



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 3c

**ACTION ITEM**

**Date of Meeting** July 23, 2019

**DATE:** July 16, 2019

**TO:** Stephen P. Metruck, Executive Director

**FROM:** Jeffrey Brown, Director of Aviation Facilities and Capital Programs  
Wayne Grotheer, Director Aviation Project Management

**SUBJECT:** Aviation Capital Project Planning and Preliminary Design – CIP #C801109

**Amount of request:** \$10,000,000

**ACTION REQUESTED**

Request Commission authorization to expend capital funds for project definition and preliminary design on Sustainable Airport Master Plan (SAMP) Near-Term Projects in an amount not to exceed \$10,000,000; procure and execute professional service contracts; and enter into reimbursable agreements with the Federal Aviation Administration (FAA) in relation to the relocation and adjustment of the Runway 34R glideslope antenna as part of the Taxiways A and B Extension project.

**EXECUTIVE SUMMARY**

The SAMP Near-Term Projects (NTP) identifies projects that could be constructed in the near-term to accommodate forecast activity in 2027. This authorization will allow staff to conduct project definition and preliminary **design at risk** on some of those SAMP Near-Term Projects, as listed below in “Details” and additional SAMP NTP that may be identified through continued advanced planning.

Project definition and preliminary design will be useful for

- Setting stakeholder expectations,
- Creating a very solid basis for building a project schedule and budget,
- Understanding the risks of the project and how it related to other projects,
- Further defining the projects for environmental review, and
- For the Taxiway project, advancing the design for the relocation and adjustment to the glideslope as recommended by the Sea-Tac Stakeholder Advisory Round Table (StART) working group.

Staff will provide written updates to the Commission on the progress of these projects to include additional projects added, as requested by the Commission. Also, the environmental review process is ongoing. Approval of this preliminary design funding request does not

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commit the Port or the FAA to the selection of any of the Near-Term Projects following completion of environmental review. The Port and FAA retain the authority to make an independent decision whether to proceed with the Near-Term Projects subsequent to completion of environmental review.

### **JUSTIFICATION**

Project definition and preliminary design of capital projects supports the following Century Agenda strategic goals and objectives:

- 1) Advance this region as a leading tourism destination and business gateway
  - a. Meet the region's air transportation needs at the Airport for the next 25 years and encourage the cost-effective expansion of domestic and international passenger and cargo service
- 2) Be the greenest and most energy efficient port in North America
  - a. Reduce air pollutants and carbon emissions

Timely and comprehensive information is critical at the preliminary design stage to provide decision makers and project teams information necessary to transition into design. While still considered conceptual in nature, this more detailed information is compiled in a Project Definition Document (PDD) and goes beyond the planning level to provide a greater degree of certainty/confidence in: project definition; risks and opportunities; linkages to other projects and actions; and project schedule and cost estimate. Timely completion of preliminary design and definition for these early SAMP Near-Term Projects will ensure that the Port is prepared to initiate construction as soon as possible following completion of the environmental review, if the Commission and FAA decide to proceed with the relevant Near-Term Projects upon completion of environmental review.

### **DETAILS**

This authorization request supports only the initial phase of project definition and preliminary design exclusively for projects included in the SAMP Near-Term Projects. The design level at this phase should be considered approximately 15-30%. Design of any project beyond preliminary design will require additional Commission approval. Project definition and preliminary design of any project included in the SAMP Near-term Projects would progress at risk as the work is contingent on the outcome of the environmental review process which is currently underway and a decision by FAA and the Commission to proceed with the Near-Term Projects.

At this time, five projects have been identified as needing preliminary design over the next several months in order to complete these projects within the timeframe proposed. These five projects are included in the SAMP Near-Term Projects and are: 1) Westside Maintenance Campus, 2) **Permanent** Westside Airport Rescue and Firefighting Facility (ARFF), 3) Roadway Improvements, 4) Taxiway A/B Extension, and 5) Main Terminal North GT Lot.

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As additional information, the Taxiway A/B Extension project would require relocation of the Runway 34R glideslope antenna which would enable a potential adjustment of the slope angle to three degrees or more. Increasing the slope angle enables higher aircraft elevation on approach and is supported by the communities represented on the StART. The glideslope antenna is an FAA navigational aid, and as such, relocation requires design and construction by the FAA with financial reimbursement by the Port. Commission authorization to enter into reimbursable agreements with the FAA is included in this authorization request.

The five SAMP Near-Term Projects listed below were identified as needing preliminary design over the next several months and currently are, or have recently been, the subject of advanced planning. This authorization request is inclusive of funding for project definition and preliminary design of the five identified projects and potential additional projects anticipated to be identified through continued advanced planning related to the SAMP Near-Term Projects. No capital funds authorized under this funding request will be spent on project definition and preliminary design for projects that are not included in the SAMP Near-Term Projects. A brief description of the projects identified for additional definition and design are listed below.

- Westside Maintenance Campus: The Port's current Maintenance Facility was constructed in 1969 as a mail sortation facility. It is undersized for its current function, is in a state of disrepair, and is proposed to be relocated to clear the site for potential future hardstand construction identified in the SAMP Near-Term Projects. The capital project planning process will include preliminary design development of the proposed platform and facilities proposed for that platform.
- Permanent Westside Airport Rescue & Firefighting Facility (ARFF): The current ARFF was constructed in 1979. It is undersized for its current function, is in a state of disrepair, and is proposed to be relocated to clear the site for potential future gate construction identified in the SAMP Near-Term Projects. The permanent westside location is planned to be preliminarily developed as the new primary station.
- Roadway Improvements: The southbound lanes of the North Airport Expressway are proposed to be relocated to continue the congestion relief initiated with the Widen Arrivals Approach project and to clear the site for potential airfield expansion and gate construction identified in the SAMP Near-Term Projects.
- Taxiway A/B Extension: Extension of dual taxiways at the south end of the airfield will increase operational efficiency and reduce aircraft delay. The extension requires relocation of the Runway 34R glideslope antenna which would enable an adjustment of the slope angle to increase aircraft elevation on approach.
- Main Terminal North GT Lot: The proposed multistory building could include functions such as airline/airport support space that could be relocated from the existing terminal to free up space for more critical passenger processing functions. A more detailed understanding of the building footprint and sublevels is also required to inform design of the adjacent Widen Arrivals Approach project which will require utility relocations through and adjacent to the site.

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- Additional Projects: As advanced planning continues on the other SAMP NTP, there may be a need to provide project definition and preliminary design of additional SAMP NTP, provided that this additional work can be done within this authorized budget and within the constraints of the SAMP NTP environmental review.

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – No capital funds approved for project definition and preliminary design

Cost Implications: \$0

Pros:

- (1) No capital funds expended for this purpose in the short-term.

Cons:

- (1) Detailed project information would not be available to the Commission to enable timely decisions regarding potential design authorization.
- (2) Delay in design would delay project implementation if the Commission and FAA decide to proceed with the relevant Near-Term Projects upon completion of environmental review.

This is not the recommended alternative.

**Alternative 2** – Capital funds approved for project definition and preliminary design

Cost Implications: \$10,000,000

Pros:

- (1) Provides detailed project information to the Commission to enable timely decisions regarding potential design authorization.
- (2) Timely project design will enable potential project implementation to proceed more quickly if the Commission and FAA decide to proceed with the relevant Near-Term Projects upon completion of environmental review.

Cons:

- (1) Capital funds expended in the short-term.
- (2) Capital funds would need to be expensed if the projects are not implemented.

***This is the recommended alternative.***

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**FINANCIAL IMPLICATIONS**

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	TBD	\$0	TBD
Cost increase			
Revised cost estimate			
Potential future scope/cost increase	TBD		TBD
<b>AUTHORIZATION</b>			
Previous authorizations	\$0	\$0	\$0
Current request for authorization	\$10,000,000	\$0	\$10,000,000
Total authorizations, including this request	\$10,000,000	\$0	\$10,000,000
Remaining amount to be authorized	TBD		TBD

**Annual Budget Status and Source of Funds**

The Aviation Capital Project Planning and Preliminary Design CIP #C801109 was not included in the 2019-2023 capital budget. A \$10M budget was transferred from the existing five CIPs for SAMP preliminary planning and design which were included in the budget. The funding source will be the Airport Development Fund. There is a risk that all or a portion of the capital expenditures would be treated as operating expense if any of the respective projects are not constructed.

**ADDITIONAL BACKGROUND**

Planning for the Port’s Sustainable Airport Master Plan (SAMP) concluded in May of 2018 when documentation was finalized and Port staff briefed the Commission. The SAMP documentation serves as the official narrative to the ALP, which was conditionally approved by the FAA in November 2018. Final approval of the ALP is dependent on completion of the environmental review of the SAMP Near Term Projects. The Port and the FAA retain authority to make independent decisions on the Near-Term Projects and the ALP following environmental review.

Advanced planning involves more detailed planning in focus areas of the SAMP Near-Term Projects as well as existing facilities. Advanced planning studies typically involve one or more of the following: site planning to allocate space and determine an optimal configuration of multiple facilities on a campus; analysis within individual projects to develop and evaluate alternative configurations of key elements of a single facility; and phasing plans for improvements within a campus or individual facility.

Port staff initiated advanced planning in early 2017 and have concluded several studies, including the Main Terminal Optimization Plan. Site planning for the Westside Maintenance Campus and the ARFF facility in the general aviation area are currently underway.

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Capital funds are required once a project has been clearly identified through advanced planning - i.e., alternatives analysis and site planning have determined an optimal configuration of an individual facility. It is at this point that preliminary design is initiated and program development for the project begins.

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**ATTACHMENTS TO THIS REQUEST**

- (1) Project PowerPoint Presentation

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- July 9, 2019 – Commission Briefing: “Aviation Capital Project Planning and Preliminary Design”
- February 26, 2019 – Commission Briefing: “Sustainable Airport Master Plan (SAMP) Near-Term Projects (NTP) Environmental Review Briefing – Scoping Report”
- May 8, 2018 – Commission Briefing: “Sustainable Airport Master Plan (SAMP) Planning and Environmental Update”
- February 27, 2018 – Commission Action: “Sustainable Airport Master Plan (SAMP) Request for Additional Funds”
- February 13, 2018 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- August 23, 2016 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- July 12, 2016 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- April 12, 2016 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- January 26, 2016 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- September 8, 2015 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- April 28, 2015 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- March 24, 2015 - Commission Briefing: "Briefing on Sea-Tac Cargo as part of the Sustainable Airport Master Plan (SAMP)"
- January 27, 2015 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Planning Update"
- October 7, 2014 - Commission Briefing: "Sustainable Airport Master Plan (SAMP) Forecast and Facilities Challenges"
- March 11, 2014 - Commission authorization to amend the existing Sustainable Airport Master Plan (SAMP) service agreement with Leigh Fisher Associates for IAF-related planning tasks for an increase of \$3,650,000 and a new total contract amount of \$9,650,000
- September 5, 2012 - Commission authorization for SAMP development and to advertise and execute a contract for consulting services for the SAMP, with a total estimated value of \$6 million
- August 14, 2012 - Commission deferred consideration of a request to approve funding for the Sustainable Airport Master Plan (SAMP)
- June 27, 2012 - Commission Briefing: "Terminal Development Challenges"