



AIRPORT BOARD OPERATIONS COMMITTEE AGENDA

August 16, 2022 at 2:00 PM

Airport Alaska Room/Zoom

<https://juneau.zoom.us/j/83805211106?pwd=RjN4bnBtZkJOOG8vUVFudWVVOOTVJZz09>

**TO TESTIFY: CONTACT PAM CHAPIN, 586-0962
BY 3:00 PM ON AUGUST 15, 2022**

A. CALL TO ORDER

- B. AIRFIELD / HANGAR FLOODING AND DRAINAGE PROBLEMS** (Attachment #1 and #2). In January 2022, the Airport Board was made aware of flooding issues occurring in the general aviation hangars on the east side of the airfield (Blocks M, N and O). An Operations Committee meeting was held in February 2022 to discuss the issues and hear from the impacted tenants. The Board directed staff to get the topography of the area and look at flow before any further direction was decided. The Airport hired DOWL to perform the study.

The attached survey heat map (Attachment #1) was created by DOWL from survey data collected around the Block M hangars. This map confirms what we already knew – that the site is extremely flat and that it drains poorly.

NORTH SIDE:

The map shows that most of the surface slopes within the five-foot lease line strip on the north side of the hangar actually slope towards the hangar. The slopes outside (north of) the lease line slope to the north towards the existing area drains. Having never worked on this side of the hangar and only recently receiving complaints of water infiltration, this reverse slope comes as a bit of a surprise.

WEST SIDE:

the map shows that the surface generally slopes away from the hangar and towards the existing area drain.

SOUTH SIDE:

The map shows that all of the surface slopes within the five-foot lease line strip on the south side of the hangar slope away from the hangar. All of the slopes outside (south of) the lease line slope away from the hangar to the existing strip drain. This confirms what we already knew and confirms that the efforts put into the recent tarmac and strip drain revisions have resulted in surface slopes that drain water away from the hangar.

EAST SIDE:

The map shows that the surface is generally flat, with areas that slope towards the hangar and areas that slope away from the hangar. There are no existing catchment drains of any kind on the east side of this hangar.

As previously discussed, the drainage, water runoff from hangars, and hangar elevation in relation to surrounding taxilanes all contribute to the problems on the east end. During the recent Taxiway (TWY) A-D1-E project, the Airport looked extensively at the work associated with the introduction of asphalt paving in front of the Block N and Block O hangars. The elevation differences between these hangar floors and the adjacent surface of Taxilane H were minimal – very much like the condition at the Block M hangars – very flat with slow drainage. To address this, a trench drain was proposed that would have introduced three (3) sections of trench drain, to be placed between the south sides of these hangars and the north side of Taxilane H. These trench drains, with their associated revised grading, would have introduced a more positive drainage slope away from these hangars and away from the taxilane.

The next step, if we want to develop an actual construction project that would modify surface grades and introduce/expand the existing storm drain system, would be to obtain a fee proposal from a civil design firm to create a design solution with associated construction cost estimate and bid/construction documents.

The Federal Aviation Administration (FAA) will not fund these new trench drains and the associated asphalt paving; they are not FAA eligible expenses. During the Taxiway project, staff was able to get FAA approval to install three (3) new 12-inch culverts installed under Taxiway H to facilitate the anticipated future installation of these three sections of trench drains. Culverts are in place and ready for use.

While looking at these improvements, staff established a budgetary estimate of \$600,000 (in 2020 dollars) to re-grade, install three small catch basins, install the three trench drains and complete the asphalt paving (four-inch) in front of the Block N and Block O hangars. Block M would need to be added to this project. A rough estimate (not including design) for all of this work would be about \$1M. Staff has added this as a project on its CIP list.

If the Board decides to move forward with the Block M, N, O trench drain and pavement work, funding from the CARES/CRRSAA/ARP grant funding may be used.

Additionally, a tenant on the west side requested similar investigation into drainage for similar flooding.

[1.](#) Attachment #1 - Block M Hangar Drainage Analysis

[2.](#) Attachment #2 - Dennis Bedford Email

C. NEXT MEETING DATE: TBD

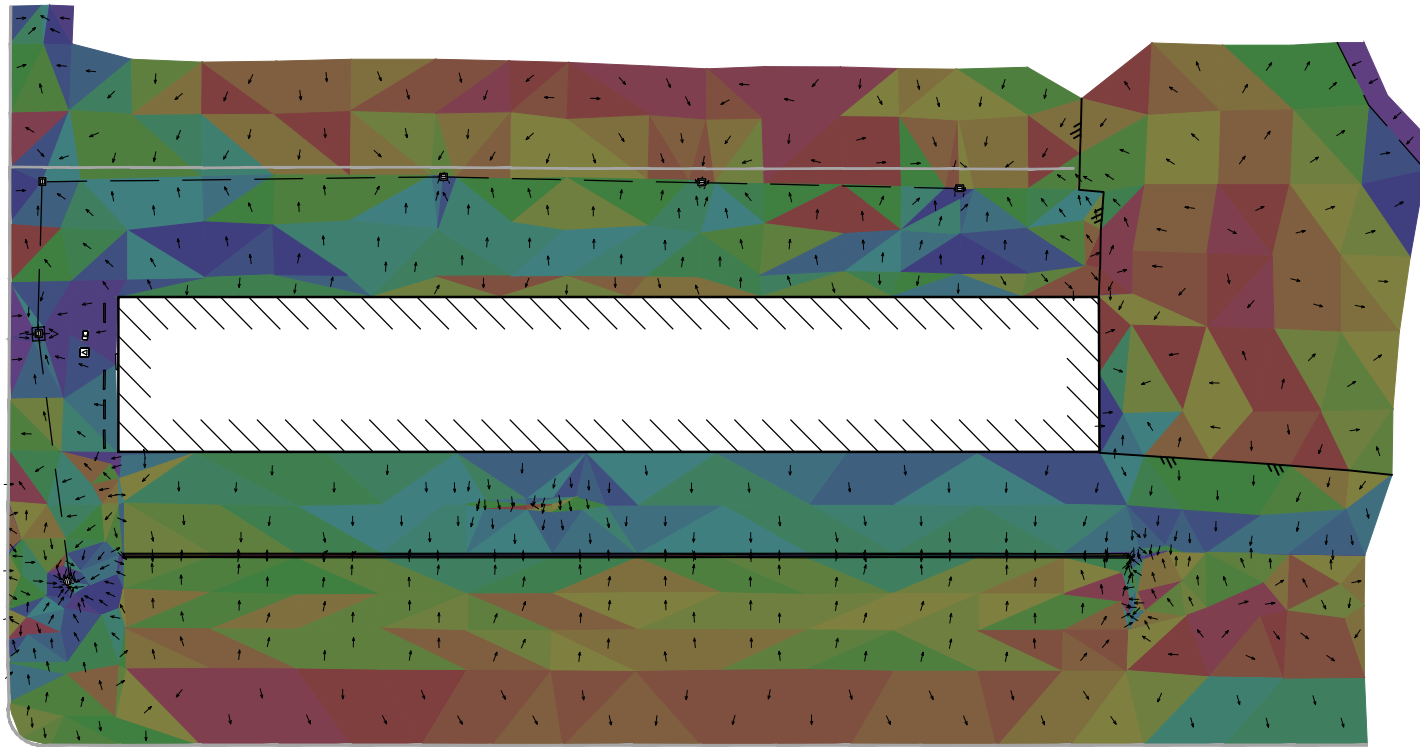
D. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.org.

ATTACHMENT #1

C:\dowl_pw\d0401602\SC-VB-GR-EH-71143.dwg PLOT DATE 2022-7-7 09:12 SAVED DATE 2022-07-07 09:00 USER: rlafavour

Section B, Item 1.



Slopes Table

Number	Minimum Slope	Maximum Slope	Color
1	0.04%	0.32%	
2	0.32%	0.52%	
3	0.52%	0.63%	
4	0.63%	0.71%	
5	0.71%	0.81%	
6	0.81%	0.92%	
7	0.92%	1.02%	
8	1.02%	1.15%	
9	1.15%	1.27%	
10	1.27%	1.42%	
11	1.42%	1.60%	
12	1.60%	1.74%	
13	1.74%	1.90%	
14	1.90%	2.07%	
15	2.07%	2.26%	
16	2.26%	2.47%	
17	2.47%	2.77%	
18	2.77%	3.42%	
19	3.42%	4.59%	
20	4.59%	302.69%	



50 0 50
SCALE IN FEET



JNU BLOCK M HANGARS
DRAINAGE ANALYSIS

PROJECT 1250.71143.01
DATE 07/06/2022

FIGURE 1

3

From: Dennis Bedford <Dennis.Bedford@juneau.org>

Date: August 3, 2022 at 9:06:33 PM AKDT

To: Jerry Kvasnikoff <Jerry.Kvasnikoff@juneau.org>

Cc: Al Clough <Al.Clough@juneau.org>, Patty Wahto <Patty.Wahto@jnuairport.com>, Mike Greene <Mike.Greene@jnuairport.com>

Subject: Fw: Block M flooding

I'm fine with committee assignments. I thought I sent this message out to Jerry K., Patty, and Mike Greene several days ago. I was going to forward it to Al and tried to send it to Eve, but she's apparently not in the system yet. When I pulled it up, it showed as not sent???

I have questions:

- 1) I'd like to get this thing moving-with the retirement of Jerry Godkin creating a vacancy, can the operations committee meet and make recommendations as a body of two?
- 2) The CBJ would have issued a building permit for the Block M hangars. Does this permit address drainage, and what is the standard used?
- 3) My research indicates that general industry standard for proper drainage in areas covered by asphalt is 1-2% (1/8" to 1/4" per foot). Is the standard used by CBJ when issuing building permits inadequate for large areas such as the airport?
- 4) Does the airport need to set a stricter standard? Is this addressed in the airport master plan?
- 5) Was the Block M hangar constructed in accordance with the permit as issued?
- 6) Did subsequent development in the area render the original drainage plan inadequate?
- 7) It looks to me like the drainage in the taxilane to the north of Block M isn't all that great either. It seems to me like we should survey the whole area before we formulate a plan.
- 8) To my untrained eye viewing the drainage analysis plot provided by DOWL, it appears that the slope(s) of the area immediately north of the Block M hangars (the taxilane between Block M and Block L), is/are comparable to or less than those on the south side of Block M. Yet we have received fewer complaints from the north side of Block M and none that I am aware of from Block L. The area north of Block M is drained by multiple large grate type drains while the area to the south has only one long trench type drain. The area south of Block J (west side, between Aero Services and the CAP) is drained by a similar trench drain. Last winter during a period of heavy rain and snow melt-off, I observed this drain to be completely overwhelmed. Could it be that trench drains aren't up to the demands of Juneau weather conditions?

Dennis