CONSTRUCTION SAFETY AND PHASING PLAN

JUNEAU INTERNATIONAL AIRPORT
RUNWAY 8/26 REHABILITATION

CBJ Project No. E14-034

Juneau, Alaska

November 2013

Prepared on Behalf of the Sponsor:

City and Borough of Juneau
Juneau International Airport
1873 Shell Simmons Drive
Juneau, Alaska 99801

Prepared by:
USKH Inc.
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INTRODUCTION

On September 29, 2011 the Federal Aviation Administration issued a revised advisory circular addressing airport construction safety. The revised document is AC 150/5370-2F Operational Safety on Airports During Construction.

It can be downloaded from:

http://www.faa.gov/airports/resources/advisory_circulars/

The revised advisory circular (Safety AC) mandates the format and content of both the Construction Safety and Phasing Plan and the Safety Plan Compliance Document that must be prepared by the Contractor. This project uses Alaska Department of Transportation & Public Facility (DOT&PF) Standard Specifications for Airport Construction adapted for CBJ. As of the date of advertisement of this project, the Alaska Department of Transportation & Public Facilities has not revised the Alaska Standard Specifications for Airport Construction to address this major revision to the Safety AC. The Construction Safety and Phasing Plan and Safety Plan Compliance Document, now supersede all references in the Alaska Standard Specifications for Airport Construction to construction safety plans, security plans, and construction phasing or staging plans.

The Contractor’s work schedule, including the critical path method schedule, is included in the Safety Plan Compliance Document, under section 2, Phasing. See the Safety AC.

The Federal Aviation Administration intends the Construction Safety and Phasing Plan and the Safety Plan Compliance Document to be “stand-alone” documents that can be circulated to the relevant sections of the Federal Aviation Administration for review and approval within the Safety Management System which is also undergoing current development.

Safety Plan sheets and Construction Phasing Plans within the project plans are referred to in the Construction Safety and Phasing Plan and Safety Plan Compliance Document as Construction Safety Drawings, as dictated by the Safety AC. The Federal Aviation Administration requires that the Construction Safety and Phasing Plan, as submitted for their review, include those plans as an appendix. The Contractor can find these sheets within the project plans, rather than as an appendix to the Construction Safety and Phasing Plan.
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# ACRONYMS

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<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>AAC</td>
<td>Alaska Administrative Code</td>
</tr>
<tr>
<td>AC</td>
<td>advisory circular</td>
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<tr>
<td>ADEC</td>
<td>Alaska Department of Environmental Conservation</td>
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<td>AOA</td>
<td>Airport Operation Areas</td>
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<tr>
<td>ARFF</td>
<td>Airport Rescue and Fire Fighting</td>
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<tr>
<td>ATC</td>
<td>Air Traffic Control</td>
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<tr>
<td>ATO</td>
<td>Air Traffic Organization</td>
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<tr>
<td>CAP</td>
<td>Civil Air Patrol</td>
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<tr>
<td>CBJ</td>
<td>City and Borough of Juneau</td>
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<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>CHRC</td>
<td>Criminal History Records Check</td>
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<tr>
<td>CSPP</td>
<td>Construction Safety and Phasing Plan</td>
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<tr>
<td>DOT&amp;PF</td>
<td>Alaska Department of Transportation &amp; Public Facilities</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
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<tr>
<td>FCC</td>
<td>Federal Communications Commission</td>
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<tr>
<td>FFWFO</td>
<td>Fairbanks Fish &amp; Wildlife Field Office</td>
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<tr>
<td>FOD</td>
<td>foreign object debris</td>
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<tr>
<td>FSS</td>
<td>Flight Service Station</td>
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<tr>
<td>GA</td>
<td>General Aviation</td>
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<td>HAZMAT</td>
<td>hazardous materials</td>
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<tr>
<td>HMCP</td>
<td>Hazardous Materials Control Plan</td>
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<tr>
<td>IFR</td>
<td>instrument flight rules</td>
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<tr>
<td>ILS</td>
<td>Instrument landing system</td>
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<td>JAWS</td>
<td>Juneau Airport Wind System</td>
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<td>JNU</td>
<td>Juneau International Airport</td>
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<tr>
<td>LED</td>
<td>Light-emitting diode</td>
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<tr>
<td>MALSR</td>
<td>Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights</td>
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<td>MSDS</td>
<td>Material Safety Data Sheets</td>
</tr>
<tr>
<td>MUTCD</td>
<td>Manual on Uniform Traffic Control Devices</td>
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<tr>
<td>NAVAID</td>
<td>navigational aid</td>
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<td>NOTAM</td>
<td>Notice to Airman</td>
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<tr>
<td>NW</td>
<td>northwest</td>
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<tr>
<td>OFA</td>
<td>object free area</td>
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<tr>
<td>OFZ</td>
<td>obstacle free zone</td>
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<tr>
<td>PAPI</td>
<td>precision approach path indicator</td>
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<tr>
<td>REIL</td>
<td>runway end identifier lights</td>
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<tr>
<td>ROFA</td>
<td>runway object free areas</td>
</tr>
<tr>
<td>RSA</td>
<td>runway safety area</td>
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<tr>
<td>RVR</td>
<td>runway visual range</td>
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<tr>
<td>RW</td>
<td>Runway</td>
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<tr>
<td>SAE</td>
<td>Society of Automotive Engineers</td>
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<td>SIDA</td>
<td>Security Identification Display Area</td>
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<tr>
<td>SPCC</td>
<td>Spill Prevention, Control and Countermeasure</td>
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<tr>
<td>SPCD</td>
<td>Safety Plan Compliance Document</td>
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<tr>
<td>SSCA</td>
<td>Standard Specifications for Airport Construction</td>
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<td>STA</td>
<td>Security Threat Assessment</td>
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<td>SWPPP</td>
<td>Storm Water Pollution Prevention Plan</td>
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<tr>
<td>TOFA</td>
<td>Taxiway Object Free Area</td>
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<tr>
<td>TSA</td>
<td>Transportation Security Administration</td>
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<tr>
<td>TSA</td>
<td>Taxiway Safety Area</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
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<td>---------</td>
<td>--------------------------------</td>
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<tr>
<td>TW</td>
<td>Taxiway</td>
</tr>
<tr>
<td>VASI</td>
<td>visual approach slope indicator</td>
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<tr>
<td>VFR</td>
<td>visual flight rules</td>
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(1) COORDINATION

Construction on an active airport can require intense coordination effort early in the project to ensure construction proceeds smoothly and in an orderly fashion. This effort will provide a safe work environment for construction, and minimize disruption to the airport’s daily operations. The coordination effort continues throughout the project to help guarantee that changes during construction can be dealt with by all parties concerned, and that these changes minimize or eliminate any negative impacts to airport operation, safety and security.

The Airport Manager holds the primary responsibility for virtually all aspects of the airport’s operation, safety, and security. Your point of contact with the Airport Manager is through the Engineer. The Airport Manager will provide training to you, and your subcontractors to provide for proper access, airport security, radio communication, vehicle operation, and any safety procedures or precautions. Plan your first meeting with the Airport Manager, through the Engineer, prior to preparing your Safety Plan Compliance Document (SPCD) and construction phasing plan, which you must submit prior to the preconstruction conference. More information on the SPCD can be found in section 2b below. The training mentioned above will usually occur after the preconstruction conference, but always before any work begins on airport property.

The rest of this document provides information on some of the coordination, limitations, and restrictions that will be required to accomplish this project. Some details have been left for you to provide, so that you may accomplish the work according to your own means and methods, as much as practical. Your plans to complete the work are of course, subject to approval by the Engineer, and will require coordination and review by the Airport Manager, Federal Aviation Administration (FAA), and possibly numerous other organizations or individuals. Early coordination, sticking to the plan, and trying not to surprise anyone, will be key to smooth operations, for both you and the airport.

Coordination Through the Engineer: Whenever the project documents call for coordination, notification, contact, or other interaction with FAA, airport management; maintenance and operations; Airport Rescue and Fire Fighting (ARFF) personnel; airport tenants; airport users; any local, state, or federal agency, group, or association; or the general public, such activity shall be done through, in the presence of, or with the written approval of the Engineer. Allow sufficient time for coordination and approvals within proposed work schedules.

Required lead times for coordination with certain groups:

<table>
<thead>
<tr>
<th>Entity / Group / Agency / Organization</th>
<th>Lead Time for coordination</th>
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<tbody>
<tr>
<td>FAA – navigational aid (NAVAID) outages*</td>
<td>45 days</td>
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<tr>
<td>Airport Manager**</td>
<td>14 days</td>
</tr>
<tr>
<td>ARFF**</td>
<td>14 days</td>
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<tr>
<td>Airport Tenants / Users</td>
<td>45 days</td>
</tr>
<tr>
<td>Air Carriers</td>
<td>90 days</td>
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</tbody>
</table>

* Other notifications to FAA requiring different lead times are shown in section 9e below.
** Any issue involving Airport safety or security, and all emergencies or accidents require immediate notification.
(a) Contractor Progress Meetings

Administrate and hold weekly progress meetings with the Engineer at the time and place agreed to at the preconstruction conference. At a minimum, representatives from the following will be invited to attend the weekly meetings:

- Local FAA maintenance and operations
- Juneau International Airport (JNU) Flight Service Station (FSS)
- JNU Air Traffic Control (ATC)
- Airport Management
- Airport Maintenance
- JNU ARFF Department
- Parties expressing interest from the airport stakeholders list

Keep airport safety and security as a standing agenda item for the meetings. Keep all parties informed of status and changes of airport surfaces in relation to aircraft and ground traffic. Provide detailed drawings indicating routes for aircraft and ground traffic movement and areas closed for construction. Provide updated drawings as required.

Provide facilities so that people may attend the meeting by telephone. Distribute approved drawings by mail, fax, or email when required.

(b) Scope or Schedule Changes

Scope and schedule changes must be approved in writing by the Engineer. Changes to either scope or schedule may require additional coordination with FAA; Airport Management; ARFF personnel; airport stakeholders; other local, state, or federal agencies; or the public. Do not begin work that will result in a change in scope or schedule without coordinating with the Engineer, and obtaining written approval.

(c) FAA ATO Coordination

All coordination with FAA Air Traffic Organization (ATO) will be conducted through the Engineer. Coordination with FAA ATO will be required 45 days prior to removing any NAVAIDS from service. FAA ATO Contact is Michael Atkins, Manager, Northwest Alaska System Support Center 907-271-2152.

Provide all required support, including meeting attendance, scheduling, and project documentation required to conduct this coordination. Putting NAVAIDS back in service will also require coordination with FAA. Any NAVAID impacted by construction may require a FAA flight check certification before being put back in service. Conduct all required coordination efforts with FAA through the Engineer to prepare for, and schedule, any required flight checks.
(2) PHASING

(a) Phase Elements

The Juneau International Airport (JNU) Runway (RW) 8/26 Rehabilitation project will be constructed in multiple construction phases.

This project will rehabilitate the existing 8/26 runway pavement, replace the runway edge and centerline lighting with light-emitting diode (LED) fixtures, replace the Jordan Creek culvert under RW 8/26, and construct a new drainage culvert to reroute infield drainage to the float pond.

Identifying the runway vs. temporary runway – Throughout this document, and the safety drawings the following terminology will be used:

“main runway” will refer to the existing RW 8/26 regardless of whether it is open to operations.

“temporary runway” will refer to Taxiway (TW) A when it is configured to operate as a runway.

“active runway” will be used to denote whichever runway is open to aircraft operations, when appropriate.

(i) Phase 1 – Prepare TW A for Temporary RW Operations

Phase 1 is expected to begin in April 2014, be complete by May 30, 2014, and will consist of the following general tasks. This phase will prepare TW A for use as a temporary runway.

- Relocate general aviation (GA) parking
- Relocate helicopter parking
- Construct a new access road along Duck Creek to the float pond access road
- Construct TW H over Jordan Creek to intersect with TW E1
- Reconstruct TW B1
- Remove east Juneau Airport Wind System (JAWS) system
- Improve TW D2 access and grading behind hangars.
- Install temporary runway NAVAIDs including runway end identifier lights (REILs) and RW 26 visual approach slope identifier (VASIs) lights
- Install temporary runway edge lights and threshold lights
- Apply temporary runway markings
- Open temporary runway / close main RW 8/26
This phase will consist of installing 27 temporary tie downs locations in the northwest (NW) lot behind the Civil Air Patrol (CAP) building for GA. During this time, all other airport tenants that will impact the temporary runway safety area (RSA) and runway object free area (ROFA) of Taxiway A will be relocated. Temporary helicopter operations will be located just south of the GA parking to clear Taxiway H for increased aircraft traffic. An access haul route will be constructed between Duck Creek and the temporary GA parking, routing construction traffic away from concentrated aircraft operations. This haul route will be tied into the existing tug road that accesses the float pond. TW H will also be constructed across Jordan Creek to TW E1 and striped between B1 and E1 to be used as a parallel taxiway when TW A is used as temporary runway during Phase 2 work.

Once tenants are relocated as necessary and TW H has been constructed, TW A will be converted to the temporary runway in preparation for closing RW 8/26 including installation of temporary runway lighting, NAVAIDs, and runway striping.

Aircraft will be routed onto temporary TW H as shown on the construction safety drawings (Appendix A), and directed to the temporary RW 8/26.

(ii) Phase 2

Phase 2 is expected to begin around June 1, 2014, and be complete by August 30, 2014. This phase of construction will include installing LED edge lights and centerline lights, runway pavement rehabilitation, replacement of the Jordan Creek culvert under the runway, and construction of a new culvert to direct infield drainage to the float pond. It will consist of the following general tasks:

- Close all intermediate TWs between the main runway and the temporary runway
- Rehabilitate main RW 8/26 pavement
- Replace the Jordan Creek culvert under RW 8/26
- Construct infield drainage culvert across RW 8/26
- Replace main RW 8/26 edge and centerline lighting
- Install guard lights at TW C and E
- Apply new runway markings to the RW 8/26
- Open main RW 8/26 for operations

Runway pavement rehabilitation work for this phase will be completed in three stages to accommodate taxying of 737 jet traffic between TW C and A, and TW F and G. This will be accomplished by half width construction of work. Coordinate full runway closures with the Engineer when required to completed pavement rehabilitation of the thresholds. No restrictions will be necessary for the portion of the runway between TW C and TW F.
(iii) Phase 3

Phase 3 is expected to begin around September 2014, and be complete by October 2014. This phase of construction will open RW 8/26. Taxiway A will be partially closed during construction.

- Remove temporary NAVAIDs and REILs from service
- Use partial closures of TW A to remove temporary runway markings and repaint permanent markings
- Replace TW A edge lighting, repaint taxiway markings and return to service
- Reinstall east JAWS system

(b) Construction Safety Drawings

Construction safety drawings are included as an appendix to this document (Appendix A) and are included in the construction plans. The drawings are available in Autodesk format (*.dwg) files, and as Adobe (*.pdf) format, through the Engineer. If needed, modify these drawings to fit the proposed means and methods to complete the project. Submit the construction safety drawings, and any revisions, along with a work schedule and SPCD for approval 21 days prior to the preconstruction conference.

Requirements and details for the SPCD can be found in advisory circular (AC) 150/5370-2 Operational Safety on Airports During Construction. The latest edition of this AC and most others can be obtained free of charge from the FAA on the internet.

http://www.faa.gov/airports/resources/advisory_circulars/

The Construction Safety and Phasing Plan (CSPP) (this document) is also available through the Engineer in either Microsoft Word (*.doc) or Adobe (*.pdf) formats.

(3) AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

(a) Identification of Affected Areas

Known affected areas are shown on the construction safety drawings included in this document (Appendix A) and in the construction plans. If other affected areas become known during the construction process they must be added to the drawings and submitted to the Engineer for approval. Work in other affected areas is prohibited until the written approval of the revised SPCD and construction safety drawings are received from the Engineer.

(i) Closing, or Partial Closing of Runways, Taxiways, and Aprons

Closure of RW 8/26 will be required to complete the project work. When the main runway is closed, TW A will be used as a temporary runway surface as shown on the construction safety drawings. Partial closure of TW A will be required when completing work on or near the taxiway.
Means and methods employed may include partial and full closures of RW 8/26 that require the temporary relocation of thresholds. Lighting and marking requirements for temporary relocation of thresholds can be found in section 14 below. Temporary relocation of thresholds will require 45 days prior notice to FAA, and advance coordination with airport users.

(ii) Closing of ARFF Access Routes

No closing of ARFF routes is anticipated. Coordinate with ARFF regarding area closures, and provide safe access routes through or around construction areas.

(iii) Closing of Access Routes Used by Airport and Airline Support Vehicles

No closing of these access routes is anticipated.

(iv) Interruption of Utilities, Including Water Supplies for Firefighting

There are no water supply lines within the runway or taxiway work areas.

(v) Approach/Departure Surfaces Affected By Heights of Objects

Work within the approach / departure surface for the active runway will not be allowed. Work in this area must be part of a scheduled runway closure, and limited to night time or off hours closure.

(vi) Staging Areas, and Haul Routes Near Airport Operation Areas (AOAs)

Hauling across active AOAs is prohibited. All staging areas and haul routes will be kept away from active AOAs to the extent practicable. Haul routes that approach active AOAs must be marked and manned by airport flaggers to prevent incursion into OFAs or other restricted areas during aircraft operations.

(b) Mitigation of Effects

(i) Temporary Changes to Runway and or Taxi Operations

Full closure of the main runway, and use of the temporary runway is required as described in section 2a above. Coordination with airport users must begin at least 90 days prior to the first closure.

All construction related activities within, or adjacent to the AOAs will be coordinated with Airport Management, and airport users, prior to beginning work.
(4) PROTECTION OF NAVIGATION AIDS (NAVAIDS)

(a) NAVAIDs Required To Be Taken Out Of Service

The shift of aircraft traffic to the temporary RW will require that the following NAVAIDs be taken out of service, and returned to service by the FAA:

(i) RW 8/26 Runway End Indication Lights (REILs)

Use of TW A as temporary RW 8/26 will require the RW 8/26 REILs to be taken out of service for both ends of the runway.

(ii) RW 8/26 Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)

Use of TW A as temporary RW 8/26 will require the RW 8/26 MALSR systems be taken out of service for both ends of the runway.

(iii) RW 26 Precision Approach Path Indicators (PAPIs)

Use of TW A as temporary RW 8/26 will require the RW26 PAPI be taken out of service.

(b) Other Affected NAVAIDS

RW 8/26 edge, threshold, and end lighting will be taken out of service while TW A is being used as a temporary runway. Additionally, the east JAWs system at the temporary RW 8/26 end will need to be taken out of service and removed.

(i) Coordination with FAA

Conduct coordination with FAA as detailed under Section 1c above.

(ii) Issuance of Notices to Airmen (NOTAMS)

NOTAMS will be issued as detailed in section 9b below.

(iii) Protection of Underground Utilities Serving NAVAIDs

Protect underground power supply as detailed in Section 11 below.

(iv) Drawings of Affected NAVAIDs

See the construction safety drawings included in this document (Appendix A) and the construction plans for location of affected NAVAIDs.
(5) CONTRACTOR ACCESS

(a) Location of Stockpiled Construction Materials

See the construction safety drawings included in this document (Appendix A) for possible stockpile location. Stockpiles will be limited to the Contractor staging area or other off-airport locations as approved.

(b) Vehicle and Pedestrian Operations

(i) Authorized Vehicles

All Contractor vehicles requiring access to Restricted Areas shall be registered with the Airport Manager. Each vehicle shall also display either a permanent or temporary ramp vehicle permit as issued and instructed by the Airport Manager. Temporary ramp permits shall be returned to the Airport Manager upon completion of work or expiration of the ramp permit(s), whichever is sooner. All vehicles must meet the following conditions as specified in AC 150/5210-5.

(ii) Vehicle Color

Vehicles may be any color or combination of colors other than solid black or white. In accordance with (IAW) AC 150/5210-5, paragraph 3f.

(iii) Vehicle Lighting

Vehicles not escorted by a properly lighted vehicle, must be identified during periods of low visibility by a yellow flashing light. Lights must flash at 75 ± 15 flashes per minute. Lights must have peak intensity within the range of 40 to 400 candelas (effective) from 0° (horizontal) up to 10° above the horizontal and for 360° horizontally. The upper limit of 400 candelas (effective) is necessary to avoid damage to night vision. From 10° to 15° above the horizontal plane, the light output must be 1/10th of peak intensity or between 4 and 40 candelas (effective). (IAW AC 150/5210-5, paragraph 5b and c.)

- Yellow flashing light per the following chromaticity requirements: The Society of Automotive Engineers (SAE) Standard J578 Revised December 2006, Color Specification, defines the acceptable color boundary limits and measurement of emitted red, white, signal blue, and yellow light for vehicle lights. This standard applies to the overall emitted color of light from the device in lieu of emitted light from any small area of the lens. The color of emitted light must fall within the color boundaries per SAE J578 Revised December 2006 (color boundary equations are in the standard) using color measurement methods detailed in the standard. See FAA Engineering Brief #67, Light Sources Other Than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures, for additional information and Alternative Lighting Devices.

(iv) Vehicle Markings

Vehicles other than those that routinely traverse any portion of the AOA under the control of JNU ATC, which are not escorted by a vehicle in constant two-way radio communication with ATC and properly equipped and authorized to operate in the AOA, must be marked 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 square having a checkered pattern of international orange and white squares at least 1-foot on each side. (IAW AC 150/5210-5, paragraph 4d.)

Vehicles are not allowed to operate on active aircraft movement areas unless authorized by the Airport Manager. All vehicles operating on active aircraft movement surfaces (runways, taxiways, ramps, and parking aprons) shall be in good operating condition and free of fluid leaks. The Airport Manager may refuse to permit access or direct the removal of any vehicles not meeting these requirements.

When any vehicle that must travel over any portion of an aircraft movement or non-movement area, other than properly closed and marked areas, the vehicle shall be driven by a vehicle operator who has a badge and has received radio communication training and airport driver training, and has a working aviation-band, two-way radio. The vehicle shall be a properly marked, lighted, and permitted vehicle, with prior approval from the Airport Manager or Engineer. Driver is required to monitor JNU Ground Control on 121.90 MHz.

(v) Authorization to Operate Contractor Vehicles

All Contractor vehicle operators must present a valid Alaska Driver’s License to the Airport Manager to receive authorization to operate a vehicle on airport property.

All Contractor employees who operate vehicles must complete training required by the Airport Manager. The training must be repeated annually for each season of construction. Training records will be maintained by the Airport Manager for each authorized driver.

Contractor vehicle operators on airports face conditions that are not normally encountered during highway driving. Therefore, those persons who have vehicular access to the movement area of the airport must have an appropriate level of knowledge of airport rules and regulations. Any person expected to operate on the movement area must demonstrate a functional knowledge of the English language.

(vi) Area of Authorization

Contractor personnel and vehicles are only authorized in the areas where contract work is being performed and on the designated access routes to and from that area.

(vii) Keys and Key-way Devices

The Airport Manager may issue keys and key-way devices as required to enable the Contractor to access secured areas. The Contractor shall not duplicate any key or key-way device or allow any person other than those authorized by the Airport Manager to receive and use keys or key-way devices. The Contractor shall immediately notify the Airport Manager of lost or unrecovered keys or key-way devices. The Contractor will be responsible for lost or unrecovered keys, or key way devices, and must pay all costs associated with lock replacement, or re-keying, at the Airport Managers discretion.
(viii) Construction Employee Parking Areas

In addition to information included elsewhere in the CSPP, the following provisions apply:

- Coordinate vehicle parking areas for Contractor employees with the Engineer and designate parking areas in advance to prevent damage to airport or private property and prevent unsafe conditions.
- Do not park, or operate motorized vehicles on vegetated unimproved surfaces.
- Do not park vehicles within 15 feet of any roadway open to traffic.

(ix) Construction Vehicle and Equipment Parking

Contractor staging areas for work on the JNU project are available within the work area, subject to the conditions cited in this section. Before occupying a temporary use/staging area, mark the staging area limits with lath and flagging or other measure and then arrange a joint inspection with the Engineer to record the area’s original condition. Do not stage motorized equipment on dirt surfaces in the staging area without a drip pan. Equipment not actively employed in the work is to be removed from the runway and taxiway OFA. When the area is no longer needed, arrange a joint inspection with the Engineer to ensure you have returned the area to an acceptable improved condition.

(c) Two-Way Radio Communications

Two-way radio communications with JNU ATC will be performed by JNU Safety personnel assigned to the Contractor. All other construction-related radio communications shall be limited to Federal Communications Commission (FCC) approved frequencies or radio bands. JNU Safety personnel shall be equipped by the Contractor with a construction radio on bands normally used.

Personnel engaged in activities involving unescorted operation on aircraft movement areas will be trained by the Airport Manager, and observe the proper procedures for communications, including using appropriate radio frequencies. Training on proper communication procedures is essential for maintaining airport operational safety.

(d) Airport Security

Federal Regulations require the Airport Operator to control access and prevent unauthorized persons from entering the Security Identification Display Area (SIDA) and the AOA. In compliance with this requirement, the Airport Operator has established procedures to authorize or deny access to these restricted areas and to identify and control persons and vehicles while in these areas.

Transportation Security Administration (TSA) regulations require that everyone with access to an airport AOA undergo a Security Threat Assessment (STA) and display an approved identification media. A STA can take up to two (2) weeks, or longer, before approval is granted. Further delays could result from improperly completed badge applications or shortfalls in the presentation of proper identification documentation (see U.S. Government I-9 Form). An additional Criminal History Records Check (CHRC), which requires fingerprinting, is needed for those who have need to access the SIDA, or other secured areas. Persons without approved airport identification media must be provided with a qualified, badged escort. Escorted persons must be within sight.
and auditory range of an approved escort at all times when working within the SIDA or AOA. Only persons meeting these requirements are permitted access to restricted areas.

The contractor must provide complete airport photo identification badge applications for each worker that will require access to restricted areas. Coordinate these photo identification badge applications with the Airport Manager. No individual access will be allowed inside of a restricted area until application and badging processes are complete. The security badging process shall be completed in person in Juneau.

Security violations may result in a $10,000 fine, or any other amount as assessed by the TSA. Persons found in restricted areas not in compliance with these requirements will be removed from the area and action will be taken against violators as appropriate under Alaska Administrative Codes (AACs).

The Airport Manager has full authority for control of access to restricted areas. Proper individual access application, airport issued photo identification badges, vehicle operator authorization, vehicle registration and ramp permits, and issuance of gate keys and locks must be obtained through the Airport Manager before entering restricted areas.

For complete information on JNU badging requirements visit:  [http://www.juneau.org/airport/badging.php](http://www.juneau.org/airport/badging.php)

(i) **Authorized Personnel**

All Contractor personnel seeking access to restricted areas shall complete a photo identification badge application, complete required security clearance checks, and receive familiarization training before authorization from the Airport Manager will be granted to enter restricted areas.

The contractor shall assign a responsible person the duty of Authorized Signatory. Authorized Signatory must complete all requirements for the types of badges they will sign (i.e. the Authorized Signatory needs to be badged for the types they will sign):

- AOA= STA, notify/selectee lists
- SIDA=STA, notify/selectee lists and CHRC
- Signatory training and security training

Prior to sending any applicants to the Airport Manager, the Authorized Signatory shall be responsible to review each photo identification badge application for completeness, that each applicant has the correct documents that provide identity and work authorization, and that the applicant has the correct badge application fees. The Authorized Signatory will then sign the photo identification badge application. The Authorized Signatory shall be responsible for maintaining control of all badges issued to the Contractor. The Authorized Signatory must meet all security clearance requirements for the types of badges signed.

The Contractor shall notify the Airport Manager within 24 hours, whenever an authorized person is terminated, for any reason.

All identification badges shall be issued by the Airport Manager. The Contractor, through the use of the Authorized Signatory, shall ensure that badges are returned to the Airport Manager at the completion of the
project or upon termination of any employee badge holder. The following badging fees shall be borne by the Contractor and paid to the Airport Manager at the time of badge issuance:

- Processing Fee and Deposit $215
- Fingerprinting Fees (for badges requiring SIDA access) $45
- Lost or Unaccounted Badges $200

(6) WILDLIFE MANAGEMENT

The primary wildlife safety concern at JNU is birds. Birds are attracted by possible sources of food, or areas that may provide shelter. Of secondary concern, are mammals such as bears, deer, and foxes or other animals that would constitute a danger to operating aircraft, or possibly cause damage to airfield fences or other equipment. Report the presence of birds or animals within the airport property to the Airport Manager in accordance with the airport’s wildlife hazard management plan. Do not attempt to disperse birds or animals.

(a) Trash

Control and contain trash within all work areas, and especially within the airport property. It is the responsibility of all personnel who work at JNU to pick up trash and debris on the airfield. In some cases, this may simply be a blowing candy wrapper or bag. When the source of the attractant is the result of a failure to properly secure garbage or food in an enclosed facility or container, the Airport Manager will contact the responsible party in an effort to remedy the situation. If removal or securing of the attractant does not cause the birds to leave the area, a member of the Wildlife Patrol will be contacted to disperse the birds.

Fish or animal carcasses that attract birds or wildlife can be a safety hazard. Report the presence of fish or animal carcasses to the Airport Manager, or his representative, so they can be removed.

(b) Standing Water

Areas of standing and flowing water on and surrounding the airfield contribute to the presence of numerous species of hazardous wildlife. In some cases, these water sources provide a food attractant in the form of fish and aquatic invertebrates. Standing water at construction areas will not be allowed. Provide adequate drainage, and erosion and sediment control measures to prevent attracting birds and other wildlife.

(c) Tall Grass and Seeds

The seed mix specified for this project has been approved by the United States Department of Agriculture, Animal and Plant Health Inspection Service. The seed mix will minimize the attraction to birds and wildlife. The Airport Manager will be responsible for annual clearing of vegetation with respect to wildlife management.

(d) Poorly Maintained Fencing and Gates

Maintain airfield security by manning gates that must be kept open for hauling. Fences or gates that are damaged by construction activities or contractor negligence must be repaired immediately at no cost to CBJ. All repairs are subject to inspection and approval of the Engineer. Close and lock all gates that are not actively being
used. Report all damage to fences or gates to the Airport Manager through the Engineer, whether caused by contractor activities, or otherwise observed.

(e) Disruption of Existing Wildlife Habitat

The project has been properly permitted with the regulatory agencies having jurisdiction. Disruption of existing wildlife habitat beyond the project footprint is prohibited.

(7) FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Control of FOD is a primary concern to safe airport operation. All debris must be removed from operational surfaces upon discovery, or notification. Provide a pick-up broom truck (street sweeper) or other approved machinery and equipment to accomplish this task.

Reinforce the importance of FOD management at weekly contractor progress meetings. Discuss any occurrences or issues in the previous week, or potential improvements to ongoing practices. This can include trash management as discussed under section 6a.

(a) Inspections

Participate in daily safety and final inspections as required in section 10 below. Take immediate action as required to cleanup and prevent FOD on operational surfaces.

(b) Hauling

Do not haul on, or across paved surfaces (even when closed) unless approved by the Engineer in writing on the SPCD. Ensure all vehicles that must cross active areas to perform inspections, temporary marking maintenance, or other required activities are swept clean, and checked for loose materials, equipment, tools, or other objects that may become FOD.

(8) HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

Develop a Hazardous Materials Control Plan (HMCP), and Spill Prevention, Control and Countermeasure (SPCC) plan as required by the standard specification P-157 as quoted below:

Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all HAZMAT, including petroleum products related to construction activities and equipment. Include the HMCP as an appendix to the Storm Water Pollution Prevention Plan (SWPPP.) Compile Material Safety Data Sheets (MSDS) in one location and reference that location in the HMCP.

Designate a Contractor’s Spill Response Field Representative with 24-hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor’s Spill Response Field Representative must have 24-hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.
List and give the location and estimated quantities of HAZMAT (including materials or substances listed in 40 Code of Federal Regulations (CFR_ 117 and 302, and petroleum products) to be used or stored on the Project. HAZMAT must be stored in covered storage areas. Include secondary containment for all HAZMAT storage areas.

Identify the locations where fueling and maintenance activities will take place, describe the activities, and list controls to prevent the accidental spillage of petroleum products and other HAZMAT. Controls include placing absorbent pads or other suitable containment under fill ports while fueling, under equipment during maintenance or repairs, and under leaky equipment.

List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc.) Spill response materials must be stored in sufficient quantity at each work location, appropriate to the hazards associated with that site.

Describe procedures for containment and cleanup of HAZMAT. Describe a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Describe a plan for dealing with contaminated soil and water encountered during construction. Clean up spills or contaminated surfaces immediately.

Describe methods of disposing of waste petroleum products and other HAZMAT generated by the Project, including routine maintenance. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for HAZMAT disposal.

Describe methods of complying with the requirements of AS 46.04.010-900, Oil and Hazardous Substances Pollution Control, and 18 AAC 75. Include contact information for reporting HAZMAT and petroleum product spills to the Project Engineer and reporting to federal, state and local agencies.

Prepare and implement an SPCC Plan when required by 40 CFR 112; when both of the following conditions are present on the Project:

- Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
- Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary on-board oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons)

Reference the SPCC Plan in the HMCP and SWPPP.

(9) NOTIFICATION OF CONSTRUCTION ACTIVITIES

(a) Maintenance of a List of Responsible Representatives/ Points of Contact

Jointly develop a list of contacts consisting of both Contractor personnel and City and Borough of Juneau (CBJ) employees. Although the primary contacts for all matters involving safety and security remain the Airport Manager, Engineer, and Contractor’s Superintendent, certain issues may warrant the delegation of response to
individuals capable of immediately taking action. These contacts may be required to be available 24 hours a day, as specified to address the following issues:

- ARFF coordination, including accidental utility interruption, or airport emergency response. (See section 9c below – for non-airport related emergencies dial 911)
- HAZMAT Spill Response.
- Maintenance of temporary airport markings and lighting.
- Repair of erosion sediment control measures.
- FOD cleanup.
- Repair of damaged fence, gates, or locks.
- Other airport security issues, including loss of keys, identification badges, dismissed contractor employees.
- Other points of contact, as specified, or as directed by the Engineer.

(b) Notices to Airmen (NOTAM)

Before beginning any construction activity, coordinate with the Airport Manager through the Engineer to provide information for NOTAMs, as required. Work that requires issuance of a NOTAM cannot begin until confirmation and approval of the Airport Manager is received by the Engineer. Include drawings, in a format acceptable to the Engineer, that show areas open or closed to aircraft operations. Show designated taxi routes and include other information on the drawings as directed. Modify the drawings as directed. Coordinate further, as required, to determine the cancellation of notices issued as NOTAMs.

The following guidance will apply regarding NOTAMs:

- The Airport Manager will provide information on closed or hazardous conditions on airport movement areas to the FSS so it can issue a NOTAM.
- The Airport Manager will coordinate the issuance, maintenance, and cancellation of NOTAMS about airport conditions resulting from construction activities with tenants and the local air traffic facility.
- Only the Airport Manager may issue or cancel NOTAMs on airport conditions. (The airport owner/operator is the only entity that has authority to close or open a runway or taxiway.)
- Coordinate future NOTAMs with the Airport Manager at construction meetings two-weeks prior to needing them in place to allow time for notification of tenants and coordination with JNU ATC operations.
(c) Emergency Notification Procedures

For all non-airport related emergencies dial 911. This includes required medical, fire, or police response on or off airport property. Under emergency conditions involving immediate loss of human life, or threat to wellbeing, contractor personnel may allow access to airport property by uniformed emergency services. Maintain airfield security in all other respects. Notify the Engineer, and the Airport Manager immediately following any 911 emergency call.

In matters involving airport safety and security, the Engineer and Airport Manager remain the primary contacts. Immediate notification upon discovery of airport related safety or security issues is required.

(d) Coordination with ARFF Personnel

Coordinate with ARFF personnel as required by the Engineer and Airport Manager. Keep ARFF personnel informed of all area closures, restrictions to access routes and service roads on or near the airport, related to construction activities. Contact and coordinate with ARFF for any planned utility outages, including water supply, or in the event of accidental utility outages. Provide the same information to ARFF as is provided all other airport operators, including construction safety drawings and updates.

(e) Notification to the FAA

Provide all notifications to FAA, through the Engineer as required under CFR 14, Part 77 and part 157 as follows:

Subpart B—Notice Requirements

§ 77.5 Applicability.

(a) If you propose any construction or alteration described in § 77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in § 77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460–1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation;

(5) and

(6) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

§ 77.7 Form and time of notice.

(a) If you are required to file notice under § 77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.
(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

1. 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

2. 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

3. 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:


2. A military airport under construction, or an airport under construction that will be available for public use;

3. An airport operated by a Federal agency or the Department of Defense (DOD).

4. An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

1. Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

2. Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

3. Any construction or alteration for which notice is required by any other FAA regulation.

4. Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.
§ 77.11 Supplemental notice requirements.

(a) You must file supplemental notice with the FAA when:
   (1) The construction or alteration is more than 200 feet in height AGL at its site; or
   (2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

PART 157—NOTICE OF CONSTRUCTION, ALTERATION, ACTIVATION, AND DEACTIVATION OF AIRPORTS

§ 157.1 Applicability.

This part applies to persons proposing to construct, alter, activate, or deactivate a civil or joint-use (civil/military) airport or to alter the status or use of such an airport. Requirements for persons to notify the Administrator concerning certain airport activities are prescribed in this part. This part does not apply to projects involving:

(a) An airport subject to conditions of a Federal agreement that requires an approved current airport layout plan to be on file with the Federal Aviation Administration; or

(b) An airport at which flight operations will be conducted under visual flight rules (VFR) and which is used or intended to be used for a period of less than 30 consecutive days with no more than 10 operations per day.

(c) The intermittent use of a site that is not an established airport, which is used or intended to be used for less than one year and at which flight operations will be conducted only under VFR. For the purposes of this part, intermittent use of a site means:
   (1) The site is used or is intended to be used for no more than 3 days in any one week; and
   (2) No more than 10 operations will be conducted in any one day at that site.

§ 157.2 Definition of terms.

For the purpose of this part:

Airport means any airport, heliport, helistop, vertiport, gliderport, seaplane base, ultralight flightpark, manned balloon launching facility, or other aircraft landing or takeoff area.

Heliport means any landing or takeoff area intended for use by helicopters or other rotary wing type aircraft capable of vertical takeoff and landing profiles.

Private use means available for use by the owner only or by the owner and other persons authorized by the owner.

Private use of public lands means that the landing and takeoff area of the proposed airport is publicly owned and the proponent is a non-government entity, regardless of whether that landing and takeoff area is on land or on water and whether the controlling entity be local, State, or Federal Government.

Public use means available for use by the general public without a requirement for prior approval of the owner or operator.

Traffic pattern means the traffic flow that is prescribed for aircraft landing or taking off from an airport, including departure and arrival procedures utilized within a 5-mile radius of the airport for ingress, egress, and noise abatement.

§ 157.3 Projects requiring notice.

(a) Each person who intends to do any of the following shall notify the Administrator in the manner prescribed in § 157.5:

(b) Construct or otherwise establish a new airport or activate an airport.
(c) Construct, realign, alter, or activate any runway or other aircraft landing or takeoff area of an airport.
(d) Deactivate, discontinue using, or abandon an airport or any landing or takeoff area of an airport for a period of one year or more.
(e) Construct, realign, alter, activate, deactivate, abandon, or discontinue using a taxiway associated with a landing or takeoff area on a public-use airport.
(f) Change the status of an airport from private use to public use or from public use to another status.
(g) Change any traffic pattern or traffic pattern altitude or direction.
(h) Change status from instrument flight rules (IFR) to VFR or VFR to IFR.

§ 157.5 Notice of intent.
(a) Notice shall be submitted on FAA Form 7480–1, copies of which may be obtained from an FAA Airport District/Field Office or Regional Office, to one of those offices and shall be submitted at least—
   (1) In the cases prescribed in paragraphs (a) through (d) of § 157.3, 90 days in advance of the day that work is to begin; or
   (2) In the cases prescribed in paragraphs (e) through (g) of § 157.3, 90 days in advance of the planned implementation date.
(b) Notwithstanding paragraph (a) of this section—
   (1) In an emergency involving essential public service, public health, or public safety or when the delay arising from the 90-day advance notice requirement would result in an unreasonable hardship, a proponent may provide notice to the appropriate FAA Airport District/Field Office or Regional Office by telephone or other expeditious means as soon as practicable in lieu of submitting FAA Form 7480–1. However the proponent shall provide full notice, through the submission of FAA Form 7480–1, when otherwise requested or required by the FAA.
   (2) Notice concerning the deactivation, discontinued use, or abandonment of an airport, an airport landing or takeoff area, or associated taxiway may be submitted by letter. Prior notice is not required; except that a 30-day prior notice is required when an established instrument approach procedure is involved or when the affected property is subject to any agreement with the United States requiring that it be maintained and operated as a public-use airport.

§ 157.7 FAA determinations.
(a) The FAA will conduct an aeronautical study of an airport proposal and, after consultations with interested persons, as appropriate, issue a determination to the proponent and advise those concerned of the FAA determination. The FAA will consider matters such as the effects the proposed action would have on existing or contemplated traffic patterns of neighboring airports; the effects the proposed action would have on the existing airspace structure and projected programs of the FAA; and the effects that existing or proposed manmade objects (on file with the FAA) and natural objects within the affected area would have on the airport proposal. While determinations consider the effects of the proposed action on the safe and efficient use of airspace by aircraft and the safety of persons and property on the ground, the determinations are only advisory. Except for an objectionable determination, each determination will contain a determination-void date to facilitate efficient planning of the use of the navigable airspace. A determination does not relieve the proponent of responsibility for compliance with any local law, ordinance or regulation, or state or other Federal regulation. Aeronautical studies and determinations will not consider environmental or land use compatibility impacts.
(b) An airport determination issued under this part will be one of the following:
   (1) No objection.
   (2) Conditional. A conditional determination will identify the objectionable aspects of a project or action and specify the conditions which must be met and sustained to preclude an objectionable determination.
   (3) Objectionable. An objectionable determination will specify the FAA’s reasons for issuing such a determination.
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(c) Determination void date. All work or action for which notice is required by this sub-part must be completed by the determination void date. Unless otherwise extended, revised, or terminated, an FAA determination becomes invalid on the day specified as the determination void date. Interested persons may, at least 15 days in advance of the determination void date, petition the FAA official who issued the determination to:
(1) Revise the determination based on new facts that change the basis on which it was made; or
(2) Extend the determination void date. Determinations will be furnished to the proponent, aviation officials of the state concerned, and, when appropriate, local political bodies and other interested persons.

§ 157.9 Notice of completion.
Within 15 days after completion of any airport project covered by this part, the proponent of such project shall notify the FAA Airport District Office or Regional Office by submission of FAA Form 5010–5 or by letter. A copy of FAA Form 5010–5 will be provided with the FAA determination.

(10) INSPECTION REQUIREMENTS

(a) Daily (or more frequent) Inspections

Conduct safety and security inspections at least daily during the project. Schedule inspections to not conflict with the active RSA, ROFA, and OFZ detailed in section 17 below. No work is allowed inside the active runway areas.

Safety and security inspections may be attended by the Engineer, and / or Airport Manager, or their representatives. Repair or remedy all safety and security issues immediately. Do not wait until an inspection to address issues. Inspections are to be used to verify that all required maintenance is being performed in a timely manner.

Notify the Engineer and Airport Manager regarding any safety or security issues found during the inspections, regardless of whether they are caused by negligence, oversight, or project scope change. Include at least the following items in the inspections, other items may be added at the direction of the Engineer, or as approved:

- Inspect the lighted ‘X’ closure markings at each runway end. Check fuel supply and refueling schedule.
- Inspect each temporary marking and all temporary lighting for serviceability, completeness, and durability.
- Inspect each required crossing of any active surface for the presence of FOD.
- Inspect haul routes for proper markings and barricades. Ensure that vehicles are using only designated haul routes.
- Inspect fences and gates adjacent to, or used for access on haul routes. Ensure that vehicles are using only the designated access points. Ensure that each open gate is actively manned to protect airfield security.
(b) Final Inspections

Perform a joint final safety inspection with the Engineer and Airport Manager. Verify that all REILs, and airport markings are serviceable and correct. Remove all FOD as directed, and any other construction related materials not allowed to remain on airport property. The final safety inspection may become part of the project completion final inspection detailed under the standard specifications section 50-15, at the discretion of the Engineer.

(11) UNDERGROUND UTILITIES

This project requires work around and adjacent to FAA-owned NAVAIDs and CBJ-owned REIL. Excavation near these facilities will require electronic location and hand digging to physically locate the buried utilities present. No other underground utilities are known to exist within the project limits other than those owned by FAA and CBJ. See Section 50-04 of the General Contract Provisions for coordination regarding location of utilities.

(12) PENALTIES

All Contractor, and Subcontractor personnel must abide by the CSPP, and other contract requirements. Penalties can include payment of any fines levied by any federal, state, or local agency having authority, suspension of the contract, and individual workers are subject to removal from the project as stated in section 80-05, third paragraph:

The Contractor shall comply with any written order by the Engineer to remove workers, who, in the opinion of the Engineer, violate operational regulations, violate construction safety plan requirements, violate security plan requirements, perform the work in an unskilled manner, who are intemperate or disorderly, or who jeopardize the safety of the public, other workers or Engineer’s personnel. The Contractor shall allow removed workers to return to the project only with the Engineer’s written permission. The Engineer may suspend the work if the Contractor fails to furnish suitable and sufficient personnel necessary to perform the work, or fails to remove any worker at the Engineer’s order.

(13) SPECIAL CONDITIONS

(a) Emergency Landings

Aircraft declaring an emergency will be allowed to land on the active runway. The work area may need to be cleared of people and equipment on extremely short notice (15 minutes or less). Clear the runway and RSA when directed by ATC, the Airport Manager, or other authority.

(b) Special Equipment

Use of tall equipment, such as cranes or drilling rigs, must be submitted on form 7460-1 and approved by FAA. See coordination with, and notification of FAA under sections 1c and 9e above.
(c) Water for Dust Control

Provide water for dust control as required, and as directed. Dust, smoke, steam, or other airborne particulates caused by contractor activities may be considered a safety violation as determined by the Engineer.

(d) Temporary Relocation of Runway Thresholds

Temporary relocation of runway thresholds (temporary shortening of the main runway) is not anticipated on this project. If temporary relocation of runway thresholds is proposed to accomplish portions of the work, the relocations must adhere to the requirements of the safety AC, be coordinated with all airport users, and the FAA, and be approved by the Engineer.

(i) Runway Edge and Threshold Lighting

Cover or disable existing runway edge and threshold lighting on the closed runway. Provide temporary threshold lighting properly anchored to withstand jet blast. Provide temporary runway or extended taxiway edge lighting as required. All temporary lighting must meet the requirements of AC 150/5340-30 Design and Installation Details for Airport Visual Aids.

(ii) Runway Markings

Mask or remove markings that are not part of the active runway marking system. Provide minimum temporary runway markings as specified on the construction safety drawings included in this document (Appendix A). Temporary markings must meet the requirements of AC 150/5340-1 Standards for Airport Markings.

(iii) Visual Aids

Coordinate with FAA to remove REILs, VASIs, and other NAVAIDs from service, as required for the duration of the closure. Cover or otherwise disable taxiway signs if required.

(iv) NOTAMs

Coordinate with Airport Management to provide information required for issuance of NOTAMs.

(14) RUNWAY AND TAXIWAY VISUAL AIDS. MARKING, LIGHTING, SIGNS, AND VISUAL NAVAIDS

(a) General

See the construction safety drawings included in this document (Appendix A) for locations and descriptions of temporary markings, lighting, and visual NAVAIDs.

(b) Markings

Temporary runway markings as shown on the construction safety drawings included in this document (Appendix A), will be used on Taxiway A for aircraft operations while RW 8/26 is closed.
(c) Lighting and Visual NAVAIDs

The lighting and visual NAVAIDs (REILs, VASIs, PAPIs, threshold and runway edge lights) for RW 8/26 will be turned off, or otherwise covered, or disabled during the runway closure.

(i) REILs

The RW 9/27 REILs are owned and maintained by the FAA. Temporary REILs will be installed adjacent to the temporary RW 8/26 while RW 8/26’s REILs are taken out of operation during the runway closure.

(ii) VASIs

The RW 8/26 VASIs are owned and maintained by the FAA. RW 8 VASI will remain in place and operational during the RW closure. RW 26 VASIs may be taken out of service and relocated to temporary RW 26.

(iii) PAPIs

The RW 26 PAPI is owned and maintained by the FAA. It will be taken out of service during the RW 8/26 closure.

(iv) Runway Edge and Threshold Lighting

The RW 8/26 edge and threshold lighting is owned and maintained by CBJ. Temporary runway edge and threshold lighting will be installed on Taxiway A. The edge lighting will utilize existing taxiway lighting cans.

(d) Signs

No taxiway or runway signs will be affected by the project.

(15) MARKING AND SIGNS FOR ACCESS ROUTES

Address markings and signs for access routes on the SPCD. Pavement markings and signs for construction personnel will conform to AC 150/5340-18 and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or state highway specifications. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, Frangible Connections, which may require modification to size and height guidance in the MUTCD.

(16) HAZARD MARKING AND LIGHTING

(a) Purpose

The purpose of hazard markings and lighting is to delineate the construction area from the active AOAs. It also serves as a visual warning to pilots, and airport ground traffic, that to proceed past the markers could jeopardize safety of persons or equipment, including damage to aircraft or loss of life. Hazard marking and lighting must not itself become a hazard to the safe operation of aircraft. Hazard markings and lighting must be separated from active surfaces by a suitable distance usually defined by the OFA or OFZ, but depending on work location, type of aircraft expected to be operating, and other factors.
Hazard marking and lighting must also identify open manholes, small areas under repair, stockpiled material, waste areas, and areas subject to jet blast. Consider less obvious construction-related hazards and include markings to identify FAA, airport, and national weather service facilities cables and power lines, instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas for contractor personnel to avoid these areas.

(b) Equipment

Proposed locations of hazard markings and lighting are shown on the construction safety drawings included in this document (Appendix A). Other locations or equipment may be proposed, or required, depending on the schedule, and means and methods employed. Submit proposed equipment, including signs, markings, and lighting on the SPCD.

(i) Spacing of Barricades

The spacing of barricades must be such that a breach is physically prevented, barring a deliberate act. For example, if barricades are intended to exclude vehicles, gaps between barricades must be smaller than the width of the excluded vehicles, generally 4 feet. Provision must be made for ARFF access if necessary. If barricades are intended to exclude pedestrians, they must be continuously linked. Continuous linking may be accomplished through the use of ropes, securely attached to prevent FOD.

(ii) Maintenance

Maintain temporary markings and hazardous area barriers throughout the phases of construction. Repair damaged or non-functioning markings, barriers, and flashers immediately upon discovery or notification.

(17) PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS, OBJECT FREE AREAS, OBSTACLE FREE ZONES, AND APPROACH/DEPARTURE SURFACES

See the construction safety drawings for locations and limits of the following areas / zones.

Before beginning construction, coordinate with the Engineer to identify the RSA, OFZ, and the OFA for the active runways. The Engineer may require surveyed location of the RSA, OFZ, or OFA by the Contractor, as part of the construction surveying requirement. This will define a boundary for use of construction equipment during aircraft operations.

(a) Runway Safety Area (RSA)

The RSA width for RW 8/26 is 500 feet, centered on the runway centerline. The RSA for the temporary RW 8/26 is 175 feet. No equipment, vehicles, or personnel will be allowed within the RSA of the active runway during aircraft operations. No material stockpiles will be allowed in the RSA at any time.

(b) Runway Object Free Area (ROFA)

The ROFA for RW 8/26 is 800 feet wide, centered on the runway centerline. The ROFA for the temporary RW 8/26 is 475 feet wide. No stockpiles, or parked equipment will be allowed within the ROFA. During aircraft
operations, equipment, vehicles, and personnel may temporarily occupy the ROFA. No equipment, or vehicles are to be parked, or left unattended, in the ROFA at any time.

(c) Taxiway Safety Area (TSA)

No work will be allowed within any active TSA. Taxiways closed for construction will not be subject to TSA standards, except that no stockpiling of materials, or parking of equipment or vehicles will be allowed within a closed TSA. Due to limitations of available movement surfaces, it will be necessary to allow 737 aircraft to taxi through the closed work area of RW 8/26 to the ends of the temporary RW 8/26. Personnel and equipment will be required to vacate the work area adjacent to the aircraft’s taxi route. JNU safety personnel will coordinate with JNU ATC when this operation is required.

(d) Taxiway Object Free Area (TOFA)

No work will be allowed within any active TOFA. During aircraft operations, equipment, vehicles, and personnel may temporarily occupy the TOFA. No equipment, or vehicles are to be parked or left unattended in the active TOFA at any time.

(e) Obstacle Free Zone (OFZ)

The OFZ width for both runways is 400 feet, centered on the respective runway centerline. No stockpiles, equipment, or personnel will be allowed within the OFZ during aircraft operations.

(f) Runway Approach/Departure Surfaces

All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces, as defined in Section 303, Runway End Siting Requirements of AC 150/5300-13A. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

(18) OTHER LIMITATIONS ON CONSTRUCTION

(a) Prohibitions

(i) Airport Marking System

Use of light colored sand bags, or other materials that interfere with the airport marking system will not be allowed.

(ii) Flare Pots

The use of flare pots on airport property is prohibited at any time.

(iii) Electrical Blasting Caps

Use of electrical blasting caps on, or within 1,000 feet of the airport property is not allowed.
(b) Restrictions

(i) Use of Tools with Open Flames

Open-flame welding or torch cutting operations are permitted only with the approval of the Airport Manager and only when adequate fire safety precautions are in place.

(ii) Open Trenches, Excavations, and Stockpiles

Prominently mark open trenches, excavations, and stockpiled materials at the construction site and light these obstacles during hours of restricted visibility and darkness. Constrain stockpiled material to prevent its movement as a result of the forecast wind conditions.

(iii) Discovery of Contaminated Soils

If contaminated soils are encountered within the excavation area, stop work at the discovery location until the contamination is identified and the Engineer coordinates with the Alaska Department of Environmental Conservation (ADEC).

(iv) Use of Explosives

Refer to section 70-10 of the Alaska Standard Specifications for Airport Construction:

*The Contractor shall obey all laws, regulations and permits applicable to using, handling, loading, transporting, or storing explosives. When using explosives, the Contractor shall take utmost care not to endanger life, property, new construction, or existing portions of the project and facilities that are to remain in place after the project is complete.*

*The Contractor shall provide notice to property owners, the traveling public, and utility companies in the vicinity before using explosives. The Contractor shall provide a minimum of three working days notice to the Federal Aviation Administration and the airport manager. The Contractor shall notify police and fire authorities in the vicinity before transporting or using explosives. The Contractor shall provide notice sufficiently in advance to enable all potentially affected parties to take whatever steps they may deem necessary to protect themselves and their property from injury or damage. The Contractor shall not use explosives on or near airport property until a Notices to Airmen (NOTAMs) has been issued. Each new use of explosives may require a separate NOTAMs to be issued. The Contractor shall not use electric blasting caps within 1,000 feet of the airport property.*

*The Contractor is liable for all property damage, injury, or death resulting from the use of explosives on the project. The Contractor and Surety shall indemnify, hold harmless, and defend the State of Alaska from all claims related to the use of explosives on the project, including claims from government agencies alleging that explosives were handled, loaded, transported, used, or stored improperly.*
Construction Safety and Phasing Plan

Appendix A –
Construction Safety Drawings

PHASE 2B SAFETY PLAN NOTES

1. No work requiring helicopters is allowed along the transient runway safety area during approved night work. Keep all personnel at least 2 hours away from the transient runway safety area when the temporary shoreline and 2 steps to aircraft operations.

2. Complete work within the approach surface transition during approved night work.

3. Work areas above using shovels & wheelbarrows at least 1 hour beyond the allowed footprint, and the guide crew ensure the area will be cleared of equipment, materials, and debris. The guide crew will coordinate with the airport operations department to ensure personnel safety, and the safety of the approach surface when cleared portions of the area are no longer in use.

4. Begin painting as necessary to control runway traffic through the 201 approach surface transition area.

5. Page 27 - 201 operating through the work zone will require personnel and equipment to clear portions of the work area along the runway to ensure personnel will communicate with ATC for these operations.

PHASE 2B CONSTRUCTION NOTES

1. Check berms between the lay and temporary berms - use Ty. G as transition over 201, and half of C and G Ty for 3 walls.

2. Constructing temporary portions of runway after touchdown.


LEGEND

WORK ZONE / ACCESS TO AIRPORT

CONSTRUCTION ACCESS / MAIN ROUTE

AIRPORT GROUND TRAFFIC

GROUNDED MACHINES

SAFETY DIMENSIONS

Ty H Ty A - 10' (between Ty C & Ty E)

Ty H Ty C - 10' (between Ty C & Ty E)

Top Ty. 6/20 - 10'

Top Ty 6/20 Ty C - 40'

JUNEAU INTERNATIONAL AIRPORT

RUNWAY 8/26 REHABILITATION

CONTRACT NO. E-44-034

APP. NO. 5-238-325-3002-2014

CONSTRUCTION SAFETY & PHASING PLAN PHASE 2B

JUNEAU, ALASKA

CITY/STATE OF JUNEAU

ALASKA'S CAPITAL CITY

PLANS IN HAND

NOV 2013

USKH

AIRCRAFT - ENGINEERING

ARCHITECTS + ENGINEERS

ARCHITECTS + ENGINEERS

ARCHITECTS + ENGINEERS