City of Prince Albert

RPT 21-56

TITLE: Airport Air Blower Attachment

DATE: **February 3, 2021**

TO: City Council

PUBLIC: X **INCAMERA:**

RECOMMENDATION:

1. That the purchase of a new Loader Mounted Cold Air Blower be awarded to Industrial Machines Inc, this being the sole vendor that best meets all specifications, at a cost of $126,000.00 plus applicable taxes, with funds coming from the Airport Improvement Fund.

2. That the Mayor and City Clerk be authorized to execute any applicable documents on behalf of the City.

TOPIC & PURPOSE:

Request that City Council approve the purchase of a new Airport Air Blower Attachment be awarded to Industrial Machines Inc, this being the sole vendor that best meets all specifications, at a cost of $126,000.00 plus applicable taxes, with funds coming from the Airport Improvement Fund.

BACKGROUND:

The Blizzard cold air blower will attach to the existing airport loader that would be utilized on aircraft movement areas to blow off debris and snow without damaging the edge lights. Edge lights are only allowed to be 35cm tall and must be designed to have an easily breakable mount to prevent damage to aircraft during a crash. These low and fragile lights are easily covered with natural snow or obscured from view by snow banks during plow-sweeper removal from the paved surfaces. Lights obscured from a pilots view is a landing safety and regulatory compliance issue even if only for a moment.

Use and limitations of current equipment;

- The plow sweeper, 6m wide by 20m long, is used to clear snow off the paved surfaces quickly but can only get within 3 meters of the light or risk the snow plume damaging or obscuring the edge lights.
- The snow blower is used to remove the snow banks made by the plow sweeper but due to its size and snow plume reduced visibility can only get within 1meter of the edge lights.
- The grader can be used to remove snow between the, 60 meter separated, lights but can only get with half a meter from the light or risk striking or pushing snow into the light breaking its fragile mounting system. This final step of snow removal leaves a mound of snow around the lights needing manual removal by shovel.

When staffing levels are insufficient for manual removal in a timely manner due to their concentration on priority snow removal areas like the centre of the runway taxiways and aprons;

- Snow can become hardened around the lights making it more difficult to remove without damaging the lights fragile mounting system.
- Drifting or new fallen snow can more readily cover the lights.
- The mound of snow left around the lights creates potential for finger drifts on the runway.

With limited staff levels, the most effective method to ensure timely and none damaging removal of snow is by way of driving this loader mounted blower along the 88 runway, 57 taxiway and 32 apron totaling 177 edge lights. The over 6km path of snow removal by hand can take one staff member over 8 hours to complete. The staff member must exit the truck to shovel and monitor the radio as they are required to exit the runway or taxiway every time an aircraft needs to use the surface. This is an inefficient and higher risk method of snow removal than the loader mounted air blower equipped with a radio driving along the line of lights blowing. This blower has been demonstrated to the crew and is estimated to be able to clear all the edge lights of snow within 2 hours, even during the peak flight periods.

A new LED runway light can cost up to $2,000 to replace

PROPOSED APPROACH AND RATIONALE:

No other vendor could be found that will provide a product with similar specifications.

The Blizzard will also be beneficial for the FOD control program in summer. Foreign Object Damage (FOD) is a significant safety risk to aircraft that Transport Canada mandates airports to manage. FOD items include grass clipping, dirt or standing water. FOD on the runway has been removed by the runway sweeper in the past. This method of high-speed metal brushes causes wear to the painted surfaces amongst its other limitations identified above.

This equipment will expedite returning the runway to compliance, improving safety for pilots whilst landing and minimize fights delays.

CONSULTATIONS:

The apparatus was demonstrated by the vendor at Saskatoon Airport where airport staff were able to test functionality on airport edge lights.

The Fleet Department is the only other stakeholder in the selection of the equipment.

COMMUNICATION AND/OR ANNOUNCEMENT PLAN:

Processing procurement through the fleet and purchasing department as per procedure and the Purchase Order will be issued after council has approved the purchase.

FINANCIAL IMPLICATIONS:

AC-05 Snow Removal Equipment capital budget was approved for $150,000 to come from the Airport Improvement Fund.

Equipment Procurement Value as per Quote	$126,000
GST (5%)	$6,300
PST (6%)	7,560
Estimated Shipping (included)	$0
Total Funding	**$139,860**

OTHER CONSIDERATIONS/IMPLICATIONS:

There is no policy, or privacy implications, official community plan implementation strategies or other considerations.

STRATEGIC PLAN:

A new airport air blower attachment is a key component in ensuring the airport is serviceable for safe use of the flying public.

OFFICIAL COMMUNITY PLAN:

Not applicable

OPTIONS TO RECOMMENDATION:

- Continue to clear snow from edge lights via personnel with shovels.

PUBLIC NOTICE:

Public Notice pursuant to the Public Notice Bylaw No. 24 of 2015 is not required.

PRESENTATION:

None

ATTACHMENTS:

1. Quote & Specifications
2. Photographs of equipment and edge lights

Written by: Corey Nygaard, AIrport Manager

Approved by: Director of Public Works & City Manager