

## MEMORANDUM

TO: Patty Wahto, Airport Manager

FROM: Mike Greene, JNU Airport Project Manager

DATE: March 5, 2025

RE: Project Office Monthly Report

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

**Terminal Reconstruction**: JNU continues to work on finalizing the following outstanding work items:

**Ground Source Loop Field System Modifications:** 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 conducted on December 12, with JNU staff, JNU Airport Maintenance and engineers from RESPEC present, it was decided that the samples of these contaminates should be lab-tested to determine what this material is. To that end, JNU has asked RESPEC for a fee proposal to have a sample of the contaminates lab tested, and to provide additional mechanical engineering services to assist with the ongoing effort to cleanse the loop field system. Per this request, RESPEC has submitted a proposal in the amount of \$29,910 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. This proposal is currently being reviewed by JNU.

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: The 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. The number of inoperable units is now low enough to allow the TAB

work to proceed. JNU Building Maintenance and JNU staff are continuing to look at funding options for a phased replacement of these older heat pumps.

**Terminal Air Balancing (TAB)**: The TAB work is nearing completion. JNU has not yet seen a final balancing report or determination by the mechanical engineers (RESPEC) as to whether the system is operating within the design parameters or not.

**Lighting Control Replacement**: Dawson Construction / ALCAN Electric continues to work on Request for Proposal (RFP) 183 – Lighting Control Replacement. The work that is to be completed per this RFP is replacing the failing lighting control equipment within the older portion of the terminal. This control equipment is no longer supported by the manufacturer and the control of much of the interior and exterior lighting in this portion of the terminal is either being done manually or is being left on 24/7. JNU Building Maintenance is working directly with ALCAN Electric to provide a network connection that will allow the new lighting control system to be interconnected to the lighting control system that has been installed in the new north wing. This connection will create a single terminal lighting control system. ALCAN Electric has advised that they intend to have this lighting control work completed by the end of March 2025.

**Terminal Power Conditioning:** No change since last report. JNU and JNU Building Maintenance continue to look into the need to provide additional power conditioning to protect the electrical systems within the terminal. Following a January 2025 meeting with Ben Haight with RESPEC, JNU Building Maintenance has been tasked with confirming the presence and operational status of the power conditioning equipment that was installed as part of the recent terminal electrical service upgrade project. If this equipment has not been tripped or damaged by utility power surges, then JNU intends to obtain a fee proposal from RESPEC to look into options to provide additional power conditioning to protect the electrical systems that have been recently affected by fluctuations in the utility power. The scope of this work will include a review of the power feed to the Sand-Chem building, with a focus on determining whether or not ground source heat pump GSHP-1 needs power conditioning to protect this unit's compressors.

<u>Safety Area Grading at Runway Shoulder and Navigational Aids (NAVAIDS)</u>: HDR Engineering is currently working 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. The initial estimate of borrow quantities is as shown below:

ESTIMATE OF QUANTITIES					
(LT,RT)	ITEM NO.	SPECIFICATION ITEM NO.	PAY ITEM	PAY UN <b>IT</b>	QUANTITY
LT	P152	P152.010.0000	UNCLASSIFIED EXCAVATION	CY	750
	P152	P152.190.0000	BORROW	CY	44870
RT	P152	P152.010.0000	UNCLASSIFIED EXCAVATION	CY	335
	P152	P152.190.0000	BORROW	CY	3895

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 00 and 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 bidopening 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. **Rehabilitate Part 121/135 Apron and Remain Overnight (RON) Parking Apron**: SECON has resumed work on the project and are currently working with their electrical subcontractor (Chatham Electric) on the preparation of the new light pole bases for the installation of the new apron lighting. SECON is also working on the repairs to the structural steel piling foundation for light pole LP-6.



SECON has submitted a project completion schedule, which identifies the start and completion dates for the remaining work areas as follows:

- Repair light pole LP-6 & complete work on the installation of the new exterior apron lighting. Start: March 10, 2025 Complete: April 10, 2025
- Transition Alaska Airlines air cargo operations over to Gate 2. Start: April 15, 2025
- 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 & 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

DOWL conducted a second pre-construction meeting on March 3, 2025, with representatives from SECON, Chatham Electric, DOWL, Alaska Airlines and JNU present. During this meeting, the security and safety measures required by the construction contract were reviewed, as was SECON's completion schedule. The procedures and protections that are to be put in placed at the Gate 2 apron prior to the relocation of air-cargo operations were also discussed. Per prior agreement with JNU, SECON will provide and place temporary steel plates for the Cochran loader to operate on, and both SECON and Alaska Airlines will be held fully responsible for any damage to the new Gate 2 apron surface as a result of air-cargo operations. SECON has requested a second meeting prior to moving air cargo operations to gate 2. This meeting date has not yet been determined.

JNU has coordinated with RESPEC who will soon be releasing a construction update to all stakeholders to advise of the pending start of construction and of the anticipated construction work schedule.

<u>Culvert Condition Survey – Jordan Creek @ Runway 8-26</u>: 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.

<u>Fuel Station Access Control/Fuel Monitoring/Tracking</u>: No change since last report. In July 2022 JNU, working through CBJ Engineering - Contracts, released an RFP for design services under CBJ's term contract for design consultant services to develop design and construction documents for the introduction of an access control system for the airfield fuel station. The RFP had identified a scope of work that included the introduction of an access control / fuel theft-prevention system, fuel monitoring and usage tracking, and the introduction of a back-up generator to provide emergency stand-by power for the fuel station.

On September 1, 2022, CBJ Engineering - Contracts advised JNU that no responses to the RFP had been received. This indicated that, at that time, there was no interest (or availability) within the design community to work on this project. JNU is currently soliciting interest from local electrical engineers to provide a fee proposal for this project. This funding was previously approved for CARES funding by the Board.

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

End of Report