PETALUMA MUNICIPAL

AIRPORT



CONSTRUCTION SAFETY AND PHASING PLAN

BASED AIRCRAFT APRON REHABILITATION

AIP No. 3-06-1486-029-2022



January 28, 2022

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1. OVERVIEW

This document presents the Construction Safety and Phasing Plan (CSPP) for the Based Aircraft Apron Rehabilitation (Project) at the Petaluma Muncipal Airport (Airport), being performed under a future Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grant No. 3-06-0186-029-2022. Specifically, the Project scope includes the following elements:

Work Area A: Reconstruction

- Asphalt Concrete Pavement Removal
- Subgrade Excavation and Preparation
- Lime and Cement Treatment of Subgrade and Compaction
- Placement and Compaction of New Aggregate Base Material
- Paving of New Asphalt Surface Course
- Application of New Pavement Markings
- Tie-Down Installation
- Drainage Improvements, including New Valley Gutter, New Curb and Gutter, and Underdrain Replacement

Work Area B: Surface Treatment

- Surface Preparation
- Crack Repair and Isolated Pavement Repair (If needed)
- Double Application of Slurry Seal
- Application of New Pavement Markings
- Replacement of Tie-Down Chains

2. PURPOSE

The CSPP provides single source procedural information for all key Project personnel to use during construction, and defines the specific responsibilities of the Airport Operator, the Contractor, Airport users/tenants, and the Project Engineer. The FAA's Safety and Phasing Plan Checklist was utilized in the preparation of this CSPP, which includes (but is not limited to) provisions for Airport safety and security, operational limitations on construction activities, identifying potential hazards and the impacts those hazards may have on airfield and construction activities, and construction phasing requirements to minimize impact on airfield operations.

Requirements for maintaining operational safety during construction are in conformance with FAA Advisory Circular 150/5370-2G, "*Operational Safety on Airports During Construction*." The Project specific safety and phasing provisions for the Project elements are shown on Plan Sheets G-021 and G-081, as well as detailed in the Project Specifications. Copies of the Plan Sheets are attached to this report as *Attachment A*.

3. CONSTRUCTION SAFETY AND PHASING RESPONSIBILITIES

3.1 AIRPORT OPERATOR

The Airport Operator is responsible for operational safety on the Airport at all times. The City of Petaluma is the Airport Operator. The City will issue Notice to Airmen (NOTAM) whenever construction activities occur in the AOA. City staff will provide oversight of all construction activities and coordinate those activities with Airport users (pilots), and Airport tenants. The City will hold weekly construction progress and safety meetings. During

those meetings, operational safety will be reviewed, and an action plan will be developed as needed to address any discrepancies in safety that need to be corrected. The City will require the Contractor to submit a Safety Plan Compliance Document (SPCD) detailing the Contractor's compliance with the CSPP. City approval of the SPCD will be required prior to issuance of the Notice to Proceed with Construction.

3.2 CONSTRUCTION CONTRACTOR

The Contractor will be determined by a competitive bidding process. The Contractor's responsibilities for safety and phasing are detailed and defined in the Contract Documents. The Contractor will be required to attend weekly progress and safety meetings and to correct any discrepancies found in safety. The Contractor is required to submit a completed SPCD to the City for approval by the City before the Notice to Proceed for Construction can be issued. A sample SPCD is included as *Attachment B*.

3.3 AIRPORT USERS AND TENANTS

The City will notify Airport users and tenants of all pending construction activities that impact them and advise the users and tenants of planned pavement closures and other activities in the AOA that will affect aircraft/Airport operations. Users and tenants will be permitted to attend weekly construction progress and safety meetings when appropriate.

3.4 RESIDENT PROJECT REPRESENTATIVE

As part of the Project construction management, observation, and quality assurance process the Resident Project Representative (RPR) will communicate and coordinate between representatives associated with the project. The RPR will observe construction activities and safety measures being implemented by the Contractor. Any discrepancies in safety will be immediately brought to the attention of the Contractor and City for corrective action implementation.

4. CONSTRUCTION SAFETY AND PHASING

4.1 COORDINATION

4.2.1 Design Progress Meetings

Progress meetings were held throughout the design phase. These meetings were held to help avoid possible conflicts between construction activities and the operation of the Airport. A draft version of this CSPP was uploaded to the FAA's OEAAA website.

4.2.2 Prebid Conference

A prebid conference will be held to help clarify and explain construction methods, procedures, and safety measures required by the Contract. The prebid conference will be held a minimum of 10 (ten) days prior to the bid opening date.

4.2.3 Preconstruction Conference

A preconstruction conference will be held as soon as practicable after the Contract has been awarded and before issuance of the Notice to Proceed for the Construction Element. The preconstruction conference participants should include, but not be limited to, the City, Project Engineer, Airport management, testing laboratory representative, Contractor and subcontractor(s), Contractor's project superintendent, Contractor's project clerk, Airport users, utility companies, emergency services personnel, federal, state, or local agencies affected by the proposed construction, and FAA representative. The Contractor will distribute copies of the proposed construction schedule five (5)



days prior to the preconstruction meeting to the Engineer for distribution. The schedule will be presented by the Contractor at the preconstruction meeting.

4.2.4 Contractor Progress Meetings.

Contractor progress meetings will be held weekly for the duration of construction. Operational safety will be a standing agenda item for discussion during progress meetings throughout the Project. The Contractor's project superintendent, project manager, and project foreman are required to attend meetings. Date, time, and location of the progress meetings will be determined at the preconstruction meeting.

4.2.5 Scope or Schedule Changes

Scope or schedule changes for the Project may necessitate revisions to the CSPP and require review and approval by the City and the FAA.

4.2.6 FAA Air Traffic Organization (ATO) Coordination

The Airport currently has a Precision Approach Path Indicator (PAPI) maintained by the FAA ATO. This Project will not impact the FAA facility. Nonetheless, the FAA ATO may elect to take part in the coordination meetings stated above at their discretion.

4.2 PHASING AND TIME LIMITATIONS

The Project has been divided into two Elements: 1) Mobilization and 2) Construction. The Construction Element has been divided into work areas with unique phasing restrictions. A separate Notice to Proceed will be issued for Mobilization Element and the Construction Element. The Notice to Proceed for the Construction Element will not be issued until the Mobilization Element is complete and the SPCD is approved by the City. The work efforts and affected airfield areas within the AOA are detailed below. The table below shows the allowed durations for each element:

Contract Award	Mobilization Element	Construction Element, Phase 1	Construction Element, Phase 2	Total
Base Bid	30 working days	40 working days	2 working days	72 working days

Phase 2 shall begin no earlier than 30 calendar days after the placement of asphalt surface course and slurry seal. If the Contractor fails to meet any of these time limitations, liquidated damages will be assessed as described in the Project Specifications.

4.2.1 Element 1 – Mobilization

(Thirty (30) Working Days)

During this Element of the Project, no work will be conducted that in any way restricts Airport operations. The Contractor will be allowed limited access to Work Areas A and B in accordance with the CSPP, for the purpose of performing preparatory work. This access will be dependent on the level of aircraft activity at the Airport and shall be coordinated with the Airport in advance and performed on a pull-back basis, so as not to impact aircraft operations. The runway will be open and only limited construction activities, such as construction surveys and layout work will be allowed. Mobilization work will include, but not be limited to, the following:

a. Processing of required submittals, including the Contractor's baseline construction schedule.



- b. Preparation and submission of the SPCD.
- c. All prequalification testing, review, and approval.
- d. Mix design preparation, review, and approval.
- e. Airfield Safety Devices delivered/prepared at the site (construction flags, low profile barricades, airport radios).
- f. Materials and equipment delivered to site, as applicable.
- g. Contractor shall perform existing survey verification in accordance with Item SP-100.
- h. Underground utility investigation and potholing can be performed during the Mobilization Element in accordance with Item SP-100, provided that potholing can be done in isolated areas that do not impact aircraft operations, and potholes are backfilled and capped immediately.
- i. All miscellaneous Mobilization efforts required to commence construction.

All preliminary work required to pursue construction to completion will be finalized during the Mobilization Element to minimize delays during construction.

4.2.2 Element 2 – Construction

4.2.2.1 Definition of Work Areas

- a. <u>Work Area A</u>: This work area consists of the southern portion of the Project limits.
- b. <u>Work Area B</u>: This work area consists of the northern portion of the Project limits.
- c. The work areas are shown graphically in the Project Plans, included as *Attachment A*.

4.2.2.2 Phase 1, Work Area A Summary and Phasing Restrictions

- a. <u>Scope of work</u>:
 - (1) Pavement removal
 - (2) Removal of existing tie-downs and valley gutter
 - (3) Subgrade preparation
 - (4) Lime and cement treatment of subgrade
 - (5) Construct P-209 base course
 - (6) Pave P-403 surface course
 - (7) Initial application of pavement markings
 - (8) Tie-down installation
 - (9) Drainage improvements, including new valley gutter, new curb and gutter, and underdrain replacement
- b. Area closed to aircraft operations: Taxilanes, tie-downs, and hangars within Work Area A
- c. <u>Duration of closure</u>: 40 consecutive working days
- d. <u>Alternate taxi route</u>: Not applicable
- e. <u>Emergency access routes</u>: Taxilane B can be used as alternative access for emergency vehicles if needed.
- f. <u>Construction staging area</u>: The designated staging area for materials and equipment shall be located east of Sky Ranch Drive, near the entrance to the Airport from Washington Street as shown in *Attachment A*.



- g. <u>Construction access and haul route</u>: The Contractor shall access the site via Sky Ranch Drive, through the main airport parking lot and automatic vehicle gate.
- h. Impacts to NAVAIDs: None
- i. <u>Temporary lighting and marking changes</u>: None
- j. <u>Required hazard marking and lighting</u>: Low-profile barricades shall be placed as shown in *Attachment A*.
- k. Lead times for required notification: 5 working days
- I. <u>Additional restrictions</u>: Contractor shall allow access for fuel trucks to the fuel area at all times.

4.2.2.3 Phase 1, Work Area B Summary and Phasing Restrictions

- a. Scope of work:
 - (1) Surface preparation
 - (2) Crack repair and isolated pavement repair (if needed)
 - (3) Application of slurry seal, double coat
 - (4) Initial application of pavement markings
 - (5) Replacement of tie-down chains
- b. Area closed to aircraft operations:
 - (1) Taxilanes and tie-downs within Work Area B
 - (2) Taxilane B adjacent to Work Area B
- c. <u>Duration of closure</u>: Within the overall 40 consecutive working days allowed for Work Area A, construction in Work Area B shall occur during the last 5 working days.
- d. <u>Alternate taxi route</u>: Aircraft can use Taxiway A in lieu of the closed portion of Taxilane B.
- e. <u>Emergency access routes</u>: Taxiway A can be used as alternative access for emergency vehicles if needed.
- f. <u>Construction staging area</u>: The designated staging area for materials and equipment shall be located east of Sky Ranch Drive, near the entrance to the Airport from Washington Street as shown in *Attachment A*.
- g. <u>Construction access and haul route</u>: The Contractor shall access the site via Sky Ranch Drive, through the main airport parking lot and automatic vehicle gate.
- h. Impacts to NAVAIDs: None
- i. <u>Temporary lighting and marking changes</u>: None
- j. <u>Required hazard marking and lighting</u>: Low-profile barricades shall be placed as shown in *Attachment A*.
- k. Lead times for required notification: 5 working days
- I. <u>Additional restrictions</u>: Work Area B construction will not be allowed from Friday 5:00 P.M. to Monday 7:00 A.M. This area shall be open to aircraft during that time.



4.2.2.4 Phase 2 Summary and Phasing Restrictions

- a. <u>Scope of work</u>:
 - (1) Final application of pavement markings
- b. Area closed to aircraft operations:
 - (1) Isolated taxilane, tie-down, and hangar closures
 - (2) Work to be performed on a pullback basis with Airport coordination
- c. Duration of closure:
 - (1) All Phase 2 work shall be performed within 2 working days.
 - (2) With Airport coordination, partial closures of the areas mentioned above will be permitted throughout the 2-working-day duration. Closure for any one area shall not exceed 2 hours. Barricades shall be placed around the limits of closed pavements as directed by the Airport.
- d. <u>Alternate taxi route</u>: Not applicable
- e. <u>Emergency access routes</u>: Emergency access will not be impacted during Phase 2.
- f. <u>Construction staging area</u>: The designated staging area for materials and equipment shall be located east of Sky Ranch Drive, near the entrance to the Airport from Washington Street as shown in *Attachment A*.
- g. <u>Construction access and haul route</u>: The Contractor shall access the site via Sky Ranch Drive, through the main airport parking lot and automatic vehicle gate.
- h. Impacts to NAVAIDs: None
- i. <u>Temporary lighting and marking changes</u>: None
- j. <u>Required hazard marking and lighting</u>: Low-profile barricades shall be placed as needed for isolated closures.
- k. Lead times for required notification: 5 working days

4.2.3 Construction Safety and Phasing Plan Sheets

Drawings specifically indicating operational safety procedures and methods in affected areas have been developed for the work areas. These Drawings are included in the Contract Drawing Bid Package (Plan Sheets G-021 and G-081).

4.3 AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION

4.3.1 Identification of Affected Areas.

Taxilanes, tie-downs, and hangars within Work Areas A and B.

4.3.2 Analysis of Construction Impacts to Part 77 Surfaces. No impacts.

4.3.3 Mitigation of Effects

City to coordinate temporary relocation of tenants utilizing the aircraft tie-downs.

4.4 NAVAID PROTECTION

The NAVAIDS will not be affected by this project.



4.5 CONTRACTOR ACCESS

4.5.1 Location of Stockpiled Construction Materials and Equipment

Location of stockpiled materials and equipment storage will be in the staging areas or as approved by the City. Stockpiling materials and equipment outside the staging areas and within the AOA will require prior approval from the City and will be subjected to additional limitations depending on the height(s). Stockpiled material will meet the requirements of Section 4.6, "Wildlife Management" to prevent the stockpile location(s) from becoming wildlife attractants.

4.5.2 Vehicle and Pedestrian Operations

4.5.2.1 Construction Site Parking

Employees' vehicles will be parked in the staging areas designated on the plans or outside the AOA. No employee vehicles will be allowed beyond the staging area limits. In areas where the staging area is adjacent to the perimeter security fence, all vehicles will be positioned a minimum of 10 feet away from either side of the fence.

4.5.2.2 Construction Equipment Parking

All service and construction vehicles and/or equipment will be parked in the staging area when not in use and will be positioned a minimum of 10 feet away from either side of a perimeter security fence. See Section 4.17, "Protection of Runway and Taxiway Critical Areas" for further parking restrictions within safety areas and object free areas. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment will not be allowed to park on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway at night, the City must approve the request and the equipment will be lighted in accordance with Section 4.18, "Other Limitations on Construction."

4.5.2.3 Access and Haul Roads

The Contractor will be required to use only the Project security gates and haul routes shown on the drawings. Phase specific haul routes are shown on the Project Layout Plan. Right-of-way will be given to all emergency services vehicles and aircraft sharing the haul routes with the Contractor.

4.5.2.4 Marking and Lighting of Vehicles

Only marked Contractor-owned/operated vehicles required for the proper execution of the work will be allowed in the work area. Motor vehicles will be equipped with an omni-directional amber flashing light, head lights, taillights, and flashers that will be used between sunset and sunrise or when visibility is low. Vehicles within the airfield environment will display company identification markings on both sides of the vehicle. Non-motorized equipment will have reflective devices displayed on the front, back, and sides. Vehicles and equipment will have an FAA orange and white checkered flag, 3 feet by 3 feet minimum, attached to a pole mounted on the rear bumper, and visible from 300 feet at all angles during daytime hours. All supervisory and survey personnel operating with a City escort within the airfield environment but outside the work area, will have a company vehicle with an amber flashing light mounted on the roof of the cab and identifying markings visible from 300 feet mounted on both sides of the vehicle.

4.5.2.5 Training Requirement for Vehicle Drivers

The Contractor shall designate construction personnel (minimum of 3) to receive training on movement around the Airport during the construction Project. The designated trained personnel will be responsible for escorting non-trained construction personnel who will be working within the airfield environment. The designated construction personnel will attend an airfield orientation/driver training



class conducted by the City as part of the requirements to obtain authorization to operate on the airfield. The Contractor will contact the Airport Operations Manager, a minimum of 48 hours in advance to schedule training class for the select construction personnel. No training classes will be available on Saturdays or Sundays. Training classes will be limited to twenty-five (25) people, maximum, per class. The approximate duration of the training class is one hour (Airfield Orientation/Driver).

4.5.2.6 Situational Awareness

Yield the right-of-way to moving aircraft (whether under tow or their own power) and pedestrians. While driving or working within the airfield environment, personnel will not wear any devices in or on their ears, other than those used to protect hearing or communicate company business. Yield right-of-way to emergency vehicles displaying rotating beacons (other than amber) and/or using sirens, and other audible emergency signals. In the event of an emergency, be prepared to move workers, vehicles, and equipment immediately at the direction of the City.

Texting while driving anywhere on airport property is strictly prohibited.

4.5.2.7 Two-Way Radio Communication Procedures

All radio communications with Common Traffic Advisory Frequency (CTAF) will be performed by Airport Operations / City personnel. All activities within aircraft movement areas will require two-way radio communication; however, no construction activity inside the aircraft movement area is anticipated in this Project. The Contractor's on-site foremen/lead/superintendents shall carry (or have immediately available) a VHF aviation radio. Additionally, if a sweeper is being used in the movement area and a flagger is not coordinating his/her movements, the sweeper operator shall also carry a radio. Radios shall be ICOM-A16 transceivers, each supplied with NICAD battery pack, spare NICAD battery pack, whip antenna, desktop charger, and a 12V adaptor/charger. Frequencies that will be used by City personnel are:

• Petaluma CTAF - 122.70

4.5.2.8 Airport Security

In areas of work activities, the Contractor will maintain security against unauthorized access to the airfield area through the security gate(s). Gates will be locked or manned at all times. The gate will be closed and locked when not in use. Where the Contractor's lock is used for access through City gates, the lock will be marked to identify the ownership of the Contractor. Place the lock in series with existing locks. Failure to adhere to these requirements will result in the Contractor's lock being removed by the City.

4.6 WILDLIFE MANAGEMENT

Procedures to maintain existing wildlife mitigation devices, limit wildlife attractants, and notify City of wildlife encounters.

4.6.1 Trash

Receptacles will be provided by the Contractor and equipped with metal, canvas, or plastic covers. Food scraps or other trash may not be disposed on the ground and must be collected and placed in the covered receptacles so not to attract wildlife.

4.6.2 Standing Water

Staging areas, stockpile areas, and the work area will be graded to drain to avoid attracting wildlife.



4.6.3 Tall Grass and Seeds

The use of low-quality seed mixtures that contain seeds of plants (such as clover) that attract wildlife will not be used. Grass and weeds will be managed, or cut, if necessary, within work areas to avoid attracting wildlife habitation.

4.6.4 Fencing and Gates

Fences and/or gates that are unmaintained and/or left open and unattended permit unwanted wildlife to enter inside the Airport perimeter fence. Refer to 4.5.2.8, "*Airport Security*" for requirements of maintaining the secured area of the Airport. Contractor personnel will immediately notify the City if any unwanted wildlife is observed inside the Airport perimeter fence.

4.6.5 Disruption of Existing Wildlife Habitat

Not applicable for this Project.

4.7 FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT AND DUST CONTROL

The Contractor will be required to ensure the airfield environment is kept continuously free of construction debris, equipment and/or materials that might endanger or be ingested by an aircraft. Contractor will take extreme care to ensure that no work-related debris or other loose items are allowed to be blown by wind or aircraft engine blast. The Contractor will be responsible for any resulting damage to aircraft engines and/or other property arising from failure to secure and/or protect debris, tools, supplies, or other loose items. Following the requirements described herein will help eliminate the potential for FOD. In areas that may result in the tracking of soil, sediments, or hazardous materials on the wheels of hauling equipment outside the area that are enclosed by erosion and silt/sediment control devices, the Contractor will provide the means and methods to remove these materials prior to the vehicle exiting the controlled area. If water wash stations are used, the Contractor will provide systems for the collection, treatment, and disposal of wheel wash water and accumulated sediment. Equipment operated on haul routes over existing pavements will be kept free of material spillage and foreign matter at all times. Haul routes that are shared with aircraft operations will be cleaned continuously with regenerative air vacuum sweepers, or other City approved methods.

Dust control will be in conformance with "Dust Control" of the State Standard Specifications and the Special Provisions. The Contractor will provide the ways and means to prevent dust, grit, and other waste products from becoming a nuisance in and around the working areas. The Contractor will take action as necessary, with the approval of the City, to reduce or eliminate such nuisance. The Contractor will control dust during the entire Contract period, including holidays and weekends.

Application of water for controlling dust caused by construction operations or the passage of traffic through the work area(s) will be applied as directed by the City at the Contractor's expense.

4.8 HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

4.8.1 Shipments of Hazardous Materials

If shipments of hazardous material (including hazardous debris, contaminated soil or water, and hazardous waste) will be unloaded onto or loaded from City property, the Contractor will have a qualified person available onsite when shipments are received or prepared to ship, who is current with U.S. Department of Transportation (DOT) approved training for the transportation of hazardous materials. Contractor will properly characterize and manifest waste material leaving the City property for disposal. When the waste reaches its final destination, the owner or operator of the designated

and permitted treatment, storage, and disposal (TSD) facility will sign the manifest and return a copy to the City within 35 days to confirm receipt.

4.8.2 Spills

4.8.2.1 Minor Spill

Minor spills can be controlled by the first responder at the discovery of the spill. Use absorbent materials on small spills rather than hosing down or burying the spill. First responder should contain the spread of the spill, recover spilled materials, clean the contaminated area, and properly dispose of contaminated materials. For minor spills, consult the products Material Safety Data Sheets (MSDS) for recommended actions for spills or container leaks. Additionally, MSDSs will provide emergency phone numbers and occupational health hazard information.

4.8.2.2 Semi-significant Spills

Semi-significant spills can be controlled by the first responder along with the aid of other personnel such as laborers, the foreman, etc. Notify the City of semi-significant spills. Spills should be cleaned up immediately. Contain the spread of the spill and notify the Project foreman immediately. If the spill occurs on paved or impermeable surfaces, clean up by using dry methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

4.8.2.3 Significant / Hazardous Spills

Significant/Hazardous spills that cannot be controlled by personnel in the immediate vicinity must be reported to the local emergency response by dialing 911. In addition to 911, the Contractor will notify the City, proper City officials, and the state Emergency Services Warning Center. The services of a Spills Contractor or a HAZMAT team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff arrives at the jobsite. Other agencies that may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Highway Patrol, the City/City Police Department, and the Department of Toxic Substance.

4.8.3 Delivery and Storage of Hazardous Goods

- a. Ensure that hazardous goods and material delivered to or from the construction site meet applicable DOT labeling and placarding requirements. Upon request from the City, supply MSDS for all hazardous material being delivered to the site.
- b. The storage and shipment of hazardous waste will also comply with the requirements of this section.
- c. It is emphasized, however, that although spills resulting from incidents or accidents should be responded to, securing the well-being of people will be the first priority.
- d. Good housekeeping practices should be utilized during equipment fueling and maintenance operations. Inspect fueling equipment for leaks prior to dispensing. Fueling operations will be continuously attended to while dispensing fuel. Fueling and maintenance operations will not be performed within 50 feet of a storm drain, inlet, ditch, surface water, wetland, etc. to allow adequate time for containment in the event of a spill.



4.9 NOTIFICATION OF CONSTRUCTION ACTIVITIES

4.9.1 Responsible Representatives / Points of Contact:

Airports/Utility Staff Member	Title	Phone/Office	Cell
Dan Cohen	Airport and Marina Manager	707-778-4404	
Jonathan Sanglerat, PE	Associate Civil Engineer	707-778-4355	707-292-2772

Additional points of contact will be provided at the Preconstruction Meeting.

4.9.2 Notices to Airmen (NOTAM)

Only the City may initiate or cancel a NOTAM on Airport conditions and is the only entity that can close or open a runway. Points of contact for issuing NOTAMS are as follows:

Main Contact: Dan Cohen

4.9.3 Emergency Contact Information

- a. Emergency Dial 911
- b. Petaluma Police Department 707-778-4372
- c. Petaluma Fire Department 707-778-4390
- d. Hospital 707-778-1111
- e. California Poison Center 1-800-222-1222

4.9.4 Coordination with Emergency Services Personnel

The proposed Project does not deactivate waterlines or hydrants, does not block airfield emergency routes with the exception of landside access through the main Gate, and is not anticipated to include the use of hazardous materials. Emergency services personnel will be briefed by the City as to the construction schedule. If additional notification is required, the Contractor shall contact the City.

4.9.5 Notification of the FAA

4.9.5.1 Part 77

The Project will not affect navigable airspace; therefore, the City will not be required to submit a FAA Form 7460-1, "Notice of Proposed Construction or Alteration" for a specific element. The City will, however, submit Form 7460-1 for the construction Project in general. Any equipment (cranes, graders, other equipment) used by the Contractor that exceeds the height limitation in Section 4.18, "Other Limitations on Construction" must also have a Form 7460-1 airspace evaluation and determination prior to use.

4.9.5.2 Airport owned/FAA maintained NAVAIDS

No impact is anticipated for FAA or Airport owned facilities.

4.9.5.3 FAA owned NAVAIDS

No impact is anticipated for FAA or Airport owned facilities.



4.10 INSPECTION REQUIREMENTS

4.10.1 Daily Inspections

Inspections should be conducted by the Contractor at least daily, but more frequently, if necessary, to ensure conformance with the CSPP. Special attention will be given to areas shared by construction traffic and air traffic. These areas will be maintained in accordance with Section 4.7, "Foreign Object Debris Management." The City will have the final authority in determining if the area is suitable for aircraft use.

4.10.2 Final Inspections

A final inspection will be conducted by the City prior to the commissioning of any construction-impacted areas open to air traffic. The City will have the final authority in determining if the area is suitable for aircraft use. *Attachment D* contains a Daily Safety Inspection Checklist that may be used by the Contractor or City.

4.11 UNDERGROUND UTILITIES AND NOTIFICATION RESPONSIBILITIES.

Contractor must notify the Underground Service Alert (California Northern by calling either 8-1-1 or 1-800-227-2600 (<u>www.usanorth.org</u>), and any other owners of underground utilities within the construction area or within affected public rights-of-way or easements in advance of the commencement of excavation activities. Also, notify the City when the call is being initiated so the City can provide information to Airport utilities as well.

Contractor will not cross electrical or communication cables unless protected by approved means. In the event of interruption to field-located utility services as a result of the work, promptly notify the City first, and then the proper authority. Cooperate with said authority in restoring service as promptly as possible. If required, the Contractor will install suitable temporary service until permanent repair is completed.

The City of Petaluma Water Resource and Conservation Department (707-778-4546) shall be contacted by the Contractor for locating the water utilities within the apron.

4.12 PENALTIES

The Contractor is responsible for maintaining security during construction as detailed herein. The Airport is subject to fines up to \$20,000 for security violations. The Contractor will be responsible for any fines caused by his failure to observe the security requirements contained herein or required by the SPCD. Violations will be cause for the Project to be stopped and Project safety procedures evaluated. Contractor working days will continue to be charged, even if the City ceases construction operations. The City will decide if and when work will continue. Enforcement of these regulations will be by the City, Police, and/or Airport Operations Staff.

4.13 SPECIAL CONDITIONS, SAFETY ADHERENCE

During construction on the Airport Contractor must be aware of the following conditions and required actions.

- a. An aircraft in distress may require the Contractor to immediately move equipment away from an aircraft movement area. The City will notify the Contractor in the unlikely event of an aircraft in distress. The Contractor will be required to comply with all City and/or ATC instructions.
- b. Various circumstances, such as an aircraft accident, security breach, or other unforeseen events may require suspension of the construction. The City will notify the Contractor when suspension of the work will be required. See Section 4.9, "Notification of Construction Activities" for emergency contact information.



- c. A VPD (vehicle / pedestrian deviation) is any entry or movement on the movement area by a vehicle or pedestrian that has not been authorized by ATC. In the event of a VPD, the City reserves the right to suspend the work or any portion thereof and continue suspension until the completion of any investigation or evaluation by the City and full compliance with any corrective measures that the City may reasonably require. In addition, the City may require the Contractor to provide to the City a written plan, satisfactory to the City, to demonstrate the Contractor's ability to prevent future violations. See Section 4.5, "Contractor Access" for vehicle and pedestrian operations and two-way radio communication requirements.
- d. During CAL FIRE, U.S. Forest Service or any other emergency air operations, the Contractor may be instructed to cease work or vacate specific areas of the Airport. Any delays caused by ordered cessation of work will be grounds for time extensions as approved by the Engineer. No additional payment will be allowed for emergency cessation of work.

4.14 RUNWAY AND TAXIWAY VISUAL AIDS

The nature of this construction Project and duration of closures will not require the addition of temporary lighting, signs, or visual NAVAIDs to be incorporated into this Project.

4.15 MARKING AND SIGNS FOR ACCESS ROUTES

The Contractor shall place traffic control signs and/or devices along Sky Ranch Road, as appropriate, to advise the businesses located in the vicinity of construction operations and hauling. Signs and/or devices will conform to the California Manual on Uniform Traffic Control Devices (MUTCD), Current Edition.

4.16 HAZARD MARKING AND LIGHTING

- a. Before starting work, Contractor to provide and have available all signs, barricades, and lights necessary for protection of the work. Install and maintain adequate warning signs and lighted barricades to protect property and personnel in the work area. Barricades will be weighted or anchored to prevent overturning from wind or aircraft engine blast.
- b. Barricades shall be used to separate all construction/maintenance areas from the movement areas listed herein. Barricades are not permitted in any active safety area. Barricades located within a runway or taxiway object free area and/or on aprons must be as low as possible to the ground. The quantity and requirements for barricades shall be in accordance with Item SP-100 of the Specifications.
- c. The Contractor will have a person on call 24 hours a day for emergency maintenance of Airport hazard lighting and barricades. The Contractor must file the contact person's information with the City. Lighting will be checked for proper operation at least once per day, preferably at dusk.
- d. Open trenches, excavations, or obstructions not being actively worked will be marked with lighted and weighted barricades that can be seen from a reasonable distance.

4.17 PROTECTION OF RUNWAY AND TAXIWAY CRITICAL AREAS

4.17.1 Runway Safety Area (RSA)

This Project does not require construction within the existing RSA. Construction personnel are not required and not permitted to be within the RSA unless escorted by City personnel. The dimension for the Runway 11-29 RSA (Category A-II Small) is 75 feet each side of centerline and 300 feet beyond each runway end. The RSA is depicted on the work area Plans contained in *Attachment A*.



4.17.2 Runway Object Free Area (ROFA)

This Project does not require construction within the existing ROFA. Construction personnel are not required and not permitted to be within the ROFA unless escorted by City personnel. The dimension for the Runway 11-29 ROFA (Category A-II Small) is 150 feet each side of centerline and 300 feet beyond each runway end. The ROFA is depicted on the work area Plans contained in *Attachment A*.

4.17.3 Taxiway Safety Area (TSA)

This Project does not require construction within the existing TSA. Construction personnel are not required and not permitted to be within the TSA unless escorted by City personnel. No construction may occur in the TSA while the taxiway is open to aircraft operations. The TSA for all taxiways is 39.5 feet each side of centerline.

4.17.4 Taxiway/Taxilane Object Free Area (TOFA)

No construction will be allowed within the TOFA while the taxiway or taxilane is open to aircraft operations. The TOFA for Taxiway A is 65.5 feet each side of centerline, and the TOFA for Taxilane B is 57.5 feet each side of centerline. The TOFAs are depicted on the work area Plans contained in *Attachment A*.

4.17.5 Obstacle Free Zone (OFZ)

Personnel, material, and/or equipment may not penetrate the OFZ while the runway is open to aircraft operations. This Project does not require work within or near the OFZ. The dimension for Runway 11-29 OFZ is 125 feet each side of centerline and 200 feet beyond each runway end.

4.17.6 Runway Approach/Departure Surfaces

When runway is open, all personnel, material, and/or equipment must remain clear of the threshold siting surfaces (approach and departure surfaces).

4.17.7.1 Runway 11-29 Approach Surface.

Runway 11-29 is a non-precision use runway. Using Table 3-2 and Figure 3-2 from Advisory Circular 150/5300-13A for Runway Category 4, the resulting approach surface begins 200 feet from the runway threshold and consists of a trapezoid with the following dimensions:

- Width at inner departure 400 feet
- Width at outer departure 3,800 feet
- Length of departure 10,000 feet
- Approach slope 20:1

4.17.7.2 Runway 11-29 Departure Surface

Runway 11-29 is a non-precision use runway. Using Table 3-2 and Figure 3-4 from Advisory Circular 150/5300-13A for Runway Category 9, the resulting departure surface begins at the runway threshold and consists of a trapezoid with the following dimensions:

- Width at inner departure (runway threshold) 1,000 feet
- Width at outer departure 6,466 feet
- Length of departure 10,200 feet
- Departure slope 40:1



4.17.7.3 Affected Approach Surface

The approach surface for Runway 11-29 will be unaffected by construction.

4.17.7.4 Affected Departure Surface

The departure surface for Runway 11-29 will be unaffected by construction.

4.18 OTHER LIMITATIONS ON CONSTRUCTION

4.18.1 Prohibitions

- a. Open flame welding or torches are prohibited unless fire safety precautions are provided, and the City has approved their use.
- b. Electrical blasting caps are prohibited on or within 1,000 feet of the Airport property.
- c. The use of flare pots is prohibited within the AOA.
- d. No smoking will be allowed within the airfield environment except as designated by the City.

4.18.2 Restrictions, Equipment

- a. Construction equipment that extends 15 feet or more above ground level will be cleared through the City prior to moving onto site. Equipment that may be lowered readily will be lowered at night, during reduced daytime visibility, and during other periods of storage to comply with the 15-foot height limitation.
- b. If directed by the City, construction equipment that cannot be lowered below the 15-foot height limitation will be lighted at night and during periods of reduced daytime visibility. The light will be mounted on the highest point of equipment; will be omni-directional; and will consist of, at a minimum, one 100-watt bulb enclosed within an aviation red lens. Also, for daytime operations, mount an FAA-approved 3-foot square orange and white checkered flag at the highest point.
- c. During daylight hours with severe visibility problems or heavy fog, cranes will not operate. The City will determine when visibility problems exist and will coordinate and designate requirements for position and location of flag and light.

4.19 SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), INFORMATION

The SPCD will detail how the Contractor will comply with the CSPP. This will include all Project-specific Construction Safety Plan details not included in the CSPP, including construction equipment heights, any applicable hazard management requirements, and contact information for the Contractor's safety management staff responsible for monitoring the CSPP and SPCD during construction. The SPCD will be an attachment to, and enhancement of, the Project CSPP. See *Attachment B* for example of SPCD.

The SPCD must include a statement that the Contractor understands the operational safety requirements of the CSPP and an assertion that the Contractor will not deviate from the approved CSPP and SPCD without written approval from the City. Any construction operation, activity, or practice proposed by the Contractor that does not conform to the CSPP and SPCD will require a revision to those documents. The revised CSPP and SPCD must be submitted to City for review and approval prior to performing any activities that are not in compliance with a previously approved CSPP.

Copies of the approved CSPP and SPCD must be available on-site at all times. The Contractor will ensure all construction personnel are familiar with safety procedures and regulations applicable to construction on the



Airport. At least one of the Contractor's safety management staff must be on-site whenever active construction is ongoing to act as point of contact and immediate response coordinator to correct any construction-related activity that may adversely affect operational safety of the Airport.

End of Report

Prepared and submitted by:

MEAD & HUNT, Inc.

Alexprodownich

Alex Radovanovich, PE Project Manager

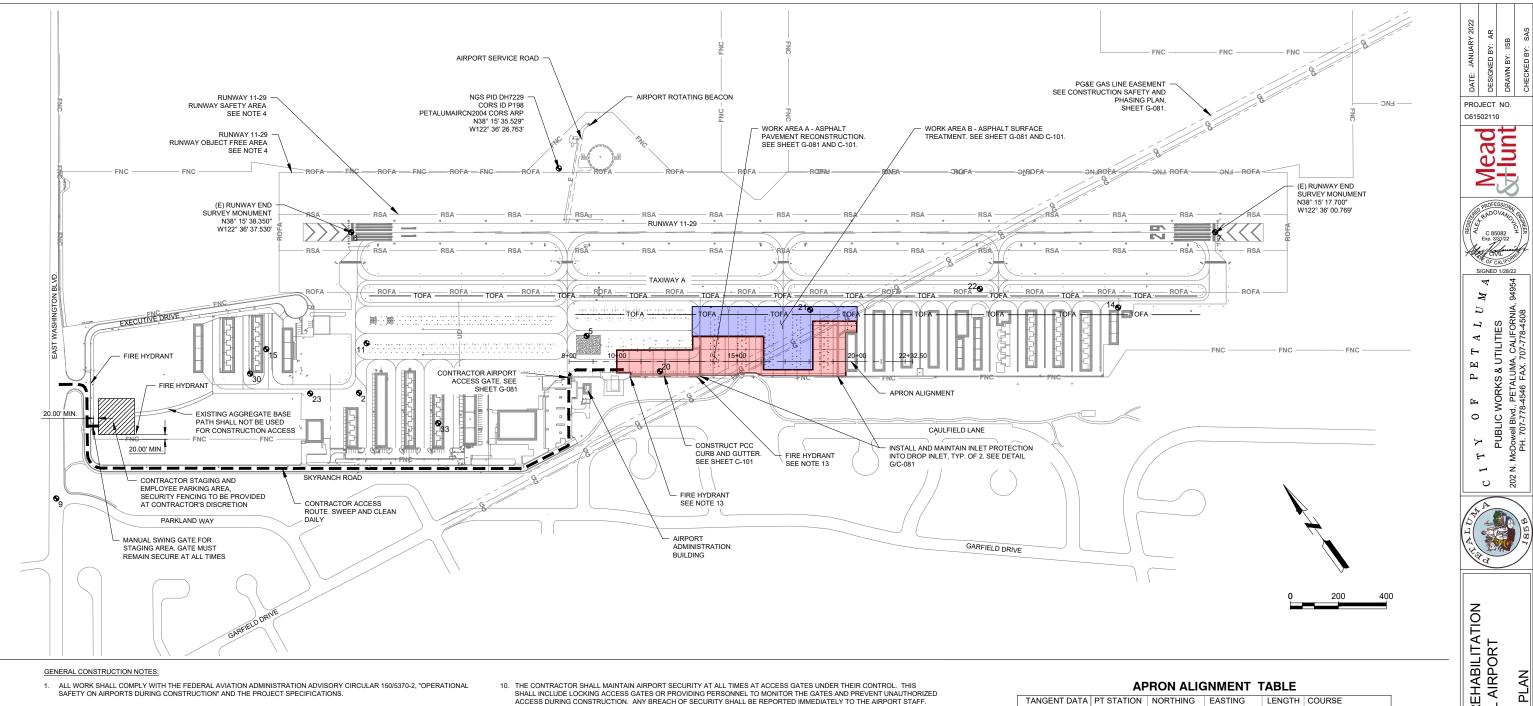
ATTACHMENTS:

Attachment A – Plan Sheets Attachment B – SPCD Example Attachment C – Definition of Terms and Acronyms Attachment D – Inspection Checklist



ATTACHMENTS

Attachment A - Plan Sheets



- 2. THE CONTRACTOR SHALL REMAIN WITHIN THE PROJECT LIMITS, ACCESS ROUTE, AND STAGING AREA SHOWN IN THE PLANS. ACCESS OUTSIDE THESE LIMITS SHALL NOT BE ALLOWED UNLESS APPROVED IN WRITING BY THE AIRPORT MANAGER. THE CONTRACTOR'S ACCESS ROUTES SHALL BE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE AIRPORT
- 3. HAUL ROUTES ON PAVEMENTS SHALL BE CLEANED DAILY BY VACUUM SWEEPER. HAUL ROUTES OVER GRAVEL/DIRT SHALL BE DISKED AND SMOOTH GRADED AT THE COMPLETION OF THE PROJECT AT THE CONTRACTORS EXPENSE. DUST CONTROL SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES...
- 4. NO ACCESS TO THE RUNWAY OR ENCROACHMENT INTO THE RUNWAY OBJECT FREE AREA (ROFA) OR RUNWAY SAFETY AREA (RSA) SHALL BE PERMITTED. THE CONTRACTOR SHALL REMAIN INSIDE WORK AREA A OR B AT ALL TIMES. SEE THE PROJECT SPECIFICATIONS FOR SPECIFIC PHASING AND ACCESS REQUIREMENTS.
- 5. THE CONTRACTOR SHALL PROVIDE AND PLACE LIGHTED BARRICADES, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER, TO PREVENT AIRCRAFT TRAFFIC FROM ENTERING A CLOSED TAXILANE OR APRON WORK AREA DURING CONSTRUCTION.
- 6. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION ACTIVITIES WITH THE AIRPORT AND SHALL SUBMIT A BASELINE SCHEDULE FOR REVIEW PRIOR TO ISSUANCE OF THE NOTICE TO PROCEED WITH CONSTRUCTION. THE CONTRACTOR SHALL ALSO MAINTAIN AN UP TO DATE PROGRESS SCHEDULE WITH A MINIMUM TWO WEEK LOOK AHEAD. THE CONTRACTOR WILL BE EXPECTED TO SUBMIT THE SCHEDULE AT THE WEEKLY CONSTRUCTION MEETINGS
- 7. CONTRACTOR SHALL HYDROSEED ANY AREA DISTURBED BY CONTRACTOR OPERATIONS (STAGING AREAS, STOCKPILE AREA, ETC.), OUTSIDE PAVEMENT LIMITS.
- 8. NO GUARANTEE IS EXPRESSED OR IMPLIED THAT ALL UNDERGROUND OBSTRUCTIONS ARE SHOWN ON THE PLANS. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE ENGINEER AND THE CITY ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTION SHOWN OR NOT SHOWN ON THE PLANS.
- 9. THE CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UNDERGROUND FACILITIES WITHIN THE WORK AREA HAVE BEEN MARKED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL POTHOLE AND VERIFY THE DEPTH OF ALL UTILITIES SHOWN INSIDE THE CONSTRUCTION ZONE BEFORE BEGINNING WORK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE FOR "UNDERGROUND UTILITY INVESTIGATION AND POTHOLING" IN ACCORDANCE WITH SPECIFICATION ITEM SP-100.

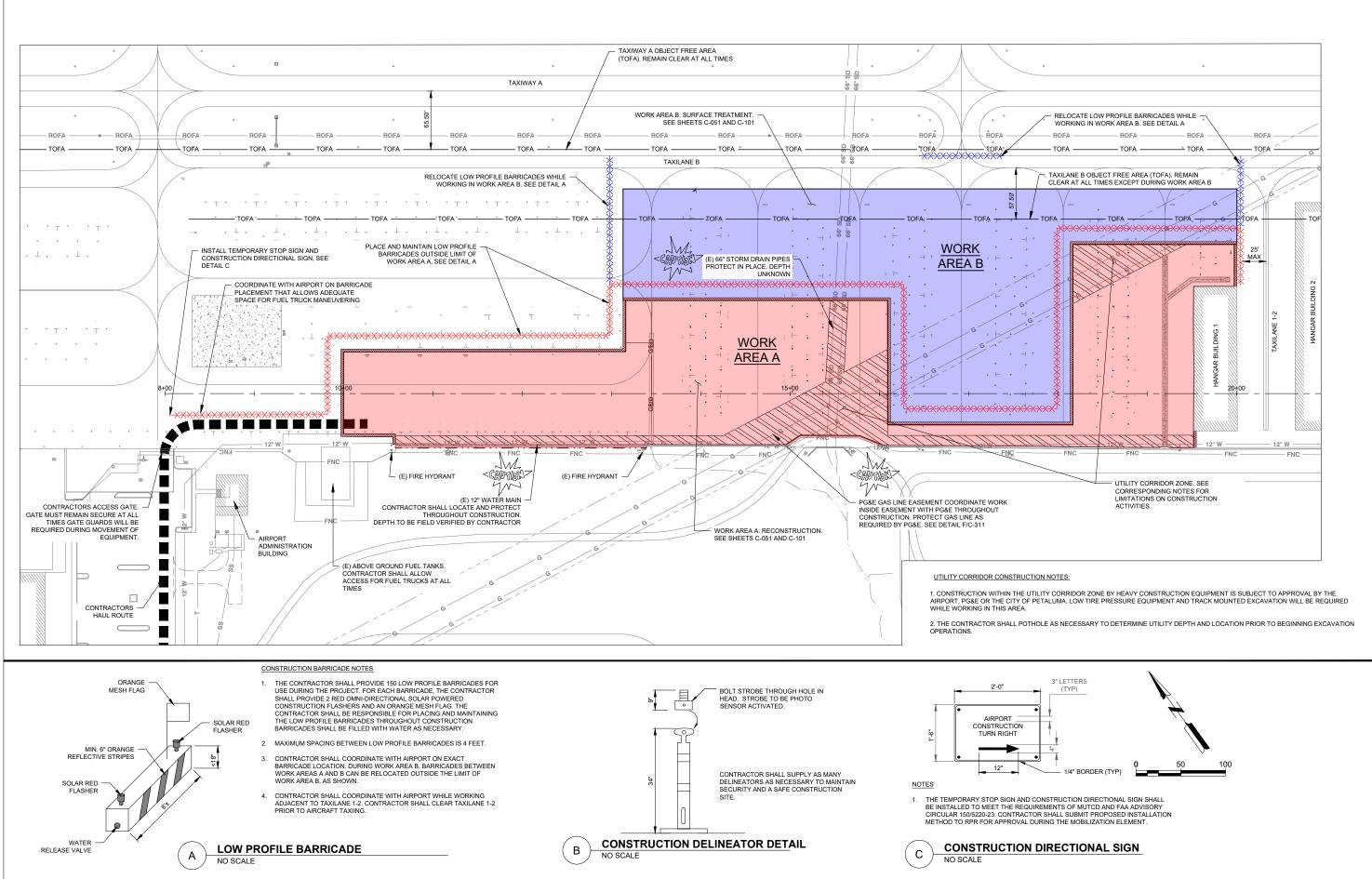
- SHALL INCLUDE LOCKING ACCESS GATES OR PROVIDING PERSONNEL TO MONITOR THE GATES AND PREVENT UNAUTHORIZED ACCESS DURING CONSTRUCTION. ANY BREACH OF SECURITY SHALL BE REPORTED IMMEDIATELY TO THE AIRPORT STAFF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES RESULTING FROM FAILURE TO MAINTAIN AIRPORT SECURITY AT LOCATIONS UNDER CONTRACTOR CONTROL.
- 11. THE CONTRACTOR SHALL ENSURE ALL EMPLOYEES, INCLUDING SUBCONTRACTORS, WORKING ON THE SITE ARE AWARE OF AND FOLLOW THE REQUIRED SAFETY MEASURES AND PROJECT CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) WHEN ON THE AIRPORT
- 12. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE KEPT ON SITE AT ALL TIMES AND UPDATED REGULARLY. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE FOR "SWPPP PREPARATION, MANAGEMENT, AND MONITORING."
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND OBTAINING PERMITS AND METERS FOR CONSTRUCTION WATER.
- 14. THE CONTRACTOR SHALL NOTE ALL APPROVED FIELD CHANGES AND OTHER OCCURENCES AND SUBMIT A FULL SIZE COMPLETE CONSTRUCTION "RECORD DRAWING" SET NOTED AND DATED ON THE DRAWINGS TO THE RESIDENT PROJECT REPRESENTATIVE (RPR) PRIOR TO ACCEPTANCE OF THE WORK.
- 15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EHSURE ALL MATERIAL AND WORKMANSHIP FULLY CONFORMS TO THE SPECIFICATIONS, STANDARDS AND ORDINANCES OF THE CITY OF PETALUMA.
- 16. ALL EROSION AND SEDIMENT CONTROL MATERIALS AND METHODS SHALL COMPLY WITH THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SAN FRANCISCO BAY REGION, EROSION AND SEDIMENT CONTROL MANUAL.
- 17. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING SURVEY CONTROL, AS WELL AS EXISTING GRADES AT PAVEMENT JOIN LOCATIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE RPR IMMEDIATELY. IF THERE ARE DISCREPANCIES, THE ENGINEER MAY NEED TO RE-EVALUATE THE PROPOSED GRADES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE FOR "EXISTING SURVEY VERIFICATION" IN ACCORDANCE WITH SPECIFICATION ITEM SP-100.

TANGENT DATA	PT STATION	NORTHING	EASTING	LENGTH	COURSE
START	8+00.000	19051.889	20435.311	1432.50	S 54° 08' 54.86" E
END	22+32.50	18212.895	21596.408		

	SURVEY BENCH MARKS				
•	NORTHING	EASTING	ELEVATION	DESCRIPTION	
2	19458.835	19649.111	78.45	CP PK	
5	19096.014	20556.575	74.43	CP MON	
7	17911.832	22932.917	74.70	CP PK	
9	19841.154	18368.860	78.86	CP MON	
11	19607.844	19795.604	80.68	CP PK	
14	17894.553	22420.654	73.97	CP PK	
15	19832.951	19442.212	81.92	CP PK	
20	18797.278	20718.052	71.88	CP MAG	
21	18638.604	21375.637	73.33	CP MAG	
22	18294.908	21999.956	73.30	CP 100D	
33	19162.998	19842.774	73.43	PK NAIL	

BASIS OF SURVEY DATA IS NAD 83 HORIZONTAL AND NAVD **88 VERTICAL**

) AIRCRAFT APRON REHABILITATION ETALUMA MUNICIPAL AIRPORT **PROJECT LAYOUT** BASED / PE SHEET G-02⁻ 3 oF 11



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Attachment B - Safety Plan Compliance Document (SPCD)

Petaluma Municipal Airport Construction Safety and Phasing Plan AIP No. 3-06-1486-029-2022

CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) (AC 150/5370-2G)

Project Information

Airport and Sponsor:PETALUMA MUNICIPAL AIRPORT, CIT	<u>Y OF PETALUN</u>	1A, CALIFORNIA
Project ID: FAA AIP NO. 3-06-1486-029-2022		
Description of Project: <u>Based Aircraft Apron Rehabilitation</u>		
Type of Work: <u>Pavement improvements</u>		
FAA Project Manager: <u>Barry Franklin (SFO-ADO)</u>	Phone:	(650) 827-7614
Airport Operator Contact: Dan Cohen	Phone:	(707) 778-4404

Contractor's Information

Prime Contractor:			
Address:			
Contractor Contact:	Phone:		

Contractor's Responsibility

In accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370-2F, Operational Safety During Airport Construction, a SPCD for a project must be submitted to the FAA and to the Airport Operator for review and approval prior to the issuance of a Notice-to-Proceed for Construction. The SPCD will be prepared in a detailed written and graphical format that identifies the timing and methodology for the Contractor's compliance with the project's Construction Safety and Phasing Plan (CSPP).

The Contractor will comply with all provisions contained herein and provide the following 1.2.1 project-specific complementary and supplemental information to the FAA-approved **Construction Safety and Phasing Plan:**

1. Contractor will have copies of the CSPP and SPCD available at all times for reference by the Airport Operator and its representatives, and by Contractor's and subcontractor's employees.

Location(s) of CSPP and SPCD:

2. Provide contact information for the person responsible for initiating and coordinating an immediate response to correct any construction-related activity that may adversely affect the operational safety of the Airport. Project will require 24-hour coverage.

Point of Contact: _____ Phone: _____ Phone: _____

3. Provide list of Contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD whenever active construction is ongoing.

Contact Person:	Phone:
Contact Person:	Phone:
Contact Person:	Phone:
Contact Person:	Phone:

- 4. Contractor will conduct inspections at least once daily, and more frequently if necessary to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards. A Construction Project Daily Safety Inspection Checklist is attached.
- 5. Describe details of Contractor's plan to restrict movement of construction vehicles and personnel to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate and as specified in the CSPP. Include the appropriate plan sheets to identify timing and/or location of control measures: [*Contractor to insert detailed description.*]
- 6. Describe details of Contractor's plan to ensure that no employees of Contractor, subcontractors, suppliers, or other persons enter any part of the Air Operations Area (AOA) unless authorized. [Contractor to insert detailed description.]
- 7. Provide a description and schedule of anticipated operation for all Contractor equipment over 15 feet in height (e.g., cranes, concrete pumps, other similarly tall equipment) and heights of stockpiles and haul routes when different from what is shown on previously filed CSPP. [*Contractor to insert detailed equipment list/stockpile heights as applicable.]*

(As necessary, the Contractor must coordinate with the Airport Operator for the purpose of filing a supplemental submittal of FAA Form 7460-1 to the FAA for determination of whether or not an aeronautical study must be conducted prior to allowing tall equipment operations to begin.)

8. Provide a description of Contractor's plan to ensure that construction personnel are familiar with the safety procedures and regulations on the Airport, the CSPP, and the SPCD. [*Contractor to insert detailed description.*]

SPCD Amendment

The SPCD will be amended when there is a construction practice proposed by the Contractor that does not conform to the CSPP and SPCD and may impact the Airport's operational safety. This will require a revision to the CSPP and SPCD and re-coordination with the Airport Operator and the FAA in advance.

Statement of Certification

I certify that we understand the operational safety requirements of the CSPP and assert that we will not deviate from the approved CSPP and SPCD unless written approval is granted by the Airport Operator and FAA.

Print Name:	Title:
Signature:	Date:

Attachment C - Definitions of Terms & Acronyms

Petaluma Municipal Airport Construction Safety and Phasing Plan AIP No. 3-06-1486-029-2022

APPENDIX C. TERMS AND ACRONYMS

Table B-1. Terms and Acronyms

Term	Definition
Form 7460-1	Notice of Proposed Construction or Alteration. For on-airport projects, the form submitted to the FAA regional or airports division office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, <i>Safe, Efficient Use, and Preservation of the Navigable Airspace</i> . (See guidance available on the FAA web site at https://oeaaa.faa.gov .) The form may be downloaded at https://www.faa.gov/airports/resources/forms/ , or filed electronically at: https://www.faa.gov .
Form 7480-1	Notice of Landing Area Proposal. Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport The form may be downloaded at <u>http://www.faa.gov/airports/resources/forms/</u> .
Form 6000-26	Airport Sponsor Strategic Event Submission Form
AC	Advisory Circular
ACSI	Airport Certification Safety Inspector
ADG Airplane Design Group	
AIP	Airport Improvement Program
ALECP	Airport Lighting Equipment Certification Program
ANG	Air National Guard
AOA	Air Operations Area, as defined in 14 CFR Part 107. Means a portion of an airport, specified in the airport security program, in which security measures are carried out. This area includes aircraft movement areas, aircraft parking areas, loading ramps, and safety areas, and any adjacent areas (such as general aviation areas) that are not separated by adequate security systems, measures, or procedures. This area does not include the secured area of the airport terminal building.
ARFF	Aircraft Rescue and Fire Fighting
ARP	FAA Office of Airports
ASDA Accelerate-Stop Distance Available	
AT	Air Traffic
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
ATO	Air Traffic Organization
Certificated Airport	An airport that has been issued an Airport Operating Certificate by the FAA under

Term	Definition		
	the authority of 14 CFR Part 139, Certification of Airports.		
CFR	Code of Federal Regulations		
Construction	The presence of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.		
CSPP	Construction Safety and Phasing Plan. The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.		
CTAF	Common Traffic Advisory Frequency		
Displaced Threshold	A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold is available for takeoffs in either direction or landing from the opposite direction.		
DOT	Department of Transportation		
EPA	Environmental Protection Agency		
FAA	Federal Aviation Administration		
FOD	Foreign Object Debris/Damage		
FSS	Flight Service Station		
GA	General Aviation		
HAZMAT	Hazardous Materials		
HMA	Hot Mix Asphalt		
IAP	Instrument Approach Procedures		
IFR	Instrument Flight Rules		
ILS	Instrument Landing System		
LDA	Landing Distance Available		
LOC	Localizer antenna array		
Movement Area	The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading aprons and aircraft parking areas (reference 14 CFR Part 139).		
MSDS	Material Safety Data Sheet		
MUTCD	Manual on Uniform Traffic Control Devices		
NAVAID	Navigation Aid		
NAVAID Critical Area	An area of defined shape and size associated with a NAVAID that must remain clear and graded to avoid interference with the electronic signal.		
Non-Movement Area	The area inside the airport security fence exclusive of the Movement Area. It is important to note that the non-movement area includes pavement traversed by aircraft.		

Term	Definition
NOTAM	Notices to Airmen
Obstruction	Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.
OCC	Operations Control Center
OE / AAA	Obstruction Evaluation / Airport Airspace Analysis
OFA	Object Free Area. An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. (See <u>AC 150/5300-13</u> for additional guidance on OFA standards and wingtip clearance criteria.)
OFZ	Obstacle Free Zone. The airspace below 150 ft (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches. The OFZ is subdivided as follows: Runway OFZ, Inner Approach OFZ, Inner Transitional OFZ, and Precision OFZ. Refer to <u>AC 150/5300-13</u> for guidance on OFZ.
OSHA	Occupational Safety and Health Administration
OTS	Out of Service
P&R	Planning and Requirements Group
NPI	NAS Planning & Integration
PAPI	Precision Approach Path Indicator
PFC	Passenger Facility Charge
PLASI	Pulse Light Approach Slope Indicator
Project Proposal Summary	A clear and concise description of the proposed project or change that is the object of Safety Risk Management.
RA	Reimbursable Agreement
RE	Resident Engineer
REIL	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RSA	Runway Safety Area. A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with <u>AC 150/5300-13</u> .
SDS	Safety Data Sheet
SIDA	Security Identification Display Area
SMS	Safety Management System

Term	Definition
SPCD	Safety Plan Compliance Document. Details developed and submitted by a contractor to the airport operator for approval providing details on how the performance of a construction project will comply with the CSPP.
SRM	Safety Risk Management
SSC	System Support Center
Taxiway Safety Area	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with <u>AC 150/5300-13</u> .
TDG	Taxiway Design Group
Temporary	Any condition that is not intended to be permanent.
Temporary Runway End	The beginning of that portion of the runway available for landing and taking off in one direction, and for landing in the other direction. Note the difference from a displaced threshold.
Threshold	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
TODA	Takeoff Distance Available
TOFA	Taxiway Object Free Area
TORA	Takeoff Run Available. The length of the runway less any length of runway unavailable and/or unsuitable for takeoff run computations. See <u>AC 150/5300-13</u> for guidance on declared distances.
TSA	Taxiway Safety Area, or Transportation Security Administration
UNICOM	A radio communications system of a type used at small airports.
VASI	Visual Approach Slope Indicator
VGSI	Visual Glide Slope Indicator. A device that provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicator (PAPI), visual approach slope indicator (VASI), and pulse light approach slope indicator (PLASI).
VFR	Visual Flight Rules
VOR	Very High Frequency Omnidirectional Radio Range
VPD	Vehicle / Pedestrian Deviation

Attachment D – Daily Safety Inspection Checklist

APPENDIX D. CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project including information such as the date, time and name of the person conducting the inspection.

Item	Action Required (Describe)	No Action Required (Check)
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.		
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.		
Runway resurfacing projects resulting in lips exceeding 3 inch (7.6 cm) from pavement edges and ends.		
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.		
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.		
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and		

Table D-1. Potentially Hazardous Conditions

Item	Action Required (Describe)	No Action Required (Check)
approach zones.		
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.		
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.		
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.		
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.		
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.		
Obliterated or faded temporary markings on active operational areas.		
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.		

Item	Action Required (Describe)	No Action Required (Check)
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.		
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.		
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.		
Lack of radio communications with construction vehicles in airport movement areas.		
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.		
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.		
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.		
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).		

Item	Action Required (Describe)	No Action Required (Check)
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.		
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.		
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.		
Site burning, which can cause possible obscuration.		
Construction work taking place outside of designated work areas and out of phase.		