



SPECIAL PROVISIONS

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James Cunningham



SECTION 10 GENERAL

10.01 OWNER

Sedona Airport (SEZ) is owned by Yavapai County and operated by Sedona/Oak Creek Airport Authority (SOCAA). Wherever the word Owner, Sponsor, Airport, or Operator appears in these specifications it shall be construed to mean Yavapai County, SOCAA, or the Sedona Airport as identified below:

Airport/Operator

Ed Rose, General Manager
Cameron Atkins, Deputy General Manager
Sedona/Oak Creek Airport Authority
Sedona Airport
235 Air Terminal Drive
Sedona, Arizona 86336
Telephone (928) 282-4487

Owner/Sponsor

Alex Eckel, Assistant County Engineer
Yavapai County Public Works
1100 Commerce Drive
Prescott, Arizona 86305
Telephone (928) 771-3183

10.02 ENGINEER

10.02.01 The Engineering Consultant for design for this project is:

Dibble (Civil)
3020 E Camelback Rd, Suite 201
Phoenix, Arizona 85016
Phone: (602) 957-1155

CR Engineers (Electrical)
16719 E Palisades Blvd
Fountain Hills, Arizona 85268
Phone: (480) 816-5541

10.02.02 The Construction Manager for this project is:

Dibble
3020 E Camelback Rd, Suite 201
Phoenix, Arizona 85016
Phone: (602) 957-1155

10.03 LOCATION OF THE WORK

The work is located on the airfield within the Air Operations Area (AOA) and inside the Airport's perimeter security fence. The project site is adjacent to the main helipad and Taxiway B.

10.04 GENERAL DESCRIPTION OF THE WORK

This project is comprised of the Reconstruction of the Helicopter Six-Pack Apron.

The major items of work associated with the project include the mill and overlay of the asphalt concrete apron, joint and spall repair on the concrete helicopter pads, pavement millings, new pavement markings, and electrical improvements including the replacement of the wind cone, heliport lights, power cables, and convenience outlets.

The Owner's intent is to award the contract to the lowest, responsive, responsible, and qualified bidder.

10.05 SPECIFICATIONS AND CONTRACT DOCUMENTS

Whether included herein or made a part by reference, the following are considered part of this Contract:

- Federal Contract Provisions
- Federal Wage Determinations
- Special Provisions
- Federal Aviation Administration (FAA) General Contract Provisions
- FAA Technical Specifications
- Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction
- Construction Safety and Phasing Plan
- Construction Drawings/Issued for Bid Plans

From time to time, discrepancies within cited testing standards can occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy, the Contractor shall immediately ask the Engineer for an interpretation and decision, and such decision shall be final.

List of Contract Documents in Order of Precedence:

1. Permits Issued by Jurisdictional Regulatory Agencies.
2. Change Orders.
3. Addenda.
4. Construction Contract/Agreement.
5. Notice to Proceed.
6. Federal Contract Provisions.
7. FAA General Contract Provisions.
8. Technical Specifications, FAA Standard Specifications for Construction of Airports.
9. Special Provisions.
10. MAG Uniform Standard Specifications and Details for Public Works Construction.
11. Plans/Drawings.
12. Contractor's Bid Proposal and Attachments

10.06 SCHEDULE OF DRAWINGS

List of Construction Drawings:

1. Cover Sheet
2. General Notes, Abbreviations, Legend, & Quantities
3. Survey Control Plan
4. Project Site Plan
5. Typical Sections and Civil Details
6. Demolition Plan
7. Paving & Marking Plan
8. Grading & Drainage Plan
9. Electrical Legend

10. Electrical Notes
11. Electrical Site Plan
12. Junction Can Details
13. Light Fixture and Retroreflective Marker Details
14. Conduit Ductbank Details
15. Grounding Details
16. Existing Single Line Diagram and Existing Panel Schedule

10.07 RFI SUBMITTAL PROCESS

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall submit a Request for Information (RFI) to the Engineer in the format specified in this Special Provision. Such request shall clearly state the Contractor's question or concern, reference the specification or plan sheet in question and state the date the request is submitted and the date by which the Contractor must have an answer in order not to delay Contractor operations. Contractor shall submit an RFI as soon as possible after having discovered need for additional information or clarification. The Engineer shall provide such further explanations as may be necessary and the Contractor shall conform to them as part of the contract. In the event of any doubt or question arising respecting the true meaning of these specifications, the Special Provisions or the plans, reference shall be made to the Engineer, whose decision thereon shall be final.

END SECTION 10



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SECTION 20 CONTRACT ITEMS

20.01 LICENSING

It is the responsibility of the bidder to determine whether the bidder has the appropriate contracting licenses to perform the work. The Owner will make the award, if any, to the lowest responsible bidder who has the proper licenses. The bidder is required to have the licenses at the time of bidding.

20.02 ERRORS AND OMISSIONS

Minor errors or omissions in the Proposal Form, Plans, or Specifications shall not relieve the Contractor from fulfilling the general intent of the Contract or from completing any item or items called for in the Plans, Specifications, or Proposal Form.

20.03 PERMITS

It is the responsibility of the Contractor to acquire and pay for all necessary permits as required for work performed at the Airport. The Contractor is responsible for the cost of, but not limited to, grading permits, federal clean water act, air quality permits, water meters, water and sewer taps, fire lines and taps, and all water bills on the project until the project is finally accepted. This provision does not constitute an assumption by the Airport or an obligation of any kind for violation of said permit or notice requirements. The cost of all required permits shall be included as non-pay items.

20.04 TAXES

Each bidder and the Contractor shall thoroughly familiarize himself with all laws, ordinances, regulations and rules required for the payment of taxes, and each Bidder and the Contractor are responsible for checking with the State, County, and local municipality on items that may be exempt and the steps which should be taken to obtain such exemption. Each bidder shall include the current approved State, County, and local municipal sales tax for the work that is bid.

20.05 ACCESS TO DOCUMENTS, RECORDS, ETC.

Yavapai County, ADOT, the FAA, or any of their duly authorized representatives shall be allowed access to any books, documents, papers, and records of the Contractor which are directly pertinent to the project for the purpose of making audit, examinations, excerpts, and transcriptions.

20.06 CONSTRUCTION COST INFORMATION

The Contractor shall furnish any and all cost information requested by the Engineer. The Airport or any of their authorized representatives shall be allowed access to any books, documents, papers and records of the Contractor that are directly pertinent to these projects for the purpose of making audit, examinations, excerpts and transcriptions.

20.07 FINAL PAYMENT

Upon satisfactory completion of all items called for in the Contract and in accordance with the approved plans and specifications, the Contractor shall furnish to the Engineer the following documents (at a minimum) for the project:

- 1.** A Contractor's Affidavit Regarding the Settlement of Claims.
- 2.** An original Affidavit acknowledging that all Subcontractors, Material Suppliers, Payrolls, Bills for Materials and Equipment, and other indebtedness connected with the work have been paid or are otherwise satisfied.
- 3.** An original Certificate evidencing that the required Insurance as contained within the Contract Documents is currently in effect and will not be canceled or allowed to expire until at least 30-days prior to written notice has been given to the Owner.
- 4.** A written consent of the Surety to Final Payment.
- 5.** Full and Final Release and Waiver on Liens from the Contractor and for each Subcontractor and Material Supplier, that documents that they have been paid in full.
- 6.** Certificate of Completion.
- 7.** Written 1-year Warranty, due at final completion, and other required documentation as provided for in Contract Documents.
- 8.** Final as-built plans (hard copy or electronic), signed by contractor's surveyor. See Special Provisions Section 40.11 for requirements on the contractor's as-builts.

The Contractor shall also be required to furnish the Owner with sworn affidavits attesting that all subcontractors, employees, materials suppliers, mechanics, etc. have been paid in full, for all debts incurred by the Contractor for work on this Contract. Upon receipt of the above clearances, and as listed elsewhere in these Contract Documents, the Contractor will receive full payment for the entire amount of his Contract, less previous progress payments as provided for in the Contract Agreement.

20.08 LIEN RELEASE

The Contractor shall submit monthly to the Engineer, a lien release which documents that all subcontractors and material supplies have been paid for the previous months work. No payment for the current month will be made until the Contractor has provided all lien releases for the previous month.

20.09 PAY ITEMS

All pay items relating to the work indicated in these Contract Documents are listed in the bid proposal sheet. The Contractor shall include all necessary costs to complete this project within these items. Any work necessary to complete the project as represented in the Plans and Specifications that is not specifically noted as a pay item on the bid proposal sheet shall be considered incidental to the project and no separate payment will be made.

END SECTION 20

SECTION 30 PRE-CONSTRUCTION CONFERENCE AND SUBMITTALS

30.01 PRE-CONSTRUCTION CONFERENCE

The Contractor's project superintendent and key subcontractors, Contractor's Quality Control Manager, Engineer's Resident Project Representative (RPR), Engineer's Project Manager, Engineer of Record, Engineer's Construction Manager, Owner's representative, FAA's representative, ADOT's representative, and Airport staff shall attend a Pre-Construction Conference, conducted by the Engineer's Construction Manager to discuss the following subjects, (at minimum).

30.01.1 GENERAL INTEREST AND SAFETY ITEMS

1. The scope of the project and the sequence and timing of all operations.
2. Submission of Contractor's construction schedule and barricade plan.
3. Relationship of the RPR to the sponsor with emphasis on the authority of the RPR to act in the sponsor's behalf.
4. Advise that the Owner has the authority to suspend operations, wholly or in part, when safety violations or nonconformance to the contract specifications are noted.
5. Relationship between Yavapai County, ADOT and the FAA.
6. Identification of the Contractor's superintendent and a discussion of his/her authority and responsibilities.
7. Designation of sponsor representative responsible for notifying the Flight Service Station serving the airport of the proposed start and completion dates of construction or any circumstances requiring a NOTAM.
8. Scheduling of work and the need to perform certain items at various stages of the project, including operational safety problems that might arise because of the proposed work.
9. Discuss the notice to proceed date.
10. Operational Safety on Airports during construction, including the responsibility for marking and lighting of closed and hazardous areas. See FAA AC 150/5370-2G, *Operational Safety on Airports During Construction and Standards for Airport Marking*, for detailed information.
11. Security requirements as identified (at a minimum) in Section 60 *Operations, Safety, and Security*.
12. All responsible parties must be alert to the following hazard-producing situations that may develop during the construction period:
 - a. Damage to existing in-use pavement lighting, marking or NAVAIDS by construction forces.
 - b. Spillage from vehicles on active airport pavement.
 - c. Temporary stockpiling of material for an extended period of time.
 - d. Contractor vehicular traffic through restricted critical areas of NAVAID facilities and the airport operating area.
 - e. Dust control and environmental factors, such as burning, waste disposal, etc.
 - f. Maintenance of sanitary facilities on the project site.

30.01.2 CONSTRUCTION ITEMS AND QUALITY CONTROL TESTING

- 1.** Discussion of the general requirements for quality control testing to be performed by the contractor. It should be clearly understood who will do the testing, what is to be tested, when it is to be tested, and the location and number of tests.

The Contractor shall perform all quality control inspection and testing as required and in accordance with the applicable technical specification and/or Special Provision Section 90.

- 2.** Discussion of Test Reports. Each report should, as a minimum, contain the following information.
 - a.** Test performed.
 - b.** Applicable standard.
 - c.** Test location.
 - d.** Test result.
 - e.** Action taken for failing tests.

A copy of all test reports shall be furnished to the RPR in a timely manner. Failing test results should be reported to the RPR immediately. Explain that the FAA and ADOT are not obligated to financially participate in construction that does not meet contract plans and specifications.

- 3.** Emphasize the Role of the RPR. Duties include the following:
 - a.** Ensure all required testing is performed.
 - b.** Ensure tests are performed at the frequency stated in the specifications. If not stated in the specifications, make sure an adequate number of tests are taken to document an acceptable level.
 - c.** Review test results for conformance to specifications.
 - d.** Inform the contractor of deficiencies so that corrections can be made and retests performed prior to covering any substandard work with additional material.
 - e.** Maintain record of quantity of materials used on the project.
 - f.** Maintain copies of test reports on file.
 - g.** Maintain a diary. Contents of a diary should include:
 - (1)** Weather conditions and temperature.
 - (2)** Work in progress and location.
 - (3)** Equipment in use - types and numbers.
 - (4)** Size of work force, including supervision.
 - (5)** Hours worked per day for contractor or subcontractors.
 - (6)** Materials delivered.
 - (7)** Any instructions to the contractor.
 - (8)** Principal visitors.
 - h.** Maintain a set of working drawings that can be used to prepare "as-built" drawings. Record drawings shall be furnished by the Contractor.
- 4.** Discussion of Weekly construction report, Construction Progress and Inspection Report (FAA Form 5370-1), (if required).

5. Change orders, time extensions, periodic cost estimates, and liquidated damages.

30.02 CONSTRUCTION SCHEDULE

The Contractor shall submit to the Engineer for review, its proposed construction schedule within ten (10) calendar days from the date of award of the contract. The following is a list of anticipated Yavapai County Holidays where airport staff may be limited:

- a. The night shift prior to Memorial Day
- b. All day on Memorial Day;
- c. The night shift on Memorial Day;
- d. The night shift prior to the 4th of July;
- e. All day on the 4th of July;
- f. The night shift on the 4th of July;
- g. The night shift prior to Labor Day;
- h. All day on Labor Day;
- i. The night shift of Labor Day;
- j. The night shift prior to Veterans Day;
- k. All day on Veterans Day;
- l. The night shift of Veterans Day;
- m. The night shift prior to Thanksgiving Day;
- n. All day on Thanksgiving Day;
- o. The night shift on Thanksgiving Day;
- p. All day on the day after Thanksgiving Day;
- q. The night shift the day after Thanksgiving Day;
- r. The night shift on Christmas Eve;
- s. All day on Christmas Day;
- t. The night shift on Christmas Day;
- u. The night shift on New Year's Eve;
- v. All day on New Year's Day;
- w. The night shift on New Year's Day.

The Contractor shall submit the following with regards to the Construction Schedule:

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 Contractor's modifications and suggested revisions to work sequencing indicated in the Contract Documents. Yavapai County reserves the right to approve or disapprove such modifications or revisions.
3. Review and recognition of this schedule shall not relieve the Contractor 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 Engineer 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 Critical Path Method (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 Contractor'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 Contractor 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 Contractor.
 - The scope of an activity shall be small enough to permit a reasonable appraisal of its status or as directed by the Engineer.
 - Activities of other Contractors or other subcontractors that must be completed prior to the start of the Trade Contractor's work or portion of work shall be included in the Trade Contractor's schedule as milestones and identified with a designation approved by the Construction Manager.
- 6.** The following information shall be furnished on the network diagram for each activity in the Trade Contractor's schedule:
- Description of the activity.
 - Duration of the activity in days.
 - Each activity shall be identified with early/late start, early/late finish, and total float.

30.03 SHOP DRAWINGS AND SUBMITTALS

The Contractor shall furnish digital copies of shop drawings and submittals to allow the Engineer 5 working days for review. The Engineer 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 engineer 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.

"Revise 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 exist in the submittal such that no work based on such drawings or submittal shall be constructed, fabricated, or manufactured. The contractor shall revise the drawing in compliance with the engineer's annotations and pursuant to all requirements of the contract and shall resubmit the drawing or submittal to the engineer for another review.

The Contractor 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. An example partial list of submittals has been made 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. Contractor's Construction Schedule.
4. Updated Contractor's Construction Schedule.
5. A Submittal Schedule.
6. Material Status Report.
7. Manpower Schedule.
8. A Schedule of Values*.
9. Contractor's Emergency Name and Phone Number List*.
10. A List designating those portions of the work to be performed by subcontractors and the Contractor's own forces.
11. A List of Subcontractors (submitted with the bid)/Material Suppliers with an Experience Statement.
12. A Lien Release documenting that all Subcontractors and Material Suppliers have been paid for the previous months work, monthly submission required.
13. Written Safety Program for the work.
14. Copy of all Subcontracts, including Material Suppliers.
15. Duplicate Original Certified Payroll Reports and Statement of Compliance, with sworn affidavits from the Contractor.
16. A List of Proposed Construction Equipment*.
17. Construction Cost Information, as requested by the Engineer.
18. Three (3) week look ahead Project Schedule at Weekly Construction Meetings.
19. Contractor Certification that the Initial Verification of the Control Points established are acceptable.

- 20.** Contractor Certification of Calculations and Measurements to fully support the derivation of all Monthly Pay Quantities.
- 21.** A Barricade/Temporary Fencing Plan and Traffic Control Plan*.
- 22.** A Safety Plan Compliance Document (SPCD)*.
- 23.** Contractor's Quality Control Plan, to be submitted 5-days prior to the Pre-Construction Conference*.
- 24.** Contractor's Quality Control Records, including Daily Inspection Reports and Daily Test Reports, to be submitted daily.
- 25.** Asphaltic Concrete Pavement and PCCP Mix Design(s).
- 26.** Certified Test Results for the Asphalt Concrete.
- 27.** Contractor's Affidavit Regarding Settlement of Claims.
- 28.** Submit a Disadvantaged Business Enterprise (DBE) utilization percent obtained for the project (if required).
- 29.** Submit an original Affidavit acknowledging that all Subcontractors, Material Suppliers, Payrolls, Bills for Materials and Equipment, and other indebtedness connected with the work have been paid or otherwise satisfied.
- 30.** An original Certificate evidencing that Insurance required by the General Conditions to the Construction 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.
- 31.** A written statement that the Contractor knows of no reason that the insurance will not cover the period required by the General Conditions to the Construction Contract.
- 32.** A written consent of the Surety to Final Payment.
- 33.** Record Drawings with a licensed surveyor's certification that the drawings are accurate and complete.
- 34.** An original, with notary signature, Full and Final Release and Waiver on Liens from the Contractor and for each Subcontractor and Material Supplier, that documents that they have been paid in full.
- 35.** Certificate of Completion.
- 36.** Written 1-year Warranty, due at final completion.

*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 Contractor shall certify each submittal and shop drawing by providing an original letter (on Contractor's letterhead) to the Engineer that he has reviewed and approved the submittal and that it conforms to the requirements of the Contract Documents before it is submitted to the Engineer.

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 Contractor shall define and delineate in writing, separate from the



certification, any deviations from the Contract Documents. If the Engineer 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 Engineer'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 Engineer will not relieve the Contractor 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

Contractor 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. The contractor shall record a video of the construction site, adjacent areas, staging yard, and fencing.

Contractor shall protect all existing structures and property from damage and shall provide bracing, shoring, or other work necessary for such protection. Contractor 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. Contractor 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 the Contractor's Staging and Storage Yard on the project site provided they are kept below a maximum height of 15 feet and not within any safety areas shown on the plans or within the Part 77 surfaces. Airport Operations shall approve all areas of storage.

40.03 ACCESS ROADS

The Contractor 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. 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 by the Engineer is required for all desired locations. The Contractor shall videotape all access and haul roads to be used by the Contractor prior to the start of construction, which will be reviewed by the RPR and Contractor together. The Contractor will be required to maintain all access roads and haul routes during construction and return to original condition at completion of construction all access roads and haul routes used during the course of the work.

40.04 FENCES

The Contractor shall maintain all existing and temporary 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 has been agreed upon. On completion of the work, the Contractor shall restore all fences to their original or to a better condition and to their original location or as indicated on the drawings. At fence and gate construction locations, prior to removal/demolition operations that affect the integrity of the airport perimeter, temporary fencing must be installed between the work zone and airside, connected to secure sections of fence at each end of the work zone. Temporary fence must be of adequate design to positively control pedestrian access to the airfield and must be acceptable to Airport Operations.

40.05 PARKING

The Contractor 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 Contractor'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.

40.06 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 Contractor at the Contractor's expense in accordance with the plans and specifications.

40.07 CONSTRUCTION DEBRIS

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

40.08 CLEAN-UP

The Contractor 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.

40.09 WEEKLY PROGRESS MEETINGS

The Engineer 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 Contractor prior to the start of the meeting and will be discussed by the Contractor 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 Engineer, in addition to representatives of the Airport and the Contractor, 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, corrections made (if any) and approval of the meeting minutes of the previous progress meeting, prepared by the Engineer, will be reviewed. 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.

Review progress since the last meeting. Determine where each activity is in relation to the Contractor'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 Engineer may tape record the meeting and the Engineer will distribute a copy to the Owner and Prime Contractor. The Prime Contractor shall be responsible to distribute the meeting minutes to subcontractors, suppliers, and others affected by decisions or actions resulting from each meeting.

40.10 CONSTRUCTION SURVEYING LAYOUT

The Contractor shall be fully responsible for all construction surveying and staking required for the completion of this project, including but not limited to the following: 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 Contractor 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 in the plans. 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 or subcontracted by the Contractor. All survey crew chiefs shall be one of the following: a registered Civil Engineer, a registered Land Surveyor, an Engineer-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 Contractor shall furnish a sufficient quantity of competent personnel to perform the survey work and layout. The Contractor shall not employ nor engage the services of any person or persons in the employ of the Engineer or the Airport for the performance of any work as described herein.

There will be no separate measurement or payment for any work, materials, or labor required for construction staking or the production of as-built/record drawings but shall be considered incidental to the project.

- a. **Field Books.** The Contractor shall furnish and use bound field books for recording survey data and field notes. These books shall be available for inspection by the Engineer 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 Contractor shall first verify the accuracy of the control points established by the Engineer. If errors are discovered during this

verification process, and the control points do not agree with the geometry shown in the plans, the Contractor shall immediately notify the Engineer in writing, explaining the issue in detail. The Engineer will advise the Contractor within five (5) working days of any corrective actions, which may be deemed necessary. Secondly, upon completion of this verification process, the Contractor's registered Land Surveyor shall certify in writing, that all control points established by the Engineer are acceptable and adequate to allow the Contractor's construction staking to meet the accuracy requirements of the specifications.

- c. General Description.** After the Contractor's registered surveyor has submitted his written certification verifying the accuracy of the control points established by the Engineer, the Contractor 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, supplement bench marks and permanent as-built elevation marks, as-built survey elevations of concrete pavement 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 Engineer.
- d. Preservation.** The Contractor 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 storm drain centerline.
- e. Discrepancies.** Any discrepancies in the grade, alignment, quantities, locations or dimensions detected by the Contractor shall immediately be brought to the attention of the Engineer. Changes to the project plans will not be allowed without the written approval of the Engineer.
- f. Random Inspections.** The Engineer reserves the right to make inspections and random checks of any portion of the staking and layout work. If, in the Engineer'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 Airport.
- g. Special Staking Requirements.** Utility adjustments are a part of the Contract; therefore the Contractor 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 Airport. However, the Contractor shall furnish the Engineer for each pay period, a certified set of his own 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 Engineer, see Federal General Provisions, Section 40 Scope of Work, paragraph 40-04, Extra Work.

- j. Measurement.** Survey will not be measured for payment. Travel time shall not be measured for payment. Survey work for quality control surveys shall not be measured for payment, but shall be considered incidental to the project.

40.11 AS-BUILT DRAWINGS

The Contractor shall keep one or more copy of all specifications, plans, addenda, modifications, working drawings and shop drawings at the site, and in good order. One of the sets of plans shall be annotated by the Contractor to show all changes made during the construction process as they occur. Upon completion of the project and prior to submittal of the final application for payment, the annotated set of plans showing the “as-built” work together with any annotated working and shop drawings of significance shall be delivered to the Engineer for the Owner’s record. At a minimum, the Contractor shall provide as-built elevations for each spot grade that is shown on the plans for finished pavement, finished ground, storm drain inverts and rim elevations; and as-built measurements for coordinates, slopes, horizontal dimensions, and station and offsets for improvements shown on the plans. The Contractor shall provide stations and offsets for each handhole, manhole, light base, catch basin or other similar structure on the annotated set of as-built drawings.

Furthermore, the Contractor shall have the Contractor’s registered Surveyor stamp the cover sheet of the final as-built drawings after the completion of the project and before submittal to the Engineer certifying the contractor’s as-built plans.

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 location 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 Contractor shall employ a private utility location service to locate the existing Owner and non-Owner utilities prior to starting the work. The Contractor shall pothole and use prudent care when excavating and locating said utilities.

The Contractor shall comply with the State requirements regarding excavation and underground utilities per A.R.S., Chapter 2, Article 6.3. and Sections 40.360.31 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 Contractor shall be responsible for locating all Owner and non-Owner utilities.

The Contractor'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, nor 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.

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

Location of any underground Utility lines may be field verified by calling the Blue Stake Center (Arizona 811) telephone number 811 or create a ticket online using E-Stake at:

<https://exactix.arizona811.com/>



The Contractor is required to call at least two (2) working days before digging. The Contractor shall locate all utilities including those that Blue Stake will not locate.

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

Measurement for “Location of Underground Utilities” shall be by the lump sum for subcontractors (i.e., Utility Designation/Potholing contractor) to complete utility locating in the project area.

Payment for location of underground utilities, measured as prescribed above, shall be paid based on the cost of completed work. Such payment shall be full compensation for furnishing all labor, equipment tools and materials and for all designation, preparation, excavation, backfilling and placing of materials; and for all incidentals necessary. Payment for the cost of each utility location will not be made until survey data has been submitted and approved by the Engineer.

Payment will be made under:

Item SP-50.01.1 Location of Underground Utilities – per Lump Sum

50.02 WATER FOR CONSTRUCTION PURPOSES

The Contractor, at his expense, shall provide all water required for, and in connection with, the work to be performed. The Contractor shall remove all temporary waterlines installed, after completion of the work, if directed to do so by the Engineer.

It is the Contractor's responsibility to identify the water source and its compatibility, storage, and costs for all water requirements for this project. The Contractor must submit a water source and its intended use to the Engineer 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.

50.03 ELECTRICAL POWER

All power for lighting, operation of Contractor'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 Contractor at his expense. The Contractor shall remove all temporary electrical facilities installed, after completion of the work, if ordered to do so by the Engineer.

50.04 SANITARY FACILITIES

Contractor shall furnish temporary sanitary facilities at the site, as provided herein, 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. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

END SECTION 50

SECTION 60 OPERATIONS, SAFETY, AND SECURITY

60.01 AIRPORT SECURITY REQUIREMENTS

The airport is operated in strict compliance with Federal Aviation Regulations (FAR), which prohibit unauthorized persons or vehicles in the AOA. Equipment and workmen will be restricted to the work area defined on the plans. Any violation by Contractor's personnel or subcontractors will subject the Contractor to penalties imposed by the FAA, County, or the airport.

The Contractor will assume all fines against the Airport assessed to them by the FAA 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 with regard to 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 and paving/seal sequence. 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 AOA. This plan shall be submitted at the Pre-Construction Conference. No work may commence until this plan is approved. The Plan must include material haul roads.
- 5.** Any time construction occurs within airport property, the Contractor shall be responsible for assuring that no breeches of airport property occur through his respective construction access gate. 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 Contractor's expense. The Contractor 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.

60.02 AIRPORT SAFETY REQUIREMENTS

a. Operating Construction Vehicles on the Airport

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

- The driver is authorized to access the worksite.
- The driver possesses a valid driver's license.
- The vehicle is properly marked with the company name.
- Vehicle is marked with lighted beacon or checkered flag or under escort.
- Transient haul truck drivers are to be escorted on and off the airport.

Vehicle Equipment – Daytime Operations:

All Contractor vehicles and equipment operating in the AOA during daylight hours must be equipped with either a 3-foot by 3-foot international orange and white checker patterned flag mounted on a staff and secured to the vehicle in such a location as to be visible from all directions or a flashing amber beacon, light bar or similar warning light device mounted on the vehicle in such a location as to be visible from any direction.

Vehicle Equipment – Escort Operations:

Contractor vehicles may be used to escort a maximum of three (3) other vehicles onto AOA, (only for a short period of time). The vehicle providing the escort must lead and is responsible for the trailing vehicle(s).

When any vehicle other than those routinely used on the runways, taxiways and aprons is required to travel over any portion of aircraft movement areas, it shall be escorted by a vehicle properly identified to operate in the area or be provided with a flag on a staff so attached to the vehicle so that the flag will be readily visible.

A flag or escort vehicle is not required for vehicles that have been painted, marked, and lighted for routine use on aircraft movement areas. Any vehicle operation on the movement area during the hours of darkness shall be equipped with a flashing amber dome-type beacon.

Vehicular traffic crossing active movement areas must be controlled by two-way radio in communication with the control tower and by escort or flagman. The clearance shall be confirmed by the driver's personal observation that no aircraft is approaching his position.

Aircraft have the right-of-way at all times.

b. Airfield Radios

Airfield radios not required. Contractor shall coordinate access to active airfield areas with Airport Operations Staff.

c. Prohibited Vehicles

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

d. 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.

e. Compliance

All traffic within the Airport Restricted Area and/or contractor 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.

f. 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.

g. Construction Vehicle and Equipment Markings

All construction equipment and vehicles shall have flashing amber beacons 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.

h. Operation of Vehicles within the Airport Restricted Area

No vehicle shall operate within the Airport Restricted Area:

- 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.

i. Speed Limits

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

j. 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 Airport Operations as soon as possible after the accident. The report must include the name and address of the person reporting. Copies of reports taken by the airport or county are acceptable for incidents that occur in the public areas of the airport.

k. Hearing Protection

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

l. Worker Injuries

In the event of a serious injury requiring medical attention, call **9-1-1** and notify the operator you are at the Airport. All injuries must also be reported to Airport Operations as soon as possible.

m. After Hours Contacts

The Contractor shall submit to the Engineer and Airport 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 titles and phone numbers.

n. Daily Site Inspections

Prior to the Contractor 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 Engineer prior to the Contractor leaving the worksite.

o. Deliveries

All deliveries for the Contractor shall be received by the Contractor. Deliveries will not be accepted by anyone other than the Contractor. The airport and its authorized representatives will not accept or be responsible for deliveries.

p. Taxiway Closures

Taxiway and runway closures require a minimum of:

- Prior notification and coordination in accordance with the Contract Documents.
- Closure requests shall factor in time for unanticipated events such as weather and equipment malfunction.
- Movement area closure schedules must be met. The Contractor shall advise the Engineer immediately of any need to extend a closure.
- Failure to meet a closure schedule may result in fines.
- Barricade lights must be red in color and either steady burn or flashing.
- Strict adherence and coordination with the phasing plans found within the Construction Plans.

q. Haul Routes

The Contractor and his personnel and all over vehicles shall remain on the designated haul routes as approved by the Airport of Engineer. The Contractor must follow the haul route provided on the Approved Plans, or as directed by the Airport and/or RPR. The Contractor shall keep all work areas clean of debris and shall be fully liable for any damages that occur to an aircraft caused by construction debris. The Contractor shall be responsible to restore any damages to any pavement used as haul routes incurred during construction to the original state at no additional cost to the owner. All cost associated with the restoration of the haul routes shall be considered incidental to other appropriate bid items and no separate payments will be made.

- A portion of the haul route is in the Airport Public Right-of-Way and Contractor shall abide by Traffic regulations. Contractor shall maintain access in the vicinity of the haul routes to provide access to the parking lot and Airport vehicles.

- Placards will be issued to transient haul trucks (i.e. concrete) upon entry into the Restricted Area by the gate guard.

r. 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.

s. Runway Safety Areas

Construction within the following areas is prohibited, unless required by the Contract Documents and is subject to approval of the Engineer.

- Within 75 feet parallel to an active runway centerline
- Within 300 feet of the end of an active runway

t. Staging & Storage Area

All contractor materials, equipment and supplies shall be within the contractor's designated staging and storage area. All staging and 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 located outside of the runway/taxiway safety and obstruction free areas.
- 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 Engineer.
- The highest point of the equipment marked and lit with a red flashing/steady burning omni-directional obstruction light.

u. Barricades & Lighting

All construction areas shall be delineated with low-profile barricades that meet FAA standards to prevent intrusion by taxiing aircraft, vehicles, or pedestrians, (FAA AC 150/5370-2G). Low level barricades shall be orange in color with white reflective tape on both sides of the barricade and shall be a minimum of six (6) feet in length and a maximum of ten (10) inches in height, (not including required flagging or lights).

All barricades must be equipped with **RED omni-directional lights**, either flashing or steady burning, to provide additional visual warning whether during normal daytime and nighttime operations or during periods of reduced visibility due to weather conditions. Lights may be either battery-powered or solar powered; however, the intensity of the lights must be sufficient to adequately and without ambiguity delineate the construction areas. The Contractor is responsible to maintain all barricade lights in working conditions to the approval of the Airport.

Barricades should include orange or alternating orange and white checkered flags at least 20 inches by 20 inches square and securely fastened to eliminate jet engine ingestion. The barricades shall be installed so that they are always in the extended position and properly oriented. Maximum spacing between barricades shall be four (4) feet, or as shown on the approved plans, or as directed by the Airport.

The use of frangible hazard markings, such as concrete barriers, railroad ties and/or metal-drum-type barricades is prohibited. For certain non-movement areas, the Airport may consider the use of Type II or other similar barricades with prior approval.

1. Non-Movement Areas

In addition to the general barricade requirements above, for projects that may impact airport business and facilities, it will be necessary to coordinate ingress and egress routes with the Airport. The Contractor shall coordinate and make provisions, including barricading, to accommodate aircraft movements to and from existing businesses and facilities within the construction area.

2. Movement Areas

In addition to the general barricade requirements above, all barricades, temporary markers, and other objects placed and left in safety areas associated with any runway, taxiway, or taxilane must be as low as possible to the ground; of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted to prevent displacement from prop wash, jet blast, rotor wash, or surface wind.

Special Requirements:

- 1.** The Contractor shall be allowed to have a maximum of five (5) red flashing lights out of service at a single time. The Contractor shall be fined \$250 each night that six (6) or more barricade lights are out of service. All fines shall be paid directly to the Airport.
- 2.** The Contractor shall coordinate his construction so that taxiways and runways are open to traffic during weekends to the greatest extent possible consistent with FAA Safety Standards and the Airport operational requirements.

- 3.** The Contractor shall employ a “designated” person who will be responsible for ensuring that all barricades, signs, barricade lights, and any other traffic control devices are established and maintained in strict compliance with the contract requirements. The designated person shall:
 - a.** Inspect all barricading and traffic control devices on a regular, recurring basis to ensure functionality and compliance with FAA standards.
 - b.** Ensure that existing airport signage and lighting does not conflict or create any confusion with the barricades and traffic control devices and shall immediately bring any conflicting conditions to the attention of the Airport Operations Staff.
 - c.** Be available 24 hours a day to maintain all barricades including lights and flags used to delineate construction and hazardous areas in fully operational condition.
 - d.** Ensure that flagmen, when employed, are sufficiently trained to operate safely on the airport.

v. Trenches and Excavations

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 75 feet parallel to a runway centerline (trenches/excavations within 250 feet of a runway centerline require a runway closure which is subject to strict controls).
- Within 62 feet parallel to a taxiway object free area.
- Within 300 feet of the end of a runway.
- Open trenches not to exceed 500 feet in length at any one time.
- Spoils from excavations are to be placed on the runway/taxiway side that is 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 4 feet or that to properly delineate the trench.

w. Stockpiled Material

Stockpiled materials are allowed only within the Contractor’s designated staging & storage areas.

- Remove daily all stockpiled material from within aircraft movement areas, unless otherwise directed by the Engineer.
- No excavated or stored materials may remain within active runway or taxiway safety areas and object free zones.
- Stockpiled material may be located within the AOA only upon prior coordination and approval of the Engineer.

x. Haul Trucks

Transient haul truck drivers are required to check in with the Contractor gate 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 gate 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.

y. 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, on airport property. No person shall furnish, give, sell, or trade a weapon on airport property. A weapon includes all those listed in Section 13-3101, Arizona Revised Statutes.

z. Gate Guard Responsibilities

- Use telephone equipment to notify Airport Operations and the Contractor Foreman of any security violation or threat to airport safety. Report any failure of communication equipment immediately.
- Assure that all authorized Contractor employees or suppliers use designated haul route and staging areas.

Monitor the Property access gate at all times and NEVER leave a gate open, unsecured or unattended.

aa. Contractor Responsibilities

- The Contractor must maintain and provide to the Engineer 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 Contractor must furnish guards with a sufficient number of flags for transient vehicles such as concrete or asphalt trucks entering the Property.
- The Contractor must furnish guards a means of securing the access point should the guard have to leave the area in an emergency.

60.03 SCHEDULE OF FINES

Due to both the safety and security precautions necessary at the Airport and the impact to airport users, failure of the Contractor 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 Contractor's own employees. Therefore, if the Contractor is found to be in non-compliance with the security and airfield safety requirements by either the Owner's personnel or the Engineer or his representatives, the Owner may issue a 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 SEZ Project Representative. The appeal shall state, in sufficient detail, why the NOV/circumstance 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, and 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 the **Schedule of Fines** listed on the next page 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.

Schedule of Fines	
DESCRIPTION OF FINES	PER PERSON PER OCCURRENCE
Runway or Taxiway Safety Area Incursion	\$1,000
Taxiway Incursion	\$2,500
Runway Incursion	\$2,500
Security Violation	\$2,500
Level 1 Violation of Airport Rules and Regulations	\$250
Level 2 Violation of Airport Rules and Regulations	\$500
Level 3 Violation of Airport Rules and Regulations	\$1,000

60.04 TRAFFIC CONTROL, BARRICADING, AND CLEANUP

General Requirements:

The Contractor shall submit cleanup procedures for approval by the Owner to be followed at the close of each day’s work, as part of the Airfield Safety and Security Plans. At a minimum, the cleanup procedures shall include an itemized, detailed list of tasks and equipment to be used to properly clear all areas within Runway and Taxiway Safety Areas in accordance with FAA AC 150/5370-2G. The cleanup procedures shall specifically identify all work to be performed on a daily basis for each Phase of construction identified on the plans. The cleanup procedures shall also include the requirement of the Contractor and Engineer to perform a site walk of the entire effected area of construction a minimum of 2 hours before that area is scheduled to be reopened to aircraft traffic to assure that it has be cleaned and cleared of all equipment and debris in accordance with FAA AC 150/5370-2G. The Contractor shall also be responsible for delineating the limits of construction operations consistent with the approved Phasing and Barricading Safety Plan(s) and/or as directed by the Airport. The Contractor shall submit a Phasing and Barricading Safety Plan(s) as required in the Airport’s Construction Safety Plan. The Contractor shall be responsible for providing, the installation of, and the maintenance of barricades and traffic control devices necessary for the control of aircraft, vehicular, and pedestrian traffic. Any requests to modify the approved barricading and phasing plans must be submitted to the Airport for review and approval.

The Safety Plan Compliance Document (SPCD) must be submitted by the Contractor at the Pre-Construction Conference.

Measurement and payment for the Airfield Safety and Security Plans identified above shall be considered incidental to the project, and shall include full compensation for furnishing all labor, materials, tools,



equipment, and incidentals necessary to complete the work to the satisfaction of the Owner, as shown on the plans or as directed by the Engineer.

Barricade Requirements:

See **Section 60.02.u. Barricades & Lighting.**

Aircraft Movement Area:

See **Section 60.02.a. Operating Construction Vehicles on the Airport.**

Airport Construction Restrictions and Requirements:

The Contractor is responsible for compliance at all times with the policies and guidelines specified in the Construction Safety and Phasing Plan, and with FAA AC 150/5370-2G, Operational Safety on Airports During Construction. These documents may be made available to the Contractor upon request.

Approved Airfield Radios:

See **Section 60.02.b. Airfield Radios.**

Haul Route:

The Contractor must follow the haul route provided on the Approved Plans, or as directed by the Airport and/or RPR. The Contractor shall keep all work areas clean of debris and shall be fully liable for any damages that occur to an aircraft caused by construction debris. The Contractor shall be responsible to restore any damages to any pavement used as haul routes incurred during construction to the original state at no additional cost to the owner. All cost associated with the restoration of the haul routes shall be considered incidental to other appropriate bid items and no separate payments will be made.

Measurement and Payment

Measurement and payment for Airfield Safety and Security shall be by lump sum and shall be considered full compensation for furnishing all labor, materials, fuel, warning lights, crossing guards, escorts, furnishing, placing, and maintaining (day and night) all temporary fencing, barricades and lights, Lighted-X's, all vehicle and equipment markings for all construction personnel, tools, equipment, flagmen, cell phones, radios, and incidentals to safely control traffic as identified in these Special Provisions and in the Construction Safety and Phasing Plan to provide the proper security for the Airport. Partial payments of the lump sum item will be made as follows, provided that the airfield safety and security is maintained and satisfactory to the RPR. All costs for all work, tools, equipment, materials, etc. for Airfield Safety and Security as described herein shall be provided in the bid line items provided below.

- a. With first pay request, 30%
- b. After completion of the existing aggregate base course, an additional 20%.
- c. After completion of the service road, an additional 20%.
- d. After completion of the asphalt surface course, an additional 20%
- e. After final inspection and acceptance of project, the final 10%.

Payment shall be made at the lump sum price shown in the Bid Schedule for:

Item SP-60.04.1 Airfield Safety and Security – per Lump Sum

END SECTION 60



SECTION 70 MISCELLANEOUS

70.01 NOT USED

END SECTION 70



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SECTION 80 GENERAL CONSTRUCTION ITEMS

80.01 NOT USED

END SECTION 80



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SECTION 90 MAG STANDARD SPECIFICATIONS

This item shall consist of the materials and construction requirements as described in the current edition of Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction per the referenced section and modified per these special provisions, plan details, Engineer’s supplementary information, and manufacturer’s recommendations.

90.01 AGGREGATE BASE COURSE

Materials

Aggregate and base material for taxiways and Airport service roads shall be in accordance with MAG Sections 701 and 702, respectively, except reclaimed concrete material (RCM) and reclaimed asphalt pavement (RAP) are not allowed, unless noted herein or otherwise approved by the Engineer. Material shall meet the gradation and quality requirements for ‘Aggregate Base Course’ as defined in Table 702-1.

Dust palliatives for use on the Airport service roads shall be in accordance with MAG Section 792, Acrylic Polymer type, as described below. Product applied shall be Soil-Sement (manufactured by Midwest Industrial Supply, Inc.), PolyPavement (manufactured by Poly Pavement Company), Liquid Dust Control (manufactured by Enviroseal Corp.) or Approved Equal. Products shall be acrylic polymer types of acrylic, acrylate, and acetate liquid polymers characterized by the following:

Specification Designation	Requirements	Test Method
Specific Gravity, 258C	1.0 - 1.15	ASTM D1298
Active Solids Content	Min. 40%	ASTM D2834
pH	4.0 - 9.5	ASTM E70
Odor Intensity	Slight	--
Solubility in Water	Dilutable	--
Brookfield Viscosity, 258C, cps	Max. 1500	--

The emulsion shall be stable and shall not break when stored in clean closed containers at ordinary temperatures, excluding freezing or boiling, for a minimum of 3 months. It shall be miscible with water in all proportions. The sequestering agents shall make the preparation stable against hard water, thus permitting dilution of the emulsion with almost all types of water. The emulsion shall be non-corrosive to metal containers. The material shall penetrate into the soil surface and not form a skin at the surface.

Products shall not contain or emit chlorinated fluorocarbons (CFs, Freons) or volatile organic compounds (VOCs). HMIS rating shall be equal to or less than for each category: H=1; F=1; R=1; PPE=X.

Contractor shall provide a copy of the current Safety Data Sheet (SDS) for each product proposed for use. The SDS must include all chemical compounds present in concentrations greater than 0.1 %.

Contractor shall provide certification that storm water runoff from treated materials will not contain concentrations that exceed water quality benchmark values of the parameters designated in Table 5 of the National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities or the Arizona surface water quality standards as defined in the Arizona Administrative Code, Title 18, Chapter 11. This certification can be documented by all of the following methods:

- a. Conduct aquatic toxicity testing and provide full test data results.
- b. Provide complete and accurate listing of chemical constituents (by percentage and quantity) which make up the product. This must include all proprietary chemical information.

Dust palliatives/stabilizers and their degradation products shall not be composed of any element, compound, mixture, or produce runoff with the characteristics identified under 36-2822 of the Arizona Hazardous Waste Management Act, emit or off gas during placement, use, or degradation of any hazardous chemical substance or mixture pursuant to Section 7 of the Federal Toxic Substances Control Act [15 U.S.C. §2606], be designated by rule an extremely hazardous chemical substance pursuant to the Arizona Environmental Quality Act, be prohibited for use by the Arizona Department of Environmental Quality, the Environmental Protection Agency, or any applicable law, rule or regulation. Dust palliatives/stabilizers, or their components and degradation products shall not be substances or composed of substances known to be, or reasonably anticipated to be, carcinogenic by the U.S. Department of Health and Human Services.

Manufacturer shall provide independent verification and certification of performance and environmental claims by a recognized agency of the United States programs for chemical dust suppressants. Failure to provide adequate proof of conformance to the criteria shall be considered grounds for rejection.

Application of the dust palliatives/stabilizers in accordance with these specifications shall provide a stabilized surface, as defined herein and in accordance with the test methods provided for a minimum period from substantial completion of twelve (12) months; the warranty period.

Construction Methods

In areas where the existing aggregate base is to remain, the existing base material shall be scarified to a depth of at least 3 inches, additional base material distributed as required, reshaped, and recompact to grade until the required smoothness and accuracy are obtained and approved by the RPR. Remove unsuitable material as directed. Compaction shall be achieved using vibratory steel drum and rubber-tire rollers and rolling shall be continued until the surface is dense, stable, and free of loose material. The finished surface shall be smooth, uniform, and free of ruts, potholes, segregation, or oversized chunks.

In Airport service road areas, the contractor shall apply an acrylic polymer dust palliative to the surface of the aggregate base course. The dilution ratio shall be 9:1 (9 parts water to 1 part concentrate) and in accordance with the manufacturer's recommendations. The mixture of water and concentrate shall be applied at a rate of 1.80 gallons per square yard as recommended by the manufacturer. The total application rate of undiluted acrylic polymer will be 0.20 gallons per square yard. The exact rate shall be approved by the RPR based on a test section provided by the Contractor.

Acceptance Sampling and Testing

The Contractor's laboratory shall perform all quality control and acceptance tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance. Aggregate base course shall be accepted for density and thickness on an area basis. A minimum of two (2) tests for each 1200 square yards of aggregate.

The surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches, moisture conditioned, reshaped and recompact to grade until the required smoothness and accuracy are obtained and approved by the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense. The smoothness and accuracy requirements specified here apply only to the top layer when base course is constructed in more than one layer.

a. Smoothness. The finished surface shall not vary more than 3/8-inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot straightedge for the full length of each line on a 50-foot grid.

b. Grade. The grade and crown shall be measured on a 50-foot grid and shall be within +0 and -1/2 inch of the specified grade.

Method of Measurement and Payment

Existing Aggregate Base Course. Measurement and payment for scarifying, grading, and recompacting the existing aggregate base course shall be made at the contract unit price per square yard. The price shall be compensation for furnishing all materials, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Airport Service Roads. Measurement and payment for placing, grading, and compacting millings for Airport service roads shall be made at the contract unit price per square yards. The price shall be compensation for furnishing all materials, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment shall be made under:

Item SP-90.01.1	Scarify, Grade, and Compact Existing Aggregate Base Course (MAG 310) – Per Square Yard
Item SP-90.01.2	Place, Grade, and Compact Existing Millings for Service Road – Per Square Yard

90.02 ASPHALT CONCRETE PAVEMENT

Materials

Asphalt concrete mix design requirements for taxiways shall be in accordance with MAG Section 710, except RAP and warm mix technology are not allowed, unless noted herein or otherwise approved by the Engineer. Asphalt Binder shall be Performance Grade Asphalt conforming to the requirements of MAG Section 711 for PG 64-22. The date of the design shall not be older than one year from the date of submittal. The Marshall Mix Design shall be performed in accordance with the requirements of the latest edition of the Asphalt Institute’s Manual, MS-2 “Mix Design Methods for Asphalt Concrete.” The mix shall use the compactive effort of 75 blows per side of specimen. The mix shall comply with the criteria in Table 710-3 for 1/2-inch mix.

This item includes specifications for furnishing all materials, mixing at a plant, hauling and placing a mixture of aggregate materials, mineral admixture and asphalt binder to form a pavement course for placement upon a prepared base.

The mix design and laydown plan shall be submitted to the Engineer at least ten (10) working days prior to the start of asphalt concrete production. The laydown plan shall include sequenced paving lanes and widths to minimize the number of cold joints; the location of any temporary ramps; laydown temperature; hot and cold joint construction method; rolling method; and estimated time of completion for each portion of the work (paving, rolling, cooling, etc.).

Construction Methods

Placement and construction of asphalt concrete pavement shall conform to MAG Section 321 and shall not commence until authorized by the Engineer. Warm mix technology is not allowed. Commencement of asphalt concrete paving will be authorized by the Engineer after (1) the mix design and laydown plan has been submitted and approved; (2) the aggregate base course or underlying base has been approved.

Acceptance Sampling and Testing

The Contractor's laboratory shall perform all quality control and acceptance tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance.

Asphalt surface course acceptance criteria shall be in accordance with MAG Section 321.10. Tests used to determine acceptance will be performed by the Contractor's laboratory accredited by the AASHTO Accreditation Program (AAP) for the tests being performed. The Contractor shall provide an appropriately accredited laboratory or laboratories to perform the acceptance testing. Laboratories shall use properly certified technicians in accordance with ASTM D3666, Section 7 (Personnel Qualifications).

The acceptance laboratory will take representative samples of the asphalt concrete from each subplot to allow for testing of gradation, binder content, air voids, pavement thickness, and compaction of base and surface courses. Acceptance of each subplot will be based on the test data from the sample(s) from that subplot. All acceptance samples shall be taken using random locations or times designated by the RPR in accordance with ASTM D3665. Testing that does not strictly adhere to the sampling and testing methodology and requirements outlined in this section shall be disregarded and not considered in any acceptance determination. All required retesting shall be at the expense of the Contractor. Acceptance testing results shall be furnished to the Engineer within 24 hours of receipt of samples by the acceptance laboratory.

Method of Measurement and Payment

Measurement and payment for asphalt pavement shall be measured by the number of square yards of asphalt pavement used in the accepted work, as adjusted per MAG Section 321.10, which price shall be full compensation for the item complete, as herein described and specified. Payment for a lot of asphalt mixture meeting all acceptance criteria shall be made at the contract unit price per square yard for asphalt. The price shall be compensation for furnishing all materials including tack coat, mineral aggregates, asphalt binder, and mineral admixture, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment shall be made under:

Item SP-90.02.1	Asphalt Surface Course, (MAG 321, 1/2-Inch Mix, PG64-22) – Per Square Yard
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END SECTION 90