

# **CONSTRUCTION SAFETY AND PHASING PLAN**

## **RUNWAY 9/27 HIRL AND PAVEMENT MAINTENANCE**

**AIP 3-53-0089-43-2019**

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**City of Yakima**  
**Yakima Air Terminal-McAllister Field**

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## **Introduction**

### **Overview: Yakima Air Terminal - McAllister Field**

Yakima Air Terminal - McAllister Field (YKM) is a Part 139 certificated, non-hub commercial service airport located in Yakima, Washington. The facility is owned and operated by the City of Yakima with daily commercial service provided by Alaska Airlines. The airfield is generally located at 2406 W. Washington Avenue, Suite B, 46°34'10.50" N latitude and 120°32'24.00" W longitude and operates as a Design Category C-III airport.

Along with commercial air service and charter operations, the airport has an active General Aviation (GA) population. Typical GA aircraft range from single engine piston aircraft to business jets.

YKM runways and their associated appurtenances are as follows:

#### **RUNWAY 9/27**

- Asphalt Grooved Surface
- 7,604 feet long and 150 feet wide
- High Intensity Edge Lighting
- Precision Markings on RWY 27
- Non-Precision Markings on RWY 9
- Four unit VASI on RWY 9
- Four unit PAPI and MALSR on RWY 27
- REILs on RWY 9
- MALSRs on RWY 27
- ILS, VOR, DME and LOC on RWY 27

#### **RUNWAY 4/22**

- Porous Friction Course Asphalt
- 3,835 feet long and 150 feet wide
- Medium Intensity Edge Lighting
- Visual Markings
- Four unit PAPIs on RWY 4 and RWY 22
- REILs on RWY 4 and RWY 22

The proposed project will occur on Runway 9/27. This location accommodates all aircraft that utilizes the airport, including the Airport's largest critical aircraft (the Bombardier Q-400).

## **Project Description**

The proposed Runway 9/27 HIRL and Pavement Maintenance Project will consist of the following project elements:

- Replacement of Runway 9/27 high intensity incandescent runway edge/end lights (HIRL) and associated transformers with LED HIRLs.
- Replacement of Runway 9/27 series circuit cable, complete.
- Replace and relocate supplementary wind cone beyond the Runway Safety Area (RSA)
- Crack seal, seal coat, and apply markings to Runway 9/27 pavement.

The proposed project will be completed in two major phases. The phases are also broken down into sub-phases. Please refer to the construction phasing section of this report for additional details.

## **CSPP: Purpose & Process**

This Construction Safety and Phasing Plan (CSPP) has been developed in accordance with AC 150/5370-2G, as part of a process to assess and minimize safety hazards at the YKM during construction for the Runway 9/27 HIRL and Pavement Maintenance Project. The CSPP will serve as the Sponsor's documentation of the foreseeable hazards, assessment of risks involved, and controls used to mitigate those risks. This document will ultimately be accompanied by a companion report prepared by the Contractor known as the Safety Plan Compliance Documents (SPCD). The SPCD will detail how the contractor plans to comply with the CSPP, and will include Contractor-specific information relevant to this project. Recommendations made in the CSPP will be incorporated in the SPCDs and will be enforced during construction. Additionally, the SPCD will include contractor specific information needed for providing notice of construction activities (7460-2) to the FAA.

## **Coordination**

### **Initial Meetings**

Airport operational safety will be a primary topic at the pre-bid meeting, pre-construction conference and weekly construction meetings throughout the duration of the project.

A Pre-Design Meeting was held on 11/29/2018 via conference call. Attendees included Rob Peterson (Airport Director), Mary Vargas (FAA Seattle ADO), Tim Ike (J-U-B ENGINEERS, Inc.), and Alex DelRiccio (J-U-B ENGINEERS, Inc.).

The Sponsor, Engineer, and FAA representative identified hazards, risks and listed controls necessary to mitigate hazards and manage risks. The outcome of this process will be used in the design phase to implement rules and regulations, and changes to the phasing process if necessary.

Pre-Bid Meeting: Potential bidders will be apprised of controls needed for the purpose of managing safety risks. Bidders will be invited to suggest additional measures which will be considered for possible bid addenda.

Pre-Construction Meeting: The Contractor will again be apprised of safety regulations, and will be required to compile and submit a Safety Plan Compliance Document (SPCD) meeting the requirements of AC 150/5370-2G (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5370-2](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5370-2)). AC 150/5370-2G specifies (but is not limited to) SPCD provisions that the Contractor must:

1. Submit a Safety Plan Compliance Document (SPCD) to the airport operator describing how it will comply with the requirements of the CSPP and supply details that could not be determined before contract award. The SPCD must include a certification statement by the contractor, indicating an understanding of the operational safety requirements of the CSPP and the assertion of compliance with the approved CSPP and SPCD unless written approval is granted by the airport operator. Any construction practice proposed by the contractor that does not conform to the CSPP and SPCD may impact the airport's operational safety and will require a revision to the CSPP and SPCD and coordination with the airport operator and the FAA in advance.
2. Have available at all times copies of the CSPP and SPCD for reference by the airport operator and its representatives, and by subcontractors and contractor employees.
3. Ensure that construction personnel are familiar with safety procedures and regulations on the airport. Provide a point of contact who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport.
4. Identify in the SPCD the contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD during construction. At least one of these employees must be on-site when active construction is taking place.
5. Conduct sufficient inspections to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards.
6. Restrict movement of construction vehicles and personnel to permitted construction areas by flagging, traffic cones, barricading, erecting temporary fencing, or providing escorts, as appropriate, and as specified in the CSPP and SPCD.
7. Ensure that no contractor employees, employees of subcontractors or suppliers, or other persons enter any part of the air operations area (AOA) from the construction site unless authorized.
8. Ensure prompt submittal through the airport operator of Form 7460-2 for the purpose of conducting an aeronautical study of contractor equipment such as tall equipment (cranes, concrete pumps, and other equipment), stock piles, and haul routes when different from cases previously filed by the airport operator.
9. Ensure that all necessary safety mitigations are understood by all parties involved, and any special requirements of each construction phase will be fulfilled per the approved timeframe.

10. Participate in pre-construction meetings to review construction limits, safety mitigations, NOTAMs, and understand all special airport operational needs during each phase of the project.

Notice to Proceed with construction is contingent on the Owner's receipt and approval of the contractor provided SPCD.

### **Contractor Progress Meetings**

Airport operational safety shall be a standing agenda item at all construction progress meetings. At a minimum, the Contractor will be required to update emergency points of contact, debrief any and all safety incidents and near misses, report on safety measures implemented at that point, and safety measures to be implemented before the next meeting. Progress meetings will be used as a forum to coordinate the issuance of NOTAMs, and any necessary notices to the FAA and tenants.

### **Changes in Schedule or Scope**

Changes to scope and schedule will be addressed in the timeliest manner possible. The Contractor will be required to inform the Engineer of any expected changes as soon as they are apparent, with follow-up notifications required to further define these changes. The Engineer, in turn is responsible to promptly notify the Sponsor. The Sponsor will issue NOTAMs and notifications to the FAA and tenants as necessary in a timely manner. The Contractor shall notify the Engineer at least 2 weeks prior to changes of scheduled beginning or end dates of a given phase of work.

### **ATCT Coordination**

This project will occur within the air operations area (AOA). For that reason, it will be necessary to strategically phase this project and physically separate construction activity from active Safety Areas using Airport provided escorts, low-profile barricades, low-profile construction fencing and/or channelization cones along with equipment height restrictions as appropriate for each situation. All construction activity requiring access into any safety area will require escorts or a scheduled closure of the associated pavement. Short duration exceptions may be considered on a case-by-case basis subject to sufficient notification and coordination with Airport personnel, engineering personnel, and Yakima Air Traffic Control Tower (ATCT) clearance. Under no circumstance will construction personnel or equipment be allowed to occupy a safety area simultaneously with any aircraft operation.

Construction on this project occurring outside the active safety areas will not require supervision from Airport personnel, nor will these items require interaction between the ATCT and the Contractors. However, in those situations, the Contractor will be required to remain outside the active safety areas, and will be confined to specific haul routes and construction limit area(s) delineated by barricades across paved areas and/or low profile cones/fencing installed in soil.

The ATCT Manager or authorized representative will maintain an open invitation to all construction project progress meetings throughout the duration of the project as ATCT Coordination will always be a standing agenda item.

### **Construction Phasing**

#### **Phases of Work**

Phasing for this project has been defined to minimize the disruption of aircraft use of Runway 4/22 as well as to minimize the disruption of typical taxiing patterns throughout the airfield. Limits of phasing have been defined to confine construction activities to the designated work areas as much as possible and provide proper separation of construction and airfield operations as required by FAA Advisory Circular 150/5370-2G.

Work associated with this project will occur in two phases, each having its own safety plan as depicted in the narratives and exhibits. Additionally, a general project safety plan is incorporated into the construction plans and are also included as an appendix to this report.

Two contractor mobilization/staging areas will be located near each end of Runway 9/27. The mobilization/staging area will be delineated with high visibility/low profile construction fencing.

The following is an approximate schedule for the project broken out by Phase:

<b>Construction Phase</b>	<b>Approximate Construction Window</b>	<b>Number of Days</b>
Phase 1A	Between July and September 2020	5 Calendar Days
Phase 1B		1 Calendar Day
Phase 2A		Three Six Hour Windows Concurrent with Phase 1A
Phase 2B		One Six Hour Windows Concurrent with Phase 1B

\* Phasing start date is dependent on issuance of an additional Federal Grant.

#### **Phase 1A**

Preparation and sealing cracks, removal of pavement markings as detailed, application of seal coat, and application of initial pavement markings on RWY 9/27 outside of the RWY 4/22 ROFA and outside of the TWY C TOFA. Replacement of runway edge lights and associated cabling outside of the RWY 4/22 ROFA and outside of the TWY C TOFA. Replacement/relocation of supplemental wind cone.

#### **Phase 1B**

Application of final markings on RWY 9/27 outside of the RWY 4/22 ROFA and outside of the TWY C TOFA after 30-day cure time of seal coat (or as directed by the Engineer).

**Phase 2A**

Preparation and sealing cracks, removal of pavement markings as detailed, application of seal coat, and application of initial pavement markings on RWY 9/27 within the RWY 4/22 ROFA and within the TWY C TOFA. Replacement of runway edge lights and associated cabling within the RWY 4/22 ROFA and within the TWY C TOFA.

**Phase 2B**

Application of final markings on RWY 9/27 within the RWY 4/22 ROFA and within the TWY C TOFA after 30-day cure time of seal coat (or as directed by the Engineer).

**Construction Safety Drawings**

The General Safety Plan and the Safety and Phasing Plan sheets, which will be included in the Contract Plan Set, and can be found in Appendix A of this report. Key features of the safety plan are shown, including Runway and Taxiway Safety Areas (RSA/TSA), Runway and Taxiway Object Free Areas (ROFA/TOFA), construction areas, barricades, access gates and staging area for equipment and materials.

**Areas/Operations Affected by Construction****Affected Areas/Operations**

Phasing for this project has been defined to minimize the duration of runway/taxiway closures. Refer to each individual phase description for further details on operational restrictions and revisions to taxiing patterns.

The Runway 9/27 supplemental wind cone will be relocated outside of the RSA. VASIs, PAPIs, MALSRs, REILs, localizer, and glide slope antennas will be turned off when the associated runway is closed; NAVAIDS will not be otherwise impacted.

**Mitigation of Effects**

Multiple phasing elements have been incorporated into the project to mitigate/limit runway/taxiway closures at the airport. These include limiting the allowable runway closure periods, and phasing the project in a manner that keeps Runway 4/22 open as much as possible. Refer to each individual phase description/plan sheet for further details on operational restrictions and revisions to taxiing patterns. The Contractor will schedule all necessary closures no less than two weeks in advance and NOTAMs issued as appropriate.

**Protecting NAVAIDS**

Contractor operations will be physically separated from NAVAIDS by the placement of construction fencing and low-profile barricades, and limiting haul routes to designated corridors. This will provide proper separation and protection for all active and inactive NAVAIDS.

## **Contractor Access**

Any violation of the following guidance will be the Contractor's responsibility and could result in revocation of driving privileges, removal from the airfield, and potential fines.

### **Access Points/Airport Security**

Contractor access for this project shall be via the existing gates located off of Valley Mall Blvd and Spring Creek Rd. The gates will be left in the open position while in use by the Contractor and guarded by Contractor-supplied security personnel. A sign will be posted outside the gates explaining terms of entry for contractor personnel. Security personnel will be provided with a list of authorized personnel and will not allow anyone not on the list through the gate. Both access gates shall be furnished with construction entrance signs as illustrated on the General Safety Plan in Appendix A. When a gate is not in use, the construction sign will be covered to avoid confusion and the gate will be secured at the end of each construction day. The Contractor must meet badging requirements in accordance with 49 CFR Part 1542 at all times. The Contractor shall have a minimum of three representatives badged for the project prior to commencing work.

### **Vehicle and Pedestrian Operations**

Contractor operations will be confined to the work areas and designated haul routes shown on the phasing plans. All contractor personnel and equipment will remain clear of active portions of the AOA.

If the Contractor requires access to active portions of the AOA, they must be escorted by Airport or Engineer personnel that are approved to access such areas.

If unescorted vehicles and equipment are required to operate within the AOA, they will be required to utilize an amber flashing light. This includes vehicles operated by the Contractor and Engineer. The driver of any vehicle operating in the AOA will be required to undergo driver training by the airport.

All other construction equipment and vehicles will be marked and/or lighted in accordance with FAA AC 150/5210-5, *Painting, Marking, and Lighting of Vehicles Used on an Airport*, current edition (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentNumber/150\\_5210-5](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-5)). Per AC 150/5210-5, this includes providing vehicles with a flag on a staff attached to the vehicle so that the flag will be readily visible. The flag must be at least a 3-foot by 3-foot (0.9 meter by 0.9 meter) square having a checkered pattern of international orange and white squares at least 1 foot (300 mm) on each side. Construction equipment shall be chosen that poses the least danger to aircraft while being sturdy enough to remain in place when subjected to typical winds, prop wash and jet blasts.

Per FAA AC 150/5210-20A, *Ground Vehicle Operations to include Taxiing or Towing an Aircraft on Airports* (available at

[https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5210-20](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5210-20)), inadvertent entry by vehicles onto movement and non-movement areas of an airport poses a danger to both the vehicle operator and aircraft on the airport. Contractor vehicles will be confined to the project areas with barricades, high visibility fencing, or other physical barrier.

### **Haul Routes**

Contractor haul routes have been defined for each phase of this project. Refer to the phase description and associated exhibits for locations.

### **Two-Way Radio Communication**

Radio communication will be required of the Contractor's onsite representative or supervisor. This individual will have an airport radio, with backup batteries, tuned to the airport frequency for listening purposes only. The Contractor will be listening for emergency aircraft communications coming into the airport.

### **Training Requirements for Vehicle Drivers and Pedestrians**

All Contractor personnel shall adhere to all safety provisions established by the FAA and the Airport Management. All Contractor personnel shall have a clear understanding of security protocols in accordance with Airport Management, FAA, and the Contract Documents. Driving protocols will be provided by the Airport when the Contractor applies for their driving and security badges.

### **Maintenance of the Secured Area of the Airport**

Gates should be equipped so they can be securely closed and locked to prevent access by animals and unauthorized people. Procedures shall be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit "piggybacking" behind another person or vehicle.

The Contractor shall meet badging requirements in accordance with 49 CFR Part 1542, *Airport Security*, to meet standards for access control, movement of ground vehicles, and identification of construction contractor and tenant personnel.

### **Staging Area**

Two contractor staging areas have been defined for this project. Refer to the phase descriptions and associated exhibits for locations. All construction site parking and equipment parking shall be contained within the established staging area.

### **Borrow/Disposal Sites**

No borrow or disposal sites have been identified for the various phases in this project. Any fill or base material (if required) will be imported from external sources. All material requiring disposal will be taken to an appropriate offsite disposal site by the Contractor.



**Material Stockpiles**

If the Contractor requests permission to temporarily stockpile imported material or waste, it will be done in the appropriate staging area defined for that phase.

**Wildlife Management****Trash**

Trash, especially food debris and packaging, can attract wildlife which in turn can become a hazard to aircraft operations. The Contractor will be required to keep all garbage, neatly stored, in a designated staging area. Food trash will be kept in containment that animals cannot penetrate and will be hauled off site regularly. Other construction debris will be hauled off site at the earliest feasible time and by the end of the project.

**Standing Water**

Standing water on or around airports can increase wildlife activity and bird-strikes by aircraft. The Contractor will not be allowed to create pools of standing water on or near airport property in conjunction with this project unless the SWPPP update requires storm water retention, in which case retention duration shall not exceed 24 hours. Any water ponding from water retention lasting longer than 24 hours shall be immediately removed by pumping into disposal trucks or removed by other means allowed by the Engineer.

**Tall Grass/Seeding**

Seeding on this project will be specified accounting for deterrence of wildlife, including birds. The risk of attracting birds and other animals to areas used by aircraft shall be minimized through consideration of seeding methods and seed types.

**Maintaining Fence Lines & Gates**

All existing fence lines and gates will be required to remain standing during construction in order to prevent unauthorized personnel and wildlife from entering the airport operations area. The Contractor will be responsible for keeping the gate at each designated access point guarded throughout the day and secured at night for the duration of the project.

**Disruption of Existing Wildlife Habitat**

The entire airport is enclosed by security fencing, and the limits for this project will be contained entirely on the airport. As such, there is expected to be little or no disruption of existing wildlife.

**FOD Management**

The Contractor will be required to regularly sweep all pavements used by aircraft (as well as adjacent non-aircraft pavements) during construction that have been impacted by Contractor personnel, subcontractors and suppliers. These areas will be the subject of frequent FOD inspections throughout the course of the project. Pavements temporarily closed to aircraft (as well as adjacent non-aircraft pavements) will be swept of FOD and thoroughly inspected prior to reopening. Trash and all other materials used by the Contractor shall be properly secured or contained to prevent movement by wind or jet blasts.

**HAZMAT Management**

Hazardous materials will not be allowed onsite in quantities larger than that which can be used on the project in a particular day, or in quantities larger than a single unit (e.g. bottles of detergent). The Contractor will be required to have Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), or Product Safety Data Sheets (PSDS) documentation available onsite at all times.

**Notification of Construction****Responsible Representatives/Points of Contact**

The Contractor will be required to submit (and update as needed) a list of points of contact in their Safety Plan Compliance Document (SPCD), to be submitted by the pre-construction conference. This list will include a 24-hour emergency contact person. The 24-hour emergency contact person shall be on call for emergency maintenance of airport hazard lighting, barricades, and all other safety concerns. A list of contact numbers for the Contractor to call in case of an emergency are included below:

General Emergencies	911
Poison Control	(800)-222-1222
Jaime Vera, Airport Operations/Maintenance Mngr.	(509) 426-1630

David Stark, Yakima Air Terminal ARFF	(509) 575-6014
Rob Peterson, Airport Director/Security	(509) 575-6149
	(c) (509) 833-0898
Kerry Albin, Construction Services Mngr./J-U-B Rep.	(509) 531-5902

**NOTAMs**

Notices to Airmen (NOTAMs) will be posted by the Airport Maintenance & Operations Manager. Input and advanced notice will be required from the Contractor as to the affected time period and the effected locations and operations. NOTAMs will be an ongoing topic of discussion at progress meetings during construction.

**Emergency Notification Procedures**

Channels of emergency notification will be agreed upon by the Sponsor, Contractor, Engineer, FAA and other stake holders before work can begin on site. These channels will be established both for notifications by the Contractor and to the Contractor for safety issues.

The YKM Emergency Plan shall be followed including notification of the Airport Director and Emergency First Responders as appropriate.

**Coordination with ARFF**

Airport and Engineer personnel will be readily accessible to the Contractor during scheduled construction hours. These personnel will serve as the link between ARFF and the Contractor.

ARFF will be furnished with a set of contract plans, including the safety plans. ARFF personnel will have an open invitation to the weekly progress meetings or will be routinely briefed on the current construction activity and timeline.

**Notification to FAA**

FAA notification for emergencies will be the responsibility of YKM personnel. Notification of any accidents will immediately be made to local ATO in the Yakima Air Terminal Control Tower. ATO will follow procedures to notify appropriate entities from that point forward.

## **Inspection Requirements**

### **Daily Inspections**

The Contractor will log daily inspections for FOD and house-keeping practices, report safety mishaps, near misses and incursions into restricted areas. Additionally, the Owner will provide supplemental inspections as needed. Information about apparent safety deficiencies will be immediately passed to the Contractor on site and will be made available to all major stakeholders. The Sponsor may also increase the frequency and thoroughness of periodic airport inspections of areas adjacent to construction activities as appropriate, and will bring any safety concerns to the attention of the Contractor and Engineer.

Airport operations personnel and the construction observation personnel will closely inspect work associated with scheduled airfield closures and partial closures prior to reopening to aircraft traffic. The Contractor will be notified of any issues regarding FOD and/or non-compliant safety area grading issues that are observed. The Contractor shall be responsible for resolving all issues prior to the end of the scheduled closure so that aircraft operations may resume as planned.

### **Final Inspections**

Final inspections will be performed for individual construction sub-phases before each area is reopened for operation. Operational safety will be a primary focus of each final inspection. Other focuses will be made on quality of workmanship, compliance to the plans and specifications, and satisfaction of the Sponsor and other stakeholders.

## **Underground Utilities**

Several underground utilities exist in the vicinity of the project site. Any known or anticipated utilities are shown on the construction plan sheets. Contact persons and/or telephone numbers are catalogued in **Table 1**, to be used in case of unexpected contact with buried utilities.

**Table 1: Underground Utilities**

Utility	Point of Contact		
	Organization	Name	Number
NAVAID Pwr./Comm.	FAA	Clint Howell	(509) 380-1746
NAVAID Pwr./Comm.	FAA, Pacific Ops Control		(866) 432-2622
Storm Drainage	Airport Maintenance	Jaime Vera	(509) 426-1630
Water	Airport Maintenance	Jaime Vera	(509) 426-1630
Power/Natural Gas	Cascade Natural Gas		(888) 522-1130

Washington state law requires contractors to call for utility locates 2 full business days before digging. Locates are to be requested via the Washington-One-Call service by calling

811. This statement appears on the General Safety Plan in Appendix A and in the Contract Specifications. The Contractor should be aware that Washington-One-Call will not locate airport specific utilities. The general locations of these utilities will be provided to the contractor. The Contractor will be required to field-verify the locations of all utilities prior to beginning work, and will be financially responsible for the immediate repair of any damaged utilities.

### **Penalties for Noncompliance**

Penalties are an important tool used to enforce controls established for the mitigation of risks. Any Contractor personnel found in violation of a safety rule identified in the Contract, or a rule set by any public entity having jurisdiction, while on airport property, can be removed from airport property for the duration of the project. If a Contractor chooses to persist in violation of a safety rule, that Contractor can be removed from the project altogether and the Contract can be terminated for default of a Contract obligation.

### **Special Conditions**

No special conditions exist at this time.

### **Runway/Taxiway Visual Aids for Construction**

#### **General**

Runway edge lights will be replaced as part of this project.

#### **Markings**

Outside the construction area, pavement markings will remain intact without change. On sections closed for construction, painted markings will be removed or covered in conjunction with the pavement maintenance and repainted after pavement maintenance is complete. All markings shall be in compliance with AC 150/5340-1, *Standards for Airport Markings* (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5340-1](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5340-1)).

#### **Lighting/Visual NAVAIDS**

Runway edge lights and associated cabling will be replaced concurrently with pavement maintenance components of this project. New lights will conform to AC 150/5340-30 *Design and Installation Details for Airport Visual Aids* (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5340-30](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5340-30)).

#### **Signage**

The Contractor will position barricades (see details on the safety plan sheets in Appendix A) just outside the closed pavement areas to indicate the construction zone. This will serve as a barrier to keep tenants and aircraft out of the construction zone, and to keep

the Contractors' personnel out of active safety areas and off pavement sections not associated with the current project.

All barricades will be required to be placed and removed in the presence of airport personnel immediately prior to closing and reopening the pavements. Continuous maintenance of these barricades and closure crosses will be the responsibility of the Contractor in close coordination with airport operations staff.

### **Marking and Signs for Access Routes**

No temporary markings are anticipated for this project.

Any time a sign does not serve its normal function or would provide conflicting information (e.g. runway hold short and taxiway directional signs linked to closed pavement), it must be covered or removed to prevent misdirecting pilots. Refer to the safety plans for specific signs to be covered or turned off during each phase of work.

Signs for construction personnel shall conform to AC 150/5340-18 *Standards for Airport Sign Systems* (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5340-18](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5340-18)) and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and State highway specifications. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, *Frangible Connections* (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.information/documentNumber/150\\_5220-23](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.information/documentNumber/150_5220-23)), which may require modification to size and height guidance in the MUTCD.

### **Hazard Marking/Lighting**

#### **Purpose**

The purpose of hazard markings and lighting will be to indicate to all airborne and ground-based vehicles the location of vehicles and equipment, stationary or moving, within the Airport Operations Area (AOA), to prevent interference or collisions on the ground.

#### **Equipment**

All vehicles and equipment within the AOA will be required to utilize an amber flashing light. This includes vehicles operated by the Contractor and Engineer. All construction equipment and vehicles will be marked and/or lighted in accordance with FAA AC 150/5210-5, *Painting, Marking, and Lighting of Vehicles Used on an Airport*, current edition. This includes providing vehicles with a flag on a staff attached to the vehicle so that the flag will be readily visible. The flag must be at least a 3-foot by 3-foot (0.9 meter by 0.9 meter) square having a checkered pattern of international orange and white squares at least 1 foot (300 mm) on each side.

#### **Closed Pavement**

The Contractor shall position barricades just outside the closed pavement areas to indicate the construction zone as necessary. The barricades shall be spaced such that a breach is physically prevented barring a deliberate act. The barricades shall have a total height as low as possible to the ground, and shall be no more than 18 inches high.

**Manholes or Other Open Hazards**

If manholes, catch basins, or any other open void that could pose a hazard to pedestrians, vehicles or equipment must be left open unattended, the Contractor shall mark the perimeter of the hazard with a high visibility warning and lighting that clearly identifies the associated hazard.

The Contractor shall have a representative on call 24 hours a day to address emergency maintenance needs for hazard lighting and barricades.

**Work Zone Lighting for Nighttime Construction**

Nighttime construction is not anticipated for this project. If the Airport elects to allow nighttime work, the Contractor shall coordinate with the ATCT to ensure light aiming does not interfere with the ATCT. Nighttime lights shall not be aimed toward any active runway or taxiway. Sufficient nighttime lights shall be used to illuminate the entire work area to the satisfaction of the Airport/Engineer.

**Protecting Safety/Object-Free Areas**

The Contractor shall not conduct work in active safety areas.

All equipment and materials shall be removed from object free areas while not in use.

The Contractor must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and shall light the trenches and excavations with red lights during hours of restricted visibility or darkness. Marking/lighting of such hazards shall be in accordance with FAA AC 150/5370-2G (available at [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5370-2](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5370-2)).

All trenches and excavations within inactive safety areas shall be backfilled prior to opening the pavement associated with the safety area. If backfilling excavations before the pavement must be opened is impracticable, and approval is obtained from the Owner, the Contractor shall cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

Soil erosion must be controlled within the project area to maintain safety area standards. If necessary, the safety areas must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and shall be capable,

under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

To protect unaffected airport pavement from unnecessary construction traffic, and to separate construction and air/ground operations which will continue in adjacent areas, low profile barricades will line all pavement areas adjacent to the current phase of work.

If personnel and/or equipment require entering the active AOA limits of the airfield, they shall be accompanied by Airport personnel in constant radio contact with the tower. The Contractor will be required to coordinate all work within ROFAs and TOFAs with the Engineer and Owner.

### **Runway Object Free Areas (ROFAs)**

For Runway 9/27 the ROFA is 800 feet wide and 4/22, the ROFA is 500 feet wide.

### **Runway Safety Areas (RSAs)**

For Runways 9/27 the RSA is 500 feet wide and for Runway 4/22, the RSA is 150 feet wide.

### **Taxiway Object Free Areas (TOFAs)**

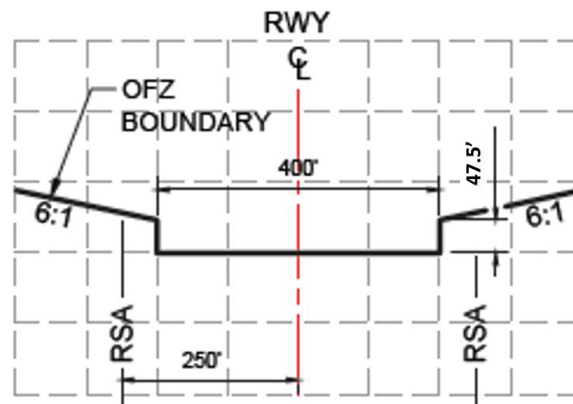
For all taxiways, the TOFA is 186 feet wide.

### **Taxiway Safety Areas (TSAs)**

For all taxiways, the TSA is 118 feet wide.

### **Obstacle Free Zones (OFZ)**

The OFZ for Runways 4/22 and 9/27 is 400' wide and is centered on the runway centerline. The most constraining requirement of the OFZ, in terms of this project, is the inner-transitional OFZ. The inner-transitional OFZ for both Runway 4/22 and Runway 9/27 begins at the edge of the OFZ at a height of 47.5' above the runway centerline for that station and increases at 6H:1V away from the runway until reaching the horizontal surface which is 150 feet above the airport elevation. To protect the OFZ surface, no equipment higher than 45 feet shall be allowed without prior approval. If equipment higher than 45 feet is approved, additional restrictions on the equipment use may be applied.





### **Other Limitations on Construction**

#### **Prohibitions**

The following items are prohibited on this project, including but not limited to:

- Possession of illicit drugs, alcohol, firearms and explosives will be expressly prohibited on airport grounds by contract
- No use of tall equipment (cranes, concrete pumps, etc.) unless a 7460-2 determination letter is issued for such equipment.
- No use of open flame welding or torches unless fire safety precautions are provided and the airport operator has approved their use.
- No use of electrical blasting caps on or within 1,000 feet of the airport property.
- No use of flare pots within the AOA.

#### **Restrictions**

Contractor personnel and equipment will be restricted to the project site, staging area, and haul routes for each phase defined in the safety phasing plans. The Contractor will be allowed to park personal vehicles within the staging area. Personal vehicles will not be allowed outside of the designated staging area or the associated entrance and haul route. Short-term access to any other areas controlled by the airport, either inside or outside the fence, may be considered with prior permission of Airport and Engineering personnel.

Refer to the Construction Phasing section for phase and sub-phase specific restrictions.

## **Appendix A: Safety Plan Sheets**



DESCRIPTION: PREPARATION AND SEALING CRACKS, REMOVAL OF PAVEMENT MARKINGS AS DETAILED, APPLICATION OF SEAL COAT, AND APPLICATION OF INITIAL PAVEMENT MARKINGS ON RWY 9/27 OUTSIDE OF THE RWY 4/22 ROFA AND OUTSIDE OF THE TWY C TOFA. REPLACEMENT OF RUNWAY EDGE LIGHTS AND ASSOCIATED CABLING OUTSIDE OF THE RWY 4/22 ROFA AND OUTSIDE OF THE TWY C TOFA. REPLACEMENT/RELOCATION OF SUPPLEMENTAL WIND CONE.

- CLOSE RWY 9/27 WITH LIGHTED RUNWAY CLOSURE CROSSES AND AIRPORT ISSUED NOTAM.
- REMOVAL OF MARKINGS AS DETAILED, PREPARATION OF PAVEMENT SURFACE FOR CRACK SEALING AND SEAL COAT.
- CRACK SEALING.
- APPLICATION OF SEAL COAT.
- APPLICATION OF INITIAL MARKINGS.
- ELECTRICAL WORK INCLUDING REPLACEMENT OF HIRLS/CABLE AND SUPPLEMENTARY WIND CONE TO BE DONE CONCURRENT WITH PAVEMENT MAINTENANCE ITEMS LISTED ABOVE.
- OPEN RWY 9/27 THROUGH REMOVAL OF LIGHTED CLOSURE CROSSES AND AIRPORT CANCELING ISSUED NOTAM

DESCRIPTION: APPLICATION OF FINAL MARKINGS ON RWY 9/27 OUTSIDE OF RWY 4/22 ROFA AND OUTSIDE OF THE TWY C TOFA AFTER 30-DAY CURE TIME OF SEAL COAT (OR AS DIRECTED BY THE ENGINEER).

- CLOSE RWY 9/27 WITH LIGHTED RUNWAY CLOSURE CROSSES AND AIRPORT ISSUED NOTAM.
- PREPARE RUNWAY PAVEMENT FOR APPLICATION OF MARKINGS.
- APPLICATION OF FINAL MARKINGS.
- OPEN RWY 9/27 THROUGH REMOVAL OF CLOSURE CROSSES AND AIRPORT CANCELING ISSUED NOTAM.

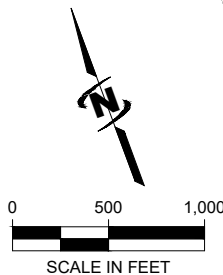
**DESCRIPTION:** PREPARATION AND SEALING CRACKS, REMOVAL OF PAVMENT MARKINGS AS DETAILED, APPLICATION OF SEAL COAT, AND APPLICATION OF INITIAL PAVMENT MARKINGS ON RWY 9/27 WITHIN THE RWY 4/22 ROFA AND WITHIN THE TWY C TOFA. REPLACEMENT OF RUNWAY EDGE LIGHTS AND ASSOCIATED CABLING WITHIN THE RWY 4/22 ROFA AND WITHIN THE TWY C TOFA.

- NOTIFY THE AIRPORT AND ENGINEER IN WRITING, A MINIMUM OF 48 HOURS BEFORE COMMENCING ANY WORK ASSOCIATED WITH PHASE 2A.
- CLOSE RWY 4/22 WITH NON-LIGHTED RUNWAY CLOSURE CROSSES AND AIRPORT ISSUED NOTAM.
- CONDUCT SAME PROCESS AS DEFINED FOR PHASE 1A. PHASE 2A SHALL OCCUR CONCURRENTLY WITH TIME ALLOTMENT FOR PHASE 1A.
- OPEN RWY 4/22 THROUGH REMOVAL OF CLOSURE CROSSES AND AIRPORT CANCELING ISSUED NOTAM.

DESCRIPTION: APPLICATION OF FINAL MARKINGS ON  
RWY 9/27 WITHIN THE RWY 4/22 ROFA AND  
WITHIN THE TWY C TOFA AFTER 30-DAY CURE TIME  
OF SEAL COAT (OR AS DIRECTED BY ENGINEER).

- NOTIFY THE AIRPORT AND ENGINEER IN WRITING, THE PROPOSED TIME WINDOW FOR PHASE 2B, A MINIMUM OF 48 HOURS BEFORE COMMENCING ANY WORK ASSOCIATED WITH PHASE 2A.
- CLOSE RWY 4/22 WITH NON-LIGHTED RUNWAY CLOSURE CROSSES AND AIRPORT ISSUED NOTAM.
- CONDUCT SAME PROCESS AS DEFINED FOR PHASE 1B. PHASE 2B SHALL OCCUR CONCURRENTLY WITH TIME ALLOTMENT FOR PHASE 1B.
- OPEN RWY 4/22 THROUGH REMOVAL OF CLOSURE CROSSES AND AIRPORT CANCELING ISSUED NOTAM.

TOTAL CALENDAR DAYS - 6  
TOTAL RUNWAY 9/27 CLOSURE CALENDAR DAYS - 6  
TOTAL RUNWAY 4/22 CLOSURE CALENDAR DAYS - 4 SIX HOUR WINDOWS  
\*RUNWAY 4/22 CLOSED ONLY DURING PHASES 2A & 2B



THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



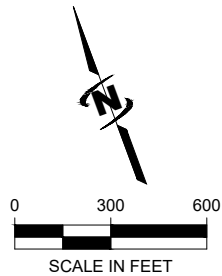
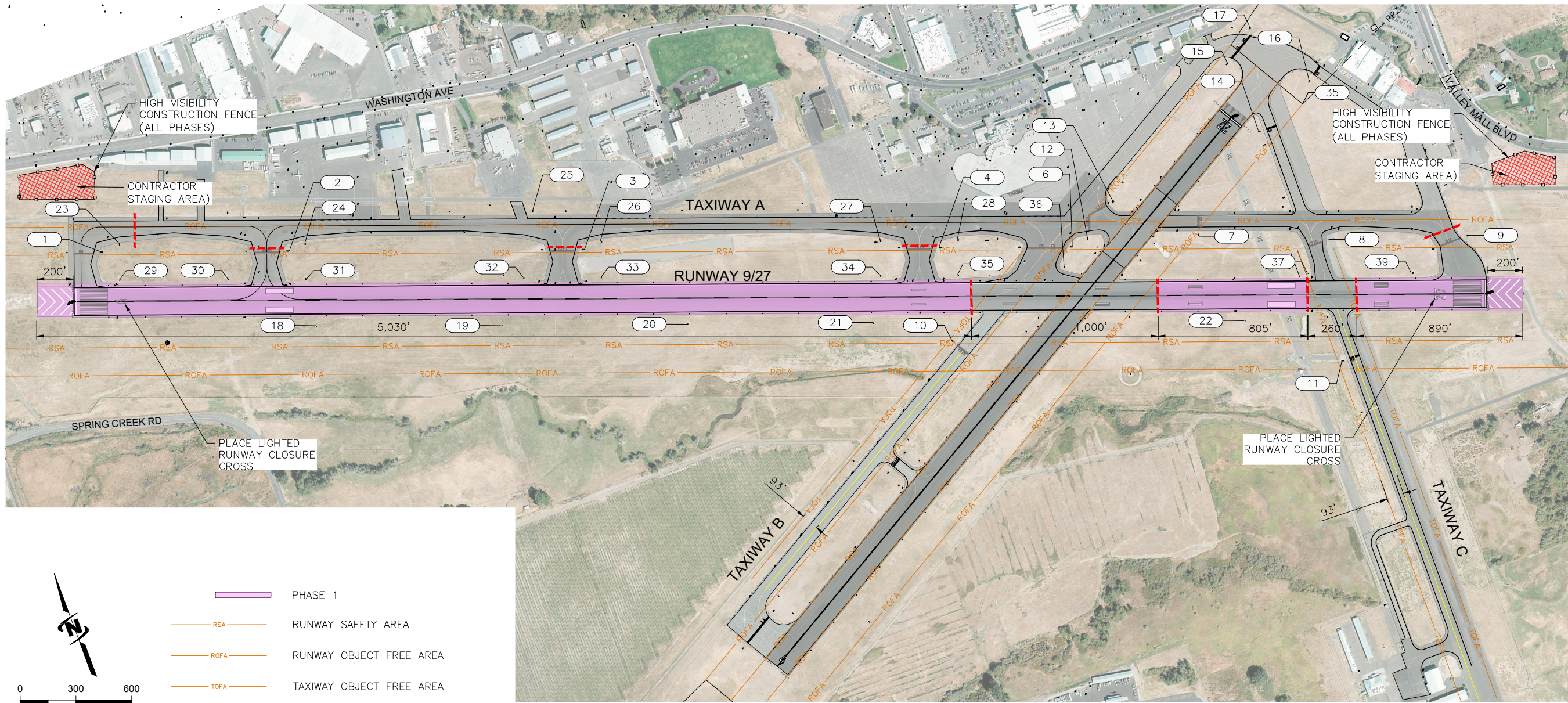


Plot Date: 10/26/2019 9:35 AM Plotted By: Spencer Stephens  
Date Created: 10/22/2019 USPOKANE PUBLIC PROJECT SUBD 20-19-010 YAKIMA PAVEMENT MAINTENANCE AND HIRL CAD SHEET 70-19-010 G-101 DWG

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
1			COVERED	COVERED
2			COVERED	COVERED
3			COVERED	COVERED
4			COVERED	COVERED
5			COVERED	COVERED
6			COVERED	COVERED
7			UNCOVERED	COVERED
8			COVERED	COVERED
9			COVERED	COVERED
10			COVERED	COVERED
11			COVERED	COVERED
12			UNCOVERED	COVERED
13			UNCOVERED	COVERED
14			UNCOVERED	COVERED

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
15			UNCOVERED	COVERED
16			UNCOVERED	COVERED
17			UNCOVERED	COVERED
18			COVERED	COVERED
19			COVERED	COVERED
20			COVERED	COVERED
21			COVERED	COVERED
22			COVERED	COVERED
23			COVERED	COVERED
24			COVERED	COVERED
25			COVERED	COVERED
26			COVERED	COVERED
27			COVERED	COVERED
28			COVERED	COVERED

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
29			TURN OFF	TURN OFF
30			TURN OFF	TURN OFF
31			TURN OFF	TURN OFF
32			TURN OFF	TURN OFF
33			TURN OFF	TURN OFF
34			TURN OFF	TURN OFF
35			TURN OFF	TURN OFF
36			TURN OFF	TURN OFF
37			TURN OFF	TURN OFF
38			TURN OFF	TURN OFF
39			TURN OFF	TURN OFF



- PHASE 1
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOW PROFILE BARRICADES (SEE DETAIL A2, SHEET G-501)

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



REVISION	DESCRIPTION	BY	DATE

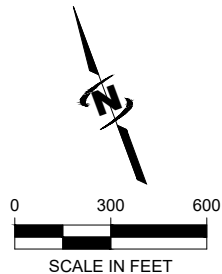
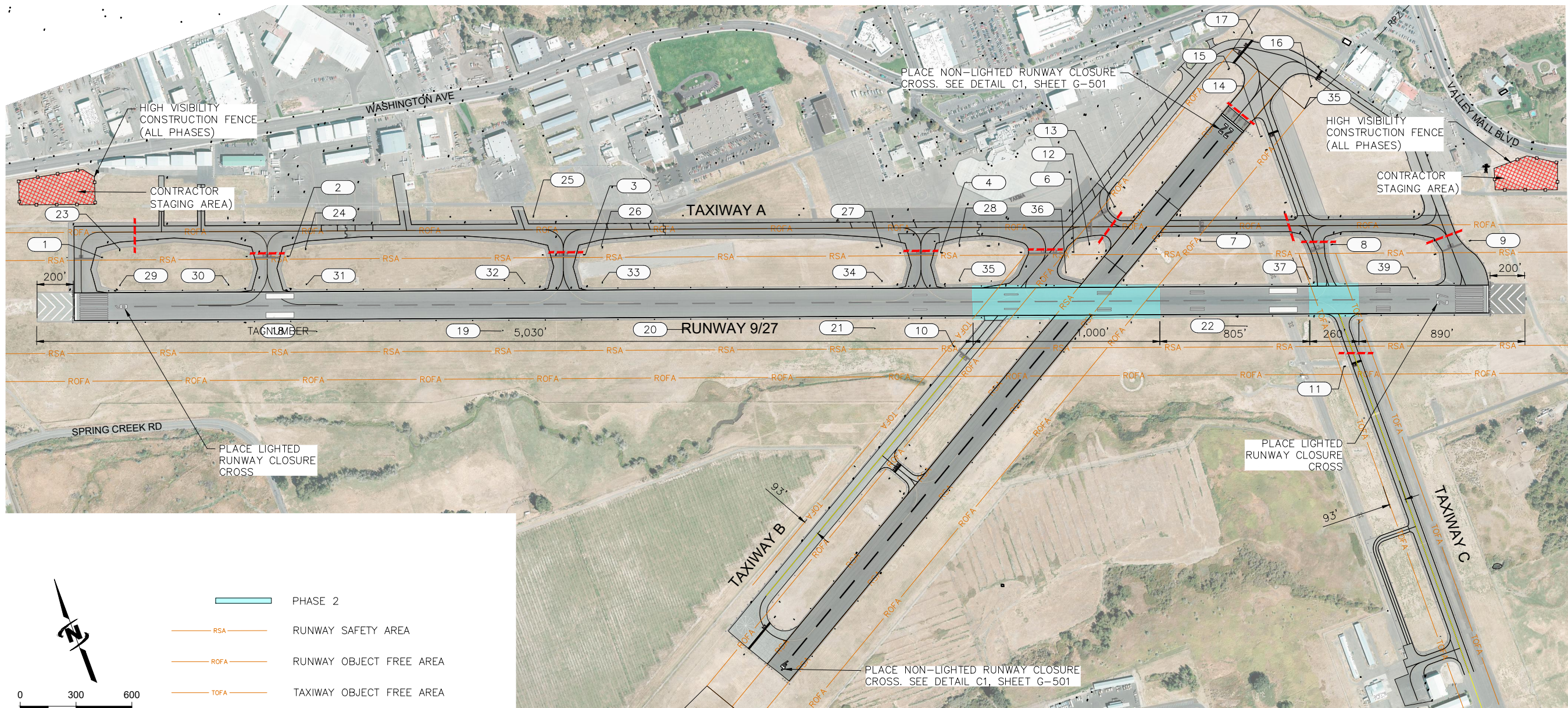


Plot Date: 10/10/2019 9:38 AM Plotted By: Spencer Stephens  
Date Created: 9/20/2019 USPOKNEPUBLICPROJECTS\SUB20-19\010 YAKIMA PAVEMENT MAINTENANCE AND HIRL CAD\SHEET\20-19-010 G-102.DWG

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
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4			COVERED	COVERED
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12			UNCOVERED	COVERED
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14			UNCOVERED	COVERED

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
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16			UNCOVERED	COVERED
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26			COVERED	COVERED
27			COVERED	COVERED
28			COVERED	COVERED

KEY NOTE NO.	SIGNAGE FRONT PANEL	SIGNAGE BACK PANEL	PHASE 1 ACTION	PHASE 2 ACTION
29			TURN OFF	TURN OFF
30			TURN OFF	TURN OFF
31			TURN OFF	TURN OFF
32			TURN OFF	TURN OFF
33			TURN OFF	TURN OFF
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35			TURN OFF	TURN OFF
36			TURN OFF	TURN OFF
37			TURN OFF	TURN OFF
38			TURN OFF	TURN OFF
39			TURN OFF	TURN OFF



- PHASE 2
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- TAXIWAY OBJECT FREE AREA
- LOW PROFILE BARRICADES (SEE DETAIL A2, SHEET G-501)

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**J-U-B ENGINEERS, INC.**

**J-U-B ENGINEERS, INC.**  
W. 422 Riverside Ave.  
Suite 304  
Spokane, WA 99201  
Phone: 509.458.3727  
www.jub.com

**PRELIMINARY PLANS**

**NOT FOR CONSTRUCTION**

REUSE OF DRAWINGS  
JUB SHALL RETAIN ALL COMMON LAW, STATUTORY, COPYRIGHT AND OTHER RIGHTS IN THIS DRAWING. NO PART OF THIS DRAWING SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF JUB. ANY REUSE WITHOUT WRITTEN CONSENT BY JUB WILL BE AT CLIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JUB.

NO.	REVISION	DESCRIPTION	BY	DATE

**YAKIMA AIR TERMINAL - MCALLISTER FIELD**  
**RUNWAY 9/27 HIRL AND PAVEMENT MAINTENANCE**

**SIGNING AND ACCESS - PHASE 2**

FILE: 70-19-010 G-102  
JUB PROJ. #: ---  
DRAWN BY: TJF  
DESIGN BY: ADD  
CHECKED BY: MIN

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH, SCALE ACCORDINGLY

LAST UPDATED: 10/10/2019  
SHEET NUMBER:  
**G-102**



### GENERAL PHASING AND CONSTRUCTION SCHEDULE:

1. CONSTRUCTION SHALL NOT DELAY OR DIVERT ANY REGULARLY SCHEDULED COMMERCIAL AIR OPERATIONS UNLESS PREVIOUSLY APPROVED BY THE ENGINEER AND/OR AIRPORT DIRECTOR.
2. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS AND CONSTRUCTION PERMITS THAT ARE PERTINENT TO THIS WORK. THE CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES PER SECTION 70-02 OF THE FAA GENERAL PROVISIONS.
3. IF REQUIRED, DURING A RUNWAY OR TAXIWAY CLOSURE, THE CONTRACTOR SHALL OBSERVE THE SAFETY AREAS OF ALL OPEN RUNWAYS AND TAXIWAYS. WORK WITHIN THE SAFETY AREAS MAY BE PERMITTED ON A CASE BY CASE BASIS WITH APPROVAL OF THE DIRECTOR OF AIRPORTS AND ENGINEER.
4. PERSONNEL ARE NOT PERMITTED TO ENTER ANY ACTIVE RUNWAY OBJECT FREE ZONES OR SAFETY AREAS WITHOUT AIRPORT ESCORT. WHEN PERMITTED TO WORK WITHIN A SAFETY AREA LIMITS OF AN OPEN RUNWAY OR TAXIWAY, THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER OR AIRPORT PERSONNEL TO RELOCATE TO ANOTHER PART OF THE AIRPORT OPERATIONS AREA (AOA) OR VACATE FROM THE FENCED CONFINES OF THE AOA FOR ARRIVALS AND / OR DEPARTURES OF AIRCRAFT. THE CONTRACTOR SHALL COMPLETE IT'S RELOCATION IN, OR VACATING OF THE AOA BY 10 MINUTES PRIOR TO THE ARRIVAL AND SHALL NOT REMOBILIZE TO THE WORK AREA FOR 5 MINUTES FOLLOWING ANY ARRIVALS AND / OR DEPARTURE OF AIRCRAFT.
5. AT ANYTIME, FOR EMERGENCY OPERATIONS, OR WHEN CONDITIONS MAY BE HAZARDOUS TO PUBLIC SAFETY, AT THE DIRECTION OF THE ENGINEER OR AIRPORT DIRECTOR THE CONTRACTOR SHALL CEASE OPERATIONS AND VACATE THE AOA. NO ADDITIONAL STANDBY TIMES WILL BE GRANTED OR PAID FOR THIS ITEM.
6. ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S STAGING AND CONSTRUCTION OPERATIONS SHALL BE RESTORED EQUAL TO OR BETTER THAN ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE IN A TIMELY MANNER. ANY UTILITIES, RESTROOM FACILITIES, AND TEMPORARY FENCING SHALL BE AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF THE CONSTRUCTION. IN THE EVENT OF DAMAGE TO EXISTING UTILITIES AND CABLES, THE ENGINEER AND THE OWNER ARE TO BE NOTIFIED IMMEDIATELY. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO UTILITIES, AS DIRECTED BY THE ENGINEER, IMMEDIATELY, AT THE CONTRACTORS EXPENSE.
8. STEEL PROTECTIVE PLATES SHALL BE PLACED ON ANY PAVEMENT EDGE CROSSINGS PRIOR TO STAGING AND CONSTRUCTION. 1/2" MINIMUM PLATE THICKNESS BY 12-FEET WIDE IS REQUIRED. PLATES SHALL EXTEND BEYOND PAVEMENT A MINIMUM OF 10-FEET. CONSTRUCT UNIFORM SLOPE AT SHOULDERS WHERE PLATES ARE PLACED TO MATCH EXISTING PAVEMENT SLOPE. ADDITIONAL CRUSHED AGGREGATE TOP COURSE MAY BE REQUIRED TO CONSTRUCT UNIFORM SHOULDER.
9. THE CONTRACTOR SHALL CLEAN/MAINTAIN ALL PAVEMENT CROSSINGS BY BROOMING, VACUUMING, OR OTHER APPROVED METHODS AT THE END OF EACH WORK SHIFT AT A MINIMUM OR AS REQUIRED BY ENGINEER. CLEANING EQUIPMENT SHALL BE AVAILABLE ON SITE AT ALL TIMES.
10. WATER FOR CONSTRUCTION SHALL BE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF YAKIMA TO SETUP A METERED SOURCE. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE METER AND WATER.

DEFINITIONS:

**AIR OPERATIONS AREA (AOA).** FOR THE PURPOSE OF THE SPECIFICATIONS AND AS NOTED ON THIS SAFETY PLAN, THE TERM AIR OPERATIONS AREA (AOA) SHALL MEAN ANY AREA OF THE AIRPORT USED OR INTENDED TO BE USED FOR LANDING, TAKEOFF, OR SURFACE MANEUVERING OF AIRCRAFT. AN AIR OPERATIONS AREA SHALL INCLUDE SUCH PAVED OR UNPAVED AREAS THAT ARE USED OR INTENDED TO BE USED FOR THE UNOBSTRUCTED MOVEMENT OF AIRCRAFT IN ADDITION TO ITS ASSOCIATED RUNWAY, TAXIWAY, APRON, ROFA, TOFA, RSA, TSA, AND RPZ.

**OBJECT FREE AREA (ROFA/TOFA):** AN AREA ON THE GROUND PROVIDED TO ENHANCE THE SAFETY OF AIRCRAFT OPERATIONS BY HAVING THE AREA FREE OF OBJECTS.

**SAFETY AREA (RSA/TSA):** A DEFINED SURFACE ALONGSIDE THE RUNWAY OR TAXIWAY PREPARED OR SUITABLE FOR REDUCING THE RISK OF DAMAGE TO AIRCRAFT UNINTENTIONALLY DEPARTING THE RUNWAY OR TAXIWAY.

**RUNWAY PROTECTION ZONE (RPZ):** AN AREA OFF THE RUNWAY END TO ENHANCE THE PROTECTION OF PEOPLE AND PROPERTY ON THE GROUND.

**OBSTACLE FREE ZONE (OFZ):** AIRSPACE ALONG RUNWAY THAT IS REQUIRED TO BE CLEAR OF ALL OBJECTS IN ORDER TO PROVIDE CLEARANCE PROTECTION FOR AIRCRAFT LANDING OR TAKING OFF. REFER TO DETAILS ON THIS SHEET.

SAFETY AREA LIMITS:

RUNWAY 9/27 - RUNWAY SAFETY AREA WIDTH	500 FT.
RUNWAY 9/27 - RUNWAY OBJECT FREE AREA WIDTH	800 FT.
RUNWAY 9/27 - LENGTH BEYOND END OF RUNWAY (RSA & ROFA)	1,000 FT.
RUNWAY 4/22 - RUNWAY SAFETY AREA WIDTH	150 FT.
RUNWAY 4/22 - RUNWAY OBJECT FREE AREA WIDTH	500 FT.
RUNWAY 4/22 - LENGTH BEYOND END OF RUNWAY (RSA & ROFA)	300 FT.
ALL TAXIWAYS - TAXIWAY OBJECT FREE AREA WIDTH	186 FT.
ALL TAXIWAYS - TAXIWAY SAFETY AREA WIDTH	118 FT.

1. 250 FT. ON BOTH SIDES OF RUNWAY MEASURED FROM RUNWAY CENTERLINE
2. 59 FT. ON BOTH SIDES OF TAXIWAY MEASURED FROM TAXIWAY CENTERLINE.

SAFETY NOTES AND REQUIREMENTS:

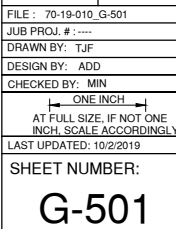
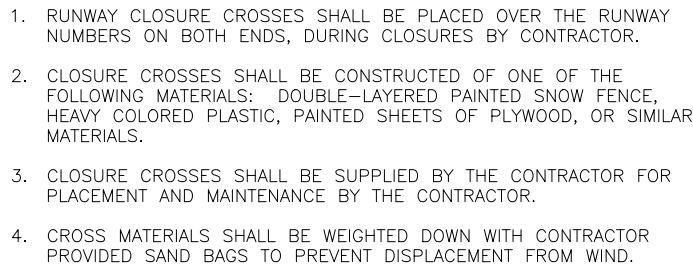
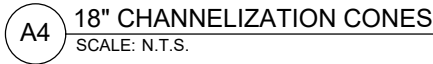
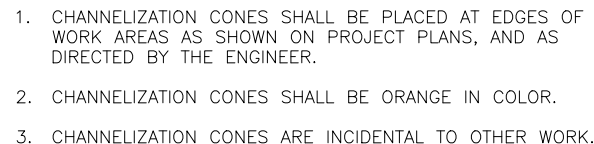
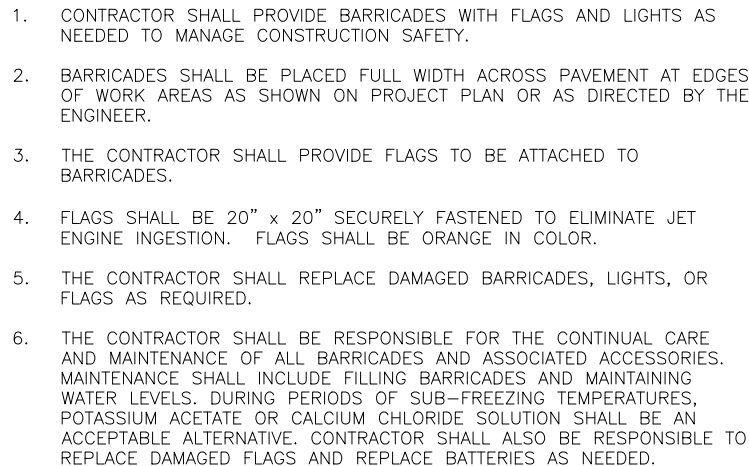
1. ALL OPERATIONS DURING CONSTRUCTION SHALL BE SUBJECT TO AC 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
2. THE CONSTRUCTION SHALL, AS MUCH AS POSSIBLE, MINIMIZE DISRUPTION OF STANDARD OPERATING PROCEDURES FOR AERONAUTICAL ACTIVITY.
3. THE CONTRACTOR SHALL MAINTAIN CLEAR ROUTES FOR FIRE FIGHTING AND RESCUE (ARFF) OPERATIONS TO ACTIVE AIRPORT OPERATIONS AND SAFETY AREAS INCLUDING THE AIRPORT GENERAL AVIATION AREA. THE CONTRACTOR SHALL NOTIFY AIRPORT PERSONNEL OF ANY PROPOSED ACTIVITIES THAT MAY INTERFERE WITH ARFF OPERATIONS; I.E. EQUIPMENT OPERATING NEAR HYDRANTS OR NEED TO SHUT OFF HYDRANTS.
4. THE CONTRACTOR SHALL NOTIFY THE AIRPORT DIRECTOR OR ENGINEER AT LEAST 48 HOURS PRIOR TO WORK BEING INITIATED WITHIN THE AIRPORT OPERATIONS AREA (AOA).
5. THE OWNER WILL INITIATE AND CANCEL ALL NOTICES TO AIRMAN (NOTAM) BASED ON CONTRACTOR SCHEDULES. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE ENGINEER. NO WORK SHALL BEGIN UNTIL THE NOTAM FOR THAT WORK HAS BEEN POSTED WITH THE FAA.
6. ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE MARKED AND LIGHTED PER SECTION 70-08 OF THE FAA GENERAL CONDITIONS. EQUIPMENT AND VEHICLE FLAGGING AND LIGHTING SHALL BE IN ACCORDANCE WITH AC 150/5210-5D, "PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AN AIRPORT", CURRENT EDITION.
7. THE CONTRACTOR MAY STORE ALL EQUIPMENT AND MATERIALS IN THE DESIGNATED STAGING AREA WHEN NOT IN USE. STOCKPILED MATERIALS NECESSARY FOR CONSTRUCTION SHALL BE OF LOW PROFILE (NO HIGHER THAN RUNWAY 9/27 CENTERLINE, EL. 1049.0). USE OF LIGHTED LOW PROFILE BARRICADES RUNNING ALONG THE TOP OF EACH STOCKPILE SHALL BE MANDATORY WHEN NOT BEING ACCESSED BY CONSTRUCTION EQUIPMENT.
8. NO PRIVATE VEHICLES WILL BE PERMITTED WITHIN THE SECURITY FENCED AREA. CONSTRUCTION PERSONNEL SHALL BE REQUIRED TO PARK OUTSIDE THE SECURITY FENCE IN DESIGNATED STAGING AREAS OR OTHER AREAS AS APPROVED BY THE OWNER. TRANSPORTATION TO THE PROJECT SITES WITHIN THE SECURITY FENCED AREAS SHALL MEET THE REQUIREMENTS OF SAFETY NOTE 6, NO EXCEPTIONS.
9. REMOVE ALL GENERATED DEBRIS FROM THE WORK AREA AT THE CONCLUSION OF THE DAY'S OR PERIOD'S CONSTRUCTION. BURNING OF GENERATED DEBRIS SHALL NOT BE PERMITTED, NO EXCEPTIONS.
10. THE CONTRACTOR SHALL CONTROL DUST BY WATERING THE DISTURBED AREAS OR BY OTHER EROSION STABILIZATION METHODS APPROVED BY THE ENGINEER. DUST / EROSION CONTROL OPERATIONS SHALL BE CONTINUOUS, INCLUDING HOLIDAYS AND WEEKENDS.
11. THE CONTRACTOR SHALL SUPPLY LIGHTED LOW PROFILE BARRICADES INCLUDING FLAGS FOR THIS PROJECT. PLACEMENT BY THE CONTRACTOR SHALL BE IN THE PRESENCE AND WITH THE APPROVAL OF AIRPORT PERSONNEL AND THE ENGINEER DURING AOA CONSTRUCTION OPERATIONS PER SECTION 70-08 OF THE SPECIFICATIONS AND AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PLACE AND FILL THE BARRICADES WITH WATER AND MAINTAIN FOR THE CONTRACT DURATION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND REPLACING BARRICADE LIGHT BATTERIES AND FLAGS AS REQUIRED DURING CONSTRUCTION. BARRICADES DAMAGED BEYOND USE DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
12. ALL AIRPORT GATES AND FENCING USED FOR CONSTRUCTION ACCESS SHALL BE MAINTAINED BY THE CONTRACTOR TO CONTROL AND/OR DETER HUMAN AND ANIMAL INTRUSIONS ONTO THE AOA.
13. IN ORDER TO MAINTAIN A CLEAR OBSTACLE FREE ZONE, CONTRACTOR EQUIPMENT HEIGHT SHALL BE LIMITED TO 45 FEET.
14. CONTRACTOR SHALL HOLD, AT A MINIMUM, WEEKLY CONSTRUCTION MEETINGS WHICH MAY INCLUDE REPRESENTATIVES FROM THE AIRPORT, FBO'S, CONTROL TOWER, ARFF, AND ENGINEER TO REVIEW SCHEDULE, WORK AND SAFETY ISSUES. IF A SAFETY ISSUE ARISES, THE AIRPORT DIRECTOR OR ENGINEER MAY REQUIRE MORE FREQUENT MEETINGS. ON-SITE INSPECTIONS OF PROJECT CONDITIONS WILL BE PERFORMED BY THE CONTRACTOR WITH THE AIRPORT OPERATOR THROUGHOUT THE DURATION OF THE PROJECT. ANY DEFICIENCIES FOUND SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL HAVE, AT A MINIMUM, ONE PERSON ON SITE AT ALL TIMES WHO HAS HAD A 10 YEAR EMPLOYMENT BACKGROUND CHECK (SEE SPECIFICATIONS) PER 49 CFR-1542 AND THE AIRPORT SECURITY PLAN AND HAS BEEN ISSUED AN AIRPORT SECURITY BADGE TO ACT AS ESCORT FOR THE CONTRACTOR'S PERSONNEL. IT IS RECOMMENDED THAT THE CONTRACTOR HAVE ADDITIONAL SECURITY BADGED INDIVIDUALS TO COVER CONTINGENCIES. THE BADGED INDIVIDUAL(S) SHALL REMAIN WITH THE UNBADGED PERSONNEL AT ALL TIMES THEY ARE IN THE AOA. ACCESS TO THE SECURITY IDENTIFICATION DISPLAY AREAS (SIDA), SHALL ONLY BE UNDER DIRECT ESCORT PROVIDED BY THE OWNER OR A CONTRACTOR INDIVIDUAL WHO HAS MET THE ADDITIONAL REQUIREMENTS TO OBTAIN A SIDA SECURITY BADGE. A CONTRACTOR'S SIDA BADGED INDIVIDUAL PROVIDING SIDA AREA ESCORT SHALL NOT BE PERMITTED TO PERFORM ANY WORK ACTIVITIES, NO EXCEPTIONS.
16. THE CONTRACTOR SHALL PROVIDE CONTRACT SECURITY COMPANY PERSONNEL AT ALL DESIGNATED SECURITY ACCESS GATES AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. THIS INDIVIDUAL SHALL VERIFY IDENTIFICATION OF AND APPROVE ALL ENTERING PERSONNEL TO BE ON THE PROJECT.
17. EXISTING AIRPORT PAVEMENTS SHALL NOT BE USED AS HAUL ROUTES UNLESS SHOWN/NOTED ON THE PLANS AND/OR PRIOR PERMISSION HAS BEEN GRANTED BY THE AIRPORT AND THE ENGINEER.
18. ALL EXCAVATIONS WITHIN RUNWAY OR TAXIWAY SAFETY AREAS SHALL BE BACKFILLED, COMPACTED, AND GRADED PRIOR TO OPENING THE RUNWAY OR TAXIWAY FOR OPERATIONS. THE GRADING SHALL LEAVE NO POTENTIALLY HAZARDOUS RUTS, HUMPS, DEPRESSIONS, OR OTHER SURFACE VARIATIONS AS DETERMINED BY THE ENGINEER.



Know what's below.  
Call before you dig.

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**CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU  
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF  
UNDERGROUND MEMBER UTILITIES**



## **Appendix B: FAA 7460 Forms**



Form Approved OMB No. 2120-0001  
Expiration Date: 10/31/2017

# SUPPLEMENTAL NOTICE

<b>Submission Instructions:</b> <u>For Advance Notice of Actual Construction or Alteration.</u> Complete items 1, 2, 3A (1), 3A(2), and 6. If applicable, also complete items 4 and 5. Detach Part 1. Fold and tape at bottom. Mail to the FAA Regional Office for your area. Part 1A is provided for your file.		Aeronautical Study No.		
<div style="display: flex; justify-content: space-between; align-items: center;"> <div> <b>Notice of Actual Construction or Alteration</b>  <i>(Please Type or Print on this Form)</i> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <div style="font-size: 0.8em;">           U.S. Department of Transportation  <b>Federal Aviation Administration</b> </div> </div>				
<b>1. Construction</b>				
A. Type and Description of Construction <div style="margin-left: 100px;"> <input type="checkbox"/> New  <input type="checkbox"/> Alteration         </div>		B. Owner of Structure		
<b>2. Construction Location -- Height</b>				
A. Coordinates <i>(To hundredths of seconds, if known)</i> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;">           Latitude            °   '   "         </div> <div style="text-align: center;">           Longitude            °   '   "         </div> </div>		B. Location <i>(City, State, include Street Address if any)</i>		
C. Construction Heights <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 10px;"> <div style="width: 60%;"> <div style="display: flex; justify-content: space-between;"> <div>Site Elevation</div> <div>Ft. AMSL</div> </div> <div>Structure Height</div> <div>Ft. AGL</div> </div> <div style="width: 35%; text-align: center;">           Total Height  <i>(Structure &amp; Site)</i>            Above Mean Sea Level            Ft. AMSL         </div> </div>				
D. Site Elevation Determined By <input type="checkbox"/> Actual Survey <input type="checkbox"/> USGS 7.5' Quad Chart <input type="checkbox"/> Other <i>(Specify)</i>				
E. Reference datum of coordinates <input type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83 <input type="checkbox"/> Other <i>(Specify)</i>		F. Name of Nearest Public-Use or Military Airport <i>(include Distance and Direction from the Airport)</i>		
<b>3. Construction Notifications</b>				
A. Notification <div style="text-align: right; color: red; font-weight: bold; margin-top: 5px;"> <i>(Notice Is Critical to Flight Safety --- FAR Part 77 Required)</i> </div>		B. Construction/Project		
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <div style="color: red; font-weight: bold; margin-bottom: 5px;">★ (1) Construction will start (Submit at least 48 hrs. in advance)</div> <div>(2) Estimated Completion</div> <div style="color: red; font-weight: bold; margin-top: 5px;">★ (3) Structure Reached Greatest Height (Submit within 5 days)</div> </div> <div style="width: 40%; border-left: 1px solid black; padding-left: 5px;"> <div style="text-align: center; margin-bottom: 5px;">Date</div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px;"></div> </div> </div>		<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <div style="margin-bottom: 5px;">(1) Project Abandoned</div> <div style="margin-bottom: 5px;">(2) Construction Dismantled</div> </div> <div style="width: 40%; border-left: 1px solid black; padding-left: 5px;"> <div style="text-align: center; margin-bottom: 5px;">Date</div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px;"></div> </div> </div>		
<b>4. Marking and Lighting</b>				
A. Marked <div style="margin-left: 20px;"> <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Temporary         </div>		B. Lighted <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;"> <input type="checkbox"/> Medium Intensity White  <input type="checkbox"/> Dual (Medium Intensity White &amp; Red)         </div> <div style="width: 30%;"> <input type="checkbox"/> High Intensity White  <input type="checkbox"/> Dual (High Intensity White &amp; Red)         </div> <div style="width: 30%;"> <input type="checkbox"/> Red  <input type="checkbox"/> None         </div> </div>		
<b>5. Antenna Requiring FCC License</b>				
A. Call Sign		B. Frequency		
C. Date Applied for FCC Construction Permit		D. Date Construction Permit Issued		
<b>6. Preparer's Certification</b>				
Submitted by: (If submitted by a proponent's representative, please also complete item B.)	A. Proponent's Representative Name:		B. Construction Proponent Name:	
	Address:		Address:	
	Tel. No.: <i>(Include Area Code)</i>		Tel. No.: <i>(Include Area Code)</i>	
	<div style="text-align: center; font-weight: bold; margin-bottom: 5px;"> <i>I hereby certify that the information provided is true, complete, and correct to the best of my knowledge.</i> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;">Signature</div> <div style="width: 40%;">Title</div> <div style="width: 20%;">Date</div> </div>			
Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U. & C., Section 46301(a).				