MEMORANDUM

TO: Dave Palmer, Airport Manager

FROM: Mike Greene, JNU Airport Project Manager

DATE: April 28, 2025

RE: Project Office Monthly Report

Project specific summaries of project status and activity are presented below.

Outstanding Terminal Work Items: With the construction contract with Dawson Construction for the Terminal Reconstruction project now closed, JNU continues to work with RESPEC (under contract with McCool Carlson Green (MCG) – designers for the Terminal Reconstruction project) on finalizing the following outstanding work items:

Ground Source Loop Field System and HVAC Modifications: No change since last report. JNU Building Maintenance continues to observe contaminates/sediment within the loop field medium (methanol), even with the equipment strainers, pump strainers, by-pass filter and dirt separators in place. The continuing concern is that the system is not getting any cleaner over time, and that somehow the contaminates/sediment keeps replenishing itself. In a meeting with JNU staff, JNU Airport Maintenance and engineers from RESPEC conducted on December 12, it was decided that the samples of these contaminates should be lab-tested to determine what this material is. JNU has asked RESPEC to coordinate with MCG and utilize their remaining contract fund balance to contract with a hydronic system fluid treatment specialist to examine the fluid chemistry, analyze the sediment, and inspect some of the piping in order to recommend or implement a treatment, cleaning, or fluid replacement plan for the distributed ground source piping system. RESPEC is also to provide additional mechanical engineering services to assist with the on-going effort to cleanse the loop field system and review the final Terminal Air Balance (TAB) report.

JNU Building Maintenance continues to work on blowing out the main pump strainers and the air separator strainers in the piping mains, cleaning branch piping heat pump strainers, and backwashing the heat pump coils. JNU Building Maintenance also continues to work on the replacement of the new flexible hoses for thirty (30) of the older heat pumps.

DOAS-1 (Dedicated Outside Air System) unit: This air-handler, originally installed in 2009, brings in outside air to the older portion of the terminal. Repairs to DOAS-1 were completed as part of the terminal reconstruction project, but additional repairs are now needed. Recent voltage spikes have damaged some of the air-handler components, including the VFD (Variable Frequency Drive) for the DOAS-1 exhaust fan. JNU Building Maintenance continues to look at repair options.

Heat Pumps: Approximately thirty (30) water-air heat pumps within the older portion of the terminal were installed in 2009. Many of these heat pumps have already reached the end of their serviceable life and the rest are nearing the end of their serviceable life. This has resulted in there being a number of

these heat pumps that are non-operational at any given time while waiting for replacement parts to arrive and for repairs to be completed. JNU Building Maintenance and JNU staff are continuing to look at funding options for a phased replacement of these older heat pumps.

Terminal Surge Protection: At JNU's request, City & Borough of Juneau (CBJ) Contracting has executed a term consultant contract to RESPEC, in the amount of $14,520.00 to perform the following work tasks:

- Review JNU's field investigation that was intended to verify the presence of existing power surge suppression equipment in the Terminal, Snow Removal Equipment Building (SREB) and Sand-Chemical buildings.
- Provide recommendations for additional surge suppression equipment that might be needed to protect / prevent continued damage to sensitive electronic components within these three facilities. Include an estimate of cost with these recommendations.
- Provide a recommendation to implement additional surge suppressions or power conditioning as may be needed to protect Ground Source Heat Pump-1 (GSHP-1) within the Sand-Chemical Building. Include an estimate of cost with this recommendation.
- Provide 100% construction documents as needed to obtain bids for the additional power conditioning or surge suppression work.

RESPEC has begun work on this project and will have deliverables to JNU on or before June 2, 2025.

Safety Area Grading at Runway Shoulder and Navigational Aids (NAVAIDS): HDR Engineering (HDR) continues to work on the development of their 60% design submittal for this project. As reported earlier, they have completed the site survey field work and continue to work on their grading analysis to determine the full extent of the grading work. Per the grading analysis, the project will primarily consist of the placement of borrow (fill) to reduce the runway shoulder slopes within the project work areas.

JNU continues to work with HDR on the development of the Construction Safety Phasing Plan (CSPP) and technical specifications, and JNU continues to work on the development of the Division 01 front-end contract documents.

JNU has confirmed with HDR that they will still be able to meet a deliverables schedule that reflects a bid-opening date of July 1, 2025. This revised bid opening date would have an anticipated construction contract award/notice-to-proceed date in late August 2025 or early September 2025. The construction contract will be written to allow the successful bidder to complete the project in the spring of 2026.

The Board is advised that the bid process for this project could be impacted / delayed as a result of a significant update by the Federal Aviation Administration (FAA)/ Department of Transportation (DOT) to their Grant Programs. These updates are currently in review by CBJ Law and CBJ Contracting to determine the extent that project bid documents and construction contracts may need to be revised to align with the new Trump Administration policy priorities.

Rehabilitate Part 121/135 Apron and Remain Overnight (RON) Parking Apron: SECON continues work within the Phase 7A and 7B work areas. Crew has completed work on the removal of the old asphalt paving in both areas and continues to work on the placement and grading of the new subbase material. SECON is still planning on placing the new asphalt paving in these work areas beginning May 1.

During this work, a strip of concrete was encountered beneath the old asphalt and was determined to represent a conflict with the new final asphalt grade. This concrete had been placed over a small bank of conduits, which were determined to be abandoned. The concrete has been removed, and because of the depth of bury, the conduits have been left in place. The conduits were marked with detectable warning tape and the depth of bury and conduit ends were surveyed for incorporation into the project as-built documents. JNU / DOWL have prepared Request for Proposals (RFP) 21 to address the additional costs associated with the concrete removal. AIP eligibility for this work has not yet been verified with the FAA.

SECON has adjusted their schedule for the runway asphalt repairs, pushing this work back to the week of May 5-9. The exact date of this work has not yet been determined as SECON is waiting for the asphalt pavement grooving machine to be delivered from Anchorage. The plan remains to address this work over the course of two consecutive nights with full runway closures. Scheduled airport arrival and departure operations will not be impacted.

SECON has begun work on the expansion of the Alaska Airlines cargo hardstand, work that is being done under separate contract with Alaska Airlines. Until this work is completed, Alaska Airlines will continue to utilize Gate 2 for air cargo operations. SECON has placed steel plates at the Gate 2 apron, at the direction of Alaska Airlines and JNU, to protect apron surfaces that were installed last summer. JNU will continue to monitor air cargo operations to make sure that the cargo loading equipment stays on the steel plates.

Roger Hickel Construction has begun work on the installation of a small hardstand for the Gate 3 Passenger Boarding Bridge under separate contract with Alaska Airlines. This work has been coordinated with Alaska Airlines and with JNU as it will briefly close the use of Gate 3 to Alaska's arrivals and departures.

Apron Lighting Installation: SECON / Chatham Electric completed work on setting the new light pole assemblies on the concrete encased structural piling bases during the week of April 12-16. On Friday, April 16, JNU was contacted by FAA ATCT (Air Traffic Control Towers) Manager Bengamin Dodd with the complaint that the new light poles obstructed their line of sight of the active surfaces from the tower cab.

See photos of the light pole installations below. All photos have been taken from the tower cab.

Light Pole LP-1 assembly is 57.5 feet tall, located approximately 104 feet from the tower cab.

Light Pole LP-2 assembly is 57.5 feet tall, located approximately 136 from the tower cab.

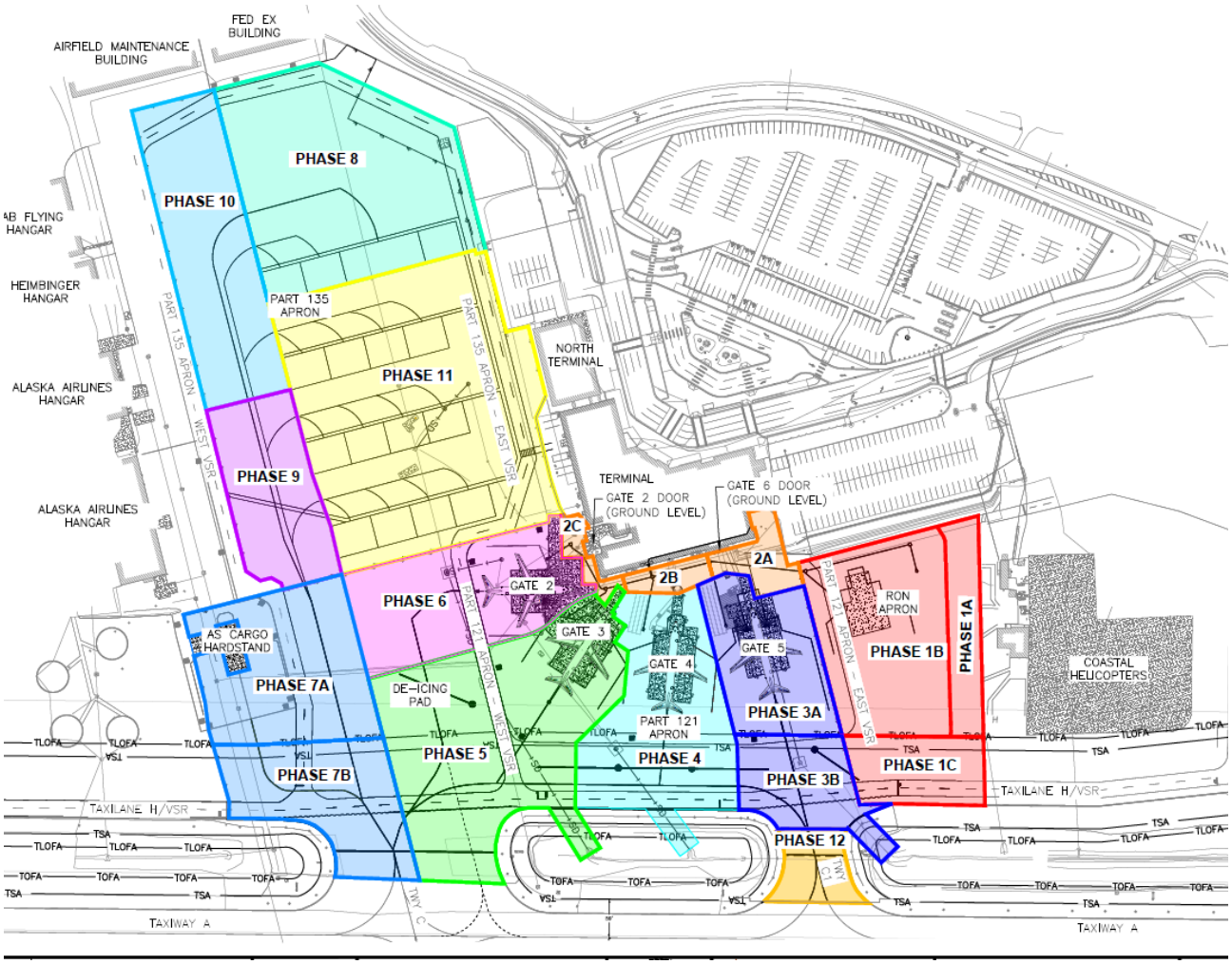
Light Pole LP-3 (on the right) and LP-4 (on the left). LP-3 is approximately 152 feet from the tower cab. LP-4 is approximately 204 feet from the cab. Both assemblies are 57.5 feet tall.

Light Pole LP-4 (on the right) and LP-5 (on the left). LP-4 is approximately 204 feet from the cab. LP-5 (striped) is approximately 320 feet from the cab. Both assemblies are 57.5 feet tall.

Light Pole LP-5 (on the right) and LP-6 (on the left). LP-5 (striped) is approximately 320 feet from the cab. LP-6 (striped) is approximately 416 feet from the cab. Both assemblies are 57.5 feet tall.

Following receipt of the ATCT complaint, JNU instructed the project design team: DOWL (civil engineering) and Morris Engineering Group (electrical engineering) to revisit the design determinations made with respect to the placement of the new light poles within the 121 apron and with respect to the heights of the pole assemblies.

DOWL and Morris are to follow-up with the FAA on the obstruction study that was done prior to the completion of the design for the new lighting.



The following are the current start and completion dates for the remaining apron work:

- **Install concrete hardstand extension at Alaska Air Cargo under contract with Alaska Airlines.**
  Start: April 16, 2025 Complete: April 30, 2025
- **Mill existing asphalt surface at Phase 7A and Phase 7B work areas and place asphalt paving.**
  Start: April 18, 2025 Complete: May 6, 2025
- **Apply new pavement markings in the Phase 7A and Phase 7B work areas.**
  Start: May 6, 2025 Complete: May 7, 2025
- **Transition Alaska Airlines air cargo operations back to the air cargo hardstand.**
- Start: May 8, 2025 Complete: May 8, 2025

JNU has coordinated with DOWL to have construction updates issued to all stakeholders to advise of the status of construction and associated work schedule.

Culvert Condition Survey – Jordan Creek @ Runway 8-26: **No change since last report.** As previously reported, JNU has received the condition survey as prepared by proHNS engineering for the large half-arch aluminum culvert assembly which allows Jordan Creek to pass beneath Taxiway A and Runway 8-26. In their report, proHNS stated the opinion that an immediate catastrophic failure of the culvert is unlikely. The report goes on to state that continued deterioration is likely, and that repair work is recommended, even if the source of deterioration is determined and eliminated. proHNS has identified three (3) repair-in-place options, recommending them for further study. They would not require open trenching, would not require a closure of Runway 8-26 and would not require extensive permitting.

The three recommended repair-in-place options are:

1. **HDPE (High Density Polyethylene) Slip Lining**

Pros: a. Corrosion resistant structure.
b. Local contractors are familiar with construction installation methods.
c. Cost effective due to shipping and construction costs.
d. Would not require runway closure for construction.

Cons: a. Grouting annular space where lengths are over 100' can be challenging.
b. 800' length push and pull resistance on pipe will be significant.
c. Requires large area for insertion/jacking/welding pit.
d. Potential to reduce flow capacity.

2. **Carbon Fiber Lining**

Pros: a. Corrosion resistant structure.
b. Could be done while maintaining streamflow in existing pipe.
c. Wouldn't impact existing stream bed material, which should make for easier permitting process.
d. Can be designed to be structurally independent and fully withstand runway loading.

Cons: Specialized equipment and trained personnel required, known installer (National Plant Services, Michels Trenchless), known Manufacturer (Structural Technologies).

3. **GeoPolymer Lining**

Pros: a. Corrosion resistant structure.
b. Could be done while maintaining streamflow in existing pipe.
c. Wouldn't impact existing stream bed material, which should make for easier permitting process. Product has extensive research on chemical properties not affecting fish.

Cons: Specialized equipment and trained personnel required, known installer (National Plant Services, Michels Trenchless), known Manufacturer (Structural Technologies, GeoTree)
b. Questions on whether this product would be strong enough to fully withstand runway loading.

At this time, JNU does not have estimated construction costs for any of the three repair options. JNU has confirmed with the FAA that replacement / repair costs would not be AIP eligible because the culvert is within the 20-year useful life of grant 60-2014 and because the FAA considers this work to be a maintenance project.

JNU has requested a fee proposal from proHNS Engineering to complete the necessary design phase services and to provide bid-ready construction documents (technical specifications and drawings) based upon one of their three repair-in-place recommendations. The RFP has requested that the design consultant complete a structural analysis of the recommended repair option to verify that the repair would become a permanent load bearing replacement for the culvert in the eventuality that the old culvert fully deteriorated away. The RFP also requested that the design consultant prepare detailed construction cost estimates throughout the design process.

It was JNU's hope that proHNS' services could be obtained through CBJ's Term Consultant Contract – which has a $50K cap. proHNS has advised that they cannot complete the identified scope for under

$50,000. proHNS also advised that based on their research into the three repair options that would not require runway shutdowns, the project is going to require specialty design services. Based on this communication, it would now appear necessary for JNU to obtain design services for this project by issuance of an official RFP for Consultant Design services through CBJ Contracting.

Snow Removal Equipment Building and Sand-Chemical Building Door Repairs: On April 21, 2025 Airfield Maintenance received a fee proposal from International Door, Inc. to inspect and repair a number of the large vertical lift and turnover doors in the SREB and Sand-Chemical buildings. A copy of this proposal is as follows:

FURNISH AND INSTALL – PROVIDE 2 TECHNICIANS, PARTS AND LABOR.

- Remove and replace Clutch assembly – 4 locations total.
- Remove and replace safety edges, harness, rubber, etc. – 4 locations total.
- Remove and replace limit switches – 3 locations total.
- Remove and replace safety edge "rubber only" – 1 location.
- Install new brush seal across the top of door panel – 1 location.
- Adjust, brace, and anchor counterweight and guide towers as necessary – all locations.
- Adjust lift cable tension/panel position as necessary, may require rigging to complete. – all locations.
- Adjust sheaves and brackets as necessary, may require rigging to complete. – all locations.
- Adjust clutches as necessary, apply lock-tite, and tighten clutch bolts to spec. – all locations.
- Relocate bottom panel seal as necessary to fully contact the ground – 1 location.
- Remove and replace damaged guide roller on door B8 – 1 location.
- Troubleshoot door C1 and C2 strobe light issues, repair/replace strobe as needed – 2 locations.
- Troubleshoot and address electrical control issues – 1 location.

Complete cost = $134,271.00

These door assemblies were originally installed by the manufacturer (International Door) in 2018 (SREB) and 2019 (Sand-Chemical) and are no longer covered by any construction guarantee or by the manufacturer's warranty. While the absence of any active warranty would not prevent JNU from contracting with a local vendor to repair these doors, JNU has been unable to find anyone in Juneau that is willing and able to work on these very large doors.

Parking Lot Concrete Repairs: No change since last report. Portions of the concrete curb and gutter within the public short term parking lot, the taxi waiting lot and the secure employee parking lot have been damaged by snow removal operations. See example photos below.

PHOTO 05: Damage at the east end of the employee lot.

PHOTO 06: Damage at one of the accessible ramps.

JNU had initially attempted to address this work by RFP 016 through the current construction contract with SECON but is now planning on running this work through CBJ's small civil term contract. JNU is currently preparing the scope of work package for this small project.

Airport Construction Document Archiving: JNU Staff continues to work on sorting / culling the old, archived construction documents, as-built documents and miscellaneous reports.

End of Report