - Screens, shields, regulators, overflow pipes, etc.; and,
  - All pollution controls;
- Driller's log(s).

Where a drywell is being removed, the Contractor shall do so in accordance with the ADEQ's Drywell Decommissioning Guidelines. The Contractor shall submit copies of the written verification to the City as well as to the ADEQ.

All costs associated with this requirement shall be included in the Contractor's pricing. The above-listed project submittals shall be provided to the City. Receipt of such shall be a condition for processing progress payments related to drainage work conducted under this contract.

62. REMOVAL OF UNIDENTIFIED UNDERGROUND STORAGE TANKS (UST): NOT USED

In the event an underground storage tank (UST) system is discovered within the limits of this project, the Contractor shall immediately notify (within one hour of identification) the City Inspector. The UST system shall not be further disturbed until further direction is given from the City Inspector. If it is determined that petroleum contaminated soil is present as a result of the presence of the UST system, this shall be managed under the "Petroleum Contaminated Soil" project specification as outlined in these Project Specific Provisions.

The City will utilize the service of their Hazardous Materials Response Contractor and/or an Arizona Department of Environmental Quality (ADEQ) certified tank service provider to remove or properly abandon the UST system and remove any surrounding impacted soils at no additional expense to the Contractor. The City shall manage all aspects of the removal of the UST system including proper notification to regulatory agencies.

After the UST system and any impacted soils have been removed, the City will make arrangements with the Contractor through the change order process to backfill the excavated areas with compacted uncontaminated soil per MAG Specification Section 211. The Contractor shall make arrangements for obtaining imported borrow materials to meet the requirements as noted in MAG Specifications Sections 210 and 211. All backfill shall be compacted to a uniform density of not less than 95 percent.

63. REMOVAL OF SEPTIC SYSTEM: NOT USED

In the event a septic tank and/or leach field (septic system) is discovered within the limits of this project, the Contractor shall immediately notify (within one hour of identification) the City Inspector. The suspect materials shall not be further disturbed until further direction is given from the City Inspector. Suspect material may be sampled by the City to classify the type of waste stream that applies to the contents of the tank.
If it is determined that petroleum contaminated soil is present as a result of the presence of the septic system, this shall be managed under the "Petroleum Contaminated Soil" specification as outlined in these Project Specific Provisions.

If the contents of the septic tank itself is a waste that requires specialized personnel to manage its removal (i.e. hazardous waste), the City will utilize the services of their Hazardous Materials Response Contractor to remove the contents of the tank itself, and any surrounding impacted soils at no additional expense to the Contractor. In this case, the City will manage all aspects of the removal of the septic system including proper notification to regulatory agencies.

If contents of the septic tank itself and any surrounding soils are a waste that does not require specialized personnel to manage its removal, the City will make arrangements with the Contractor through the change order process to remove the contents of the septic tank and to properly abandon the septic tank in accordance with the Maricopa County Health Code after providing proper notification to the Maricopa County Environmental Services Department.

In any case, after the septic tank and any impacted soils have been removed, the City will make arrangements with the Contractor through the change order process to backfill the excavated areas with compacted uncontaminated soil per MAG Specification Section 211.

The Contractor shall make arrangements for obtaining imported borrow materials to meet the requirements as noted in MAG Specifications Sections 210 and 211. All backfill shall be compacted to a uniform density of not less than 95 percent.

64. REMOVAL OF PETROLEUM CONTAMINATED SOIL (PCS): NOT USED

In the event that petroleum contaminated soil (PCS) is discovered within the construction limits of this project, the Contractor shall immediately notify (within one hour of identification) the City Inspector. The suspect material shall not be further disturbed until further direction is given from the City Inspector. Suspect material may be sampled by the City to classify the type of waste stream that applies to the impacted soil. All PCS shall be protected from the elements at all times until removed from the site and disposed of at a landfill.

If it is determined that the removal of the PCS requires specially trained workers (HAZWOPER trained) to remove the soil, the City will use the services of its Hazardous Materials Response Contractor to remove the PCS at no additional expense to the Contractor.
If it is determined that the removal of the PCS does not require specially trained workers and the Contractor agrees, the City will make arrangements with the Contractor through the change order process to properly dispose of the PCS at a landfill that meets all the applicable state and federal guidelines for disposal of this type of waste stream. The Contractor shall supply copies of all waste disposal documentation for PCS removed by them. Receipt of such shall be a condition for processing progress payments related to the PCS excavation work.

In either case, after excavation is completed the City may sample the soils to confirm that all PCS has been removed. After the removal of all PCS has been confirmed, the City will make arrangements with the Contractor through the change order process to have the Contractor backfill the excavated areas with compacted imported soils per MAG Specification Section 211. The Contractor shall make arrangements for obtaining imported borrow materials to meet the requirements as noted in MAG Specifications Sections 210 and 211. All backfill shall be compacted to a uniform density of not less than 95 percent.

65. DISPOSAL OF EXISTING FLUORESCENT LIGHT BALLASTS AND BULBS: NOT USED

The Contractor shall remove all existing fluorescent light bulbs, including Compact Fluorescent Lamps (CFLs), and ballasts from the existing fluorescent light fixtures that are called out for demolition or removal. The Contractor shall carefully examine the ballasts to determine if they contain polychlorinated biphenols (PCBs). Ballasts that are not labeled as containing "no PCB's" shall be assumed to contain PCB's.

The Contractor shall safely store fluorescent light bulbs/CFLs, and PCB ballasts in properly labeled and approved containers until shipped offsite for disposal. Fluorescent light bulbs/CFLs that are either already broken or broken during or after removal shall be stored separately from those that are removed intact.
The Contractor shall have a mercury spill clean-up kit on-site at all times during the removal of fluorescent light bulbs/CFLs and shall promptly clean up after any broken bulbs and CFLs.

PCB ballasts and broken fluorescent light bulbs/CFLs shall be shipped and disposed of as a Resource Conservation and Recovery Act (RCRA) hazardous waste. Intact fluorescent light bulbs shall be shipped and disposed of as a RCRA universal waste. Waste manifests or shipping papers from these waste streams must be signed by appropriately trained and certified City personnel prior to shipment from the point of generation.

66. USE OF CRANES IN VICINITY OF COMMUNICATION TOWERS: NOT USED

No cranes, booms, or equipment, at a height of 50-feet or more, can be located in or pass through the microwave dish transmission zone of communication towers.

67. SECURITY AND CONFIDENTIALITY PROTECTIONS: NOT USED

Contractor acknowledges and agrees that its employees, subcontractors, and agents working on the Project who have access to, or information about, the Project need to protect this information from disclosure to persons other than City staff and persons working directly on the Project.

Contractor shall ensure that its workforce has received position-appropriate security training and awareness. This includes specialized training for those involved in the design, development, manufacture, testing, shipping, installation, operation, and maintenance of the Project, as part of the Contractor's security program, including cybersecurity.

Contractor shall ensure that policies and procedures are followed to prohibit the unauthorized disclosure of knowledge, information, architectures, or configuration relevant to the Project and the City's system.

68. BUILDING PLAQUE: NOT USED

Contractor shall provide a building plaque at the location shown in the construction documents, or otherwise designated by the City. The plaques shall be in accordance with Mesa Standard Detail M-2. The contractor shall provide a submittal of the plaque to confirm names and wording on the plaque and final location on the building.

69. SUBCONTRACTOR BONDS: NOT USED

For Contracts whose value is in excess of $4,000,000, Subcontractors whose scope of Work involves the following Work may be required, at the discretion of the City Engineer, to furnish performance and payment bonds to Contractor as a prior condition to Subcontractor's performance of any Work:

1. Mechanical
2. Electrical
3. Plumbing
4. Structural
5. Fire Protection
6. Roofing
7. Termite Control
8. Subcontract with a value greater than 15% of total Contract amount.

If a bond as set forth in this Section is required by the City Engineer, the bond shall be delivered to City a minimum of fourteen (14) calendar days prior to Subcontractor's performance of any Work, and shall satisfy the following requirements:

A. Performance Bonds shall be in an amount equal to the full subcontract amount conditioned upon the faithful performance of the Subcontract in accordance with Plans, specifications and conditions thereof. Such Bonds shall be solely for the protection of Contractor and City. City shall be named as an Obligee in all Subcontractor Performance Bonds.

B. Payment Bonds shall be in an amount equal to the full subcontract amount conditioned solely for the protection of claimants supplying labor or materials to Contractor in the prosecution of the Work provided for in such subcontract.

C. Bonds shall include a provision allowing the prevailing party, in a suit on such Bond, to recover as a part of their judgment such reasonable attorney's fees as may be fixed by a judge of the court.

D. Bonds shall be executed by a surety company or companies duly authorized to do business in the State of Arizona, shall be made payable and acceptable to Contractor, shall be written or countersigned by an authorized

representative of the surety who is either a resident of the State of Arizona or whose principal office is maintained in this State, as by law required, and the bonds shall have attached thereto a certified copy of Power of Attorney of the signing official.

70. AIRPORT DRIVING SAFETY TRAINING:

Contractor personnel that will be driving air-side at Falcon Field Airport are required to take mandatory Safety and Security Training. Details and access to training will be discussed at the Pre-Construction Meeting and must be completed prior to on-site activities.

71. AIRPORT GATE ACCESS:

The contractor shall use the existing gate at the west end of Fighter Aces Drive for all ingress and egress of the airport site. The access gate location and haul route are shown on the construction drawings.

72. CONSTRUCTION SCHEDULE:

The Contractor shall reference the Construction Duration Table shown on Drawing, C2.1. Falcon Field Airport will accommodate the work for the durations shown. All on site construction activities shall be completed within the number of calendar days allotted. Note, this is different than the contractual days which include all other contractual obligations other than on-site work.

73. SECURITY AND CONFIDENTIALITY PROTECTIONS:

Contractor acknowledges and agrees that its employees, subcontractors, and agents working on the Project who have access to, or information about, the Project need to protect this information from disclosure to persons other than City staff and persons working directly on the Project.

Contractor shall ensure that its workforce has received position-appropriate security training and awareness. This includes specialized training for those involved in the design, development, manufacture, testing, shipping, installation, operation, and maintenance of the Project, as part of the Contractor's security program, including cybersecurity.

Contractor shall ensure that policies and procedures are followed to prohibit the unauthorized disclosure of knowledge, information, architectures, or configuration relevant to the Project and the City's system.

74. SUPPLEMENTAL INSTRUCTION TO BIDDERS UNDER FEDEARL A.I.P. PROJECTS:

This project is being funded by grants from the Federal Aviation Administration (FAA) under the national Airport Improvement Program (A.I.P.), by the Arizona Department of Transportation, Multimodal Planning Division, Aeronautics Group (ADOT), and the City of Mesa; therefore, all bidders shall comply with the following federal requirements:

A. Federal Funds are being used to assist in the construction of this project and, accordingly, all applicable Federal laws, regulations, and orders must be complied with at all times. See Exhibit C of the Construction Services Contract for additional information.

B. The Bidder must supply all information required by the bidding documents and specifications.

C. No Bidder may withdraw his bid for a period of one hundred fifty (150) calendar days after the date set for the opening thereof.

D. Each Bidder must complete, sign, and submit with his bid: a "Non-Collusive Bidding Certification", a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion," a "Certification

Regarding Foreign Countries", a "Buy American Certificate", a "Certificate of Insurability", and a "List of Subcontractors…"; all as contained in the Contract Documents.

E. Each bidder, to be considered, must have the appropriate Contractor's license required under provisions of the ARS 32-1101 through 32-1170.03 for the work covered in his proposal when his bid is submitted. Each bidder shall provide their Contractor's License information in the spaces provided on the signature page of the Bid Proposal.

F. All bids will be tabulated. The City will then determine the lowest responsive and responsible bid, after considering the recommendations of the Engineer, and then forward the bids received to the Federal Aviation Administration (FAA) and the Arizona Department of Transportation (ADOT) with a recommendation that the Contract be awarded to the firm determined to be the lowest responsive and responsible bidder. After approval by the FAA and ADOT, and if awarded by the Mesa City Council, the City will enter into a contract with the Contractor for construction of the work.

G. As required under the Federal and State Grants, the City is required to collect and submit accurate project reporting data to the U.S. DOT, the U.S. Secretary of Labor, the FAA, and ADOT. It is a key requirement of this contract that the Contractor shall accurately complete and submit the required project documentation during each month that construction activities take place. Contractor's failure to maintain and submit accurate and timely progress reports, compliance reports, and other required project documentation with each request for progress payment, and/or request(s) for release of retainage, shall result in the Contractor's payment requests being returned without payment until they are complete.

H. Required project documentation includes, but is not limited to: Safety Plan Compliance Document, Certified Payrolls, Civil Rights Compliance Reports, DBE Utilization and Reporting Forms, Construction Management Plan, Quality Control Plan, Quality Control Materials and Testing Reports, and Weekly Construction Reports using FAA Form 5370-1 Construction Progress and Inspection Report. Additional information is contained in the General Provisions, and Technical Specifications.

I. All labor on the project shall be paid no less than the prevailing minimum wage rates established by the U.S. Secretary of Labor and contained in the specifications and shall comply with all provisions of the Davis-Bacon Act. A copy of the most current wage determination is contained in Exhibit C of the Construction Services Contract.

J. The prevailing wage and salary rates of pay, set forth in the contract documents and bound herein, are the minimums to be paid during the life of the Contract. It is therefore the responsibility of all bidders to inform themselves as to local labor conditions, such as the length of work day and work week, overtime compensation, health and welfare contributions, labor supply and prospective changes or adjustments of rates.

K. It shall be a condition of the Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his or her health or safety, as determined under construction safety and health standards promulgated by the United States Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (83 Stat. 96).

L. Each Bidder agrees to comply with the provisions of the State of Arizona Executive Order 75-5, (dated April 28, 1975) as amended by Arizona Executive Order 99-4 (dated March 1, 1999) relating to equal opportunity and nondiscrimination.

M. To be eligible for award, each Bidder must comply with the Affirmative Action requirements which are contained in Exhibit C of the Construction Services Contract. A contractor having 50 or more employees and his subcontractor having 50 or more employees and who may be awarded a contract of $50,000 or more will be required to maintain an affirmative action program.

N. The “Area Covered” for this project is Maricopa County, Arizona (see also Exhibit C).

O. The attention of all Bidders is particularly directed to the requirements for nondiscrimination, equal employment opportunity and affirmative action both for themselves and their subcontractors. The bidder to whom a Contract is awarded shall be required to comply with all provisions of Executive Order 11246 of 24 September, 1965, as amended by Executive Order 11375 of 13 October, 1967, and of the rules, regulations, and relevant orders of the Secretary of Labor.

P. A Certification of Non-Segregated Facilities must be submitted prior to the award of a federally assisted construction contract exceeding $10,000 which is not exempt from the provisions of the equal opportunity clause. All Bidders shall submit said certification with their bid.

Q. All Bidders are also required to forward the following notice to their prospective subcontractors for supplies and construction contracts where the subcontracts exceed $10,000 and are not exempt from the provisions of the equal opportunity clause.

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

R. Within 30 days after award of this Contract, the Contractor shall file an EEO Compliance Report (Standard Form 100/ EEO-1) if:

a. The Contractor has not submitted a complete compliance report within 12 months preceding the date of award; and

b. The Contractor is within the definition of "employer" in Paragraph 11e(3) of the instructions included in Standard Form 100.

The Contractor shall require the subcontractor on any first-tier subcontract, irrespective of dollar amount, to file Standard Form 100 within 30 days after award of the subcontract if the above two conditions apply. Standard Form 100 will be furnished upon request.

S. The Contractor bears the responsibility to determine whether the DBE possesses the proper contractor’s license(s) to perform the work. If a DBE cannot complete its work due to failure to obtain or maintain its licensing, the Contractor bears the responsibility to immediately replace the DBE with another DBE and to notify the City and ADOT.

T. No assignment by the Contractor of any contract to be entered into hereunder, or any part thereof, or of funds to be received thereunder by the Contractor, will be recognized by the City of Mesa, unless such assignment has prior written approval from the City, and Contractor’s Surety has been given due notice of such assignment and has consented thereto in writing.

U. The Contract Time shall be as set forth in the Construction Services Contract.

V. Liquidated damages shall be assessed as provided in the Construction Services Contract and the General Provisions

W. The City’s grant agreements with the FAA and ADOT require the City to obtain approval from the FAA and ADOT for all contract awards following the receipt and tabulation of bids. The City will not award a contract until approval to do so is received from both the FAA and ADOT. All Bidders are expressly notified that should approved grant funding become unavailable, for any reason, then a contract award will not be made and all bids will be rejected. The City may, at its sole discretion, again advertise the project for bids at some future date when funding becomes available.

75. PROJECT NUMBERS:

All documents and official correspondence for this project shall reference the following:

MESA FALCON FIELD AIRPORT (FFZ)
REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)
FEDERAL A.I.P. 3-04-0023-037-2025
ADOT GRANT NO. E6M3S01D
CITY PROJECT NO. CP1225GPH1

The City will confirm the assigned ADOT and FAA grant numbers and provide additional coordination on acceptable document formatting at the pre-construction meeting.

76. PROJECT CLEANLINESS:

Contractor is reminded that the City and its designated inspectors reserve the right to suspend work on this project due to deficiencies in cleanup, dust control, barricading, or traffic maintenance. See the General Provisions, General Technical Provisions, and Construction Safety and Phasing Plan for specific requirements.

The work under this contract is located on or adjacent to the runways, taxiways, and aircraft parking aprons at Falcon Field Airport. Unclean work areas pose a significant potential safety hazard to aircraft and people. The City Inspector will immediately stop all work upon observing any deficiencies in Contractor's cleanup, dust control, barricading, or traffic maintenance.

There will be no additional payments made, or contract time extensions granted, as a result of any stop work orders issued by the City because of Contractor's failure to maintain acceptable project cleanliness.

77. WORK STOPPAGE FOR ACCIDENTS:

In the event of an aircraft or other accident at the airport, the Contractor shall immediately cease all operations and remove all equipment from the work areas, as directed by the appropriate emergency responders (e.g., Police or Fire Department personnel) the City Inspector, the Airport Representative or his authorized representatives. The Contractor shall not return equipment to the work areas, nor resume operations until given approval to do so by the City Inspector. This shall be considered an excusable/ non-compensable delay under the contract.

78. AIRPORT CONSTRUCTION RESTRICTIONS AND REQUIREMENTS:

The Contractor is responsible for compliance at all times with the safety requirements and guidelines specified in Falcon Field Airport Construction Safety Phasing Plan (CSPP) for this project, which has been filed as Aeronautical Study Number (ASN) 2026-AWP-998-NRA in the FAA's Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) program, in accordance with 14 CFR Part 77.

The Contractor is required to submit a Safety Plan Compliance Document outlining how they intend to comply with the established CSPP requirements. See the General Technical Provisions for additional information. See the General Provisions Section 70, General Technical Provisions Item 20, and Construction Safety and Phasing Plan (CSPP), for complete, detailed, requirements.

79. ARIZONA STATE REQUIREMENTS:

The Contractor shall comply at all times with the provisions of Arizona Executive Order 75-5, as amended by Executive Order 99-4, relating to equal opportunity and nondiscrimination. The duly authorized representative(s) of the State of Arizona shall have access to any books, documents, papers, and records of the Contractor which are in any way pertinent to this contract for a period of five (5) years following the City's Letter of Acceptance, in accordance with A.R.S. 35-214, for the purpose of making inspections, audits, examinations, excerpts and transcripts.

NOT USED

ATTACHMENT A

(1 PAGE)

RELEASE FORM

Project Name: _____

Project Number: _____

Contractor's Name: _____

Office Phone Number: _____

Job Superintendent's Name: _____

Nature of Work: _____

I, _____, representing the property at _____
(Name - - Please print) (Address)

acknowledge that the Contractor has satisfactorily restored my property to its Pre-Construction condition. It is understood that this form will release the Contractor from any further action with regard to the aesthetics of my property. This form does not necessarily release the Contractor from further action as a result of warranty Work or undisclosed damage to my property as a result of their Work for a period of one year.

Signed: _____ Date: _____

ATTACHMENT B

BACKGROUND CHECK GUIDELINES
Contractor/Non-Employee Staff

(2 PAGES)

☐ LEVEL 0: Use **Attachment B.0** (3 PAGES)

☒ LEVEL 1: Use **Attachment B.1** (6 PAGES)

☐ LEVEL 2: Use **Attachment B.2** (7 PAGES)

☐ LEVEL 3 Escorted: Use **Attachment B.3** (7 PAGES)

ATTACHMENT B

BACKGROUND CHECK GUIDELINES
Contractor/Non-Employee Staff

For the purpose of this Attachment, the term “Contractor” is defined as an independent contractor and/or contract worker.

Guidelines

The levels referenced below (0 through 3) were developed to assist in determining the appropriate type of background needed, if any, for all contractors providing services to the City.

The appropriate type of background is primarily based on the work the contractor will be performing, the location, the duration and their exposure to minors, disabled and the homebound or high security facilities, systems, information, etc.

Engineering will be responsible for determining the type of background required and for sending the contractor staff to Human Resources (HR) or SecureOne Livescan to initiate the background process as outlined below. If there are any questions, please contact EngineeringContractorBadging@mesaaz.gov.

Contractors should only be fingerprinted (required for Level 2 and 3) if the following apply:

1. Contract workers who are eighteen (18) years of age and older and anticipated to be in contact with minors, disabled or homebound individuals; OR
2. Contract workers assigned to work in security sensitive areas. For the purpose of fingerprinting under the Personnel Rules, security sensitive areas are:
   a. Criminal Justice Administration (i.e., Police Department facilities, City Court or City Prosecutor Offices)
   b. Individuals who are eighteen (18) years of age or older and placed in certain ITD assignments

Important Note

For Level 1 through 3, background results must be received **prior to** a badge and/or building access being granted by the PD /Facilities Access.

ATTACHMENT B.1

LEVEL 1

There are two ways to obtain a Level 1 badge:

(1) Web-Based Background Check or
(2) a valid Arizona Department of Public Safety (DPS) Identity Verified Prints (IVP) Clearance Card.

The cost of the web-based background check is charged back to the City department by HR upon receipt of invoice. The IVP Clearance Card is an expense of the contractor.

Option 1 - Web-Based Background Check and Identification Card (Badge). No fingerprinting required.

This level is required for all secured City buildings and sites not included in Levels 2 or 3 and includes: utility treatment plants, well sites, PRV stations, City Hall, fire stations, service centers, maintenance shops, 55 N. Center, Council Chambers, Utilities Building, Transportation Building, electrical substations, UCC, TMC, etc.

This background check is based on name, date of birth, social security number, and address and will provide criminal history for at least the past 7 years. Results are typically received within 24 to 48 hours. Although this type of background is not as extensive as the fingerprint background, it does allow the City to obtain criminal history on individuals who do not meet the fingerprinting criteria as indicated in the City's ordinance (i.e., Personnel Rules).

The search includes a nationwide criminal search, nationwide sex offender search and Social Security trace.

REQUIRED PROCESS:

- **Web-Based Background Check** – email form and documentation to HRBackgroundChecks@MesaAZ.gov. Forms may also be delivered to City of Mesa Human Resources Office at 20 E. Main Street, Suite 250.
    1. **Level 1 Background Authorization Form**
        - Top section completed by City.
        - Contractor employees complete their names and information. The form must be signed.
        - **NOTE:** Incomplete information will delay the process and notification of clearance. Please make sure to fill in the Contractor/Subcontractor Company Name.

    2. **Legible Scan of the Front and Back of a Valid, Current Government-Issued ID**

    Human Resources will update their system after they receives the results. The City Contact is notified of status updates and will notify the Prime Contractor for the project. The Prime Contractor then notifies each subcontracting company separately.

    Upon confirmed clearance notification, contractors can begin badging process as below and, if applicable, building access**. No personnel are to go to the Badging Office until they have received notification from the City that they have been approved.**

- **Badge Request** – email forms and documentation to Badging@MesaAZ.gov.
    1. **Contractor Verification Form**
        - Completed by Contractor.
        - Contractor is responsible for keeping this form up-to-date.
        - Subcontractors are to complete their own form.

    2. **Identification Card Request Form – Contractor** (Badging@MesaAZ.gov)
        - Yellow highlighted sections completed by City.
            - **NOTE:** Responsible RC is Department Number; Expiration Date is the end date of the contract (when badge/ID Card no longer required).
        - Gray highlighted sections completed by Contractor and Subcontractor, if applicable.

    3. **Front and Back of a Valid, Current Government-Issued ID**

4. **Jpg Photo - MVD style,** headshot taken on a plain wall/backdrop, no sunglasses, no hats**.**

NOTE: Contractors and Subcontractors are not to go to Badging Office until after Clearance obtained and after correct and up-to-date Contractor Verification Form is on file. Badge will only be printed if Contractor's name is on the Contractor Verification Form.

Option 2 - Standard Fingerprint Clearance Card

A valid Arizona Department of Public Safety (DPS) Identity Verified Prints (IVP) Clearance Card is acceptable for this level.

Contractor shall provide IVP fingerprint clearance card number on the Contractor Verification Form.

REQUIRED PROCESS (SUBMIT DOCUMENTS IN ORDER LISTED BELOW):

- **IVP Clearance Card** – email form and documentation to HRBackgroundChecks@MesaAZ.gov.
  Forms may also be delivered to City of Mesa Human Resources Office at 20 E. Main Street, Suite 250.
  1. **Level 1 Background Authorization Form**
     - Top section completed by City.
     - Contractor employees complete their names and information. The form must be signed.
     - **NOTE:** Incomplete information will delay the process and notification of clearance. Please make sure to fill in the Contractor/Subcontractor Company Name.

  2. **Front and Back of a Valid, Current Government-Issued ID**

  3. **Front and Back of a Valid, Current AZ DPS IVP Clearance Card**

  Human Resources will review documentation and update their system. The City Contact is notified of status updates and will notify the Prime Contractor for the project. The Prime Contractor then notifies each subcontracting company separately.

  Upon confirmed clearance notification, contractors can begin badging process as below and, if applicable, building access**. No personnel are to go to the Badging Office until they have received notification from the City that they have been approved.**

- **Badge Request** – email forms and documentation to Badging@MesaAZ.gov.
  1. **Contractor Verification Form**
     - Completed by Contractor.
     - Contractor is responsible for keeping this form up-to-date.
     - Subcontractors are to complete their own form.
     - Needs IVP Clearance Card Number completed on this form.

  2. **Identification Card Request Form – Contractor** (Badging@MesaAZ.gov)
     - Yellow highlighted sections completed by City.
       - **NOTE:** Responsible RC is Department Number; Expiration Date is the end date of the contract (when badge/ID Card no longer required).
     - Gray highlighted sections completed by Contractor and Subcontractor, if applicable.

  4. **Legible Scan of the Front and Back of a Valid, Current Government-Issued ID**

  5. **Jpg Photo - MVD style,** headshot taken on a plain wall/backdrop, no sunglasses, no hats**.**

  NOTE: Contractors and Subcontractors are not to go to Badging Office until after Clearance obtained and after correct and up-to-date Contractor Verification Form is on file. Badge will only be printed if Contractor's name is on the Contractor Verification Form.

Level 1 Background Authorization

Level 1 – Required for all secured City buildings and sites (MCP, Utilities, Transportation, Maintenance Shops, etc.)

Applicant: Type or clearly print all requested information and sign below. Incomplete forms will not be processed.

First Name	Middle Name	Last Name

Street Address with Apt. #	City, State, Zip Code

Social Security Number	Date of Birth (MM/DD/YYYY)	Other Names Used

Driver's License #	Driver's License State	Primary Phone Number

Contractors Only
The contractor and/or sub-contractor I work for is:

Notice – Please Read and Sign Below

In connection with my application for employment, contractor or to serve as a volunteer with **City of Mesa** ("Client'), I understand that a "consumer report" and/or "investigative consumer report", as defined by the Fair Credit Reporting Act, will be requested by Client for employment or volunteer purposes, whichever is applicable, from TRUVIEW BSI, LLC, ("TRUVIEW"), a consumer reporting agency as defined by the Fair Credit Reporting Act. These reports may include information as to my character, general reputation, personal characteristics or mode of living, whichever are applicable. They may involve interviews with sources such as my neighbors, friends or associates. The report may also contain information about me relating to my criminal history, credit history, driving and/or motor vehicle records, social security number verification, verification of education or employment history, worker's compensation (only after a conditional job offer) or other background checks. Such reports may be obtained at any time after receipt of this Disclosure and Authorization and if I am hired or serve as a volunteer, whichever is applicable, throughout the course of my employment or volunteer service, as permitted by law and unless revoked by me in writing. I understand that I have the right, upon written request made within a reasonable amount time after the receipt of this notice, to request disclosure of the nature and scope of any investigative consumer report to TRUVIEW BSI, LLC, 25 Newbridge Road, Suite 210, Hicksville, NY 11801 or 1-888-869-8444. For information about TRUVIEW BSI, LLC's privacy practices, see www.truviewbsi.com.

Residents of Minnesota and Oklahoma only:
Under state law you have a right to receive a copy of your consumer report, free of charge, if one is required by Client. By checking the below box, a copy will be provided to you at the address you provide on this Disclosure and Authorization.
□ I wish to receive a copy of any consumer report on me that is requested.

Residents of New York only:
Under state law you have the right to inspect and receive a copy of any investigative consumer report requested by Client by contacting TRUVIEW BSI, LLC directly. You also acknowledge receipt of a copy of Article 23-A of the New York Correction Law by checking the below box.
□ I acknowledge receipt of a copy of Article 23-A of the New York Correction Law.

Residents of Washington State only:
Under state law you have a right to request a copy of the Washington Fair Credit Reporting Act's disclosure to consumers (RCW 19.182.070) and a copy of your report by contacting TRUVIEW BSI, LLC directly.

Residents of California and Maine only:
Under state law you have a right to receive a copy of your investigative consumer report and/or consumer credit report, free of charge, if one is requested by Client. By checking the box below a copy of your report will be provided to you at the address you provide on this Disclosure and Authorization.
□ I wish to receive a copy of any report on me that is requested

By signing below, I voluntarily and knowingly authorize Client or its authorized agents to obtain or prepare consumer reports or investigative consumer reports about me. I acknowledge receipt of a copy of *A Summary of Your Rights under the Fair Credit Reporting Act* and certify that I have read this Disclosure and Authorization as well as the summary explaining my rights under the Fair Credit Reporting Act.

Signature	**Date**

Deliver this form & present a valid, current state issued ID document to:
City of Mesa Human Resources Office, Attn: Personnel, 20 E. Main Street, Suite 250, Mesa, AZ 85201
OR scan the front and back of valid, current state issued ID and email with this completed form to:
HRBackgroundChecks@MesaAZ.gov

CITY USE ONLY

Check One: ☐New Hire ☐Seasonal ☐Temporary Agency Worker ☐Volunteer ☐Intern ☐Extern ■ Contractor

Dept #: F920	Job Title **OR** Project Name: Rehabilitate West Vehicle Service Road (VSR)
Project #: CP1225GPH1	Dept. Contact/Phone: Andria Arenas **480-644-** 2251

Fund	Subfund	Dept	Unit	Appr	Object	Activity	Sub Act	RC/Phase
3004	FF	F920	1675	2	4330	1393		104

Revised 03/29/2023

CONTRACTOR VERIFICATION FORM

Mesa City Policy and/or Arizona Revised Statute (ARS) §41-4401 requires certification of compliance with Federal immigration laws and regulations and State laws regarding verification of employment eligibility of a contractor's and any subcontractor's employees.

By completing and signing this form and the attached Employee Verification Worksheet, the contractor is attesting that it and all subcontractors performing work under the cited contract meet all requirements contained herein. Failure to complete and submit this form and attached worksheet on or before the due date specified and/or the falsification of any information provided herein may be grounds for termination of the contract.

I hereby attest that:

1. The contractor complies with the Federal Immigration and Nationality Act (FINA), the Immigration Reform and Control Act of 1986 (IRCA) all other Federal immigration laws and regulations, and ARS §23-214 (as applicable) related to the verification of employment eligibility of those employees performing work under this contract;
2. All subcontractors performing work under this contract comply with FINA, IRCA all other Federal immigration laws and regulations, and ARS §23-214 (as applicable) related to the verification of employment eligibility of those employees performing work under this contract; and
3. The contractor has identified all contractor and subcontractor employees who perform work under the contract on the attached Employee Verification Worksheet and has verified compliance with FINA, IRCA all other Federal immigration laws and regulations, and ARS §23-214 (as applicable) for each employee listed.

Contract Number/Description: CP1225GPH1 / Rehabilitate West Vehicle Service Road (VSR)
Name (as listed in the contract):
Street Name and Number:
City: State: Zip Code:
Authorized Contractor (Employer) Signature:
Printed Name:
Title:
Date:
Company Subcontracting Under (i*f applicable*):

Email to Badging@mesaaz.gov.

CONTRACTOR VERIFICATION FORM

Employee Verification Worksheet

EMPLOYEE(S) NAME - PLEASE TYPE OR PRINT

Employee Name	Hire Date	Date of Birth	Employment Eligibility Method (I-9 or E-Verify)	Identify Verified Print Number (if applicable)	Office Use
1.			E I		D J F
2.			E I		D J F
3.			E I		D J F
4.			E I		D J F
5.			E I		D J F
6.			E I		D J F
7.			E I		D J F
8.			E I		D J F
9.			E I		D J F
10.			E I		D J F
11.			E I		D J F
12.			E I		D J F
13.			E I		D J F
14.			E I		D J F
15.			E I		D J F
16.			E I		D J F
17.			E I		D J F
18.			E I		D J F
19.			E I		D J F
20.			E I		D J F

Email to Badging@mesaaz.gov.

Identification Card Request Form - Contractor

Completed by City Personnel
Completed by Contract Employee

Please Print (Use ink only) **Preferred Name:** _____

First Name: _____ **M.I.:** _____ **Last Name:** _____ **Emp.#:** _____

Dept# F165 **Department Name:** ENGINEERING **Ext:** 2251

☐ New ☐ Modify Expiration Date ☐ Modify Background Clearance level

*Contractor Verification Form, Government ID and Jpeg Photo Required

Background Level:

☐ 0 - None ☒ 1 - Web-based ☐ 2 - Fingerprint ☐ 3 - PD ☐ 4 - PD **Cleared By** **Date Cleared**

Engineering Only:

☐ Fingerprint Clearance Card ☐ 3 - PD ☐ HR ☐ PD ☐ IVP _____

Responsible RC: F165 **City Contact Person:** ANDRIA ARENAS **Ext:** 2251

Expiration Date: _____ **Cardholder's Employer:** _____ **Phone:** ( )

Company Subcontracting Under: _____

Please Initial:

1. _____ **Identification/Access cards are assigned to a single individual and may not be transferred.**
2. _____ **Identification/Access cards are not to be loaned to another person for any reason.**
3. _____ **Lost, misplaced, stolen and damaged identification cards must be reported immediately to the badging office (644-5113) and to the city department project manager.**
4. _____ **Identification cards are the property of the City of Mesa and must be surrendered upon termination of the project or expiration of the contract.**

I have read and understand the conditions listed above and agree to abide by them. I further understand that violation of these conditions may result in future project eligibility.

Signature of Card Holder: _____ **Emp. #:** _____ **Date:** _____

Authorized COM Signature: _____ **Ext:** 2251 **Date:** _____

Authorized COM Printed Name: _____

For Badging Office Use Only:

Date Card Issued: _____ **Date Card Returned:** _____ _____

Issued By: **Emp.#:** **Date:**

Email to Badging@mesaaz.gov with a copy of government ID and jpg photo.

NOT USED
ATTACHMENT C
(1 PAGE)

City of Mesa
Sewer Lateral Inspection Report

Company: _____
Quarter Section: _____
Inspector: _____
Camera Crew: _____
Engineering: _____
Date: _____
Tape / CD: _____

Contractor Signature: _____ Date: _____

City of Mesa Inspector: _____ Date: _____

Address	Meter #	No Conflict	Verified by Separation Electronic Location Gas / Sewer	Verified by Camera Inspection	Verified by Dig Inspection	COMMENTS
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	

U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: Standard Specifications for Construction of Airports

Date: 12/21/2018
Initiated By: AAS-100

AC No: 150/5370-10H
Change:

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Part 1 – General Contract Provisions

Section 10 Definition of Terms

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

Paragraph Number	Term	Definition
10-01	**AASHTO**	The American Association of State Highway and Transportation Officials.
10-02	**Access Road**	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	**Advertisement**	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	**Airport**	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-05	**Airport Improvement Program (AIP)**	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	**Air Operations Area (AOA)**	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
10-07	**Apron**	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	**ASTM International (ASTM)**	Formerly known as the American Society for Testing and Materials (ASTM).

Paragraph Number	Term	Definition
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.
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

Paragraph Number	Term	Definition
		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.
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

Paragraph Number	Term	Definition
		complete the work within the intended scope of the contract as previously modified.
10-28	**FAA**	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	**Federal Specifications**	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	**Force Account**	**a.** Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis. **b.** Owner Force Account - Work performed for the project by the Owner's employees.
10-31	**Intention of Terms**	Whenever, in these specifications or on the plans, the words “directed,” “required,” “permitted,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words “approved,” “acceptable,” “satisfactory,” or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner. Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.
10-32	**Lighting**	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	**Major and Minor Contract Items**	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.

Paragraph Number	Term	Definition
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 Mesa**.
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.'
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

Paragraph Number	Term	Definition
		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

Paragraph Number	Term	Definition
		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.
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

Paragraph Number	Term	Definition
		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.
10-66	**Owner Defined terms**	None.

END OF SECTION 10

Section 20 Proposal Requirements and Conditions

20-01 Advertisement (Notice to Bidders). The project advertisement documents can be found on the Engineering bid website at this link: https://www.mesaaz.gov/business/engineering/construction-bid-opportunities-and-results.

The published advertisement states the time and place for submitting sealed proposals; a description of the proposed work; instructions to bidders as to obtaining proposal forms, plans, and specifications; the requirement of proposal guaranty; and the Owner's right to reject any and all bids.

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.

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

Mobilization is limited to 10 percent of the total project cost.

A Pre-Bid conference has been set for Thursday May 14, 2026, beginning at 3:00pm local time via TEAMS. Participants interested in participating shall email Tracy Gumeringer at Tracy.Gumeringer@mesaaz.gov to request an invitation. The Pre-Bid conference is recommended, but is not mandatory.

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.

Sealed bids will be received until Thursday, May 28, 2026, at 1:30 p.m. All sealed bids will be received electronically at EngineeringBids@mesaaz.gov . Bids must be submitted as an unencrypted PDF attachment with a maximum size limit of 20MB. 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. Any bid received after the time specified will be returned without any consideration.

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 by email to EngineeringBids@mesaaz.gov 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 10 days prior to bid opening.

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

END OF SECTION 20

Section 30 Award and Execution of Contract

30-01 Consideration of proposals. After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern.

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

a. If the proposal is irregular as specified in Section 20, paragraph 20-09, *Irregular Proposals*.

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

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

30-02 Award of contract. The award of a contract, if it is to be awarded, shall be made within **150** 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 10 calendar days from the date mailed or otherwise delivered to the successful bidder.

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

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

END OF SECTION 30

Section 40 Scope of Work

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

40-02 Alteration of work and quantities. The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

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

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

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

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

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

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

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

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

b. With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

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

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

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

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

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

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

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

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. See General Conditions Section 14.

50-05 Cooperation of Contractor. The Contractor shall be supplied with one hard copy 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): Comma Separated Values (CSV) in PNEZD format, PDF and AutoCAD.

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

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

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

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

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

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

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

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

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

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed

immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

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

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

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

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

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

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

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

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

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

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

50-15 Final acceptance. Upon due notice from the Contractor of presumptive completion of the entire project, the RPR and Owner will make an inspection. If all construction provided for and contemplated by

the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

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

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

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

END OF SECTION 50

Section 60 Control of Materials

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

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

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

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

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

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

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

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

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

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

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

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

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

a. Conformance to the specified performance, testing, quality or dimensional requirements; and,

b. Suitability of the material or assembly for the use intended in the contract work.

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

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

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

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

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

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

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

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

60-05 Engineer/ Resident Project Representative (RPR) field office. An Engineer/RPR 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

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: **There is no authorized work by others**.

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 sheets C2.1 and C2.2 of the project plans.

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.

The work will be completed in two phases as shown on the construction drawings and specified in the Construction Safety Phasing Plan (CSPP).

1. Phase 1 – Rehabilitate West Vehicle Service Road (VSR) Construction Drawings C2.1 and C2.2.

   During this phase the contractor will repair and pave the VSR from Station 36+59.21 to the northern project limits adjacent to Taxiway E1.

   Phase 1 is anticipated to take 21 calendar days.

2. Phase 2 – Rehabilitate West Vehicle Service Road (VSR) Construction Drawings C2.1 and C2.2.

   During this phase the contractor will repair and pave the VSR from Station 36+59.21 to the southern project limits.

   Phase 1 is anticipated to take 7 calendar days.

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.

Utility	Description	
Water	City of Mesa	
Electrical	Salt River Project	
Airport	City of Mesa (Communications & Special Systems)	
Telephone	CenturyLink	Emergency Repair Service Phone Number 800.954.1211
Sanitation	City of Mesa	
Drainage	Maricopa Flood Control District, City of Mesa	
Flood Plain	The project is within the 500-year flood plain.	

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.

70-16 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. Contractor shall obtain, maintain, and provide verification of insurance coverage set forth in Exhibit B of the Contract.

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 25 percent of the total contract cost.

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

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

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

80-02 Notice to proceed (NTP). The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within 30 days of the NTP date. The Contractor shall notify the RPR at least **24 hours** in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

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

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

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

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

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

80-04 Limitation of operations. The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 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:

- Runways
- Taxiways

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

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

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

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

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

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

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

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the 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. See Construction Services Contract.

The maximum construction time allowed for Schedule 1 will be the sum of the time allowed for individual schedules but not more than 30 days. 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 wavier on the part of the Owner of any of its rights under the contract.

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

a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or

b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or

c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or

d. Discontinues the execution of the work, or

e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or

f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or

g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or

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

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

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

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

Term	Description
	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 corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
Cement	Cement will be measured by the ton (kg) or hundredweight (km).
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
Timber	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
Plates and Sheets	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
Miscellaneous Items	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
Scales	Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end. Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the 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.

Term	Description
	In the event inspection reveals the scales have been "overweighing" (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%. In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded. Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them. Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment. All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.
Rental Equipment	Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 *Payment for Extra Work*.
Pay Quantities	When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the 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, 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 30 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

c. When at least 95% of the work has been completed to the satisfaction of the 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. Per General Conditions 8.2.2, City does not make prepayments or payments for stored materials.

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

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

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

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

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

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

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

amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

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

90-10 Construction warranty.

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

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession.

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

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

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

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

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

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

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

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

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

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

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

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

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

g. Manufacturer's certifications for all items incorporated in the work.

h. All required record drawings, as-built drawings or as-constructed drawings.

i. Project Operation and Maintenance (O&M) Manual(s).

j. Security for Construction Warranty.

k. Equipment commissioning documentation submitted, if required.

END OF SECTION 90

Part 2 – General Construction Items

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 10 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 paragraph100-8.

(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	Contractor Quality Control Program (CQCP)

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

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-901shall 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. Temporary seeding and mulching will be measured by the square yard (square meter).

b. Temporary slope drains will be measured by the linear foot (meter).

c. Temporary benches, dikes, dams, and sediment basins will be measured by the cubic yard (cubic meter) of excavation performed, including necessary cleaning of sediment basins, and the cubic yard (cubic meter) of embankment placed as directed by the RPR.

d. All fertilizing will be measured by the ton (kg).

e. Installation and removal of silt fence will be measured by the lump sum.

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-102-5.1a	Temporary seeding and mulching - per square yard (square meter)
Item C-102-5.1b	Temporary slope drains - per linear foot (meter)
Item C-102-5.1c	Temporary benches, dikes, dams and sediment basins - per cubic yard (cubic meter)
Item C-102-5.1d	Fertilizing - per ton (kg)
Item C-102-5.1e	Installation and removal of silt fence lump sum

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*

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 10 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 Basis of measurement and payment. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

a. With first pay request, 25%.

b. When 25% or more of the original contract is earned, an additional 25%.

c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation,* the final 10%.

BASIS OF PAYMENT

105-6 Payment will be made under:

Item C-105 Mobilization

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 C-110 Method of Estimating Percentage of Material Within Specification Limits (PWL)

110-1 General. When the specifications provide for acceptance of material based on the method of estimating percentage of material within specification limits (PWL), the PWL will be determined in accordance with this section. All test results for a lot will be analyzed statistically to determine the total estimated percent of the lot that is within specification limits. The PWL is computed using the sample average (X) and sample standard deviation (S_n) of the specified number (n) of sublots for the lot and the specification tolerance limits, L for lower and U for upper, for the particular acceptance parameter. From these values, the respective Quality index, Q_L for Lower Quality Index and/or Q_U for Upper Quality Index, is computed and the PWL for the lot for the specified n is determined from Table 1. All specification limits specified in the technical sections shall be absolute values. Test results used in the calculations shall be to the significant figure given in the test procedure.

There is some degree of uncertainty (risk) in the measurement for acceptance because only a small fraction of production material (the population) is sampled and tested. This uncertainty exists because all portions of the production material have the same probability to be randomly sampled. The Contractor's risk is the probability that material produced at the acceptable quality level is rejected or subjected to a pay adjustment. The Owner's risk is the probability that material produced at the rejectable quality level is accepted.

It is the intent of this section to inform the Contractor that, in order to consistently offset the Contractor's risk for material evaluated, production quality (using population average and population standard deviation) must be maintained at the acceptable quality specified or higher. In all cases, it is the responsibility of the Contractor to produce at quality levels that will meet the specified acceptance criteria when sampled and tested at the frequencies specified.

110-2 Method for computing PWL. The computational sequence for computing PWL is as follows:

a. Divide the lot into n sublots in accordance with the acceptance requirements of the specification.

b. Locate the random sampling position within the sublot in accordance with the requirements of the specification.

c. Make a measurement at each location, or take a test portion and make the measurement on the test portion in accordance with the testing requirements of the specification.

d. Find the sample average (X) for all sublot test values within the lot by using the following formula:

$$\mathbf{X = (x_1 + x_2 + x_3 + \ldots x_n) / n}$$

Where: X = Sample average of all sublot test values within a lot

$x_1, x_2, \ldots x_n$ = Individual sublot test values

n = Number of sublot test values

e. Find the sample standard deviation (S_n) by use of the following formula:

$$\mathbf{S_n = [(d_1^2 + d_2^2 + d_3^2 + \ldots d_n^2)/(n-1)]^{1/2}}$$

Where: S_n = Sample standard deviation of the number of sublot test values in the set

$d_1, d_2, \ldots d_n$ = Deviations of the individual sublot test values $x_1, x_2, \ldots$ from the average value X

that is: $d_1 = (x_1 - X)$, $d_2 = (x_2 - X) \ldots d_n = (x_n - X)$

n = Number of sublot test values

f. For single sided specification limits (i.e., L only), compute the Lower Quality Index Q_L by use of the following formula:

$$\mathbf{Q_L = (X - L) / S_n}$$

Where: L = specification lower tolerance limit

Estimate the percentage of material within limits (PWL) by entering Table 1 with Q_L, using the column appropriate to the total number (n) of measurements. If the value of Q_L falls between values shown on the table, use the next higher value of PWL.

g. For double-sided specification limits (i.e., L and U), compute the Quality Indexes Q_L and Q_U by use of the following formulas:

$$\mathbf{Q_L = (X - L) / S_n}$$
$$\mathbf{and}$$
$$\mathbf{Q_U = (U - X) / S_n}$$

Where: L and U = specification lower and upper tolerance limits

Estimate the percentage of material between the lower (L) and upper (U) tolerance limits (PWL) by entering Table 1 separately with Q_L and Q_U, using the column appropriate to the total number (n) of measurements, and determining the percent of material above P_L and percent of material below P_U for each tolerance limit. If the values of Q_L fall between values shown on the table, use the next higher value of P_L or P_U. Determine the PWL by use of the following formula:

$$\mathbf{PWL = (P_U + P_L) - 100}$$

Where: P_L = percent within lower specification limit

P_U = percent within upper specification limit

EXAMPLE OF PWL CALCULATION

Project: Example Project

Test Item: Item P-401, Lot A.

A. PWL Determination for Mat Density.

1. Density of four random cores taken from Lot A.

A-1 = 96.60

A-2 = 97.55

A-3 = 99.30

A-4 = 98.35

n = 4

2. Calculate average density for the lot.

$X = (x_1 + x_2 + x_3 + . . . x_n) / n$

$X = (96.60 + 97.55 + 99.30 + 98.35) / 4$

$X = 97.95\%$ density

3. Calculate the standard deviation for the lot.

$S_n = [((96.60 - 97.95)^2 + (97.55 - 97.95)^2 + (99.30 - 97.95)^2 + (98.35 - 97.95)^2)) / (4 - 1)]^{1/2}$

$S_n = [(1.82 + 0.16 + 1.82 + 0.16) / 3]^{1/2}$

$S_n = 1.15$

4. Calculate the Lower Quality Index Q_L for the lot. (L=96.3)

$Q_L = (X - L) / S_n$

$Q_L = (97.95 - 96.30) / 1.15$

$Q_L = 1.4348$

5. Determine PWL by entering Table 1 with $Q_L = 1.44$ and n= 4.

PWL = 98

B. PWL Determination for Air Voids.

1. Air Voids of four random samples taken from Lot A.

A-1 = 5.00

A-2 = 3.74

A-3 = 2.30

A-4 = 3.25

2. Calculate the average air voids for the lot.

$X = (x_1 + x_2 + x_3 . . . n) / n$

$X = (5.00 + 3.74 + 2.30 + 3.25) / 4$

$X = 3.57\%$

3. Calculate the standard deviation S_n for the lot.

$S_n = [((3.57 - 5.00)^2 + (3.57 - 3.74)^2 + (3.57 - 2.30)^2 + (3.57 - 3.25)^2) / (4 - 1)]^{1/2}$

$S_n = [(2.04 + 0.03 + 1.62 + 0.10) / 3]^{1/2}$

$S_n = 1.12$

4. Calculate the Lower Quality Index Q_L for the lot. (L= 2.0)

$Q_L = (X - L) / S_n$

$Q_L = (3.57 - 2.00) / 1.12$

$Q_L = 1.3992$

5. Determine P_L by entering Table 1 with $Q_L = 1.41$ and n = 4.

$P_L = 97$

6. Calculate the Upper Quality Index Q_U for the lot. (U= 5.0)

$Q_U = (U - X) / S_n$

$Q_U = (5.00 - 3.57) / 1.12$

$Q_U = 1.2702$

7. Determine P_U by entering Table 1 with $Q_U = 1.29$ and n = 4.

$P_U = 93$

8. Calculate Air Voids PWL

$PWL = (P_L + P_U) - 100$

$PWL = (97 + 93) - 100 = 90$

EXAMPLE OF OUTLIER CALCULATION (REFERENCE ASTM E178)

Project: Example Project

Test Item: Item P-401, Lot A.

A. Outlier Determination for Mat Density.

1. Density of four random cores taken from Lot A arranged in descending order.

A-3 = 99.30

A-4 = 98.35

A-2 = 97.55

A-1 = 96.60

2. From ASTM E178, Table 1, for n=4 an upper 5% significance level, the critical value for test criterion = 1.463.

3. Use average density, standard deviation, and test criterion value to evaluate density measurements.

a. For measurements greater than the average:

If (measurement - average)/(standard deviation) is less than test criterion, then the measurement is not considered an outlier.

For A-3, check if (99.30 - 97.95) / 1.15 is greater than 1.463.

Since 1.174 is less than 1.463, the value is not an outlier.

b. For measurements less than the average:

If (average - measurement)/(standard deviation) is less than test criterion, then the measurement is not considered an outlier.

For A-1, check if (97.95 - 96.60) / 1.15 is greater than 1.463.

Since 1.435 is less than 1.463, the value is not an outlier.

Note: In this example, a measurement would be considered an outlier if the density were:

Greater than (97.95 + 1.463 × 1.15) = 99.63%

OR

less than (97.95 - 1.463 × 1.15) = 96.27%.

Table 1. Table for Estimating Percent of Lot Within Limits (PWL)

Percent Within Limits (P_L and P_U)	Positive Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520	1.9994	2.0362
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053	1.8379	1.8630

Percent Within Limits (P_L and P_U)	Positive Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993	1.7235	1.7420
96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127	1.6313	1.6454
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381	1.5525	1.5635
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4717	1.4829	1.4914
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112	1.4199	1.4265
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554	1.3620	1.3670
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032	1.3081	1.3118
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541	1.2576	1.2602
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075	1.2098	1.2115
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630	1.1643	1.1653
87	1.0597	1.1100	1.1173	1.1192	1.1199	1.1204	1.1208	1.1212
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794	1.0791	1.0789
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399	1.0389	1.0382
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015	1.0000	0.9990
83	0.9939	0.9900	0.9785	0.9715	0.9671	0.9643	0.9624	0.9610
82	0.9749	0.9600	0.9452	0.9367	0.9315	0.9281	0.9258	0.9241
81	0.9550	0.9300	0.9123	0.9025	0.8966	0.8928	0.8901	0.8882
80	0.9342	0.9000	0.8799	0.8690	0.8625	0.8583	0.8554	0.8533
79	0.9124	0.8700	0.8478	0.8360	0.8291	0.8245	0.8214	0.8192
78	0.8897	0.8400	0.8160	0.8036	0.7962	0.7915	0.7882	0.7858
77	0.8662	0.8100	0.7846	0.7716	0.7640	0.7590	0.7556	0.7531
76	0.8417	0.7800	0.7535	0.7401	0.7322	0.7271	0.7236	0.7211
75	0.8165	0.7500	0.7226	0.7089	0.7009	0.6958	0.6922	0.6896
74	0.7904	0.7200	0.6921	0.6781	0.6701	0.6649	0.6613	0.6587
73	0.7636	0.6900	0.6617	0.6477	0.6396	0.6344	0.6308	0.6282
72	0.7360	0.6600	0.6316	0.6176	0.6095	0.6044	0.6008	0.5982
71	0.7077	0.6300	0.6016	0.5878	0.5798	0.5747	0.5712	0.5686
70	0.6787	0.6000	0.5719	0.5582	0.5504	0.5454	0.5419	0.5394
69	0.6490	0.5700	0.5423	0.5290	0.5213	0.5164	0.5130	0.5105
68	0.6187	0.5400	0.5129	0.4999	0.4924	0.4877	0.4844	0.4820
67	0.5878	0.5100	0.4836	0.4710	0.4638	0.4592	0.4560	0.4537
66	0.5563	0.4800	0.4545	0.4424	0.4355	0.4310	0.4280	0.4257
65	0.5242	0.4500	0.4255	0.4139	0.4073	0.4030	0.4001	0.3980
64	0.4916	0.4200	0.3967	0.3856	0.3793	0.3753	0.3725	0.3705
63	0.4586	0.3900	0.3679	0.3575	0.3515	0.3477	0.3451	0.3432
62	0.4251	0.3600	0.3392	0.3295	0.3239	0.3203	0.3179	0.3161
61	0.3911	0.3300	0.3107	0.3016	0.2964	0.2931	0.2908	0.2892
60	0.3568	0.3000	0.2822	0.2738	0.2691	0.2660	0.2639	0.2624
59	0.3222	0.2700	0.2537	0.2461	0.2418	0.2391	0.2372	0.2358
58	0.2872	0.2400	0.2254	0.2186	0.2147	0.2122	0.2105	0.2093
57	0.2519	0.2100	0.1971	0.1911	0.1877	0.1855	0.1840	0.1829
56	0.2164	0.1800	0.1688	0.1636	0.1607	0.1588	0.1575	0.1566
55	0.1806	0.1500	0.1406	0.1363	0.1338	0.1322	0.1312	0.1304
54	0.1447	0.1200	0.1125	0.1090	0.1070	0.1057	0.1049	0.1042
53	0.1087	0.0900	0.0843	0.0817	0.0802	0.0793	0.0786	0.0781
52	0.0725	0.0600	0.0562	0.0544	0.0534	0.0528	0.0524	0.0521
51	0.0363	0.0300	0.0281	0.0272	0.0267	0.0264	0.0262	0.0260
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Percent Within Limits (P_L and P_U)	Negative Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
49	-0.0363	-0.0300	-0.0281	-0.0272	-0.0267	-0.0264	-0.0262	-0.0260
48	-0.0725	-0.0600	-0.0562	-0.0544	-0.0534	-0.0528	-0.0524	-0.0521
47	-0.1087	-0.0900	-0.0843	-0.0817	-0.0802	-0.0793	-0.0786	-0.0781
46	-0.1447	-0.1200	-0.1125	-0.1090	-0.1070	-0.1057	-0.1049	-0.1042

Percent Within Limits (P_L and P_U)	Negative Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
45	-0.1806	-0.1500	-0.1406	-0.1363	-0.1338	-0.1322	-0.1312	-0.1304
44	-0.2164	-0.1800	-0.1688	-0.1636	-0.1607	-0.1588	-0.1575	-0.1566
43	-0.2519	-0.2100	-0.1971	-0.1911	-0.1877	-0.1855	-0.1840	-0.1829
42	-0.2872	-0.2400	-0.2254	-0.2186	-0.2147	-0.2122	-0.2105	-0.2093
41	-0.3222	-0.2700	-0.2537	-0.2461	-0.2418	-0.2391	-0.2372	-0.2358
40	-0.3568	-0.3000	-0.2822	-0.2738	-0.2691	-0.2660	-0.2639	-0.2624
39	-0.3911	-0.3300	-0.3107	-0.3016	-0.2964	-0.2931	-0.2908	-0.2892
38	-0.4251	-0.3600	-0.3392	-0.3295	-0.3239	-0.3203	-0.3179	-0.3161
37	-0.4586	-0.3900	-0.3679	-0.3575	-0.3515	-0.3477	-0.3451	-0.3432
36	-0.4916	-0.4200	-0.3967	-0.3856	-0.3793	-0.3753	-0.3725	-0.3705
35	-0.5242	-0.4500	-0.4255	-0.4139	-0.4073	-0.4030	-0.4001	-0.3980
34	-0.5563	-0.4800	-0.4545	-0.4424	-0.4355	-0.4310	-0.4280	-0.4257
33	-0.5878	-0.5100	-0.4836	-0.4710	-0.4638	-0.4592	-0.4560	-0.4537
32	-0.6187	-0.5400	-0.5129	-0.4999	-0.4924	-0.4877	-0.4844	-0.4820
31	-0.6490	-0.5700	-0.5423	-0.5290	-0.5213	-0.5164	-0.5130	-0.5105
30	-0.6787	-0.6000	-0.5719	-0.5582	-0.5504	-0.5454	-0.5419	-0.5394
29	-0.7077	-0.6300	-0.6016	-0.5878	-0.5798	-0.5747	-0.5712	-0.5686
28	-0.7360	-0.6600	-0.6316	-0.6176	-0.6095	-0.6044	-0.6008	-0.5982
27	-0.7636	-0.6900	-0.6617	-0.6477	-0.6396	-0.6344	-0.6308	-0.6282
26	-0.7904	-0.7200	-0.6921	-0.6781	-0.6701	-0.6649	-0.6613	-0.6587
25	-0.8165	-0.7500	-0.7226	-0.7089	-0.7009	-0.6958	-0.6922	-0.6896
24	-0.8417	-0.7800	-0.7535	-0.7401	-0.7322	-0.7271	-0.7236	-0.7211
23	-0.8662	-0.8100	-0.7846	-0.7716	-0.7640	-0.7590	-0.7556	-0.7531
22	-0.8897	-0.8400	-0.8160	-0.8036	-0.7962	-0.7915	-0.7882	-0.7858
21	-0.9124	-0.8700	-0.8478	-0.8360	-0.8291	-0.8245	-0.8214	-0.8192
20	-0.9342	-0.9000	-0.8799	-0.8690	-0.8625	-0.8583	-0.8554	-0.8533
19	-0.9550	-0.9300	-0.9123	-0.9025	-0.8966	-0.8928	-0.8901	-0.8882
18	-0.9749	-0.9600	-0.9452	-0.9367	-0.9315	-0.9281	-0.9258	-0.9241
17	-0.9939	-0.9900	-0.9785	-0.9715	-0.9671	-0.9643	-0.9624	-0.9610
16	-1.0119	-1.0200	-1.0124	-1.0071	-1.0037	-1.0015	-1.0000	-0.9990
15	-1.0288	-1.0500	-1.0467	-1.0435	-1.0413	-1.0399	-1.0389	-1.0382
14	-1.0448	-1.0800	-1.0817	-1.0808	-1.0800	-1.0794	-1.0791	-1.0789
13	-1.0597	-1.1100	-1.1173	-1.1192	-1.1199	-1.1204	-1.1208	-1.1212
12	-1.0736	-1.1400	-1.1537	-1.1587	-1.1613	-1.1630	-1.1643	-1.1653
11	-1.0864	-1.1700	-1.1909	-1.1995	-1.2043	-1.2075	-1.2098	-1.2115
10	-1.0982	-1.2000	-1.2290	-1.2419	-1.2492	-1.2541	-1.2576	-1.2602
9	-1.1089	-1.2300	-1.2683	-1.2860	-1.2964	-1.3032	-1.3081	-1.3118
8	-1.1184	-1.2600	-1.3088	-1.3323	-1.3461	-1.3554	-1.3620	-1.3670
7	-1.1269	-1.2900	-1.3508	-1.3810	-1.3991	-1.4112	-1.4199	-1.4265
6	-1.1342	-1.3200	-1.3946	-1.4329	-1.4561	-1.4717	-1.4829	-1.4914
5	-1.1405	-1.3500	-1.4407	-1.4887	-1.5181	-1.5381	-1.5525	-1.5635
4	-1.1456	-1.3800	-1.4897	-1.5497	-1.5871	-1.6127	-1.6313	-1.6454
3	-1.1496	-1.4100	-1.5427	-1.6181	-1.6661	-1.6993	-1.7235	-1.7420
2	-1.1524	-1.4400	-1.6016	-1.6982	-1.7612	-1.8053	-1.8379	-1.8630
1	-1.1541	-1.4700	-1.6714	-1.8008	-1.8888	-1.9520	-1.9994	-2.0362

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 E178 Standard Practice for Dealing with Outlying Observations

END OF ITEM C-110

City of Mesa
Falcon Field Airport

TECHNICAL SPECIFICATIONS

FOR

Rehabilitate West Vehicle Service Road (VSR)

City Project No. CP 1225 GPH1
FAA AIP No. 3-04-0023-037-2025
ADOT Grant No. E6M3S01D

Prepared By:
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Issued For Bid Submittal April 8, 2026

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Note 1: Reference City of Mesa (Mesa) "*Project Specific Provisions (PSP)*" (Version Date: December 31, 2025, edited specifically for this project)

Note 2: Reference Maricopa Association of Governments (MAG) "*Uniform Standard Specifications and Details for Public Works Construction*" (2024 Revision to the 2020 Edition)

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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 10 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 paragraph100-8.

(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 Contractor Quality Control Program (CQCP) – 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.

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

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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.

The Contractor shall be responsible for obtaining, completing, submitting/filing/re-submitting, and implementing any and all forms required by the United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) for this project. The Contractor shall reference the EPA website (https://www.epa.gov/npdes/npdes-application-forms) for information on applicable requirements.

The Contractor shall be responsible for obtaining, completing, submitting/filing/re-submitting, and implementing any and all forms required by the Arizona Department of Environmental Quality (ADEQ) for this project. The Contractor shall reference the ADEQ website (https://azdeq.gov/Environmental-permits) for information on applicable requirements.

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:

Providing, installing, maintaining, removing and disposing of temporary seeding and mulching, slope drains, benches, dikes, dams, gravel filter berms, sediment basins, catch basin inlet protection, end-of-pipe filtering devices, fertilizing, silt fences, netting, straw bale barriers, and excavation performed, and other erosion control devices or methods as shown on the plans, including necessary cleaning of sediment basins, and embankment placed as directed by the RPR will be measured by the lump sum.

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	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control - per lump sum

No separate measurement or direct payment will be made for preparing Inspection and Maintenance Reports, or other documentation required to perform the work, the cost being considered as included in the cost of the this 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.

Advisory Circulars (AC)

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

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

ASTM International (ASTM)

ASTM D6461 *Standard Specification for Silt Fence Materials*

United States Department of Agriculture (USDA)

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

END OF ITEM C-102

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 10 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. The Contractor shall provide dedicated space for the use of the field RPR and inspectors, as a field office for the duration of the project. This space shall be located conveniently near the construction and shall be separate from any space used by the Contractor. The Contractor shall furnish water, sanitary facilities, heat, air conditioning, and electricity in accordance with local building codes.

METHOD OF MEASUREMENT

105-5 Basis of measurement and payment. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

a. With first pay request, 25%.

b. When 25% or more of the original contract is earned, an additional 25%.

c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation,* the final 10%.

BASIS OF PAYMENT

105-6 Payment will be made under:

Item C-105 Mobilization (Maximum of 10%) – 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

FALCON FIELD
AIRPORT AUTHORITY
MESA, ARIZONA

mesa·az
FALCON FIELD AIRPORT

Construction Safety and Phasing Plan

For

Rehabilitate West Vehicle Service Road (VSR)

FFZ Project No. CP 1225 GPH1
FAA AIP No. 3-04-0023-037-2025
ADOT Grant No. E6M3S01D

Issued for Bid Submittal
April 08, 2026

The FALCION FIELD AIRPORT is owned and operated by the CITY OF MESA

Airport Construction Safety and Phasing Plan

For
Falcon Field Airport
Mesa, Arizona
Rehabilitate West Vehicle Service Road (VSR)

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A. CORDINATION

A Pre-Construction Conference will be scheduled prior to the issuance of the Notice to Proceed. Invitees and attendees will include FFZ Design, Construction, and Operations personnel, the Engineer, the Contractor's Project Superintendent, representatives from the FAA and ADOT (in person or by phone), and relevant safety-related issues will be discussed in detail at this meeting.

At the Pre-Construction Conference, topics of discussion will include the FAA Advisory Circular (AC) 150/5370-2G, *Operational Safety on Airports during Construction*, project scope, the Resident Engineer's responsibility and authority, identifying the Contractor's Superintendent, NOTAM responsibility, phasing and scheduling of work, Notice to Proceed date, safety during construction, security, badging and escorting requirements, quality control and testing, test reports, maintenance of record drawings, labor requirements; and DBE, MBE, and EEO requirements.

The Pre-Construction Meeting has not yet been scheduled but will tentatively take place in early 2027, at the Falcon Field Airport.

1. Contractor Progress Meetings

Weekly contractor progress meetings will be held at Falcon Field Airport where the invitees and attendees will include at minimum FFZ personnel, the Project Engineer, the Contractor's Project Superintendent, and the lead personnel of each Subcontractor. In addition to the discussions on the progress of the project, operational safety procedures identified within this Safety Plan will be reviewed and discussed.

Additional meetings may be scheduled in between the weekly construction meetings as necessary by the Project Engineer or FFZ personnel.

2. Scope or Schedule Changes

The maintenance of all systems on the airfield is essential for safe and efficient operation. The existing West VSR has deteriorated to a point where it has become a hazard to vehicles using it. Airport staff have informed Kimley-Horn design team members that the vehicles using the West VSR have experienced instability and are reducing travel speed in order to accommodate for the current conditions.

The "Rehabilitate West VSR" project at Falcon Field Airport (FFZ) is intended to complete various rehabilitation and maintenance improvements to the West VSR, in order to safely extend the functional life of the existing pavement. The improvements include but are not limited to asphalt mill and replacement; trenching and replacement of existing pavement; full-deep pavement replacement; crack and seal coat; and traffic calming measures. The alignment, fleet mix, and traffic loads on the West VSR are not expected to change as part of this project. The project is not anticipated to impact any existing air traffic patterns or operations.

The Airport has asked the Kimley-Horn design team to provide a cost-effective rehabilitation program for the existing West VSR. The project includes the demolition (via milling) of

approximately 4,980 SY of existing Asphalt Concrete (AC) pavement (3" depth); approximately 165 CY of earthwork and 970 SY of subgrade preparation; and the construction of approximately 1,480 Tons of AC pavement. The proposed horizontal and vertical design of the Rehabilitate West VSR project will follow the design criteria outlined in the current version of the ADOT Roadway Design Guidelines (revisions through January 2025).

This Construction Safety & Phasing Plan provides specific information to the Contractor and/or Subcontractors selected to carry out the construction contract for the "Rehabilitate West VSR" project. This plan includes the requirements and procedures for accident prevention, safety requirements, and security considerations at the Falcon Field Airport. The Airport's safety objective is to achieve accident-free construction projects. Furthermore, the Contractor must be in full compliance with FAA Advisory Circular (AC) 150/5370-2G, *Operational Safety on Airports during Construction*. This will be discussed at the Pre-Bid and Pre-Construction Conferences.

The Contractor or Subcontractor shall conduct operations in a manner that will provide safe working conditions for all employees, the protection of the public and all others who may be affected by construction activities. Nothing contained in this plan is intended to relieve the Contractor, subcontractor or supplier of the obligations assumed by the Contractor under contract with FFZ or as required by law.

Safety must be an integral part of the job. Full participation, cooperation, and support are necessary to ensure the safety and health of all people and property involved in the project. The purpose of phasing, marking, barricading, and lighting of airside construction areas is to delineate hazardous areas and prevent unauthorized incursions into the area by personnel, vehicles, equipment, and aircraft during construction; and to positively separate construction activity from aircraft operations.

3. FAA ATO Coordination

Falcon Field Airport staff will be responsible for continually coordinating as required with the FAA/ATO during construction.

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B. PHASING

1. Phasing Elements

The "Rehabilitate West VSR" project will be completed in two phases, involving close coordination with Airport Operations. While not anticipated for this project, special attention and coordination will be given when completing work near any active taxiway or runway adjacent to the project areas. The project will not impact the operation of any taxiways, runways, or aprons. The contractor shall be mindful when working near or within the airfield movement areas. The contractor will ensure that the construction activities will not cause a safety hazard to air traffic or operations during construction.

Phase 1 of the project includes the portion of the existing West VSR beginning at the southwest edge of the flight school hanger apron (north of Runway 4L-22R) and ending at the Object Free Area of the GA Taxilane (between the Helicopter Hanger and Airforce Museum) south of the existing West VSR. This phase will consist of crack seal/seal coat, milling AC pavement (various depths), trenching, AC overlay, and compacted AC millings shoulder. This phase will require the complete closure of the West VSR for its duration but will not require the closure of any taxiways or runways. The duration of this phase is approximately 3 weeks. Phase 2 cannot be completed simultaneously with Phase 1. Phase 2 can only start after Phase 1 has been completed and a notice to proceed has been issued by the Airport. The VSR will remain closed and barricaded (as shown on the plans) for the duration of the phase, See **Exhibit 4 Construction Phasing Plan** for more information.

Phase 2 of the project includes the portion of the existing West VSR with in the Object Free Area of the GA Taxilane south of the existing West VSR (between the Helicopter Hanger and Airforce Museum). This phase will consist of crack seal/seal coat, milling AC pavement (various depths), trenching, AC overlay, and compacted AC millings shoulder. This phase will require the complete closure of the West VSR for its duration but will not require the closure of any taxiways or runways. The duration of this phase is approximately 1 week. Phase 2 cannot be completed simultaneously with Phase 1. Phase 2 can only start after Phase 1 has been completed and a notice to proceed has been issued by the Airport. The VSR will remain closed and barricaded (as shown on the plans) for the duration of the phase, See **Exhibit 4 Construction Phasing Plan** for more information.

a. Areas Closed to Aircraft Operations

This project will not have any impact on aircraft operations.

b. Duration of Closures

This project will not require the closure of any taxiways, runways, or aprons.

c. Taxi Routes

This project will not require any alternate taxi routes.

d. ARFF Access Routes

All existing ARFF access routes will not be disturbed or changed during the "Rehabilitate West VSR" project.

e. Construction Staging, Disposal, and Clean Out Areas

Construction Staging and Haul Routes are shown on Exhibit 3, *Staging and Storage Plan*.

f. Impacts on NAVAIDs

NAVAIDs for the airfield will remain operational for the duration of this project. Existing NAVAIDs shall remain protected in place.

g. Required Hazard Markings, Lights, Signage

Project construction areas will be marked with low-profile barricades during the project to help prevent aircraft from crossing into the construction area as shown on the plans. Vertical panel barricades will be placed along the limits of construction (as shown on the plans) to delineate the project area and help prevent construction workers from crossing into active Runway/Taxiway safety areas. Barricades must be in place prior to the start of each phase of the project as detailed in the plans. See Exhibit 4 *Construction Phasing Plan* for barricade locations.

2. Construction Safety Drawings

Construction safety drawings are provided as Exhibits at the end of this CSPP document.

(Section Intentionally Left Blank, See Following Pages)

C. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITIES

1. Identification of Affected Areas

The "Rehabilitate West VSR" project at Falcon Field Airport (FFZ) is intended to complete various rehabilitation and maintenance improvements to the West VSR, in order to safely extend the functional life of the existing pavement. The improvements include but are not limited to asphalt mill and replacement; trenching and replacement of existing pavement; full depth pavement replacement; crack and seal coat; and traffic calming measures. The alignment, fleet mix, and traffic loads on the West VSR are not expected to change as part of this project. The project is not anticipated to impact any existing air traffic patterns or operations. All project components can be seen on Exhibit 2, *Project Layout Plan*.

a. Closed or Partially Closed Facilities

All existing access routes will not be disturbed or changed during the "Rehabilitate West VSR" project.

b. ARFF Access Routes

The Contractor will be directed to maintain access for all existing paths that may be used by ARFF vehicle within the Airfield Operations Area at all times during the construction of "Rehabilitate West VSR" project, see Exhibit 1, *Air Operations and Aircraft Movement Areas*.

c. Airport and Airline Support Vehicle Access Routes

All existing ARFF access routes will not be disturbed or changed during the "Rehabilitate West VSR" project. The Contractor will be required to maintain those roads at all times. Furthermore, the Contractor will be directed that Airfield Operations and emergency vehicles will always have the right-of-way. The proposed Contractor's access routes can be seen on Exhibit 3, *Staging and Storage Plan*.

d. Utilities for Firefighting

No known underground utilities used for firefighting within the AOA will be impacted during the construction of this project. The Contractor will be responsible for performing the necessary potholing for utilities to ensure damage to them is avoided.

e. Affected Approach and Departure Surfaces

The Approach and Departure surfaces for Runways 4R-22L and 4L-22R will not be affected by the Contractor's operations or staging during the construction of "Rehabilitate West VSR" project. See Exhibits 3 & 4 *Staging and Storage Plan and Construction Phasing Plan.*

The Instrument Approach Procedures and NAVAID Critical Areas on the airfield will not be affected by the Contractor's operations or staging during the construction of "Rehabilitate West VSR" project, See Exhibit 3, *Staging and Storage Plan*.

f. Construction Staging Area and Haul Routes

The Contractor's Staging Area, Stockpile Area, haul routes, and construction access areas are shown on Exhibit 3, *Staging and Storage Plan*. The Contractor's Staging Area and Stockpile Area have been located outside of all Object Free Areas and runway imaginary surfaces. Construction access areas and haul routes have been chosen to minimize the impact to airfield operations. The Contractor is required to supply gate guards at all temporary construction entrances to the airfield. Transient haul truck drivers are not required to obtain an Airport ID badge but are required to check in with the contractor security guard. The driver shall be issued an orange/white checkered flag or amber beacon to be mounted on the highest point of the truck; and shall be returned to the security guard upon check out. The driver shall be advised to remain on the marked haul route and follow the appropriate signs to the intended work area. At no time shall a driver unfamiliar with the worksite be allowed to deviate from the marked haul route. Additionally, during times of low visibility or darkness, the drivers shall be required to use an amber beacon.

2. Mitigation of Effects

a. Temporary Taxi Operations

The contractor will remain outside of active Runway/Taxiway Object Free Areas, as required per FAA AC 150/5370-2G, *Operational Safety on Airports During Construction*. Areas of closure are shown on Exhibit 4 *Construction Phasing Plan*.

b. Detours for ARFF and Other Airport Vehicles

All existing ARFF access routes will not be disturbed or changed during the "Rehabilitate West VSR" project. The Contractor must coordinate construction and construction vehicle movement with FFZ Operations during each phase of construction to ensure safety. Contractor vehicle movements to and from the site will follow approved Access and Haul Roads as defined on Exhibit 3, *Staging and Storage Plan*.

c. Maintenance of Essential Utilities

The Contractor is responsible for locating and protecting all existing utilities within the project area. Prior to any work in relation to the relocation of existing active communication and electrical lines, the Contractor shall coordinate with Airport Operations and the Engineer to set an appropriate time to complete this work to minimize the effects it may have to the normal operation of the airport.

d. Temporary ATC Procedures

The Falcon Field Air Traffic Control Tower (ATCT) will be kept up to date with all construction activities throughout the duration of the project. The ATCT will be provided with construction

schedules at least three weeks ahead of the proposed construction activities and will be expected to provide feedback about any concerns that the ATCT has for construction areas and Contractor movements. Project exhibits and phasing plans will be provided to the ATCT so that they are aware of the impacts to aircraft operations on the ground and in the air.

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D. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

1. NAVAID Critical Areas

No work will be completed as part of this project that will affect the NAVAID Critical Areas.

2. Effects of Construction on NAVAID Performance

No effects on NAVAID performance are anticipated due to this project.

3. Protection of NAVAID Facilities

No work will take place on or near NAVAID Facilities as part of this project. Contractor shall protect NAVAID Facilities in place.

4. Required Distance from NAVAIDs to Construction Areas

The Contractor is to maintain at least 15’ from all NAVAIDs. If it is necessary to complete work within 15’ of NAVAIDs, the contractor shall notify the Engineer and wait for further guidance.

5. Coordination Procedures with FAA/ATO

Falcon Field Airport staff will be responsible for continually coordinating as required with the FAA/ATO during construction.

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E. CONTRACTOR ACCESS

1. Location of Stockpiled Construction Materials

The Contractor's Staging Area, Stockpile Area, haul routes, and construction access areas are shown on Exhibit 3, *Staging and Storage Plan*. The Contractor's Staging Area and Stockpile Area have been located outside of all Object Free Areas and runway imaginary surfaces.

a. Contractor's Stockpile Area

All Contractor materials, equipment and supplies shall be staged within the designated staging area. The Contractor shall keep the staging area neat and clean of debris, see Exhibit 3, *Staging and Storage Plan*.

For equipment that must remain in the work area, the following criteria must be met:

- Equipment must be located outside of active the runway/taxiway safety and object free areas.
- Equipment must be marked with lighted barricades around the equipment perimeter with a spacing of no more than 10 feet.
- Equipment to be staged must be coordinated at least 48 hours in advance with the Engineer.
- The highest point of the equipment must be marked and lit with a red flashing/steady burning omni-directional obstruction light.

Stockpiling of materials is permitted, as long as the following criteria are met:

- Material may be stockpiled within the closed and barricaded portions of the project. When possible, stockpiled material should be placed as close to the proposed taxiway centerline and must be at least 300' from active taxiways/runways.
- The Contractor may also use the Contractor's Staging area to stockpile material.

Construction activity shall be prohibited when equipment penetrates the imaginary surface described in Title 14 CFR Part 77 and any restricted area as defined in AC 150/5300-13B, *Airport Design* current edition, unless a favorable airspace finding has been made by the FAA & FFZ and approved by the Operations Specialist on Duty. Equipment that penetrates the Part 77 imaginary surface must display an orange and white checkered flag during daytime operations and red obstruction light during nighttime use.

b. Proper Stockpiling of Materials

Stockpiled materials should be stabilized with water in order to reduce dust during windy conditions. The Contractor shall also try to minimize the height of stockpiles when possible. Daily inspections by the Contractor will be required of the stockpiles and other areas within the construction limits that may be affected by windy conditions. Construction Administration personnel will also be performing daily inspections on these areas to ensure compliance with this aspect.

c. Construction Site Parking and Equipment Parking

Construction Site Parking will be permitted within the Contractor's Staging Area. Personal vehicles will not be allowed onto the airfield.

Construction equipment will be parked within the Contractor's Staging Area when not in use. At the end of each working day, the Contractor will be responsible for making sure all equipment is removed from all Object Free Areas.

2. Vehicle and Pedestrian Operations

The Contractor is required to mark the access and haul routes with vertical panel barricades with red light prior to the start of work. Both sides of the haul route shall be delineated with barricades spaced at 50 feet (alternating on both sides of the route) with additional barricades placed at intersections the entire distance from the project location to the staging area location, see Exhibits 3 & 4 *Staging and Storage Plan and Construction Phasing Plan.*

The entire haul route (inside the AOA) must be marked with red steady burn or flashing red omni-directional lights 24/7, for the duration of the project. The Contractor will be responsible for posting employees/gate guards and obtaining stop lists from Airport operations at contractor access points into the secured area of the airfield and locking each access gate when leaving the project each day. A limited number of Airport Security keys may be issued. Keys will not be issued to non-badged persons. Keys can only be used by the individual the key is issued to and will be issued to prime contractor employees.

a. 49 CFR Part 1542 Airport Security

The project will require that the Contractor and any employees, subcontractors and delivery staff working on the airfield undergo the security badging process and will be responsible for being vigilant in helping to maintain security of the airfield. The Contractor will be responsible for posting employees/gate guards and obtaining stop lists at Contractor access points into the secured area of the airfield and locking each access gate when leaving the project each day.

The airport is operated in strict compliance with Transportation Security Administration (TSA) and Federal Aviation Regulations (FAR), which prohibit unauthorized persons or vehicles in the Air Operations Area (AOA). Equipment and workmen will be restricted to the work area defined on the plans. Any violation by Contractor's personnel or sub-contractors will subject the contractor to penalties imposed by the TSA, FAA or FFZ.

The Contractor will assume all fines against FFZ assessed to them by the FAA/TSA for the Contractor's security violations. Typical fines are ten thousand dollars ($10,000.00) or more per incident.

The Contractor shall be responsible for the protection of the construction site, and all work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons. Security measures shall include such additional security fencing, barricades, lighting, and other measures as the Contractor may deem necessary to protect the site.

The Contractor's responsibilities for work areas are as follows:

1. The Contractor shall be held responsible for controlling his employees, subcontractors, and their employees regarding traffic movement.
2. The Contractor shall rebuild, repair, restore, and make good at his own expense all injuries or damages to any portion of the work occasioned by his use of these facilities before completion and acceptance of his work.
3. The Contractor shall submit to the Engineer in writing a detailed work plan for each construction phase. The work plan shall include, but not be limited to, temporary electrical facilities, installation sequence of underground electrical and storm sewer systems, paving sequence, installation sequence of electrical items, maintenance of airfield electrical and NAVAID power and control circuits. This plan shall be submitted 14 calendar days prior to the start of each construction phase. No work within the construction phase may commence until the phase work plan is approved.
4. The Contractor shall submit to the Engineer in writing a plan, by construction phase, for controlling construction equipment and vehicular movements in the Air Operations Area (AOA). This plan shall be submitted at the Pre-Construction Meeting. No work may commence until this plan is approved. The Plan must include material haul roads.
5. The Contractor shall provide a responsible Traffic Manager whose duty shall be to direct all traffic on or near active runways, taxiways, haul roads, and highways. Paved surfaces shall be kept clear at all times and specifically must be kept free from all debris which might damage aircraft.

All Contractor and sub-contractor personnel that are to be issued an Airport Identification Badge are required to attend and successfully complete a training class before being issued an identification badge. Fees for the security badge include attendance for the necessary training classes.

The types of training required will be determined by the scope and location of the work involved. All personnel that will receive Airport badges shall attend the security training. Additionally, personnel operating vehicles or equipment within the Restricted Area of the airport will attend Equipment Operator training, all personnel applying for a badge will attend the Operational Safety on Airports training and any personnel acting as a Gate Guard/Crossing Guard will attend the Gate Guard/Crossing Guard training.

The Contractor should allow thirty (30) business days lead time for initial signatory badge to be issued.

The Contractor should allow thirty (30) business days lead time for employee badges to be issued.

The Contractor shall immediately notify Airport Operations/Badging Office of any Contractor personnel whose employment status has changed.

The Contractor shall be responsible for retrieving all security badges and keys and return them to the Badging Office. A fee will be charged for each badge that is damaged, lost or not returned.

The FFZ Badging Office will require the following from each badge applicant before a security badge is issued:

- **Contractor Verification form**
- **Level 1 background application**
- **Online driver training course**
- **Copy of driver's license**
- **Personal Photo for Badge**
- **Associated required forms**

Airport security badges are issued by FFZ Airport Operations and will be required when working within the Restricted Area. It is recommended that Superintendents, Foremen, Supervisors, or Leads be issued an airport security badge who then can provide the required escort for their work crew.

- Airport ID badges issued by the Airport are property of the Airport and must be surrendered upon the request of any Airport personnel.
- No person shall loan or provide Airport ID badges to anyone other than to whom the badge was issued.
- Airport ID badges must be properly displayed on the outermost garment, above the waist, at all times while within the Restricted Area.
- Airport ID badges shall not be mutilated or altered from its original form in any way, nor shall any such media be reproduced or copied in such a manner as to degrade the security of the ID system.
- Airport ID badges are non-transferable.
- Damaged badges will be subject to a replacement fee.
- Contractors are required to wear the armband that accompanies the badge.
- The Contractor shall be assessed a fee for each lost/unreturned badge.
- The Contractor must immediately report to the Badging Office any lost badge or any employee who quits or is terminated, and the employee's badge must be returned to FFZ.

b. Marking and Lighting of Construction Vehicles

All Contractor and subcontractor vehicles must be properly marked with the company name at least four (4) inches in height on both sides of the vehicle. All vehicles must have a 3' x 3' orange and white checkered flag or a flashing amber beacon at the tallest point on the vehicle for daytime construction activities, and a flashing amber or yellow beacon, mounted at the highest point, for nighttime and during low visibility conditions construction activities.

All vehicle marking and lighting must comply with the most recent version of Advisory Circular 150/5210-5D, *Painting, Marking and Lighting of Vehicles Used on an Airport.*

c. Construction Vehicle Operations within AOA

For the purposes of this project, the AOA is defined as any area within the secured (fenced) area of Falcon Field Airport.

No vehicle shall operate within the Air Operations Area (AOA):

- Unless operated by an individual in possession of a valid Airport Identification Badge with an equipment operator endorsement or, under the direct escort of someone who is.
- In a careless or negligent manner.
- With disregard of the rights and safety of others.
- At a speed or in a way which endangers persons or property.
- While the driver is under the influence of drugs or alcohol.
- If such vehicle is loaded or maintained as to endanger persons or property.

d. Vehicle Driver Training Requirements

All Contractor and sub-contractor personnel that are to be issued an Airport Identification Badge, including for vehicular privileges, are required to attend and successfully complete a training class before being issued an identification badge. Fees for the security badge include attendance for the necessary training classes.

The types of training required will be determined by the scope and location of the work involved. All personnel that will receive Airport badges shall attend the security training. Additionally, personnel operating vehicles or equipment within the Restricted Area of the airport will attend Airport Driver training, all personnel working near active movement areas will attend the Operational Safety on Airports training and any personnel acting as a Gate Guard/Crossing Guard will attend the Gate Guard/Crossing Guard training. Refer to Section E-2a for additional information.

e. Two-Way Radio Communications Procedures

Should any Contractor employee need to communicate via radio with Airport Operations and/or the Air Traffic Control Tower, the following procedure will be used:

- All flaggers, spotters and observers controlling equipment crossing active aircraft areas will receive training from FFZ staff and are required to have a fully operational FFZ-approved radio to contact the Air Traffic Control Tower to report any problems that may affect aircraft operations. Contractor must provide an FFZ approved radio. They shall be familiar with radio call signs, channels, and phone numbers. All observers and flaggers shall immediately contact Operations if any equipment or vehicle becomes disabled or is unable to yield to aircraft for any reason.
- Use primary radio or back-up telephone equipment to contact Airport Operations and the contractor Foreman of any security violation or threat to airport safety. Report any failure of radio or back-up equipment immediately.

- Assure that all authorized contractor employees or suppliers use designated haul routes and staging areas.

This procedure will also be discussed at length during the Pre-Construction Meeting for this project and will be part of the vehicle driver training.

f. Maintenance of Airport Secured Area

The Contractor will be required to maintain situational awareness for the duration of this project, and will be required to report suspicious situations, persons, and/or materials to the nearest Airport employee immediately. See Section E-2a. for additional information.

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F. WILDLIFE MANAGEMENT

The Contractor will be required to follow any Airport Wildlife Management Procedures that are in place, but at a minimum the Contractor will be required to:

1. Perform daily inspections of the work areas (including the Contractor's Staging Area) to remove any trash, debris and food scraps and place these items in an appropriate trash receptacle.
2. Close and lock any airfield access gates that are not in use.
3. Report any significant wildlife sightings within the AOA to the nearest Airport employee.

1. Trash

The Contractor shall be responsible for keeping the construction area (and adjacent areas) clear of trash and construction debris. All trash and construction debris shall be collected and hauled off site.

2. Standing Water

The Contractor shall be responsible for maintaining existing site drainage, and any areas that may experience standing water during construction shall be drained/pumped out by the Contractor on a daily basis, at the Contractor's expense.

3. Grass and Weeds

The Contractor shall be responsible for maintaining a clean and cleared work site, and any areas that may experience grass/weed growth within the site during construction shall be removed by the Contractor, at the Contractor's expense.

4. Poorly Maintained Fencing and Gates

The Contractor shall be responsible for maintaining fences and gates associated with this project. The Contractor shall be responsible for closing and locking all gates when not in use and shall provide a gate guard at all times that the gates are not closed and locked.

5. Disruption of Existing Wildlife Habitat

It is not anticipated that the work associated with this project will interfere or disrupt the existing habitats of local wildlife.

G. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

The Contractor will be required to maintain a fully operational sweeper vehicle on-site and perform routine sweepings over the construction area to minimize FOD.

The Contractor will be required to keep water on construction areas to minimize the possibility of FOD generated by wind. The Contractor will be required to conduct FOD checks at the end of each working shift/day to remove any FOD that has made its way onto the airfield pavements from the Contractor's construction activities. Airport Operations and Construction Administration personnel will be present for these FOD checks to ensure compliance.

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H. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

Any hazardous or regulated waste material produced by the Contractor shall be properly disposed of at the Contractor's expense pursuant to all local, state, and federal regulations. The Contractor may be required to provide test results to confirm that a contaminated area has been properly remediated.

Any hazardous materials situation that poses a threat to safety or property shall be immediately reported by emergency personnel by dialing '911' and to the nearest Airport employee.

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I. NOTIFICATION OF CONSTRUCTION ACTIVITIES

1. Maintenance of a List of Responsible Representatives/Points of Contact

A full list of Points of Contact and Contact Procedures will be developed prior to the Pre-Construction Meeting for this project. The Resident Engineer will generally be the central point of contact with all communication relating to construction being filtered through him. Matters relating to Airport Operations and Airport Traffic Control will be handled through Airport Management and ATCT, with assistance from the Resident Engineer and/or Contractor as needed.

ADDITIONAL INFORMATION, CONTACTS		
Main Office:	**480-644-2450**	**(MON-THURS, 7:00 AM TO 6:00 PM)**
Mesa Police (non-emergency):	**480-644-2211**	**(24 HOURS/DAY, 7 DAYS/WEEK)**
OPERATIONS:	**480-644-3326**	**(24 HOURS/DAY, 7 DAYS/WEEK)**
Project Manager (City of Mesa)	**602-376-3411**	**TJ Welsh**
Project Manager (FFZ)	**480-644-4230**	**Mark Gibbs**

The Airport will be responsible for all communications with the local ATO/Technical Operations. FFZ will acquire a list of the ATCT Managers that will be on duty during the project prior to the start of construction. This list will be made available to the Airport staff by the date of the Pre-Construction Meeting.

2. NOTAM

All proposed construction activities that affect operations at the Airport will be immediately relayed to all Airport Users and the FAA by way of meetings, advisories, NOTAMs, and the filing of Form 7460 as appropriate (minimum of 45 days prior to the proposed construction) all issued by one of the Airport's designated staff or Engineer.

This project is phased in order to maintain a fully operating airfield; therefore, each sub-phase will likely require additional information to be passed on to the Airport Users and the FAA as the project progresses. NOTAM's and project advisories will be distributed approximately three (3) days prior to a new construction phase which may include effects to NAVAIDs, temporarily relocated thresholds, approach conditions, lighting, runway and taxiway closures, and other items that may affect normal operating conditions at the Airport. Anticipated night work by the Contractor will need FFZ approval prior to proceeding with the night work.

FFZ staff will be responsible for notifying the OCC of any closed facilities and/or hazardous conditions at the Airport. The OCC will be notified about closed facilities as soon as practicable. Any unexpected hazardous conditions will be immediately relayed to the OCC by Airport staff.

3. Emergency Notification Procedures

If a serious injury requiring medical attention occurs call 911 immediately. If call is made from a cellular phone, instruct the emergency operator to connect to the City of Mesa Emergency Dispatch, otherwise the call will be routed to the Maricopa County Dispatch, resulting in a delayed emergency response. Immediately following a 911 call, notify Airport Operations.

The Control Center receives, and routes all calls that come into the Airport. The Control Center also handles all dispatch functions for Airfield, Terminal Services, Shuttle, and Maintenance personnel. For routine assistance or to put in a work order, please call 480-988-7570.

The Contractor shall submit to the Engineer a list of personnel who can be contacted 24 hours a day, seven (7) days a week and can respond in a reasonable time frame regarding any possible emergency on the work site. The list must include names, job title and phone numbers.

4. Coordination with ARFF Personnel

For non-emergency issues that need to be coordinated with the Airport's ARFF, the Contractor must notify the FFZ Project Manager or delegate. Non-emergency issues may include but are not limited to:

- Work in the vicinity of the ARFF building.
- ARFF access routes around construction work areas.
- Temporarily affected utilities by construction

5. Notification to the FAA

No relocations of NAVIADS are required for this project. No coordination with the FAA or notifications are required.

This project will be funded by the FAA with ADOT and FFZ match.

Construction and staging for this project will not take place within the runway Approach/Departure Surfaces. There will be no affect to Instrument Approach Procedures during this project.

J. INSPECTION REQUIREMENTS

1. Daily (Or More Frequent) Inspections

Daily inspections will be required for areas requiring haul routes overactive airfield pavements to ensure that FOD is eliminated. In addition, daily inspections of Contractor access areas will be performed to help ensure safety on the airfield. Daily inspections will be conducted by the FFZ Project Manager or delegate, a contractor representative, and a Construction Administration field representative.

All discrepancies noted in the inspection must be corrected to the satisfaction of the Engineer prior to the Contractor leaving the worksite.

Should any inspection reveal any FOD concerns, the Contractor shall have a crew ready to remove any FOD prior to reopening the pavements. Should any inspection reveal work that does not meet Contract requirements or that is deficient in any way, the Contractor shall mobilize a crew as soon as possible to remedy the deficient areas so as to avoid prolonging the continued closure of the areas.

2. Final Inspections

Inspections will be required at the Substantial Completion and Final Completion phases of the project. These inspections will be attended by the Contractor, Airport Manager, FAA Representatives, an ADOT Grant Manager, the Engineer, and Construction Administration representatives. A punch list will be developed at the Substantial Completion inspection, and any items placed on the punch list will be required to be completed within 30 days, in time for the Final Inspection.

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K. UNDERGROUND UTILITIES

The Contractor is required to Blue Stake and pothole (if necessary) all existing utilities within the project area prior to the beginning of any construction activities on the airfield. Protection of utilities may include, but are not limited to, flagging utilities, marking lines on pavement, placement of barricades along utility lines and at manholes. A detailed Technical Specification has been provided to the Contractor for additional requirements.

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L. PENALTIES

The Contractor will be required to enforce his company's safety policies with the employees working on this project. In addition, the Airport may enforce policies that are in place to protect the safety of the Airport property, its users, and the local Airspace. These policies include, but are not limited to:

- Informal conversations with the subject person or party.
- Formal meetings/conversations with the subject person or party and their supervisors/managers.
- Formal written notices of non-compliance from the Airport.
- Immediate removal from Airport property; and
- Notification of law enforcement personnel for persons that cause situations posing dangerous threats to property or personal safety.

Due to both the safety and security precautions necessary at FFZ, failure of the Contractors to adhere to the prescribed requirements/regulations has consequences that may jeopardize the health, welfare and lives of the customers and employees at FFZ, as well as the Contractor's own employees. Therefore, if the Contractor is found to be in non-compliance with the security, airfield badging/licensing and airfield safety requirements by either the Owner's personnel or the Engineer or his representatives, the Owner may issue Notice of Violation (NOV). The Contractor may appeal the NOV, however appeals must be made in writing, and within four (4) calendar days of the offending incident, to the FFZ Project Representative. The appeal shall state, in sufficient detail, why the NOV/circumstances is unwarranted. A final and binding decision on the appeal will be made by Airport Operations within ten (10) working days of receipt of the appeal, the Contractor will then be notified of this decision in writing. No further appeals to the specific NOV will be considered/accepted. Subsequent fines and/or requirements, if any, will be applied in accordance with Table 2, Schedule of Fines listed below, and the applicable amount will be withheld from the Contractor's monthly payment application following the date of the violation. The Prime Contractor shall be held financially responsible for all NOV's issued to their subcontractors, lower tier subcontractors, or material suppliers associated with this Contract.

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M. SPECIAL CONDITIONS

Special unforeseen conditions or circumstances may require the activation of special procedures by the Airport. In cases involving aircraft emergencies or distressed aircraft the Contractor may be required to temporarily halt construction activities and immediately vacate the area in which he is working. The nearest Airport Operations employee, FFZ Project Manager or delegate will be expected to notify all Contractor personnel in the vicinity and promote safe and orderly removal of all Contractor personnel and equipment to an area that is no longer in conflict with the emergency at hand. The Contractor will be expected to immediately comply with all Airport personnel directions and may not return to the subject work area until given all clear to do so.

In the event of low-visibility conditions, or other conditions which may signal the need for additional unimpeded space next to runways or taxiways, the Contractor may be required to move to another work area of the project or temporarily stop work. The Contractor will be made aware of the possibility of these situations during the Pre-Construction Conference.

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N. RUNWAY AND TAXIWAY VISUAL AIDS, MARKING, LIGHTING, SIGNS, AND VISUAL NAVAIDS

1. General

No improvements or alterations to the existing Runway/Taxiway pavement markings, Runway/Taxiway lighting, and Runway/Taxiway signage as part of this project. Visual NAVAIDS are not included in this project.

2. Markings

If required, all temporary and permanent markings required for this project will meet the requirements of AC 150/5340-1M. Reference the Pavement Marking Plan.

If required, the obliteration of existing markings will be done via a method approved by FFZ. The Advisory Circular specifically prohibits the use of black paint as a method of obliteration.

3. Lighting and Visual NAVAIDS

Lighting for low-profile barricades used within the AOA shall be red and shall be a steady-burn or flashing light. Lighting used for construction barricades shall be red and shall be a steady-burn or flashing light. All barricading and lighting shall conform to the details in the plans and specifications. Low-profile barricades shall not be spaced more than 4 feet apart and shall be placed to prevent ground vehicle traffic from unintentionally moving onto active airfield pavements, and alert aircraft traffic of closed facilities. Locations and placement of barricades shall be placed as shown on Exhibit 4 *Construction Phasing Plan*.

Lighting for any closed facilities will be disconnected or covered and secured with a material that prevents light leakage. Disconnected lighting shall be completed so as not to affect the remaining portion of facilities that may be open to aircraft traffic.

Temporary visual aids may be used from time to time as the project progresses to increase safety. Any temporary visual aid, including temporary edge lights or threshold lights for relocated thresholds, will be secured either in-pavement or with heavy items preventing blowaway, but not obscuring the objects themselves.

All temporary visual aids must have frangible connections.

4. Signs, Temporary, Including Orange Construction Signs, and Permanent Signs.

Temporary airfield signing is not anticipated for this project. However, airfield signage illuminated to indicate an open facility that is closed due to construction shall be covered and secured with a material that prevents light leakage. Signs may be partially covered as a number of signs have multiple panels. In this case, only the affected panels shall be covered.

O. MARKING AND SIGNS FOR ACCESS ROUTES

Temporary signing used for Contractor access/haul routes, open trenching or other hazards shall be clear, concise, reflective, and large enough so as to minimize safety-related issues. All temporary signing shall meet the requirements of the most current version of the MUTCD and shall be frangible.

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P. HAZARD MARKING AND LIGHTING

1. Purpose

a. Use of Warning Indicators for Construction Areas

Within aircraft movement areas, construction areas will be barricaded off by low-profile or vertical panel barricades with red flashing or steady burn lights, as shown on Exhibit 4 *Construction Phasing Plan*. For construction not located within aircraft movement areas, vertical panel barricades with red flashing or steady burn lights may be used to prohibit vehicle or pedestrian traffic from crossing into construction areas.

b. Hazard Marking and Lighting

All potential hazards, including but not limited to, open trenches, manholes, and steep embankments shall be barricaded and lighted, with orange fabric construction fencing to prohibit accidental falls. The Contractor's site-specific and company safety plan/guidelines shall address the protection of these areas and the protection of the employees against these hazards. The Contractor shall also assign a Project Safety Officer for the project to monitor and enforce the Contractor's safety guidelines and the provisions of this Construction Safety Plan.

When areas on the Airport are closed or present hazards due to construction activities, they should be marked and lighted according to AC 150/5340-1M, *Standards for Airport Markings*, current edition. Marking and lighting must be approved by the Operations Officer on Duty.

c. Less Obvious Construction Related Hazards

It is the Contractor's responsibility to be aware of and look out for less obvious construction related hazards. Such hazards may include, but are not limited to:

- Loose debris, trash, etc. in the work areas
- Loose debris, trash, etc. on or in the bed of vehicles
- Jet blast
- Jet engine run-up noise

The Contractor shall be vigilant in keeping the work areas in a safe and trash-free condition as much as possible so as to prevent debris from making its way onto active airfield pavements. The Contractor shall also exercise due care when working the vicinity of active aircraft. This can include the use of hearing protection and the securing of clothing and hardhats while working.

d. Markings for Temporary Closures

Temporarily closed taxiways shall be barricaded to alert air traffic.

2. Equipment

a. Securing of Equipment to Prevent Blow-Down

Barricading and lighting equipment shall be secured to prevent blow-down. This may include the use of water-filled items, the use of sandbags, and/or flat heavy footings.

b. Spacing of Barricades

See Exhibit 4 *Construction Phasing Plan* for barricade location and placement requirements.

c. Requirements of Red Lights

Red lights on low-profile and vertical barricades shall be of the flashing or steady-burn type. The rate of flash and illumination, as well as barricade reflectivity, shall meet the requirements of the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD).

d. Low-Profile Barricades and Markers

Low-profile barricades shall be used on airfield pavements within or on Taxiway Safety Areas. Low-profile barricades shall be reflective, have a steady-burning or flashing red light, and shall be properly secured.

e. Proper Marking of Barricades

Barricades shall be properly colored and marked with reflective material according to the plan details for this project and the latest edition of the MUTCD.

f. Proper Reflectivity and Lighting of Barricades

Barricades shall be properly colored and marked with reflective material according to the plan details for this project and the latest edition of the MUTCD.

g. Maintenance of Airport Hazard Lighting and Barricades

The Contractor shall designate an employee (or subcontractor) to be responsible for the regular maintenance of barricades and lighting. In addition, the Contractor shall provide an emergency contact number for the responsible individual to perform any emergency maintenance on any barricades or lighting and insure functional operation of all hazard lighting and barricades 24 hours per day, 7 days per week. The designated person or sub-contractor shall be able to respond to the Airport within one (1) hour of notification of a non-functioning barricade.

Q. WORK ZONE LIGHTING FOR NIGHTTIME CONSTRUCTION

No nighttime construction is anticipated during construction of "Rehabilitate West VSR" project.

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R. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS, OBJECT FREE AREAS, OBSTACLE FREE ZONES, AND APPROACH/DEPARTURE SURFACES

The Contractor's company safety plan/guidelines shall include a provision for jet blast protection. At a minimum, it should address requirements for the securing of clothing and hardhats, as well as any requirements for hearing protection.

1. Runway Safety Area (RSA)

No construction activities may occur within any active Runway Safety Areas without taking the appropriate measures to close the runway. These measures include strict coordination with the Airport, ATCT and the Engineer. Although not anticipated for this project, if the Contractor requests to perform work outside of the current construction area that would impact an active Safety Area, a minimum of at least a 48-hour notice to the Airport is required.

During the construction of "Rehabilitate West VSR" project, no adjustments will be made to the existing airfield RSA's.

Although not anticipated for this project, no trenches shall be left open within active RSA's. Any trenching within an RSA needing to be left open after the Contractor leaves the work site for the day shall be properly plated and capable of safely supporting aircraft traffic, but it is the intent that this be a unique situation with extremely limited occurrences. Any requests of this type shall be submitted in writing to the Engineer at least 48 hours prior to the construction. The Engineer will confer with the Airport and the FAA, and any decision related to the particular situation at hand shall be final.

Contractors shall close trenches located within active safety areas at the end of each workday. No open trenches or excavations will be allowed within the following active safety areas without prior coordination and approval with the Engineer:

- Within 250-feet parallel to an active runway centerline (trenches/excavations within 200-feet of a runway centerline require a runway closure).
- Open trenches not to exceed 500-feet in length at any one time.

No open excavations are permitted within the airfields active RSAs as part of this project.

2. Runway Object Free Area (ROFA)

Construction equipment not in use shall be returned to the Contractor's Staging Area by the Contractor, where practicable. In no case shall construction equipment be left within any Object Free Areas.

3. Taxiway Safety Area (TSA)

No construction activities may occur within any active Taxiway Safety Areas without taking the appropriate measures to close the taxiway. These measures include strict coordination with the Airport, ATCT and the Engineer. Although not anticipated for this project, if the Contractor requests to perform work outside of the current construction area that would impact an active Safety Area, a minimum of at least a 48-hour notice to the Airport is required.

During the construction of "Rehabilitate West VSR" project, no adjustments will be made to the existing airfield TSA's.

Although not anticipated for this project, no trenches shall be left open within active TSA's. Any trenching within a TSA needing to be left open after the Contractor leaves the work site for the day shall be properly plated and capable of safely supporting aircraft traffic, but it is the intent that this be a unique situation with extremely limited occurrences. Any requests of this type shall be submitted in writing to the Engineer at least 48 hours prior to the construction. The Engineer will confer with the Airport and the FAA, and any decision related to the particular situation at hand shall be final.

Contractors shall close trenches located within active safety areas at the end of each workday. No open trenches or excavations will be allowed within the following active safety areas without prior coordination and approval with the Engineer:

- Within 44.5-feet parallel to the existing Taxiway centerline [44.5-feet was determined by taking the distance from the taxiway centerline to then edge of the TSA for Group II aircraft (39.5-feet), plus an additional 5-feet per AC 150-5370-2G, Section 221, which states "Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang)"].
- Open trenches not to exceed 500-feet in length at any one time.

No open excavations are permitted within the airfields active TSAs as part of this project.

No construction activities may occur within any Taxiway Safety Areas without taking the appropriate measures to close the subject facility. These measures include strict coordination with the Airport, ATCT and Engineer. Although not anticipated for this project, if the Contractor requests to perform work outside of the current construction area that would impact an active Safety Area, a minimum of at least 48-hour notice to the Airport is required.

4. Taxiway Object Free Area (TOFA)

Construction equipment not in use shall be returned to the Contractor's Staging Area by the Contractor, where practicable. In no case shall construction equipment be left within any Object Free Areas.

No construction activities will take place in active taxiway OFA's. See Exhibit 4 *Construction Phasing Plan,* for barricaded and closed portions of connecting taxiways.

5. Obstacle Free Zone (OFZ)

The OFZ and Threshold Siting Surfaces will not be affected as part of this project.

6. Runway Approach/Departure Surfaces

The Approach/Departure Surfaces and Clearways will not be affected as part of this project. But due to the location of the improvements associated with the project there will be a height restriction of 12.5’ max, enforced on all construction equipment, vehicles, and stockpiled materials.

(Section Intentionally Left Blank, See Following Pages)

S. OTHER LIMITATIONS ON CONSTRUCTION

1. Prohibitions

Open flame welding and the use of torches shall be reviewed by the Airport prior to the project commencing. Contractor will have their own "Hot-Work Permit" which will be reviewed by the Airport. If this type of work is required on this project, the Contractor shall notify the Airport.

The use of flare pots is not permitted within the AOA at any time.

The use of electrical blasting caps is not permitted within 1,000-feet of the Airport property.

2. Restrictions

a. Airfield Lighting Vault Lock-Out/Tag-Out Policy

The purpose of this procedure is to standardize the lock-out/tag-out procedures between Electrical Contractors, Airport Electricians, Operations, and the Air Traffic Control Tower:

1. The Airport electricians responding to a lock-out/tag-out request will coordinate with the ATCT through Operations.
2. After Operations notify electricians of closures, the FFZ electricians will turn off the closed runways/taxiways using the airfield computer system.
3. The Contractor will supply an approved breaker-locking device and lock, then lock off the individual breakers for the circuits to be locked out. These items will remain in the vault in a lock box provided by FFZ.
4. The load break elbows and/or S-1 switches will be pulled, locked on the corresponding regulator by the Electrical Contractor, and the S-1 cabinet will be locked by the Contractor.
5. The Electrical Contractor and FFZ electricians must fill out lock-out/tag-out forms before leaving the Vault.
6. Upon completion of the lock-out, the Contractor will remove all locks and install the load breaks. All circuits must be verified in the manual mode on the regulator. Operations will perform a complete check of the lights in the field to verify actual operation.
7. When that has been completed, FFZ electricians will notify FFZ Operations when lock-in is complete and regulators are in remove control; Operations will notify the ATCT that they have control of the airfield lighting. *This Procedure will be updated prior to construction.

b. Contractor Employee Safety

The Contractor and its employees shall employ safe practices per the Contractor's safety procedures and industry safety standards. The Contractor's safety procedures will ultimately dictate the use of protective clothing and equipment for its employees, but at a minimum, the Contractor's employees must be equipped with a Type 2 safety vest, and every employee that

enters the site must be wearing said vest. The vest must be worn the entire time that the employee is within the AOA.

(Section Intentionally Left Blank, See Following Pages)

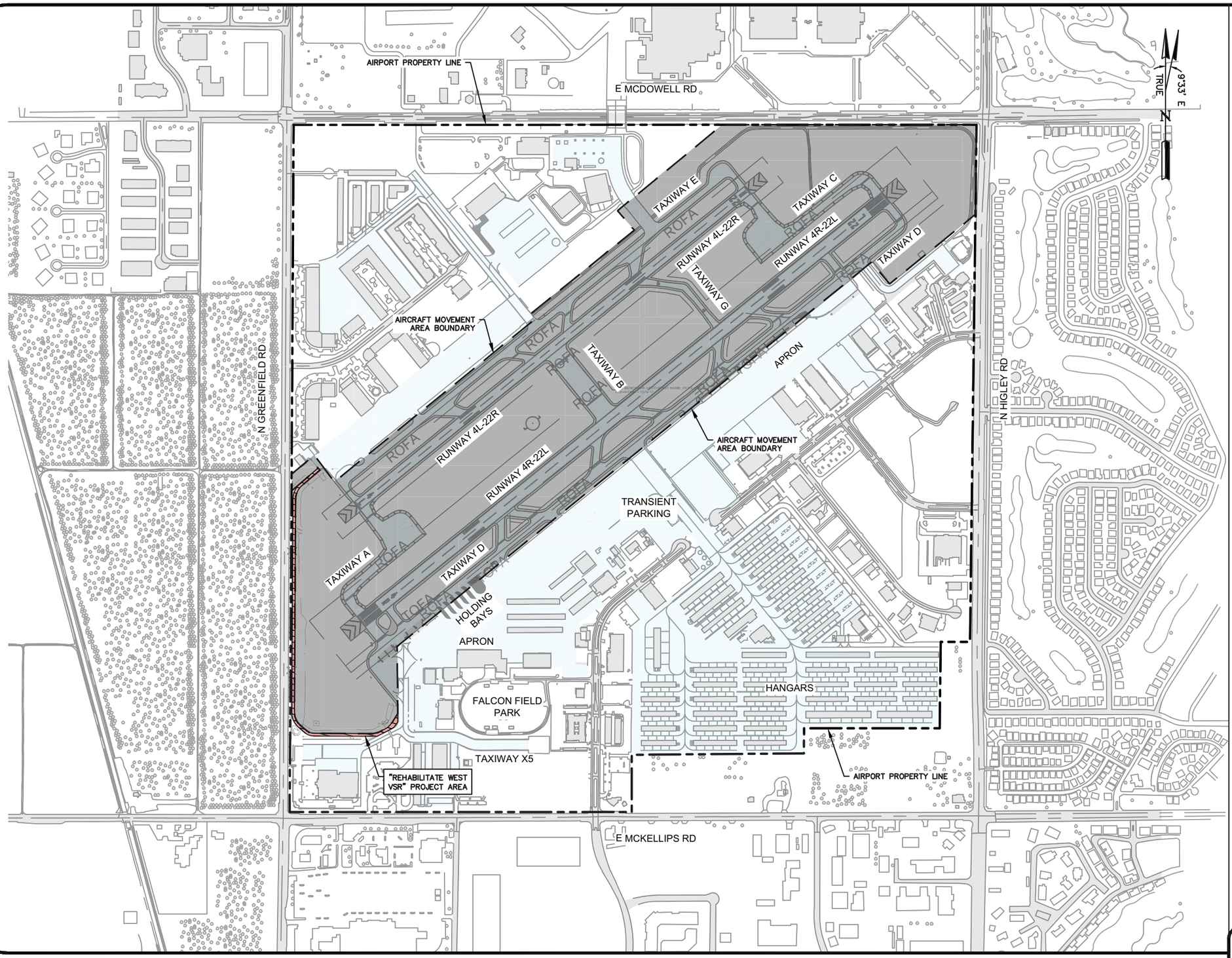
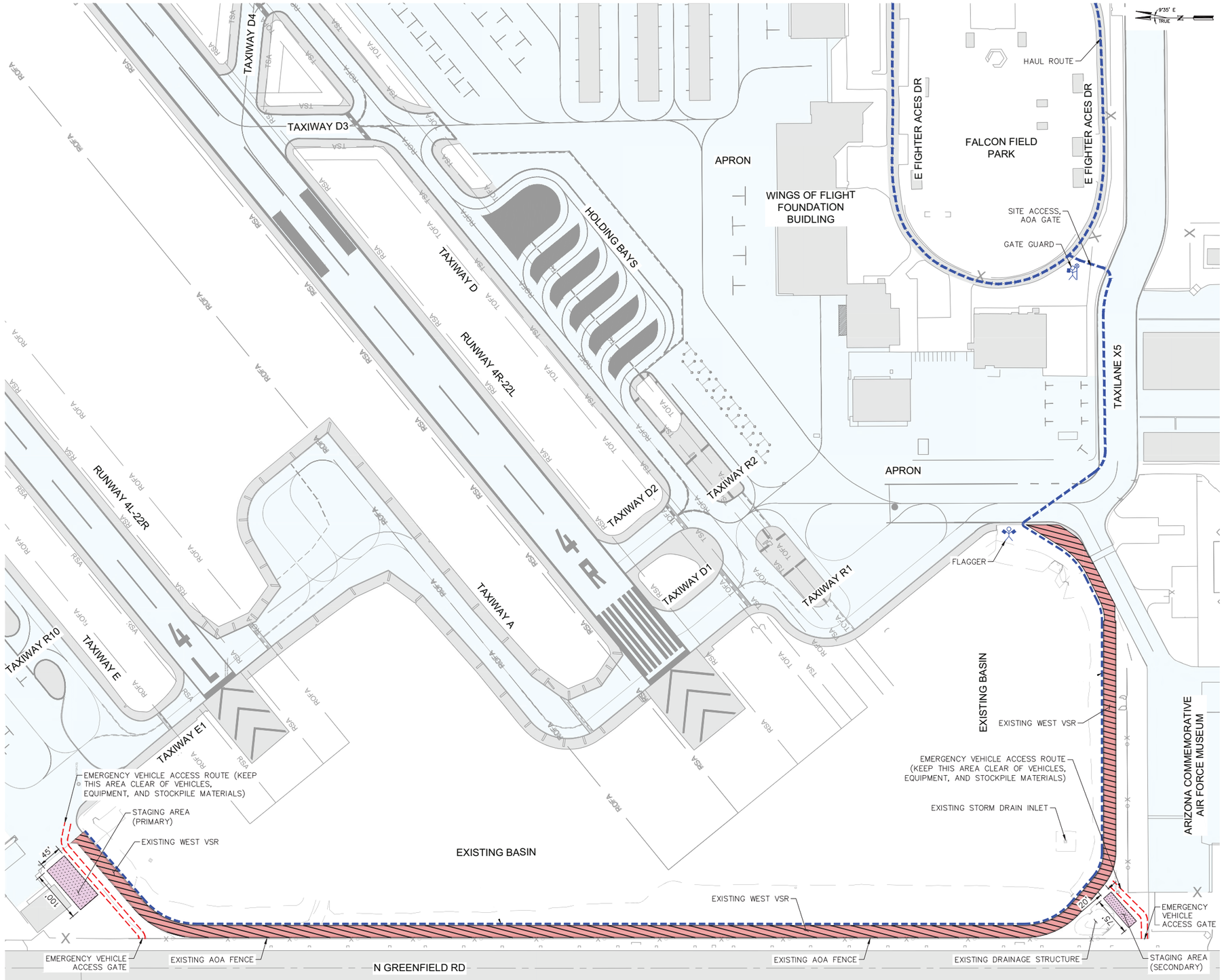


EXHIBIT 1
AIR OPERATIONS AND MOVEMENT AREAS

GRAPHIC SCALE
750 0 375 750 1500
(IN FEET)

Kimley»Horn

K:\EAV_Aviation\191500306 - Rehabilitate West VSR\CADD\Exhibits\Movement Area Exhibit.dwg Apr 06, 2026 Brad.Mabet
XREFS: x191500306 - VF x191500306 - VS EX-HTCH x191500306 - VS x191500306 - Bld



LEGEND

- PROJECT AREA
- CONTRACTOR STAGING AREA
- RSA — RUNWAY SAFETY AREA
- HAUL ROUTE/SITE ACCESS
- EMERGENCY ACCESS ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- GATE GAURD (TO BE SUPPLIED BY CONTRACTOR)

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE MAINTENANCE AND REPAIR OF THE WEST VEHICLE SERVICE ROAD (VSR) ROAD. THE PROJECT INCLUDES: AC MILL & REPLACEMENT, FULL DEPTH ROAD RECONSTRUCTION, TRENCHING, AC MILLINGS SHOULDER COMPACTION, AND AC OVERLAY.

GENERAL NOTES:

1. SEE SHEETS C2.1 TO C2.2 FOR CONSTRUCTION PHASING PLAN
2. SEE SHEETS C3.1 TO C3.4 FOR DEMOLITION PLAN
3. SEE SHEETS C4.1 TO C4.4 FOR PROJECT DETAILS
4. SEE SHEETS C5.1 TO C5.2 FOR GEOMETRIC LAYOUT PLANS
5. SEE SHEETS C6.1 TO C6.7 FOR PLAN AND PROFILE PLANS
6. SEE SHEET C7.1 FOR STORMWATER POLLUTION PREVENTION PLAN

EXHIBIT 2
PROJECT LAYOUT

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)

PLANS TO BE PRINTED IN COLOR
PRINTING OR COPYING PLANS IN BLACK & WHITE (GRAYSCALE) MAY CAUSE DESIGN NOTES, DIMENSIONS, CALLOUTS, LINE WORK, ETC. TO BECOME UNREADABLE. OFFICIAL PLAN SETS TO BE USED FOR CONSTRUCTION AND RECORD KEEPING ARE TO BE PRINTED IN COLOR.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	REVISION	BY	DATE

FIRMS NAME

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61904 JAMES M. MCGEE Certificate No. Date Signed Arizona, U.S.A. Expires 06/30/2027

SCALE
Horiz. 1" = 100'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NGW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR
PROJECT LAYOUT PLAN

PROJECT NO.
191500308
FILE NO.
191500308 - PL
C1.4
SHEET 4 of 31
CATALOG NO.
A309194

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - PL.dwg, Apr 08, 2026, Brad.Nisbet
XREFS: x191500308 - NTPL x191500308 - VS x191500308 - VS EX-HTCH x191500308 - BM x191500308 - VF x191500308 - TB - MESA - V2 SEAL-JMM-191500308
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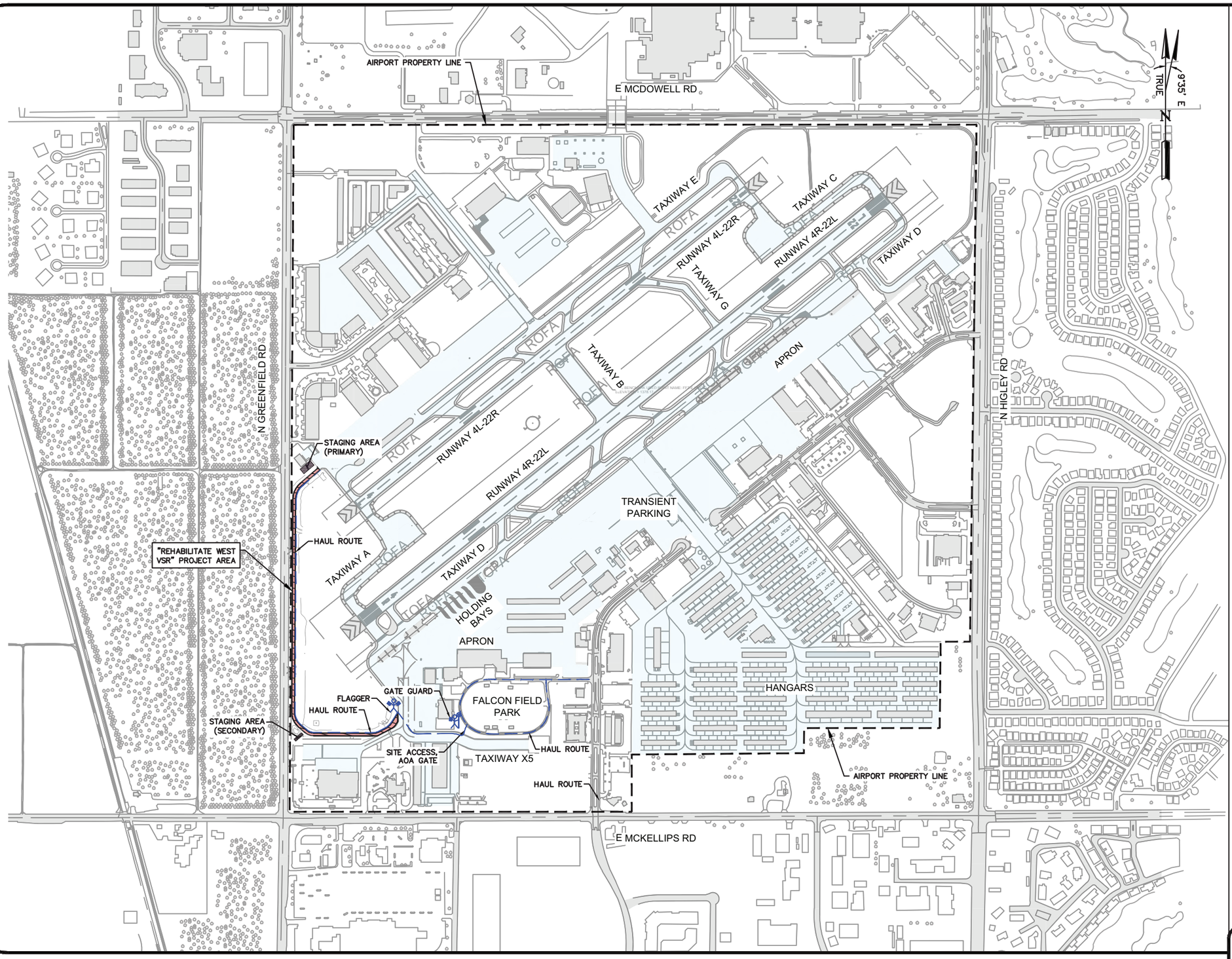


LEGEND

- AIRPORT PROPERTY LINE
- HAUL ROUTE
- PROJECT AREA
- STAGING AREA

NOTES:

1. HAUL ROAD TO BE MARKED WITH 245 VERTICAL PANEL BARRICADES SPACED EVERY 50 FEET STAGGERED ON BOTH SIDES OF THE ROAD/ROUTE WITH ADDITIONAL BARRICADES AT ROADWAY INTERSECTIONS (REQUIRED INSIDE AOA ONLY). RED LIGHTS REQUIRED ON BARRICADES.
2. UPON COMPLETION OF PROJECT THE CONTRACTOR SHALL RESTORE ALL AREAS AFFECTED BY THE CONTRACTOR'S OPERATIONS, (STAGING AND STORAGE AND HAUL ROUTES), TO ORIGINAL CONDITIONS INCLUDING SOIL STABILIZATION, AS REQUIRED. (NPI).

EXHIBIT 3
STAGING PLAN

GRAPHIC SCALE
750 0 375 750 1500
(IN FEET)

Kimley»Horn

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\Exhibits\(5) Staging Area.dwg Apr 08, 2026 BroadNebet
XREFS: x191500308 - VF d191500308 - VS EX-HTCH x191500308 - VS x191500308 - Bld

CONSTRUCTION VEHICLE HEIGHT REQUIREMENTS:

RUNWAY 4L–22R RPZ (MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT IN THIS ZONE = 12.5–FT MAX)

RUNWAY 4R–22L RPZ (MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT IN THIS ZONE = 12.5–FT MAX)

RPZ — RUNWAY 4L–22R RPZ

RPZ — RUNWAY 4R–22L RPZ

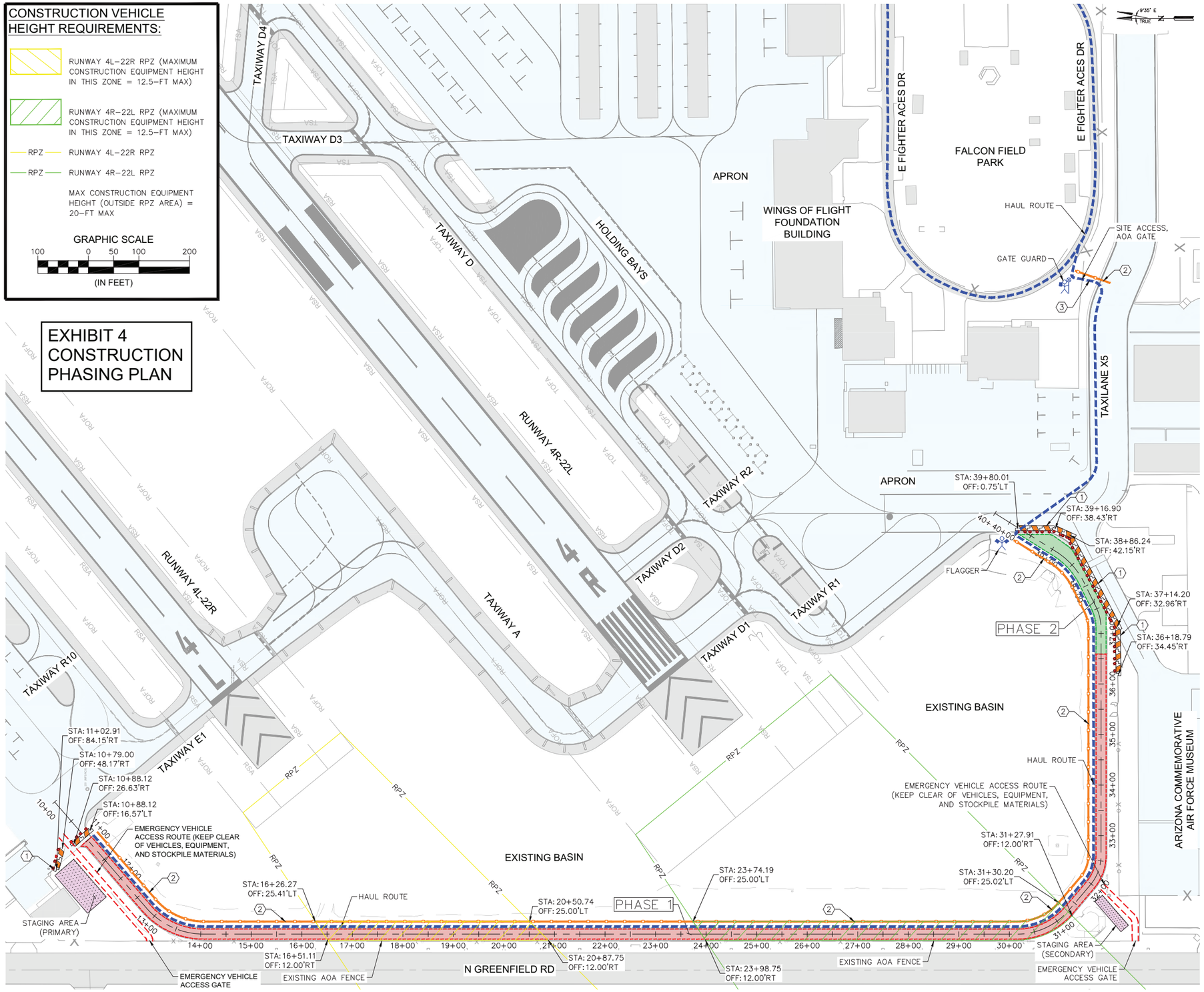
MAX CONSTRUCTION EQUIPMENT HEIGHT (OUTSIDE RPZ AREA) = 20–FT MAX

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)

EXHIBIT 4
CONSTRUCTION PHASING PLAN



CONSTRUCTION DURATION TABLE	
PHASE 1	3 WEEKS
PHASE 2	1 WEEK
TOTAL	4 WEEKS

LEGEND

- PHASE 1 PROJECT AREA
- PHASE 2 PROJECT AREA
- CONTRACTOR STAGING AND LAYDOWN AREA
- CONSTRUCTION HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- INSTALL LOW PROFILE BARRICADE, PER DETAIL 1, SHEET C4.4
- INSTALL VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, SHEET C4.4
- GATE GUARD (TO BE SUPPLIED BY CONTRACTOR)

GENERAL NOTES:

1. CONSTRUCTION MAY START ONLY AFTER RECEIVING A NOTICE TO PROCEED (NTP) FROM THE CITY.
2. PRIOR TO BEGINNING CONSTRUCTION LOW PROFILE BARRICADES MUST BE INSTALLED AND VERTICAL PANEL BARRICADES MUST BE INSTALLED AROUND THE HAUL ROUTE AND PROJECT AREA PER THE LIMITS SHOWN ON THIS PLAN.
3. ALL PROJECT WORK ITEMS MUST BE COMPLETED PER THE APPROVED CONTRACT TIME. THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THESE PHASING PLANS, SPECIAL PROVISIONS, AND GENERAL PROVISIONS.
4. ANY DAMAGE TO PAVEMENT MARKINGS ON RUNWAYS, ADJACENT TAXIWAYS, BLAST PADS, AND SHOULDER AREAS SHALL BE REPAIRED BY THE CONTRACTOR IN AN APPROVED MANNER AT THE CONTRACTOR'S SOLE EXPENSE.
5. THIS SHEET DEPICTS STAGING AREAS, HAUL ROUTES, AND WORK AREAS FOR THE PROJECT. SUBSEQUENT PLAN SHEETS PROVIDE DETAILED PHASING PLANS FOR EACH WORK AREA. ADDITIONAL PHASING DESCRIPTIONS SHALL BE FOUND IN THE CSPP.
6. DURING PHASE 2, TAXILANE X5 AND THE TAXILANE PROVIDING ACCESS TO THE "ARIZONA COMMEMORATIVE AIR FORCE MUSEUM" SHALL BE CLOSED, UNTIL PHASE 2 WORK IS COMPLETE.
7. SUBSTANTIAL COMPLETION OF EACH WORK AREA SHALL INCLUDE ALL WORK REQUIRED TO OPEN RUNWAYS, TAXIWAYS/TAXILANES, AND/OR APRONS TO OPERATIONAL USE BY AIRCRAFT.
8. AOA GATE SHALL BE USED FOR ACCESS TO THE PROJECT SITE. ANY DEVIATION FROM THE HAUL ROUTES SHOWN IN THE PLANS MUST BE APPROVED BY THE ENGINEER.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AIRPORT SERVICE ROADS AT ALL TIMES. DRIVABLE CONDITIONS SHALL BE MAINTAINED ON AIRPORT SERVICE ROADS AND HAUL ROUTES ALL TIMES DURING CONSTRUCTION AS APPROVED BY THE AIRPORT AND THE ENGINEER.
10. ARFF ROUTES MUST REMAIN OPEN AND UNBLOCKED AT ALL TIMES.
11. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF MESA FOR COMPLETING ALL MANDATORY DRIVER TRAINING CLASSES AND OBTAINING THE REQUIRED CONTRACTOR BADGES PRIOR TO COMMENCING ANY WORK AT THE AIRPORT.
12. THE CONTRACTOR IS REQUIRED TO SUPPLY GATE GUARDS AT ALL TEMPORARY CONSTRUCTION ENTRANCES TO THE AIRFIELD.

CONSTRUCTION PHASING NOTES:

1. LOW PROFILE BARRICADES, PER DETAIL 1, SHEET C4.4
2. VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, C4.4
3. CONTRACTOR SHALL PLACE, LEVEL, AND COMPACT MAG AGGREGATE BASE COURSE (310) AS NECESSARY TO CREATE CONSTRUCTION CROSSING OVER EXISTING CONCRETE SWALE. CONTRACTOR SHALL MAINTAIN CROSSING THROUGHOUT PROJECT DURATION. CONTRACTOR SHALL REMOVE MATERIAL AND RETURN TO PRE–EXISTING CONDITION UPON PROJECT COMPLETION.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61904 JAMES M. MCNEELY Certificate No. Date Signed 04/08/2026 ARIZONA U.S.A. Expires 09/30/2027

SCALE
Horiz. 1" = 100'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NGW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

CONSTRUCTION PHASING PLAN
OVERALL

PROJECT NO.
191500308

FILE NO.
191500308 - CS

C2.1

SHEET 6 of 31

CATALOG NO.
A309196

K:\EAV_Aviation\191500308 – Rehabilitate West VSR\CADD\191500308 – CS.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 – VF x191500308 – VS EX–HTCH x191500308 – VS x191500308 – BM 191500308 – AL x191500308 – NTCS x191500308 – TB – MESA – V2 SEAL–JMM–191500308
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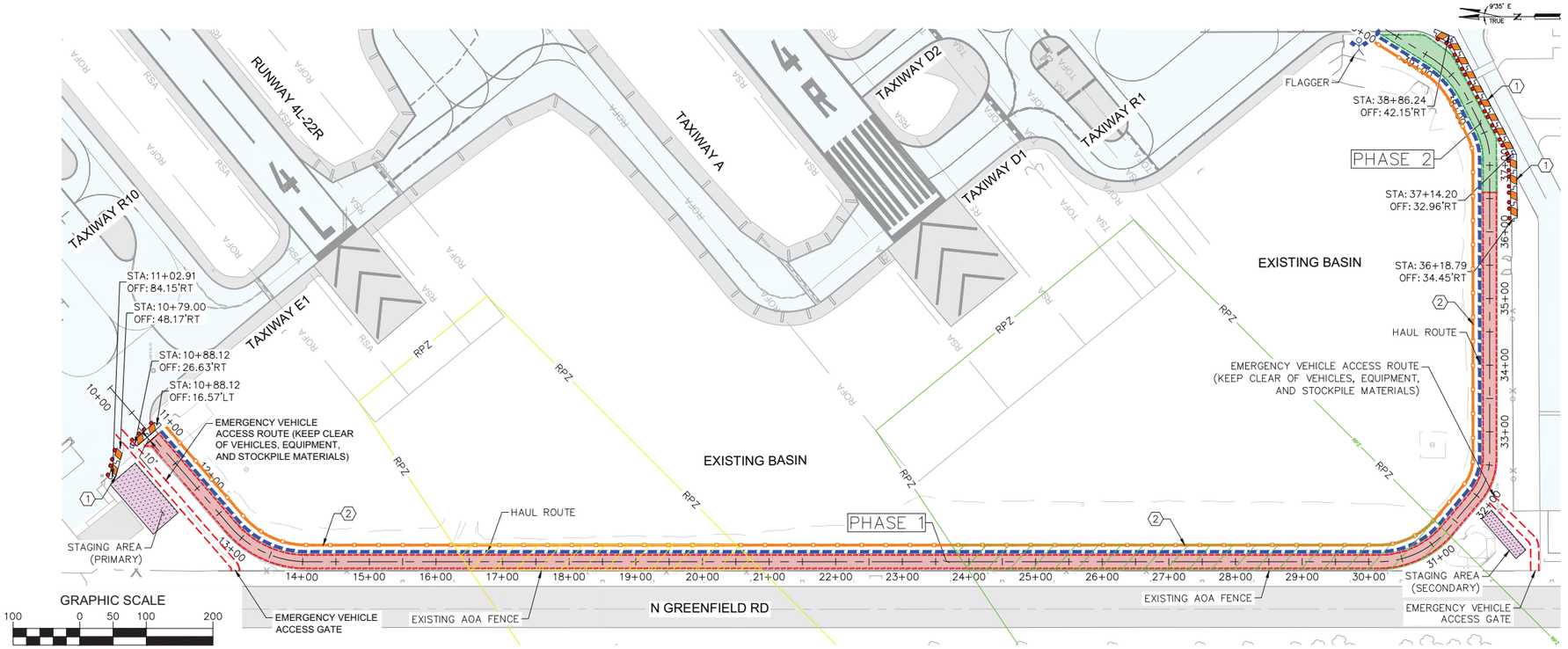

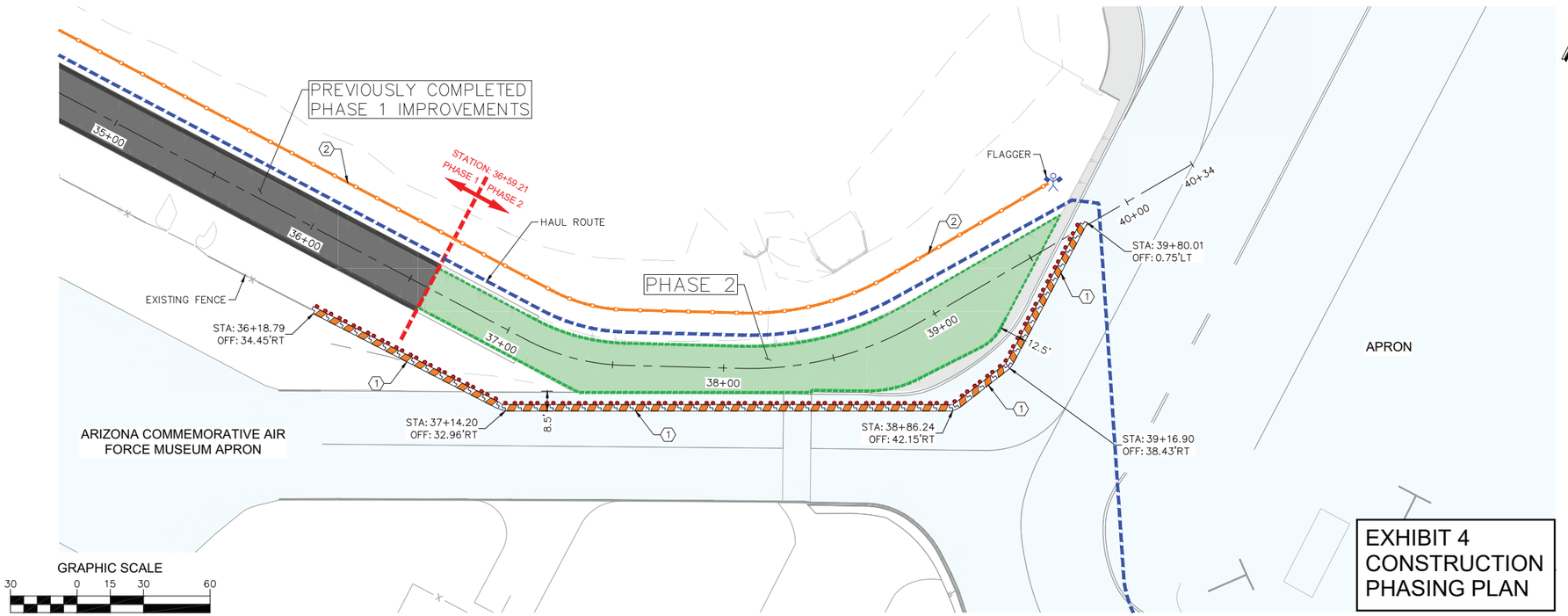

EXHIBIT 4
CONSTRUCTION
PHASING PLAN

CONSTRUCTION DURATION TABLE	
PHASE 1	3 WEEKS
PHASE 2	1 WEEK
TOTAL	4 WEEKS

LEGEND

- PHASE 1 PROJECT AREA
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- CONSTRUCTION HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61804 MICHAEL J. MCGEE Certificate No. Date Signed 12/31/26 ARIZONA U.S.A.

SCALE
Horiz. VARIES
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

CONSTRUCTION PHASING PLAN
PHASE 1 & 2

PROJECT NO.
191500308

FILE NO.
191500308 - CS

C2.2
SHEET 7 of 31

CATALOG NO.
A309197

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - CS.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 - VF x191500308 - VS EX-HTCH x191500308 - VS x191500308 - BM x191500308 - AL x191500308 - NTCS x191500308 - TB - MESA - V2 SEAL-JMM-191500308
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U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Subject: Painting, Marking, and Lighting of Vehicles Used on an Airport	**Date:** April 1, 2010	**AC No:** AC 150/5210-5D
	Initiated by: AAS-100	**Change:**

1. PURPOSE. This advisory circular (AC) provides guidance, specifications, and standards for painting, marking, and lighting of vehicles operating in the airport air operations area (AOA). The approved lights, colors, and markings herein assure the conspicuity of vehicles operating in the AOA from both the ground and the air.

2. CANCELLATION. This AC cancels AC 150/5210-5C, Painting, Marking, and Lighting of Vehicles Used on an Airport, dated August 31, 2007.

3. APPLICATION. The Federal Aviation Administration (FAA) recommends the guidelines and standards in this Advisory Circular for vehicles operating in the airport AOA. In general, use of this AC is not mandatory. ***However***, use of this AC is mandatory for vehicles funded with federal grant monies through the Airport Improvement Program (AIP) and/or with revenue from the Passenger Facility Charges (PFC) Program. See Grant Assurance No. 34, "Policies, Standards, and Specifications," and PFC Assurance No. 9, "Standard and Specifications."

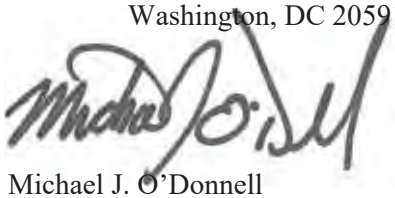
Vehicles covered by this AC that do not meet this standard may be used until the vehicle is repainted or replaced, but no later than **December 31, 2010.**

4. PRINCIPAL CHANGES. This AC contains new specifications and recommendations for the painting, marking, and lighting of Towbarless Tow Vehicles (TLTVs).

5. METRIC UNITS. To promote an orderly transition to metric units, this AC includes both English and metric dimensions. The metric conversions may not be exact equivalents, and until there is an official changeover to the metric system, the English dimensions will govern.

6. COMMENTS OR SUGGESTIONS for improvements to this AC should be sent to:

Manager, Airport Engineering Division
Federal Aviation Administration
ATTN: AAS-100
800 Independence Avenue, S.W.
Washington, DC 20591



Michael J. O'Donnell
Director of Airport Safety and Standards

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PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AN AIRPORT

1. SOURCES OF APPLICABLE DOCUMENTS.

a. American National Standards Institute, Inc. (ANSI), 25 West 43rd St. 4th Floor, New York, NY 10036. Website: **www.ansi.org**

b. American Society for Testing & Materials (ASTM), ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Website: **www.astm.org**

c. The National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02169-7471. Website: **www.nfpa.org**

d. The U. S. General Services Administration (GSA), Centralized Mailing List Services, 501 West Felix Street, Whse 9, South End P.O. Box 6477, Fort Worth, Texas 76115-6477. Website: **www.gsa.gov**

e. The Superintendent of Documents, U.S. Government Printing Office, 732 North Capitol St. NW, Washington, DC 20401.

f. Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001. Website: **www.sae.org**

g. FAA Advisory Circulars: U.S. Department of Transportation, Subsequent Distribution Office, Ardmore East Business Center, 3341 Q 75th Ave., Landover, MD 20785. Website: **www.faa.gov**

h. FAA Engineering Briefs: **www.faa.gov/airports/engineering/engineering_briefs/**

2. DEFINITIONS.

The following definitions apply in this AC:

a. **Vehicle –** All conveyances, except aircraft, used on the ground to transport persons, cargo, equipment or those required to perform maintenance, construction, service, and security duties.

b. **Air Operations Area (AOA) –** The portion of airport that encompasses the landing, take off, taxiing, and parking areas for aircraft.

c. **Airport Emergency Vehicles** – Vehicles that are authorized in the AOA for emergency purposes (e.g., ambulances, aircraft rescue and fire fighting (ARFF) vehicles and emergency response vehicles) as authorized by the airport traffic control tower (ATCT) or an authorized on-site accident/incident commander.

d. **Airport Operations Vehicles –** Vehicles routinely used by airport operations personnel for airport inspection and duties associated with airfield operations (such as airfield condition reporting and Incident Command) on the AOA and Movement Area.

e. **Airport Security Vehicles –** Vehicles that are authorized in the AOA for security purposes, as needed (e.g. police cars).

f. Airfield Service Vehicles – Vehicles that are routinely used in the AOA for airfield service, maintenance, or construction (e.g. snow blowers, snowplows, maintenance trucks, and tractors).

g. Aircraft Support Vehicles – Vehicles that are routinely used in the AOA to support aircraft operations (e.g. aircraft pushback tractors, baggage/cargo tractors or trucks, air conditioning and aviation fuel trucks). These vehicles are typically owned by airlines, vendors, or contractors and are not eligible for Federal funding.

h. Reduced Visibility – Prevailing visibility is less than one statute mile (1609 meters) and/or the runway visual range (RVR) is less than 6,000 feet (1830 meters).

i. Movement Area – The runways, taxiways, and other areas of an airport/heliport that are used for taxiing/hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports/heliports with an operating airport traffic control tower (ATCT), specific approval for entry onto the movement area must be obtained from air traffic control (ATC).

j. Other Vehicles – Vehicles that are not routinely authorized in the AOA (e.g. construction vehicles). These vehicles are typically owned by airlines, vendors, or contractors and are not eligible for Federal funding.

k. Peak Intensity – Peak intensity, for purposes of this document, means the maximum magnitude of luminescence as measured in candela.

l. Towbarless Tow Vehicle (TLTV) – a type of aircraft support vehicle whose main purpose is to tow aircraft in the AOA by way of nose gear capture.

3. VEHICLE PAINTING.

NOTE: *Airport vehicle paint and markings are a safety of flight requirement. The approved colors/markings herein assure conspicuity of vehicles operating in the AOA from both the ground and air.*

a. Airport Emergency Vehicles.

(1) Ambulances. Ambulance vehicles are painted per the most current version of Federal Specification KKK-A-1822, *Federal Specification for the Star-of-Life Ambulance*. Ambulances are not considered vehicles routinely operating on the AOA.

(2) Aircraft Rescue and Fire Fighting (ARFF) Vehicles. Yellowish-green is the vehicle color standard. Color specifications are per Appendix A.

NOTE: *A yellowish-green color provides optimum visibility during all light levels encountered during a 24-hour day and under variations of light that result from weather and seasonal changes.*

b. Airport Operations Vehicles. Airport operations vehicles may be painted in colors designated by the airport operator. The characteristics must be coordinated with the respective ATCT and identified in the tower letter of agreement.

c. Airport Security Vehicles. Comply with specific state or local requirements.

d. Airfield Service Vehicles. Chrome yellow is the vehicle color standard. Color specifications are per Appendix A. When vehicles are equipped with bumper bars 8 inches (200 mm) or more in depth, the bars must be painted in alternate stripes 4 inches (100 mm) in width of chrome yellow and black inclined 45° to the vertical.

e. Aircraft Support Vehicles.

(1) Any color or combination of colors other than yellowish-green or chrome yellow. The bumper bar paint scheme in paragraph 3.d (of alternating chrome yellow and black stripe) is recommended.

(2) TLTVs. International orange is the vehicle color standard. Retroreflective tape covering more than 25 percent of the vehicle's vertical surfaces may be used as a temporary measure to meet this standard prior to scheduled vehicle painting.

f. Other Vehicles. Any color or combination of colors other than solid black or white.

4. VEHICLE MARKING.

a. Airport Emergency Vehicles.

(1) Ambulances. Ambulances are marked per the most current version of Federal Specification KKK-A-1822.

(2) ARFF Vehicles. Emergency rescue and fire fighting vehicles are marked with the letters "ARFF, "Fire," or "Rescue" and in accordance with 4.c.(1)-(5) of this AC.

b. Airport Operations Vehicles. Airport operations vehicles may be marked as designated by the airport operator. Marking must be coordinated with the respective ATCT and identified in the tower letter of agreement.

c. Airfield Service Vehicles and Aircraft Support Vehicles.

(1) Airport operator owned vehicles must display an identification number on each side and on the roof (the hood should be used if the vehicle has no roof).

(2) Side numbers will be a minimum of 16 inches (410 mm) in height and conspicuously located.

(3) Roof numbers will be a minimum of 24 inches (610 mm) in height and affixed with their bases toward the front of the vehicle. The identification numbers should provide sharp color contrast to the vehicle color.

(4) In addition to the identification numbers, airport operator-owned vehicles must display either the name of the airport and/or the airport insignia.

(5) To further improve night-time recognition of vehicles, a minimum 8 inch (200 mm) wide horizontal band of high gloss white paint or white reflective tape (Retroreflective, ASTM-D 4956-09, *Standard Specification for Retroreflective Sheeting for Traffic Control*, Type III & above) must be used around the vehicle's surface. Figures 1, 2, and 3 show suggested locations for the horizontal reflective band.

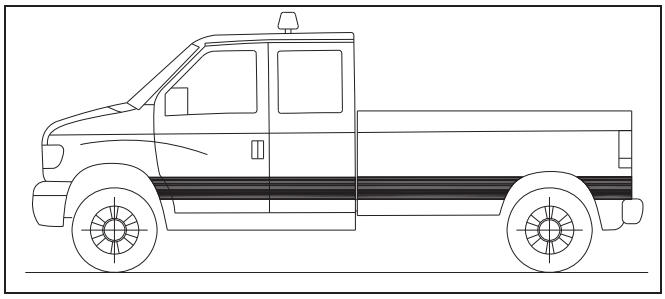

Figure 1: Suggested location for the horizontal reflective band, Option 1

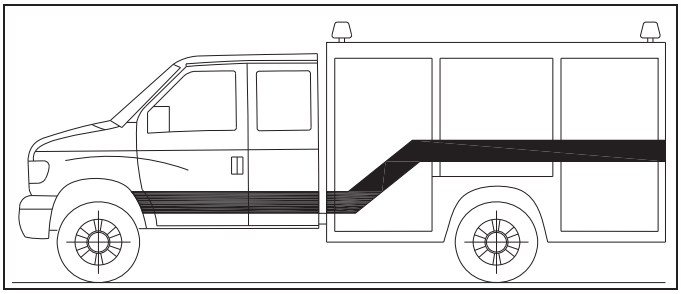

Figure 2: Suggested location for the horizontal reflective band, Option 2

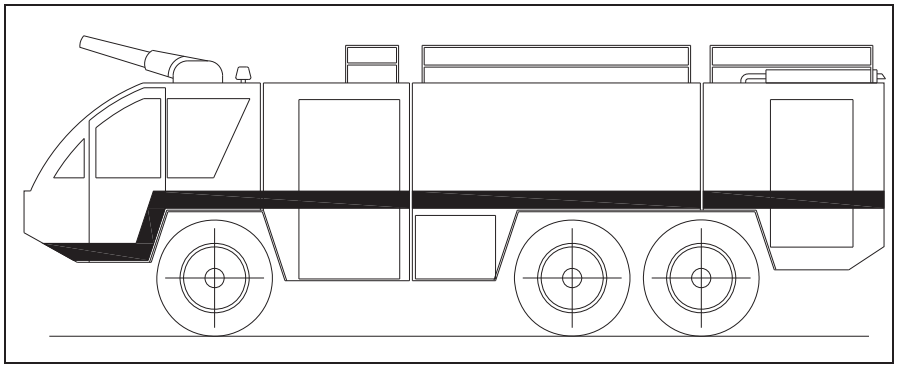

Figure 3: Suggested location for the horizontal reflective band, Option 3

(6) TLTVs. Retroreflective tape is used to outline the shape of a TLTV. If the vertical edge of the vehicle is rounded, the tape should be placed on the rounded portion to reflect light in both the horizontal and vertical planes. Where the placement of the tape may interfere with, or may be worn down by, maintenance or operational activities, tape is not required. Suggested locations for the retroreflective bands are shown in Figure 4.

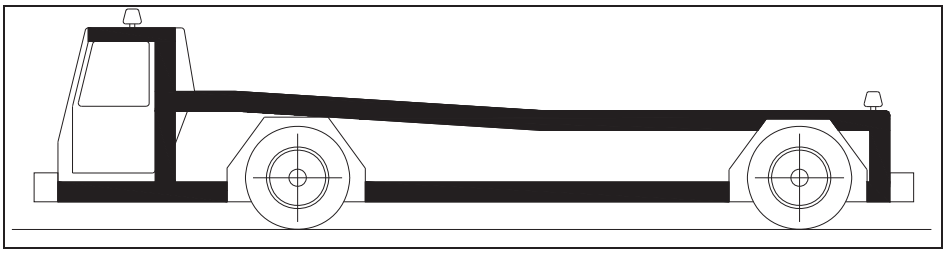

Figure 4: Suggested placement of retroreflective tape on a TLTV

d. Airport Security and Other Vehicles.

(1) Vehicles other than those that routinely traverse any portion of the AOA under the control of ATC, which are not escorted by a vehicle in constant two-way radio communication with ATC and properly equipped and authorized to operate in the AOA, must be provided with a flag on a staff attached to the vehicle so that the flag will be readily visible.

(2) At airports without air traffic control facilities, flags must be provided on all vehicles.

(3) The flag must be at least a 3-foot by 3-foot (0.9 meter by 0.9 meter) square having a checkered pattern of international orange and white squares at least 1 foot (300 mm) on each side (see Appendix A for the fabric color specification).

5. VEHICLE LIGHTING.

a. Airfield Service, Aircraft Support, and Airport Operations Vehicles.

(1) The standard for identification lighting is a yellow flashing light that is mounted on the uppermost part of the vehicle structure. A steady yellow light designates vehicles limited to non-movement areas.

(2) The light must be visible from any direction, day and night, including from the air.

(3) Color specifications for vehicle identification lights are per Appendix B.

(4) TLTVs. An LED light bar placed above the operator's cab may be used in place of the rotating yellow flashing light. In addition, a yellow flashing light (of any type) must be installed on the upper left-rear and right-rear corners of the TLTV, and must be activated when an aircraft is in tow. The size of the rear flashing lights must be large enough to meet the requirements of Section 5.c, but not so large as to interfere with the normal or towing operations of the TLTV.

b. Airport Emergency, Security, and Other Vehicles, which are not escorted by a properly lighted vehicle, must be identified during periods of low visibility by a light.

c. Characteristics of Flashing Lights:

(1) Ambulance lights must meet the specifications in the most current version of Federal Specification KKK-A-1822, and ARFF vehicles must meet NFPA, state, and local requirements.

(2) Lights must have peak intensity within the range of 40 to 400 candelas (effective) from 0^{o} (horizontal) up to 10^{o} above the horizontal and for 360^{o} horizontally. The upper limit of 400 candelas (effective) is necessary to avoid damage to night vision.

(3) From 10^{o} to 15^{o} above the horizontal plane, the light output must be $1/10^{th}$ of peak intensity or between 4 and 40 candelas (effective).

(4) Lights must flash at 75 ± 15 flashes per minute.

NOTES:

1. The effective intensity of a flashing light is equal to the intensity of a steady-burning (fixed) light of the same color that produces the same visual range under identical conditions of observation.

2. If xenon flashtubes are used, refer to AC 150/5345-43, Specification for Obstruction Lighting Equipment, for guidance concerning methods of calculating effective intensity.

d. Light Colors.

(1) Airport Emergency Vehicles.

(a) **Ambulances.** Per the most current version of Federal Specification KKK-A-1822.

(b) **ARFF Vehicles.** Red or a combination of red-and-white flashing lights per the chromaticity requirements in Appendix B.

(2) Airport Security Vehicles. Signal blue or a combination of red and signal blue flashing light per the chromaticity requirements in Appendix B.

(3) Airfield Service, Aircraft Support, Airport Operations, and Other Vehicles. Yellow flashing light per the chromaticity requirements in Appendix B.

APPENDIX A. COLOR SPECIFICATIONS

A-1. SPECIFICATIONS. Colors specified in Table A-1 are per the Commission Internationale de l'Eclairage (CIE) L*a*b* system of color specification. For a description of this system, refer to American Society for Testing & Materials (ASTM) D 2244, *Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.*

Table A-1. Specification for vehicle and flag colors

Standard Illuminant D65 Usage	Chrome Yellow			Yellowish-Green			International Orange		
	Vehicle Paint			Vehicle Paint			Vehicle Paint / Flag Fabric		
CIELAB DATA	**L***	**a***	**b***	**L***	**a***	**b***	**L***	**a***	**b***
Centroid Color	72.8	24.4	77.6	78.3	-10.2	80.4	45.0	53.5	52.0
Point 1	72.8	31.8	82.9	78.3	-9.0	92.0	45.0	61.4	47.8
Point 2	72.8	25.5	66.7	78.3	-7.6	73.2	45.0	53.9	41.4
Point 3	72.8	18.0	69.3	78.3	-11.0	69.3	45.0	53.5	53.4
Point 4	72.8	22.4	86.0	78.3	-13.4	86.2	45.0	49.7	60.4
Light Limit	77.8			83.3			49.9		
Dark Limit	67.8			73.3			41.6		
Max ΔE	11.1			11.7			10.7		

A-2. COLOR TESTS. Acceptable colors are those that meet the gloss rating test and either a visual or an instrumental color test as follows:

NOTE: *Flag fabric colors must meet either the instrumental tests in Table A-1 or the visual method described in paragraph A-2b(1).*

a. Gloss Rating Test. This test is performed per ASTM D 523, *Standard Test Method for Specular Gloss,* on a paint sample of the color to be applied on the vehicle. An acceptable color sample is high gloss with a minimum gloss rating of 70 units, for 60° geometry.

b. Color Test Methods:

(1) Visual. Prepare a master specimen of the color (per Table A-1) and gloss (per paragraph A-2a). This specimen will be the master color and be used as the basis of comparison per ASTM D 5531-05, *Standard Guide for the Preparation, Maintenance, and Distribution of Physical Product Standards for Color and Geometric Appearance of Coatings.* To verify the paint color of a vehicle visually, vehicle paint samples must be

prepared and viewed per ASTM D 1729-96 (Reapproved 2009), *Standard Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials.*

(2) Instrumental. This test requires a test specimen sample and reference to Table A-1. All test specimen measurements should be conducted per ASTM E 1164-09a *Standard Practice for Obtaining Spectrometric Data for Object-Color Evaluation.* Test specimen tolerances must be per Table A-1 per the following:

(a) Plot the centroid color using the a* and b* CIELAB coordinate data from Table A-1 on graph paper or by entry of the coordinate data into a computer program. Plot and connect points 1 through 4 from the same table to form a quadrilateral; noting that the centroid color is within this figure. See Figure A-1 for plots of all three color specifications in Table A-1.

(b) Perform color sample measurements per ASTM E 1164-09a. If necessary, convert measurements to CIELAB L*, a*, and b* color space. See ASTM E 308-08, *Standard Practice for Computing the Colors of Objects by Using the CIE System,* for color space conversion formulae.

(c) An acceptable color is one that meets:

(i) the chromaticity requirements of the color samples a* and b* CIELAB coordinate data by falling within the quadrilateral;

(ii) the L* data lightness requirement by falling within the range defined by the light and dark data of Table A-1;

(iii) the total color difference (ΔE) by not exceeding the limits in Table A-1 when the CIELAB data are computed in the following formula:

$$\Delta E = (\Delta L^{*2} + \Delta a^{*2} + \Delta b^{*2})^{\frac{1}{2}}$$

where ΔL*, Δa*, and Δb* values are the differences between those values for the centroid color in Table A-1 and those of the color sample measurements.

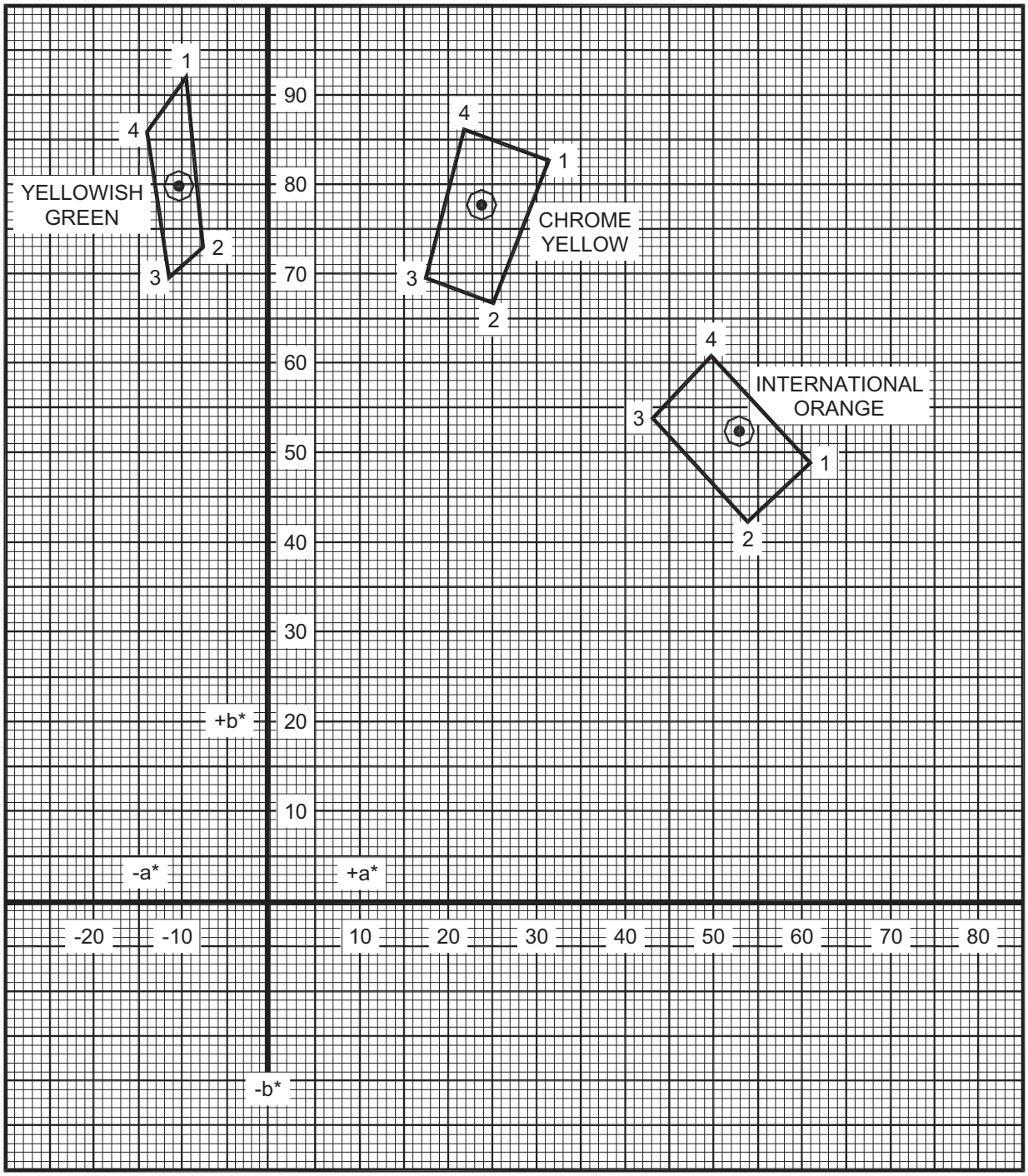

Figure A-1. Plot of selected color paint specifications

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APPENDIX B. COLOR SPECIFICATIONS FOR VEHICLE IDENTIFICATION LIGHTS

B-1. SPECIFICATIONS. The Society of Automotive Engineers (SAE) Standard J578 Revised December 2006, *Color Specification*, defines the acceptable color boundary limits and measurement of emitted red, white, signal blue, and yellow light for vehicle lights. This standard applies to the overall emitted color of light from the device in lieu of emitted light from any small area of the lens. The color of emitted light must fall within the color boundaries per SAE J578 Revised December 2006 (color boundary equations are in the standard) using color measurement methods detailed in the standard. See FAA Engineering Brief #67, Light Sources Other Than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures, for additional information and Alternative Lighting Devices.

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U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Operational Safety on Airports During Construction	**Date:** 12/13/2017 **Initiated By:** AAS-100	**AC No:** 150/5370-2G **Change:**

1 **Purpose.**

This AC sets forth guidelines for operational safety on airports during construction.

2 **Cancellation.**

This AC cancels AC 150/5370-2F, *Operational Safety on Airports during Construction,* dated September 29, 2011.

3 **Application.**

This AC assists airport operators in complying with Title 14 Code of Federal Regulations (CFR) Part 139, *Certification of Airports*. For those certificated airports, this AC provides one way, but not the only way, of meeting those requirements. The use of this AC is mandatory for those airport construction projects receiving funds under the Airport Improvement Program (AIP). See Grant Assurance No. 34, *Policies, Standards, and Specifications*. While we do not require non-certificated airports without grant agreements or airports using Passenger Facility Charge (PFC) Program funds for construction projects to adhere to these guidelines, we recommend that they do so to help these airports maintain operational safety during construction.

4 **Related Documents.**

ACs and Orders referenced in the text of this AC do not include a revision letter, as they refer to the latest version. Appendix A contains a list of reading material on airport construction, design, and potential safety hazards during construction, as well as instructions for obtaining these documents.

5 **Principal Changes.**

The AC incorporates the following principal changes:

1. Notification about impacts to both airport owned and FAA-owned NAVAIDs was added. See paragraph 2.13.5.3, NAVAIDs.

2. Guidance for the use of orange construction signs was added. See paragraph 2.18.4.2, Temporary Signs.
3. Open trenches or excavations may be permitted in the taxiway safety area while the taxiway is open to aircraft operations, subject to restrictions. See paragraph 2.22.3.4, Excavations.
4. Guidance for temporary shortened runways and displaced thresholds has been enhanced. See Figure 2-1 and Figure 2-2.
5. Figures have been improved and a new Appendix F on the placement of orange construction signs has been added.

Hyperlinks (allowing the reader to access documents located on the internet and to maneuver within this document) are provided throughout this document and are identified with underlined text. When navigating within this document, return to the previously viewed page by pressing the "ALT" and " ←" keys simultaneously.

Figures in this document are schematic representations and are not to scale.

6 **Use of Metrics.**

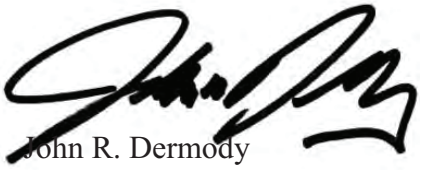
Throughout this AC, U.S. customary units are used followed with "soft" (rounded) conversion to metric units. The U.S. customary units govern.

7 **Where to Find this AC.**

You can view a list of all ACs at http://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal Aviation Regulations at http://www.faa.gov/regulations_policies/faa_regulations/.

8 **Feedback on this AC.**

If you have suggestions for improving this AC, you may use the Advisory Circular Feedback form at the end of this AC.



John R. Dermody
Director of Airport Safety and Standards

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CHAPTER 1. PLANNING AN AIRFIELD CONSTRUCTION PROJECT

1.1 Overview.

Airports are complex environments, and procedures and conditions associated with construction activities often affect aircraft operations and can jeopardize operational safety. Safety considerations are paramount and may make operational impacts unavoidable. However, careful planning, scheduling, and coordination of construction activities can minimize disruption of normal aircraft operations and avoid situations that compromise the airport's operational safety. The airport operator must understand how construction activities and aircraft operations affect one another to be able to develop an effective plan to complete the project. While the guidance in this AC is primarily used for construction operations, the concepts, methods and procedures described may also enhance the day-to-day airport maintenance operations, such as lighting maintenance and snow removal operations.

1.2 Plan for Safety.

Safety, maintaining aircraft operations, and construction costs are all interrelated. Since safety must not be compromised, the airport operator must strike a balance between maintaining aircraft operations and construction costs. This balance will vary widely depending on the operational needs and resources of the airport and will require early coordination with airport users and the FAA. As the project design progresses, the necessary construction locations, activities, and associated costs will be identified and their impact to airport operations must be assessed. Adjustments are made to the proposed construction activities, often by phasing the project, and/or to airport operations to maintain operational safety. This planning effort will ultimately result in a project Construction Safety and Phasing Plan (CSPP). The development of the CSPP takes place through the following five steps:

1.2.1 Identify Affected Areas.

The airport operator must determine the geographic areas on the airport affected by the construction project. Some, such as a runway extension, will be defined by the project. Others may be variable, such as the location of haul routes and material stockpiles.

1.2.2 Describe Current Operations.

Identify the normal airport operations in each affected area for each phase of the project. This becomes the baseline from which the impact on operations by construction activities can be measured. This should include a narrative of the typical users and aircraft operating within the affected areas. It should also include information related to airport operations: the Aircraft Approach Category (AAC) and Airplane Design Group (ADG) of the airplanes that operate on each runway; the ADG and Taxiway Design Group (TDG)[1] for each affected taxiway; designated approach visibility minimums;

[1] Find Taxiway Design Group information in AC 150/5300-13, *Airport Design.*

available approach and departure procedures; most demanding aircraft; declared distances; available air traffic control services; airport Surface Movement Guidance and Control System (SMGCS) plan; and others. The applicable seasons, days and times for certain operations should also be identified as applicable.

1.2.3 Allow for Temporary Changes to Operations.

To the extent practical, current airport operations should be maintained during the construction. In consultation with airport users, Aircraft Rescue and Fire Fighting (ARFF) personnel, and FAA Air Traffic Organization (ATO) personnel, the airport operator should identify and prioritize the airport's most important operations. The construction activities should be planned, through project phasing if necessary, to safely accommodate these operations. When the construction activities cannot be adjusted to safely maintain current operations, regardless of their importance, then the operations must be revised accordingly. Allowable changes include temporary revisions to approach procedures, restricting certain aircraft to specific runways and taxiways, suspension of certain operations, decreased weights for some aircraft due to shortened runways, and other changes. An example of a table showing temporary operations versus current operations is shown in Appendix E.

1.2.4 Take Required Measures to Revise Operations.

Once the level and type of aircraft operations to be maintained are identified, the airport operator must determine the measures required to safely conduct the planned operations during the construction. These measures will result in associated costs, which can be broadly interpreted to include not only direct construction costs, but also loss of revenue from impacted operations. Analysis of costs may indicate a need to reevaluate allowable changes to operations. As aircraft operations and allowable changes will vary widely among airports, this AC presents general guidance on those subjects.

1.2.5 Manage Safety Risk.

The FAA is committed to incorporating proactive safety risk management (SRM) tools into its decision-making processes. FAA Order 5200.11, *FAA Airports (ARP) Safety Management System (SMS)*, requires the FAA to conduct a Safety Assessment for certain triggering actions. Certain airport projects may require the airport operator to provide a Project Proposal Summary to help the FAA determine whether a Safety Assessment is required prior to FAA approval of the CSPP. The airport operator must coordinate with the appropriate FAA Airports Regional or District Office early in the development of the CSPP to determine the need for a Safety Risk Assessment. If the FAA requires an assessment, the airport operator must at a minimum:

1. Notify the appropriate FAA Airports Regional or District Office during the project "scope development" phase of any project requiring a CSPP.
2. Provide documents identified by the FAA as necessary to conduct SRM.
3. Participate in the SRM process for airport projects.
4. Provide a representative to participate on the SRM panel.

5. Ensure that all applicable SRM identified risks elements are recorded and mitigated within the CSPP.

1.3 Develop a Construction Safety and Phasing Plan (CSPP).

Development of an effective CSPP will require familiarity with many other documents referenced throughout this AC. See Appendix A for a list of related reading material.

1.3.1 List Requirements.

A CSPP must be developed for each on-airfield construction project funded by the Airport Improvement Program (AIP) or located on an airport certificated under Part 139. For on-airfield construction projects at Part 139 airports funded without AIP funds, the preparation of a CSPP represents an acceptable method the certificate holder may use to meet Part 139 requirements during airfield construction activity. As per FAA Order 5200.11, projects that require Safety Assessments do not include construction, rehabilitation, or change of any facility that is entirely outside the air operations area, does not involve any expansion of the facility envelope and does not involve construction equipment, haul routes or placement of material in locations that require access to the air operations area, increase the facility envelope, or impact line-of-sight. Such facilities may include passenger terminals and parking or other structures. However, extraordinary circumstances may trigger the need for a Safety Assessment and a CSPP. The CSPP is subject to subsequent review and approval under the FAA's Safety Risk Management procedures (see paragraph 1.2.5).

1.3.2 Prepare a Safety Plan Compliance Document (SPCD).

The Safety Plan Compliance Document (SPCD) details how the contractor will comply with the CSPP. Also, it will not be possible to determine all safety plan details (for example specific hazard equipment and lighting, contractor's points of contact, construction equipment heights) during the development of the CSPP. The successful contractor must define such details by preparing an SPCD that the airport operator reviews for approval prior to issuance of a notice-to-proceed. The SPCD is a subset of the CSPP, similar to how a shop drawing review is a subset to the technical specifications.

1.3.3 Assume Responsibility for the CSPP.

The airport operator is responsible for establishing and enforcing the CSPP. The airport operator may use the services of an engineering consultant to help develop the CSPP. However, writing the CSPP cannot be delegated to the construction contractor. Only those details the airport operator determines cannot be addressed before contract award are developed by the contractor and submitted for approval as the SPCD. The SPCD does not restate nor propose differences to provisions already addressed in the CSPP.

1.4 Who Is Responsible for Safety During Construction?

1.4.1 Establish a Safety Culture.

Everyone has a role in operational safety on airports during construction: the airport operator, the airport's consultants, the construction contractor and subcontractors, airport users, airport tenants, ARFF personnel, Air Traffic personnel, including Technical Operations personnel, FAA Airports Division personnel, and others, such as military personnel at any airport supporting military operations (e.g. national guard or a joint use facility). Close communication and coordination between all affected parties is the key to maintaining safe operations. Such communication and coordination should start at the project scoping meeting and continue through the completion of the project. The airport operator and contractor should conduct onsite safety inspections throughout the project and immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

1.4.2 Assess Airport Operator's Responsibilities.

An airport operator has overall responsibility for all activities on an airport, including construction. This includes the predesign, design, preconstruction, construction, and inspection phases. Additional information on the responsibilities listed below can be found throughout this AC. The airport operator must:

1.4.2.1 Develop a CSPP that complies with the safety guidelines of Chapter 2, Construction Safety and Phasing Plans, and Chapter 3, Guidelines for Writing a CSPP. The airport operator may develop the CSPP internally or have a consultant develop the CSPP for approval by the airport operator. For tenant sponsored projects, approve a CSPP developed by the tenant or its consultant.

1.4.2.2 Require, review and approve the SPCD by the contractor that indicates how it will comply with the CSPP and provides details that cannot be determined before contract award.

1.4.2.3 Convene a preconstruction meeting with the construction contractor, consultant, airport employees and, if appropriate, tenant sponsor and other tenants to review and discuss project safety before beginning construction activity. The appropriate FAA representatives should be invited to attend the meeting. See AC 150/5370-12*, Quality Management for Federally Funded Airport Construction Projects.* (Note "FAA" refers to the Airports Regional or District Office, the Air Traffic Organization, Flight Standards Service, and other offices that support airport operations, flight regulations, and construction/environmental policies.)

1.4.2.4 Ensure contact information is accurate for each representative/point of contact identified in the CSPP and SPCD.

1.4.2.5 Hold weekly or, if necessary, daily safety meetings with all affected parties to coordinate activities.

1.4.2.6 Notify users, ARFF personnel, and FAA ATO personnel of construction and conditions that may adversely affect the operational safety of the airport via Notices to Airmen (NOTAM) and other methods, as appropriate. Convene a meeting for review and discussion if necessary.

1.4.2.7 Ensure construction personnel know applicable airport procedures and changes to those procedures that may affect their work.

1.4.2.8 Ensure that all temporary construction signs are located per the scheduled list for each phase of the project.

1.4.2.9 Ensure construction contractors and subcontractors undergo training required by the CSPP and SPCD.

1.4.2.10 Ensure vehicle and pedestrian operations addressed in the CSPP and SPCD are coordinated with airport tenants, the airport traffic control tower (ATCT), and construction contractors.

1.4.2.11 At certificated airports, ensure each CSPP and SPCD is consistent with Part 139.

1.4.2.12 Conduct inspections sufficiently frequently to ensure construction contractors and tenants comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards.

1.4.2.13 Take immediate action to resolve safety deficiencies.

1.4.2.14 At airports subject to 49 CFR Part 1542, *Airport Security*, ensure construction access complies with the security requirements of that regulation.

1.4.2.15 Notify appropriate parties when conditions exist that invoke provisions of the CSPP and SPCD (for example, implementation of low-visibility operations).

1.4.2.16 Ensure prompt submittal of a Notice of Proposed Construction or Alteration (Form 7460-1) for conducting an aeronautical study of potential obstructions such as tall equipment (cranes, concrete pumps, other), stock piles, and haul routes. A separate form may be filed for each potential obstruction, or one form may be filed describing the entire construction area and maximum equipment height. In the latter case, a separate form must be filed for any object beyond or higher than the originally evaluated area/height. The FAA encourages online submittal of forms for expediency at https://oeaaa.faa.gov/oeaaa/external/portal.jsp. The appropriate FAA Airports Regional or District Office can provide assistance in determining which objects require an aeronautical study.

1.4.2.17 Ensure prompt transmission of the Airport Sponsor Strategic Event Submission, FAA Form 6000-26, located at https://oeaaa.faa.gov/oeaaa/external/content/AIRPORT_SPONSOR_STRATEGIC_EVENT_SUBMISSION_FORM.pdf, to assure proper coordination for NAS Strategic Interruption per Service Level Agreement with ATO.

1.4.2.18 Promptly notify the FAA Airports Regional or District Office of any proposed changes to the CSPP prior to implementation of the change. Changes to the CSPP require review and approval by the airport operator and the FAA. The FAA Airports Regional or District office will determine if further coordination within the FAA is needed. Coordinate with appropriate local and other federal government agencies, such as Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Transportation Security Administration (TSA), and the state environmental agency.

1.4.3 Define Construction Contractor's Responsibilities.

The contractor is responsible for complying with the CSPP and SPCD. The contractor must:

1.4.3.1 Submit a Safety Plan Compliance Document (SPCD) to the airport operator describing how it will comply with the requirements of the CSPP and supply any details that could not be determined before contract award. The SPCD must include a certification statement by the contractor, indicating an understanding of the operational safety requirements of the CSPP and the assertion of compliance with the approved CSPP and SPCD unless written approval is granted by the airport operator. Any construction practice proposed by the contractor that does not conform to the CSPP and SPCD may impact the airport's operational safety and will require a revision to the CSPP and SPCD and re-coordination with the airport operator and the FAA in advance.

1.4.3.2 Have available at all times copies of the CSPP and SPCD for reference by the airport operator and its representatives, and by subcontractors and contractor employees.

1.4.3.3 Ensure that construction personnel are familiar with safety procedures and regulations on the airport. Provide a point of contact who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport. Many projects will require 24-hour coverage.

1.4.3.4 Identify in the SPCD the contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD during construction. At least one of these employees must be on-site when active construction is taking place.

1.4.3.5 Conduct sufficient inspections to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards.

1.4.3.6 Restrict movement of construction vehicles and personnel to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate, and as specified in the CSPP and SPCD.

1.4.3.7 Ensure that no contractor employees, employees of subcontractors or suppliers, or other persons enter any part of the air operations area (AOA) from the construction site unless authorized.

1.4.3.8 Ensure prompt submittal through the airport operator of Form 7460-1 for the purpose of conducting an aeronautical study of contractor equipment such as tall equipment (cranes, concrete pumps, and other equipment), stock piles, and haul routes when different from cases previously filed by the airport operator. The FAA encourages online submittal of forms for expediency at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

1.4.3.9 Ensure that all necessary safety mitigations are understood by all parties involved, and any special requirements of each construction phase will be fulfilled per the approved timeframe.

1.4.3.10 Participate in pre-construction meetings to review construction limits, safety mitigations, NOTAMs, and understand all special airport operational needs during each phase of the project.

1.4.4 Define Tenant's Responsibilities.

If planning construction activities on leased property, Airport tenants, such as airline operators, fixed base operators, and FAA ATO/Technical Operations sponsoring construction are strongly encouraged to:

1. Develop, or have a consultant develop, a project specific CSPP and submit it to the airport operator. The airport operator may forgo a complete CSPP submittal and instead incorporate appropriate operational safety principles and measures addressed in the advisory circular within their tenant lease agreements.
2. In coordination with its contractor, develop an SPCD and submit it to the airport operator for approval issued prior to issuance of a Notice to Proceed.
3. Ensure that construction personnel are familiar with safety procedures and regulations on the airport during all phases of the construction.
4. Provide a point of contact of who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport.
5. Identify in the SPCD the contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD during construction. At least one of these employees must be on-site when active construction is taking place.
6. Ensure that no tenant or contractor employees, employees of subcontractors or suppliers, or any other persons enter any part of the AOA from the construction site unless authorized.
7. Restrict movement of construction vehicles to construction areas by flagging and barricading, erecting temporary fencing, or providing escorts, as appropriate, as specified in the CSPP and SPCD.
8. Ensure prompt submittal through the airport operator of Form 7460-1 for conducting an aeronautical study of contractor equipment such as tall equipment (cranes, concrete pumps, other), stock piles, and haul routes. The FAA encourages online submittal of forms for expediency at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.
9. Participate in pre-construction meetings to review construction limits, safety mitigations, NOTAMs, and understand all special airport operational needs during each phase of the project.

CHAPTER 2. CONSTRUCTION SAFETY AND PHASING PLANS

2.1 Overview.

Aviation safety is the primary consideration at airports, especially during construction. The airport operator's CSPP and the contractor's Safety Plan Compliance Document (SPCD) are the primary tools to ensure safety compliance when coordinating construction activities with airport operations. These documents identify all aspects of the construction project that pose a potential safety hazard to airport operations and outline respective mitigation procedures for each hazard. They must provide information necessary for the Airport Operations department to conduct airfield inspections and expeditiously identify and correct unsafe conditions during construction. All aviation safety provisions included within the project drawings, contract specifications, and other related documents must also be reflected in the CSPP and SPCD.

2.2 Assume Responsibility.

Operational safety on the airport remains the airport operator's responsibility at all times. The airport operator must develop, certify, and submit for FAA approval each CSPP. It is the airport operator's responsibility to apply the requirements of the FAA approved CSPP. The airport operator must revise the CSPP when conditions warrant changes and must submit the revised CSPP to the FAA for approval. The airport operator must also require and approve a SPCD from the project contractor.

2.3 Submit the CSPP.

Construction Safety and Phasing Plans should be developed concurrently with the project design. Milestone versions of the CSPP should be submitted for review and approval as follows. While these milestones are not mandatory, early submission will help to avoid delays. Submittals are preferred in 8.5 × 11 inch or 11 × 17 inch format for compatibility with the FAA's Obstruction Evaluation / Airport Airspace Analysis (OE / AAA) process.

2.3.1 Submit an Outline/Draft.

By the time approximately 25% to 30% of the project design is completed, the principal elements of the CSPP should be established. Airport operators are encouraged to submit an outline or draft, detailing all CSPP provisions developed to date, to the FAA for review at this stage of the project design.

2.3.2 Submit a CSPP.

The CSPP should be formally submitted for FAA approval when the project design is 80 percent to 90 percent complete. Since provisions in the CSPP will influence contract costs, it is important to obtain FAA approval in time to include all such provisions in the procurement contract.

2.3.3 Submit an SPCD.

The contractor should submit the SPCD to the airport operator for approval to be issued prior to the Notice to Proceed.

2.3.4 Submit CSPP Revisions.

All revisions to a previously approved CSPP must be re-submitted to the FAA for review and approval/disapproval action.

2.4 Meet CSPP Requirements.

2.4.1 To the extent possible, the CSPP should address the following as outlined in Chapter 3, Guidelines for Writing a CSPP. Details that cannot be determined at this stage are to be included in the SPCD.

1. Coordination.
    a. Contractor progress meetings.
    b. Scope or schedule changes.
    c. FAA ATO coordination.
2. Phasing.
    a. Phase elements.
    b. Construction safety drawings.
3. Areas and operations affected by the construction activity.
    a. Identification of affected areas.
    b. Mitigation of effects.
4. Protection of navigation aids (NAVAIDs).
5. Contractor access.
    a. Location of stockpiled construction materials.
    b. Vehicle and pedestrian operations.
6. Wildlife management.
    a. Trash.
    b. Standing water.
    c. Tall grass and seeds.
    d. Poorly maintained fencing and gates.
    e. Disruption of existing wildlife habitat.
7. Foreign Object Debris (FOD) management.
8. Hazardous materials (HAZMAT) management.
9. Notification of construction activities.

a. Maintenance of a list of responsible representatives/ points of contact.

b. NOTAM.

c. Emergency notification procedures.

d. Coordination with ARFF Personnel.

e. Notification to the FAA.

10. Inspection requirements.

a. Daily (or more frequent) inspections.

b. Final inspections.

11. Underground utilities.

12. Penalties.

13. Special conditions.

14. Runway and taxiway visual aids. Marking, lighting, signs, and visual NAVAIDs.

a. General.

b. Markings.

c. Lighting and visual NAVAIDs.

d. Signs, temporary, including orange construction signs, and permanent signs.

15. Marking and signs for access routes.

16. Hazard marking and lighting.

a. Purpose.

b. Equipment.

17. Work zone lighting for nighttime construction (if applicable).

18. Protection of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces.

a. Runway Safety Area (RSA).

b. Runway Object Free Area (ROFA).

c. Taxiway Safety Area (TSA). Provide details for any adjustments to Taxiway Safety Area width to allow continued operation of smaller aircraft. See paragraph 2.22.3.

d. Taxiway Object Free Area (TOFA). Provide details for any continued aircraft operations while construction occurs within the TOFA. See paragraph 2.22.4.

e. Obstacle Free Zone (OFZ).

f. Runway approach/departure surfaces.

19. Other limitations on construction.

a. Prohibitions.

b. Restrictions.

2.4.2 The Safety Plan Compliance Document (SPCD) should include a general statement by the construction contractor that he/she has read and will abide by the CSPP. In addition, the SPCD must include all supplemental information that could not be included in the CSPP prior to the contract award. The contractor statement should include the name of the contractor, the title of the project CSPP, the approval date of the CSPP, and a reference to any supplemental information (that is, "I, (Name of Contractor), have read the (Title of Project) CSPP, approved on (Date), and will abide by it as written and with the following additions as noted:"). The supplemental information in the SPCD should be written to match the format of the CSPP indicating each subject by corresponding CSPP subject number and title. If no supplemental information is necessary for any specific subject, the statement, "No supplemental information," should be written after the corresponding subject title. The SPCD should not duplicate information in the CSPP:

1. Coordination. Discuss details of proposed safety meetings with the airport operator and with contractor employees and subcontractors.
2. Phasing. Discuss proposed construction schedule elements, including:
   a. Duration of each phase.
   b. Daily start and finish of construction, including "night only" construction.
   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. These areas and operations should be identified in the CSPP and should not require an entry in the SPCD.
4. Protection of NAVAIDs. Discuss specific methods proposed to protect operating NAVAIDs.
5. Contractor access. Provide the following:
   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. Who 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:
   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.
8. Hazardous Materials (HAZMAT) management. Discuss equipment and methods for responding to hazardous spills.
9. Notification of construction activities. Provide the following:
   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.
   d. Batch plant details, including 7460-1 submittal.
10. Inspection requirements. Discuss daily (or more frequent) inspections and special inspection procedures.
11. Underground utilities. Discuss proposed methods of identifying and protecting underground utilities.
12. Penalties. Penalties should be identified in the CSPP and should not require an entry in the SPCD.
13. Special conditions. Discuss proposed actions for each special condition identified in the CSPP.
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. Temporary orange construction signs.
   d. 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.
16. Hazard marking and lighting. Discuss proposed equipment and methods for identifying excavation areas.
17. Work zone lighting for nighttime construction (if applicable). Discuss proposed equipment, locations, aiming, and shielding to prevent interference with air traffic control and aircraft operations.

18. Protection of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:
    a. Equipment and methods for maintaining Taxiway Safety Area standards.
    b. Equipment and methods to ensure the safe passage of aircraft where Taxiway Safety Area or Taxiway Object Free Area standards cannot be maintained.
    c. Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.
19. Other limitations on construction should be identified in the CSPP and should not require an entry in the SPCD.

2.5 **Coordination.**

Airport operators, or tenants responsible for design, bidding and conducting construction on their leased properties, should ensure at all project developmental stages, such as predesign, prebid, and preconstruction conferences, they capture the subject of airport operational safety during construction (see AC 150/5370-12, *Quality Management for Federally Funded Airport Construction Projects*). In addition, the following should be coordinated as required:

2.5.1 Progress Meetings.

Operational safety should be a standing agenda item for discussion during progress meetings throughout the project developmental stages.

2.5.2 Scope or Schedule Changes.

Changes in the scope or duration at any of the project stages may require revisions to the CSPP and review and approval by the airport operator and the FAA (see paragraph 1.4.2.17).

2.5.3 FAA ATO Coordination.

Early coordination with FAA ATO is highly recommended during the design phase and is required for scheduling Technical Operations shutdowns prior to construction. Coordination is critical to restarts of NAVAID services and to the establishment of any special procedures for the movement of aircraft. Formal agreements between the airport operator and appropriate FAA offices are recommended. All relocation or adjustments to NAVAIDs, or changes to final grades in critical areas, should be coordinated with FAA ATO and may require an FAA flight inspection prior to restarting the facility. Flight inspections must be coordinated and scheduled well in advance of the intended facility restart. Flight inspections may require a reimbursable agreement between the airport operator and FAA ATO. Reimbursable agreements should be coordinated a minimum of 12 months prior to the start of construction. (See paragraph 2.13.5.3.2 for required FAA notification regarding FAA-owned NAVAIDs.)

2.6 **Phasing.**

Once it has been determined what types and levels of airport operations will be maintained, the most efficient sequence of construction may not be feasible. In this case, the sequence of construction may be phased to gain maximum efficiency while allowing for the required operations. The development of the resulting construction phases should be coordinated with local Air Traffic personnel and airport users. The sequenced construction phases established in the CSPP must be incorporated into the project design and must be reflected in the contract drawings and specifications.

2.6.1 Phase Elements.

For each phase the CSPP should detail:

- Areas closed to aircraft operations.
- Duration of closures.
- Taxi routes and/or areas of reduced TSA and TOFA to reflect reduced ADG use.
- ARFF access routes.
- Construction staging, disposal, and cleanout areas.
- Construction access and haul routes.
- Impacts to NAVAIDs.
- Lighting, marking, and signing changes.
- Available runway length and/or reduced RSA and ROFA to reflect reduced ADG use.
- Declared distances (if applicable).
- Required hazard marking, lighting, and signing.
- Work zone lighting for nighttime construction (if applicable).
- Lead times for required notifications.

2.6.2 Construction Safety Drawings.

Drawings specifically indicating operational safety procedures and methods in affected areas (i.e., construction safety drawings) should be developed for each construction phase. Such drawings should be included in the CSPP as referenced attachments and should also be included in the contract drawing package.

2.7 **Areas and Operations Affected by Construction Activity.**

Runways and taxiways should remain in use by aircraft to the maximum extent possible without compromising safety. Pre-meetings with the FAA ATO will support operational simulations. See Appendix E for an example of a table showing temporary operations versus current operations. The tables in Appendix E can be useful for coordination among all interested parties, including FAA Lines of Business.

2.7.1 Identification of Affected Areas.

Identifying areas and operations affected by the construction helps to determine possible safety problems. The affected areas should be identified in the construction safety drawings for each construction phase. (See paragraph 2.6.2.) Of particular concern are:

2.7.1.1 **Closing, or Partial Closing, of Runways, Taxiways and Aprons, and Displaced Thresholds.**

When a runway is partially closed, a portion of the pavement is unavailable for any aircraft operation, meaning taxiing, landing, or takeoff in either direction on that pavement is prohibited. A displaced threshold, by contrast, is established to ensure obstacle clearance and adequate safety area for landing aircraft. The pavement prior to the displaced threshold is normally available for take-off in the direction of the displacement and for landing and takeoff in the opposite direction. Misunderstanding this difference, may result in issuance of an inaccurate NOTAM, and can lead to a hazardous condition.

2.7.1.1.1 Partially Closed Runways.

The temporarily closed portion of a partially closed runway will generally extend from the threshold to a taxiway that may be used for entering and exiting the runway. If the closed portion extends to a point between taxiways, pilots will have to back-taxi on the runway, which is an undesirable operation. See Figure 2-1 for a desirable configuration.

2.7.1.1.2 Displaced Thresholds.

Since the portion of the runway pavement between the permanent threshold and a standard displaced threshold is available for takeoff and for landing in the opposite direction, the temporary displaced threshold need not be located at an entrance/exit taxiway. See Figure 2-2.

2.7.1.2 Closing of aircraft rescue and fire fighting access routes.

2.7.1.3 Closing of access routes used by airport and airline support vehicles.

2.7.1.4 Interruption of utilities, including water supplies for fire fighting.

2.7.1.5 Approach/departure surfaces affected by heights of objects.

2.7.1.6 Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads.

Figure 2-1. Temporary Partially Closed Runway

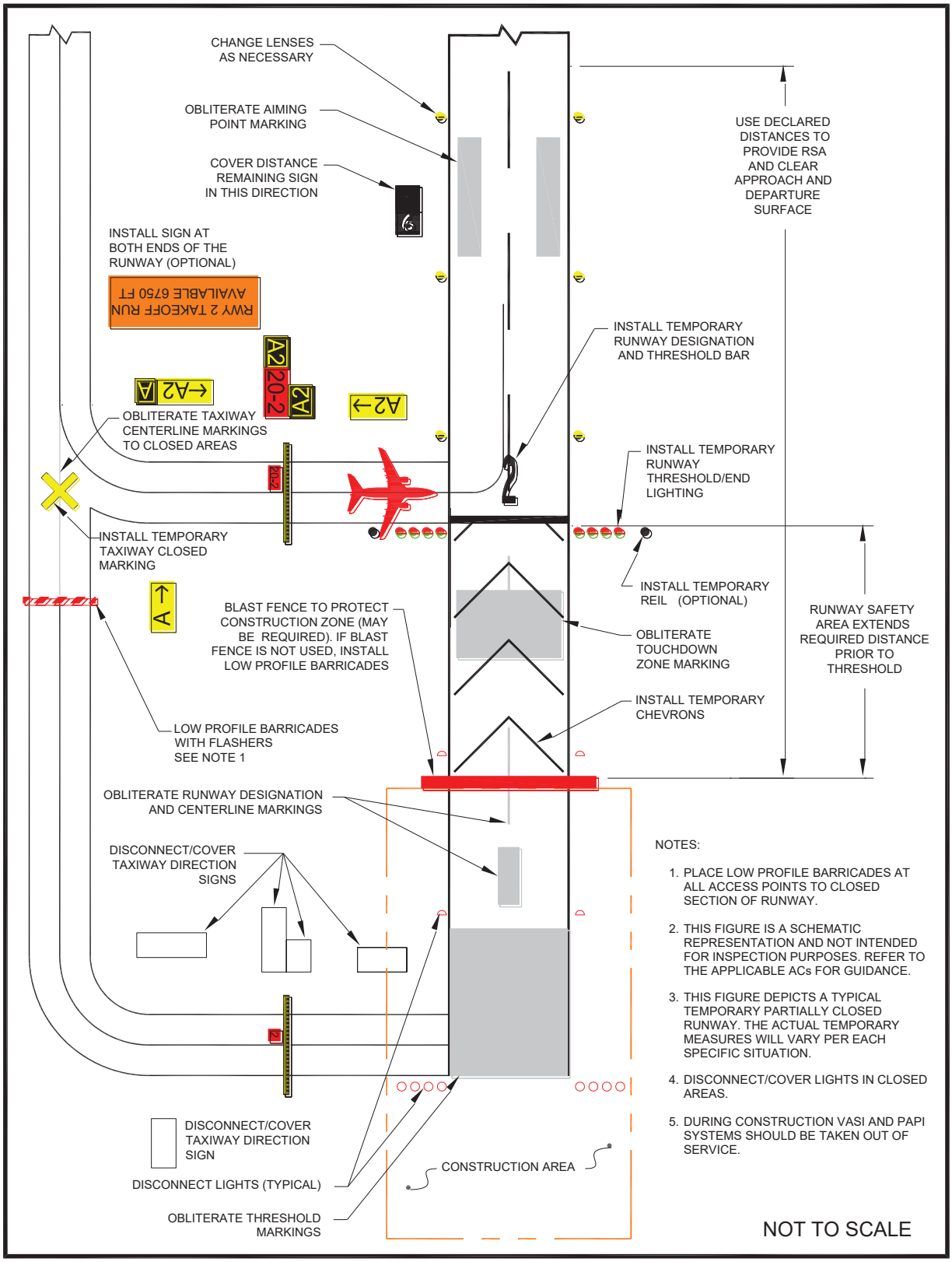
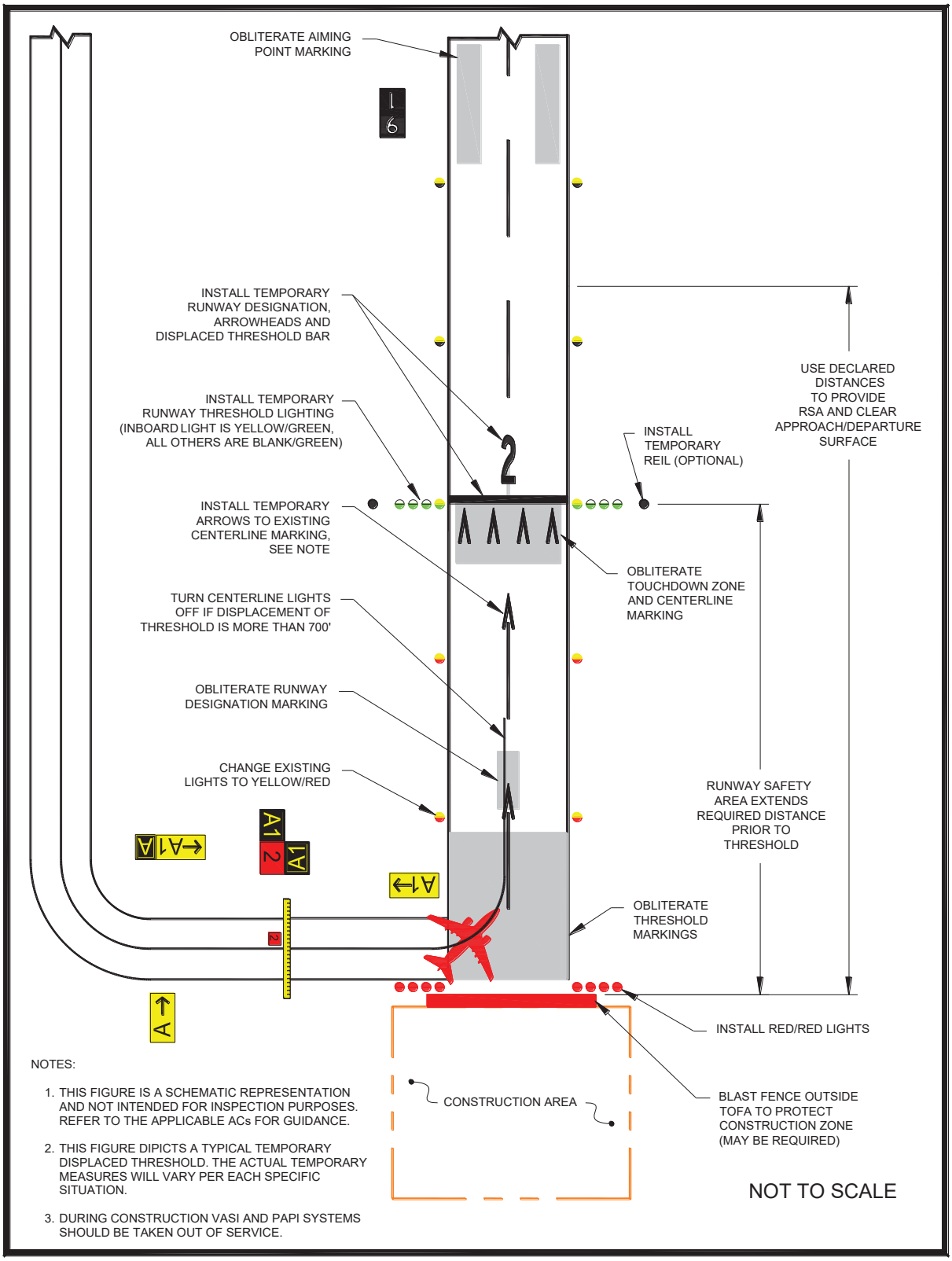


Figure 2-2. Temporary Displaced Threshold



Note: See paragraph 2.18.2.5.

2.7.2 Mitigation of Effects.

Establishment of specific procedures is necessary to maintain the safety and efficiency of airport operations. The CSPP must address:

2.7.2.1 Temporary changes to runway and/or taxi operations.

2.7.2.2 Detours for ARFF and other airport vehicles.

2.7.2.3 Maintenance of essential utilities.

2.7.2.4 Temporary changes to air traffic control procedures. Such changes must be coordinated with the ATO.

2.8 Navigation Aid (NAVAID) Protection.

Before commencing construction activity, parking vehicles, or storing construction equipment and materials near a NAVAID, coordinate with the appropriate FAA ATO/Technical Operations office to evaluate the effect of construction activity and the required distance and direction from the NAVAID. (See paragraph 2.13.5.3.) Construction activities, materials/equipment storage, and vehicle parking near electronic NAVAIDs require special consideration since they may interfere with signals essential to air navigation. If any NAVAID may be affected, the CSPP and SPCD must show an understanding of the "critical area" associated with each NAVAID and describe how it will be protected. Where applicable, the operational critical areas of NAVAIDs should be graphically delineated on the project drawings. Pay particular attention to stockpiling material, as well as to movement and parking of equipment that may interfere with line of sight from the ATCT or with electronic emissions. Interference from construction equipment and activities may require NAVAID shutdown or adjustment of instrument approach minimums for low visibility operations. This condition requires that a NOTAM be filed (see paragraph 2.13.2). Construction activities and materials/equipment storage near a NAVAID must not obstruct access to the equipment and instruments for maintenance. Submittal of a 7460-1 form is required for construction vehicles operating near FAA NAVAIDs. (See paragraph 2.13.5.3.)

2.9 Contractor Access.

The CSPP must detail the areas to which the contractor must have access, and explain how contractor personnel will access those areas. Specifically address:

2.9.1 Location of Stockpiled Construction Materials.

Stockpiled materials and equipment storage are not permitted within the RSA and OFZ, and if possible should not be permitted within the Object Free Area (OFA) of an operational runway. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval. The airport operator must ensure that stockpiled materials and equipment adjacent to these areas are prominently marked and lighted during hours of restricted visibility or darkness. (See paragraph 2.18.2.) This includes determining and

verifying that materials are stabilized and stored at an approved location so as not to be a hazard to aircraft operations and to prevent attraction of wildlife and foreign object damage from blowing or tracked material. See paragraphs 2.10 and 2.11.

2.9.2 Vehicle and Pedestrian Operations.

The CSPP should include specific vehicle and pedestrian requirements. Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the AOA. The airport operator should coordinate requirements for vehicle operations with airport tenants, contractors, and the FAA air traffic manager. In regard to vehicle and pedestrian operations, the CSPP should include the following, with associated training requirements:

2.9.2.1 **Construction Site Parking.**

Designate in advance vehicle parking areas for contractor employees to prevent any unauthorized entry of persons or vehicles onto the AOA. These areas should provide reasonable contractor employee access to the job site.

2.9.2.2 **Construction Equipment Parking.**

Contractor employees must park and service all construction vehicles in an area designated by the airport operator outside the OFZ and never in the safety area of an active runway or taxiway. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment must not be parked on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the equipment must be well lighted. Employees should also park construction vehicles outside the OFA when not in use by construction personnel (for example, overnight, on weekends, or during other periods when construction is not active). Parking areas must not obstruct the clear line of sight by the ATCT to any taxiways or runways under air traffic control nor obstruct any runway visual aids, signs, or navigation aids. The FAA must also study those areas to determine effects on airport design criteria, surfaces established by 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace (Part 77), and on NAVAIDs and Instrument Approach Procedures (IAP). See paragraph 2.13.1 for further information.

2.9.2.3 **Access and Haul Roads.**

Determine the construction contractor’s access to the construction sites and haul roads. Do not permit the construction contractor to use any access or haul roads other than those approved. Access routes used by contractor vehicles must be clearly marked to prevent inadvertent entry to areas open to airport operations. Pay special attention to ensure that if construction traffic is to share or cross any ARFF routes that ARFF right of way is not impeded at any time, and that construction traffic on haul

roads does not interfere with NAVAIDs or approach surfaces of operational runways. Address whether access gates will be blocked or inoperative or if a rally point will be blocked or inaccessible.

2.9.2.4 Marking and lighting of vehicles in accordance with AC 150/5210-5, *Painting, Marking, and Lighting of Vehicles Used on an Airport.*

2.9.2.5 Description of proper vehicle operations on various areas under normal, lost communications, and emergency conditions.

2.9.2.6 Required escorts.

2.9.2.7 **Training Requirements for Vehicle Drivers to Ensure Compliance with the Airport Operator's Vehicle Rules and Regulations.**

Specific training should be provided to vehicle operators, including those providing escorts. See AC 150/5210-20, *Ground Vehicle Operations on Airports*, for information on training and records maintenance requirements.

2.9.2.8 **Situational Awareness.**

Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time. At non-towered airports, all aircraft movements and flight operations rely on aircraft operators to self-report their positions and intentions. However, there is no requirement for an aircraft to have radio communications. Because aircraft do not always broadcast their positions or intentions, visual checking, radio monitoring, and situational awareness of the surroundings is critical to safety.

2.9.2.9 **Two-Way Radio Communication Procedures.**

2.9.2.9.1 General.

The airport operator must ensure that tenant and construction contractor personnel engaged in activities involving unescorted operation on aircraft movement areas observe the proper procedures for communications, including using appropriate radio frequencies at airports with and without ATCT. When operating vehicles on or near open runways or taxiways, construction personnel must understand the critical importance of maintaining radio contact, as directed by the airport operator, with:

1. Airport operations
2. ATCT

3. Common Traffic Advisory Frequency (CTAF), which may include UNICOM, MULTICOM.
4. Automatic Terminal Information Service (ATIS). This frequency is useful for monitoring conditions on the airport. Local air traffic will broadcast information regarding construction related runway closures and "shortened" runways on the ATIS frequency.

2.9.2.9.2 Areas Requiring Two-Way Radio Communication with the ATCT.

Vehicular traffic crossing active movement areas must be controlled either by two-way radio with the ATCT, escort, flagman, signal light, or other means appropriate for the particular airport.

2.9.2.9.3 Frequencies to be Used.

The airport operator will specify the frequencies to be used by the contractor, which may include the CTAF for monitoring of aircraft operations. Frequencies may also be assigned by the airport operator for other communications, including any radio frequency in compliance with Federal Communications Commission requirements. At airports with an ATCT, the airport operator will specify the frequency assigned by the ATCT to be used between contractor vehicles and the ATCT.

2.9.2.9.4 Proper radio usage, including read back requirements.

2.9.2.9.5 Proper phraseology, including the International Phonetic Alphabet.

2.9.2.9.6 Light Gun Signals.

Even though radio communication is maintained, escort vehicle drivers must also familiarize themselves with ATCT light gun signals in the event of radio failure. See the FAA safety placard "Ground Vehicle Guide to Airport Signs and Markings." This safety placard may be downloaded through the Runway Safety Program Web site at http://www.faa.gov/airports/runway_safety/publications/ (see "Signs & Markings Vehicle Dashboard Sticker") or obtained from the FAA Airports Regional Office.

2.9.2.10 **Maintenance of the secured area of the airport, including:**

2.9.2.10.1 Fencing and Gates.

Airport operators and contractors must take care to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates should be equipped so they can be securely closed and locked to prevent access by animals and unauthorized people. Procedures should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit "piggybacking" behind another person or vehicle. The Department of Transportation (DOT) document DOT/FAA/AR-

00/52, *Recommended Security Guidelines for Airport Planning and Construction*, provides more specific information on fencing. A copy of this document can be obtained from the Airport Consultants Council, Airports Council International, or American Association of Airport Executives.

2.9.2.10.2 Badging Requirements.

Airports subject to 49 CFR Part 1542, *Airport Security*, must meet standards for access control, movement of ground vehicles, and identification of construction contractor and tenant personnel.

2.10 Wildlife Management.

The CSPP and SPCD must be in accordance with the airport operator's wildlife hazard management plan, if applicable. See AC 150/5200-33, *Hazardous Wildlife Attractants On or Near Airports,* and CertAlert 98-05, *Grasses Attractive to Hazardous Wildlife.* Construction contractors must carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports, such as:

2.10.1 Trash.

Food scraps must be collected from construction personnel activity.

2.10.2 Standing Water.

2.10.3 Tall Grass and Seeds.

Requirements for turf establishment can be at odds with requirements for wildlife control. Grass seed is attractive to birds. Lower quality seed mixtures can contain seeds of plants (such as clover) that attract larger wildlife. Seeding should comply with the guidance in AC 150/5370-10, *Standards for Specifying Construction of Airports,* Item T-901, Seeding. Contact the local office of the United Sates Department of Agriculture Soil Conservation Service or the State University Agricultural Extension Service (County Agent or equivalent) for assistance and recommendations. These agencies can also provide liming and fertilizer recommendations.

2.10.4 Poorly Maintained Fencing and Gates.

See paragraph 2.9.2.10.1.

2.10.5 Disruption of Existing Wildlife Habitat.

While this will frequently be unavoidable due to the nature of the project, the CSPP should specify under what circumstances (location, wildlife type) contractor personnel should immediately notify the airport operator of wildlife sightings.

2.11 **Foreign Object Debris (FOD) Management.**

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Construction contractors must not leave or place FOD on or near active aircraft movement areas. Materials capable of creating FOD must be continuously removed during the construction project. Fencing (other than security fencing) or covers may be necessary to contain material that can be carried by wind into areas where aircraft operate. See AC 150/5210-24, *Foreign Object Debris (FOD) Management.*

2.12 **Hazardous Materials (HAZMAT) Management.**

Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Transport and handling of other hazardous materials on an airport also requires special procedures. See AC 150/5320-15, *Management of Airport Industrial Waste.*

2.13 **Notification of Construction Activities.**

The CSPP and SPCD must detail procedures for the immediate notification of airport users and the FAA of any conditions adversely affecting the operational safety of the airport. It must address the notification actions described below, as applicable.

2.13.1 List of Responsible Representatives/points of contact for all involved parties, and procedures for contacting each of them, including after hours.

2.13.2 NOTAMs.

Only the airport operator may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway. The airport operator must coordinate the issuance, maintenance, and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants and the local air traffic facility (control tower, approach control, or air traffic control center), and must either enter the NOTAM into NOTAM Manager, or provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. The airport operator must file and maintain a list of authorized representatives with the FSS. Refer to AC 150/5200-28, *Notices to Airmen (NOTAMs) for Airport Operators,* for a sample NOTAM form. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA owned facilities. Any person having reason to believe that a NOTAM is missing, incomplete, or inaccurate must notify the airport operator. See paragraph 2.7.1.1 about issuing NOTAMs for partially closed runways versus runways with displaced thresholds.

2.13.3 Emergency notification procedures for medical, fire fighting, and police response.

2.13.4 Coordination with ARFF.

The CSPP must detail procedures for coordinating through the airport sponsor with ARFF personnel, mutual aid providers, and other emergency services if construction requires:

1. The deactivation and subsequent reactivation of water lines or fire hydrants, or
2. The rerouting, blocking and restoration of emergency access routes, or
3. The use of hazardous materials on the airfield.

2.13.5 Notification to the FAA.

2.13.5.1 **Part 77.**

Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment (i.e., cranes, graders, other equipment) on airports. FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, can be used for this purpose and submitted to the appropriate FAA Airports Regional or District Office. See Appendix A to download the form. Further guidance is available on the FAA web site at oeaaa.faa.gov.

2.13.5.2 **Part 157.**

With some exceptions, Title 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*, requires that the airport operator notify the FAA in writing whenever a non-Federally funded project involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport. Notification involves submitting FAA Form 7480-1, *Notice of Landing Area Proposal*, to the nearest FAA Airports Regional or District Office. See Appendix A to download the form.

2.13.5.3 **NAVAIDs.**

For emergency (short-notice) notification about impacts to both airport owned and FAA owned NAVAIDs, contact: 866-432-2622.

2.13.5.3.1 Airport Owned/FAA Maintained.

If construction operations require a shutdown of 24 hours or greater in duration, or more than 4 hours daily on consecutive days, of a NAVAID owned by the airport but maintained by the FAA, provide a 45-day minimum notice to FAA ATO/Technical Operations prior to facility shutdown, using Strategic Event Coordination (SEC) Form 6000.26 contained within FAA Order 6000.15, *General Maintenance Handbook for National Airspace System (NAS) Facilities*.

2.13.5.3.2 FAA Owned.

1. The airport operator must notify the appropriate FAA ATO Service Area Planning and Requirements (P&R) Group a minimum of 45 days prior to implementing an event that causes impacts to NAVAIDs, using SEC Form 6000.26.
2. Coordinate work for an FAA owned NAVAID shutdown with the local FAA ATO/Technical Operations office, including any necessary reimbursable agreements and flight checks. Detail procedures that address unanticipated utility outages and cable cuts that could impact FAA NAVAIDs. Refer to active Service Level Agreement with ATO for specifics.

2.14 **Inspection Requirements.**

2.14.1 Daily Inspections.

Inspections should be conducted at least daily, but more frequently if necessary to ensure conformance with the CSPP. A sample checklist is provided in Appendix D, Construction Project Daily Safety Inspection Checklist. See also AC 150/5200-18, *Airport Safety Self-Inspection.* Airport operators holding a Part 139 certificate are required to conduct self-inspections during unusual conditions, such as construction activities, that may affect safe air carrier operations.

2.14.2 Interim Inspections.

Inspections should be conducted of all areas to be (re)opened to aircraft traffic to ensure the proper operation of lights and signs, for correct markings, and absence of FOD. The contractor should conduct an inspection of the work area with airport operations personnel. The contractor should ensure that all construction materials have been secured, all pavement surfaces have been swept clean, all transition ramps have been properly constructed, and that surfaces have been appropriately marked for aircraft to operate safely. Only if all items on the list meet with the airport operator's approval should the air traffic control tower be notified to open the area to aircraft operations. The contractor should be required to retain a suitable workforce and the necessary equipment at the work area for any last minute cleanup that may be requested by the airport operator prior to opening the area.

2.14.3 Final Inspections.

New runways and extended runway closures may require safety inspections at certificated airports prior to allowing air carrier service. Coordinate with the FAA Airport Certification Safety Inspector (ACSI) to determine if a final inspection will be necessary.

2.15 **Underground Utilities.**

The CSPP and/or SPCD must include procedures for locating and protecting existing underground utilities, cables, wires, pipelines, and other underground facilities in excavation areas. This may involve coordinating with public utilities and FAA ATO/Technical Operations. Note that "One Call" or "Miss Utility" services do not include FAA ATO/Technical Operations.

2.16 **Penalties.**

The CSPP should detail penalty provisions for noncompliance with airport rules and regulations and the safety plans (for example, if a vehicle is involved in a runway incursion). Such penalties typically include rescission of driving privileges or access to the AOA.

2.17 **Special Conditions.**

The CSPP must detail any special conditions that affect the operation of the airport and will require the activation of any special procedures (for example, low-visibility operations, snow removal, aircraft in distress, aircraft accident, security breach, Vehicle / Pedestrian Deviation (VPD) and other activities requiring construction suspension/resumption).

2.18 **Runway and Taxiway Visual Aids.**

This includes marking, lighting, signs, and visual NAVAIDs. The CSPP must ensure that areas where aircraft will be operating are clearly and visibly separated from construction areas, including closed runways. Throughout the duration of the construction project, verify that these areas remain clearly marked and visible at all times and that marking, lighting, signs, and visual NAVAIDs that are to continue to perform their functions during construction remain in place and operational. Visual NAVAIDs that are not serving their intended function during construction must be temporarily disabled, covered, or modified as necessary. The CSPP must address the following, as appropriate:

2.18.1 General.

Airport markings, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, and other wind currents and constructed of materials that will minimize damage to an aircraft in the event of inadvertent contact. Items used to secure such markings must be of a color similar to the marking.

2.18.2 Markings.

During the course of construction projects, temporary pavement markings are often required to allow for aircraft operations during or between work periods. During the design phase of the project, the designer should coordinate with the project manager,

airport operations, airport users, the FAA Airports project manager, and Airport Certification Safety Inspector for Part 139 airports to determine minimum temporary markings. The FAA Airports project manager will, wherever a runway is closed, coordinate with the appropriate FAA Flight Standards Office and disseminate findings to all parties. Where possible, the temporary markings on finish grade pavements should be placed to mirror the dimensions of the final markings. Markings must be in compliance with the standards of AC 150/5340-1, *Standards for Airport Markings,* except as noted herein. Runways and runway exit taxiways closed to aircraft operations are marked with a yellow X. The preferred visual aid to depict temporary runway closure is the lighted X signal placed on or near the runway designation numbers. (See paragraph 2.18.2.1.2.)

2.18.2.1 **Closed Runways and Taxiways.**

2.18.2.1.1 Permanently Closed Runways.

For runways, obliterate the threshold marking, runway designation marking, and touchdown zone markings, and place an X at each end and at 1,000-foot (300 m) intervals. For a multiple runway environment, if the lighted X on a designated number will be located in the RSA of an adjacent active runway, locate the lighted X farther down the closed runway to clear the RSA of the active runway. In addition, the closed runway numbers located in the RSA of an active runway must be marked with a flat yellow X.

2.18.2.1.2 Temporarily Closed Runways.

For runways that have been temporarily closed, place an X at each end of the runway directly on or as near as practicable to the runway designation numbers. For a multiple runway environment, if the lighted X on a designated number will be located in the RSA of an adjacent active runway, locate the lighted X farther down the closed runway to clear the RSA of the active runway. In addition, the closed runway numbers located in the RSA of an active runway must be marked with a flat yellow X. See Figure 2-3. See also paragraph 2.18.3.3.

2.18.2.1.3 Partially Closed Runways and Displaced Thresholds.

When threshold markings are needed to identify the temporary beginning of the runway that is available for landing, the markings must comply with AC 150/5340-1. An X is not used on a partially closed runway or a runway with a displaced threshold. See paragraph 2.7.1.1 for the difference between partially closed runways and runways with displaced thresholds. Because of the temporary nature of threshold displacement due to construction, it is not necessary to re-adjust the existing runway centerline markings to meet standard spacing for a runway with a visual approach. Some of the requirements below may be waived in the cases of low-activity airports and/or short duration changes that are measured in days rather than weeks. Consider whether the presence of an airport traffic

control tower allows for the development of special procedures. Contact the appropriate FAA Airports Regional or District Office for assistance.

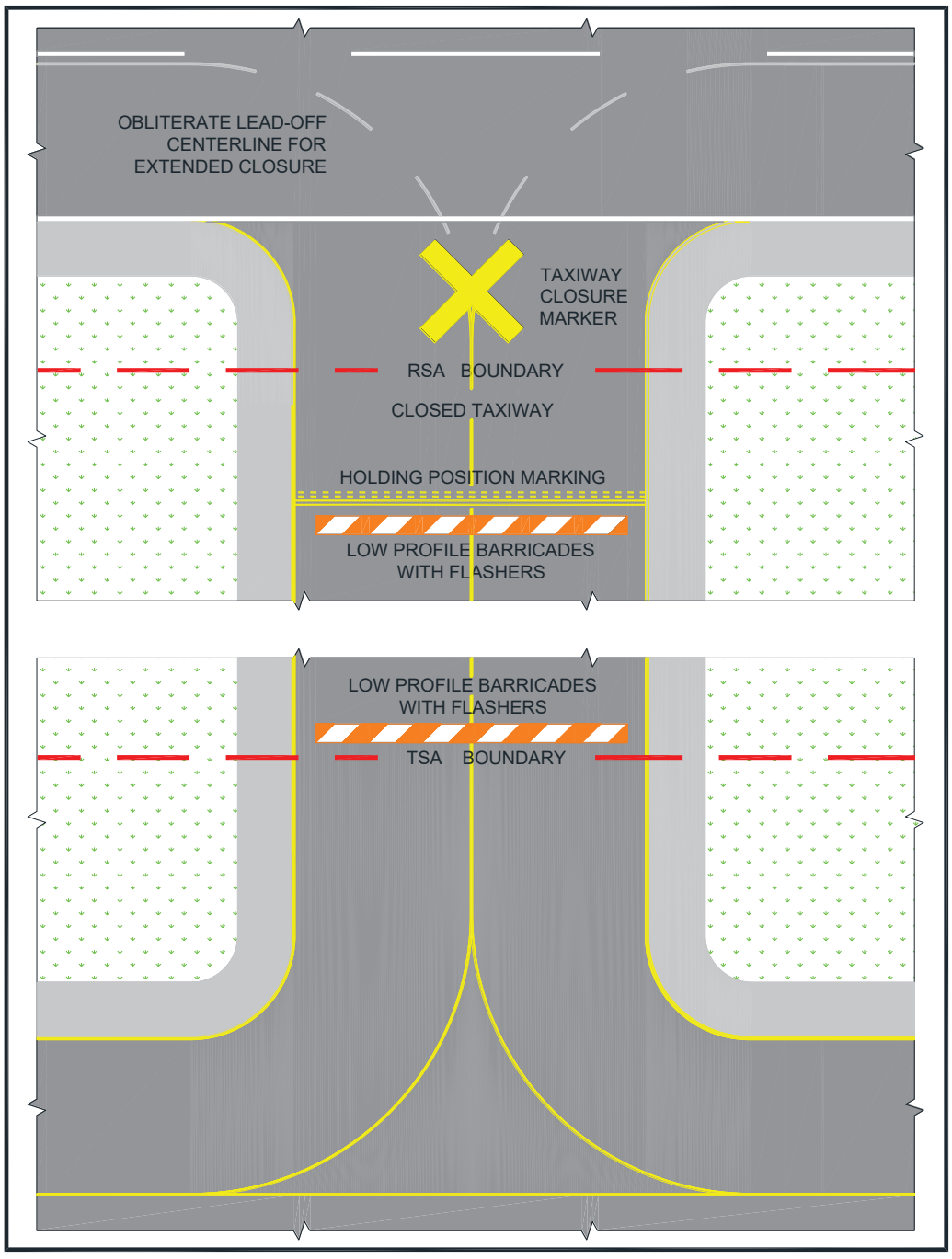
Figure 2-3. Markings for a Temporarily Closed Runway

1. **Partially Closed Runways.** Pavement markings for temporary closed portions of the runway consist of a runway threshold bar, runway designation, and yellow chevrons to identify pavement areas that are unsuitable for takeoff or landing (see AC 150/5340-1). Obliterate or cover markings prior to the moved threshold. Existing touchdown zone markings beyond the moved threshold may remain in place. Obliterate aiming point markings. Issue appropriate NOTAMs regarding any nonstandard markings. See Figure 2-4.
2. **Displaced Thresholds.** Pavement markings for a displaced threshold consist of a runway threshold bar, runway designation, and white arrowheads with and without arrow shafts. These markings are required to identify the portion of the runway before the displaced threshold to provide centerline guidance for pilots during approaches, takeoffs, and landing rollouts from the opposite direction. See AC 150/5340-1. Obliterate markings prior to the displaced threshold. Existing touchdown zone markings beyond the displaced threshold may remain in place. Obliterate aiming point markings. Issue appropriate NOTAMs regarding any nonstandard markings. See Figure 2-2.

2.18.2.1.4 Taxiways.

1. **Permanently Closed Taxiways.** AC 150/5300-13 *Airport Design,* notes that it is preferable to remove the pavement, but for pavement that is to remain, place an X at the entrance to both ends of the closed section. Obliterate taxiway centerline markings, including runway leadoff lines, leading to the closed taxiway. See Figure 2-4.

Figure 2-4. Temporary Taxiway Closure



2. **Temporarily Closed Taxiways.** Place barricades outside the safety area of intersecting taxiways. For runway/taxiway intersections, place an X at the entrance to the closed taxiway from the runway. If the taxiway will be closed for an extended period, obliterate taxiway centerline markings, including runway leadoff lines and taxiway to taxiway turns, leading to the closed section. Always obliterate runway lead-off lines for high speed exits, regardless of the duration of the closure. If the centerline markings will be reused upon reopening the taxiway, it is preferable to paint over the marking. This will result in less damage to the pavement when the upper layer of paint is ultimately removed. See Figure 2-4.

2.18.2.1.5 Temporarily Closed Airport.

When the airport is closed temporarily, mark all the runways as closed.

2.18.2.2 If unable to paint temporary markings on the pavement, construct them from any of the following materials: fabric, colored plastic, painted sheets of plywood, or similar materials. They must be properly configured and appropriately secured to prevent movement by prop wash, jet blast, or other wind currents. Items used to secure such markings must be of a color similar to the marking.

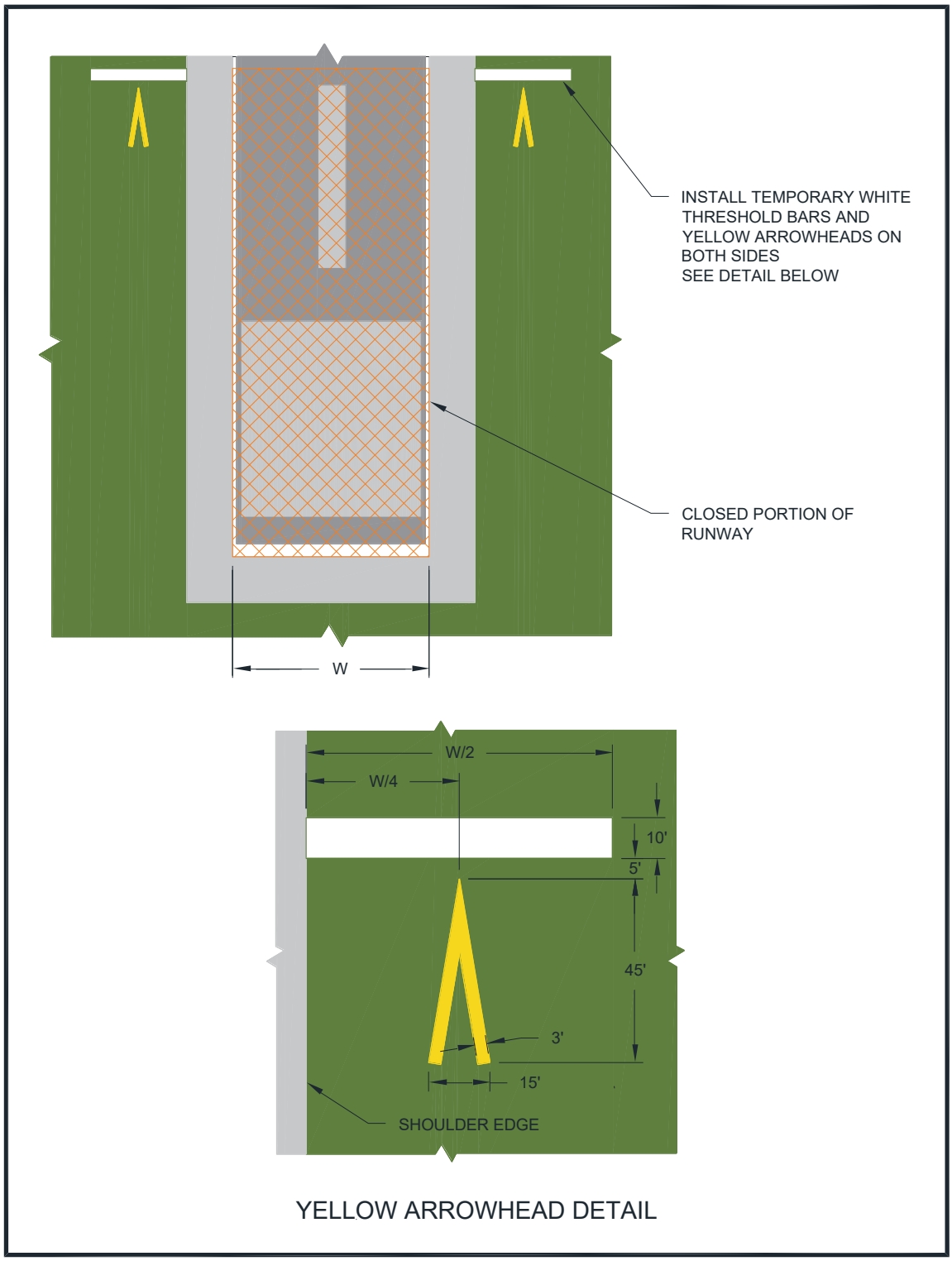
2.18.2.3 It may be necessary to remove or cover runway markings, including but not limited to, runway designation markings, threshold markings, centerline markings, edge stripes, touchdown zone markings and aiming point markings, depending on the length of construction and type of activity at the airport. When removing runway markings, apply the same treatment to areas between stripes or numbers, as the cleaned area will appear to pilots as a marking in the shape of the treated area.

2.18.2.4 If it is not possible to install threshold bars, chevrons, and arrows on the pavement, "temporary outboard white threshold bars and yellow arrowheads", see Figure 2-5, may be used. Locate them outside of the runway pavement surface on both sides of the runway. The dimensions must be as shown in Figure 2-5. If the markings are not discernible on grass or snow, apply a black background with appropriate material over the ground to ensure they are clearly visible.

2.18.2.5 The application rate of paint to mark a short-term temporary runway and taxiway markings may deviate from the standard (see Item P-620, "Runway and Taxiway Painting," in AC 150/5370-10), but the dimensions must meet the existing standards. When applying temporary markings at night, it is recommended that the fast curing, Type II paint be used to help offset the higher humidity and cooler temperatures often experienced at night. Diluting the paint will substantially increase cure time and is not recommended. Glass beads are not recommended for temporary markings. Striated markings may also be used for certain temporary markings. AC

150/5340-1, *Standards for Airport Markings,* has additional guidance on temporary markings.

Figure 2-5. Temporary Outboard White Threshold Bars and Yellow Arrowheads



2.18.3 Lighting and Visual NAVAIDs.

This paragraph refers to standard runway and taxiway lighting systems. See below for hazard lighting. Lighting installation must be in conformance with AC 150/5340-30, *Design and Installation Details for Airport Visual Aids,* and fixture design in conformance with AC 150/5345-50, *Specification for Portable Runway and Taxiway Lights.* When disconnecting runway and taxiway lighting fixtures, disconnect the associated isolation transformers. See AC 150/5340-26, *Maintenance of Airport Visual Aid Facilities*, for disconnect procedures and safety precautions. Alternately, cover the light fixture in such a way as to prevent light leakage. Avoid removing the lamp from energized fixtures because an excessive number of isolation transformers with open secondaries may damage the regulators and/or increase the current above its normal value. Secure, identify, and place any above ground temporary wiring in conduit to prevent electrocution and fire ignition sources. Maintain mandatory hold signs to operate normally in any situation where pilots or vehicle drivers could mistakenly be in that location. At towered airports certificated under Part 139, holding position signs are required to be illuminated on open taxiways crossing to closed or inactive runways. If the holding position sign is installed on the runway circuit for the closed runway, install a jumper to the taxiway circuit to provide power to the holding position sign for nighttime operations. Where it is not possible to maintain power to signs that would normally be operational, install barricades to exclude aircraft. Figure 2-1, Figure 2-2, Figure 2-3, and Figure 2-4 illustrate temporary changes to lighting and visual NAVAIDs.

2.18.3.1 **Permanently Closed Runways and Taxiways.**

For runways and taxiways that have been permanently closed, disconnect the lighting circuits.

2.18.3.2 **Temporarily Closed Runways and New Runways Not Yet Open to Air Traffic.**

If available, use a lighted X, both at night and during the day, placed at each end of the runway on or near the runway designation numbers facing the approach. (Note that the lighted X must be illuminated at all times that it is on a runway.) The use of a lighted X is required if night work requires runway lighting to be on. See AC 150/5345-55, *Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure.* For runways that have been temporarily closed, but for an extended period, and for those with pilot controlled lighting, disconnect the lighting circuits or secure switches to prevent inadvertent activation. For runways that will be opened periodically, coordinate procedures with the FAA air traffic manager or, at airports without an ATCT, the airport operator. Activate stop bars if available. Figure 2-6 shows a lighted X by day. Figure 2-7 shows a lighted X at night.

Figure 2-6. Lighted X in Daytime

Figure 2-7. Lighted X at Night

2.18.3.3 **Partially Closed Runways and Displaced Thresholds.**

When a runway is partially closed, a portion of the pavement is unavailable for any aircraft operation, meaning taxiing and landing or taking off in either direction. A displaced threshold, by contrast, is put in place to ensure obstacle clearance by landing aircraft. The pavement prior to the displaced threshold is available for takeoff in the direction of the displacement, and for landing and takeoff in the opposite direction. Misunderstanding this difference and issuance of a subsequently inaccurate NOTAM can result in a hazardous situation. For both partially

closed runways and displaced thresholds, approach lighting systems at the affected end must be placed out of service.

2.18.3.3.1 Partially Closed Runways.

Disconnect edge and threshold lights on that part of the runway at and behind the threshold (that is, the portion of the runway that is closed). Alternately, cover the light fixtures in such a way as to prevent light leakage. See Figure 2-1.

2.18.3.3.2 Temporary Displaced Thresholds.

Edge lighting in the area of the displacement emits red light in the direction of approach and yellow light (white for visual runways) in the opposite direction. If the displacement is 700 feet or less, blank out centerline lights in the direction of approach or place the centerline lights out of service. If the displacement is over 700 feet, place the centerline lights out of service. See AC 150/5340-30 for details on lighting displaced thresholds. See Figure 2-2.

2.18.3.3.3 Temporary runway thresholds and runway ends must be lighted if the runway is lighted and it is the intended threshold for night landings or instrument meteorological conditions.

2.18.3.3.4 A temporary threshold on an unlighted runway may be marked by retroreflective, elevated markers in addition to markings noted in paragraph 2.18.2.1.3. Markers seen by aircraft on approach are green. Markers at the rollout end of the runway are red. At certificated airports, temporary elevated threshold markers must be mounted with a frangible fitting (see 14 CFR Part 139.309). At non-certificated airports, the temporary elevated threshold markings may either be mounted with a frangible fitting or be flexible. See AC 150/5345-39, *Specification for L-853, Runway and Taxiway Retroreflective Markers.*

2.18.3.3.5 Temporary threshold lights and runway end lights and related visual NAVAIDs are installed outboard of the edges of the full-strength pavement only when they cannot be installed on the pavement. They are installed with bases at grade level or as low as possible, but not more than 3 inch (7.6 cm) above ground. (The standard above ground height for airport lighting fixtures is 14 inches (35 cm)). When any portion of a base is above grade, place properly compacted fill around the base to minimize the rate of gradient change so aircraft can, in an emergency, cross at normal landing or takeoff speeds without incurring significant damage. See AC 150/5370-10.

2.18.3.3.6 Maintain threshold and edge lighting color and spacing standards as described in AC 150/5340-30. Battery powered, solar, or portable lights that meet the criteria in AC 150/5345-50 may be used. These systems are intended primarily for visual flight rules (VFR) aircraft operations but may

be used for instrument flight rules (IFR) aircraft operations, upon individual approval from the Flight Standards Division of the applicable FAA Regional Office.

2.18.3.3.7 When runway thresholds are temporarily displaced, reconfigure yellow lenses (caution zone), as necessary, and place the centerline lights out of service.

2.18.3.3.8 Relocate the Visual Glide Slope Indicator (VGSI), such as Visual Approach Slope Indicator (VASI) and Precision Approach Path Indicator (PAPI); other airport lights, such as Runway End Identifier Lights (REIL); and approach lights to identify the temporary threshold. Another option is to disable the VGSI or any equipment that would give misleading indications to pilots as to the new threshold location. Installation of temporary visual aids may be necessary to provide adequate guidance to pilots on approach to the affected runway. If the FAA owns and operates the VGSI, coordinate its installation or disabling with the local ATO/Technical Operations Office. Relocation of such visual aids will depend on the duration of the project and the benefits gained from the relocation, as this can result in great expense. See FAA JO 6850.2, *Visual Guidance Lighting Systems*, for installation criteria for FAA owned and operated NAVAIDs.

2.18.3.3.9 Issue a NOTAM to inform pilots of temporary lighting conditions.

2.18.3.4 **Temporarily Closed Taxiways.**

If possible, deactivate the taxiway lighting circuits. When deactivation is not possible (for example other taxiways on the same circuit are to remain open), cover the light fixture in a way as to prevent light leakage.

2.18.4 Signs.

To the extent possible, signs must be in conformance with AC 150/5345-44, *Specification for Runway and Taxiway Signs,* and AC 150/5340-18, *Standard for Airport Sign Systems.*

2.18.4.1 **Existing Signs.**

Runway exit signs are to be covered for closed runway exits. Outbound destination signs are to be covered for closed runways. Any time a sign does not serve its normal function or would provide conflicting information, it must be covered or removed to prevent misdirecting pilots. Note that information signs identifying a crossing taxiway continue to perform their normal function even if the crossing taxiway is closed. For long term construction projects, consider relocating signs, especially runway distance remaining signs.

2.18.4.2 **Temporary Signs.**

Orange construction signs comprise a message in black on an orange background. Orange construction signs may help pilots be aware of changed conditions. The airport operator may choose to introduce these signs as part of a movement area construction project to increase situational awareness when needed. Locate signs outside the taxiway safety limits and ahead of construction areas so pilots can take timely action. Use temporary signs judiciously, striking a balance between the need for information and the increase in pilot workload. When there is a concern of pilot "information overload," the applicability of mandatory hold signs must take precedence over orange construction signs recommended during construction. Temporary signs must meet the standards for such signs in Engineering Brief 93, *Guidance for the Assembly and Installation of Temporary Orange Construction Signs.* Many criteria in AC 150/5345-44, *Specification for Runway and Taxiway Signs,* are referenced in the Engineering Brief. Permissible sign legends are:

1. CONSTRUCTION AHEAD,
2. CONSTRUCTION ON RAMP, and
3. RWY XX TAKEOFF RUN AVAILABLE XXX FT.

Phasing, supported by drawings and sign schedule, for the installation of orange construction signs must be included in the CSPP or SPCD.

2.18.4.2.1 Takeoff Run Available (TORA) signs.

Recommended: Where a runway has been shortened for takeoff, install orange TORA signs well before the hold lines, such as on a parallel taxiway prior to a turn to a runway hold position. See EB 93 for sign size and location.

2.18.4.2.2 Sign legends are shown in Figure F-1.

Note: See Figure E-1, Figure E-2, Figure E-3, Figure F-2, and Figure F-3 for examples of orange construction sign locations.

2.19 **Marking and Signs for Access Routes.**

The CSPP should indicate that pavement markings and signs for construction personnel will conform to AC 150/5340-18 and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, *Frangible Connections,* which may require modification to size and height guidance in the MUTCD.

2.20 **Hazard Marking, Lighting and Signing.**

2.20.1 Hazard marking, lighting, and signing prevent pilots from entering areas closed to aircraft, and prevent construction personnel from entering areas open to aircraft. The CSPP must specify prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles. Hazard marking and lighting must also be specified to identify open manholes, small areas under repair, stockpiled material, waste areas, and areas subject to jet blast. Also consider less obvious construction-related hazards and include markings to identify FAA, airport, and National Weather Service facilities cables and power lines; instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas to make it easier for contractor personnel to avoid these areas.

2.20.2 Equipment.

2.20.2.1 **Barricades.**

Low profile barricades, including traffic cones, (weighted or sturdily attached to the surface) are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. Careful consideration must be given to selecting equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast. The spacing of barricades must be such that a breach is physically prevented barring a deliberate act. For example, if barricades are intended to exclude aircraft, gaps between barricades must be smaller than the wingspan of the smallest aircraft to be excluded; if barricades are intended to exclude vehicles, gaps between barricades must be smaller than the width of the excluded vehicles, generally 4 feet (1.2 meters). Provision must be made for ARFF access if necessary. If barricades are intended to exclude pedestrians, they must be continuously linked. Continuous linking may be accomplished through the use of ropes, securely attached to prevent FOD.

2.20.2.2 **Lights.**

Lights must be red, either steady burning or flashing, and must meet the luminance requirements of the State Highway Department. Batteries powering lights will last longer if lights flash. Lights must be mounted on barricades and spaced at no more than 10 feet (3 meters). Lights must be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations. They may be operated by photocell, but this may require that the contractor turn them on manually during periods of low visibility during daytime hours.

2.20.2.3 **Supplement Barricades with Signs (for example) As Necessary.**

Examples are “No Entry” and “No Vehicles.” Be aware of the increased effects of wind and jet blast on barricades with attached signs.

2.20.2.4 **Air Operations Area – General.**

Barricades are not permitted in any active safety area or on the runway side of a runway hold line. Within a runway or taxiway object free area, and on aprons, use orange traffic cones, flashing or steady burning red lights as noted above, highly reflective collapsible barricades marked with diagonal, alternating orange and white stripes; and/or signs to separate all construction/maintenance areas from the movement area. Barricades may be supplemented with alternating orange and white flags at least 20 by 20 inch (50 by 50 cm) square and securely fastened to eliminate FOD. All barricades adjacent to any open runway or taxiway / taxilane safety area, or apron must be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags. Barricades must be of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, and other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, but not to exceed 3 inch (7.6 cm) above the ground. Figure 2-8 and Figure 2-9 show sample barricades with proper coloring and flags.

Figure 2-8. Interlocking Barricades

Figure 2-9. Low Profile Barricades

2.20.2.5 **Air Operations Area – Runway/Taxiway Intersections.**

Use highly reflective barricades with lights to close taxiways leading to closed runways. Evaluate all operating factors when determining how to mark temporary closures that can last from 10 to 15 minutes to a much longer period of time. However, even for closures of relatively short duration, close all taxiway/runway intersections with barricades. The use of traffic cones is appropriate for short duration closures.

2.20.2.6 **Air Operations Area – Other.**

Beyond runway and taxiway object free areas and aprons, barricades intended for construction vehicles and personnel may be many different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels.

2.20.2.7 **Maintenance.**

The construction specifications must include a provision requiring the contractor to have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The contractor must file the contact person's information with the airport operator. Lighting should be checked for proper operation at least once per day, preferably at dusk.

2.21 Work Zone Lighting for Nighttime Construction.

Lighting equipment must adequately illuminate the work area if the construction is to be performed during nighttime hours. Refer to AC 150/5370-10 for minimum illumination levels for nighttime paving projects. Additionally, it is recommended that all support equipment, except haul trucks, be equipped with artificial illumination to safely

illuminate the area immediately surrounding their work areas. The lights should be positioned to provide the most natural color illumination and contrast with a minimum of shadows. The spacing must be determined by trial. Light towers should be positioned and adjusted to aim away from ATCT cabs and active runways to prevent blinding effects. Shielding may be necessary. Light towers should be removed from the construction site when the area is reopened to aircraft operations. Construction lighting units should be identified and generally located on the construction phasing plans in relationship to the ATCT and active runways and taxiways.

2.22 Protection of Runway and Taxiway Safety Areas.

Runway and taxiway safety areas, OFZs, OFAs, and approach surfaces are described in AC 150/5300-13. Protection of these areas includes limitations on the location and height of equipment and stockpiled material. An FAA airspace study may be required. Coordinate with the appropriate FAA Airports Regional or District Office if there is any doubt as to requirements or dimensions (see paragraph 2.13.5) as soon as the location and height of materials or equipment are known. The CSPP should include drawings showing all safety areas, object free areas, obstacle free zones and approach departure surfaces affected by construction.

2.22.1 Runway Safety Area (RSA).

A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway (see AC 150/5300-13). Construction activities within the existing RSA are subject to the following conditions:

2.22.1.1 No construction may occur within the existing RSA while the runway is open for aircraft operations. The RSA dimensions may be temporarily adjusted if the runway is restricted to aircraft operations requiring an RSA that is equal to the RSA width and length beyond the runway ends available during construction. (See AC 150/5300-13). The temporary use of declared distances and/or partial runway closures may provide the necessary RSA under certain circumstances. Coordinate with the appropriate FAA Airports Regional or District Office to have declared distances information published, and appropriate NOTAMs issued. See AC 150/5300-13 for guidance on the use of declared distances.

2.22.1.2 The airport operator must coordinate the adjustment of RSA dimensions as permitted above with the appropriate FAA Airports Regional or District Office and the local FAA air traffic manager and issue a NOTAM.

2.22.1.3 The CSPP and SPCD must provide procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations.

2.22.1.4 **Excavations.**

2.22.1.4.1 Open trenches or excavations are not permitted within the RSA while the runway is open. Backfill trenches before the runway is opened. If backfilling excavations before the runway must be opened is impracticable, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

2.22.1.4.2 Construction contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

2.22.1.5 **Erosion Control.**

Soil erosion must be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

2.22.2 Runway Object Free Area (ROFA).

Construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval.

2.22.3 Taxiway Safety Area (TSA).

2.22.3.1 A taxiway safety area is a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. (See AC 150/5300-13.) Since the width of the TSA is equal to the wingspan of the design aircraft, no construction may occur within the TSA while the taxiway is open for aircraft operations. The TSA dimensions may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a TSA that is equal to the TSA width available during construction. Give special consideration to TSA dimensions at taxiway turns and intersections. (see AC 150/5300-13).

2.22.3.2 The airport operator must coordinate the adjustment of the TSA width as permitted above with the appropriate FAA Airports Regional or District Office and the FAA air traffic manager and issue a NOTAM.

2.22.3.3 The CSPP and SPCD must provide procedures for ensuring adequate distance for protection from blasting operations.

2.22.3.4 **Excavations.**

1. Curves. Open trenches or excavations are not permitted within the TSA while the taxiway is open. Trenches should be backfilled before the taxiway is opened. If backfilling excavations before the taxiway must be opened is impracticable, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft.
2. Straight Sections. Open trenches or excavations are not permitted within the TSA while the taxiway is open for unrestricted aircraft operations. Trenches should be backfilled before the taxiway is opened. If backfilling excavations before the taxiway must be opened is impracticable, cover the excavations to allow the safe passage of ARFF equipment and of the heaviest aircraft operating on the taxiway across the trench without causing damage to the equipment or aircraft. In rare circumstances where the section of taxiway is indispensable for aircraft movement, open trenches or excavations may be permitted in the TSA while the taxiway is open to aircraft operations, subject to the following restrictions:
   a. Taxiing speed is limited to 10 mph.
   b. Appropriate NOTAMs are issued.
   c. Marking and lighting meeting the provisions of paragraphs 2.18 and 2.20 are implemented.
   d. Low mass, low-profile lighted barricades are installed.
   e. Appropriate temporary orange construction signs are installed.
3. Construction contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

2.22.3.5 **Erosion control.**

Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

2.22.4 Taxiway Object Free Area (TOFA).

Unlike the Runway Object Free Area, aircraft wings regularly penetrate the taxiway object free area during normal operations. Thus, the restrictions are more stringent. Except as provided below, no construction may occur within the taxiway object free area while the taxiway is open for aircraft operations.

2.22.4.1 The taxiway object free area dimensions may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a taxiway object free area that is equal to the taxiway object free area width available. Give special consideration to TOFA dimensions at taxiway turns and intersections.

2.22.4.2 Offset taxiway centerline and edge pavement markings (do not use glass beads) may be used as a temporary measure to provide the required taxiway object free area. Where offset taxiway pavement markings are provided, centerline lighting, centerline reflectors, or taxiway edge reflectors are required. Existing lighting that does not coincide with the temporary markings must be taken out of service.

2.22.4.3 Construction activity, including open excavations, may be accomplished without adjusting the width of the taxiway object free area, subject to the following restrictions:

2.22.4.3.1 Taxiing speed is limited to 10 mph.

2.22.4.3.2 NOTAMs issued advising taxiing pilots of hazard and recommending reduced taxiing speeds on the taxiway.

2.22.4.3.3 Marking and lighting meeting the provisions of paragraphs 2.18 and 2.20 are implemented.

2.22.4.3.4 If desired, appropriate orange construction signs are installed. See paragraph 2.18.4.2 and Appendix F.

2.22.4.3.5 Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width (with its main landing gear at the edge of the usable pavement), then it will be necessary to move personnel and equipment for the passage of that aircraft.

2.22.4.3.6 Flaggers furnished by the contractor must be used to direct and control construction equipment and personnel to a pre-established setback distance for safe passage of aircraft, and airline and/or airport personnel. Flaggers must also be used to direct taxiing aircraft. Due to liability issues, the airport operator should require airlines to provide flaggers for directing taxiing aircraft.

2.22.5 Obstacle Free Zone (OFZ).

In general, personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. If a penetration to the OFZ is necessary, it may be possible to continue aircraft operations through operational restrictions. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

2.22.6 Runway Approach/Departure Areas and Clearways.

All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces, as defined in AC 150/5300-13. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

2.22.6.1 Construction activity in a runway approach/departure area may result in the need to partially close a runway or displace the existing runway threshold. Partial runway closure, displacement of the runway threshold, as well as closure of the complete runway and other portions of the movement area also require coordination through the airport operator with the appropriate FAA air traffic manager (FSS if non-towered) and ATO/Technical Operations (for affected NAVAIDS) and airport users.

2.22.6.2 **Caution About Partial Runway Closures.**

When filing a NOTAM for a partial runway closure, clearly state that the portion of pavement located prior to the threshold is not available for landing and departing traffic. In this case, the threshold has been moved for both landing and takeoff purposes (this is different than a displaced threshold). There may be situations where the portion of closed runway is available for taxiing only. If so, the NOTAM must reflect this condition).

2.22.6.3 **Caution About Displaced Thresholds.**

Implementation of a displaced threshold affects runway length available for aircraft landing over the displacement. Depending on the reason for the displacement (to provide obstruction clearance or RSA), such a displacement may also require an adjustment in the landing distance available and accelerate-stop distance available in the opposite direction. If project scope includes personnel, equipment, excavation, or other work within the existing RSA of any usable runway end, do not implement a displaced threshold unless arrivals and departures toward the construction activity are prohibited. Instead, implement a partial closure.

2.23 **Other Limitations on Construction.**

The CSPP must specify any other limitations on construction, including but not limited to:

2.23.1 Prohibitions.

2.23.1.1 No use of tall equipment (cranes, concrete pumps, and so on) unless a 7460-1 determination letter is issued for such equipment.

2.23.1.2 No use of open flame welding or torches unless fire safety precautions are provided and the airport operator has approved their use.

2.23.1.3 No use of electrical blasting caps on or within 1,000 feet (300 meters) of the airport property. See AC 150/5370-10.

2.23.2 Restrictions.

2.23.2.1 Construction suspension required during specific airport operations.

2.23.2.2 Areas that cannot be worked on simultaneously.

2.23.2.3 Day or night construction restrictions.

2.23.2.4 Seasonal construction restrictions.

2.23.2.5 Temporary signs not approved by the airport operator.

2.23.2.6 Grades changes that could result in unplanned effects on NAVAIDs.

CHAPTER 3. GUIDELINES FOR WRITING A CSPP

3.1 General Requirements.

The CSPP is a standalone document written to correspond with the subjects outlined in paragraph 2.4. The CSPP is organized by numbered sections corresponding to each subject listed in paragraph 2.4, and described in detail in paragraphs 2.5 - 2.23. Each section number and title in the CSPP matches the corresponding subject outlined in paragraph 2.4 (for example, 1. Coordination, 2. Phasing, 3. Areas and Operations Affected by the Construction Activity, and so on). With the exception of the project scope of work outlined in Section 2. Phasing, only subjects specific to operational safety during construction should be addressed.

3.2 Applicability of Subjects.

Each section should, to the extent practical, focus on the specific subject. Where an overlapping requirement spans several sections, the requirement should be explained in detail in the most applicable section. A reference to that section should be included in all other sections where the requirement may apply. For example, the requirement to protect existing underground FAA ILS cables during trenching operations could be considered FAA ATO coordination (Coordination, paragraph 2.5.3), an area and operation affected by the construction activity (Areas and Operations Affected by the Construction Activity, paragraph 2.7.1.4), a protection of a NAVAID (Protection of Navigational Aids (NAVAIDs), paragraph 2.8), or a notification to the FAA of construction activities (Notification of Construction Activities, paragraph 2.13.5.3.2). However, it is more specifically an underground utility requirement (Underground Utilities, paragraph 2.15). The procedure for protecting underground ILS cables during trenching operations should therefore be described in 2.4.2.11: “The contractor must coordinate with the local FAA System Support Center (SSC) to mark existing ILS cable routes along Runway 17-35. The ILS cables will be located by hand digging whenever the trenching operation moves within 10 feet of the cable markings.” All other applicable sections should include a reference to 2.4.2.11: “ILS cables shall be identified and protected as described in 2.4.2.11” or “See 2.4.2.11 for ILS cable identification and protection requirements.” Thus, the CSPP should be considered as a whole, with no need to duplicate responses to related issues.

3.3 Graphical Representations.

Construction safety drawings should be included in the CSPP as attachments. When other graphical representations will aid in supporting written statements, the drawings, diagrams, and/or photographs should also be attached to the CSPP. References should be made in the CSPP to each graphical attachment and may be made in multiple sections.

3.4 **Reference Documents.**

The CSPP must not incorporate a document by reference unless reproduction of the material in that document is prohibited. In that case, either copies of or a source for the referenced document must be provided to the contractor. Where this AC recommends references (e.g. as in paragraph 3.9) the intent is to include a reference to the corresponding section in the CSPP, not to this Advisory Circular.

3.5 **Restrictions.**

The CSPP should not be considered as a project design review document. The CSPP should also avoid mention of permanent ("as-built") features such as pavements, markings, signs, and lighting, except when such features are intended to aid in maintaining operational safety during the construction.

3.6 **Coordination.**

Include in this section a detailed description of conferences and meetings to be held both before and during the project. Include appropriate information from AC 150/5370-12. Discuss coordination procedures and schedules for each required FAA ATO Technical Operations shutdown and restart and all required flight inspections.

3.7 **Phasing.**

Include in this section a detailed scope of work description for the project as a whole and each phase of work covered by the CSPP. This includes all locations and durations of the work proposed. Attach drawings to graphically support the written scope of work. Detail in this section the sequenced phases of the proposed construction. Include a reference to paragraph 3.8, as appropriate.

3.8 **Areas and Operations Affected by Construction.**

Focus in this section on identifying the areas and operations affected by the construction. Describe corresponding mitigation that is not covered in detail elsewhere in the CSPP. Include references to paragraphs below as appropriate. Attach drawings as necessary to graphically describe affected areas and mechanisms proposed. See Appendix F for sample operational effects tables and figures.

3.9 **NAVAID Protection.**

List in this section all NAVAID facilities that will be affected by the construction. Identify NAVAID facilities that will be placed out of service at any time prior to or during construction activities. Identify individuals responsible for coordinating each shutdown and when each facility will be out of service. Include a reference to paragraph 3.6 for FAA ATO NAVAID shutdown, restart, and flight inspection coordination. Outline in detail procedures to protect each NAVAID facility remaining in service from interference by construction activities. Include a reference to paragraph 3.14 for the

issuance of NOTAMs as required. Include a reference to paragraph 3.16 for the protection of underground cables and piping serving NAVAIDs. If temporary visual aids are proposed to replace or supplement existing facilities, include a reference to paragraph 3.19. Attach drawings to graphically indicate the affected NAVAIDS and the corresponding critical areas.

3.10 **Contractor Access.**

This will necessarily be the most extensive section of the CSPP. Provide sufficient detail so that a contractor not experienced in working on airports will understand the unique restrictions such work will require. Due to this extent, it should be broken down into subsections as described below:

3.10.1 Location of Stockpiled Construction Materials.

Describe in this section specific locations for stockpiling material. Note any height restrictions on stockpiles. Include a reference to paragraph 3.21 for hazard marking and lighting devices used to identify stockpiles. Include a reference to paragraph 3.11 for provisions to prevent stockpile material from becoming wildlife attractants. Include a reference to paragraph 3.12 for provisions to prevent stockpile material from becoming FOD. Attach drawings to graphically indicate the stockpile locations.

3.10.2 Vehicle and Pedestrian Operations.

While there are many items to be addressed in this major subsection of the CSPP, all are concerned with one main issue: keeping people and vehicles from areas of the airport where they don't belong. This includes preventing unauthorized entry to the AOA and preventing the improper movement of pedestrians or vehicles on the airport. In this section, focus on mechanisms to prevent construction vehicles and workers traveling to and from the worksite from unauthorized entry into movement areas. Specify locations of parking for both employee vehicles and construction equipment, and routes for access and haul roads. In most cases, this will best be accomplished by attaching a drawing. Quote from AC 150/5210-5 specific requirements for contractor vehicles rather than referring to the AC as a whole, and include special requirements for identifying HAZMAT vehicles. Quote from, rather than incorporate by reference, AC 150/5210-20 as appropriate to address the airport's rules for ground vehicle operations, including its training program. Discuss the airport's recordkeeping system listing authorized vehicle operators.

3.10.3 Two-Way Radio Communications.

Include a special section to identify all individuals who are required to maintain communications with Air Traffic (AT) at airports with active towers, or monitor CTAF at airports without or with closed ATCT. Include training requirements for all individuals required to communicate with AT. Individuals required to monitor AT frequencies should also be identified. If construction employees are also required to communicate by radio with Airport Operations, this procedure should be described in detail. Usage of vehicle mounted radios and/or portable radios should be addressed. Communication procedures for the event of disabled radio communication (that is, light

signals, telephone numbers, others) must be included. All radio frequencies should by identified (Tower, Ground Control, CTAF, UNICOM, ATIS, and so on).

3.10.4 Airport Security.

Address security as it applies to vehicle and pedestrian operations. Discuss TSA requirements, security badging requirements, perimeter fence integrity, gate security, and other needs. Attach drawings to graphically indicate secured and/or Security Identification Display Areas (SIDA), perimeter fencing, and available access points.

3.11 **Wildlife Management.**

Discuss in this section wildlife management procedures. Describe the maintenance of existing wildlife mitigation devices, such as perimeter fences, and procedures to limit wildlife attractants. Include procedures to notify Airport Operations of wildlife encounters. Include a reference to paragraph 3.10 for security (wildlife) fence integrity maintenance as required.

3.12 **FOD Management.**

In this section, discuss methods to control and monitor FOD: worksite housekeeping, ground vehicle tire inspections, runway sweeps, and so on. Include a reference to paragraph 3.15 for inspection requirements as required.

3.13 **HAZMAT Management.**

Describe in this section HAZMAT management procedures: fuel deliveries, spill recovery procedures, Safety Data Sheet (SDS), Material Safety Data Sheet (MSDS) or Product Safety Data Sheet (PSDS) availability, and other considerations. Any specific airport HAZMAT restrictions should also be identified. Include a reference to paragraph 3.10 for HAZMAT vehicle identification requirements. Quote from, rather than incorporate by reference, AC 150/5320-15.

3.14 **Notification of Construction Activities.**

List in this section the names and telephone numbers of points of contact for all parties affected by the construction project. We recommend a single list that includes all telephone numbers required under this section. Include emergency notification procedures for all representatives of all parties potentially impacted by the construction. Identify individual representatives – and at least one alternate – for each party. List both on-duty and off-duty contact information for each individual, including individuals responsible for emergency maintenance of airport construction hazard lighting and barricades. Describe procedures to coordinate immediate response to events that might adversely affect the operational safety of the airport (such as interrupted NAVAID service). Explain requirements for and the procedures for the issuance of Notices to Airmen (NOTAMs), notification to FAA required by 14 CFR Part 77 and Part 157 and in the event of affected NAVAIDs. For NOTAMs, identify an individual, and at least one alternate, responsible for issuing and cancelling each specific type of Notice to

Airmen (NOTAM) required. Detail notification methods for police, fire fighting, and medical emergencies. This may include 911, but should also include direct phone numbers of local police departments and nearby hospitals. Identify the E911 address of the airport and the emergency access route via haul roads to the construction site. Require the contractor to have this information available to all workers. The local Poison Control number should be listed. Procedures regarding notification of Airport Operations and/or the ARFF Department of such emergencies should be identified, as applicable. If airport radio communications are identified as a means of emergency notification, include a reference to paragraph 3.10. Differentiate between emergency and nonemergency notification of ARFF personnel, the latter including activities that affect ARFF water supplies and access roads. Identify the primary ARFF contact person and at least one alternate. If notification is to be made through Airport Operations, then detail this procedure. Include a method of confirmation from the ARFF department.

3.15 **Inspection Requirements.**

Describe in this section inspection requirements to ensure airfield safety compliance. Include a requirement for routine inspections by the resident engineer (RE) or other airport operator's representative and the construction contractors. If the engineering consultants and/or contractors have a Safety Officer who will conduct such inspections, identify this individual. Describe procedures for special inspections, such as those required to reopen areas for aircraft operations. Part 139 requires daily airfield inspections at certificated airports, but these may need to be more frequent when construction is in progress. Discuss the role of such inspections on areas under construction. Include a requirement to immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

3.16 **Underground Utilities.**

Explain how existing underground utilities will be located and protected. Identify each utility owner and include contact information for each company/agency in the master list. Address emergency response procedures for damaged or disrupted utilities. Include a reference to paragraph 3.14 for notification of utility owners of accidental utility disruption as required.

3.17 **Penalties.**

Describe in this section specific penalties imposed for noncompliance with airport rules and regulations, including the CSPP: SIDA violations, VPD, and others.

3.18 **Special Conditions.**

Identify any special conditions that may trigger specific safety mitigation actions outlined in this CSPP: low visibility operations, snow removal, aircraft in distress, aircraft accident, security breach, VPD, and other activities requiring construction suspension/resumption. Include a reference to paragraph 3.10 for compliance with airport safety and security measures and for radio communications as required. Include

a reference to paragraph 3.14 for emergency notification of all involved parties, including police/security, ARFF, and medical services.

3.19 **Runway and Taxiway Visual Aids.**

Include marking, lighting, signs, and visual NAVAIDS. Detail temporary runway and taxiway marking, lighting, signs, and visual NAVAIDs required for the construction. Discuss existing marking, lighting, signs, and visual NAVAIDs that are temporarily, altered, obliterated, or shut down. Consider non-federal facilities and address requirements for reimbursable agreements necessary for alteration of FAA facilities and for necessary flight checks. Identify temporary TORA signs or runway distance remaining signs if appropriate. Identify required temporary visual NAVAIDs such as REIL or PAPI. Quote from, rather than incorporate by reference, AC 150/5340-1, *Standards for Airport Markings;* AC 150/5340-18, *Standards for Airport Sign Systems;* and AC 150/5340-30, as required. Attach drawings to graphically indicate proposed marking, lighting, signs, and visual NAVAIDs.

3.20 **Marking and Signs for Access Routes.**

Detail plans for marking and signs for vehicle access routes. To the extent possible, signs should be in conformance with the Federal Highway Administration MUTCD and/or State highway specifications, not hand lettered. Detail any modifications to the guidance in the MUTCD necessary to meet frangibility/height requirements.

3.21 **Hazard Marking and Lighting.**

Specify all marking and lighting equipment, including when and where each type of device is to be used. Specify maximum gaps between barricades and the maximum spacing of hazard lighting. Identify one individual and at least one alternate responsible for maintenance of hazard marking and lighting equipment in the master telephone list. Include a reference to paragraph 3.14. Attach drawings to graphically indicate the placement of hazard marking and lighting equipment.

3.22 **Work Zone Lighting for Nighttime Construction.**

If work is to be conducted at night, specify all lighting equipment, including when and where each type of device is to be used. Indicate the direction lights are to be aimed and any directions that aiming of lights is prohibited. Specify any shielding necessary in instances where aiming is not sufficient to prevent interference with air traffic control and aircraft operations. Attach drawings to graphically indicate the placement and aiming of lighting equipment. Where the plan only indicates directions that aiming of lights is prohibited, the placement and positioning of portable lights must be proposed by the Contractor and approved by the airport operator's representative each time lights are relocated or repositioned.

3.23 **Protection of Runway and Taxiway Safety Areas.**

This section should focus exclusively on procedures for protecting all safety areas, including those altered by the construction: methods of demarcation, limit of access, movement within safety areas, stockpiling and trenching restrictions, and so on. Reference AC 150/5300-13, as required. Include a reference to paragraph 3.10 for procedures regarding vehicle and personnel movement within safety areas. Include a reference to paragraph 3.10 for material stockpile restrictions as required. Detail requirements for trenching, excavations, and backfill. Include a reference to paragraph 3.21 for hazard marking and lighting devices used to identify open excavations as required. If runway and taxiway closures are proposed to protect safety areas, or if temporary displaced thresholds and/or revised declared distances are used to provide the required Runway Safety Area, include a reference to paragraphs 3.14 and 3.19. Detail procedures for protecting the runway OFZ, runway OFA, taxiway OFA and runway approach surfaces including those altered by the construction: methods of demarcation, limit of cranes, storage of equipment, and so on. Quote from, rather than incorporate by reference, AC 150/5300-13, as required. Include a reference to paragraph 3.24 for height (i.e., crane) restrictions as required. One way to address the height of equipment that will move during the project is to establish a three-dimensional "box" within which equipment will be confined that can be studied as a single object. Attach drawings to graphically indicate the safety area, OFZ, and OFA boundaries.

3.24 **Other Limitations on Construction.**

This section should describe what limitations must be applied to each area of work and when each limitation will be applied: limitations due to airport operations, height (i.e., crane) restrictions, areas which cannot be worked at simultaneously, day/night work restrictions, winter construction, and other limitations. Include a reference to paragraph 3.7 for project phasing requirements based on construction limitations as required.

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APPENDIX A. RELATED READING MATERIAL

Obtain the latest version of the following free publications from the FAA on its Web site at http://www.faa.gov/airports/.

Table A-1. FAA Publications

Number	Title and Description
AC 150/5200-28	*Notices to Airmen (NOTAMs) for Airport Operators* Guidance for using the NOTAM System in airport reporting.
AC 150/5200-30	*Airport Field Condition Assessments and Winter Operations Safety* Guidance for airport owners/operators on the development of an acceptable airport snow and ice control program and on appropriate field condition reporting procedures.
AC 150/5200-33	*Hazardous Wildlife Attractants On or Near Airports* Guidance on locating certain land uses that might attract hazardous wildlife to public-use airports.
AC 150/5210-5	*Painting, Marking, and Lighting of Vehicles Used on an Airport* Guidance, specifications, and standards for painting, marking, and lighting vehicles operating in the airport air operations areas.
AC 150/5210-20	*Ground Vehicle Operations to include Taxiing or Towing an Aircraft on Airports* Guidance to airport operators on developing ground vehicle operation training programs.
AC 150/5300-13	*Airport Design* FAA standards and recommendations for airport design. Establishes approach visibility minimums as an airport design parameter, and contains the Object Free area and the obstacle free-zone criteria.
AC 150/5210-24	*Airport Foreign Object Debris (FOD) Management* Guidance for developing and managing an airport foreign object debris (FOD) program

Number	Title and Description
AC 150/5320-15	*Management of Airport Industrial Waste* Basic information on the characteristics, management, and regulations of industrial wastes generated at airports. Guidance for developing a Storm Water Pollution Prevention Plan (SWPPP) that applies best management practices to eliminate, prevent, or reduce pollutants in storm water runoff with particular airport industrial activities.
AC 150/5340-1	*Standards for Airport Markings* FAA standards for the siting and installation of signs on airport runways and taxiways.
AC 150/5340-18	*Standards for Airport Sign Systems* FAA standards for the siting and installation of signs on airport runways and taxiways.
AC 150/5345-28	*Precision Approach Path Indicator (PAPI) Systems* FAA standards for PAPI systems, which provide pilots with visual glide slope guidance during approach for landing.
AC 150/5340-30	*Design and Installation Details for Airport Visual Aids* Guidance and recommendations on the installation of airport visual aids.
AC 150/5345-39	*Specification for L-853, Runway and Taxiway Retroreflective Markers*
AC 150/5345-44	*Specification for Runway and Taxiway Signs* FAA specifications for unlighted and lighted signs for taxiways and runways.
AC 150/5345-53	*Airport Lighting Equipment Certification Program* Details on the Airport Lighting Equipment Certification Program (ALECP).
AC 150/5345-50	*Specification for Portable Runway and Taxiway Lights* FAA standards for portable runway and taxiway lights and runway end identifier lights for temporary use to permit continued aircraft operations while all or part of a runway lighting system is inoperative.
AC 150/5345-55	*Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure*

Number	Title and Description
AC 150/5370-10	*Standards for Specifying Construction of Airports* Standards for construction of airports, including earthwork, drainage, paving, turfing, lighting, and incidental construction.
AC 150/5370-12	*Quality Management for Federally Funded Airport Construction Projects*
EB 93	*Guidance for the Assembly and Installation of Temporary Orange Construction Signs*
FAA Order 5200.11	FAA Airports (ARP) Safety Management System (SMS) Basics for implementing SMS within ARP. Includes roles and responsibilities of ARP management and staff as well as other FAA lines of business that contribute to the ARP SMS.
FAA Certalert 98-05	*Grasses Attractive to Hazardous Wildlife* Guidance on grass management and seed selection.
FAA Form 7460-1	Notice of Proposed Construction or Alteration
FAA Form 7480-1	Notice of Landing Area Proposal
FAA Form 6000.26	National NAS Strategic Interruption Service Level Agreement, Strategic Events Coordination, Airport Sponsor Form

Obtain the latest version of the following free publications from the Electronic Code of Federal Regulations at http://www.ecfr.gov/.

Table A-2. Code of Federal Regulation

Number	Title
Title 14 CFR Part 77	Safe, Efficient Use and Preservation of the Navigable Airspace
Title 14 CFR Part 139	Certification of Airports
Title 49 CFR Part 1542	Airport Security

Obtain the latest version of the Manual on Uniform Traffic Control Devices from the Federal Highway Administration at http://mutcd.fhwa.dot.gov/.

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APPENDIX B. TERMS AND ACRONYMS

Table B-1. Terms and Acronyms

Term	Definition
Form 7460-1	Notice of Proposed Construction or Alteration. For on-airport projects, the form submitted to the FAA regional or airports division office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. (See guidance available on the FAA web site at https://oeaaa.faa.gov.) The form may be downloaded at http://www.faa.gov/airports/resources/forms/, or filed electronically at: https://oeaaa.faa.gov.
Form 7480-1	Notice of Landing Area Proposal. Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport The form may be downloaded at http://www.faa.gov/airports/resources/forms/.
Form 6000-26	Airport Sponsor Strategic Event Submission Form
AC	Advisory Circular
ACSI	Airport Certification Safety Inspector
ADG	Airplane Design Group
AIP	Airport Improvement Program
ALECP	Airport Lighting Equipment Certification Program
ANG	Air National Guard
AOA	Air Operations Area, as defined in 14 CFR Part 107. Means a portion of an airport, specified in the airport security program, in which security measures are carried out. This area includes aircraft movement areas, aircraft parking areas, loading ramps, and safety areas, and any adjacent areas (such as general aviation areas) that are not separated by adequate security systems, measures, or procedures. This area does not include the secured area of the airport terminal building.
ARFF	Aircraft Rescue and Fire Fighting
ARP	FAA Office of Airports
ASDA	Accelerate-Stop Distance Available
AT	Air Traffic
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
ATO	Air Traffic Organization
Certificated Airport	An airport that has been issued an Airport Operating Certificate by the FAA under

Term	Definition
	the authority of 14 CFR Part 139, *Certification of Airports*.
CFR	Code of Federal Regulations
Construction	The presence of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.
CSPP	Construction Safety and Phasing Plan. 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.
CTAF	Common Traffic Advisory Frequency
Displaced Threshold	A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold is available for takeoffs in either direction or landing from the opposite direction.
DOT	Department of Transportation
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FOD	Foreign Object Debris/Damage
FSS	Flight Service Station
GA	General Aviation
HAZMAT	Hazardous Materials
HMA	Hot Mix Asphalt
IAP	Instrument Approach Procedures
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LDA	Landing Distance Available
LOC	Localizer antenna array
Movement Area	The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading aprons and aircraft parking areas (reference 14 CFR Part 139).
MSDS	Material Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices
NAVAID	Navigation Aid
NAVAID Critical Area	An area of defined shape and size associated with a NAVAID that must remain clear and graded to avoid interference with the electronic signal.
Non-Movement Area	The area inside the airport security fence exclusive of the Movement Area. It is important to note that the non-movement area includes pavement traversed by aircraft.

Term	Definition
NOTAM	Notices to Airmen
Obstruction	Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.
OCC	Operations Control Center
OE / AAA	Obstruction Evaluation / Airport Airspace Analysis
OFA	Object Free Area. An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. (See AC 150/5300-13 for additional guidance on OFA standards and wingtip clearance criteria.)
OFZ	Obstacle Free Zone. The airspace below 150 ft (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches. The OFZ is subdivided as follows: Runway OFZ, Inner Approach OFZ, Inner Transitional OFZ, and Precision OFZ. Refer to AC 150/5300-13 for guidance on OFZ.
OSHA	Occupational Safety and Health Administration
OTS	Out of Service
P&R	Planning and Requirements Group
NPI	NAS Planning & Integration
PAPI	Precision Approach Path Indicator
PFC	Passenger Facility Charge
PLASI	Pulse Light Approach Slope Indicator
Project Proposal Summary	A clear and concise description of the proposed project or change that is the object of Safety Risk Management.
RA	Reimbursable Agreement
RE	Resident Engineer
REIL	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RSA	Runway Safety Area. A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13.
SDS	Safety Data Sheet
SIDA	Security Identification Display Area
SMS	Safety Management System

Term	Definition
SPCD	Safety Plan Compliance Document. Details developed and submitted by a contractor to the airport operator for approval providing details on how the performance of a construction project will comply with the CSPP.
SRM	Safety Risk Management
SSC	System Support Center
Taxiway Safety Area	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with AC 150/5300-13.
TDG	Taxiway Design Group
Temporary	Any condition that is not intended to be permanent.
Temporary Runway End	The beginning of that portion of the runway available for landing and taking off in one direction, and for landing in the other direction. Note the difference from a displaced threshold.
Threshold	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
TODA	Takeoff Distance Available
TOFA	Taxiway Object Free Area
TORA	Takeoff Run Available. The length of the runway less any length of runway unavailable and/or unsuitable for takeoff run computations. See AC 150/5300-13 for guidance on declared distances.
TSA	Taxiway Safety Area, or Transportation Security Administration
UNICOM	A radio communications system of a type used at small airports.
VASI	Visual Approach Slope Indicator
VGSI	Visual Glide Slope Indicator. A device that provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicator (PAPI), visual approach slope indicator (VASI), and pulse light approach slope indicator (PLASI).
VFR	Visual Flight Rules
VOR	Very High Frequency Omnidirectional Radio Range
VPD	Vehicle / Pedestrian Deviation

APPENDIX C. SAFETY AND PHASING PLAN CHECKLIST

This appendix is keyed to Chapter 2. In the electronic version of this AC, clicking on the paragraph designation in the Reference column will access the applicable paragraph. There may be instances where the CSPP requires provisions that are not covered by the list in this appendix.

This checklist is intended as an aid, not a required submittal.

Table C-1. CSPP Checklist

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
General Considerations					
Requirements for predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	2.5				
Operational safety is a standing agenda item for construction progress meetings.	2.5				
Scheduling of the construction phases is properly addressed.	2.6				
Any formal agreements are established.	2.5.3				
Areas and Operations Affected by Construction Activity					
Drawings showing affected areas are included.	2.7.1				
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	2.7.1.1				
Access routes used by ARFF vehicles affected by the project are addressed.	2.7.1.2				
Access routes used by airport and airline support vehicles affected by the project are addressed.	2.7.1.3				
Underground utilities, including water supplies for firefighting and drainage.	2.7.1.4				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	2.7.1.5				
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	2.7.1				
Temporary changes to taxi operations are addressed.	2.7.2.1				
Detours for ARFF and other airport vehicles are identified.	2.7.2.2				
Maintenance of essential utilities and underground infrastructure is addressed.	2.7.2.3				
Temporary changes to air traffic control procedures are addressed.	2.7.2.4				
NAVAIDs					
Critical areas for NAVAIDs are depicted on drawings.	2.8				
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	2.8				
Protection of NAVAID facilities is addressed.	2.8				
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	2.8				
Procedures for coordination with FAA ATO/Technical Operations, including identification of points of contact, are included.	2.8, 2.13.1, 2.13.5.3.1, 2.18.1				
Contractor Access					
The CSPP addresses areas to which contractor will have access and how	2.9				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
the areas will be accessed.					
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	2.9				
The location of stockpiled construction materials is depicted on drawings.	2.9.1				
The requirement for stockpiles in the ROFA to be approved by FAA is included.	2.9.1				
Requirements for proper stockpiling of materials are included.	2.9.1				
Construction site parking is addressed.	2.9.2.1				
Construction equipment parking is addressed.	2.9.2.2				
Access and haul roads are addressed.	2.9.2.3				
A requirement for marking and lighting of vehicles to comply with AC 150/5210-5*, Painting, Marking and Lighting of Vehicles Used on an Airport,* is included.	2.9.2.4				
Proper vehicle operations, including requirements for escorts, are described.	2.9.2.5, 2.9.2.6				
Training requirements for vehicle drivers are addressed.	2.9.2.7				
Two-way radio communications procedures are described.	2.9.2.9				
Maintenance of the secured area of the airport is addressed.	2.9.2.10				
Wildlife Management					
The airport operator's wildlife management procedures are addressed.	2.10				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Foreign Object Debris Management					
The airport operator's FOD management procedures are addressed.	2.11				
Hazardous Materials Management					
The airport operator's hazardous materials management procedures are addressed.	2.12				
Notification of Construction Activities					
Procedures for the immediate notification of airport user and local FAA of any conditions adversely affecting the operational safety of the airport are detailed.	2.13				
Maintenance of a list by the airport operator of the responsible representatives/points of contact for all involved parties and procedures for contacting them 24 hours a day, seven days a week is specified.	2.13.1				
A list of local ATO/Technical Operations personnel is included.	2.13.1				
A list of ATCT managers on duty is included.	2.13.1				
A list of authorized representatives to the OCC is included.	2.13.2				
Procedures for coordinating, issuing, maintaining and cancelling by the airport operator of NOTAMS about airport conditions resulting from construction are included.	2.8, 2.13.2, 2.18.3.3.9				
Provision of information on closed or hazardous conditions on airport movement areas by the airport operator to the OCC is specified.	2.13.2				
Emergency notification procedures for medical, fire fighting, and police	2.13.3				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
response are addressed.					
Coordination with ARFF personnel for non-emergency issues is addressed.	2.13.4				
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	2.13.5				
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	2.13.5.3.2				
Inspection Requirements					
Daily and interim inspections by both the airport operator and contractor are specified.	2.14.1, 2.14.2				
Final inspections at certificated airports are specified when required.	2.14.3				
Underground Utilities					
Procedures for protecting existing underground facilities in excavation areas are described.	2.15				
Penalties					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	2.16				
Special Conditions					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	2.17				
Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDs					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDs is addressed.	2.18.1				
Frangibility of airport markings, lighting, signs, and visual NAVAIDs is specified.	2.18.1, 2.18.3, 2.18.4.2, 2.20.2.4				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
The requirement for markings to be in compliance with AC 150/5340-1, *Standards for Airport Markings,* is specified.	2.18.2				
Detailed specifications for materials and methods for temporary markings are provided.	2.18.2				
The requirement for lighting to conform to AC 150/5340-30, *Design and Installation Details for Airport Visual Aids;* AC 150/5345-50, *Specification for Portable Runway and Taxiway Lights;* and AC 150/5345-53, *Airport Lighting Certification Program,* is specified.	2.18.3				
The use of a lighted X is specified where appropriate.	2.18.2.1.2, 2.18.3.2				
The requirement for signs to conform to AC 150/5345-44*, Specification for Runway and Taxiway Signs;* AC 50/5340-18, *Standards for Airport Sign Systems;* and AC 150/5345-53, *Airport Lighting Certification Program,* is specified.	2.18.4				
Marking and Signs For Access Routes					
The CSPP specifies that pavement markings and signs intended for construction personnel should conform to AC 150/5340-18 and, to the extent practicable, with the MUTCD and/or State highway specifications.	2.18.4.2				
Hazard Marking and Lighting					
Prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles are specified.	2.20.1				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Hazard marking and lighting are specified to identify open manholes, small areas under repair, stockpiled material, and waste areas.	2.20.1				
The CSPP considers less obvious construction-related hazards.	2.20.1				
Equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast is specified.	2.20.2.1				
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	2.20.2.1				
Red lights meeting the luminance requirements of the State Highway Department are specified.	2.20.2.2				
Barricades, temporary markers, and other objects placed and left in areas adjacent to any open runway, taxiway, taxi lane, or apron are specified to be as low as possible to the ground, and no more than 18 inch high.	2.20.2.3				
Barricades are specified to indicate construction locations in which no part of an aircraft may enter.	2.20.2.3				
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	2.20.2.5				
Markings for temporary closures are specified.	2.20.2.5				
The provision of a contractor's representative on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades is specified.	2.20.2.7				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
Work Zone Lighting for Nighttime Construction					
If work is to be conducted at night, the CSPP identifies construction lighting units and their general locations and aiming in relationship to the ATCT and active runways and taxiways.	2.21				
Protection of Runway and Taxiway Safety Areas					
The CSPP clearly states that no construction may occur within a safety area while the associated runway or taxiway is open for aircraft operations.	2.22.1.1, 2.22.3.1				
The CSPP specifies that the airport operator coordinates the adjustment of RSA or TSA dimensions with the ATCT and the appropriate FAA Airports Regional or District Office and issues a local NOTAM.	2.22.1.2, 2.22.3.2				
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	2.22.3.3				
The CSPP specifies that open trenches or excavations are not permitted within a safety area while the associated runway or taxiway is open, subject to approved exceptions.	2.22.1.4				
Appropriate covering of excavations in the RSA or TSA that cannot be backfilled before the associated runway or taxiway is open is detailed.	2.22.1.4				
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	2.22.1.4				
Grading and soil erosion control to maintain RSA/TSA standards are	2.22.3.5				

Coordination	Reference	Addressed?			Remarks
		Yes	No	NA	
addressed.					
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	2.22.2				
The CSPP clearly states that no construction may occur within a taxiway safety area while the taxiway is open for aircraft operations.	2.22.3				
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	2.22.4				
Measures to ensure that personnel, material, and/or equipment do not penetrate the OFZ or threshold siting surfaces while the runway is open for aircraft operations are included.	2.22.4.3.6				
Provisions for protection of runway approach/departure areas and clearways are included.	2.22.6				
Other Limitations on Construction					
The CSPP prohibits the use of open flame welding or torches unless adequate fire safety precautions are provided and the airport operator has approved their use.	2.23.1.2				
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft (300 m) of the airport property.	2.23.1.3				

APPENDIX D. CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project including information such as the date, time and name of the person conducting the inspection.

Table D-1. Potentially Hazardous Conditions

Item	Action Required (Describe)	No Action Required (Check)
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.		
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.		
Runway resurfacing projects resulting in lips exceeding 3 inch (7.6 cm) from pavement edges and ends.		
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.		
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.		
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and		

Item	Action Required (Describe)	No Action Required (Check)
approach zones.		
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.		
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.		
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.		
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.		
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.		
Obliterated or faded temporary markings on active operational areas.		
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.		

Item	Action Required (Describe)	No Action Required (Check)
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.		
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.		
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.		
Lack of radio communications with construction vehicles in airport movement areas.		
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.		
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.		
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.		
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).		

Item	Action Required (Describe)	No Action Required (Check)
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.		
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.		
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.		
Site burning, which can cause possible obscuration.		
Construction work taking place outside of designated work areas and out of phase.		

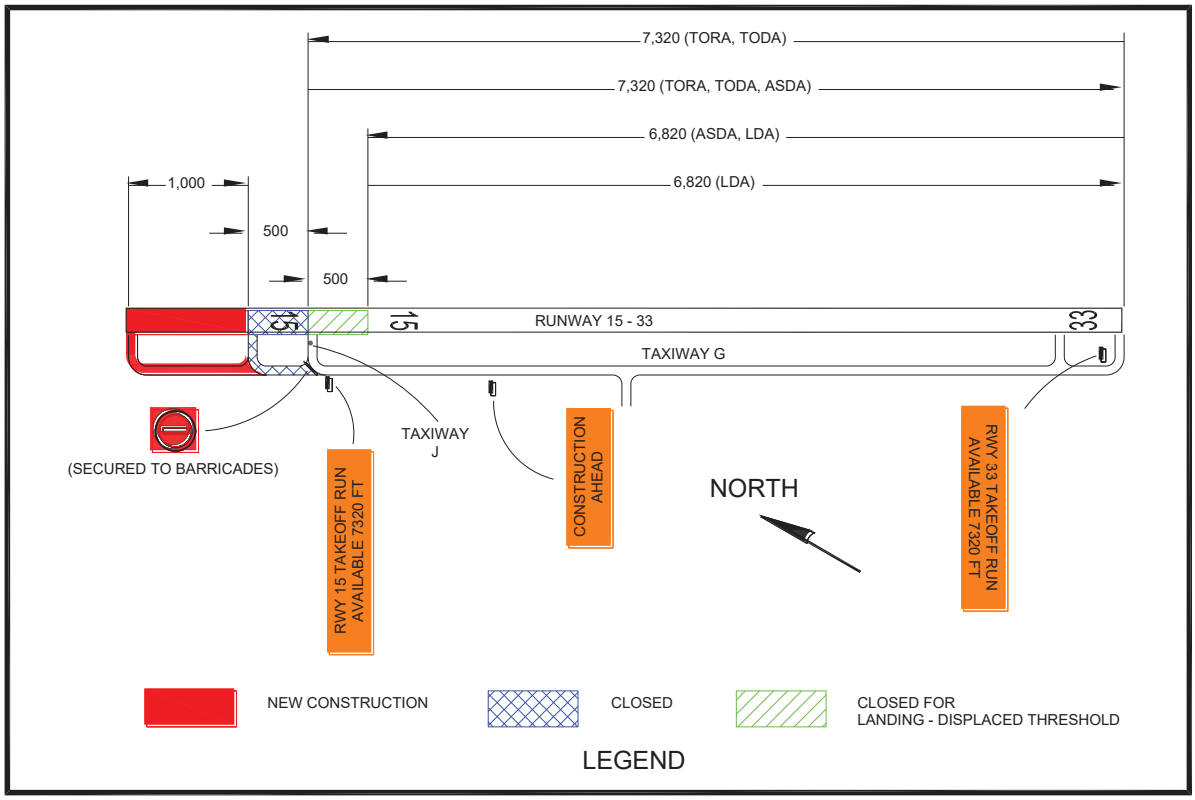
APPENDIX E. SAMPLE OPERATIONAL EFFECTS TABLE

E.1 **Project Description.**

Runway 15-33 is currently 7820 feet long, with a 500 foot stopway on the north end. This project will remove the stopway and extend the runway 1000 feet to the north and 500 feet to the south. Finally, the existing portion of the runway will be repaved. The runway 33 glide slope will be relocated. The new runway 33 localizer has already been installed by FAA Technical Operations and only needs to be switched on. Runway 15 is currently served only by a localizer, which will remain in operation as it will be beyond the future RSA. Appropriate NOTAMS will be issued throughout the project.

E.1.1 During Phase I, the runway 15 threshold will be displaced 1000 feet to keep construction equipment below the approach surface. The start of runway 15 takeoff and the departure end of runway 33 will also be moved 500 feet to protect workers from jet blast. Declared distances for runway 33 will be adjusted to provide the required RSA and applicable departure surface. Excavation near Taxiway G will require its ADG to be reduced from IV to III. See Figure E-1.

Figure E-1. Phase I Example

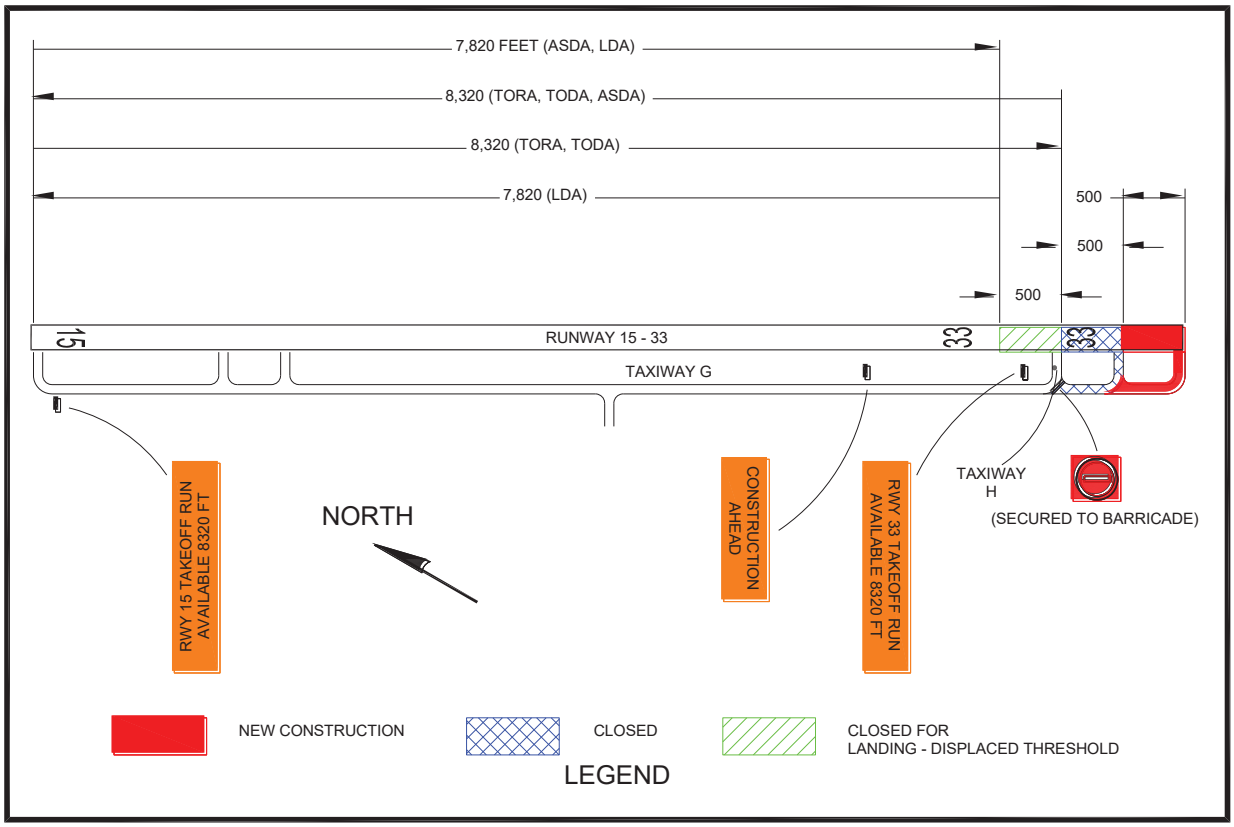


Note 1: Where hold signs are installed on both sides of a taxiway, install the TORA sign on the left side of the taxiway before the final turn to the runway intersection.

Note 2: Based on the declared distances for Runway 33 departures, the maximum equipment height in the construction area is 12.5 feet (500/40 = 12.5).

E.2 During Phase II, the runway 33 threshold will be displaced 1000 feet to keep construction equipment below the approach surface. The start of runway 33 takeoff and the departure end of runway 15 will also be moved 500 feet to protect workers from jet blast. Declared distances for runway 15 will be adjusted to provide the required RSA and applicable departure surface. See Figure E-2.

Figure E-2. Phase II Example



Note 1: Where hold signs are installed on both sides of a taxiway, install the TORA sign on the left side of the taxiway before the final turn to the runway intersection.

Note 2: Based on the declared distances for Runway 15 departures, the maximum equipment height in the construction area is 12.5 feet (500/40 = 12.5).

E.3 During Phase III, the existing portion of the runway will be repaved with Hot Mix Asphalt (HMA) and the runway 33 glide slope will be relocated. Construction will be accomplished between the hours of 8:00 pm and 5:00 am, during which the runway will be closed to operations.

Figure E-3. Phase III Example

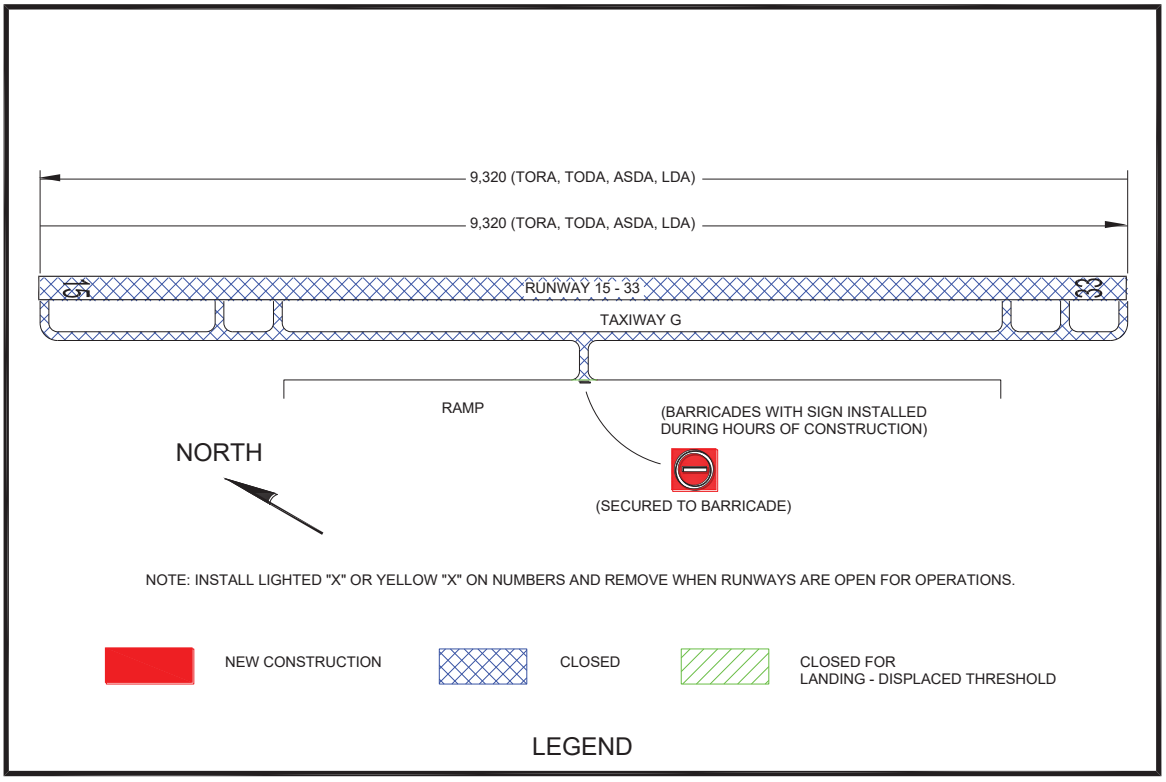


Table E-1. Operational Effects Table

Project	Runway 15-33 Extension and Repaving			
Phase	**Normal (Existing)**	**Phase I: Extend Runway 15 End**	**Phase II: Extend Runway 33 End**	**Phase III: Repave Runway**
Scope of Work	N/A	Extend Runway 15-33 1,000 ft on north end with Hot Mix Asphaltic Concrete (HMA).	Extend Runway 15-33 500 ft on south end with Hot Mix Asphaltic Concrete (HMA).	Repave existing runway with HMA Relocate Runway 33 Glide Slope
Effects of Construction Operations	N/A	Existing North 500 ft closed	Existing South 500 ft closed	Runway closed between 8:00 pm and 5:00 am Edge lighting out of service
Construction Phase	N/A	Phase I (Anticipated)	Phase II (Anticipated)	Phase III (Anticipated)
Runway 15 Average Aircraft Operations	Carrier: 52 /day GA: 26 /day Military: 11 /day	Carrier: 40 /day GA: 26 /day Military: 0 /day	Carrier: 45 /day GA: 26 /day Military: 5 /day	Carrier: 45 / day GA: 20 / day Military: 0 /day
Runway 33 Average Aircraft Operations	Carrier: 40 /day GA: 18 /day Military: 10 /day	Carrier: 30 /day GA: 18 /day Military: 0 /day	Carrier: 25 /day GA: 18 /day Military: 5 /day	Carrier: 20 /day GA: 5 /day Military: 0 /day
Runway 15-33 Aircraft Category	C-IV	C-IV	C-IV	C-IV
Runway 15 Approach Visibility Minimums	1 mile	1 mile	1 mile	1 mile
Runway 33 Approach Visibility Minimums	¾ mile	¾ mile	¾ mile	1 mile

Note: Proper coordination with Flight Procedures group is necessary to maintain instrument approach procedures during construction.

Project		Runway 15-33 Extension and Repaving			
Phase		Normal (Existing)	Phase I: Extend Runway 15 End	Phase II: Extend Runway 33 End	Phase III: Repave Runway
Runway 15 Declared Distances	TORA	7,820	7,320	8,320	9,320
	TODA	7,820	7,320	8,320	9,320
	ASDA	7,820	7,320	7,820	9,320
	LDA	7,820	6,820	7,820	9,320
Runway 33 Declared Distances	TORA	7,820	7,320	8,320	9,320
	TODA	7,820	7,320	8,320	9,320
	ASDA	8,320	6,820	8,320	9,320
	LDA	7,820	6,820	7,820	9,320
Runway 15 Approach Procedures		LOC only	LOC only	LOC only	LOC only
		RNAV	RNAV	RNAV	RNAV
		VOR	VOR	VOR	VOR
Runway 33 Approach Procedures		ILS	ILS	ILS	LOC only
		RNAV	RNAV	RNAV	RNAV
		VOR	VOR	VOR	VOR
Runway 15 NAVAIDs		LOC	LOC	LOC	LOC
Runway 33 NAVAIDs		ILS, MALSR	ILS, MALSR	ILS, MALSR	LOC, MALSR
Taxiway G ADG		IV	III	IV	IV
Taxiway G TDG		4	4	4	4
ATCT (hours open)		24 hours	24 hours	24 hours	0500 - 2000
ARFF Index		D	D	D	D

Project	Runway 15-33 Extension and Repaving			
Phase	**Normal (Existing)**	**Phase I: Extend Runway 15 End**	**Phase II: Extend Runway 33 End**	**Phase III: Repave Runway**
Special Conditions	Air National Guard (ANG) military operations	All military aircraft relocated to alternate ANG Base	Some large military aircraft relocated to alternate ANG Base	All military aircraft relocated to alternate ANG Base
Information for NOTAMs		Refer above for applicable declared distances. Taxiway G limited to 118 ft wingspan	Refer above for applicable declared distances.	Refer above for applicable declared distances. Airport closed 2000 – 0500. Runway 15 glide slope OTS.

Note: This table is one example. It may be advantageous to develop a separate table for each project phase and/or to address the operational status of the associated NAVAIDs per construction phase.

Complete the following chart for each phase to determine the area that must be protected along the runway and taxiway edges:

Table E-2. Runway and Taxiway Edge Protection

Runway/Taxiway	Aircraft Approach Category* A, B, C, or D	Airplane Design Group* I, II, III, or IV	Safety Area Width in Feet Divided by 2*

*See AC 150/5300-13 to complete the chart for a specific runway/taxiway.

Complete the following chart for each phase to determine the area that must be protected before the runway threshold:

Table E-3. Protection Prior to Runway Threshold

Runway End Number	Airplane Design Group* I, II, III, or IV	Aircraft Approach Category* A, B, C, or D	Minimum Safety Area Prior to the Threshold*	Minimum Distance to Threshold Based on Required Approach Slope*	
			ft	ft	: 1
			ft	ft	: 1
			ft	ft	: 1
			ft	ft	: 1

*See AC 150/5300-13 to complete the chart for a specific runway.

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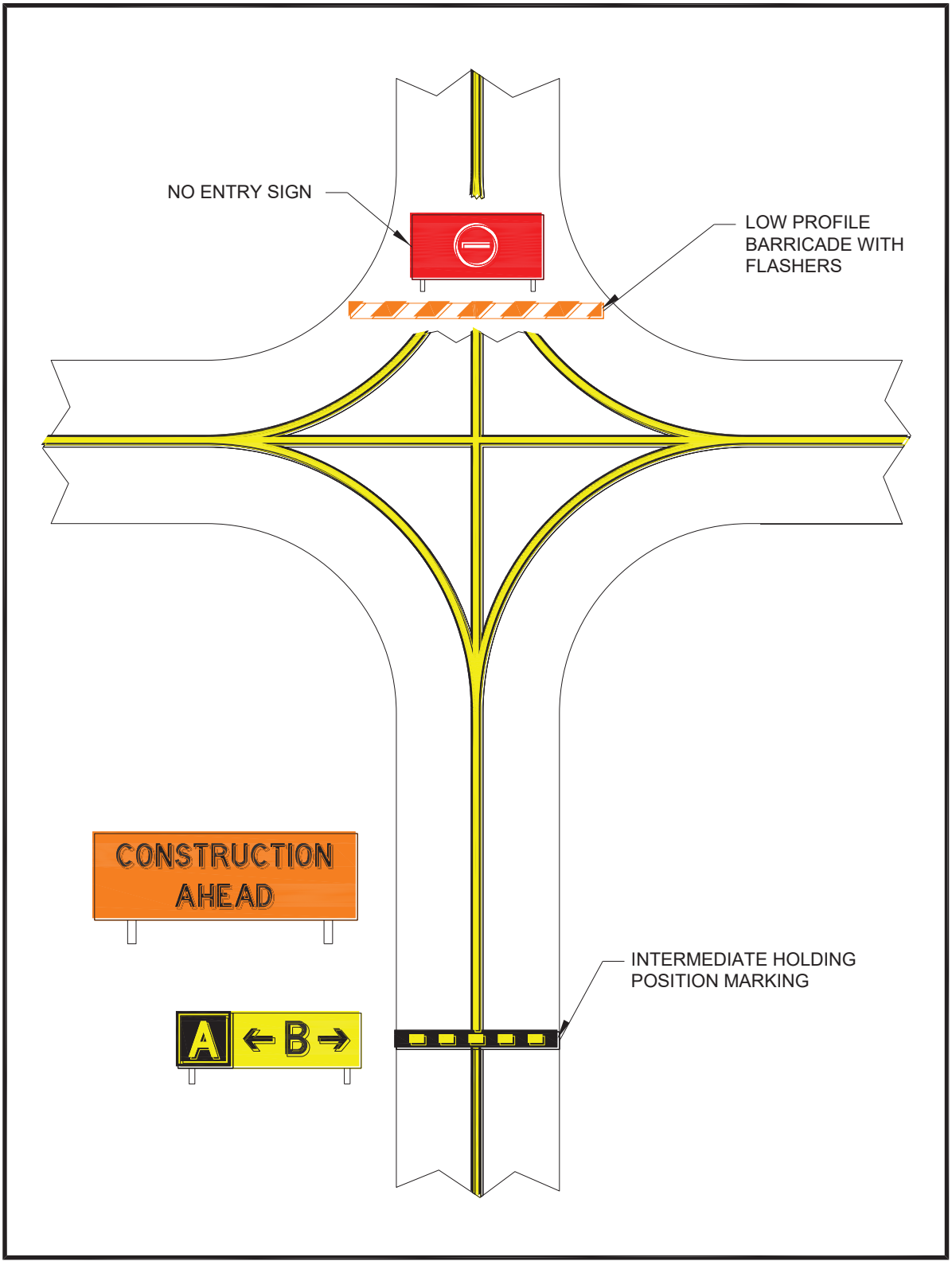
APPENDIX F. ORANGE CONSTRUCTION SIGNS

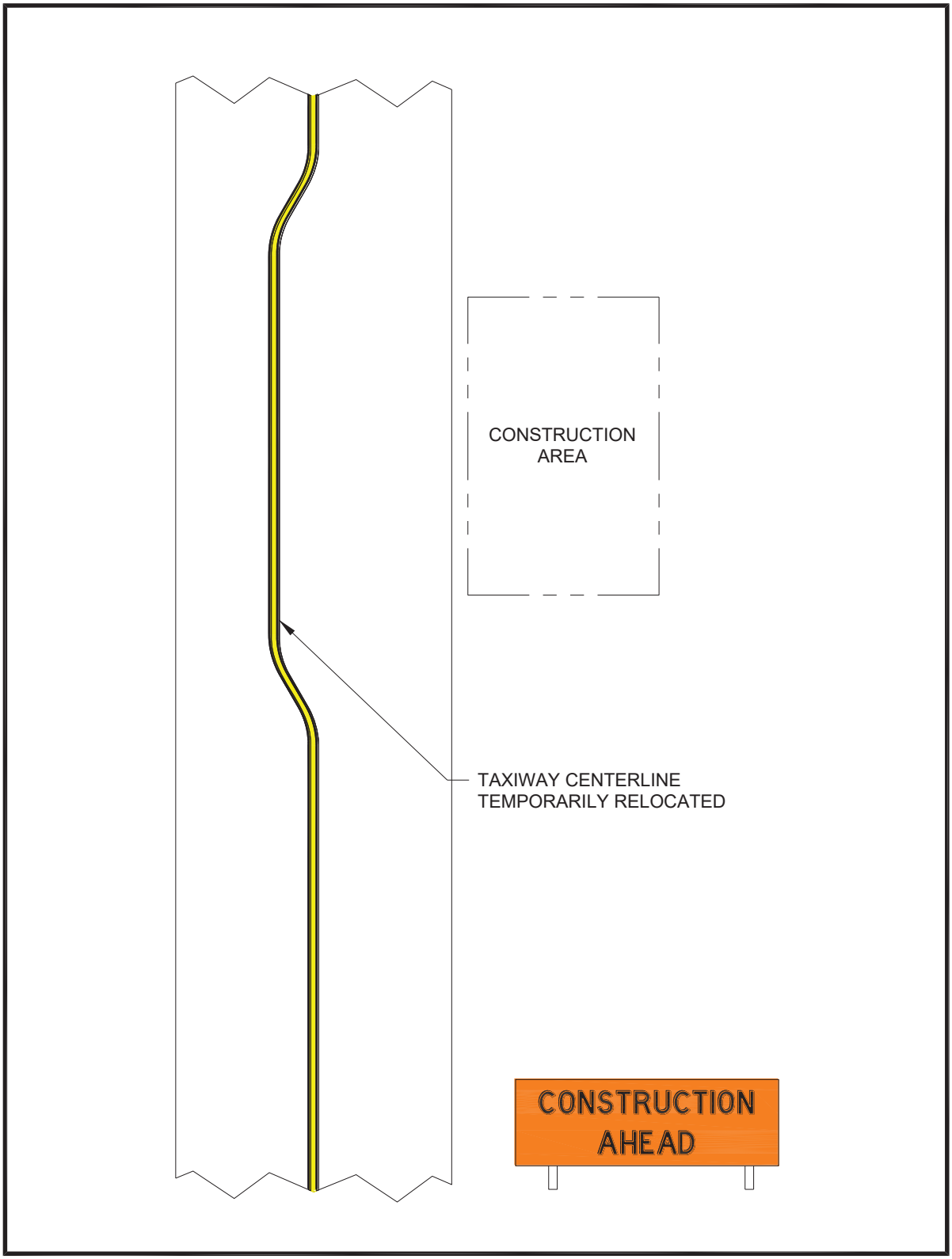
Figure F-1. Approved Sign Legends

Figure F-2. Orange Construction Sign Example 1



Note: For proper placement of signs, refer to EB 93.

Figure F-3. Orange Construction Sign Example 2



Note: For proper placement of signs, refer to EB 93.

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Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) mailing this form to Manager, Airport Engineering Division, Federal Aviation Administration ATTN: AAS-100, 800 Independence Avenue SW, Washington DC 20591 or (2) faxing it to the attention of the Office of Airport Safety and Standards at (202) 267-5383.

Subject: AC 150/5370-2G Date: _____

Please check all appropriate line items:

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:

_____
_____
_____

☐ In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____
_____
_____

☐ Other comments:

_____
_____
_____

☐ I would like to discuss the above. Please contact me at (phone number, email address).

_____

Submitted by: _____ Date: _____

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mesa·az

REHABILITATE WEST VEHICLE SERVICE ROAD (VSR)

4800 E FALCON DR, MESA, AZ 85215

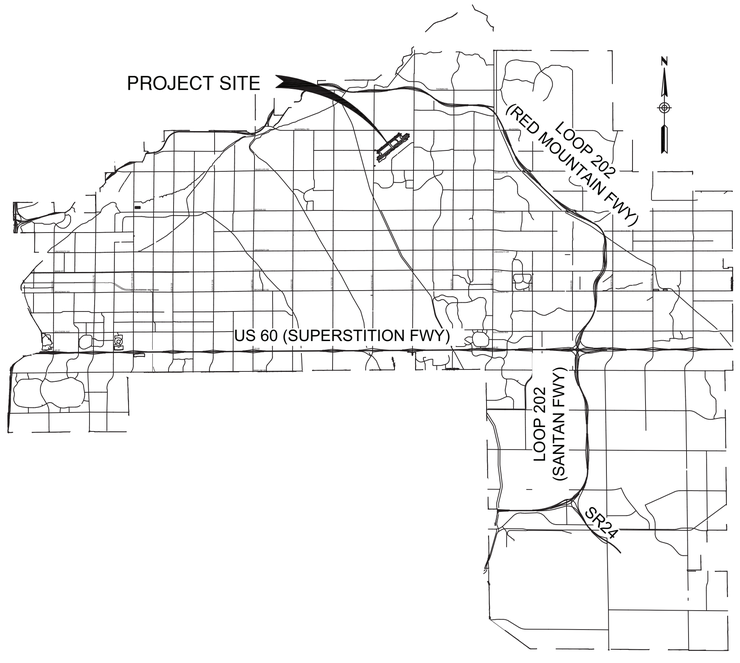
PROJECT No.: CP 1225 GPH1

ADOT GRANT NO.: E6M3S01D

FAA AIP NO.: 3-04-0023-037-2025

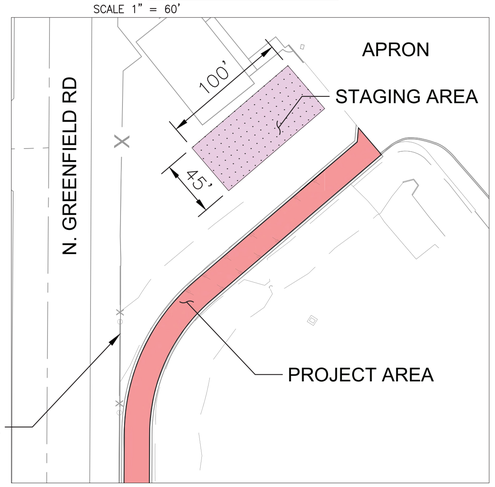
CITY OF MESA VICINITY MAP

SCALE NTS



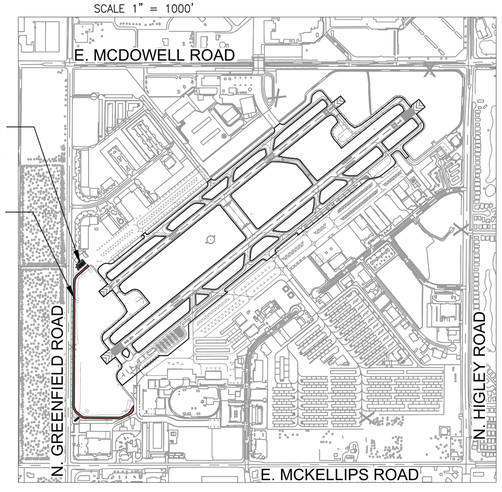
STAGING AREA

SCALE 1" = 60'



PROJECT LOCATION MAP

SCALE 1" = 1000'



APPROVED COPY

CITY OF MESA: ENGINEERING DEPARTMENT

PLAN APPROVAL DOES NOT CONSTITUTE AN APPROVAL OR PERMIT FOR VIOLATION OF ANY PROVISIONS OF THE MAG UNIFORM STANDARD SPECIFICATIONS & DETAILS AS AMENDED BY THE CITY OF MESA.

BY: TJ Welsh DATE: 04/16/26

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE MAINTENANCE AND REPAIR OF THE WEST VSR ROAD. THE PROJECT INCLUDES: AC MILL & REPLACEMENT, FULL DEPTH ROAD RECONSTRUCTION, TRENCHING, AC MILLINGS SHOULDER COMPACTION, AND AC OVERLAY.

SCOPE OF WORK

REHABILITATE EXISTING SERVICE ROAD PAVEMENTS THROUGH VARIOUS METHODOLOGIES:
CRACK SEAL, OVERLAY, AND RECONSTRUCTION.

PLANS TO BE PRINTED IN COLOR

PRINTING OR COPYING PLANS IN BLACK & WHITE (GRAYSCALE) MAY CAUSE DESIGN NOTES, DIMENSIONS, CALLOUTS, LINE WORK, ETC. TO BECOME UNREADABLE. OFFICIAL PLAN SETS TO BE USED FOR CONSTRUCTION AND RECORD KEEPING ARE TO BE PRINTED IN COLOR.

SHEET INDEX

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BENCHMARK

PROJECT HORIZONTAL AND VERTICAL CONTROL IS TIED TO THE FOLLOWING SURVEY MONUMENT:

FALCON FIELD AIRPORT DATUM

PROJECT BENCHMARK ID: 200 – DL 6293
NORTHING: 895288.66
EASTING: 757514.78
ELEVATION: 1378.17

HORIZONTAL DATUM IS NAD 83 AND THE VERTICAL DATUM IS NAVD 88. ALL COORDINATES IN INTERNATIONAL. THE COMBINED AVERAGE SCALE FACTOR USED FOR THE MAPPING IS 1.0001533.

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Registered Professional Engineer (Civil) CERTIFICATE NO. 61804 JARRETT MOORE Date Signed 04/06/26 ARIZONA, U.S.A. Expires 06/30/2025

CITY OF MESA ENGINEERING DEPARTMENT	
REHABILITATE WEST VSR	
COVER SHEET	DRAWING C1.1
DRAWN BY: BPN ENGINEER: JMM APPROVED BY: JMM	
ACTIVITY: PROJ. NO.: 191500308	SHEET 1 OF 31 CATALOG NUMBER: A309191

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CAD\191500308 - CV - MESA.dwg Apr 06, 2026 Brad.Nisbet
XREFS: x191500308 - VS x191500308 - VF x191500308 - BM x191500308 - TB - MESA SEAL-JMM-191500308
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ABBREVIATIONS

ABAND	ABANDONED
ABC	AGGREGATE BASE COURSE
AC	ADVISORY CIRCULAR OR ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
AHD	AHEAD
AIP	AIRPORT IMPROVEMENT PROGRAM
ALP	AIRPORT LAYOUT PLAN
ALS	APPROACH LIGHT SYSTEM
AOA	AIR OPERATIONS AREA
APPROX	APPROXIMATE
APS	ARIZONA PUBLIC SERVICE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATCT	AIR TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVATION SYSTEM
BK	BACK
BM	BENCH MARK
BT	BASIC TRANSPORT
BU	BASIC UTILITY
BVC	BEGIN VERTICAL CURVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CB	CATCH BASIN
CFR	CRASH, FIRE, AND RESCUE AND CODE OF FEDERAL REGULATIONS
CFS	CUBIC FEET PER SECOND
CIP	CAST IRON PIPE
CIPP	CAST-IN-PLACE CONCRETE PIPE
CL	CENTERLINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CPT	CONTROL POINT
CY	CUBIC YARDS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
E	EAST OR ELECTRICAL FEATURE
EA	ENVIRONMENTAL ASSESSMENT OR EACH
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EVC	END VERTICAL CURVE
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
EXIST	EXISTING
FAA	FEDERAL AVIATION AGENCY (ADMINISTRATION)
FAR	FEDERAL AVIATION REGULATION
FBO	FIXED BASE OPERATOR
FH	FIRE HYDRANT
FL	FLOWLINE
FOD	FOREIGN OBJECT DAMAGE/DEBRIS
FPS	FEET PER SECOND
GA	GENERAL AVIATION OR GAUGE
GB	GRADE BREAK
GALV	GALVANIZED
GR	GRATE ELEVATION
GT	GENERAL TRANSPORT
GU	GENERAL UTILITY
HORIZ	HORIZONTAL
HP	HIGH POINT
INV	INVERT ELEVATION
IFR	INSTRUMENT FLIGHT RULES
ILS	INSTRUMENT LANDING SYSTEM
INT	INTERSECTION
IR	IRON ROD
IRRIG	IRRIGATION
JT	JOINT
KV	KILOVOLT
LF	LINEAR FEET
LS	LUMP SUM
LT	LEFT
MAG	MARICOPA ASSOCIATION OF GOVERNMENTS
MAX	MAXIMUM
MBE	MINORITY BUSINESS ENTERPRISE
MGW	MAXIMUM GROSS WEIGHT
MH	MANHOLE
MIN	MINIMUM
MIRL	MEDIUM INTENSITY RUNWAY LIGHTS
MITL	MEDIUM INTENSITY TAXIWAY LIGHTS
ML	MONUMENT LINE
N	NORTH
NE	NORTHEAST
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
NPIAS	NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS
NAVAID	NAVIGATIONAL AID
NDB	NON-DIRECTIONAL BEACON
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOTAM	NOTICE TO AIRMEN
NP	NON-PLASTIC
NPI	NON-PRECISION INSTRUMENT/NON-PAY ITEM
NTP	NOTICE TO PROCEED
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ACT
PAPI	PRECISION APPROACH PATH INDICATOR
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION OR PLASTICITY INDEX
PL	PROPERTY LINE
POC	POINT ON CURVE
PP	POWER POLE
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REIL	RUNWAY END IDENTIFIER LIGHTS
RGRCP	RUBBER GASKETED REINFORCED CONCRETE PIPE
RP	RADIUS POINT
RSA	RUNWAY SAFETY AREA
RW	RIGHT-OF-WAY
R/W	RUNWAY
RWY	RUNWAY
RT	RIGHT
S	SLOPE OR SOUTH
SD	STORM DRAIN
SE	SOUTHEAST
SEC	SECTION
SF	SEMI-FLUSH OR SQUARE FEET
SHT	SHEET
SPA	SPACING
SPEC	SPECIFICATIONS
SRP	SALT RIVER PROJECT
STA	STATION
STD	STANDARD
SW	SOUTHWEST
SY	SQUARE YARD
TSA	TAXIWAY SAFETY AREA
T/W	TAXIWAY
TWY	TAXIWAY
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UTIL	UTILITY
VAR	VARIES
VASI	VISUAL APPROACH SLOPE INDICATOR
VC	VERTICAL CURVE
VERT	VERTICAL
VFR	VISUAL FLIGHT RULES
VPI	VERTICAL POINT OF INTERSECTION
VSR	VEHICLE SERVICE ROAD
W	WEST
W	WELDED
WF	WIRE FABRIC
WV	WATER VALVE

LEGEND

- AC PAVEMENT PARTIAL RECONSTRUCTION (4" AC OVER, 2" ABC)
- AC PAVEMENT FULL RECONSTRUCTION (4" AC OVER, 6" ABC)
- AC PAVEMENT TRANSITION TIE-IN ZONE
- SALVAGED AC MILLINGS
- CRACK SEAL AND SEAL COAT & AC OVERLAY (3" DEPTH)
- FAILED "DEPRESSED" AC SECTION MITIGATION (EDGE)
- FAILED "DEPRESSED" AC SECTION MITIGATION (NON-EDGE)
- PHASE 1 PROJECT AREA
- PHASE 2 PROJECT AREA
- CONTRACTOR STAGING AND LAYDOWN AREA
- PROJECT AREA
- MILL AC PAVEMENT FULL DEPTH (FULL RECONSTRUCTION ZONE)
- MILL AC PAVEMENT (TRANSITION ZONE)
- MILL AC PAVEMENT FULL DEPTH (PARTIAL RECONSTRUCTION ZONE)
- MILL AC PAVEMENT ("DEPRESSED" NON-EDGE CONDITION FAILED AC SECTION)
- MILL AC PAVEMENT ("DEPRESSED" EDGE CONDITION FAILED AC SECTION)
- RSA — RUNWAY SAFETY AREA
- HAUL ROUTE/SITE ACESS
- EMERGENCY ACCESS ROUTE
- AIRPORT CONTROL POINT
- FLOW DIRECTION ARROW FOR ONSITE RUNOFF
- TRACKING PAD
- SEDIMENT BERM
- SEDIMENT WATTLE
- INLET PROTECTION
- LOW PROFILE BARRICADE
- VERTICAL PANEL BARRICADE
- FLAGGER
- GATE GUARD

FALCON FIELD AIRPORT "REHABILITATE WEST VSR"

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NO.	REVISION	BY	DATE

FIRM'S NAME

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KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61904 JAMES M. MCNEILL Certificate No. Date Signed ARIZONA, U.S.A. Expires 09/30/2026

SCALE
Horiz. ____
Vert. ____

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

ABBREVIATIONS, LEGEND, AND SHEET INDEX

PROJECT NO.
191500308

FILE NO.
191500308 - NT

C1.2

SHEET 2 of 31

CATALOG NO.
A309192

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - NT.dwg, Apr 08, 2026, Brad.Nisbet
XREFS: x191500308 - VS x191500308 - BM x191500308 - VS_EX-HTCH x191500308 - VF x191500308 - TB - MESA - V2 SEAL-JMM-191500308
THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

GENERAL NOTES

1. CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL AVIATION ADMINISTRATION'S (FAA) STANDARDS AND SPECIFICATIONS, CITY OF MESA SUPPLEMENTARY CONDITIONS, CITY OF MESA SUPPLEMENTS, LATEST REVISION TO ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) STANDARD DRAWINGS, LATEST REVISION TO THE MAG UNIFORM STANDARD GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS, LATEST REVISION. IN THE EVENT OF ANY CONFLICT BETWEEN THE CONTRACT DOCUMENTS FOR THIS PROJECT AND THE MAG STANDARD SPECIFICATIONS AND DETAILS AND THE CITY OF MESA SUPPLEMENTS TO THE MAG STANDARDS, THE CONTRACT DOCUMENTS FOR THIS PROJECT SHALL PREVAIL. THE FOLLOWING IS THE PRECEDENCE OF THE CONTRACT DOCUMENTS:

   CIVIL PLANS/DRAWINGS
   GENERAL PROVISIONS
   CITY OF MESA SUPPLEMENTS TO MAG STANDARD SPECIFICATIONS
   MAG UNIFORM STANDARD SPECIFICATIONS

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF FALCON FIELD PROPERTY AND SHALL LOCATE AND PROTECT CAREFULLY FROM DAMAGE OR DISTURBANCE OF ALL BENCHMARKS, LAND MONUMENTS AND PROPERTY MARKERS. IF DAMAGE OR INJURY TO PROPERTY DOES OCCUR DURING THE WORK, THE CONTRACTOR SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION EQUAL TO OR BETTER THAN THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE BY REBUILDING OR RESTORING AS DIRECTED.

3. SAFETY AND SECURITY – SAFETY AND SECURITY IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE COORDINATED WITH THE FALCON FIELD AIRPORT AUTHORITY AND THE ENGINEER.

4. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, TEN (10) CALENDAR DAYS AFTER THE NOTICE OF AWARD, A CRITICAL PATH METHOD (CPM) SCHEDULE.

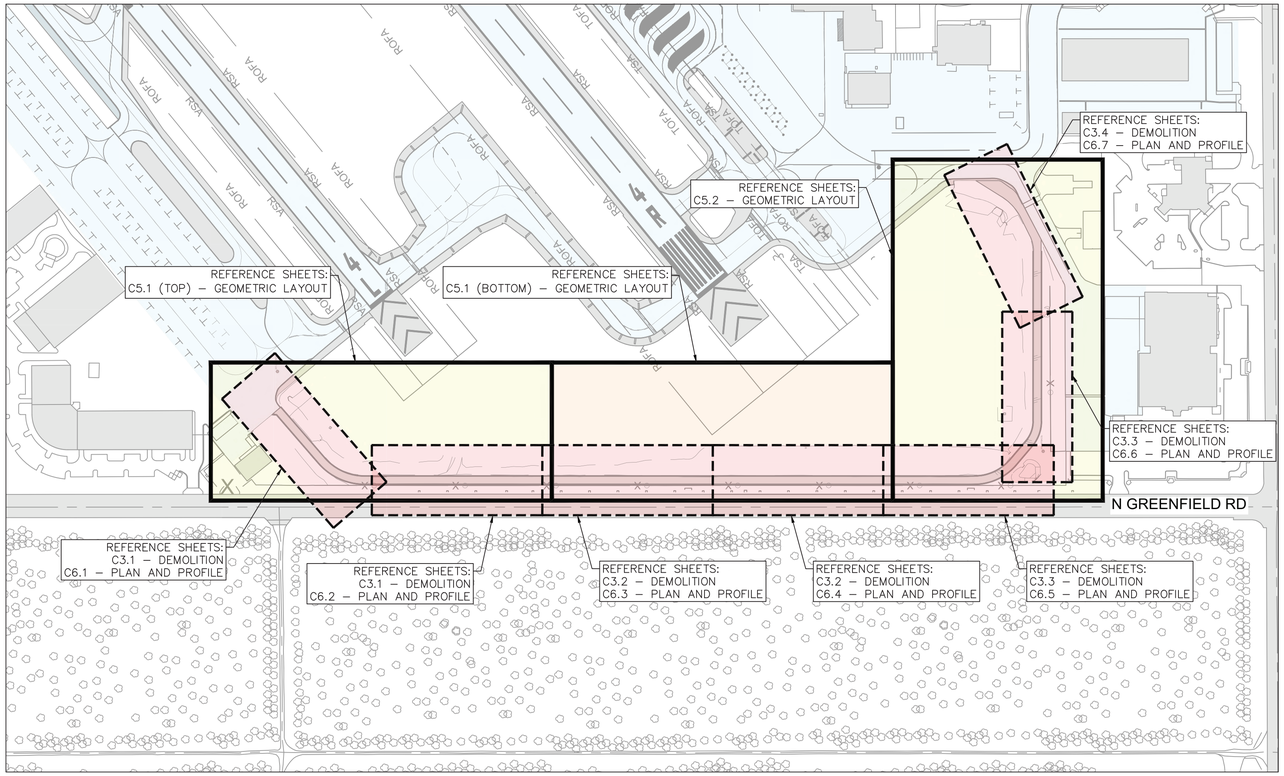
5. EXISTING UTILITY INFORMATION SHOWN ON THE PLANS CONCERNING THE TYPE, SIZE AND LOCATION OF UTILITIES WAS COMPILED BASED ON THE BEST AVAILABLE UTILITY RECORDS PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OTHERWISE OR SPECIFIED. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES AT LEAST SEVENTY–TWO (72) HOURS PRIOR TO BEGINNING CONSTRUCTION.

6. THE CONTRACTOR MAY NOT START WORK UNTIL AFTER RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) FROM THE CITY.

QUANTITIES

Item	Specification Number	Bid Item Description	Quantity	Unit
Base Bid				
1	C-100	Contractor Quality Control Program (CQCP)	1	LS
2	C-102	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control	1	LS
3	C-105	Mobilization	1	LS
4	Mesa PSP - 2	Dust Control and Stormwater Construction Permits	1	ALLOW
5	Mesa PSP - 21	Survey and Construction Staking	1	LS
6	MAG 401	Traffic Control (Airside)	1	LS
7	MAG 205	Roadway Excavation	165	CY
8	MAG 301	Subgrade Preparation (6" Depth)	970	SY
9	MAG 301	Existing Aggregate Base Course Preparation (4" Depth)	4620	SY
10	MAG 310	Placement and Construction of Aggregate Base Course (2" Depth)	223	CY
11	MAG 310	Placement and Construction of Leveling Aggregate Base Course (0"-3", Depth Vari	25	CY
12	MAG 310	Placement and Construction of Aggregate Base Course (6" Depth)	160	CY
13	MAG 310	Placement and Construction of Salvaged AC Millings (Depth Varies)	169	CY
14	MAG 317	Asphalt Milling (3" Depth)	4,980	SY
15	MAG 321	Placement and Construction of Asphalt Concrete Pavement (3" Depth Overlay)	400	TON
16	MAG 321	Placement and Construction of Asphalt Concrete Pavement (4" Depth)	1,080	TON
17	MAG 329	Tack Coat	6,810	SY
18	MAG 337	Asphalt Pavement Crack Sealing and Crack Filling (TYPE 2)	570	LF
19	MAG 337	Asphalt Pavement Crack Sealing and Crack Filling (TYPE 3)	2,080	LF
20	MAG 350	Removal of Existing Improvements (AC Pavement, 3-inch Existing Roadway)	600	SY

PROJECT SHEET KEY MAP



COORDINATION LIST

ORGANIZATION	CONTACT	PHONE
DESIGN		
ENGINEER (CIVIL)	**JARRETT MOORE**	**623-552-5185**
ENGINEER (ELECTRICAL)	**NONE**	**NONE**
ENGINEER (STRUCTURAL)	**NONE**	**NONE**
ENVIRONMENTAL / GEO	**NONE**	**NONE**
SURVEYOR	**ERIC SOSTROM**	**602-906-1146**
OWNER		
CITY OF MESA PROJECT MANAGER	**TJ WELSH**	**602-376-3411**
FFZ AIRPORT OPERATIONS	**RUSSELL SONN**	**480-978-8461**
FFZ AIRPORT PROJECT MANAGER	**MARK GIBBS**	**480-644-4230**

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

PLANS TO BE PRINTED IN COLOR

PRINTING OR COPYING PLANS IN BLACK & WHITE (GRAYSCALE) MAY CAUSE DESIGN NOTES, DIMENSIONS, CALLOUTS, LINE WORK, ETC. TO BECOME UNREADABLE. OFFICIAL PLAN SETS TO BE USED FOR CONSTRUCTION AND RECORD KEEPING ARE TO BE PRINTED IN COLOR.

NO. | REVISION | BY | DATE

FIRM'S NAME
Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL
Registered Professional Engineer (Civil)
61904
MOORE
Date Signed
ARIZONA, USA
Expires 09/30/2026

SCALE
Horiz. 1" = 200'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. CAMPUS DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

GENERAL NOTES AND QUANTITIES

PROJECT NO.
191500308

FILE NO.
191500308 - NT

C1.3

SHEET 3 of 31

CATALOG NO.
A309193

K:\EAV_Aviation\191500308 – Rehabilitate West VSR\CADD\191500308 – NT.dwg, Apr 08, 2026, Brod.Niabet
XREFS: x191500308 – VS x191500308 – BM x191500308 – VS EX-HTCH x191500308 – VF x191500308 – TB – MESA – V2 SEAL–JMM–191500308
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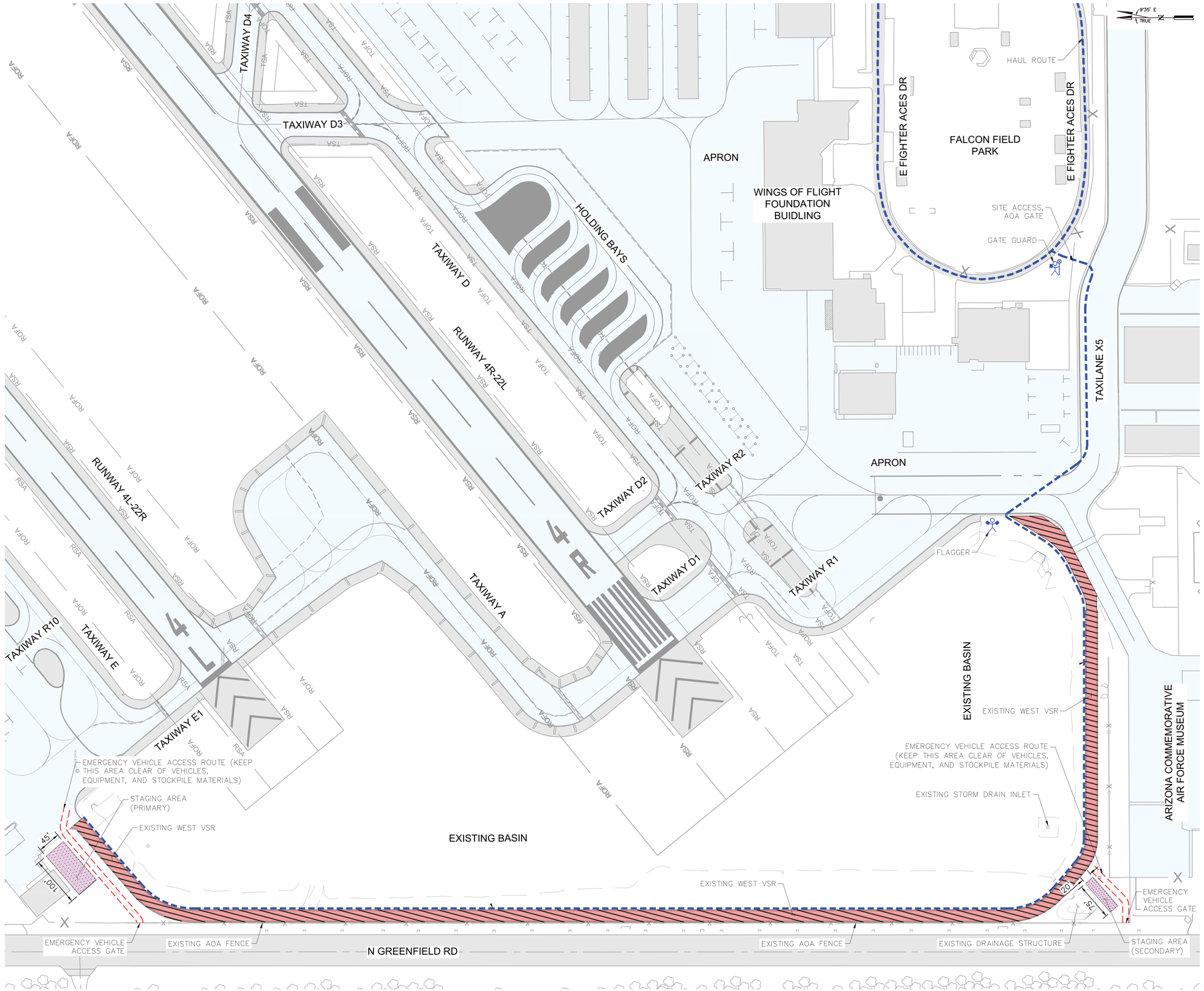

LEGEND

- PROJECT AREA
- CONTRACTOR STAGING AREA
- RSA — RUNWAY SAFETY AREA
- HAUL ROUTE/SITE ACCESS
- EMERGENCY ACCESS ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- GATE GAURD (TO BE SUPPLIED BY CONTRACTOR)

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE MAINTENANCE AND REPAIR OF THE WEST VEHICLE SERVICE ROAD (VSR) ROAD. THE PROJECT INCLUDES: AC MILL & REPLACEMENT, FULL DEPTH ROAD RECONSTRUCTION, TRENCHING, AC MILLINGS SHOULDER COMPACTION, AND AC OVERLAY.

GENERAL NOTES:

1. SEE SHEETS C2.1 TO C2.2 FOR CONSTRUCTION PHASING PLAN
2. SEE SHEETS C3.1 TO C3.4 FOR DEMOLITION PLAN
3. SEE SHEETS C4.1 TO C4.4 FOR PROJECT DETAILS
4. SEE SHEETS C5.1 TO C5.2 FOR GEOMETRIC LAYOUT PLANS
5. SEE SHEETS C6.1 TO C6.7 FOR PLAN AND PROFILE PLANS
6. SEE SHEET C7.1 FOR STORMWATER POLLUTION PREVENTION PLAN

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)

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KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil)
61904
Jason M. Hatch
Certificate No.
ARIZONA, USA
12/31/2026
Expires

SCALE
Horiz. 1" = 100'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NGW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PROJECT LAYOUT PLAN

PROJECT NO.
191500308

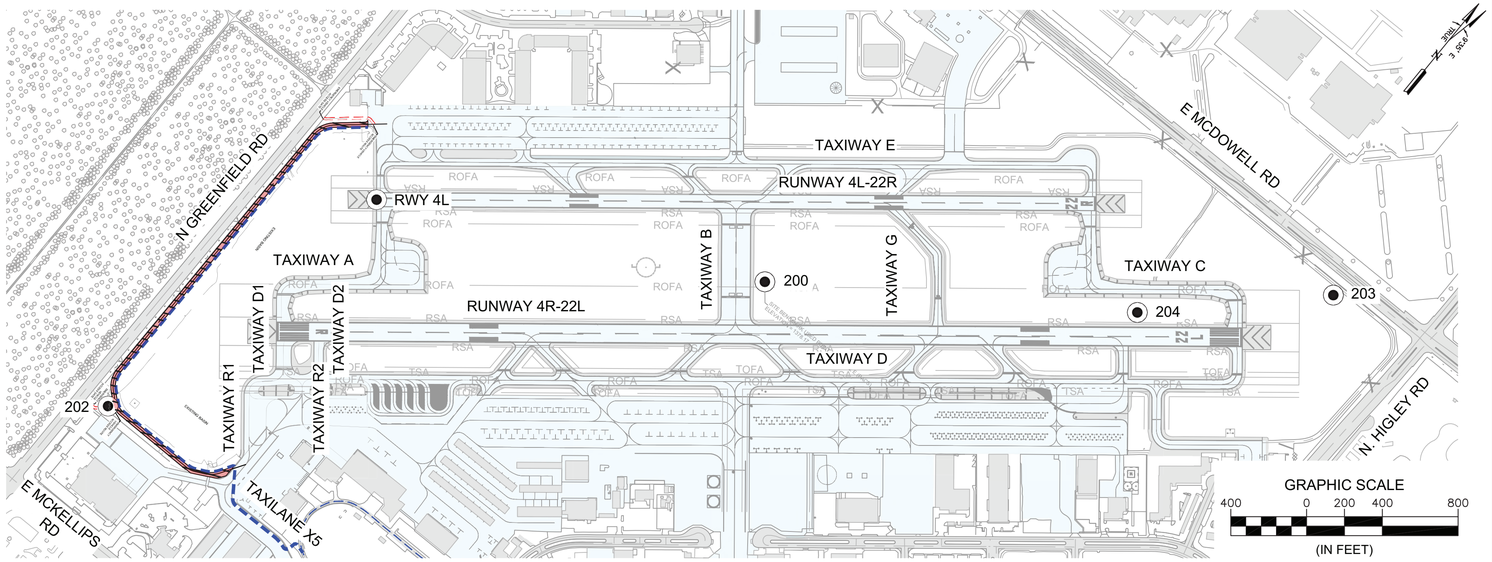
FILE NO.
191500308 - PL

C1.4

SHEET 4 of 31

CATALOG NO.
A309194

K:\EAV_Avation\191500308 - Rehabilitate West VSR\CADD\191500308 - PL.dwg Apr 08, 2026 Brod.Nisbet
XREFS: x191500308 - NTPL x191500308 - VS x191500308 - VS EX-HTCH x191500308 - BM x191500308 - VF x191500308 - TB - MESA - V2 SEAL-JMM-191500308
THE ARCHITECT/ENGINEER WHO PREPARED THESE CONSTRUCTION DOCUMENTS IS NOT RESPONSIBLE FOR, OR IN CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE ARCHITECT/ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR WILL DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER AND THE ARCHITECT/ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ARCHITECT/ENGINEER. THE DOCUMENTS PREPARED BY THE ARCHITECT/ENGINEER ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND, UNLESS OTHERWISE PROVIDED, THE ARCHITECT/ENGINEER SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THEREIN. THESE DOCUMENTS ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THIS PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY THE ARCHITECT/ENGINEER FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE ARCHITECT/ENGINEER. ANY OPTIONAL OR ADAPTED USE BY OWNER SHALL ENTITLE THE ARCHITECT/ENGINEER TO FURTHER COMPENSATION AT NOT LESS THAN STANDARD RATES. NEITHER OWNER NOR ARCHITECT/ENGINEER SHALL BE BOUND BY ANY TERMS THAT APPEAR ON ANY DOCUMENT PREPARED BY THE OTHER PARTY THAT ARE INCONSISTENT WITH OR CONTRADICTORY TO THESE PROVISIONS.



LEGEND

- PROJECT AREA
- RSA — RUNWAY SAFETY AREA
- HAUL ROUTE/SITE ACCESS
- EMERGENCY ACCESS ROUTE
- AIRPORT CONTROL POINT

DATUM

HORIZONTAL DATUM
(SPC) STATE PLANE COORDINATE
(SF) SCALE FACTOR
(INTERNATIONAL FEET SCALED TO GROUND) = 1.0001533
PROJECT COORDINATES/SF = SPC

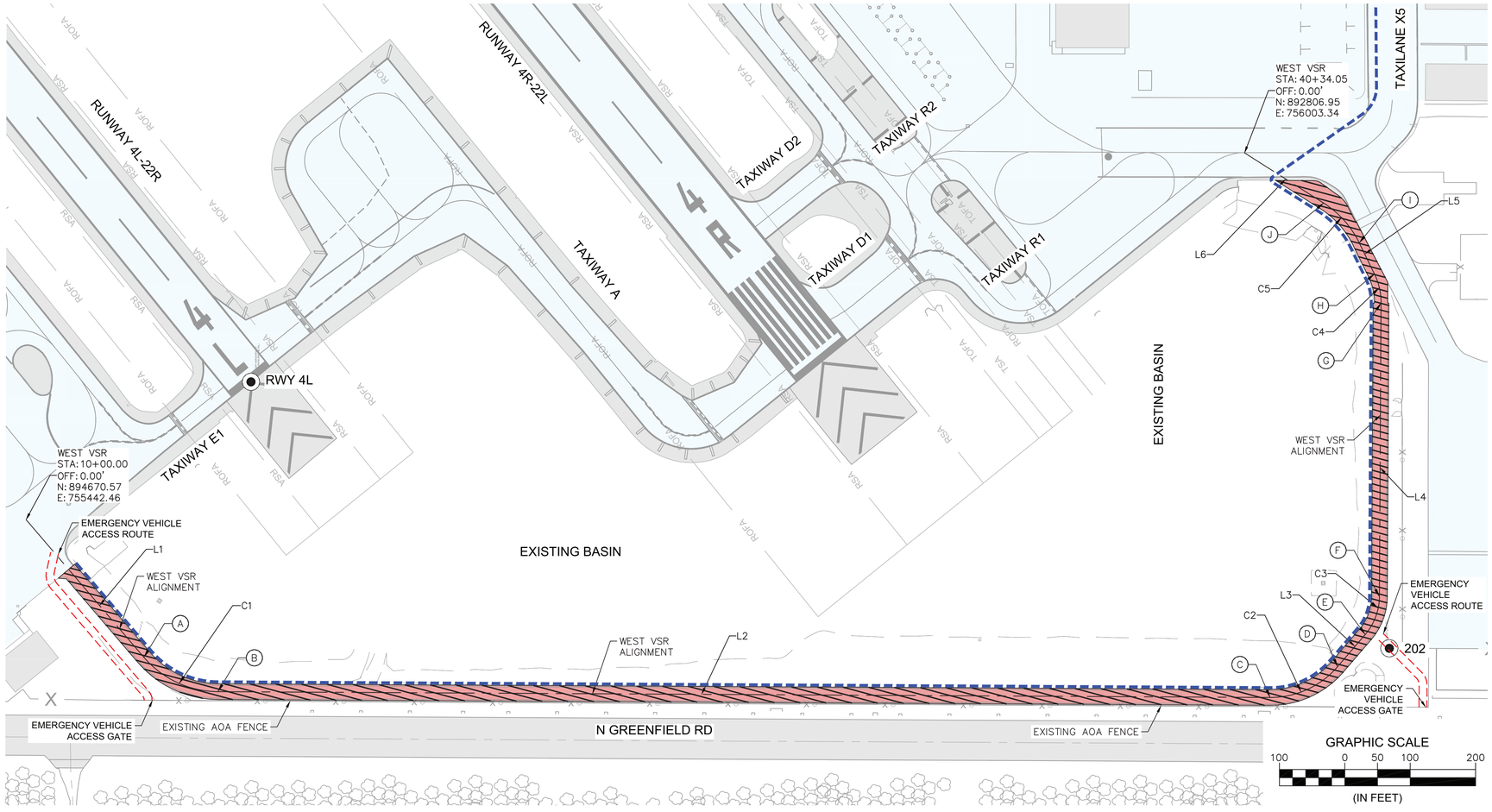
UNITS: INTERNATIONAL FEET
NAD 83/ARIZONA CENTRAL ZONE
VERTICAL DATUM NAVD '88

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE MAINTENANCE AND REPAIR OF THE WEST VEHICLE SERVICE ROAD (VSR). THE PROJECT INCLUDES: AC MILL & REPLACEMENT, FULL DEPTH ROAD RECONSTRUCTION, TRENCHING, AC MILLINGS SHOULDER COMPACTION, AND AC OVERLAY.

AIRPORT CONTROL STATION

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
200	895288.66	757514.78	1378.17	STAINLESS STEEL ROD
202	892585.52	755245.75	1363.20	STAINLESS STEEL ROD
203	897134.04	759882.69	1390.50	STAINLESS STEEL ROD
204	896408.25	759139.46	1390.55	BRASS CAP
RW 4L	894328.23	755654.49	1365.79	BRASS CAP



PROPOSED WEST VSR HORIZONTAL CONTROL TABLE

POINT	STATION	NORTHING EASTING	POINT	STATION	NORTHING EASTING
A	12+77.13	N: 894490.36 E: 755231.92	F	32+60.43	N: 892600.66 E: 755325.02
B	14+05.73	N: 894377.23 E: 755179.46	G	37+09.21	N: 892598.18 E: 755773.79
C	30+15.09	N: 892767.90 E: 755170.56	H	37+55.16	N: 892608.31 E: 755818.20
D	31+32.09	N: 892664.75 E: 755217.60	I	38+08.10	N: 892631.53 E: 755865.77
E	31+97.11	N: 892622.38 E: 755266.92	J	38+90.87	N: 892686.02 E: 755926.68

PROPOSED VSR LINE TABLE

LINE	LENGTH	BEARING
L1	277.13	S49°26'23.17"W
L2	1609.35	S0°18'59.79"W
L3	65.02	S49°20'27.78"E
L4	448.78	S89°41'00.21"E
L5	52.94	N63°59'10.45"E
L6	143.18	N32°22'16.45"E

PROPOSED VSR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	150.00'	128.60'	49°07'23"
C2	135.00'	117.00'	49°39'28"
C3	90.00'	63.32'	40°18'47"
C4	100.00'	45.96'	26°19'49"
C5	150.00'	82.77'	31°36'54"

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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil)
61904
MICHAEL
Christopher Mayer
ARIZONA
Expires 09/30/2026

SCALE
Horiz. VARIES
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by JZ
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

HORIZONTAL AND VERTICAL CONTROL PLAN

PROJECT NO.
191500308

FILE NO.
191500308 - HV

C1.5

SHEET 5 of 31

CATALOG NO.
A309195

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - HV.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 - NTHV x191500308 - VS EX-HTCH x191500308 - VS x191500308 - BM x191500308 - COGO Points x191500308 - VF x191500308 - TB - MESA - V2 SEAL--MM--191500308
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CONSTRUCTION VEHICLE HEIGHT REQUIREMENTS:

RUNWAY 4L–22R RPZ (MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT IN THIS ZONE = 12.5–FT MAX)

RUNWAY 4R–22L RPZ (MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT IN THIS ZONE = 12.5–FT MAX)

RPZ — RUNWAY 4L–22R RPZ

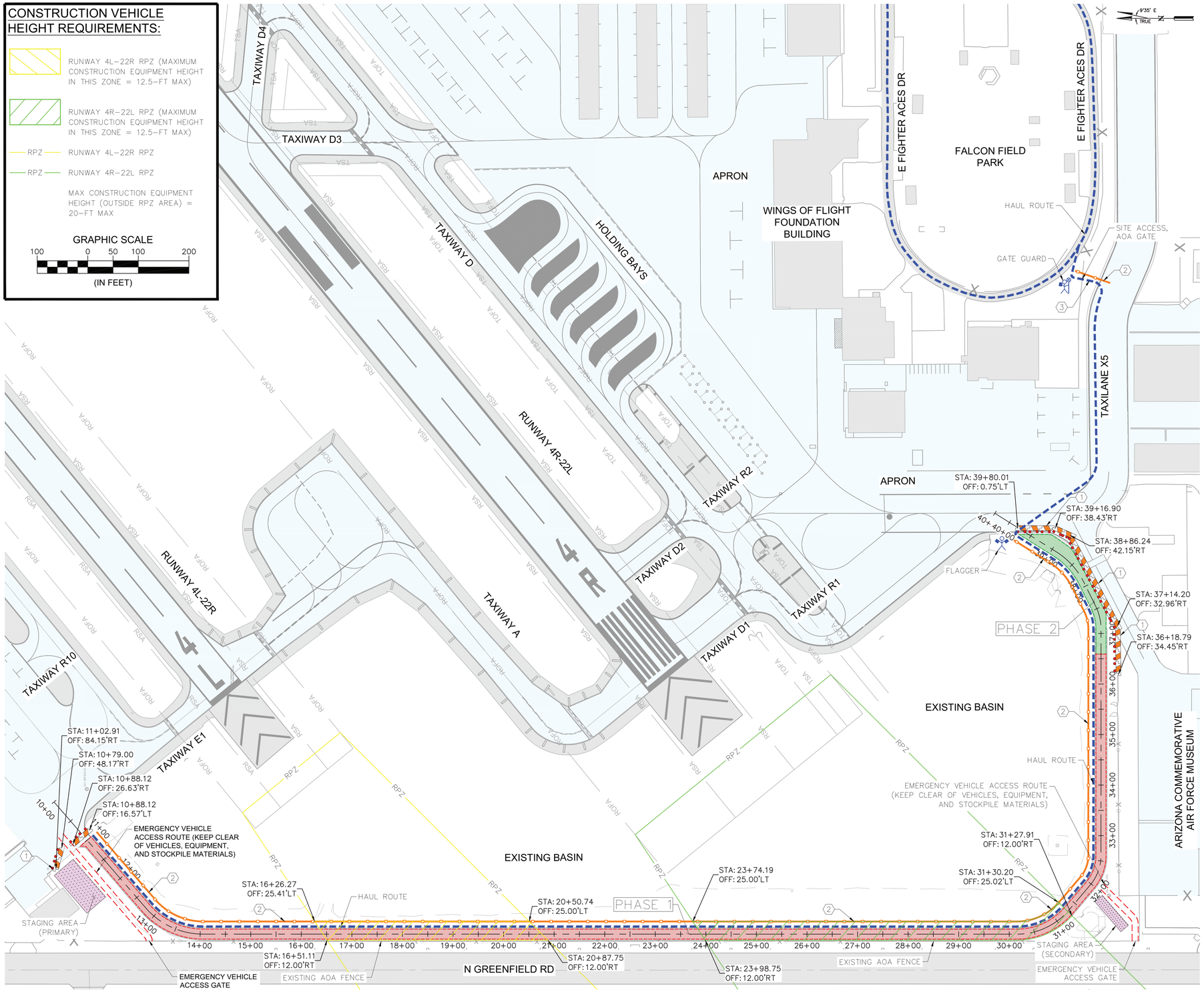
RPZ — RUNWAY 4R–22L RPZ

MAX CONSTRUCTION EQUIPMENT HEIGHT (OUTSIDE RPZ AREA) = 20–FT MAX

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)



CONSTRUCTION DURATION TABLE	
PHASE 1	3 WEEKS
PHASE 2	1 WEEK
TOTAL	4 WEEKS

LEGEND

PHASE 1 PROJECT AREA

PHASE 2 PROJECT AREA

CONTRACTOR STAGING AND LAYDOWN AREA

CONSTRUCTION HAUL ROUTE

FLAGGER (TO BE SUPPLIED BY CONTRACTOR)

INSTALL LOW PROFILE BARRICADE, PER DETAIL 1, SHEET C4.4

INSTALL VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, SHEET C4.4

GATE GUARD (TO BE SUPPLIED BY CONTRACTOR)

GENERAL NOTES:

1. CONSTRUCTION MAY START ONLY AFTER RECEIVING A NOTICE TO PROCEED (NTP) FROM THE CITY.
2. PRIOR TO BEGINNING CONSTRUCTION LOW PROFILE BARRICADES MUST BE INSTALLED AND VERTICAL PANEL BARRICADES MUST BE INSTALLED AROUND THE HAUL ROUTE AND PROJECT AREA PER THE LIMITS SHOWN ON THIS PLAN.
3. ALL PROJECT WORK ITEMS MUST BE COMPLETED PER THE APPROVED CONTRACT TIME. THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THESE PHASING PLANS, SPECIAL PROVISIONS, AND GENERAL PROVISIONS.
4. ANY DAMAGE TO PAVEMENT MARKINGS ON RUNWAYS, ADJACENT TAXIWAYS, BLAST PADS, AND SHOULDER AREAS SHALL BE REPAIRED BY THE CONTRACTOR IN AN APPROVED MANNER AT THE CONTRACTOR'S SOLE EXPENSE.
5. THIS SHEET DEPICTS STAGING AREAS, HAUL ROUTES, AND WORK AREAS FOR THE PROJECT. SUBSEQUENT PLAN SHEETS PROVIDE DETAILED PHASING PLANS FOR EACH WORK AREA. ADDITIONAL PHASING DESCRIPTIONS SHALL BE FOUND IN THE CSPP.
6. DURING PHASE 2, TAXILANE X5 AND THE TAXILANE PROVIDING ACCESS TO THE "ARIZONA COMMEMORATIVE AIR FORCE MUSEUM" SHALL BE CLOSED, UNTIL PHASE 2 WORK IS COMPLETE.
7. SUBSTANTIAL COMPLETION OF EACH WORK AREA SHALL INCLUDE ALL WORK REQUIRED TO OPEN RUNWAYS, TAXIWAYS/TAXILANES, AND/OR APRONS TO OPERATIONAL USE BY AIRCRAFT.
8. AOA GATE SHALL BE USED FOR ACCESS TO THE PROJECT SITE. ANY DEVIATION FROM THE HAUL ROUTES SHOWN IN THE PLANS MUST BE APPROVED BY THE ENGINEER.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AIRPORT SERVICE ROADS AT ALL TIMES. DRIVABLE CONDITIONS SHALL BE MAINTAINED ON AIRPORT SERVICE ROADS AND HAUL ROUTES ALL TIMES DURING CONSTRUCTION AS APPROVED BY THE AIRPORT AND THE ENGINEER.
10. ARFF ROUTES MUST REMAIN OPEN AND UNBLOCKED AT ALL TIMES.
11. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF MESA FOR COMPLETING ALL MANDATORY DRIVER TRAINING CLASSES AND OBTAINING THE REQUIRED CONTRACTOR BADGES PRIOR TO COMMENCING ANY WORK AT THE AIRPORT.
12. THE CONTRACTOR IS REQUIRED TO SUPPLY GATE GUARDS AT ALL TEMPORARY CONSTRUCTION ENTRANCES TO THE AIRFIELD.

CONSTRUCTION PHASING NOTES:

1. LOW PROFILE BARRICADES, PER DETAIL 1, SHEET C4.4
2. VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, C4.4
3. CONTRACTOR SHALL PLACE, LEVEL, AND COMPACT MAG AGGREGATE BASE COURSE (310) AS NECESSARY TO CREATE CONSTRUCTION CROSSING OVER EXISTING CONCRETE SWALE. CONTRACTOR SHALL MAINTAIN CROSSING THROUGHOUT PROJECT DURATION. CONTRACTOR SHALL REMOVE MATERIAL AND RETURN TO PRE–EXISTING CONDITION UPON PROJECT COMPLETION.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

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FIRM'S NAME

Kimley»Horn

KIMLEY–HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207–2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61904 JAMES M. MCNEIL Certificate No. Date Signed 04/08/2026 ARIZONA U.S.A. Expires 09/30/2027

SCALE
Horiz. 1" = 100'
Vert. N/A

Date	04/08/2026
Designed by	JMM
Drawn by	BPN
Checked by	NGW
Approved by	JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

CONSTRUCTION PHASING PLAN
OVERALL

PROJECT NO.
191500308

FILE NO.
191500308 - CS

C2.1

SHEET 6 of 31

CATALOG NO.
A309196

K:\EAV_Aviation\191500308 – Rehabilitate West VSR\CADD\191500308 – CS.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 – VF x191500308 – VS EX–HTCH x191500308 – VS x191500308 – BM x191500308 – AL x191500308 – NTCS x191500308 – TB – MESA – V2 SEAL–JMM–191500308
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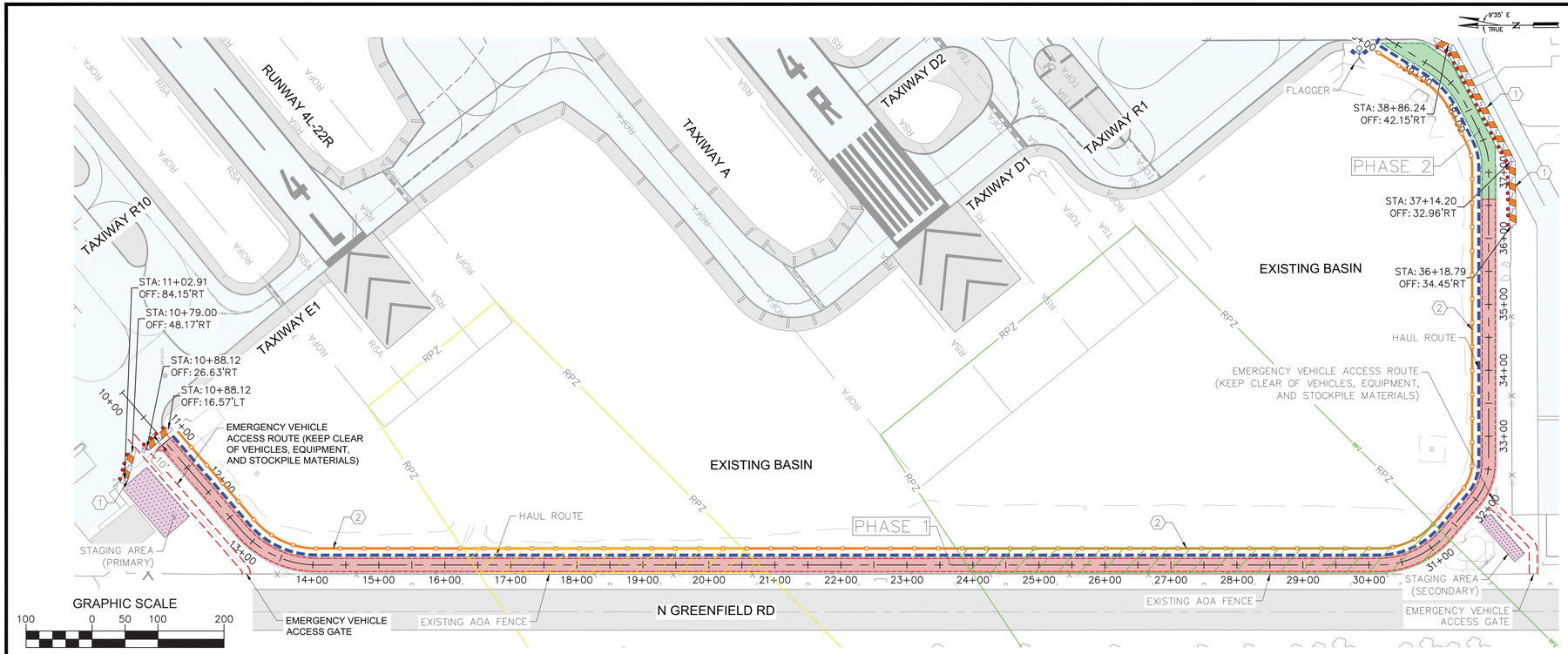

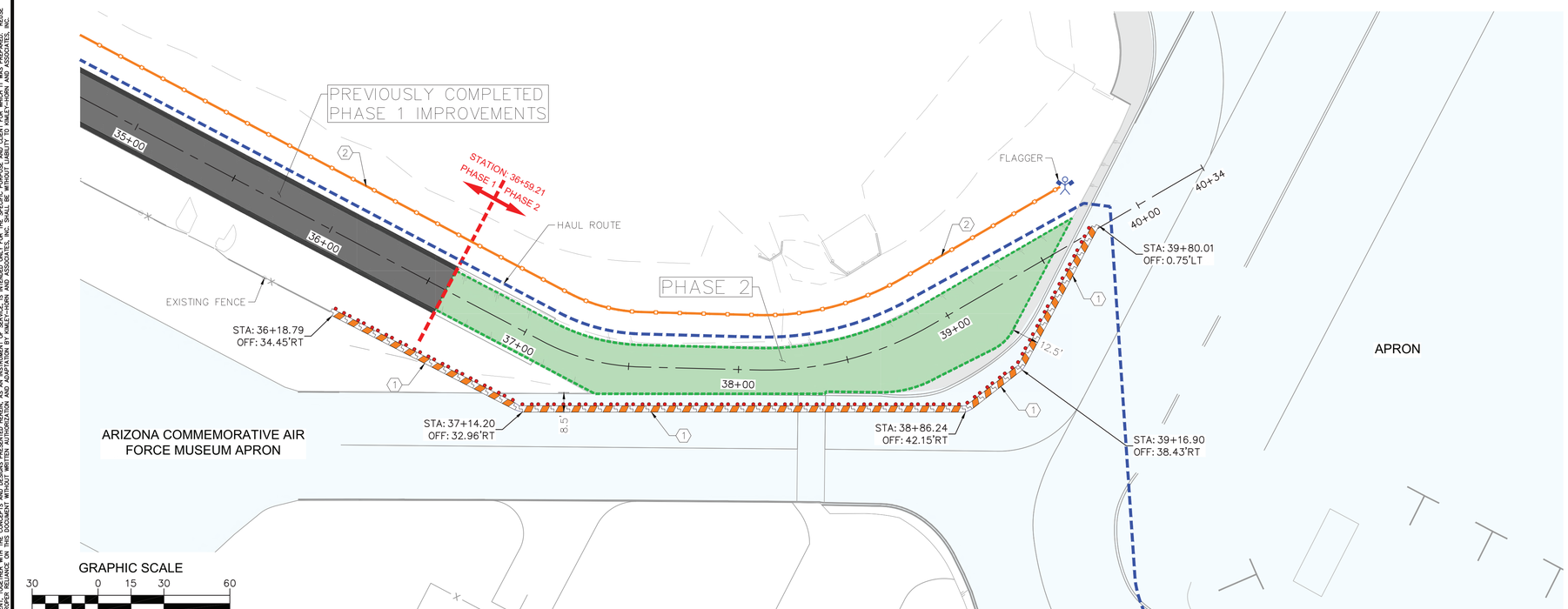

CONSTRUCTION DURATION TABLE	
PHASE 1	3 WEEKS
PHASE 2	1 WEEK
TOTAL	4 WEEKS

LEGEND

- PHASE 1 PROJECT AREA
- PHASE 2 PROJECT AREA
- CONTRACTOR STAGING AND LAYDOWN AREA
- CONSTRUCTION HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- INSTALL LOW PROFILE BARRICADE, PER DETAIL 1, SHEET C4.4
- INSTALL VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, SHEET C4.4
- GATE GUARD (TO BE SUPPLIED BY CONTRACTOR)

GENERAL NOTES:

1. CONSTRUCTION MAY START ONLY AFTER RECEIVING A NOTICE TO PROCEED (NTP) FROM THE CITY.
2. PRIOR TO BEGINNING CONSTRUCTION LOW PROFILE BARRICADES MUST BE INSTALLED AND VERTICAL PANEL BARRICADES MUST BE INSTALLED AROUND THE HAUL ROUTE AND PROJECT AREA PER THE LIMITS SHOWN ON THIS PLAN.
3. ALL PROJECT WORK ITEMS MUST BE COMPLETED PER THE APPROVED CONTRACT TIME. THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THESE PHASING PLANS, SPECIAL PROVISIONS, AND GENERAL PROVISIONS.
4. ANY DAMAGE TO PAVEMENT MARKINGS ON RUNWAYS, ADJACENT TAXIWAYS, BLAST PADS, AND SHOULDER AREAS SHALL BE REPAIRED BY THE CONTRACTOR IN AN APPROVED MANNER AT THE CONTRACTOR'S SOLE EXPENSE.
5. THIS SHEET DEPICTS STAGING AREAS, HAUL ROUTES, AND WORK AREAS FOR THE PROJECT. SUBSEQUENT PLAN SHEETS PROVIDE DETAILED PHASING PLANS FOR EACH WORK AREA. ADDITIONAL PHASING DESCRIPTIONS SHALL BE FOUND IN THE CSPP.
6. DURING PHASE 2, TAXILANE X5 AND THE TAXILANE PROVIDING ACCESS TO THE "ARIZONA COMMEMORATIVE AIR FORCE MUSEUM" SHALL BE CLOSED, UNTIL PHASE 2 WORK IS COMPLETE.
7. SUBSTANTIAL COMPLETION OF EACH WORK AREA SHALL INCLUDE ALL WORK REQUIRED TO OPEN RUNWAYS, TAXIWAYS/TAXILANES, AND/OR APRONS TO OPERATIONAL USE BY AIRCRAFT.
8. AOA GATE SHALL BE USED FOR ACCESS TO THE PROJECT SITE. ANY DEVIATION FROM THE HAUL ROUTES SHOWN IN THE PLANS MUST BE APPROVED BY THE ENGINEER.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AIRPORT SERVICE ROADS AT ALL TIMES. DRIVABLE CONDITIONS SHALL BE MAINTAINED ON AIRPORT SERVICE ROADS AND HAUL ROUTES ALL TIMES DURING CONSTRUCTION AS APPROVED BY THE AIRPORT AND THE ENGINEER.
10. ARFF ROUTES MUST REMAIN OPEN AND UNBLOCKED AT ALL TIMES.
11. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF MESA FOR COMPLETING ALL MANDATORY DRIVER TRAINING CLASSES AND OBTAINING THE REQUIRED CONTRACTOR BADGES PRIOR TO COMMENCING ANY WORK AT THE AIRPORT.
12. THE CONTRACTOR IS REQUIRED TO SUPPLY GATE GUARDS AT ALL TEMPORARY CONSTRUCTION ENTRANCES TO THE AIRFIELD.

CONSTRUCTION PHASING NOTES:

1. LOW PROFILE BARRICADES, PER DETAIL 1, SHEET C4.4
2. VERTICAL PANEL BARRICADE WITH LIGHT, PER DETAIL 2, C4.4
3. CONTRACTOR SHALL PLACE, LEVEL, AND COMPACT MAG AGGREGATE BASE COURSE (310) AS NECESSARY TO CREATE CONSTRUCTION CROSSING OVER EXISTING CONCRETE SWALE. CONTRACTOR SHALL MAINTAIN CROSSING THROUGHOUT PROJECT DURATION. CONTRACTOR SHALL REMOVE MATERIAL AND RETURN TO PRE-EXISTING CONDITION UPON PROJECT COMPLETION.

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PLANS TO BE PRINTED IN COLOR

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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) CERTIFICATE NO. 61904 JAMES M. MCCAY Date Signed 04/08/26 ARIZONA U.S.A. Expires 09/30/2027

SCALE
Horiz. VARIES
Vert. N/A

Date	04/08/2026
Designed by	JMM
Drawn by	BPN
Checked by	NCW
Approved by	JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

CONSTRUCTION PHASING PLAN
PHASE 1 & 2

PROJECT NO.
191500308

FILE NO.
191500308 - CS

C2.2
SHEET 7 of 31

CATALOG NO.
A309197

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - CS.dwg Apr 08, 2026 Brad.Nisbet
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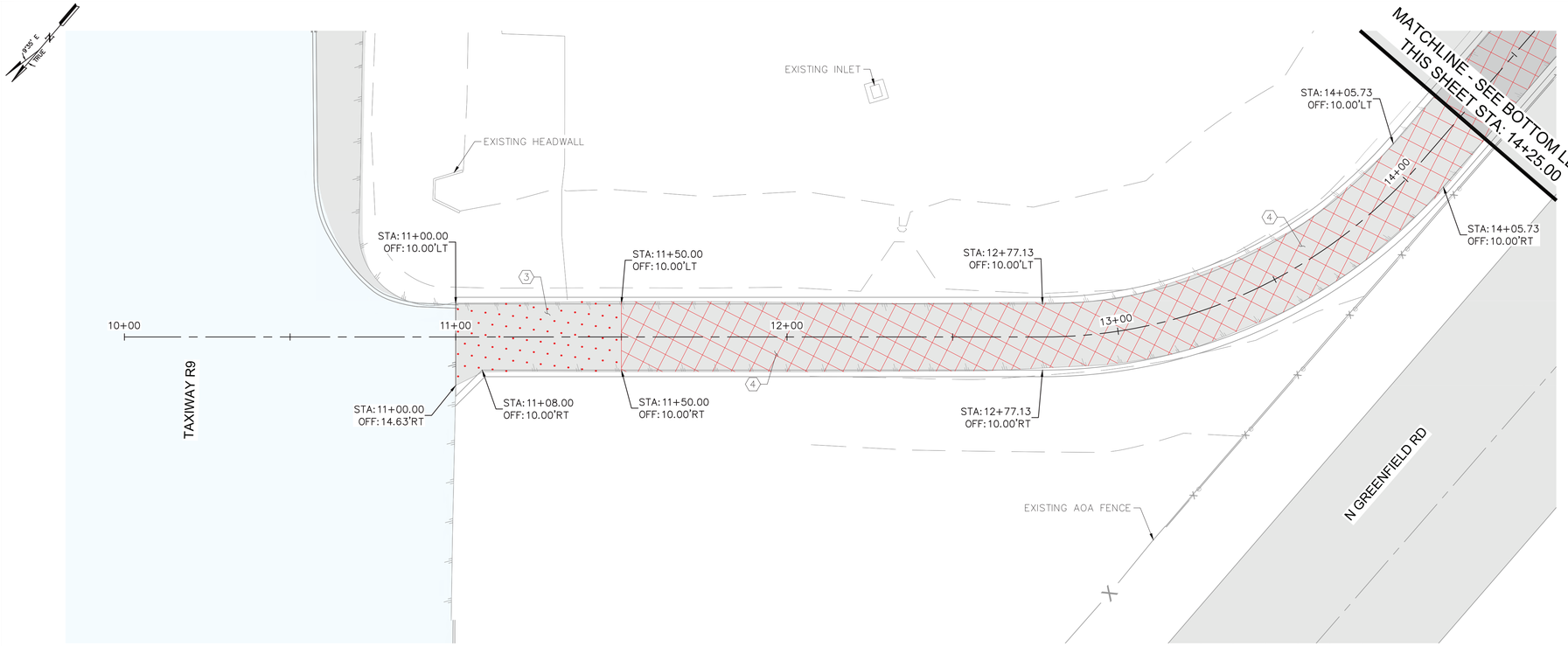

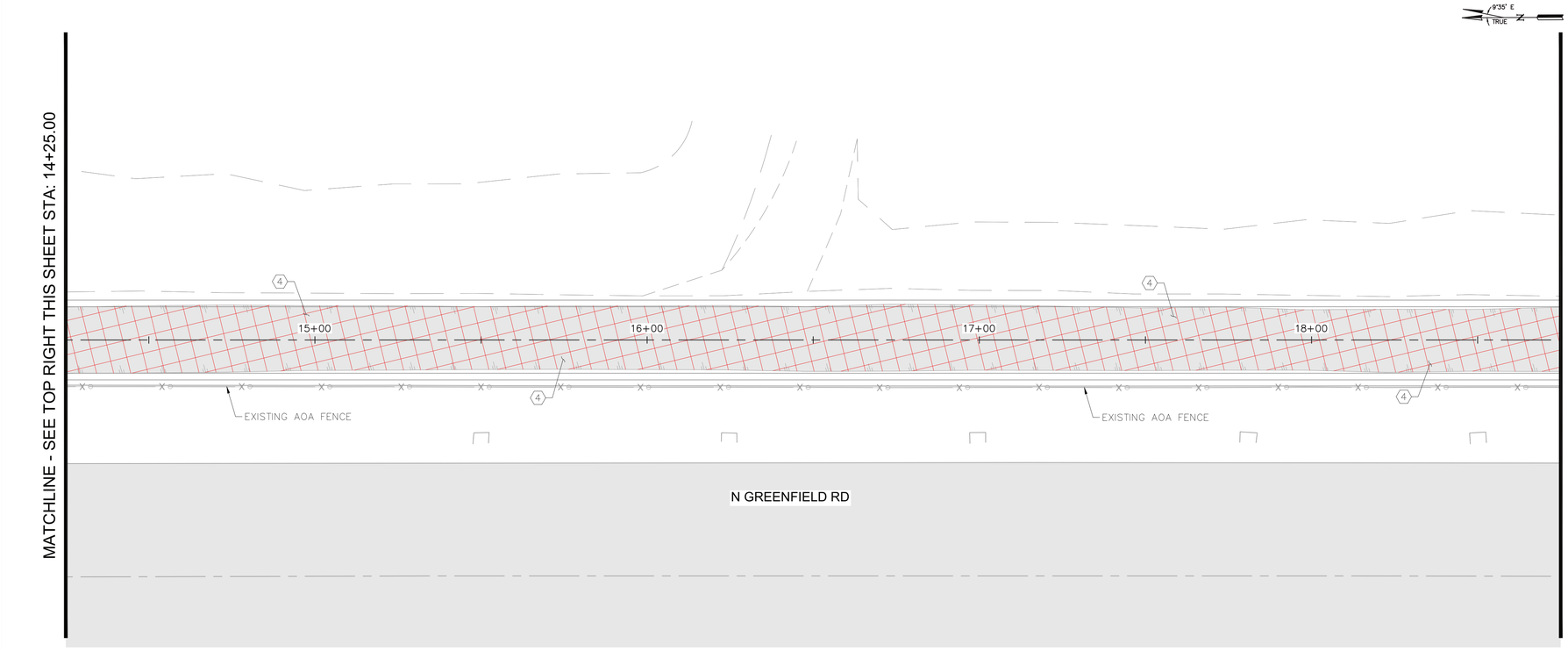

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GRAPHIC SCALE
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(IN FEET)

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CERTIFICATE NO. 61904
JAMES M. MCCAY
Licensed to Practice in ARIZONA
Expires 09/30/2027

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Date 04/08/2026
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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

DEMOLITION PLAN
SHEET 1 OF 4

PROJECT NO.
191500308

FILE NO.
191500308 - DM

C3.1
SHEET 8 of 31

CATALOG NO.
A309198

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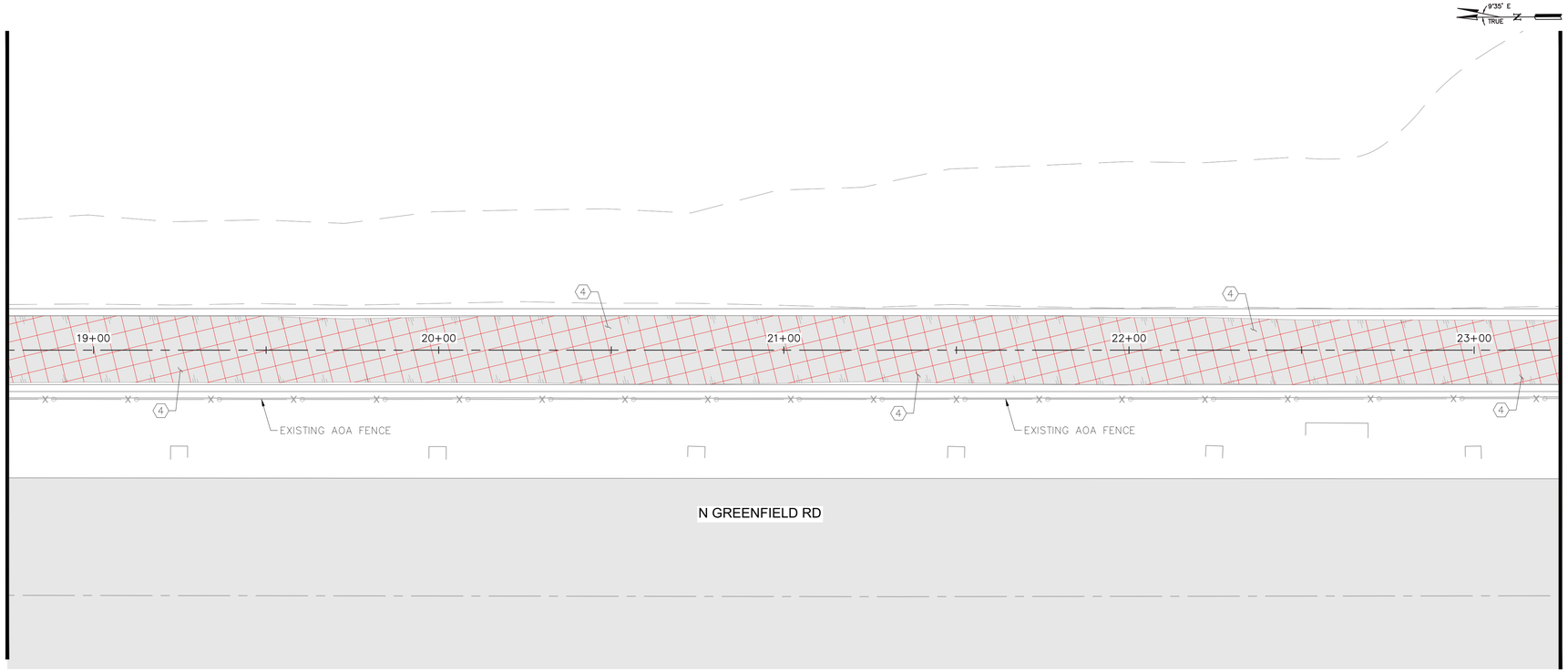

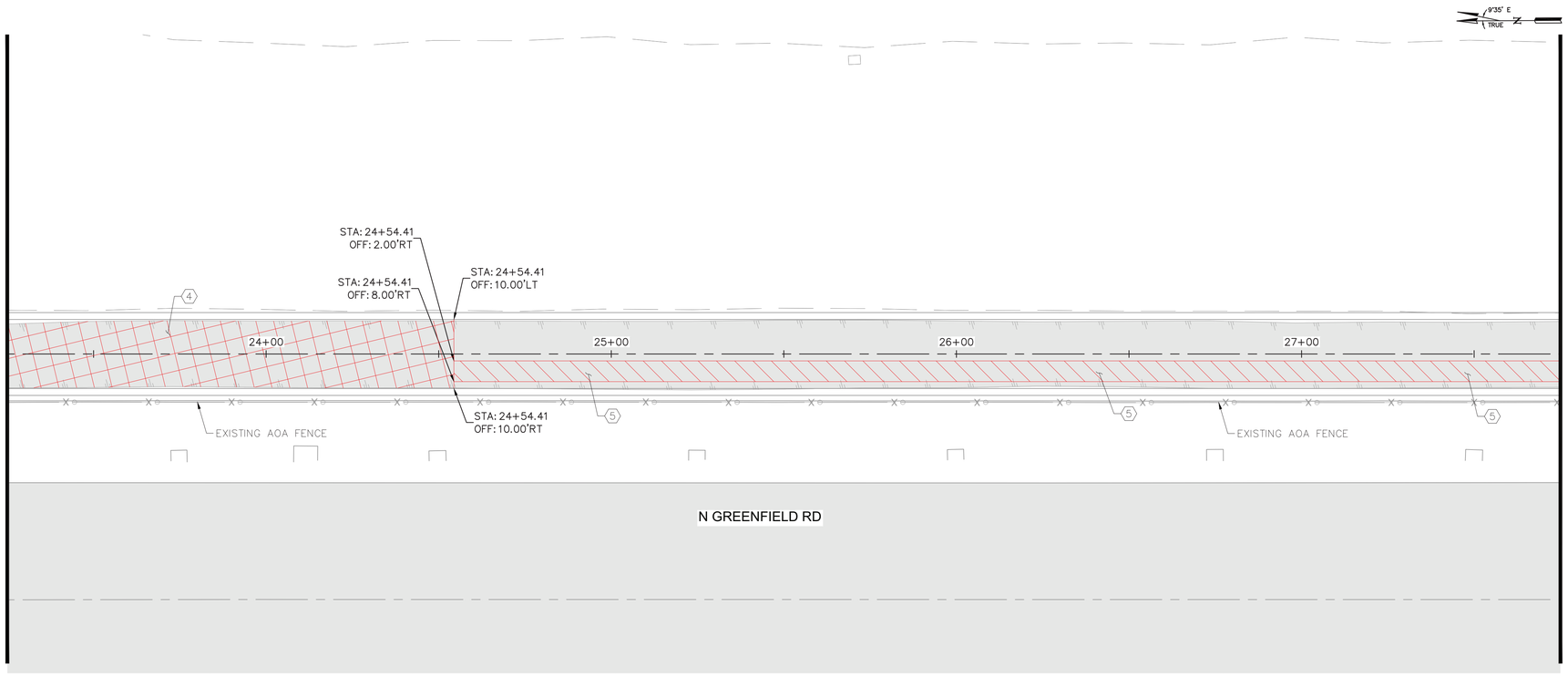

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Registered Professional Engineer (Civil) 61904 CERTIFICATE NO. Joseph M. Mellon ARIZONA, U.S.A. 04/30/2026 Expires

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Date 04/08/2026
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DEMOLITION PLAN
SHEET 2 OF 4

PROJECT NO.
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FILE NO.
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C3.2
SHEET 9 of 31

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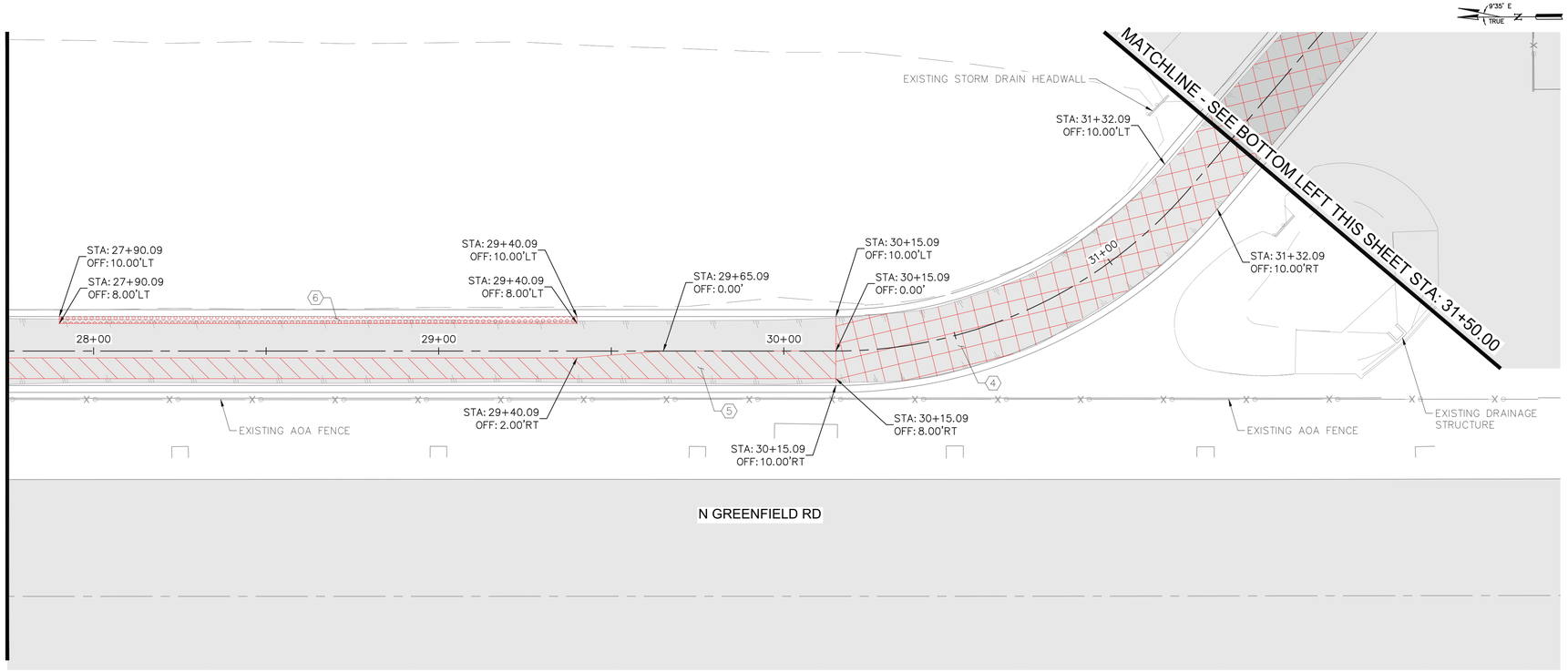

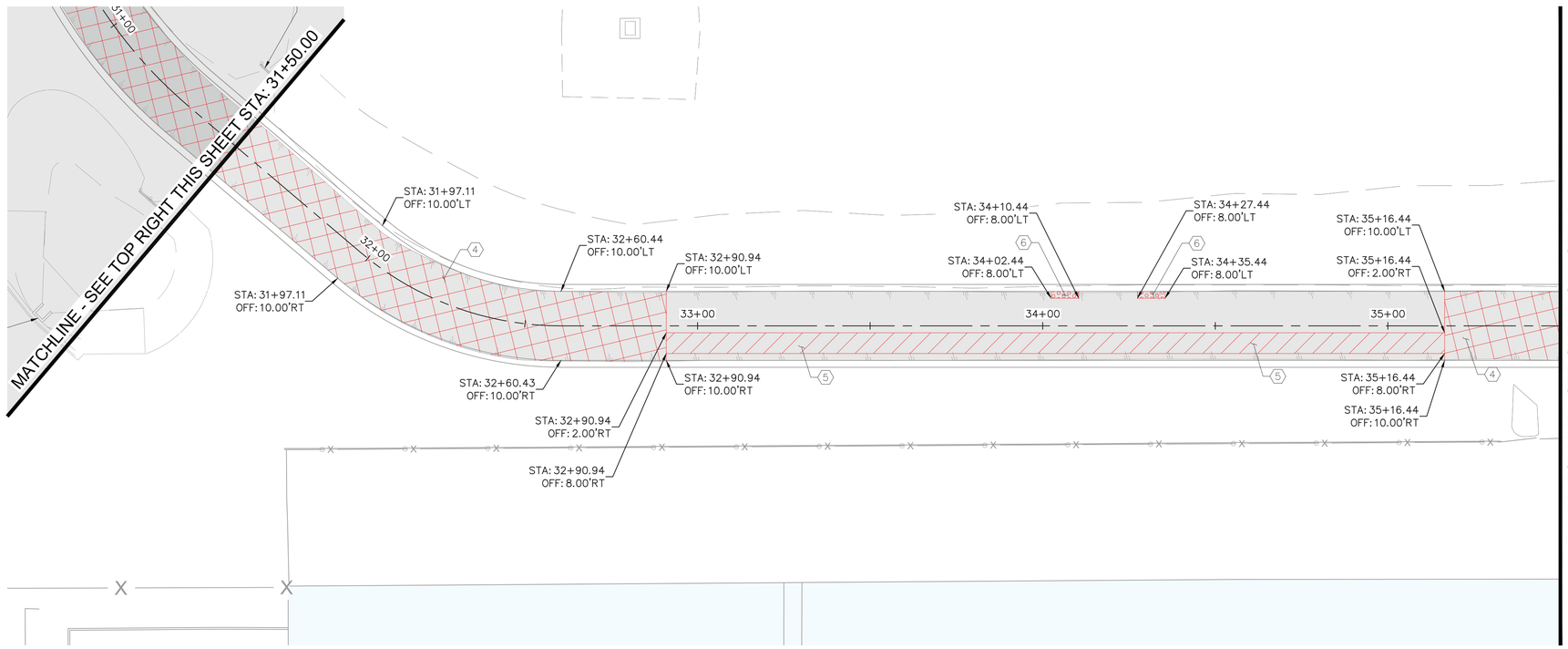

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DEMOLITION PLAN
SHEET 3 OF 4

PROJECT NO.
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FILE NO.
191500308 - DM
C3.3
SHEET 10 of 31
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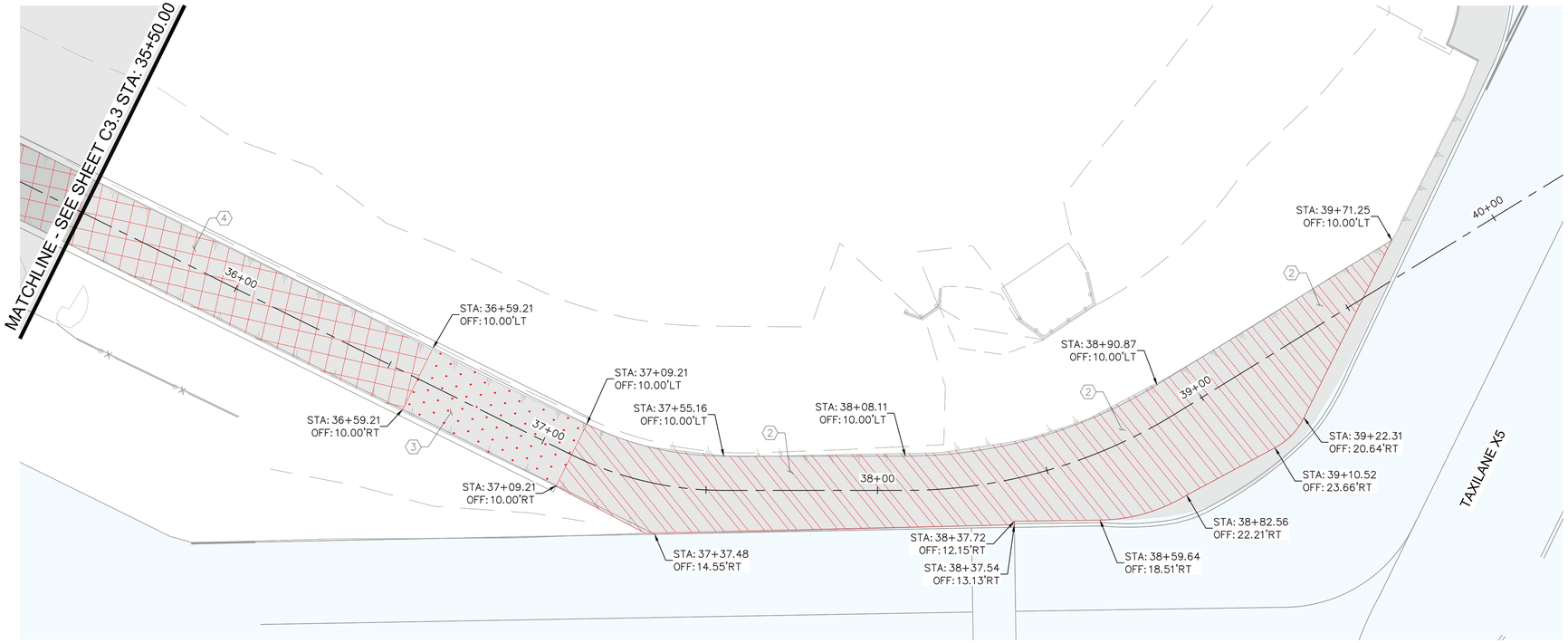

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2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL
Registered Professional Engineer (Civil) 61904 JOHN M. MOSBY Certificate No. Date Signed 04/08/2026 ARIZONA, USA Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by KCD
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

DEMOLITION PLAN
SHEET 4 OF 4

PROJECT NO.
191500308
FILE NO.
191500308 - DM
C3.4
SHEET 11 of 31
CATALOG NO.
A309201

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CAD\191500308 - DM.dwg Apr 08, 2026 Brod.Nisbet
XREFS: x191500308 - NTDM x191500308 - VS x191500308 - VS EX-HTCH x191500308 - VF x191500308 - BM - DEMO x191500308 - TB - MESA - V2 SEAL-JMM-191500308
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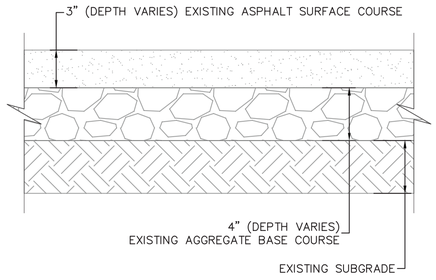

1 C4.1 **EXISTING PAVEMENT SECTION**

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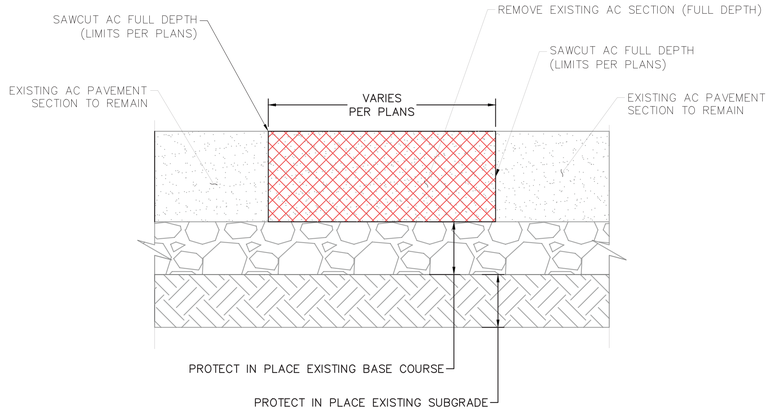
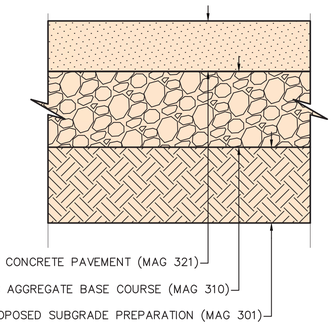


2 C4.1 **ASPHALT PAVEMENT REMOVAL DETAIL (FULL DEPTH)**

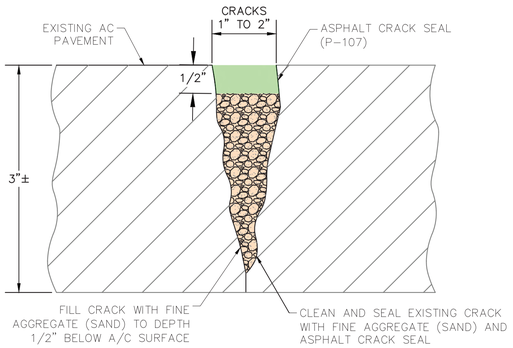
N.T.S.



3 C4.1 **VEHICLE SERVICE ROAD (FULL RECONSTRUCTION) - TYPICAL SECTION**

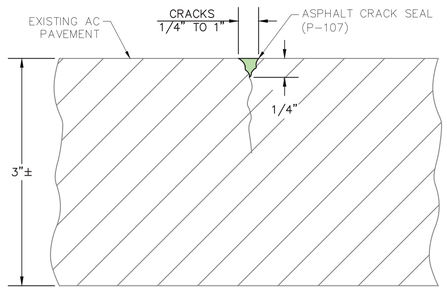
STA 37+09.21 TO STA 39+55.28

N.T.S.



4 C4.1 **TYPE 2 - CRACK SEAL DETAIL**

N.T.S.



5 C4.1 **TYPE 3 - CRACK SEAL DETAIL**

N.T.S.

CONSTRUCTION NOTES:

1. CRACK REPAIRS SHALL BE CONSTRUCTED IN SUCH A MANNER THAT THE REPAIR IS FLUSH WITH THE EXISTING PAVEMENT. REPAIRS THAT SAG MORE THAN 1/4" OR RISE MORE THAN 1/8" ABOVE THE PAVEMENT SURFACE SHALL BE REMOVED AND REPAIRED (PER THE CRACK REPAIR DETAIL ASSOCIATED WITH THAT CRACK) AT NO ADDITIONAL COST TO THE OWNER.
2. THE AREAS AND QUANTITIES OF CRACK REPAIR WERE DETERMINED USING THE FOLLOWING CRITERIA AND THE CONTRACTOR SHALL FOLLOW THIS CRITERIA WHEN PERFORMING CRACK SEAL OR REPAIR ACTIVITIES:

TYPE 1: ~~REPAIR CRACKS GREATER THAN 2" BY MILLING PER DETAIL TYPE 1 REGARDLESS OF WHETHER THEY HAVE BEEN PREVIOUSLY SEALED OR NOT FILLED WITH COLD MIX ASPHALT OR NOT CONTRACTOR TO COORDINATE WITH RESIDENT ENGINEER.~~ THIS REPAIR TYPE NOT USED ON THIS PROJECT.

TYPE 2: REPAIR CRACKS BETWEEN 1"–2" PER DETAIL TYPE 2 REGARDLESS OF WHETHER THEY HAVE BEEN PREVIOUSLY SEALED OR NOT, EXCEPT IF THE EXISTING CRACK SEAL IS STILL PLIABLE AND HAS NOT SEPARATED FROM THE PAVEMENT EDGES.

TYPE 3: REPAIR CRACKS GREATER THAN 1/4" BUT LESS THAN 1" WITH CRACK SEAL PER DETAIL TYPE 3. THESE CRACKS MAY NOT HAVE BEEN PREVIOUSLY SEALED. THE CRACK MAY BE FULL OR PARTIAL DEPTH.

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In Maricopa County: (602) 263-1100

PLANS TO BE PRINTED IN COLOR

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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn

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FIRM'S SEAL

Registered Professional Engineer (Civil)
CERTIFICATE NO. 61904
JAMES M. MCGEE
ARIZONA, USA
Expires 09/30/2027

SCALE
Horiz. N/A
Vert. N/A

Date 04/08/2026
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Drawn by BPN
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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PROJECT DETAILS
SHEET 1 OF 4

PROJECT NO.
191500308

FILE NO.
191500308 - DT

C4.1

SHEET 12 of 31

CATALOG NO.
A309202

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - DT.dwg Apr 08, 2026 Brad.Nisbet
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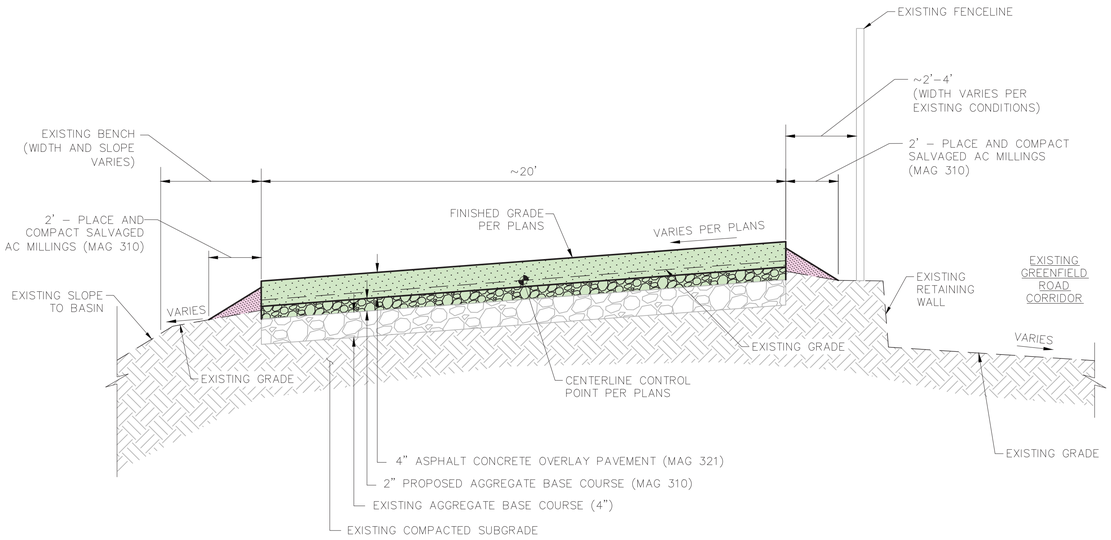
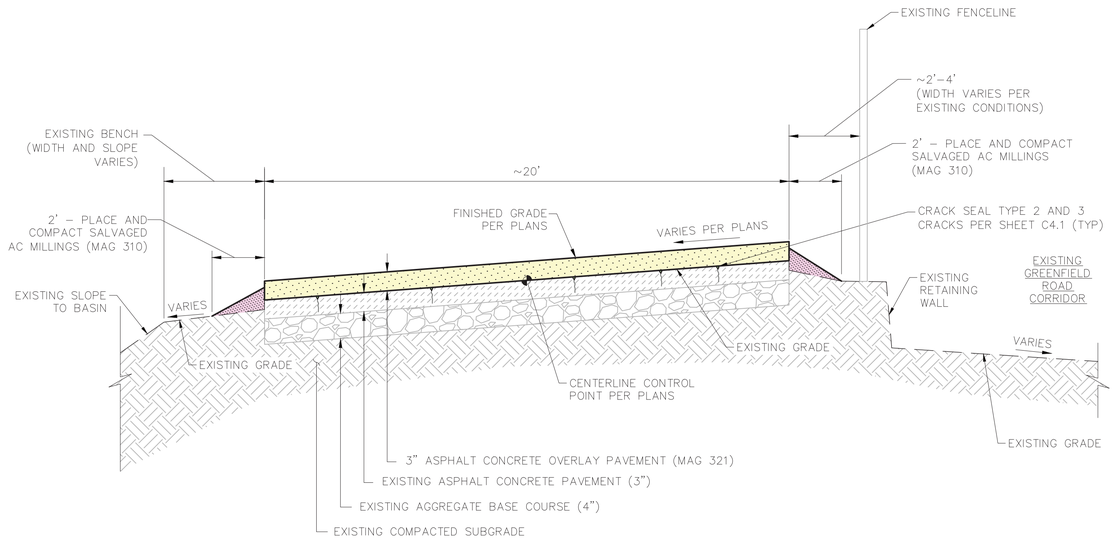


1 C4.2 VEHICLE SERVICE ROAD (PARTIAL RECONSTRUCTION) - TYPICAL SECTION

STA 11+50.00 TO STA 24+54.41
STA 30+15.09 TO STA 32+90.94
STA 35+16.44 TO STA 36+59.21

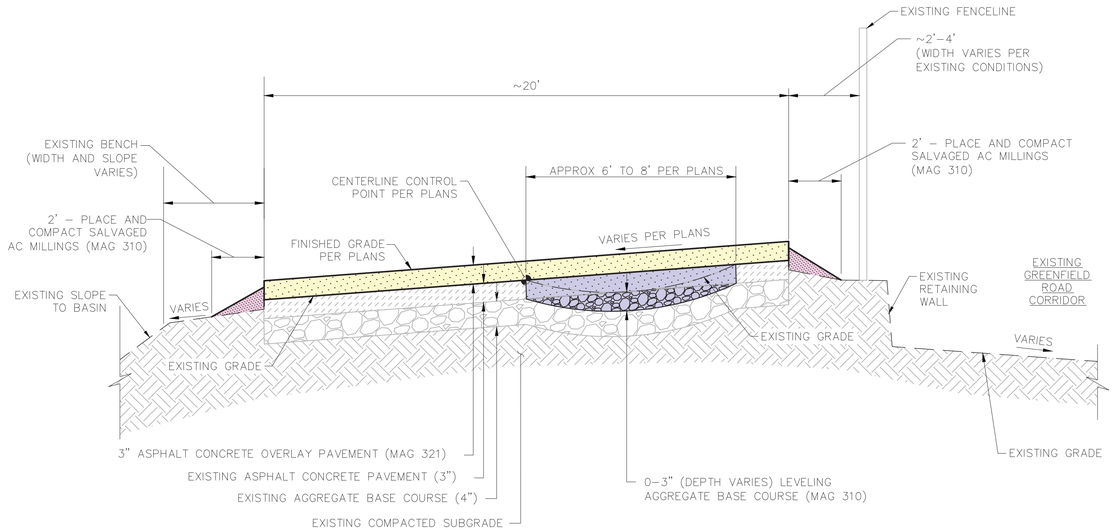
N.T.S.



2 C4.2 VEHICLE SERVICE ROAD (CRACK SEAL OVERLAY) - TYPICAL SECTION

STA 24+54.41 TO STA 30+15.09
STA 32+90.94 TO STA 35+16.44

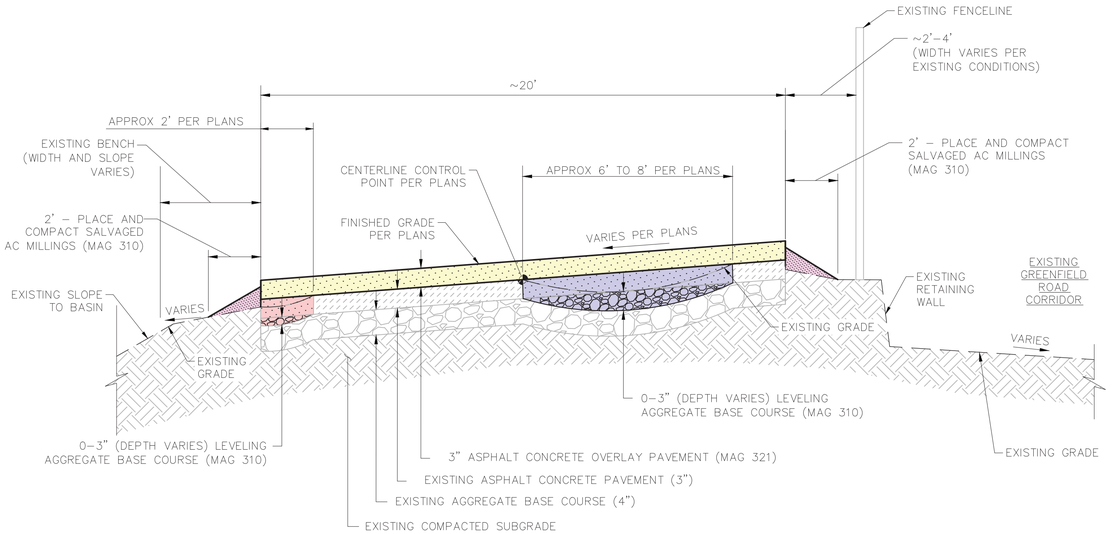
N.T.S.



3 C4.2 VEHICLE SERVICE ROAD ("DEPRESSED" NON-EDGE CONDITION FAILED AC SECTION) - TYPICAL SECTION

STA 24+54.41 TO STA 30.15.09
STA 32+90.94 TO STA 35+16.44

N.T.S.



4 C4.2 VEHICLE SERVICE ROAD ("DEPRESSED" EDGE CONDITION FAILED AC SECTION) - TYPICAL SECTION

STA 27+90.09 TO STA 29+40.09
STA 34+02.44 TO STA 34+10.44
STA 34+27.44 TO STA 34+35.44

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Vert. N/A

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Drawn by BPN
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CITY OF MESA
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480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PROJECT DETAILS
SHEET 2 OF 4

PROJECT NO. 191500308
FILE NO. 191500308 - DT
C4.2
SHEET 13 of 31
CATALOG NO. A309203

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CADD\191500308 - DT.dwg Apr 08, 2026 Brod.Nisbet
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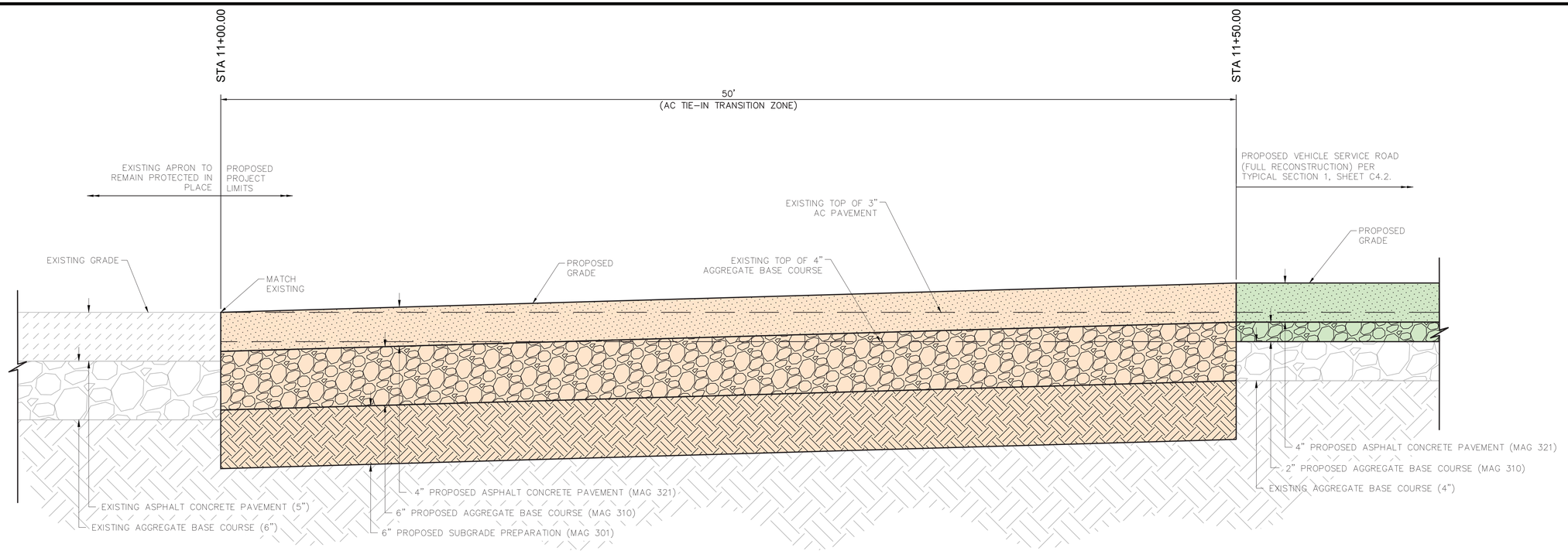
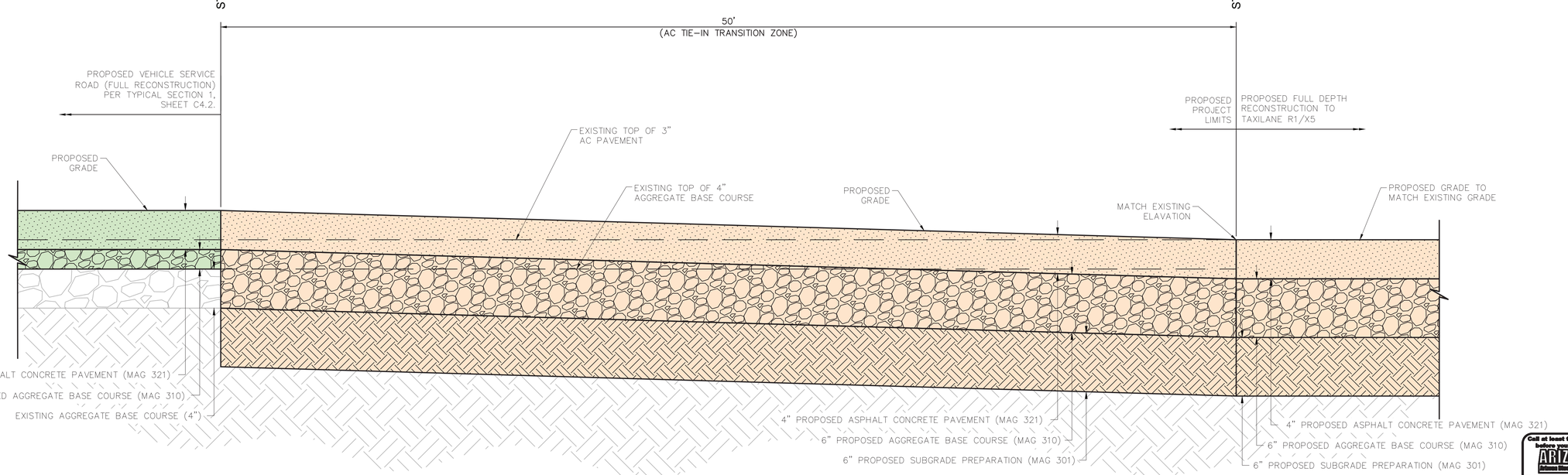


1 C4.3 VEHICLE SERVICE ROAD (NORTH AC TIE-IN TRANSITION ZONE) - DETAIL

STA 11+00.00 TO STA 11+50.00

N.T.S.



2 C4.3 VEHICLE SERVICE ROAD (SOUTH AC TIE-IN TRANSITION ZONE) - DETAIL

STA 36+59.21 TO STA 37+09.21

N.T.S.

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FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PROJECT DETAILS
SHEET 3 OF 4

PROJECT NO.
191500308

FILE NO.
191500308 - DT

C4.3

SHEET 14 of 31

CATALOG NO.
A309204

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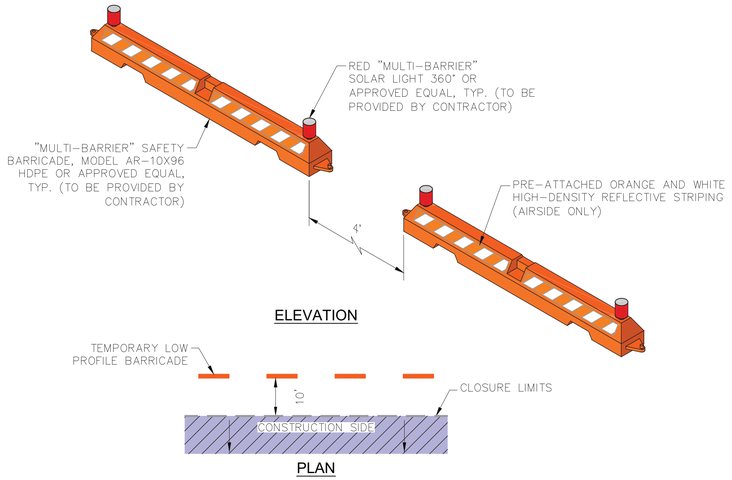
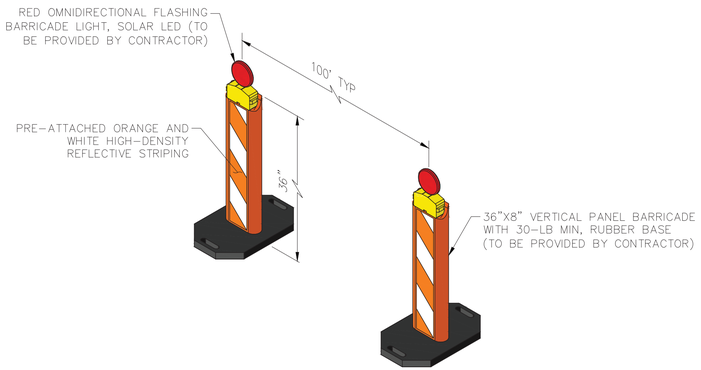


1 C4.4 **LOW PROFILE BARRICADE**

N.T.S.



2 C4.4 **VERTICAL PANEL BARRICADE WITH LIGHT**

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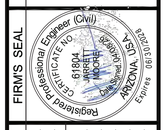

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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PROJECT DETAILS
SHEET 4 OF 4

PROJECT NO.
191500308

FILE NO.
191500308 - DT

C4.4

SHEET 15 of 31

CATALOG NO.
A309205

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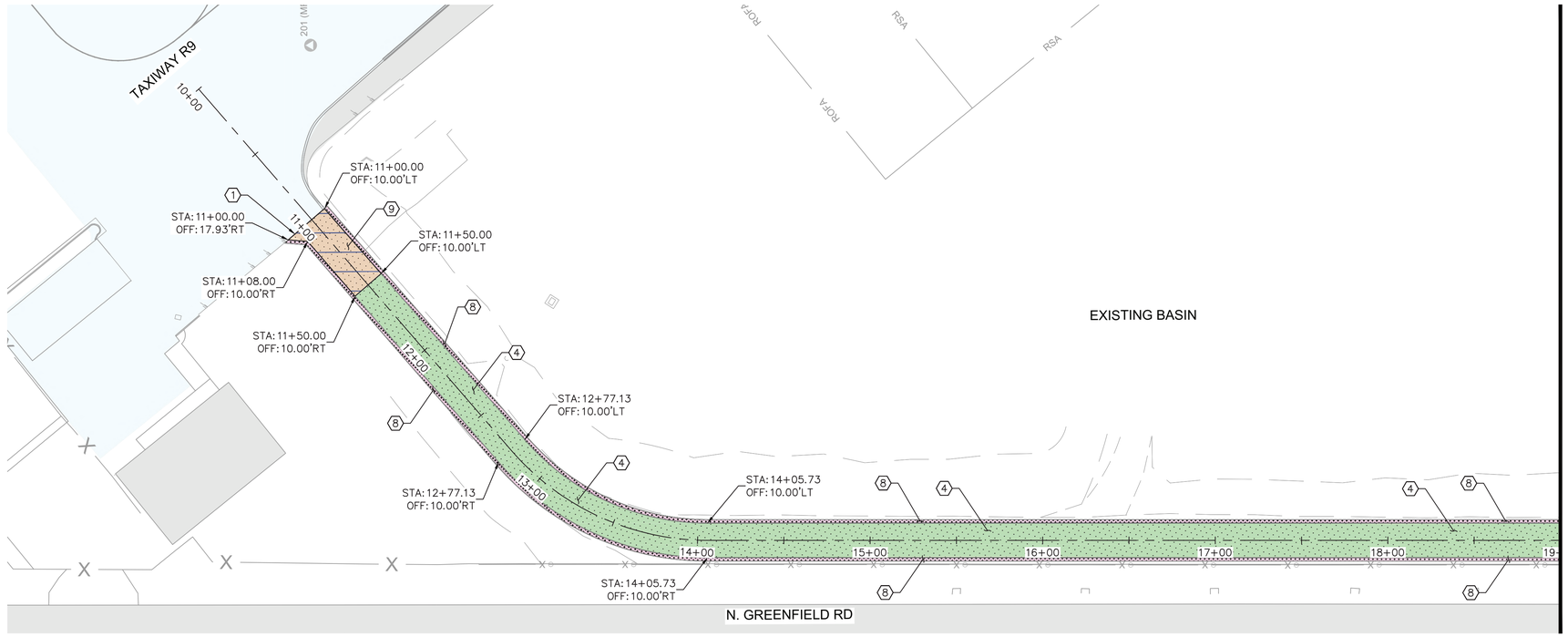

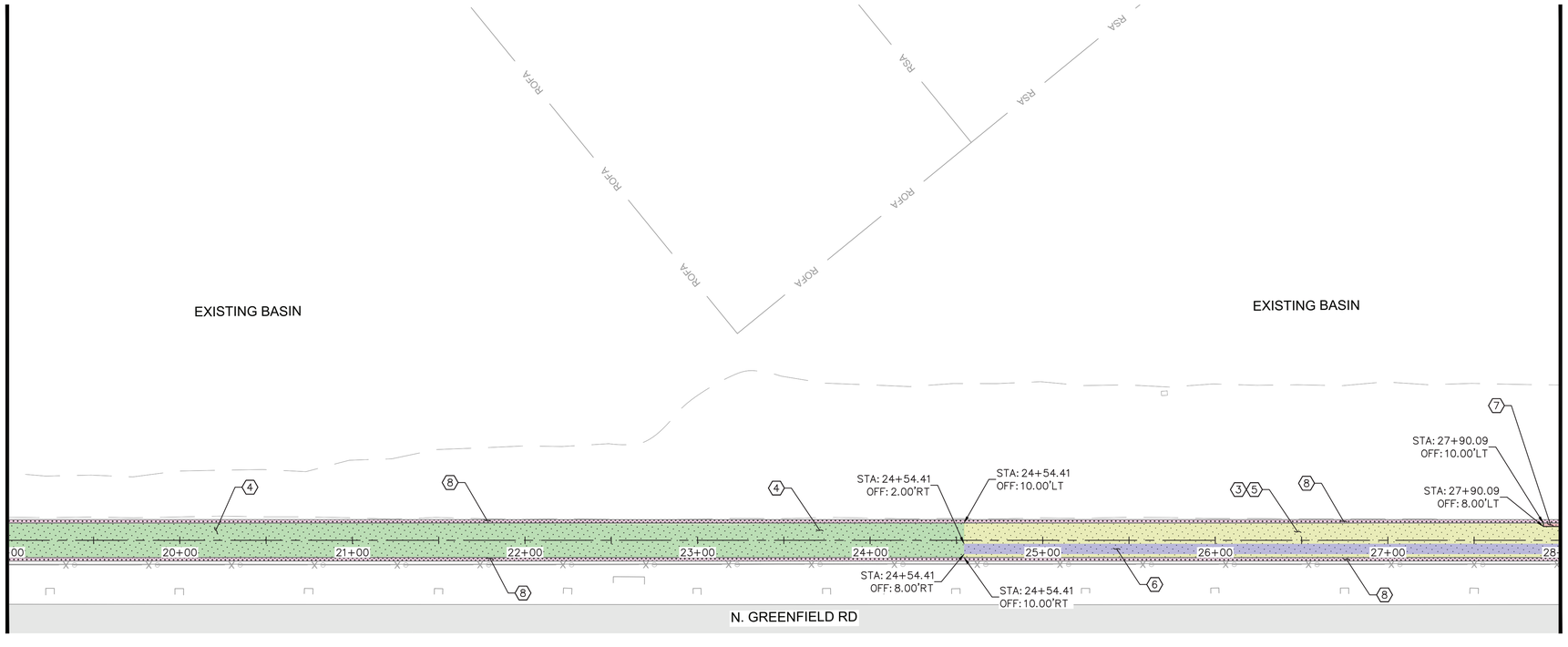

LEGEND

- AC PAVEMENT PARTIAL RECONSTRUCTION (4" AC OVER, 2" ABC)
- AC PAVEMENT FULL RECONSTRUCTION (4" AC OVER, 6" ABC)
- AC PAVEMENT TRANSITION TIE–IN ZONE
- SALVAGED AC MILLINGS
- CRACK SEAL AND SEAL COAT & AC OVERLAY (3" DEPTH)
- FAILED "DEPRESSED" AC SECTION MITIGATION (EDGE)
- FAILED "DEPRESSED" AC SECTION MITIGATION (NON–EDGE)

GENERAL NOTES:

1. EXISTING UTILITY INFORMATION SHOWN ON THE PLANS CONCERNING THE TYPE, SIZE AND LOCATION WERE COMPILED BASED ON THE BEST AVAILABLE UTILITY RECORDS TO THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OR SPECIFIED OTHERWISE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE.
2. EXPOSED SUBGRADE AND BASE MATERIAL TO BE KEPT MOIST AND COMPACTED TO MINIMIZE FOD/DUST CLOUDS AND SHALL BE TREATED WITH A DUST PALLIATIVE STABILIZER.
3. SEE SHEETS C2.1 TO C2.2 FOR CONSTRUCTION PHASING PLAN
4. SEE SHEETS C3.1 TO C3.4 FOR DEMOLITION PLANS
5. SEE SHEETS C4.1 TO C4.4 FOR PROJECT DETAILS
6. SEE SHEETS C6.1 TO C6.7 FOR PLAN AND PROFILE
7. SEE SHEET C7.1 FOR STORMWATER POLLUTION PREVENTION PLAN

CONSTRUCTION NOTES

1. MATCH EXISTING
2. PROTECT IN PLACE
3. CRACK SEAL EXISTING TYPE 2 & 3 CRACKS PER MITIGATION METHODS SHOWN IN DETAILS 4 & 5, SHEET C4.1
4. AC PARTIAL RECONSTRUCTION (4" AC OVER, 2" ABC) PER TYPICAL SECTION 1, SHEET C4.2
5. AC OVERLAY (3" DEPTH) PER TYPICAL SECTION 2, SHEET C4.2
6. MITIGATE "DEPRESSED" NON–EDGE CONDITION FAILED AC SECTION PER TYPICAL SECTION 3, SHEET C4.2
7. MITIGATE "DEPRESSED" EDGE CONDITION FAILED AC SECTION PER TYPICAL SECTION 4, SHEET C4.2
8. INSTALL SALVAGED AC MILLINGS ALONG EDGE OF VSR PAVEMENT PER TYPICAL SECTIONS (1, 2, 3, & 4), SHEET C4.2
9. CONSTRUCT "NORTH AC TIE–IN TRANSITION ZONE" PER DETAIL 1, SHEET C4.3
10. CONSTRUCT "SOUTH AC TIE–IN TRANSITION ZONE" PER DETAIL 2, SHEET C4.3
11. AC FULL RECONSTRUCTION (4" AC OVER, 6" ABC) PER TYPICAL SECTION 3, SHEET C4.1

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)

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REHABILITATE WEST VSR

GEOMETRIC LAYOUT PLAN
SHEET 1 OF 2

PROJECT NO.
191500308

FILE NO.
191500308 - GL

C5.1

SHEET 16 of 31

CATALOG NO.
A309206

K:\EAV_Aviation\191500308 - Rehabilitate West VSR\CAD\191500308 – GL.dwg Apr 08, 2026 Brad.Nisbet
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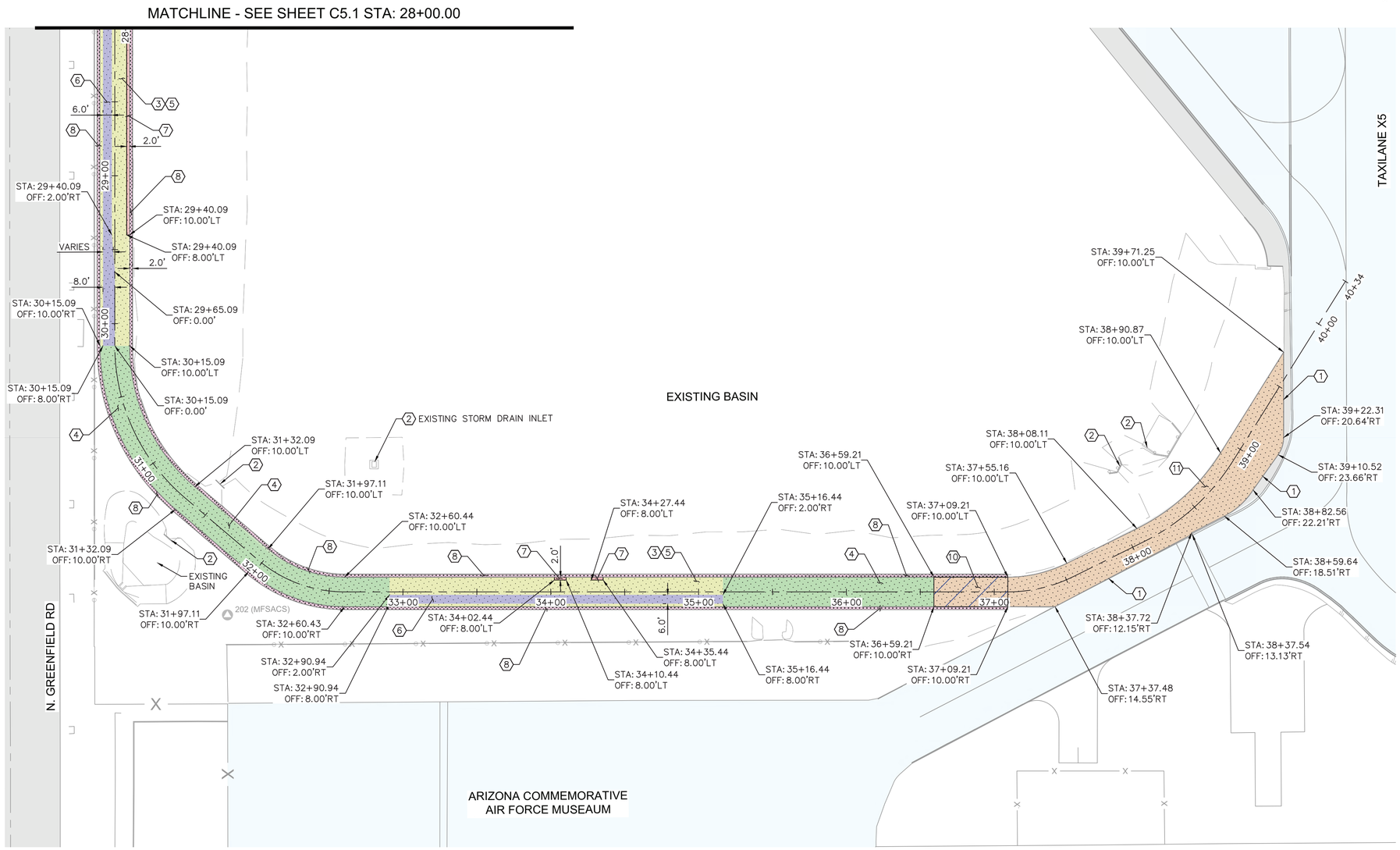

LEGEND

- AC PAVEMENT PARTIAL RECONSTRUCTION (4" AC OVER, 2" ABC)
- AC PAVEMENT FULL RECONSTRUCTION (4" AC OVER, 6" ABC)
- AC PAVEMENT TRANSITION TIE–IN ZONE
- SALVAGED AC MILLINGS
- CRACK SEAL AND SEAL COAT & AC OVERLAY (3" DEPTH)
- FAILED "DEPRESSED" AC SECTION MITIGATION (EDGE)
- FAILED "DEPRESSED" AC SECTION MITIGATION (NON–EDGE)

GENERAL NOTES:

1. EXISTING UTILITY INFORMATION SHOWN ON THE PLANS CONCERNING THE TYPE, SIZE AND LOCATION WERE COMPILED BASED ON THE BEST AVAILABLE UTILITY RECORDS TO THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OR SPECIFIED OTHERWISE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE.
2. EXPOSED SUBGRADE AND BASE MATERIAL TO BE KEPT MOIST AND COMPACTED TO MINIMIZE FOD/DUST CLOUDS AND SHALL BE TREATED WITH A DUST PALLIATIVE STABILIZER.
3. SEE SHEETS C2.1 TO C2.2 FOR CONSTRUCTION PHASING PLAN
4. SEE SHEETS C3.1 TO C3.4 FOR DEMOLITION PLANS
5. SEE SHEETS C4.1 TO C4.4 FOR PROJECT DETAILS
6. SEE SHEETS C6.1 TO C6.7 FOR PLAN AND PROFILE
7. SEE SHEET C7.1 FOR STORMWATER POLLUTION PREVENTION PLAN

CONSTRUCTION NOTES

1. MATCH EXISTING
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5. AC OVERLAY (3" DEPTH) PER TYPICAL SECTION 2, SHEET C4.2
6. MITIGATE "DEPRESSED" NON–EDGE CONDITION FAILED AC SECTION PER TYPICAL SECTION 3, SHEET C4.2
7. MITIGATE "DEPRESSED" EDGE CONDITION FAILED AC SECTION PER TYPICAL SECTION 4, SHEET C4.2
8. INSTALL SALVAGED AC MILLINGS ALONG EDGE OF VSR PAVEMENT PER TYPICAL SECTIONS (1, 2, 3, & 4), SHEET C4.2
9. CONSTRUCT "NORTH AC TIE–IN TRANSITION ZONE" PER DETAIL 1, SHEET C4.3
10. CONSTRUCT "SOUTH AC TIE–IN TRANSITION ZONE" PER DETAIL 2, SHEET C4.3
11. AC FULL RECONSTRUCTION (4" AC OVER, 6" ABC) PER TYPICAL SECTION 3, SHEET C4.1

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)

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NO.	REVISION	BY	DATE

FIRM'S NAME
Kimley»Horn
KIMLEY–HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207–2666

FIRM'S SEAL
Registered Professional Engineer (Civil) 61904 Matthew Hochstetler Expires 09/30/2026 ARIZONA, U.S.A.

SCALE
Horiz. 1" = 40'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

GEOMETRIC LAYOUT PLAN
SHEET 2 OF 2

PROJECT NO. 191500308
FILE NO. 191500308 - GL
C5.2
SHEET 17 of 31
CATALOG NO. A309207

K:\EAV_Aviation\191500308 – Rehabilitate West VSR\CADD\191500308 – GL.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 – NTGL x191500308 – VS x191500308 – VF x191500308 – BM x191500308 – VS EX–HTCH x191500308 – TB – MESA – V2 SEAL–JMM–191500308
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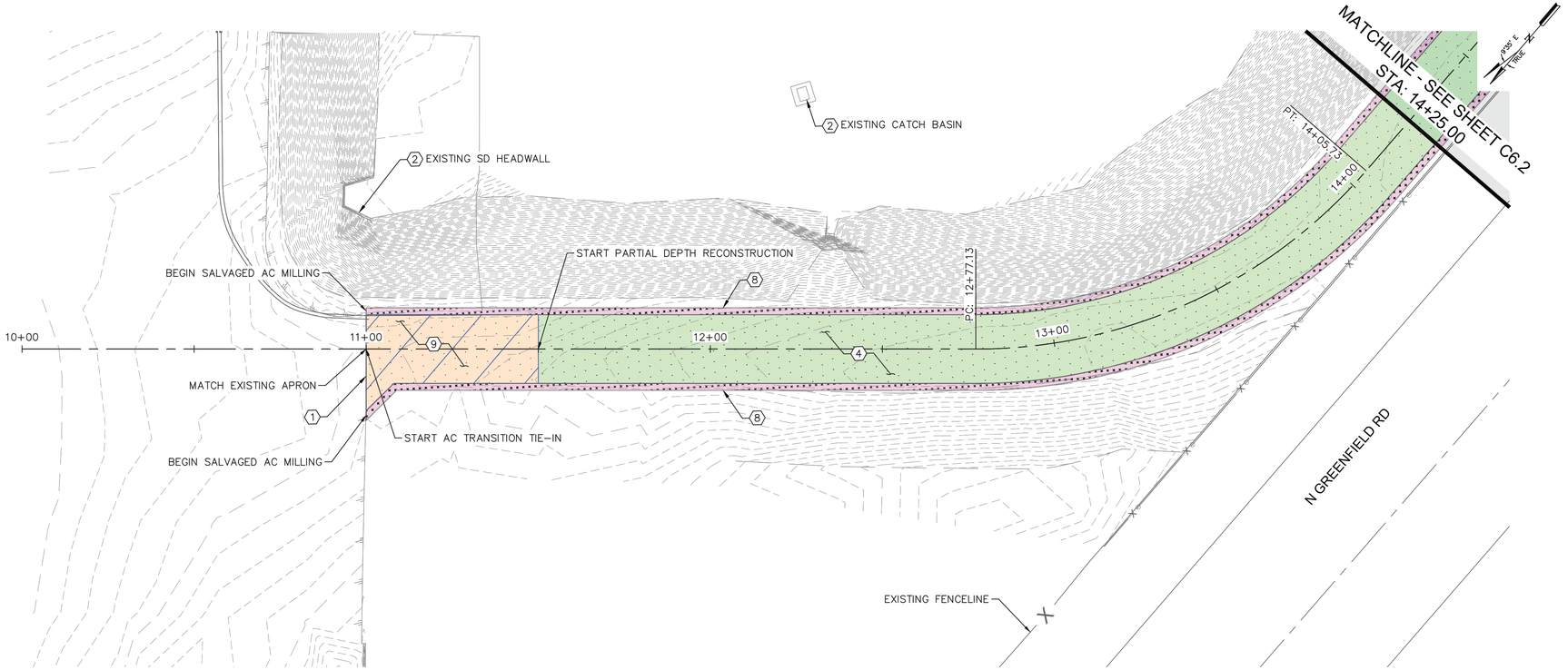

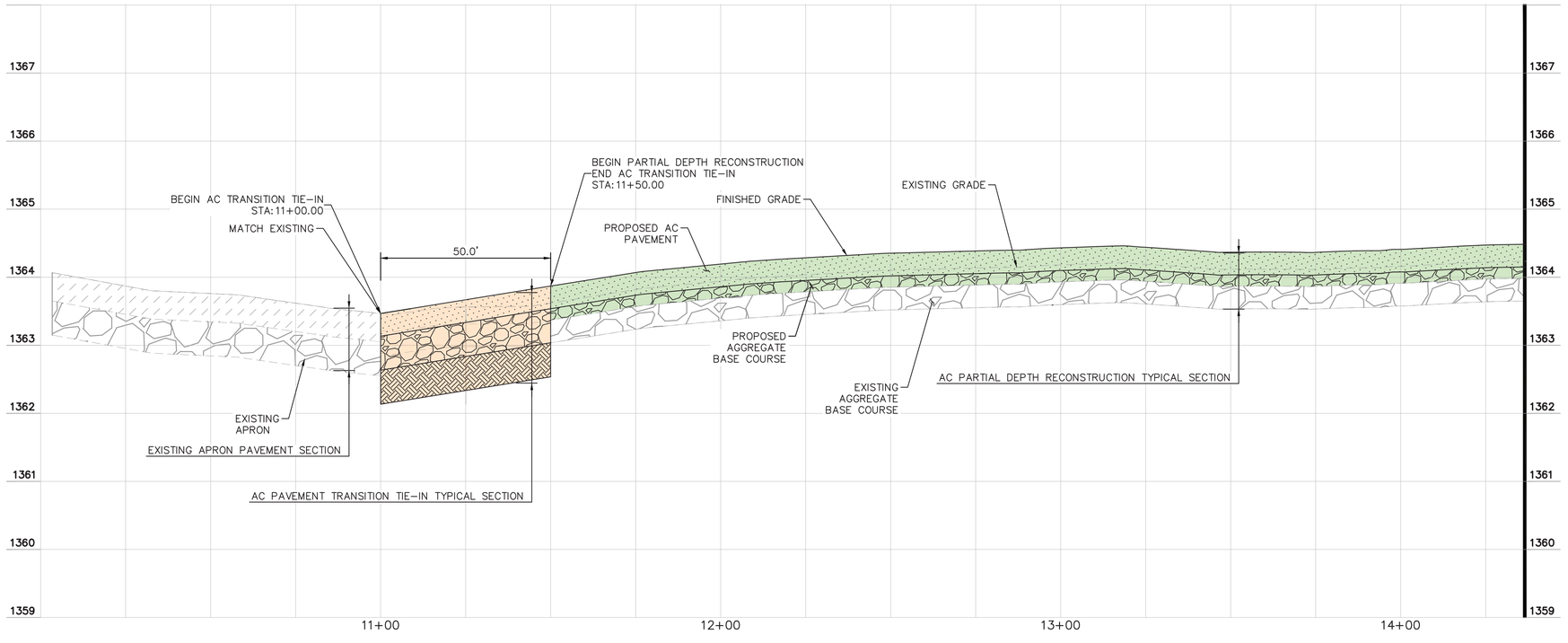

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GENERAL NOTES:

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CONSTRUCTION NOTES

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GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

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2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) CERTIFICATE NO. 61904 Brad Nisbet Date Signed 04/08/2026 ARIZONA U.S.A. Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NGW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 10+00.00 TO 14+25.00

PROJECT NO.
191500308

FILE NO.
191500308 - PP

C6.1

SHEET 18 of 31

CATALOG NO.
A309208

K:\EAV_Avition\191500308 - Rehabilitate West VSR\CADD\191500308 - PP.dwg Apr 08, 2026 Brad.Nisbet
XREFS: x191500308 - NTPP x191500308 - VF x191500308 - VS x191500308 - BM x191500308 - TB - MESA - V2 SEAL-JMM-191500308
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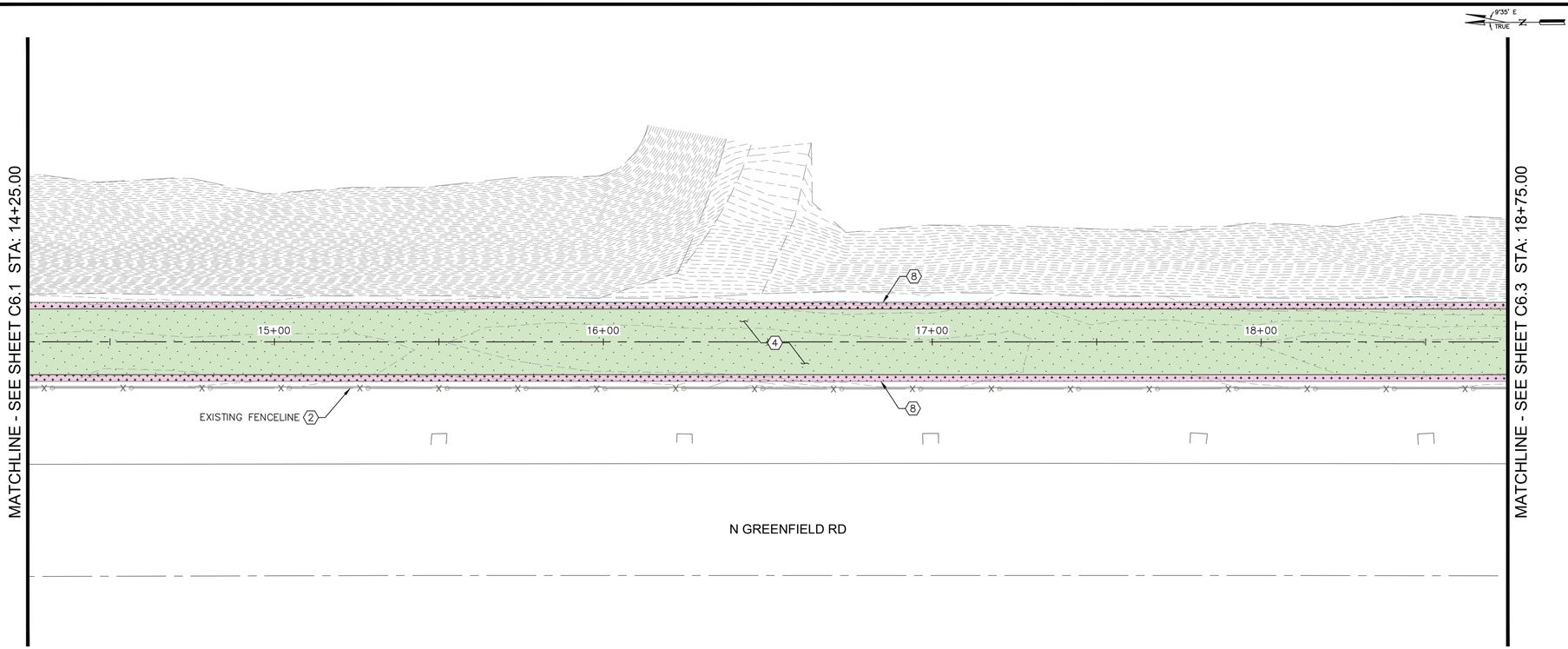

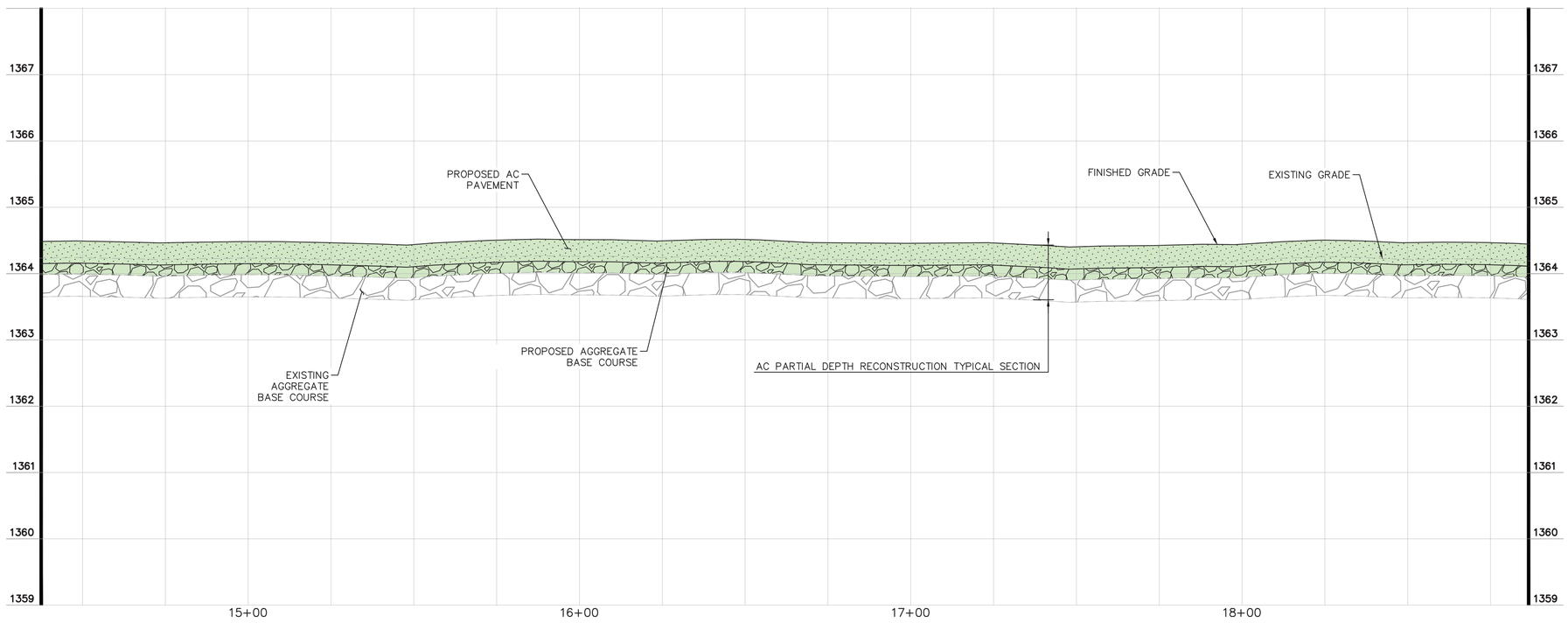

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4. REFER TO SHEETS C5.1 TO C5.2 FOR GEOMETRIC LAYOUT.

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GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

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Mesa, Arizona 85210 (480) 207-2666

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
61904
Brad Nisbet
ARIZONA, USA
Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 14+25.00 TO 18+75.00

PROJECT NO.
191500308
FILE NO.
191500308 - PP
C6.2
SHEET 19 of 31
CATALOG NO.
A309209

K:\EAV_Avition\191500308 - Rehabilitate West VSR\CADD\191500308 - PP.dwg Apr 08, 2026 Brad.Nisbet
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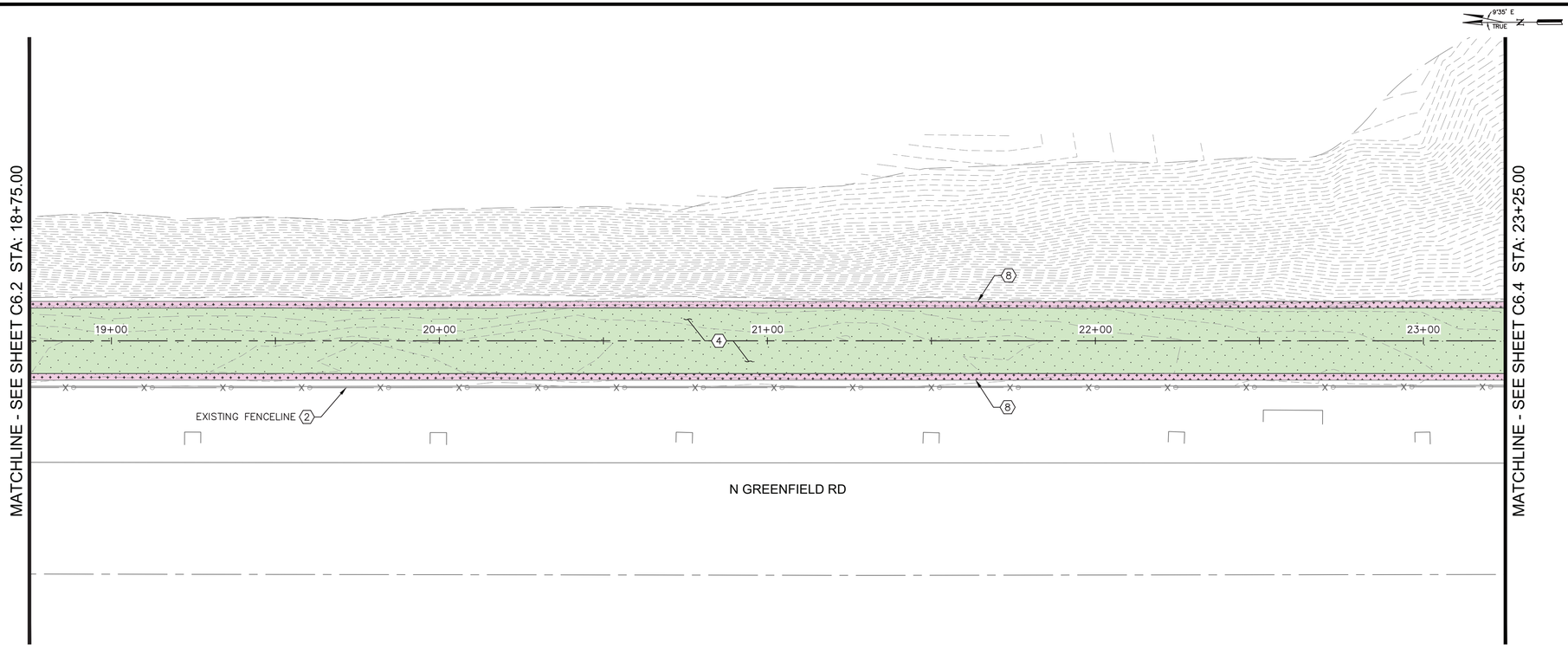

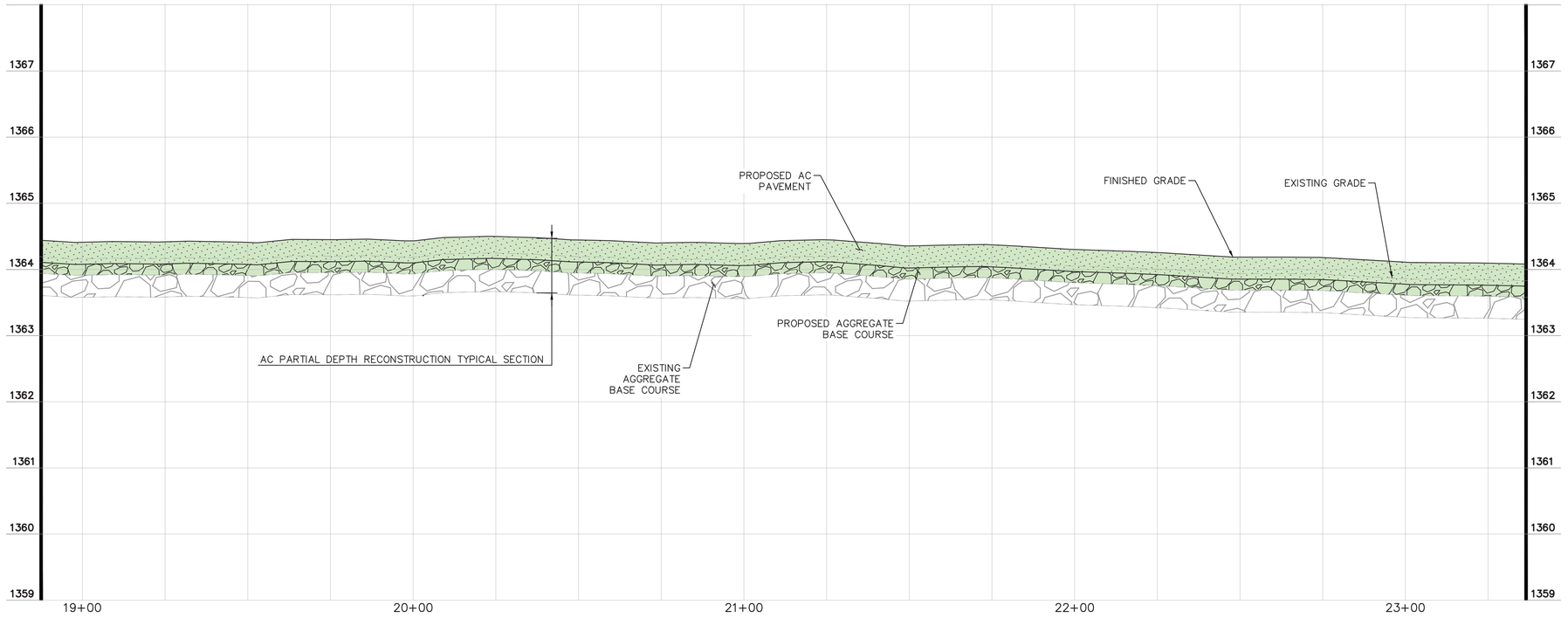

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GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

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Registered Professional Engineer (Civil)
61904
BRANDON P. NICHOLS
ARIZONA, USA
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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 18+75.00 TO 23+25.00

PROJECT NO.
191500308
FILE NO.
191500308 - PP
C6.3
SHEET 20 of 31
CATALOG NO.
A309210

K:\EAV_Avition\191500308 – Rehabilitate West VSR\CADD\191500308 – PP.dwg Apr 08, 2026 Brod.Nisbet
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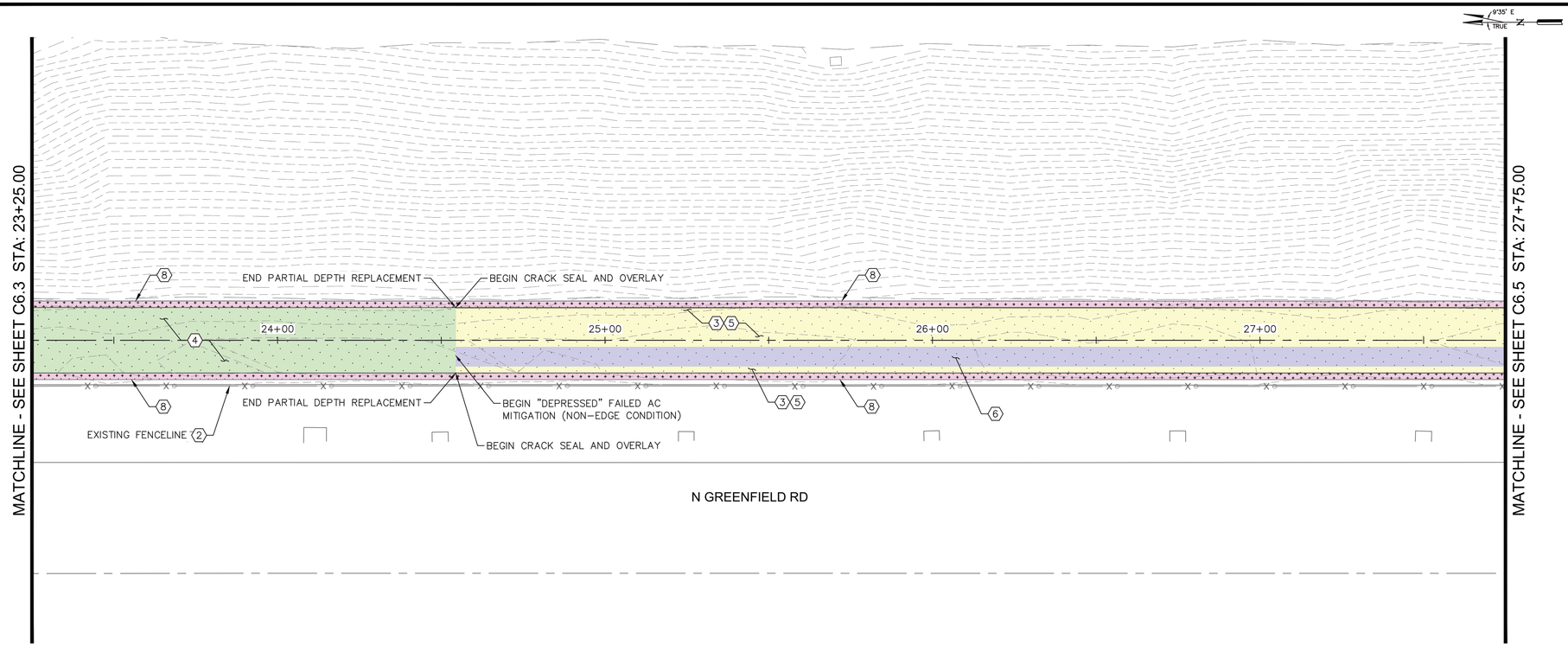

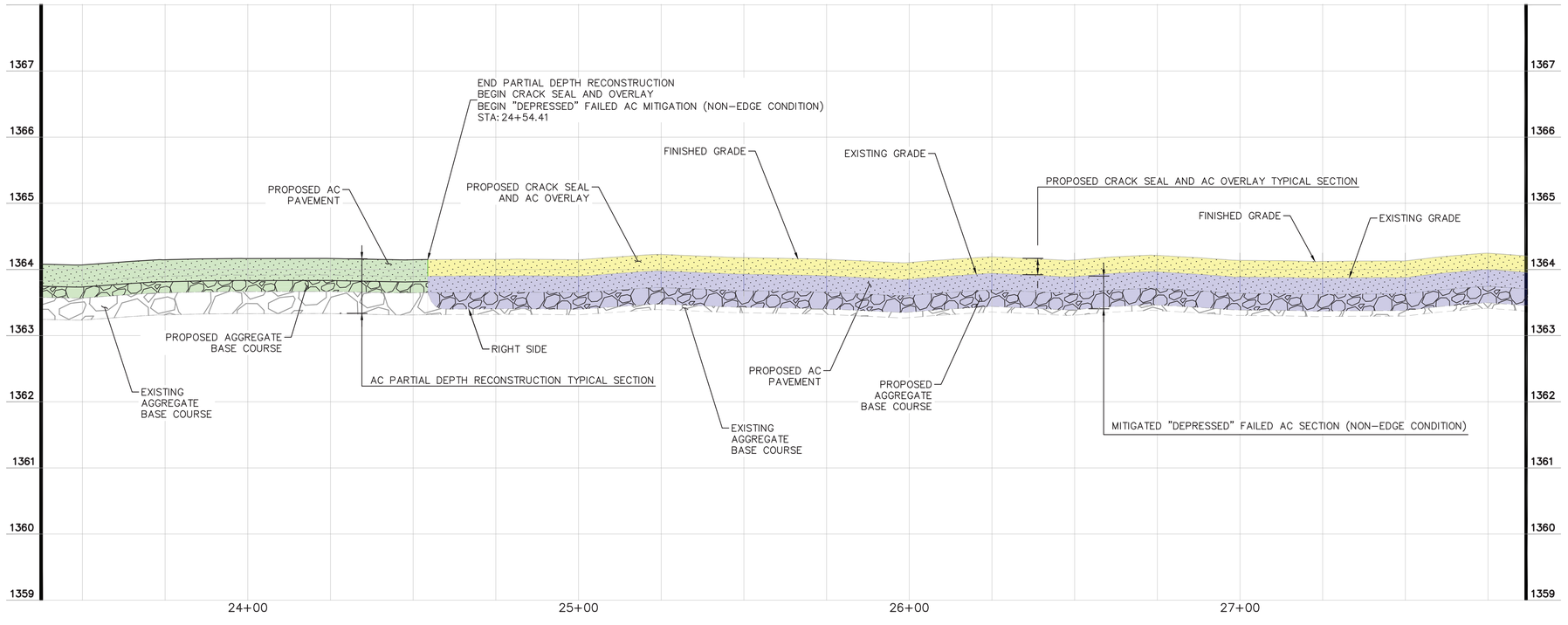

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GRAPHIC SCALE
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2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Certificate No. 61904 — Registered Professional Engineer (Civil) — Jason M. Moore — Date Signed 04/08/2026 — ARIZONA, USA — Expires 09/30/2027

SCALE
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Vert. N/A

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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 23+25.00 TO 27+75.00

PROJECT NO.
191500308

FILE NO.
191500308 - PP

C6.4

SHEET 21 of 31

CATALOG NO.
A309211

K:\EAV_Avition\191500308 - Rehabilitate West VSR\CAD\191500308 - PP.dwg Apr 08, 2026 Brod.Nisbet
XREFS: x191500308 - NTPP x191500308 - VF x191500308 - VS x191500308 - BM x191500308 - TB - MESA - V2 SEAL-JMM-191500308
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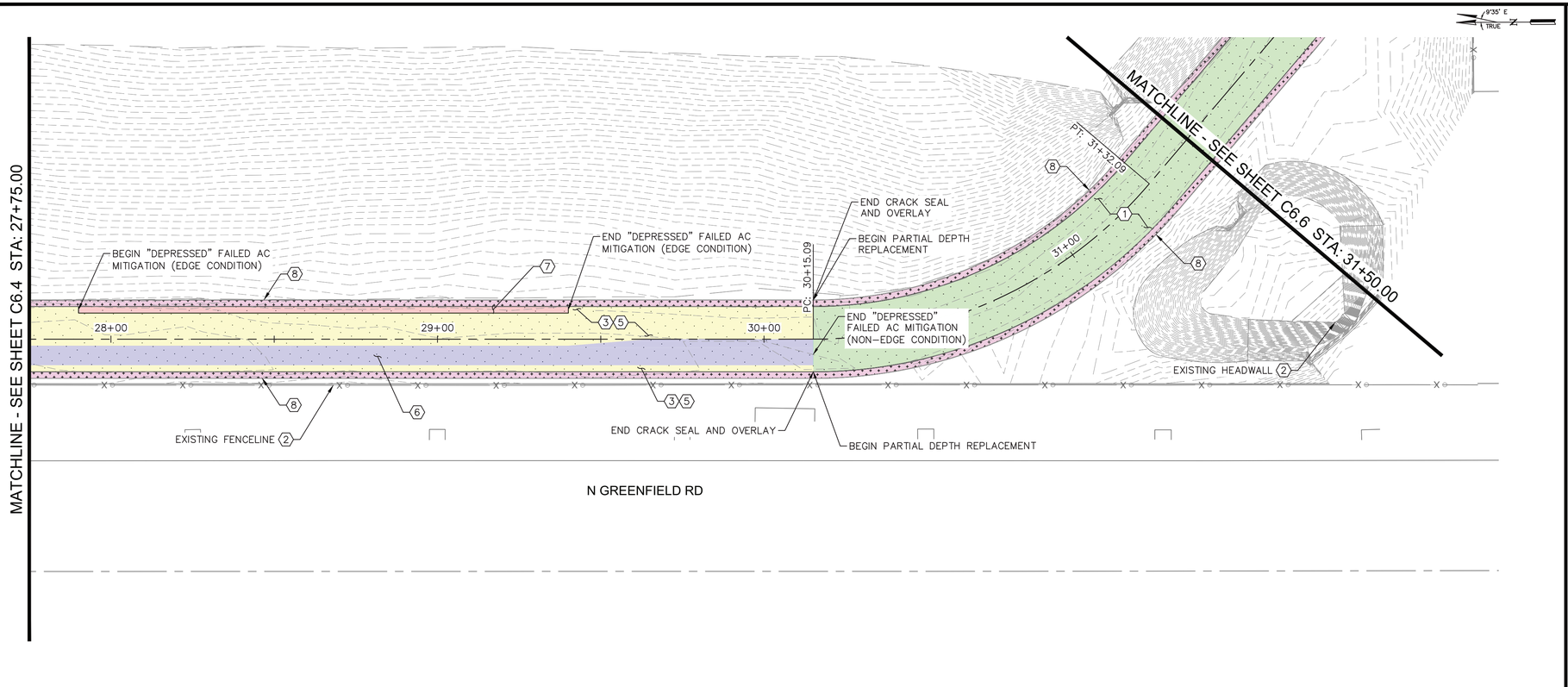

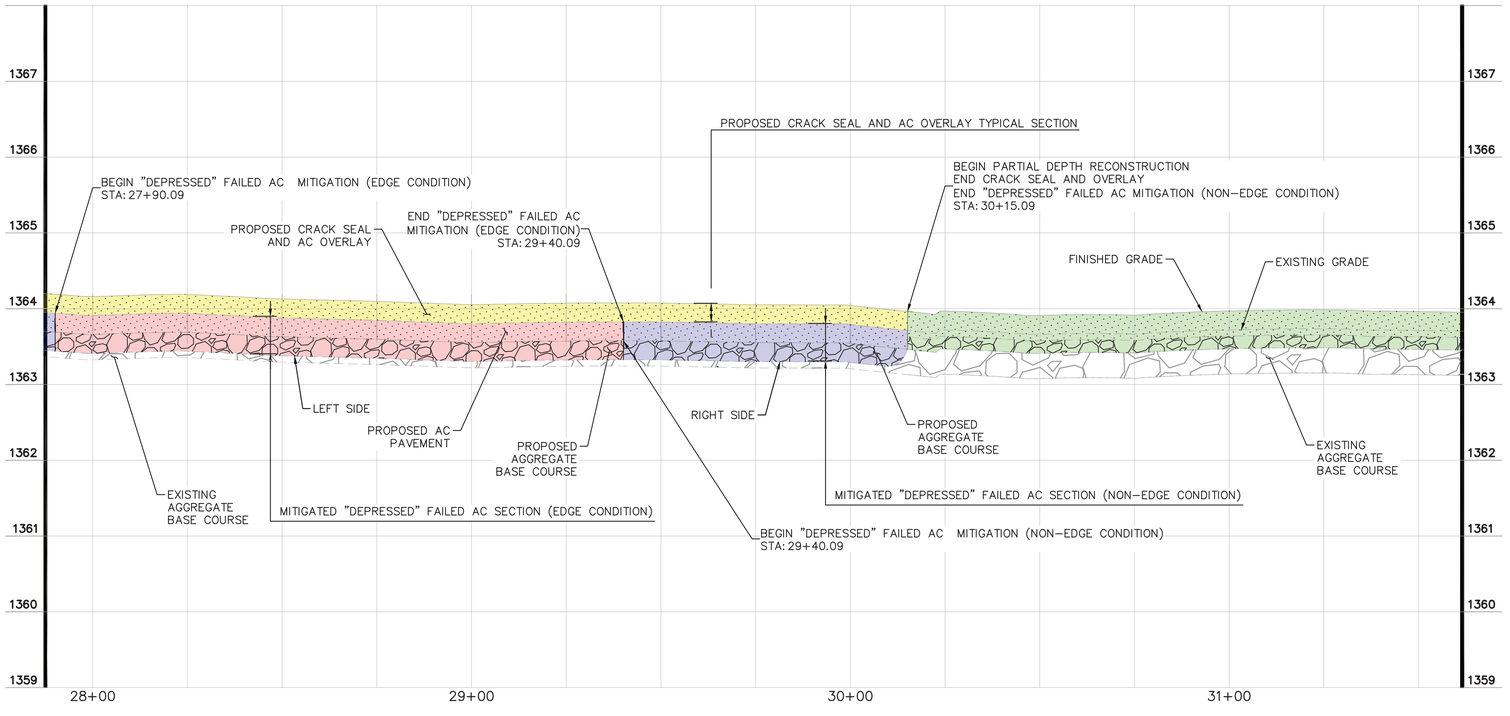

LEGEND

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- AC PAVEMENT FULL RECONSTRUCTION (4" AC OVER, 6" ABC)
- AC PAVEMENT TRANSITION TIE-IN ZONE
- SALVAGED AC MILLINGS
- CRACK SEAL AND SEAL COAT & AC OVERLAY (3" DEPTH)
- FAILED "DEPRESSED" AC SECTION MITIGATION (EDGE)
- FAILED "DEPRESSED" AC SECTION MITIGATION (NON-EDGE)

GENERAL NOTES:

1. ALL STATION/OFFSET LABELS REFER TO THE PROPOSED "VSR" ALIGNMENT.
2. SEE SHEET C1.5 FOR CENTERLINE ALIGNMENT DEFINITION.
3. REFER TO SHEETS C4.1 TO C4.4 FOR PROJECT DETAILS.
4. REFER TO SHEETS C5.1 TO C5.2 FOR GEOMETRIC LAYOUT.

CONSTRUCTION NOTES

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2. PROTECT IN PLACE
3. CRACK SEAL EXISTING TYPE 2 & 3 CRACKS PER MITIGATION METHODS SHOWN IN DETAILS 4 & 5, SHEET C4.1
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GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

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ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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NO.	REVISION	BY	DATE

FIRM'S NAME

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil)
61904
JOSEPH M. MOSCATELLO
Date Signed
ARIZONA, U.S.A.
Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 27+75.00 TO 31+50.00

PROJECT NO.
191500308
FILE NO.
191500308 - PP
C6.5
SHEET 22 of 31
CATALOG NO.
A309212

K:\EAV_Avition\191500308 - Rehabilitate West VSR\CADD\191500308 - PP.dwg Apr 08, 2026 Brod.Nisbet
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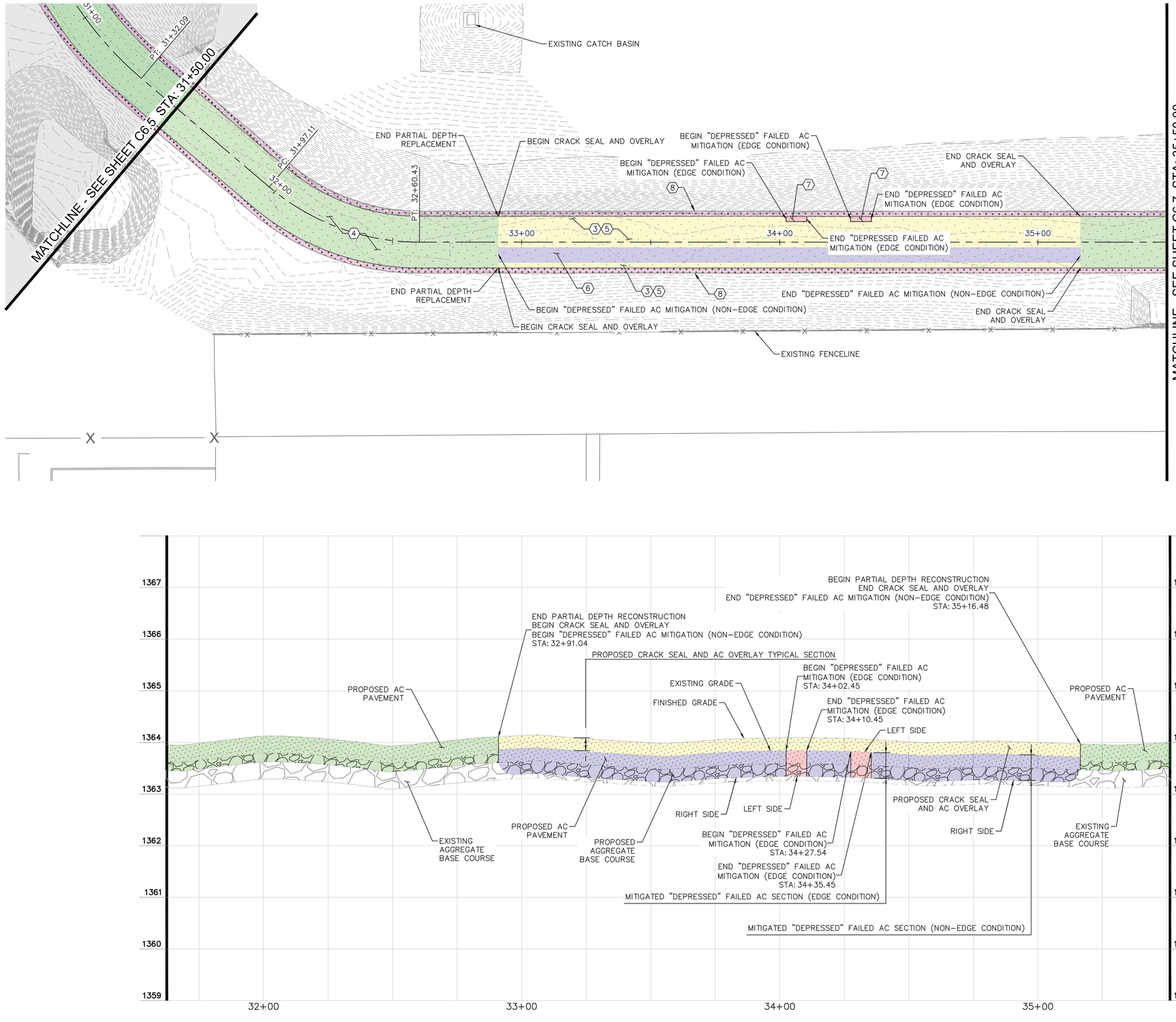

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GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

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KIMLEY–HORN AND ASSOCIATES, INC.
2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207–2666

FIRM'S SEAL
Registered Professional Engineer (Civil)
CERTIFICATE NO. 61904
Brad Nisbet
ARIZONA, USA
Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NCW
Approved by JMM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 31+50.00 TO 35+50.00

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FALCON FIELD AIRPORT
CITY OF MESA
4800 E. FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NO.
191500308
FILE NO.
191500308 - PP
C6.6
SHEET 23 of 31
CATALOG NO.
A309213

K:\EAV_Avition\191500308 – Rehabilitate West VSR\CADD\191500308 – PP.dwg Apr 08, 2026 Brad.Nisbet
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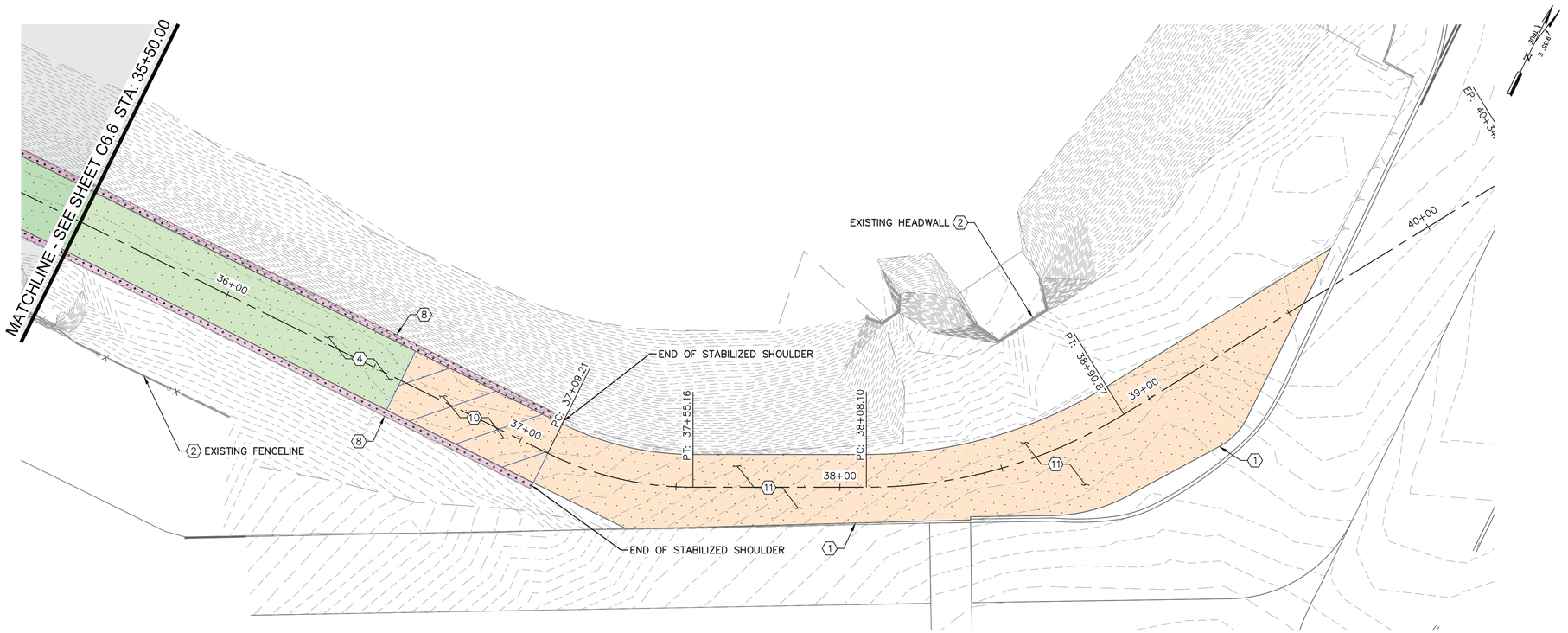

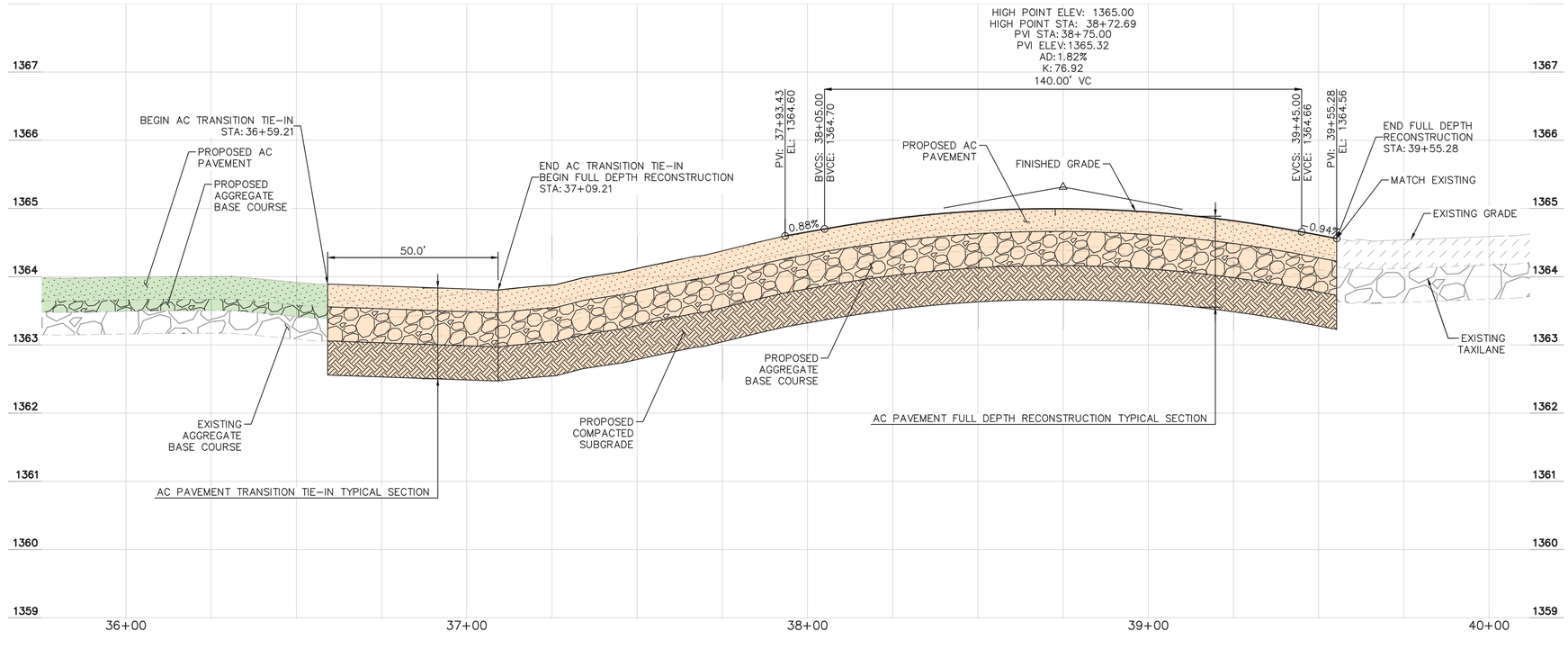

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GRAPHIC SCALE
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(IN FEET)

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2046 Riverview Auto Dr, SUITE 400
Mesa, Arizona 85210 (480) 207-2666

FIRM'S SEAL

Registered Professional Engineer (Civil) 61904 MICHAEL J. MOSER Date Signed 04/08/26 ARIZONA, USA Expires 09/30/2027

SCALE
Horiz. 1" = 20'
Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by BPN
Checked by NGW
Approved by JMM

mesa·az
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CITY OF MESA
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MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

PLAN AND PROFILE
STA 35+50.00 TO 40+34.05

PROJECT NO.
191500308

FILE NO.
191500308 - PP

C6.7

SHEET 24 of 31

CATALOG NO.
A309214

K:\EAV_Avition\191500308 - Rehabilitate West VSR\CADD\191500308 - PP.dwg Apr 08, 2026 Brod.Nisbet
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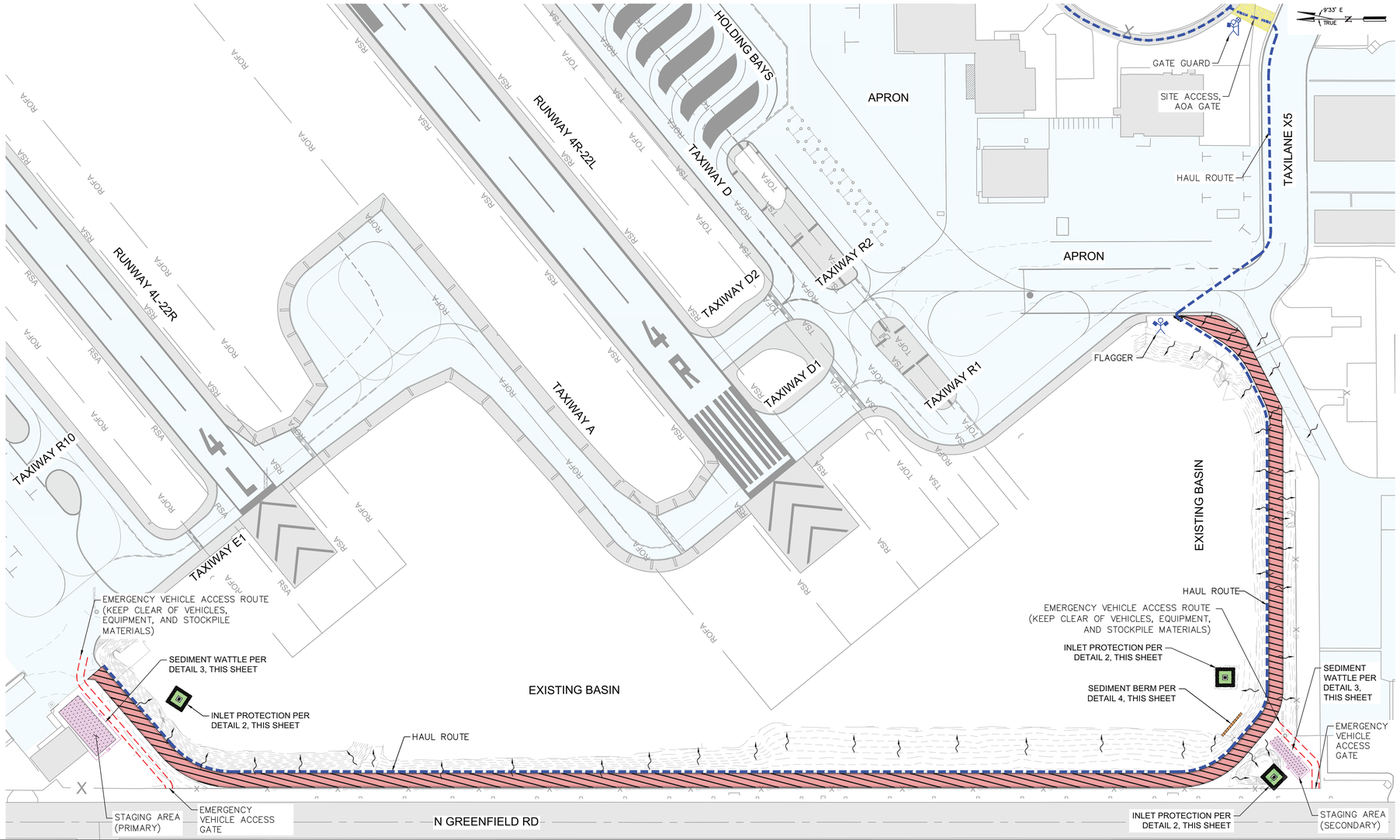


LEGEND

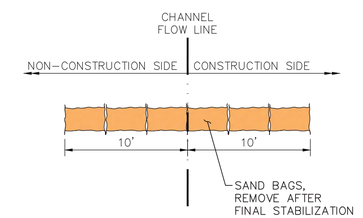
- PROJECT AREA
- STAGING AREA
- FLOW DIRECTION ARROW FOR ONSITE RUNOFF
- SEDIMENT BERM PER DETAIL 4, THIS SHEET
- HAUL ROUTE/SITE ACCESS
- EMERGENCY ACCES ROUTE
- INLET PROTECTION PER DETAIL 2, THIS SHEET
- VEHICLE TRACKING PAD SEE DETAIL 1 THIS SHEET
- SEDIMENT WATTLE PER DETAIL 3 THIS SHEET

GENERAL NOTES:

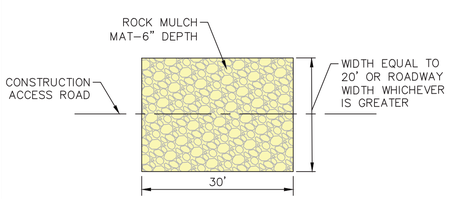
1. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM PAVED AREAS.
2. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A SPILL PREVENTION AND RESPONSE PLAN, REFER TO ITEM C-102.
3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING STANDARDS ON SITE, REFER TO ITEM C-102.
4. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A DUST CONTROL PLAN AND OBTAINING AND ADHERING TO THE PROVISIONS OF REQUIRED MARICOPA COUNTY CLEAN AIR STANDARDS.
5. THE CONTRACTOR SHALL INSTALL INLET PROTECTION AT ALL DRAINAGE DISCHARGE POINTS WITHIN THE CONSTRUCTION AREA AND STAGING AREA. THE PLACEMENT AND QUANTITY WILL BE DETERMINED BY THE CONTRACTOR AS SHOWN ON THEIR STORM WATER POLLUTION PREVENTION PLAN.

APPROXIMATE PROJECT LIMITS:

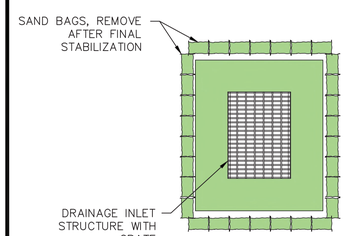
1. 1.58 ACRES



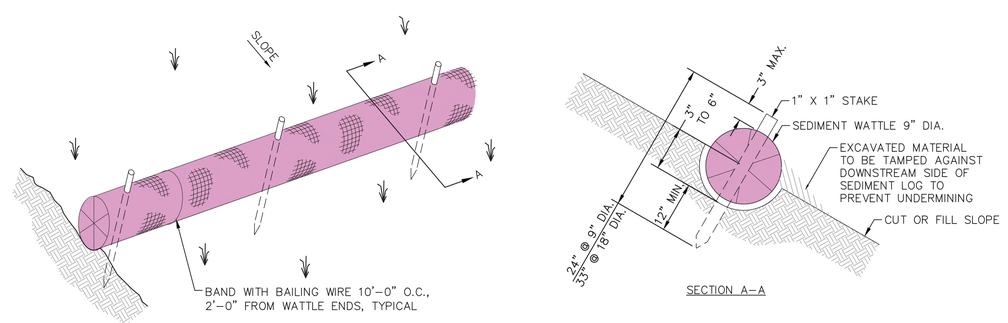
4 C7.1 SEDIMENT BERM
N.T.S.



1 C7.1 VEHICLE TRACKING CONTROL PAD
OR APPROVED ALTERNATE
N.T.S.



2 C7.1 INLET PROTECTION
N.T.S.



3 C7.1 SEDIMENT WATTLE INSTALLATION
N.T.S.

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)

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Registered Professional Engineer (Civil) CERTIFICATE NO. 61904 JAMES M. MCNEILL Licensed in the State of ARIZONA Expires 09/30/2026

SCALE
Horiz. 1" = 100'
Vert. N/A

Date	04/08/2026
Designed by	JMM / JZ
Drawn by	NCW
Checked by	JMM
Approved by	JMM

PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR
STORMWATER POLLUTION PREVENTION PLAN

mesa·az
FALCON FIELD AIRPORT
CITY OF MESA
4800 FALCON DRIVE
MESA, ARIZONA 85215
480-644-2450
FALCONFIELDAIRPORT.COM

PROJECT NO. 191500308
FILE NO. 191500308 - SWM
C7.1
SHEET 25 of 31
CATALOG NO. A309215

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GH-1 GH-1: Chemical Management

DEFINITION

Chemical management includes the proper labeling, handling, storage and disposal of chemical products.

GENERAL INFORMATION
Applicability - Effectiveness Inlet Drain Protection - high Debris Management, Cleanup, and Washout - moderate Equipment Storage/Maintenance - high
Most effective when used with: Protect excavated areas before runoff enters by using: GH-2 Solid Waste Management GH-3 Equipment Maintenance Procedures GH-5 Spill Containment Plan
Alternative BMPs: None

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation		X	
Maintenance		X	
Training		X	
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease	X		
Nutrients	X		
Sediment			X
Floatable Material			X
Metals	X		
Other Construction Waste	X		

FIGURES
Photos/Sketches
GH-1 Chemical Management Photos
CAD Drawings
None

PURPOSE

Proper chemical management prevents, or at least minimizes stormwater runoff from being polluted through spills or other forms of contact. It is not intended to supercede or replace normal site assessment and remediation procedures.

APPROPRIATE APPLICATIONS

Chemical management practices, along with the applicable OSHA, DOT, and EPA guidelines, should be incorporated at all construction sites that use or generate potentially hazardous wastes. Target chemicals include:

- Paints, solvents, and stains
- Wood preservatives
- Fuel, lube oils, grease, and cutting oils
- Roofing tar
- Pesticides, herbicides, and fertilizer
- Antifreeze

LIMITATIONS

- Chemical management practices are not intended to address site-assessments and pre-existing soil and water contamination. Major contamination and large spills require immediate response from spill-response personnel.
- Demolition activities and potential pre-existing materials, such as lead-based paint and asbestos in building materials, are not addressed by this practice.
- Chemical management practices cover general procedures and are not intended for products and uses that may require additional safeguards.

RECOMMENDED STANDARDS AND SPECIFICATIONS

The best method for controlling chemical pollution is to provide adequate controls at the point of storage and use. The following recommendations are intended to prevent, and/or minimize contamination of runoff:

Storage and Labeling Procedures

- Where possible, cover stockpiled materials indoors or with a temporary roof structure. Do not allow water to pond around stored drums.

- Do not pinch a drum with a forklift when unloading or moving.
- If moving multiple drums (i.e. on a pallet), make sure they are held together with shrink wrap or a steel band.
- Mark any damaged containers.
- Do not store chemicals, drums, and bagged materials directly on the ground. Use secondary containment platforms or wooden pallets.
- Provide spill containment dikes around chemical and fuel storage tanks. Line with plastic film to prevent soil contamination.
- When possible, keep chemical products in their original containers, bungs on lids closed (except during use), and labeled in accordance with DOT and EPA regulations. Use proper devices to transfer chemicals from one container to another.
- Containment areas that have collected precipitation should not be drained until the site supervisor has ensured that the drainage will not contaminate surrounding soil.

Waste Handling and Disposal Procedures

- Ensure that adequate hazardous waste storage space is available, hazardous waste collection containers are conveniently located, and that adequate cleanup and containment materials are available onsite.
- Store hazardous wastes in an appropriate type of container and properly labeled per EPA, OSHA, and DOT regulations.
- Consult with the local municipality jurisdiction as to whether wash up water from water-based paints may go into a sanitary sewer.
- Regularly dispose of oil-based paints, solvents, thinners, and mineral spirits through a licensed waste management firm.
- Follow the recommendations of the manufacturer to dispose of construction chemicals such as curing compounds, form releases, etc.
- Follow the manufacturer's instructions regarding the intended use, protective equipment, ventilation, flammability, and mixing of chemicals.

The effectiveness of chemical management is enhanced when the following BMPs are also implemented: Solid Waste Management, Equipment Maintenance Procedures, and Spill Containment Plan

RECOMMENDED MAINTENANCE AND INSPECTION

Various components of a Chemical Management program must be continually maintained and revised:

Educating workers

- Safety procedures for proper construction site chemical storage and management.
- Identification of potential sources of chemical pollutants.
- Spill prevention and response procedures.
- Potential dangers to humans and the environment from chemical pollutants.
- Establish a continuing education program to educate new employees.

Quality Assurance

- Foreman and/or construction supervisor should monitor onsite chemical storage and disposal procedures.
- Educate and if necessary, retain and/or discipline workers who violate procedures.
- Ensure the hazardous waste disposal contractor is reputable and licensed.

Emergency Response Plan

As specified by the local Fire Department, revisions may be necessary to the Protected Chemical and Materials Storage Area Plan during the course of construction based upon materials to be stored on site.

If a spill occurs which equals or exceeds the reportable quantity (RQ) for a 24-hour period as defined by the EPA in 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302, then:

- Report spill to the National Response Center, 1-800-424-8802, within 24 hours. Also notify the Arizona Emergency Response Commission and the Maricopa County Emergency Management Department.
- Revise the Stormwater Pollution Prevention Plan (SWPPP) to show corrective actions.
- Notify local EPA Region IX office within 14 days.

POST CONSTRUCTION METHODS

If hazardous materials are stored onsite after the development is completed, proper chemical management procedures and structures should be maintained.

REFERENCES

Tacoma Public Works Environmental Services, January 1993, City of Tacoma Surface Water Management Manual Volume II, Construction Stormwater Pollution Prevention. http://www.cityoftacoma.org/Page.aspx?hid=951#manual

CALTRANS, State of California Department of Transportation, March 2003, Construction Site Best Management Practices (BMPs) Manual. http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

North Central Texas Council of Governments, December 2003, integrated Storm Water Management (ISWM) Design Manual for Construction.

Washington Department of Ecology, August 2001, Stormwater Management Manual for Western Washington, Publications #99-11 through 99-15.

Smolen, M.D., September 1988, North Carolina Erosion and Sediment Control Planning and Design Manual, North Carolina Sediment Control Commission, et al.

GH-1 Chemical Management Photos

Secondary drum containment platform.

Courtesy of Interstate Products, Inc.

Secondary drum containment covered storage.

Courtesy of Interstate Products, Inc.

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Vert. N/A

Date 04/08/2026
Designed by JMM
Drawn by JZ
Checked by NCW
Approved by JMM

PROJECT NAME
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REHABILITATE WEST VSR

SWPPP DETAILS
SHEET 1 OF 6

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PROJECT NO. 191500308
FILE NO. 191500308 - SWDT
C7.2
SHEET 26 of 31
CATALOG NO. A309216

GH-2 GH-2: Solid Waste Management

DEFINITION

The routine collection, recycling, and disposal of accumulated solid waste generated at the construction site.

GENERAL INFORMATION
Applicability - Effectiveness Debris Management, Cleanup, and Washout - moderate Trash Collection/Management - high
Most effective when used with: GH-1: Chemical Management GH-3: Equipment Maintenance Procedures GH-5: Spill Containment Plan
Alternative BMPs: None

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation		X	
Maintenance		X	
Training		X	
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease			X
Nutrients		X	
Sediment			X
Floatable Material	X		
Metals	X		
Other Construction Waste	X		

FIGURES
Photos/Sketches Solid Waste Management Photos
CAD Drawings None

PURPOSE

Solid waste is one of the major pollutants caused by construction activities. By limiting the trash and debris on site and through proper disposal methods, stormwater quality is improved and there is reduced clean up at the completion of a project.

APPROPRIATE APPLICATIONS

Proper solid waste management is applicable to all construction activities. Solid wastes include, but are not limited to:

- Construction wastes including plastic, glass, rubber, brick, mortar, timber, steel and metal scraps, sawdust, pipe and electrical cuttings, non-hazardous equipment parts, Styrofoam and other materials used to transport and package construction materials, materials from the demolition of structures. Highway planting wastes, including vegetative material, plant containers, and packaging materials.
- Domestic waste products, including sanitary wastes, food containers, beverage cans, coffee cups, paper bags, plastic wrappers, cigarettes, and litter generated by the public.

LIMITATIONS

- Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.
- This practice only applies to non-hazardous solid waste.

RECOMMENDED STANDARDS AND SPECIFICATIONS

Education

- Site supervisor or other designated personnel should oversee and enforce proper solid waste procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste, solid waste storage and disposal procedures. Require that employees and subcontractors follow solid waste handling and storage procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Prohibit littering by employees, subcontractors, and visitors.
- Wherever possible, minimize production of solid waste materials.

Collection, Storage, and Disposal

- Covered dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project operations.
- Prevent clogging of the storm drainage system by removing litter and debris from drainage grates, trash racks, and ditch lines.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Construction debris and litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Full dumpsters should be removed from the project site.
- Litter stored in collection areas and containers should be handled and disposed of by trash hauling contractors every two weeks or more frequently, if necessary. Notify trash hauling contractors that only watertight dumpsters are acceptable for use onsite. Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Stormwater runoff should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures.
- Solid waste storage areas should be located more than 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Dumpster washout on the project site is not allowed.
- Keep the site clean of litter debris.

Hazardous Waste Management

- Segregate potentially hazardous waste from non-hazardous construction site waste. Make sure that toxic liquid wastes (e.g., used oils, solvents, and paints) and chemicals (e.g., acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris. For disposal of hazardous waste, see Chemical Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.

Recycling

- Salvage or recycle useful vegetation debris, packaging and/or surplus building materials when practical. For example, trees and shrubs from land clearing can be converted into

wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Sanitary Waste Management

- Educate employees, subcontractors, and suppliers on sanitary/septic waste storage and disposal procedures and potential dangers to humans and the environment from sanitary/septic wastes.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings) and to educate new employees.
- Locate portable toilets a minimum of 20 feet away from storm drain inlets, drainage facilities, watercourses, and from traffic circulation. If unable to meet the 20-foot distance requirement, provide secondary containment for portable toilets.
- Properly connect temporary sanitary facilities that discharge to the sanitary sewer system to avoid illicit discharges. Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, should comply with the local health agency, city, county, and sewer district requirements.
- If using an onsite disposal system, such as a septic system, comply with local health agency requirements.
- Ensure that sanitary/septic facilities are maintained in good working order by a licensed service. Use only reputable, licensed sanitary/septic waste haulers.

The effectiveness of solid waste management is enhanced when the following BMPs are also implemented: Chemical Management, Equipment Maintenance Procedures, and Spill Containment Plan.

RECOMMENDED MAINTENANCE AND INSPECTION

- Onsite trash should be collected and disposed of on a regular basis. Sanitary systems should also be regularly serviced.
- Repair trash containers and dumpsters on an as needed basis. Where possible provide cover for waste containers to prevent the entry of rainwater and loss of contents by wind.
- Maintain a contingency plan in the case that hazardous or toxic materials are discovered onsite.

POST CONSTRUCTION METHODS

Long term solid waste practices should be implemented (i.e. dumpsters, and regular trash pick-ups, etc.)

REFERENCES

North Central Texas Council of Governments, December 2003, integrated Storm Water Management (iSWM) Design Manual for Construction.

Washington Department of Ecology, August 2001, Stormwater Management Manual for Western Washington, Publications #99-11 through 99-15.

GH-2 Solid Waste Management Photos

Separate out different wastes from each other for recycling.

Place signage on the dumpster to prevent improper disposal of hazardous wastes.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

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SWPPP DETAILS
SHEET 2 OF 6

PROJECT NO.
191500308
FILE NO.
191500308 - SWDT
C7.3
SHEET 27 of 31
CATALOG NO.
A309217

GH-3: Equipment Maintenance Procedures

DEFINITION

Establish a program of equipment maintenance procedures, which will reduce contamination of onsite soils.

GENERAL INFORMATION

Applicability - Effectiveness
Equipment Storage/Maintenance - high
Debris Management, Cleanup, and Wash-out- moderate
Trash Collection/Management - moderate

Most effective when used with:

GH-1: Chemical Management

GH-4: Designated Washdown Areas

GH-5: Spill Containment Plan

Alternative BMPs:

None

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation		X	
Maintenance		X	
Training		X	
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease	X		
Nutrients			X
Sediment			X
Floatable Material			X
Metals	X		
Other Construction Waste		X	

FIGURES

Photos/Sketches

Equipment Maintenance Procedures Photos

CAD Drawings

None

PURPOSE

Non-sediment stormwater pollution can occur through improper disposal of equipment fluids and disposables such as filters, batteries, and tires. An established program of maintenance procedures can prevent job site pollution and contamination of stormwater.

APPROPRIATE APPLICATIONS

These procedures are applied on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles. Perform equipment maintenance, if possible, back at the maintenance shop.

LIMITATIONS

None identified.

RECOMMENDED STANDARDS AND SPECIFICATIONS

- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- All maintenance areas are required to have spill kits and/or use other spill protection devices.
- Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Absorbent spill clean-up materials should be available in maintenance areas and should be disposed of properly after use. Substances used to coat asphalt transport trucks and asphalt spreading equipment should be non-toxic.
- Use offsite maintenance facilities whenever practical.
- For long-term projects, consider constructing roofs or portable tents over maintenance areas.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials. Do not dump fuels and lubricants onto the ground, place used oil in a dumpster, or pour into a storm drain or watercourse. Repair fluid and oil leaks immediately. Provide spill containment dikes or secondary containment around stored oil and chemical drums.
- Properly dispose or recycle used batteries.

The effectiveness of equipment maintenance procedures is enhanced when the following BMPs are also implemented: GH-1: Chemical Management, GH-4: Designated Washdown Areas and GH-5: Spill Containment Plan.

RECOMMENDED MAINTENANCE AND INSPECTION

- Maintain waste fluid containers in leak proof condition.
- Vehicle and equipment maintenance areas should be inspected regularly.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

POST CONSTRUCTION METHODS

None.

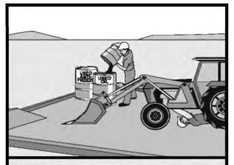
REFERENCES

CALTRANS, State of California Department of Transportation, March 2003, Construction Site Best Management Practices (BMPs) Manual.
http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

U.S. Environmental Protection Agency, December 1999, Construction Site Storm Water Runoff Control, National Menu of Best Management Practices for Storm Water Phase II.
http://cfpub2.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm

Washington Department of Ecology, August 2001, Stormwater Management Manual for Western Washington, Publications #99-11 through 99-15.

GH-3 Equipment Maintenance Procedures Photos



Schematic of used oil containment.

Courtesy of CALTRANS

Enclosed area maintenance.

Courtesy of EPA

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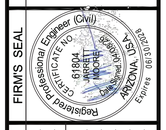

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SHEET 28 of 31

CATALOG NO.
A309218

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GH-4 GH-4: Designated Washdown Areas

DEFINITION

Procedures and practices that are designed to minimize or eliminate the discharge of concrete waste materials to the storm drain systems of watercourses.

GENERAL INFORMATION
Applicability - Effectiveness Inlet Drain Protection - high Debris Management, Cleanup, and Washout - high
Most effective when used with:
GH-1: Chemical Management
GH-3: Equipment Maintenance Procedures
GH-5: Spill Containment Plan
Alternative BMPs:
None

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation		X	
Maintenance		X	
Training		X	
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease		X	
Nutrients			X
Sediment			X
Floatable Material			X
Metals		X	
Other Construction Waste	X		

FIGURES
Photos/Sketches
GH-4 Designated Washdown Areas Photos
CAD Drawings
None

PURPOSE

Designated washout areas and associated procedures ensure the proper washout of concrete trucks, tools, and equipment and prevents fresh concrete or cement laden mortar from entering a storm drainage system.

APPROPRIATE APPLICATIONS

Concrete waste management procedures and practices are implemented on construction projects where concrete is used as a construction material or where concrete dust and debris result from demolition activities.

- Where slurries containing Portland cement concrete (PCC) or asphalt concrete (AC) are generated, such as from sawcutting, coring, grinding, grooving, and hydro-concrete demolition.
- Where mortar-mixing stations exist.
- Where concrete trucks and other concrete-coated equipment are washed on site. See also Equipment Maintenance Procedures.

LIMITATIONS

None.

PLANNING CONSIDERATIONS

- Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.
- The site supervisor or designated personnel should oversee and enforce concrete waste management procedures.

The effectiveness of washdown areas may be enhanced when the following BMPs are also implemented: Chemical Management, Equipment Maintenance Procedures, and Spill Containment Plan.

RECOMMENDED STANDARDS AND SPECIFICATIONS

PCC and AC Wastes

- PCC and AC waste should not be allowed to enter storm drains or watercourses. Instead, PCC and AC waste should be collected and properly disposed of outside the highway right-of-way or placed in a temporary concrete washout structure.
- Install a sign adjacent to each temporary concrete washout structure to inform concrete equipment operators to utilize the installed structures.

- A foreman and/or construction supervisor should monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Saw cutting residue should not be allowed to flow across the pavement, and should not be left on the surface of the pavement. Vacuum slurry residue and dispose in a temporary facility and allow slurry to dry. Dispose of dry slurry residue in accordance with GH-2: Solid Waste Management.
- Similarly, residue from grinding operations should be picked up by means of a vacuum attachment to the grinding machine.

Onsite Temporary Concrete Washout Facility Procedures

- Temporary concrete washout facilities should be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses, unless determined infeasible by the site supervisor. Each facility should be located away from construction traffic or access areas to prevent disturbance or tracking.
- Temporary concrete washout facilities should be constructed above grade or below grade at the option of the contractor and have sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Perform washout of concrete mixer trucks in designated areas only. A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Wash concrete only from mixer truck chutes into approved concrete washout facility. Washout may be collected in an impermeable bag for disposal.

Above Grade Temporary Concrete Washout Structure

- Above grade temporary concrete washout structures should have a minimum length and width of 10 feet or larger to provide sufficient volume to contain all liquid and concrete waste generated by washout operations. If deemed necessary, the length and width of the washout structure may be expanded for more capacity.
- Straw bales, wood stakes, and sandbag materials should conform to the specifications in SPC-1: Organic Filter Barrier and SPC-2: Sand Bag Barrier.
- Plastic lining material should be a minimum of 10-mil polyethylene sheeting and should be free of holes, tears or other defects that compromise the impermeability of the material.

Below Grade Temporary Concrete Washout Structure

- Below grade temporary concrete washout should have a minimum length and width of 10 feet or larger to provide sufficient volume to contain all liquid and concrete

waste generated by washout operations. If deemed necessary, the length and width of the washout structure may be expanded for more capacity.

- Plastic lining material should be a minimum of 10-mil polyethylene sheeting and should be free of holes, tears or other defects that compromise the impermeability of the material.
- Ensure that the soil base is free of rocks or other debris that may cause tears or holes in the plastic lining material.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, as determined by the site supervisor, hardened concrete should be broken up, removed, and disposed of in accordance with GH-2: Solid Waste Management.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled.

RECOMMENDED MAINTENANCE AND INSPECTION

- Monitor on site concrete waste storage and disposal procedures at least weekly.
- Monitor concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are employed.

POST CONSTRUCTION METHODS

None.

REFERENCES

CALTRANS, State of California Department of Transportation, March 2003, Construction Site Best Management Practices (BMPs) Manual. http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

U.S. Environmental Protection Agency, December 1999, Construction Site Storm Water Runoff Control, National Menu of Best Management Practices for Storm Water Phase II. http://cfpub2.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm

North Central Texas Council of Governments, December 2003, integrated Storm Water Management (iSWM) Design Manual for Construction.

Washington Department of Ecology, August 2001, Stormwater Management Manual for Western Washington, Publications #99-11 through 99-15.

GH-4 Designated Washdown Areas Photos

Concrete washout container.

Courtesy of Concrete Washout Systems, Inc.

Concrete washout area.

Courtesy of Douglas County

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FIRM'S SEAL

Registered Professional Engineer (Civil) CERTIFICATE NO. 61904 JAMES M. MCNEILL Date Signed 04/08/26 ARIZONA, U.S.A. Expires 09/30/2027

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SHEET 4 OF 6

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SHEET 29 of 31

CATALOG NO.
A309219

GH-5 GH-5: Spill Containment Plan

DEFINITION

An emergency plan to contain spills of dangerous, hazardous, or toxic wastes which mitigates environmental damage and provides prompt notice to proper authorities.

GENERAL INFORMATION
Applicability - Effectiveness Inlet Drain Protection - high Debris Management, Cleanup, and Washout - high
Most effective when used with:
GH-1: Chemical Management
GH-3: Equipment Maintenance Procedures
GH-4: Designated Washdown Areas
Alternative BMPs:
None

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation		X	
Maintenance			X
Training		X	
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease	X		
Nutrients			X
Sediment			X
Floatable Material			X
Metals		X	
Other Construction Waste		X	

FIGURES
Photos/Sketches
GH-5 Spill Containment Plan Photos
CAD Drawings
None

PURPOSE

These procedures and practices are implemented to prevent and control spills in a manner that minimizes or prevents the discharge of spilled material to the drainage system or watercourses.

APPROPRIATE APPLICATIONS

This best management practice (BMP) applies to all construction projects. Spill control procedures are implemented any time chemicals and/or hazardous substances are stored. Substances may include, but are not limited to:

- Soil stabilizers/binders.
- Dust Palliatives.
- Herbicides.
- Growth inhibitors.
- Fertilizers.
- Deicing chemicals.
- Fuels.
- Lubricants.
- Other petroleum distillates.
- Sanitary and septic wastes.

To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110, 117, and 302.

LIMITATIONS

- The procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite.
- This BMP only applies to *emergency* spill response. Refer to Chemical Management for proper storage, use, and disposal of dangerous, hazardous, and toxic wastes that should be observed at all times to minimize the potential for a spill.

PLANNING CONSIDERATIONS

Education

- Educate employees and subcontractors on what a significant spill is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings) and establish a program to instruct new employees.

Spill Response Procedures

- Significant/Hazardous Spills - for significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
  - Immediately notify the following:
    - Site supervisor and follow up with a written report.
    - Local emergency response (Fire department).
    - A spills contractor or a Haz-Mat team immediately. Construction personnel should not attempt to clean up the spill until the appropriate and qualified staff have arrived at the job site.
    - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center (see contact number in table below).
  - Any applicable divisions within ADEQ should also be contacted. Notification should first be made by telephone and followed up with a written report.

Agency	Situation	Phone
Arizona Department of Environmental Quality (ADEQ) -Emergency Response Unit	**Emergency**	**602-771-2330 800-234-5677**
Arizona Department of Environmental Quality (ADEQ) -Emergency Response Unit	**Routine Business**	**602-771-4106 602-771-4155**
National Response Center	**Emergency**	**800-424-8802**
Local Fire Department/District	**Emergency**	**911**

Other ADEQ Contact Numbers	
ADEQ front desk	602-771-2300
Air Quality Division	602-771-2308
Waste Programs Division	602-771-4209
Pollution Prevention/TRI	602-771-4235
Water Quality Division	602-771-2306
Stormwater	**602-771-4574**

Post Spill Response Procedures

- Spills should not be buried or washed with water.
- Used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose should be stored and disposed of in conformance with the special provisions.
- Water used for cleaning and decontamination should not be allowed to enter storm drains or watercourses and should be collected and disposed of in accordance with GH-1: Chemical Management. Water overflow or minor water spillage should be contained and should not be allowed to discharge into drainage facilities or watercourses.
- Proper storage, clean-up and spill reporting instruction for hazardous materials stored or used on the project site should be posted at all times in an open, conspicuous and accessible location.
- Waste storage areas should be kept clean, well organized and equipped with ample clean-up supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers and liners should be repaired or replaced as needed to maintain proper function.

The effectiveness of spill containment is enhanced when the following BMPs are also implemented: GH-1: Chemical Management, GH-3: Equipment Maintenance Procedures, and GH-4: Designated Washdown Areas.

RECOMMENDED MAINTENANCE AND INSPECTION

- Comply with suggestions and requirements set by local fire department.
- Verify weekly that spill control clean up materials are located near material storage, unloading, and use areas. Restock appropriate clean-up materials after a spill incident has occurred.

- Update spill prevention and control plans and stock appropriate clean-up materials whenever changes occur in the types of chemicals used or stored onsite, or after a spill incident has occurred.

POST CONSTRUCTION METHODS

None.

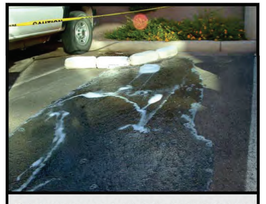
REFERENCES

Tacoma Public Works Environmental Services. January 1993, City of Tacoma Surface Water Management Manual Volume II, Construction Stormwater Pollution Prevention.
http://www.cityoftacoma.org/Page.aspx?hid=951#manual

CALTRANS, State of California Department of Transportation, March 2003, Construction Site Best Management Practices (BMPs) Manual.
http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

U.S. Environmental Protection Agency, December 1999, Construction Site Storm Water Runoff Control, National Menu of Best Management Practices for Storm Water Phase II.
http://cfpub2.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm

GH-5 Spill Containment Plan Photos



Provide temporary inlet protection against any spills approaching drain inlets to a stormwater collection system.

Absorbent snakes can be used to protect storm drains from spills.

Courtesy of Stormwater 911

Containing leaks from equipment

Courtesy of Stormwater 911

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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JOSEPH M. MEIER
Date Signed 08/31/2026
ARIZONA, U.S.A.
Expires 08/31/2026

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Vert. N/A

Date 04/08/2026
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Drawn by JZ
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PROJECT NAME
FALCON FIELD AIRPORT
REHABILITATE WEST VSR

SWPPP DETAILS
SHEET 5 OF 6

PROJECT NO.
191500308
FILE NO.
191500308 - SWDT
C7.6
SHEET 30 of 31
CATALOG NO.
A309220

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SPC-7 SPC-7: Storm Drain Inlet Protection

DEFINITION

A variety of methods of intercepting sediment at low point inlets through the use of stone, filter fabric, inlet inserts, and other materials. This is normally located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in stormwater.

GENERAL INFORMATION
Applicability - Effectiveness Inlet Drain Protection - high Channels and Medians - high Perimeter and Access Controls - high
Most effective when used with: An Erosion Control (EC) BMP
Alternative BMPs: SPC-1 Organic Filter Barrier SPC-2 Sand Bag Barrier SPC-3 Gravel Filter Berms SPC-5 Silt Fence

RATINGS			
Associated Costs	**H**	**M**	**L**
Implementation	X		
Maintenance	X		
Training			X
Target Pollutants Removal	**H**	**M**	**L**
Oil and Grease			X
Nutrients			X
Sediment		X	
Floatable Material		X	
Metals			X
Other Construction Waste			X

FIGURES
Photos/Sketches
SPC-7 Storm Drain Inlet Protection Photos
CAD Drawings
Filter Fabric Fence Drop Inlet Filter
Curb Inlet Protection

PURPOSE

Storm drain inlet protection measures prevent soil and debris from site erosion from entering storm drain drop inlets and clogging them. Typically, these measures are temporary controls that are implemented prior to large-scale disturbance of the surrounding site. The early use of storm drains during project development significantly reduces the occurrence of future erosion problems.

APPROPRIATE APPLICATIONS

Storm drain inlet protection is appropriate where storm drain inlets are to be made operational before permanent stabilization of the disturbed drainage area. There are a variety of types of structures that are applicable to different conditions:

- Filter Fabric Fence – applicable where the inlet drains a relatively small (less than 1 acre) flat area (less than 5 percent slope). Intended for relatively low flows.
- Excavated Drop Inlet Sediment Trap – intended for relatively high flows. An excavated drop inlet trap provides protections against sediment entering a storm drain inlet can be provided by excavating an area in the approach to the drain. The excavation volume should be approximately 1800 to 3600 cubic feet per acre of disturbed area drained.
- Block and Gravel Protection – used when the flows exceed 0.5 cubic feet per second (cfs) and it is necessary to allow for overtopping to prevent flooding around the inlet area.
- Foam or Fiber Roll Barriers - use for relatively low flows in areas where they can be anchored to the surface. Most appropriate for inlets on an unpaved surface.

LIMITATIONS

- Special caution should be exercised when installing inlet protection on publicly traveled streets or in developed areas.
- Inlet protection is only viable at low point inlets. Inlets that are on slope cannot be effectively protected because stormwater will bypass the inlet and continue downstream, causing an overload on downstream inlets.
- Ponding will occur at the inlet with possible short term flooding.
- Curb inlets on slopes cannot be effectively protected because the stormwater will bypass the inlet and continue downgrade.
- Filter fabric fences are limited to storm drain inlets for small drainage areas of five acres or less. Filter fabric fences are not appropriate in paved areas. For larger drainage areas, smaller sediment catchment areas are recommended.

PLANNING CONSIDERATIONS

Where storm sewers are made operational before their drainage area is stabilized, or where construction is adjacent to an existing storm sewer, large amounts of sediment may enter the storm sewer system. In cases of extreme sediment loading, the storm sewer itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

This practice contains several types of inlet filters and traps which have different applications dependent upon site conditions and type of inlet. Other innovative techniques for accomplishing the same purpose are encouraged, but only after specific plans and details are submitted to and approved by the local government.

RECOMMENDED STANDARDS AND SPECIFICATIONS

Install inlet protection in accordance with the following:

- Filter fabric fence: Place 2 inch by 2 inch wooden stakes around the perimeter of the inlet a maximum of 3 feet apart and drive them at least 8 inches into the ground. Excavate a trench approximately 8 inches wide and 12 inches deep around the outside perimeter of the stakes. Staple the filter fabric (for material specifications, see SPC-5: Silt Fence to wooden stakes so that 32 inches of the fabric extends out and can be formed into the trench. Use heavy-duty wire staples at least 1/2 inch in length. Backfill the entire trench with 3/4 inch or less washed gravel.
- Excavated Drop Inlet Sediment Trap: Construct the inlet trap as shown in the Storm Drain Drop Inlet Protection Drawing. Ensure that the excavation volume can contain approximately 1800 to 3600 cubic feet per acre of disturbed area.
- Gravel Bag Filter: If there is a high content of clays and silts, use filter fabric in conjunction with gravel for additional filtering capacity. Construct the gravel bag filter as specified by Gravel Filter Berms.
- Foam or Fiber Roll Barrier: Foam or fiber roll is placed around the inlet and must be anchored to the curb surface, so that it is not carried away by runoff flows.

RECOMMENDED MAINTENANCE AND INSPECTION

For systems using filter fabric, inspections should be made on a regular basis, especially after large storm events. If the fabric becomes clogged, it should be replaced. Sediment should be removed when it reaches approximately half the height of the fence. If an excavated inlet sediment trap is used, sediment should be removed when it fills approximately half the depth of the hole.

POST CONSTRUCTION METHODS

Following the completion of construction projects in residential and municipal areas, more permanent drop-inlet protection devices can be installed in storm drain inlets. The link under the Vendor Products section lists several different drop-inlet protection devices.

REFERENCES

Tacoma Public Works Environmental Services, January 1993, City of Tacoma Surface Water Management Manual Volume II, Construction Stormwater Pollution Prevention. http://www.cityoftacoma.org/Page.aspx?hid=951#manual

CALTRANS, State of California Department of Transportation, March 2003, Construction Site Best Management Practices (BMPs) Manual. http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

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Goldman, S.J., Jackson, K., and Bursztynsky, T.A., 1986, Erosion and Sediment Control Handbook, McGraw Hill Book Company.

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Smolen, M.D., September 1988, North Carolina Erosion and Sediment Control Planning and Design Manual, North Carolina Sediment Control Commission, et al.

SPC-7 Storm Drain Inlet Protection Photos

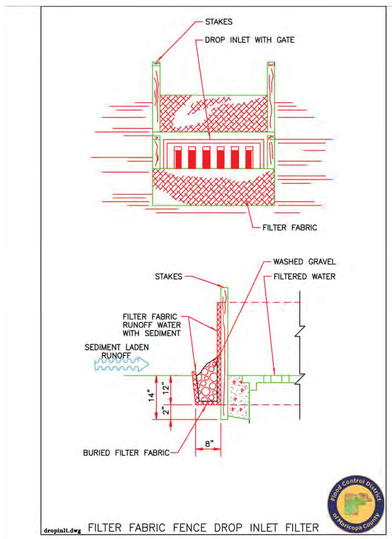
Coarse gravel and cinder blocks are often used to keep sediment and other pollutants out of storm drains.

Courtesy of EPA

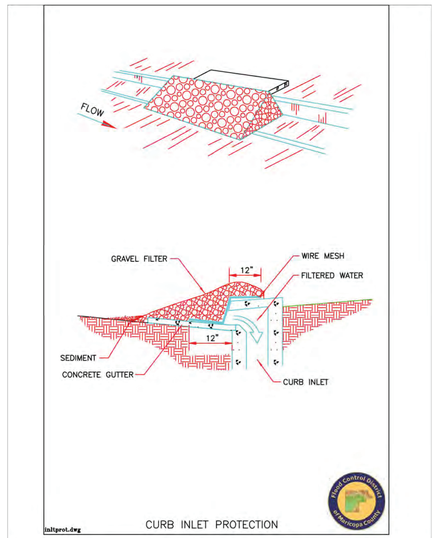
Gravel bag inlet drain protection.

Courtesy of California Regional Water Quality Board.

SPC-7 Storm Drain Drop Inlet Protection Drawing



SPC-7 Storm Drain Curb Inlet Protection Drawing



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