

ATTACHMENT #5



MEMORANDUM

TO: Patty Wahto
Airport Manager

DATE: February 7, 2019

FROM: Mike Greene
Airport Project Manager

RE: Engineering Projects Monthly Report

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

1. **RSA Expansion Phase IIC:** The project remains in winter shutdown. The Contractor continues to conduct periodic Storm Water Pollution Prevention Plan and site/staging area inspections. The Contractor is also working with City & Borough of Juneau Community Development Department to obtain the requested Conditional Use Permit for their temporary batch plant.

The current project schedule calls for all work to resume on March 15, 2019, and for all work to be Substantially Complete on or before July 30, 2019.

As the engineers of record, DOWL continues to provide construction administration and inspection services for this work.

Juneau International Airport (JNU) continues to work on expanding the extent of the drainage improvements that are to be installed by SECON along the south side of the Block M hangars. The contract currently calls for the installation of a new trench drain which will extend along a portion of the south side of the hangar. JNU is working on getting Federal Aviation Administration (FAA) approval to extend this trench drain along the full length of the hangar to address water infiltration into the hangars, minimize ponding within the apron and reduce sheet runoff across Taxilane H in that area.

JNU continues to work with Haight and Associates to develop a conduit layout plan within the Northwest Development Area that will be used to facilitate the necessary power and telecom upgrades associated with all future hangar development in this area. The conduits will be introduced into the construction contract by negotiated change order, and will be installed in the spring of 2019 prior to grading and paving the new Northeast Taxilanes 1, 2 and 3.

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2. **Float Pond Improvements:** The float plane pond remains closed to float plane operations and remains in a low water condition to facilitate the work associated with the project. The Contractor, Southeast Earthmovers, has completed work on excavating the work area, has completed work on the slip-lining of the new 36-inch high density polyethylene (HDPE) drain pipe through the existing 48-inch culvert, and is currently constructing the new cast-in-place concrete valve vault.

At the direction of JNU, the Contractor has placed approximately 130 cubic yards of 6"-18" armor stone to stabilize a portion of the east bank of the Emergency Vehicle Access Road (EVAR) around the existing 48-inch drainage culvert. This stone was placed over filter fabric to prevent further loss of fines from within the EVAR and to slow the water infiltration rate through the EVAR at the culvert location.

EVAR Repairs - Background: Southeast Earthmovers had excavated near the EVAR on the west end of the float pond to construct a new valve vault and to facilitate the work to install (slip line and grout) a new 36-inch HDPE pipe through the existing 48-inch drainage culvert. The design of the project anticipated water infiltration through the EVAR and into the excavation area during construction, and included a contract requirement for Southeast Earthmovers to put de-watering pumps in place to handle up to 2,000 gallons per minute.

EVAR Repairs - Work Area Flooding: During the initial excavation, the Contractor inserted an inflatable plug into the 48-inch culvert to prevent inflow into the work area from the river during high tides. With the plug in place, and during relatively small (14-16 ft.) high tides, it was noted that water was coming through the EVAR around the outside of the 48-inch culvert. A subsequent inspection of the 48-inch culvert (at low tide) revealed that the culvert sections had pulled apart long ago, allowing water to flow in and out of the culvert bedding with each change in tide. This tidal action over the years had washed out some of the bedding near the culvert joints, leaving voids around the outside of the culvert. The 6-inch de-watering pump and sump assembly had been keeping pace with this infiltration, until the very high tides of January 20 (19.4 ft.) and January 21 (20.0 ft.). During the high tide of January 20, a portion of the EVAR bank (measuring approximately 18" high x 12' feet wide x 6' deep) located on the south side of the 48-inch culvert sluffed into the excavation area, partially clogging the dewatering pump's sump. The Contractor reported this event to the project engineers and indicated that the excavation area was flooding.

At low tide on the morning of January 21, the sump was cleared, the work area was dewatered and the damage to the EVAR was inspected. The damage appeared to be limited to the wash-out of some of the fines and small rocks from around the various larger sized rocks which made up the construction of the EVAR. The high tide of January 21 subsequently washed out more fines and small rocks, which resulted in a noticeable increase in the infiltration rate through the EVAR on the south side of the culvert. The Contractor, fearing a complete washout around the culvert, pulled the inflatable plug out of the 48-inch culvert to lessen the head pressure around the outer edges of the culvert. This resulted in an uncontrolled infiltration rate which completely flooded the excavation area. It was at this time that the EVAR was closed to the public as a safety pre-caution.

The Contractor was instructed by the project engineers to obtain 6" – 18" rock and fabric to be placed around the culvert. The Contractor reported that he was unable to obtain any rock because access to both local sources were currently impeded by snow and ice, but that he had his suppliers working on it and the rock would be available the next day. At low tide on the morning of January 22, the sump was cleared, the work area was dewatered and the damage to the EVAR was

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inspected. The damage consisted of the wash-out of more fines from between the rocks, and the creation of voids within the EVAR on the south side of the culvert. The Contractor was instructed to compact the damaged face of the EVAR bank with the excavator bucket to collapse the voids. The Contractor then placed filter fabric and 30 cubic yards of 6" – 18" rock over the infiltration area. The high tide of January 22 (20.1 ft.) saw less infiltration which was managed by the dewatering pump. The placement of subsequent fabric and rock has since slowed the infiltration through the EVAR considerably. The EVAR was subsequently re-opened to public use on the afternoon of January 25.

The float pond is currently scheduled to be re-opened on or before April 1, 2019. The project is scheduled to be Substantially Complete on or before May 31, 2019.

As the engineers of record, PND Engineers continues to provide construction administration and inspection services for this work.

3. **Taxiway A Rehabilitation, Taxiway E Realignment and Taxiway D-1 Relocation:** PDC Engineers continues to work on the development of the project design documents for the Taxiway A, E and D1 projects. This work has been impacted by the recent government shutdown which has delayed coordination efforts with the FAA and slowed FAA participation in the document review process. The work has been further impacted by the recent request by the FAA that the design of the Taxiway D1 Relocation project be re-incorporated into the design of the larger Taxiway A/E project.

PDC Engineers recently released the 65% design documents for the Airport Lighting Regulator Vault which is to be constructed as an addition to the new SREB facility. This addition will house the airfield lighting regulators which are to be salvaged and relocated from their current location on the east end of the airfield. These documents are currently being reviewed by JNU and the FAA.

PDC Engineers will submit the 95% set of design documents to JNU for review on or before March 26, 2019. The goal is still to release this project for competitive bid this coming spring.

4. **Ward Air Hangar Expansion:** Ward Air has notified JNU that they have begun work on the conceptual design of their new hangar that will be located on Lots 15, 16, 17 and 18 of Block K.

5. **Fed-Ex Expansion:** DOWL has completed their field survey work and are working on finalizing the revised lease lot lines associated with the proposed expansion of the Fed-Ex building. A draft of the revised lot lines will be available for review by JNU and R&L Leasing, Inc. next week.

6. **Lavatory Waste Dump Site:** There has been no advancement on the development of a schematic design of the upgraded lavatory waste dump site. JNU continues to work on the submission of a conceptual design to the U.S. Food and Drug Administration.

7. **Parking Lot Repairs:** The short-term, long-term and staff areas of the large parking lot are all in need of general repairs. These repairs include the removal and replacement of large portions of the concrete curbs and gutters, the removal and replacement of large portions of the asphalt paving and subbase, upgrades to the storm water collection and drainage system, upgrades to the exterior lighting and the installation of new signage and striping. JNU has general parking lot repairs on its Capital Improvement Plan but does not currently have any money to address any of these repairs.