























Owner of the location of such sites. The CMAR is directed to Article 13.15 in the *General Conditions* for further information

### **30.02 CONSTRUCTION SCHEDULE**

The CMAR shall submit to the Owner for review, its proposed construction schedule within ten (10) calendar days from the date of award of the contract, see Article 3.11 of the *General Conditions* to the *CMAR Contract*. The contract time is based on the CMAR working seven (7) days per week except for Holidays. There will be no work without written authorization from the Owner, with the exception to vacuum sweeping to clean up of foreign object debris, as described in the following:

- a. The night shift prior to Thanksgiving Day;
  - b. All day on Thanksgiving Day;
  - c. The night shift on Thanksgiving Day;
  - d. All day on the day after Thanksgiving Day
  - e. The night shift the day after Thanksgiving Day
  - f. The night shift on Christmas Eve;
  - g. All day on Christmas Day;
  - h. The night shift on Christmas Day;
  - i. The night shift on New Year's Eve;
  - j. All day on New Year's Day;
  - k. The night shift on New Year's Day.
1. Arrange schedule to indicate required sequencing of work as outlined below and in the Contract Documents, and to indicate time allowances for submittals, inspections, and similar time margins.
  2. Schedule shall reflect CMAR's modifications and suggested revisions to work sequencing indicated in the Contract Documents. The Owner reserves the right to approve or disapprove such modifications or revisions.
  3. Review and recognition of this schedule shall not relieve the CMAR of responsibility for scheduling of the work and maintaining progress in accordance with the Contract Documents. Schedule shall be submitted and reviewed for comment by Architect and Owner for conformance to Critical Milestone Completion Dates and overall project completion time criteria. Lack of this information shall be cause for rejection of schedule. Partial payment requests will not be processed without a revised CPM schedule.
  4. In addition to the construction related work items, the following shall be included:

- Critical submittal dates related to each activity or prepare separate coordinated listing of critical submittal dates.
  - Sequences of work within each activity that involves purchase lead-time, mock-ups, testing, or similar phases, as well as installation.
  - The CPM Construction Schedule shall relate to the entire project to the extent required by the Contract Documents and shall provide for expeditious and practicable execution of the work.
5. The following items define the term "activities" as it pertains to the Trades in the CMAR's CPM network:
- Each activity shall be a unit of work that requires an amount of time for its performance.
  - Each activity shall be a logically separate part of the work, defined by an observable start and an observable finish.
  - To establish the scope of an activity for CPM purposes, Trade CMAR shall form a single activity from the largest grouping of related operations which permit a continuous and measurable flow of work and which can proceed without affecting or being affected by work of another Trade CMAR.
  - The scope of an activity shall be small enough to permit a reasonable appraisal of its status or as directed by the Architect.
  - Activities of other contractors or other subcontractors that must be completed prior to the start of the Trade subcontractors work or portion of work shall be included in the Trade subcontractors schedule as milestones and identified with a designation approved by the CMAR.
6. The following information shall be furnished on the network diagram for each activity in the Trade CMAR's schedule:
- Description of the activity.
  - Duration of the activity in days.
  - Who will be performing the activity (CMAR, supplier or subcontractor company name)
  - Each activity shall be identified with early/late start, early/late finish, and total float.

### 30.03 SHOP DRAWINGS AND SUBMITTALS

Refer to Article 3.13 of the *General Conditions* to the CMAR Contract for other requirements for shop drawings, product data and samples. Shop drawings and submittals shall be furnished by the CMAR and shall include such details as may be required to control the work adequately and are not included in the contract documents.

The CMAR shall furnish an adequate number of copies of shop drawings and submittals to allow the Architect to retain four (4) copies allowing two (2) weeks for review. The Architect will review all shop drawings and submittals for general compliance with the contract documents and no responsibility is assumed for correctness of dimensions or details. The Architect will indicate his action taken in response to the submittal or shop drawing by affixing a review stamp and indicating the action as follows:

*"No Exceptions Taken"*, which means reviewed for construction, fabrication or manufacturer, subject to the provision that the work shall be in accordance with the requirements of the contract documents. Final acceptance of the work shall be contingent upon such compliance.

*"Make Corrections Noted"*, which means unless otherwise noted on the drawings reviewed for constructing, fabrication or manufacture, subject to the provision that the work shall be carried out in compliance with all annotations or corrections indicated and in accordance with the requirements of the contract documents. Final acceptance of the work shall be contingent upon such compliance.

*"Amend and Resubmit"*, which means the review as noted is valid, and a corrected submittal is required.

*"Rejected"*, which means that deviations from the requirements of the contract exists in the submittal such that no work based on such drawings or submittal shall be constructed, fabricated, or manufactured. The CMAR shall revise the drawing in compliance with the Architect's annotations and pursuant to all requirements of the contract and shall resubmit the drawing or submittal to the Architect for another review.

The CMAR shall submit for review, a proposed schedule of submittals, shop drawings, working drawings, supplemental drawings, product data and samples as necessary to control the work adequately. A partial, example list of submittals has been made for reference and the list may not be complete and may be revised from time to time as the project progresses, as follows:

1. Operation and Maintenance Manuals.
2. Names and Resumes of Superintendent and Staff.
3. CMAR's Construction Schedule due 10 calendar days after the Notice of Award.

4. Updated CMAR's Construction Schedule (due with each monthly progress payment application).
5. A Submittal Schedule (due 10 calendar days after the Notice of Award, and due monthly).
6. Material Status Report (due monthly).
7. Manpower Schedule (due monthly).
8. Record Drawings.
9. A Schedule of Values.\*
10. CMAR's Emergency Name and Phone Number List (FAA Project Requirements)\*
11. A List designating those portions of the work to be performed by SubCMAR's and the CMARs own forces.
12. A List of SubCMARs, List of SubCMARs/Material Suppliers with an Experience Statement (
13. A Lien Release documenting that all SubCMARs and Material Suppliers have been paid for the previous months work, monthly submission required.
14. Written Safety Program for the work.
15. Copy of all Subcontracts, including Material Suppliers.
16. Duplicate Original Certified Payroll Reports and Statement of Compliance, with sworn affidavits from the CMAR (submitted weekly).
17. A List of Proposed Construction Equipment (FAA Project Requirement)\*
18. Construction Cost Information, as requested by the Architect.
19. Three (3) week look ahead Project Schedule at Weekly Construction Meetings.
20. CMAR Certification that the Initial Verification of the Control Points established are acceptable.
21. CMAR Certification of Calculations and Measurements to fully support the derivation of all Monthly Pay Quantities.
22. A Barricade Plan and Traffic Control Plan. \*
23. Shop Drawings for all Temporary Taxiway Signs.
24. A Construction Safety and Phasing Plan Compliance Document. \*
25. CMAR's Quality Control Plan, to be submitted 5-days prior to the pre-construction conference.
26. CMAR's Quality Control Records, including Daily Inspection Reports and Daily Test Reports, to be submitted daily.
27. National Pollutant Discharge Elimination System Site Construction Permittee Inspection Checklist

28. Storm Water Pollution Prevention Plan Notice of Termination.
29. A Letter of Certification stating that all Dowel Bars used meet the requirements of the Contract Documents.
30. A Certified Copy of the test reports for the Preformed Joint Sealer, and the Preformed Joint Sealer Lubricant (If Applicable).
31. CMAR's Affidavit Regarding Settlement of Claims.
32. Submit an original Affidavit acknowledging that all SubCMARs, Material Suppliers, Payrolls, Bills for Materials and Equipment, and other indebtedness connected with the work have been paid or otherwise satisfied.
33. An original Certificate evidencing that Insurance required by the General Conditions to the CMAR Contract is currently in effect and will not be canceled or allowed to expire until at least 30-days prior written notice has been given to the Owner.
34. A written statement that the CMAR knows of no reason that the insurance will not cover the period required by the General Conditions to the CMAR Contract.
35. A written consent of the Surety to Final Payment.
36. Record Drawings with a certification that the drawings are accurate and complete.
37. Five (5) sets of Operation and Maintenance manuals, index and bound, containing manufacturer's warranties, instructions for maintenance and operation of each item of equipment and apparatus.
38. An original, with notary signature, Full and Final Release and Waiver on Liens from the CMAR and for each Subcontractor, and Material Supplier, that documents that they have been paid in full.
39. Certificate of Completion.
40. Written 1-year Warrantee, due at final completion.
41. ADD AS NEEDED

\*Indicates the submittal is due at the pre-construction conference.

Each submittal shall be numbered sequentially and shall be submitted in accordance with the above schedule, as amended from time to time, so as to cause no delay in the work schedule. The CMAR shall certify each submittal and shop drawing by providing an original letter (on CMAR's letterhead) to the Architect that he has reviewed and approved the submittal and that it conforms to the requirements of the contract documents. If this original certification is not included, the submittal and/or shop drawing will be returned without action. At the time of each submittal, the CMAR shall define and delineate in writing, separate from the certification, any deviations from the contract documents. If the Architect accepts this deviation, he will

authorize the deviation by issuing a change order or if the deviation is minor by endorsement to the letter.

The Architect's review will be only for general conformance with the design concept of the work and for compliance with the information contained in the contract documents. The review of a specified item, as such, will not indicate review of the assembly or in which the item functions. Review by the Architect will not relieve the CMAR from responsibility for any errors or omissions in the submittals or shop drawings nor from his responsibility for complying with the Contract Documents. The only exception is deviations accepted in accordance with the preceding paragraph.

**END SECTION 30**

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**SECTION 40**  
**CONTROL OF WORK**

**40.01 DAMAGE TO EXISTING PROPERTY**

CMAR will be held responsible for any damage to existing structures, work, materials, or equipment because of his operations and shall repair or replace any damaged structures, work, materials, or equipment to the satisfaction of, and at no additional cost to the Owner.

CMAR shall protect all existing structures and property from damage and shall provide bracing, shoring, or other work necessary for such protection. CMAR shall be responsible for all damage to street, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, fences, or other public or private property, which may be caused by transporting equipment, materials, or men to or from the work. CMAR shall make satisfactory and acceptable arrangements with the agency having jurisdiction over the damaged property concerning its repair or replacement.

**40.02 STORAGE OF MATERIALS AND EQUIPMENT**

Equipment and stockpiled materials may be stored in areas on the project site provided they are kept below a maximum height of 8 feet and not within any safety areas or Part 77 surfaces. Airport Operations shall approve all areas of storage.

**40.03 ACCESS ROADS**

The CMAR shall establish and maintain permanent and temporary access roads to various parts of the site as required in the drawings or as required to complete the Project. Unless otherwise noted on the plans or approved by the Authority, temporary roads or vehicular traffic will not be permitted within the designated archaeologically sensitive areas. Such roads shall be available for the use of all others performing work or furnishing services in connection with the Project. In addition, they must be out of the areas of the project that are open to aviation traffic. Approval of the Architect is required for all desired locations. **The CMAR is required to inspect and videotape all existing areas of work, access and haul roads anticipated to be used by the CMAR prior to the start of construction, with the accompany of the Owner or Resident.** The CMAR will be required to maintain all access and haul routes used during the course of the work during construction and return them to their original condition at the completion of construction.

#### **40.04 FENCES**

The CMAR shall maintain all existing fences and gates affected by the work until completion of the work. Fences and gates that interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the Owner, and the period the fence may be left relocated or dismantled as has been agreed upon. On completion of the work, the CMAR shall restore all fences, at their own expense, to their original or to a better condition and to their original location or as indicated on the drawings.

#### **40.05 PARKING**

The CMAR shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities. The CMAR's parking area will be located at the staging area upon approval of Airport Operations for security access. Vehicles with access into the Airport property require insurance as described in Article 11 of the *GENERAL CONDITIONS*.

#### **40.06 DUST CONTROL**

The CMAR shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered to prevent blowing. Suitable dust screens shall protect existing or new machinery, motors, instrument panels or similar equipment. Proper ventilation shall be included with dust screens. County Dust permits are required and are a non-pay-item.

#### **40.07 DRAINAGE PROVISIONS**

The CMAR shall provide for the drainage of storm water and such water as may be applied or discharged on the site in performance of the work. Drainage facilities shall be adequate to prevent damage to the work, the site, and adjacent property. Existing drainage channels and conduits shall be cleaned, enlarged or supplemented as necessary to carry all increased runoff attributable to CMAR's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect Owner's facilities and the work, and to direct water to drainage channels or conduits. See FAA Technical Specification P-156 for additional requirements.

#### **40.08 EROSION CONTROL**

CMAR shall prevent erosion of soil on the site and adjacent property resulting from his construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operation that will disturb the natural protection. Work shall be scheduled to expose areas subject to erosion of the shortest possible time. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. See Technical Specification P-156 for additional requirements.

#### **40.09 POLLUTION CONTROL**

CMAR shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse. See Technical Specification P-156 for additional requirements.

#### **40.10 EXCESS MATERIAL**

Unsuitable material, broken asphaltic concrete, construction debris, and broken Portland cement concrete resulting from the construction shall be removed from the project and disposed of at an offsite location (landfill) by the CMAR at the CMAR's expense.

#### **40.11 CONSTRUCTION DEBRIS**

The CMAR shall use his own forces and equipment to dispose of site refuse or construction debris at an offsite location (landfill).

#### **40.12 CLEAN-UP**

The CMAR shall upon completion of the work remove all temporary construction facilities, debris, and unused materials provided for in the work, and restore the site of the work and public right-of-way in a neat and clean condition.

#### **40.13 WEEKLY PROGRESS MEETINGS**

The Architect will conduct weekly Progress Meetings at regularly scheduled times convenient for all parties involved. A three (3) week look-ahead schedule will be developed by the CMAR prior to the start of the meeting and will be discussed by the CMAR during a portion of the

agenda. Additionally, discussions will address administrative and technical issues of concern, determining resolutions and development of deadlines for resolution within allowable time frames.

As may be required by the Architect, in addition to representatives of the Phoenix-Mesa Gateway Airport Authority and the CMAR, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities may be represented at these meetings by individuals directly involved with the Contract and authorized to conclude matters relating to progress.

During the weekly construction meeting, there will be review and corrections (if any) and approve the meeting minutes of the previous progress meeting prepared by the Architect. The meeting minutes may be tape recorded and will document issues of significance including submittals, schedules, quality control, issues encountered, and the assignment of responsibilities for future action. Other items of significance that could affect progress may be discussed, and the meeting will include topics for discussion as appropriate to the current status of the project, including:

Review progress since the last meeting. Determine where each activity is in relation to the CMAR's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

Review the present and future needs of each entity present, including such items as:

1. Work Schedule and Hours of Work
2. Quality and Work Standards
3. Access and Limitation
4. Submittal Status
5. Requests for Information
6. Non-Compliance Notices
7. Status on Certified Payroll Reports
8. Change Orders and/or Extra Work
9. Housekeeping

The Architect may tape record the meeting and the Architect will distribute a copy to the Owner and CMAR. The CMAR shall be responsible to distribute the meeting minutes to

subcontractors, suppliers, and others affected by decisions or actions resulting from each meeting.

#### **40.14 CONSTRUCTION SURVEYING LAYOUT**

The CMAR shall set all construction stakes establishing lines, grades, and elevations to include necessary utilities and appurtenances and shall be responsible for their conformance with plans and specifications. The Architect will establish or designate (within the plan sheets) a control line or benchmark of known location and elevation for use as a reference. The CMAR shall furnish all materials, personnel and equipment necessary to perform all surveying, staking and verification of the accuracy of all existing control points, which have been provided by the Architect and/or Phoenix-Mesa Gateway Airport Authority. Included in this work shall be all calculations required for the satisfactory completion of the project in conformance with the plans and specifications. The work shall include establishing and marking "Record Drawings" coordinates and elevations on survey monuments and other designated locations. The work shall be done under the direction of a registered land surveyor employed by the CMAR. All survey crew chiefs shall be either a registered Civil Architect, a registered Land Surveyor, an Architect-in-Training, or a NICET Level III (or a higher NICET level) certified technician.

Materials and equipment shall include, but shall not necessarily be limited to, vehicles for transporting personnel and equipment, properly adjusted and accurate survey equipment, straightedges, stakes, flagging and all other devices necessary for checking, marking, establishing and maintaining lines, grades and layout to perform the work called for in the contract. The CMAR shall furnish a sufficient quantity of competent personnel to perform the survey work and layout.

The CMAR shall not employ nor engage the services of any person or persons in the employ of the Architect or the Phoenix-Mesa Gateway Airport Authority for the performance of any work as described herein.

**a. Field Books.** The CMAR shall furnish and use bound field books for recording survey data and field notes. These books shall be available for inspection by the Architect at any time and shall become property of the Owner upon completion of the work.

**b. Initial Verification.** Prior to setting any construction stakes the CMAR shall first verify the accuracy of the control points established by the Architect. If errors are discovered during this verification process, and the control points do not agree with the geometry shown in the plans, the CMAR shall immediately notify the Architect in writing, explaining the issue in detail. The Architect will advise the CMAR within five (5) working days of any corrective actions, which

may be deemed necessary. Secondly, upon completion of this verification process, the CMAR's registered Land Surveyor shall certify in writing, that all control points established by the Architect are acceptable and adequate to allow the CMAR's construction staking to meet the accuracy requirements of the specifications.

**c. General Description.** After the CMAR's registered surveyor has submitted his written certification verifying the accuracy of the control points established by the Architect, the CMAR shall set all stakes including, but not necessarily limited to: centerline stakes, offset stakes, reference point stakes, slope stakes, pavement lines, curb lines and grade stakes, stakes for sewers and waterlines, airfield drainage, pipe, underdrains, clearing, survey monuments, blue tops for subgrade, base and pavement courses, paint striping layouts, supplemental bench marks and permanent as-built elevation marks, as-built survey elevations of concrete pavement (all joints, corners of each panel) and asphalt base under concrete pavements at each concrete paving joint intersection, and the as-built elevations prior to placing the base course shall be obtained as well as all other horizontal or vertical controls necessary for complete and accurate layout of the construction work, and submitted to the Architect.

**d. Preservation.** The CMAR shall exercise care in the preservation of stakes, references and benchmarks and shall reset them when any are damaged, lost, displaced or removed. Station and offset reference stakes shall be installed and maintained at all times on each side of the Taxiway and on each side of all connecting Taxiways at 100-foot intervals.

**e. Discrepancies.** Any discrepancies in the grade, alignment, quantities, locations or dimensions detected by the CMAR shall immediately be brought to the attention of the Architect. Changes to the project plans will not be allowed without the written approval of the Architect.

**f. Random Inspections.** The Architect reserves the right to make inspections and random checks of any portion of the staking and layout work. If, in the Architect's opinion, the work is not being performed in a manner that will assure proper controls and accuracy, he may order any or all of the staking and layout work re-done, or he can order further staking to supplement the original work, both of which would be at no additional cost to the William Gateway Airport Authority.

**g. Special Staking Requirements.** Utility adjustments and Taxiway signs are a part of the Contract; therefore, the CMAR shall perform all layout work and set all control points, stakes and reference necessary for carrying out all such adjustments.

**h. Monthly Pay Quantities.** Measurement of all pay quantities will be the responsibility of the Architect. However, the CMAR shall furnish the Architect for each pay period, a certified set of calculations and measurements to fully support the derivation of all pay quantities.

**i. Additional Work.** If additional staking and layout are required as the result of additional work ordered by the Architect, such work will be paid at the respective predetermined unit prices specified herein. The amount per hour for a two (2) person or three (3) person survey party, a survey manager and a registered land surveyor includes the cost of all work necessary to complete the extra work, including the CMAR's overhead, profit, bond, insurance and sales tax and extended general condition costs.

**j. Measurement.** Reference General Provisions Section 50-06 for measurement and payment.

#### **40.15 SAMPLING AND TESTING**

The Owner shall employ the official testing laboratory for acceptance testing. The CMAR shall employ the laboratory for quality control testing or plant calibration and it shall not be the same laboratory as the one employed by the Owner. The quality control measures by the CMAR shall be sufficient to produce materials of acceptable quality. The CMAR is required to provide and maintain a Quality Control Program, along with all the personnel, equipment, supplies and facilities necessary to obtain samples, perform tests, and otherwise assure the quality of the product(s). The Architect may require the CMAR's technician to perform testing of samples to demonstrate an acceptable level of performance.

The CMAR shall utilize a statistical based procedure of random sampling that provides that all material being produced will have an equal chance of being selected for sampling and testing. The CMAR shall sample and test any material that appears inconsistent with similar material being sampled unless such material is voluntarily removed and replaced or corrected by the CMAR. All sampling shall be in accordance with standard AASHTO or ASTM procedures.

The CMAR is directed to General Provisions Section 50.06 for additional information, requirements, measurement and payment for Construction Survey and Staking.

#### **40.16 RECORD DRAWINGS**

The CMAR shall keep one or more copy of all specifications, plans (24x36 in size), any addenda issued during the bidding process, any modifications to the plans and contract documents during construction (i.e. ESI, RFI, etc.), working drawings and shop drawings at the site, and in good order. One set of 24x36 plans shall be continually annotated by the CMAR to show all changes made during the construction process as they occurred. Additionally, these plans shall be verified by a licensed land surveyor.

The Architect and/or Project Manager will review the completeness of the Record Drawings on a monthly basis prior to and as a condition of approval of the monthly progress payments.

Upon completion of the project and prior to submittal of the final application for payment, a single, complete, all-inclusive, annotated full set of plans showing all "As-Built" work together with any annotated working and Shop Drawings, RFI's, ESI's, and Change Orders of relevance shall be delivered to the Architect for the Owner's record. At a minimum, the CMAR shall provide as-built elevations for each design grade that is shown on the plans. The CMAR shall provide stations and offsets for each handhole, manhole, light can/base, catch basin or other similar structure on the annotated set of record drawings. The "As-Built" set of plans must be sealed by a registered Arizona Surveyor.

END SECTION 40

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## SECTION 50

### UTILITIES AND EXISTING FACILITIES

#### 50.01 GENERAL

This item shall govern the field location of all underground existing utilities in areas to be improved, to avoid conflicts with proposed surface or underground improvement. Work under this section shall include, but not be limited to, the investigation and locating of all underground facilities. Underground facilities means any item that is buried or placed below ground for use in connection with the storage or conveyance of water, sewage, electronic, telephone or telegraphic communications, electric energy, oil, gas or other substances, and shall include, but not be limited to pipes, sewers, conduits, cables, valves, lines, wires, manholes, attachments and those portions of poles and their attachments below ground, including electrical and communication ducts, airfield lighting and control cables, fiber optic lines, storm drains, electrical and telephone lines. The CMAR shall employ a private utility location service to locate the existing Owner and non-Owner utilities prior to starting the work. The CMAR shall blue stake and pot hole and use prudent care when excavating and locating said utilities.

The CMAR shall, after October 1, 1988, comply with the State requirements regarding excavation and underground utilities per A.R.S., Chapter 2, Article 6.3. and other pertinent Sections of the Blue Stake Law. The Airport is not a member, but has distribution systems for gas, electrical, water, and sewer on the site. The CMAR shall be responsible for locating all Owner and non-Owner utilities.

The CMAR's attention is directed to the following Arizona Revised Statutes:

**a. ARS 40-360.22.** Excavations, determining location of underground facilities; providing information. This statute requires that no person shall begin excavation before the location and marking are complete or the excavator is notified that marking is unnecessary and requires that upon notification, the Owner of the facility shall respond as promptly as practical, but in no event later than two (2) working days. This section is not applicable to an excavation made during an emergency that involves danger to life, health or property if reasonable precautions are taken to protect underground facilities.

**b. ARS 40-360.23.** Making excavations in careful, prudent manner; liability for negligence. This statute states that obtaining information as required does not excuse any

person making any excavation from doing so in a careful and prudent manner no shall it excuse such persons from liability for any damage or injury resulting from his negligence.

c. **ARS 40-360.28.** Civil penalty; liability. If the Owner or operator fails to locate, or incorrectly locates the underground facility, pursuant to this article, the Owner or operator becomes liable for resulting damages, costs and expenses to the injured party.

**50.02 EXISTING UTILITIES**

The CMAR is hereby advised that the location of all utilities, as shown on the Plans, may not be complete nor exact and the CMAR shall satisfy himself as to the exact location of the utilities. The CMAR shall be responsible for any damage done to public or private property and shall be repaired at the CMAR's expense.

Location of any underground telephone lines may be field verified by calling the Blue Stake Center telephone number "Arizona 811". The CMAR is required by Blue Stake Center to call at least two (2) working days before digging. The CMAR shall locate all utilities that Blue Stake will not locate.

The following utilities companies may serve the Phoenix-Mesa Gateway Airport directly or can provide services as requested.

**TABLE – Utility Companies for Existing Utilities and Flood Plain Information.**

Utility	Description
Water	City of Mesa
Electrical	Salt River Project
Airport	Authority (Communications & Special Systems)
Telephone	Century Link and Cox (Telephone and Data)
Sanitary	City of Mesa
Drainage	Maricopa Flood Control District, (East Maricopa and Powerline Floodway)
Flood Plain	The project is within the 500-year flood plain.

The CMAR is to protect all existing facilities during construction. The CMAR shall notify the appropriate Utility Company or agency of any construction that may affect their facilities.

Measurement for "Location of Underground Utilities" shall be lump sum.

### **50.03 WATER FOR CONSTRUCTION PURPOSES**

The CMAR, at their own expense, shall obtain and provide all water required for and in connection with the work to be performed. The CMAR shall remove all temporary waterlines installed by him, after completion of the work, if directed to do so by the Architect.

It is the CMAR's responsibility to identify the water source, its compatibility, storage, and costs for all water requirements for this project. The CMAR must submit a water source and its intended use to the Architect for approval. No direct payment will be made for construction water. The cost thereof shall be included in other items for which direct payment is made.

### **50.04 ELECTRICAL POWER**

All power for lighting, operation of CMAR's plant or equipment, or for any other use as may be required in the execution of the work to be performed under the provision of these Contract Documents shall be provided by the CMAR at their expense. The CMAR shall remove all temporary electrical facilities installed by him, after completion of the work, if ordered to do so by the Architect.

### **50.05 TELEPHONE SERVICE**

The CMAR shall make all necessary arrangements with the telephone utility for telephones in his offices at the site and separate telephones, fax, high-speed internet, and a direct service line in the office of the Architect, and shall pay all monthly charges therefore including long distance calls from the office of the Architect. All CMARs and others performing work or furnishing services at the site shall be permitted to use the CMAR's telephone without charge for calls pertaining to the work.

### **50.06 SANITARY FACILITIES**

CMAR shall furnish temporary sanitary facilities at the site, as provided herein, at their own expense, for the needs of all construction workers and other performing work or furnishing services on the Project. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished

for each 20 men. CMAR shall enforce the use of such sanitary facilities by all personnel at the site.

**END SECTION 50**

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**SECTION 60**  
**OPERATIONS, SAFETY AND SECURITY**

The CMAR shall reference the Construction Safety and Phasing Plan for a comprehensive report of the safety procedures and requirements on this project.

**60.01 DEFINITIONS**

- a. **Air Carrier Aircraft** - An aircraft with a seating capacity of more than 30 passengers that is being operated by an air carrier.
- b. **Air Carrier Operation** - The takeoff and landing of an air carrier aircraft and includes the period of time from 15 minutes before and until 15 minutes after the takeoff or landing.
- c. **Air Operations Area (AOA)** - Air operations area, paved or unpaved, is any area of the airport used for or intended for landing, takeoff, or surface maneuvering of aircraft including its associated runway, taxiway, or apron.
- d. **Airfield Operations Specialist** – The Authority employee who monitors activities within the Airport Restricted Areas. Operations Specialists ensure a safe and secure operating environment is maintained on the airfield.
- e. **Airport Marking Aids** - Marking used on runway and taxiway surfaces to identify a specific runway, a runway threshold, a centerline, a hold line, etc. A runway should be marked in accordance with its present usage such as: visual, non-precision instrument, precision instrument.
- f. **Construction** - The presence and movement of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.
- g. **Escort** - person authorized by the Authority to accompany CMAR personnel within the Airport Restricted Area. The escort shall accompany or monitor the activities of an individual(s) in a manner sufficient to take responsive action in a sized area approved

by the Architect. A proper escort is defined as maintaining visual monitoring, within reasonable voice range and being able to react to the actions of those under escort.

- h. **FAA** - The Federal Aviation Administration, a branch of the U.S. Department of Transportation that regulates aviation and airport safety and certification.
- i. **FDC** – Fire Department Connection.
- j. **FOD** - Foreign Object Debris/Damage, meaning any object that is potentially hazardous to aircraft.
- k. **General Aviation** - That portion of civil aviation which encompasses all facets of aviation except air carriers holding a certificate of public convenience and necessity from a Civil Aeronautics Board and Large aircraft commercial operators.
- l. **Haul Route** - A specified path created for vehicles to maneuver within the Airport Restricted Area to/from a work site. Haul routes are subject to the approval of the Architect in accordance with the contract documents.
- m. **Instrument Landing System (ILS)** – An electronic visual approach guidance system used by aircraft during landing operations.
- n. **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 ramps and aircraft parking areas (reference 14 CFR part 139).
- o. **Navigational Aid (NAVAID)** - An apparatus generally located within the AOA, serving as a guide to aircraft.
- p. **Obstruction** - Any object/obstacle exceeding the obstruction standards specified by 14 CFR part 77, subpart C.
- q. **Object Free Area (OFA)** - An area on the ground centered on the runway, taxiway, or taxilane 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, *Airport Design*, for additional guidance on OFA standards and wingtip clearance criteria).

- r. **Obstacle Free Zone (OFZ)** - The airspace below 150 feet (45m) 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 (refer to AC 150/5300-13 for guidance on OFZs).
- s. **Precision Approach Path Indicator (PAPI)** - An airport lighting facility providing vertical visual approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beams which indicate to the pilot that he/she is "on path" if he sees red/white, "above path" if white/white, and "below path" if red/red.
- t. **Restricted Area** – Areas that do not allow access to the general public. These are limited access areas that the Executive Director, the FAA, or commercial aviation business owners have elected to restrict for purposes of security or safety. It is enclosed by a perimeter fence and includes but is not limited to the AOA, perimeter roadways, haul routes, CMAR security gate and worksite.
- u. **Runway** - A defined rectangular area on a land airport prepared for the landing and takeoff run of aircraft along its length. Runways are normally numbered in relation to their magnetic direction rounded off to the nearest 10 degrees; e.g., Runway 12 and Runway 30.
- v. **Runway End Identifier Lights (REIL)** - Two synchronized flashing lights, one on each side of the runway threshold, which provides rapid and positive identification of the approach end of a particular runway.
- w. **Runway Lights/Runway Edge Lights** - Lights having a prescribed angle of emission used to define the lateral limits of a runway. Runway lights are uniformly spaced and the intensity may be controlled or preset.
- x. **Runway Safety Area (RSA)** - 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.

- y. **Safety Area** - A designated area abutting the edges of a runway or taxiway intended to reduce the risk of damage to an aircraft inadvertently leaving the runway or taxiway.
- z. **Taxi** - The movement of an airplane under its own power on the surface of an airport.
- aa. **Taxiway** - A defined surface used by aircraft for transition/movement to and from aircraft parking areas/aprons to runways.
- bb. **Taxiway Lights/Taxiway Edge Lights** - Lights having a prescribed angle of emission used to define the lateral limits of a taxiway and are blue in color.
- cc. **Threshold Lights** - Fixed green lights arranged symmetrically left and right of the runway centerline, identifying the runway threshold.
- dd. **TSA** – The Transportation Security Administration, a branch of the U.S. Department of Homeland Security that oversees aviation security.
- ee. **Visual Flight Rules (VFR)** - Rules that govern the procedures for conducting flight under visual conditions. The term "VFR" is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements.
- ff. **Worksite** - Area in which work under contract is being performed, generally starting at the CMAR on-site trailer. Airport ID badges must be displayed within the worksite at all times.

## 60.02 AIRPORT SECURITY REQUIREMENTS

This project will be constructed both inside and outside of the sterile area of the Terminal (each side of the TSA checkpoint).

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 CMAR's personnel or subcontractors' personnel will subject the CMAR to penalties imposed by the TSA or the Authority.



The CMAR will assume all fines against the Authority assessed to them by the TSA for the CMAR's security violations. Typical fines are ten thousand dollars (\$10,000.00) or more per incident.

The CMAR 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 CMAR may deem necessary to protect the site.

The CMAR's responsibilities for work areas are as follows:

1. The CMAR shall be held responsible for controlling his employees, subcontractors, and their employees with regard to traffic and personnel movements.
2. The CMAR 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 CMAR shall submit to the Architect 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, and installation sequence of electrical items. **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 following language shall be used in all solicitations, Contracts and subcontracts requiring the distribution of security badges to CMAR, subcontractor or material supplier employees:
  - a. **AIRPORT ACCESS BADGES** - All CMAR and/or subcontractor personnel performing work in accordance with this Contract shall obtain and properly display a Phoenix-Mesa Gateway Airport (IWA) airport security badge. The CMAR shall submit a Security Badge Application form to the Authority security office for each employee requiring unescorted access, along with the current fee for each badge. The fee must be paid for with cash or check. The Security Badge Application form and instructions are available via the Internet at [www.gatewayairport.com](http://www.gatewayairport.com).

A Company Principal of the CMAR must obtain and submit a "Company Security Media Authorization" form, which is to be submitted to the Authority Badging Office. The Company Security Media Authorization will identify those individuals employed by the CMAR who are authorized to approve and sign a Security Badge Application for other employees of the CMAR. The Company Security Media Authorization form and instructions are available via the Internet at [www.gatewayairport.com](http://www.gatewayairport.com)

1. All CMAR and subcontractor 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. Attendance at the security classes and issuance of the security badge may take 2 hours per person.

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.

2. Additional information, including a "Frequently Asked Questions" is available via the Internet at [www.gatewayairport.com](http://www.gatewayairport.com) or by contacting the Authority Badging Office at 480.988.7520 or via email to [badgingoffice@gatewayairport.com](mailto:badgingoffice@gatewayairport.com)

The Badging Office is located at 6263 S. Taxiway Circle, Mesa AZ 85212.

3. The CMAR should allow thirty (30) business days lead time for employee badges to be issued.
4. The CMAR shall immediately notify Airport Operations/Badging Office of any CMAR personnel whose employment status has changed.
5. The CMAR 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.

6. The Authority Badging Office will require the following from each badge applicant before a security badge is issued:

**Security Badge Application** - All employees are required to complete a security badge application form. The security badge application is available via the Internet at [www.gatewayairport.com](http://www.gatewayairport.com).

**CMAR-Provided Escorts** - The job superintendent and assistant superintendent will be responsible for escorting their non-badged employees, visitors, vendors, subcontractors and material suppliers while on the job site, assuring that no breaches of the Airport security program occur.

**Company Security Media Authorization** - A Principal of the CMAR is required to complete and submit to the Authority Badging Office this form, which identifies authorized signatories for the CMAR.

For current badging hours or any other questions pertaining to badging, please call the Badging Office at 480.988.7522.

Airport security badges are issued by the Authority 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 CMAR shall be assessed a fee for each lost/unreturned badge.
- The CMAR 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 the Authority.

**b. Access Control**

Any time access is required within the Restricted Areas the CMAR shall be responsible for assuring that no breeches of airport security occur. Restricted areas are fenced and must remain fenced at all times. The gates will remain closed and locked or a guard will be provided at the CMAR's expense. The CMAR will furnish the guard with a roster of his personnel and ensure that each individual has adequate identification. The duplicate keys for each lock will be turned over to the airport authorities.

- No person shall enter the CMAR worksite without authorization. Any person found within the worksite without proper identification as describe herein shall be considered unauthorized and shall be removed from the worksite.
- All persons authorized access to the worksite shall display a valid Airport ID badge issued by the Authority or be under authorized escort.
- Persons authorized to provide escorts include the Authority staff and designated CMAR supervisors. The number of personnel being escorted shall not exceed ten (10) non-badged personnel; this includes vendors, subcontractors, visitors and part-time workers. Equipment Operators are not allowed to provide escort while operating equipment. **Failure to provide an escort can result in loss of escort privileges, fines, revocation of the security badge, or all three.**

**c. Challenge Procedures**

All personnel are responsible for challenging and reporting anyone in their work areas not displaying an Airport ID badge. Personnel shall contact Airport Operations and/or Mesa Police Department and detain person(s) if safe to do so.

**60.03 AIRPORT SAFETY REQUIREMENTS**

**a. Operating Construction Vehicles on the Airport**

No vehicle shall enter the CMAR worksite unless the following conditions are met:

- The driver is authorized to access the worksite (in possession of valid security badge with a driver endorsement).
- The driver possesses a valid driver's license.
- The vehicle is properly marked with the company name.
- Vehicle is marked with beacon or checkered flag or under escort.
- Transient haul truck drivers are not required to obtain an Airport ID badge but are required to check in with the CMAR security guard.
- All equipment operators are required to be badged when working within the Airport Restricted Area.

**b. Prohibited Vehicles**

The use of motorcycles, bicycles, two-wheeled motor scooters and privately owned vehicles within the worksite is strictly prohibited.

**c. Vehicle Condition**

Vehicles must be in good mechanical condition with operational lights, horn, brakes, and clear visibility from the driver's seat. Trailers and semi-trailers must be equipped with proper brakes so that when disengaged from a towing vehicle, neither aircraft engine blast nor wind will cause them to become free rolling.

**d. Compliance**

All traffic within the Airport Restricted Area and/or CMAR worksite must comply with any lawful order, signal or direction of any Airport employee. When such traffic is controlled by signs or pavement markings, such symbols shall be obeyed, unless otherwise directed by an officer or agent of the Airport Authority.

**e. Night or Low Visibility Operations**

All vehicle headlights, taillights, and running or clearance lights shall be in operational condition. Headlights shall be used at all times.

**f. Construction Vehicle and Equipment Markings**

All construction equipment and vehicles shall have flashing amber lights, mounted at the highest point, during the nighttime and a 3' x 3' orange and white checkered flag or a flashing amber beacon during the daytime. All vehicles and equipment on the construction site shall have company designations visibly displayed. No personal

vehicles will be allowed in the work area. All construction vehicles and equipment must have the company name and/or logo and vehicle number at least four (4) inches in height on each side of the vehicle.

**g. Operation of Vehicles**

No vehicle shall operate within the Airport Restricted Area:

- Unless operated by an individual in possession of a valid Airport Identification Badge with a driver's 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.

**h. Speed Limits**

The speed limit on the perimeter roads is 25 miles per hour. The speed limit on the haul route is 15 miles per hour.

**i. Vehicle Accidents**

Each operator of a motor vehicle involved in an accident on the airport that results in damage to property or personal injury shall first contact 9-1-1 and then report it fully to the Airport Operations Department as soon as possible after the accident. The report must include the name and address of the person reporting. Copies of reports taken by City of Mesa are acceptable for incidents that occur in the public areas of the airport.

**j. Hearing Protection**

CMAR personnel working on or adjacent to the AOA are encouraged to wear hearing protection.

**k. Worker Injuries**

In the event of a serious injury requiring medical attention call **911**. If called from a cell phone, tell the emergency operator to connect to the City of Mesa Emergency Dispatch, otherwise the call will be routed to Maricopa County Dispatch and that will delay emergency response. All injuries must also be reported to Airport Operations as soon as possible.

**I. After Hours Contacts**

The CMAR shall submit to the Architect 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.

**m. Daily Site Inspections**

Prior to the CMAR leaving the worksite for the day, an inspection of the site shall be completed. All discrepancies noted in the inspection must be corrected to the satisfaction of the Architect prior to the CMAR leaving the worksite.

**n. Deliveries**

All deliveries for the CMAR shall be received by the CMAR. Deliveries will not be accepted by anyone other than the CMAR. The Authority nor its authorized representatives will not accept or be responsible for deliveries.

**o. Haul Routes**

- The majority of the haul route is in the City of Mesa Public Right-of-Way and CMAR shall abide by City of Mesa Traffic regulations. CMAR shall maintain access in the vicinity of the haul routes to provide access to the parking lot and the Authority vehicles.
- Placards will be issued to transient haul trucks (i.e. concrete) upon entry into the Restricted Area by the gate guard.

**p. Cranes or Mobilized Equipment**

All activities involving cranes or mobilized vehicles exceeding 20 feet in height on or near the AOA require 48-hour advance coordination with Airport Operations. The following information is required:

- Location of equipment

- Maximum extendable height
- Duration of use
- Daily hours of operation
- Whether or not the crane can be lowered when not in use

Equipment must be lowered to its stowed height when not in use or as otherwise directed. The **highest point** of each piece of equipment shall be marked by a 3' x 3' orange and white checkered flag. At night and during periods of low visibility, the highest point of the crane must be marked by a red obstruction light. Crews must be prepared to remove equipment promptly if so directed.

The CMAR is advised that it may take up to 12 weeks to obtain an airspace determination for construction equipment (such as a concrete batch plant if he elects to use one), and he must submit information required for inclusion into the FAA 7460 airspace evaluation submittal as soon as feasible after Notice of Award in order to not delay the project schedule. This review should be included in the CMAR's schedule.

**q. Staging & Storage Area**

All CMAR materials, equipment and supplies shall be within the CMAR's designated staging & storage area. All staging & storage areas shall be marked, debris boxes covered and area kept neat and clean of debris.

For equipment that must remain in the work area, the following conditions must be met:

- Be marked with lighted barricades around the equipment perimeter with a spacing of no more than 10 feet.
- Be coordinated at least 48 hours in advance with the Architect.
- The highest point of the equipment marked and lit with a red flashing/steady burning omni-directional obstruction light.

**r. Barricades & Lighting**

The perimeters of the actual work areas, all uneven surfaces, mounds and excavations shall be adequately barricaded in accordance with the plans and contract documents including but not limited to vertical panel barricades, low level barricades and/or Type II barricades and lighted with omni-directional flashing red lights to prevent intrusion by taxiing aircraft, equipment, personnel and vehicles.



The CMAR shall provide and maintain all low-profile and vertical panel barricades and LED omni-directional lights, night and day. The lights for the low-level barricades shall be capable to be “screwed in” to the barricade. Low-profile barricades shall be orange and white in color and shall be a minimum of eight (6) feet in length and approximately ten (10) inches in height. All cones and other marking devices must be lighted or equipped with reflectors during periods of darkness as directed by Airport Operations.

All barricades, lights, flags and cones must be maintained and kept in proper working order by the CMAR day and night. All burned out lights must be replaced immediately. Barricades, lights, flags and cones must remain upright at all times.

The low-profile barricades must always be filled with water. In situations of adverse weather, the placement of sandbags on barricades may also be required. The CMAR must also keep an adequate supply of extra barricades and lights on site for replacement. Escorts for barricade maintenance must be provided by the CMAR or coordinated in advance with Airport Operations.

Only red, battery powered or approved solar powered, lights are acceptable at the airport.

**s. Trenches and Excavations**

CMARs 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 Architect:

- Open trenches not to exceed 500 feet in length at any one time.
- Spoils from excavations are to be placed closest to the trench.
- Spoils length not to exceed 500 feet in length at any one time.
- Spoil height is not to exceed 4 feet or any height that would cause a visual obstruction.
- Spoils not returned to the trench or removed from the worksite are to be properly marked with lighted barricades with a spacing of no more than 10' or that to properly delineate the trench.

**t. Stockpiled Material**

Stockpiled materials are allowed only within the CMAR's designated staging & storage areas.

**u. CMAR Security Guards**

The following procedures are for CMAR security guards controlling CMAR access gates into the Restricted Areas. CMAR is also responsible to:

- Use primary radio or back-up telephone equipment to contact Airport Operations and the CMAR Foreman of any security violation or threat to airport safety. Report any failure of radio or back-up equipment immediately.
- Assure that all authorized CMAR employees or suppliers use designated haul route and staging areas.
- Monitor the Restricted Area access gate at all times and NEVER leave a gate open, unsecured or unattended.

**v. Deliveries**

Delivery trucks must be properly escorted in order to proceed into any controlled area of the airport. The gate guard shall log down the date, driver name, and company. Advise the driver to wait at the gate until the escort arrives.

**w. Haul Trucks**

Transient haul truck drivers are required to check in with the CMAR security guard. The driver shall be issued an orange/white checkered flag to be mounted on the highest point of the truck; and shall be returned to the security guard upon check out. Advise the driver 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.

**x. Weapons**

No person, except a peace officer, authorized air carrier employee, airport employee or a member of an armed force of the United States on official duty, shall carry any weapon, explosive, or inflammable material on or about his person, openly or concealed, in the Restricted Area of the airport without the written permission of the Airport Director, Deputy Director or Director of Operations and Maintenance. A weapon includes all those listed in Section 13-301, Arizona Revised Statutes. No person shall furnish, give, sell, or trade a weapon on airport property.

**y. CMAR Responsibilities**

- The CMAR must maintain and provide to the Architect a log detailing the contract number, the airfield access point used, and all authorized and anticipated subcontractors and suppliers that will be requiring entry.
- The CMAR must furnish guards with a sufficient number of flags for transient vehicles such as concrete or asphalt trucks entering the Restricted Area.
- The CMAR must furnish guards a means of securing the access point should the guard have to leave the area in an emergency.

**z. Construction Flagmen**

Construction flagmen will be required at any crossings of taxiways by construction equipment.

**aa. Prepare a Safety Plan Compliance Document**

The Contractor shall be responsible to provide a Construction Safety and Phasing Plan compliance document at the Preconstruction Conference. The Safety Plan Compliance Document (SPCD) details how the Contractor will comply with the CSPP (Appendix A). 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 SPCD is a subset of the CSPP, similar to how a shop drawing review is a subset to the technical specifications. The effort required to prepare and submit a SPCD acceptable to airport operations shall be considered incidental to the Airfield Safety and Security of the Airport.

**bb. Temporary Pavement Markings**

Temporary Pavement Markings shall be placed at the locations shown on the plans. Markings shall be consistent with the details in the plans for markings of the same type (i.e. Taxiway Centerline). The paint material shall be of such quality as needed to last the duration of the respective construction phase. All temporary pavement markings, materials, labor, equipment and efforts required to remove the temporary pavement markings shall be considered incidental to Airfield Safety and Security (i.e. there will be no separate measurement or payment), unless noted otherwise on the plans.

**60.04 MEASUREMENT AND PAYMENT**

Measurement for Airfield Safety and Security shall be per lump sum and shall include full compensation for furnishing all labor, materials, checkered flags, warning lights, silt fence, traffic signs, airfield radios, crossing guards, escorts, power vacuum sweepers, furnishing and maintaining all barricades and lights day and night, vehicle and equipment markings, security badges and training for all construction personnel, tools, equipment, flagmen, cell phones,

SPCD acceptable to Airport Operations, installation and removal of temporary pavement markings and all other incidentals required to safely control traffic and provide the proper security for the Airport as identified in the phasing plans.

Partial payments will be made uniformly over the contract time, provided that the work under Airfield Safety and Security is maintained satisfactorily to Airport Operations and the Engineer.

Payment for Airfield Safety and Security will be made at the contract unit price per Lump Sum. The payment for Airfield Safety and Security shall include all safety and security items identified herein, in the contract documents, the phasing plans and as identified in the Construction Safety and Phasing Plan (Appendix A to the Contract Documents).

#### **60.05 SCHEDULE OF FINES (AS APPLICABLE TO THIS PROJECT)**

Due to both the safety and security precautions necessary at the airport, failure of the CMAR and subcontractors to adhere to the prescribed requirements/regulations has consequences that may jeopardize the health, welfare and lives of the customers and employees at the airport, as well as the CMAR's own employees. Therefore, if the CMAR 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 Architect or his representatives, the Owner may issue Notice of Violation (NOV). The CMAR may appeal the NOV, however appeals must be made in writing, and within four (4) calendar days of the offending incident, to the Authority 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 CMAR 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 the Schedule of Fines table (on the next page), and the applicable amount will be withheld from the CMAR's monthly payment application following the date of the violation. The CMAR shall be held financially responsible for all NOV's issued to their subcontractors, lower tier subcontractors, or material suppliers associated with this Contract.

<b>DESCRIPTION OF FINES:</b>	<b>1<sup>ST</sup> OFFENSE</b>	<b>2<sup>ND</sup> OFFENSE</b>	<b>3<sup>RD</sup> OFFENSE</b>
Parking in unauthorized areas.	\$1,000	\$2,500	\$5,000
Not having proper and current Airport Security Badge or not properly displaying Airport Security Badge.	\$1,000	\$5,000	\$15,000
Unauthorized access to AOA by construction personnel or access through construction gate by unauthorized personnel.	\$1,000	\$5,000	\$15,000
Failure to Escort / be Escorted.	\$1,000	\$5,000	\$15,000
Failure to secure an access gate / door when not in use, or failure to wait for an automated gate / door to close.	\$5,000	\$10,000	\$15,000
Operating a vehicle or mobile construction equipment without a current Ramp Driver's permit.	\$1,000	\$5,000	\$15,000
Failure to stop at a designated Stop, or exceeding the maximum speed limit, or deviating from designated service roadway or haul routes.	\$2,500	\$5,000	\$15,000
Failure to yield to airside personnel or vehicles.	\$1,000	\$5,000	\$15,000
Failure to yield to an aircraft and/or causing an aircraft to deviate from intended course.	\$5,000	\$10,000	\$15,000
No logo on vehicle or logo is not correct in name and dimension.	\$1,000	\$5,000	\$15,000
Runway incursion.	\$15,000	\$20,000	\$25,000
Runway/Taxiway deviation of an active taxiway, or apron.	\$10,000	\$15,000	\$20,000

Safety violation, such as insufficient barricades, or no flags or amber beacons on vehicle or equipment. Or no red obstruction lighting on cement silo, batch plants, cranes or other equipment with significant height.	\$5,000	\$10,000	\$15,000
Non-compliance with the Authority's lock-out tag-out procedures.	\$5,000	\$10,000	\$15,000
Failure to backfill open trenches within time specified.	\$5,000	\$10,000	\$15,000
Failure to provide lighted barricades.	\$5,000	\$10,000	\$15,000
Failure to provide functional temporary edge lighting.	\$5,000	\$10,000	\$15,000
All other NOV not listed in this Table 1.	\$1,000	\$5,000	\$15,000

**END SECTION 60**

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**SECTION 70**

**PROJECT SIGNS**

**70.01 PROJECT SIGNS**

The Contractor shall furnish and erect public relations banner(s) and project sign(s), and one or more access gate sign(s), as required by the Authority. The sign(s) shall be maintained by the Contractor for the duration of the project and shall be removed by the Contractor during final clean-up. The Owner shall determine the location of the project sign in the Pre-Construction Conference. The sign shall be furnished and erected by the Contractor prior to the start of construction. The project sign(s) shall 4-feet by 8-feet, mounted on 4-inch by 4-inch posts buried 48-inches deep (minimum), where the sign is 3-feet above grade. The information on the sign shall be non-reflective green background and non-reflective white letters and numbers. Signage EXAMPLEs are provided below. Ultimately it is the Contractor's Responsibility to submit signage shop drawings to the Owner for approval.

<p>AVIATION DOLLARS AT WORK PHOENIX-MESA GATEWAY AIRPORT AUTHORITY PHOENIX-MESA GATEWAY AIRPORT <b>ENTER PROJECT DESCRIPTION</b> FINANCED BY ARIZONA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION PHOENIX-MESA GATEWAY AIRPORT AUTHORITY Project Costs: \$ _____</p>
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The gate signs shall have two sign faces back to back and facing both directions of traffic. The gate sign shall be 4-feet by 8-feet, mounted on 4-inch by 4-inch posts buried 48-inch deep (minimum), where the sign is 3-feet above grade. The information on the gate signs shall be non-reflective green background and non-reflective white letter and numbers, as follows:

PHOENIX-MESA GATEWAY AIRPORT  
GATE NO. \_\_

No direct measurement or payment will be made for furnishing, erecting, and maintaining the project sign(s) and the access gate sign(s). The cost thereof shall be considered incidental to *General Provisions* Section 105 *Mobilization*. The Engineer or his authorized representative shall determine the gate sign location.

**END SECTION 70**

**SECTION 80**

**MISCELLANEOUS CONSTRUCTION ITEMS**

**N/A**

**END SECTION**

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