



Report: PDL-AIR-19-04

Region of Waterloo

Planning, Development and Legislative Services

Region of Waterloo International Airport

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: May 28, 2019

File Code: T18-80(A)

Subject: **Airport Master Plan Update**

Recommendation:

That the Regional Municipality of Waterloo proceed with the design of a temporary expansion for the Airport Terminal Building and issue Requests for Proposals to consultants for the design of the temporary expansion as described in report PDL-AIR-19-04 dated May 28, 2019.

Summary:

This report provides an update to the current progress of the implementation of the 2017 Airport Master Plan.

Report:

In April 2017, Regional Council approved the Region of Waterloo International Airport Master Plan (Report PDL-AIR-17-02). The Master Plan outlined a systematic development process that would be initiated in response to increased demand for air service, broken down into 5 distinct stages. Upon approval of the Master Plan, Regional Council directed staff to initiate Stage 1 of the plan. This stage focusses on the completion of a variety of detailed studies that would prepare the Airport, the Region and funding partners to expand infrastructure, only once demand for air services expanded. The second stage of the Master Plan will only be initiated once the airport exceeds about 250,000 passengers annually. Traffic at the airport in 2018 was less than 100,000 passengers.

Stage 1 consists of the following projects:

- Terminal Expansion Feasibility and Site Selection Study
- Existing Terminal Expansion Design
- Runway 14-32 and 08-26 Extension Design
- Runway Extension Assessment
- Master Servicing Study
- Federal Zoning Regulation Update
- Rail Alignment Study
- Air Service Development

Work has now commenced on these Stage 1 projects. In September 2018, Council awarded a contract for consulting services to aviation engineering firm Avia NG to execute four Stage 1 projects of the Airport Master Plan (Report PDL-AIR-18-07/COR-TRY-18-82). A project team of Facilities, Transportation and Environmental Services and Planning, Development and Legislative Services staff has been meeting with the consultant through the early stages of these projects. In March 2019, Council established a Steering Committee to provide support and direction to the Airport planning process (Report PDL-AIR-19-03).

The majority of Stage 1 projects are expected to be complete by 2021.

A summary of the progress for each project is presented in the following sections.

Terminal Expansion Feasibility and Site Selection Study

The Terminal Expansion Feasibility and Site Selection Study project involves determining the optimal long-term location and development plan for the terminal building. It considers expansion up to 2,500,000 annual passengers as described in the Airport Master Plan.

The project team has reviewed the current terminal building location and five other potential sites around the airport. These sites were assessed and narrowed down to three preferred options: the existing location, an area south of the current location, and an area north of Runway 08-26.

The terminal campus area is expected to require a significant amount of land for various facilities such as the terminal building, aprons, parking, roadways, landscaping, hotels and other commercial areas. The long-term terminal building is estimated to account for only 10% of the total required terminal campus area.

Although the existing location is considered one of the preferred options, the location of the existing terminal building cannot remain in its current location due to future airspace constraints. Therefore this option considers the long-term development plan for the terminal building in the vicinity of the existing building.

Evaluation criteria were developed to assess these remaining three sites and to determine the preferred option. The criteria consist of construction and opportunity costs, environmental and societal impacts, design effectiveness, and potential connectivity with the Region.

The project team is now taking a detailed look at the three preferred options in order to evaluate and determine the optimal location.

Existing Terminal Expansion Design

The current terminal building can accommodate approximately 250,000 annual passengers, or potentially more if flights are spaced out appropriately. The terminal building cannot currently handle more than 2 flights at the same time, as passengers would experience very poor customer service levels. The Terminal Expansion Design project involves the design of a terminal expansion to accommodate short-term passenger growth of approximately 500,000 annual passengers.

The project team has identified that the holdroom, domestic baggage claim and outbound baggage areas require expansion to accommodate the short-term passenger growth. Check-in procedures can be improved through the implementation of new technology.

Through the Terminal Expansion Feasibility and Site Selection Study, it was determined that the existing terminal building cannot remain in its current location due to future airspace constraints. Expansion of the existing building to accommodate short term growth requirements would largely be throwaway cost. The project team has determined that expansion to the existing terminal building can be completed using a temporary approach. This will significantly mitigate cost impacts, with a temporary approach expected to defer approximately \$13,000,000 to \$15,000,000 of the Stage 2 terminal expansion construction cost to Stage 3. A temporary approach is also expected to mitigate schedule impacts, allowing the expansion to be completed in a shorter timeframe and with less disruption to operations. The current level of service can still be maintained or improved through this temporary expansion until such time as a new terminal building would be required.

The terminal expansion design was approved through acceptance of the Airport Master Plan, however the project team requests Council approval to implement a temporary expansion approach for the Airport Terminal Building. Requests for Proposals will then be issued for the design of the temporary expansion. Implementation of the temporary expansion would still be on hold until Stage 2 of the Airport Master Plan is triggered.

Runway 14-32 and 08-26 Extension Design

The Runway Extension Design project involves the detailed design of a Runway 14-32 extension to 7,000 feet and a preliminary design Runway 08-26 extension to 8,737 feet. The project also includes the design of associated infrastructure such as parallel taxiways, precision approach lighting systems, stormwater management systems, servicing, and mitigation of impacts to the future airspace.

Conceptual design of the runway extensions has been completed. A geotechnical investigation has been initiated to determine the pavement structure and water taking requirements. Impacts to the future airspace have been identified and are being assessed. Impacts to Shantz Station Road due to the Runway 08-26 extension are currently being evaluated by Transportation and Environmental Services staff.

Runway Extension Assessment

The Runway Extension Assessment project involves completing a screening level assessment and public consultation for the proposed Runway 14-32 and Runway 08-26 extensions as described in the Airport Master Plan.

The proposed runway extensions are not subject to the requirements of the Canadian Environmental Assessment Act or the Municipal Class EA process. However, the project will still follow the Schedule C Municipal Class EA process to be consistent with typical Region practice.

Desktop and field studies have commenced, including archaeological, cultural heritage, wetlands and wildlife habitat, contaminated soil and groundwater investigations.

The first Public Consultation Centre for this project is scheduled for June 20, 2019 at the Breslau Mennonite Church. Public materials will be provided to Planning and Works Committee for review in advance of this event.

Master Servicing Study

The Master Servicing Study project involves developing a plan to accommodate the servicing requirements of future development at the Airport. The study will determine the capacity of existing services and will identify the necessary upgrades required to accommodate future development. The services to be reviewed consist of stormwater, sanitary, water, power, communications, gas and glycol.

Desktop studies have commenced identifying the existing conditions and requirements to facilitate future development.

Federal Zoning Regulation Update

The Federal Zoning Regulation Update project involves updating the existing Airport Zoning Regulations, such that the Airport is adequately protected from surrounding development to facilitate the proposed runway extensions as described in the Airport Master Plan. The project will follow the Transport Canada process which includes public consultation, and resources have already been allocated to this project by Transport Canada.

The new zoning regulations will provide increased protection for the runways, to ensure that instrument approach procedures will not be affected by future development. The new approaches will extend 15 kilometers from the end of each runway and will have a reduced slope from 2.0% to 1.6%.

The new zoning regulations will also provide protection for a potential third runway, located 1.5 kilometres east of and parallel to Runway 14-32. Although a third runway is not planned to be constructed in the foreseeable future, protecting the airspace for this runway will permit it to still be an option if and when it is needed in the long run. A third runway would allow for more airspace capacity and increased safety, as it would reduce mixed operations between commercial and general aviation traffic.

The first Public Consultation Centre for this project is scheduled for June 20 at the Breslau Mennonite Church.

Rail Alignment Study

The Rail Alignment Study project involves assessing the feasibility of implementing a rail connection from the future terminal building to the Breslau GO Station. The preferred public transportation option and optimal location of the rail corridor will be determined.

This project has not yet commenced, although discussions with the Greater Toronto Airports Authority, Metrolinx and Transport Canada have been initiated regarding a possible rail connection.

Air Service Development

Region of Waterloo and Waterloo Region Economic Development Corporation (Waterloo EDC) staff have continued to aggressively pursue new air service and industrial investment opportunities. Four companies continue to position themselves in the Ultra Low Cost Carrier (ULCC) market space and Regional staff has been in contact with all carriers regarding opportunities to serve the market area for YKF. Global and national market conditions combined with increasing congestion at Toronto Pearson continue to put pressure on potential airlines and aerospace companies to consider YKF as an alternative.

Conclusion

Stage 1 of the 2017 Airport Master Plan has commenced. Future reports will be presented to Council seeking direction to:

- Finalize the preferred terminal building location;
- Issue a Request for Proposal to temporary structure vendors for the Terminal Expansion Design project; and,
- Finalize the characteristics of the new Federal Zoning Regulation.

Note that all major projects will require Council approval prior to proceeding.

Corporate Strategic Plan:

This initiative directly supports Strategic Objective 1.1.3 in the Corporate Strategic Plan – “Develop a Master Plan and associated Business Plan that guides the growth and development of the Region of Waterloo International Airport to provide a full-service, customer friendly facility which supports commercial, corporate and general aviation.”

Financial Implications:

The 2019-2028 Airport Capital program includes \$2,071,000 in 2019 and \$964,000 in 2020 for Airport Master Plan Stage 1 projects. Taking into account costs incurred in 2018, the total estimated cost of the Stage 1 work described in this report is \$3,340,000. Funding for the work is from Regional Development Charges (\$1,928,000) and the Airport Capital Reserve (\$1,412,000).

As described in report COR-FSD-19-25 dated May 28, 2019 on the Administration & Finance Committee agenda, Bill 108 “the More Homes, More Choices Act, 2019” was introduced and received first reading on May 2, 2019. If enacted, the Bill would deem Airport capital costs ineligible for funding under the Development Charges Act (DCA). The Bill would create a new capital cost recovery regime called a “community benefits charge” which would be capped. It is unclear if Airports will be considered as an eligible service under this new framework. Implementing a capped community benefits charge is expected to significantly reduce municipal revenue for growth-related capital costs.

The cost per household forecast used in the Airport Master Plan assumed 50% of all capital costs would be funded from non-property tax sources (i.e. development charges and federal/provincial subsidy). Subsidies from senior levels of government have yet to be identified, and if Bill 108 were to be enacted Airport development charges would be eliminated. The Region’s 10 year capital program includes \$154 million in Master Plan capital costs and almost \$75 million of development charge funded debt to implement Stages 1, 2 and 3 of the Airport Master Plan. If development charges are not available as a source of funding, alternative funding sources for Airport development and expansion costs will need to be identified, possibly including an increase in property tax.

The cost of property acquisitions required for airport development has been financed from long term debt, funded in part from property taxes and in part from future development charge collections. Another impact of Bill 108 as written is that funding responsibility for existing development charge funded debt servicing costs will be transferred to the property tax levy, impacting future Airport operating budgets by an estimated \$527,000 as early as 2020.

The temporary approach for the terminal building expansion is expected to defer approximately \$13,000,000 to \$15,000,000 (20%) of the overall Stage 2 costs to Stage 3, which will relieve some financial pressure on the Airport capital program.

Once the component projects of Stage 1 are complete, staff will commence an update of the Airport Master Plan financial analysis including the cost per household forecast, and report back to the Steering Committee and Council as required.

Other Department Consultations/Concurrence:

The Master Plan project team includes staff from Airport, Community Planning, Design and Construction, Transportation, Water Services, Facilities and Fleet Management.

Attachments: None

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