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**COMMISSION**

AGENDA MEMORANDUM Item No. 10b

ACTION ITEM Date of Meeting October 25, 2022

DATE : October 18, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Keri Stephens, Director, Aviation Facilities and Capital Programs

Eileen Francisco, Director, Aviation Project Management

SUBJECT: South Concourse Evolution Project Authorization Request

Amount of this request: \$100M

Total estimated project cost: \$1.4B-\$1.7B

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to (1) advertise and execute project specific contracts for project management including Airline Technical Representative (ATR), construction management (CM), design services, and commissioning services to proceed with design of the project, (2) utilize, authorize, advertise, and execute a General Contractor/Construction Manager (GC/CM) contract to proceed with pre-construction services and the delivery of the project, and (3) utilize Port crews for the South Concourse Evolution Project at Seattle-Tacoma International Airport. The total amount of this request is \$100,000,000.

**EXECUTIVE SUMMARY**

The South Concourse Evolution project proposes the renovation of the existing South Concourse, located at Seattle-Tacoma International Airport (SEA), using a multi-phase implementation strategy. The capital improvement project will extend the useful life of the South Concourse and meet current code requirements. This includes structural, seismic, and building system upgrades as well as modernization of passenger spaces. The scope addresses the Port's two-tiered objectives:

(1) Addressing critical code requirements, including structural and building systems upgrades.

(2) Providing enhancements to the passenger experience through a repurposing of the existing Federal Inspection Service (FIS) area, Concourse Level renovations, and an expanded Penthouse Level.

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**JUSTIFICATION**

The South Concourse Evolution project has completed the Project Definition Document (PDD) and has reached a design milestone of approximately 15% design. The team is ready to assemble its full delivery team and to begin full design and execute the project. This commission action will provide the authorization and funding necessary to progress the project to approximately the 90% design level, at which time the Maximum Allowable Construction Contract value will be determined. The project team will return in the future for further authorizations outside of and beyond this authorization.

**Project Delivery Selection:**

The team has selected an alternate delivery method, GC/CM, for this project. The project team met with stakeholders and analyzed multiple delivery methods and has selected GC/CM as it has proven to be an effective and successful delivery process for the Port as well as other public agencies. This delivery process partners with the designer and the general contractor while allowing the Port to maintain separate contracts throughout the design and construction of the project. Staff are currently developing and preparing to begin procurements for the project management, design, commissioning, and GC/CM contractor teams to kick-off the design phase, a collaborative effort.

**General Contractor/Construction Management Project Specific Contract:**

The GC/CM delivery method will allow for the contractor to be part of the complex design and intricate construction phasing and sequence development that will minimize risk to airport operations, provide the highest level of customer service during construction, and gain earlier insight to and control of construction costs. The GC/CM is anticipated to aid the team with

construction techniques, validating the schedule phasing and sequencing, and preparing subcontract packages for the MACC.

**Project Management Project Specific Contract:**

The team is anticipating hiring an external project management firm with expertise in using the GC/CM delivery method and with projects of this scope and complexity. The contract will include a project specific ATR. ATR's have played a critical role in successfully delivering previous mega projects and are recommended to represent the 25 airline carriers that utilize the South Concourse. The project would benefit from having a project specific ATR contract through the life of the project to serve as a liaison between the project and Airlines. Having a dedicated ATR engaged through the life of the project is critical to the success of delivering the project in such ways as decision making, communications, and implementation of plans.

**Construction Manager Project Specific Contract:**

The team plans to bring on board a CM firm that has expertise using the GC/CM delivery method and with projects of this scope and complexity. The firm will assist staff in executing the project from reviewing bid packages, negotiations on schedule and budget for MACC and other bid packages necessary to construct the project, responding to contractor

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communication, and assisting the controls teams to provide the necessary metrics to track and predict the schedule and cost trends.

**Design Services Project Specific Contract:**

A project specific design consultant will be procured to provide a comprehensive project design and design support services through the duration of the construction. The design firm selected will include architecture, structure, mechanical, electrical, civil, specialty, and other design professionals to complete an aesthetic and seismically compliant concourse for the port to utilize for many years to come. The design needs to respond to the needs of the infrastructure and airlines while providing an elegant design for the region.

**Commissioning Manager Project Specific Contract:**

The team plans to contract with an independent Commissioning Agent. Staff agree a Commissioning Agent that is independent provides a unique third-party validation that the design and construction meet the commissioning requirements by building code, building commissioning authorities, and best practice. The firm selected is expected to complete the predesign and design commissioning services required to comply with the United States Green Building Council LEED requirements for achieving project certification.

**Port Construction Crews:**

Port construction crews are requested to support the project by providing construction services outside of the major contract work.

This next airport mega project will be a complex, multi-year effort and include regular and robust engagement and communication with Commission, the public, the airlines, tenants, staff, and diverse stakeholders.

**Diversity in Contracting**

This project has been proposed to the FAA as a recipient for federal grant funding; in anticipation of that federal funding, the Port will be following the federal Disadvantaged Business Enterprise (DBE) program guidelines as stated within CFR 49 Part 26, therefore, Federal DBE goals will be set on this project.

**DETAILS**

The South Concourse Evolution project scope includes structural, seismic, and building system upgrades as well as modernization of passenger spaces. The Port's two-tiered objectives, addressing critical code requirements, including structural and building systems upgrades; and providing enhancements to the passenger experience through the lower levels and an expanded Penthouse for Lounges. The following are some focus areas that will be essential to the success of the project as the team progress the design:

(1) Partnership and collaboration.

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(2) Structural and seismic engineering married with a constructable design concept.

(3) Passenger flow, comfort, and communication.

- (4) Phasing and sequencing of a constrained site and airport impact.
- (5) infrastructure resilience.
- (6) Customer service and operational continuity during construction.
- (7) Ability to construct to budget and schedule.
- (8) The desired customer experience of blended holdrooms with dining and retail options.
- (9) Collaborating with numerous public agencies and the community.
- (10) Implementing the evolution of the South Concourse to balance with surrounding terminals.
- (11) Developing the team that can bring forward creative alternatives to reduce the project cost.

The airport is challenged to provide the airlines appropriate services while construction is underway. The project scope and budget has assumed the airport can support a gate outage strategy allowing for a two-phase project. Staff have been exploring different alternatives to provide the best customer experience during construction from an airport wide perspective. The ability of the airport to support this endeavor has not been identified in detail. Temporary and permanent solutions have been proposed but more effort, collaboration and partnership are required with our airline partners, stakeholders, and other programs to assure success with this project. Staff is working on a gating strategy that addresses the airport wide gating and phasing concerns of the airport and airline community.

The project is currently at 15% design. More design development is needed to understand the scope, schedule, budget and sustainability initiatives. Staff conducted the Sustainable Project Assessment and Review Collaboration meeting and developed the Sustainable Design Approach document for the project. Sustainability strategies were identified for further analyses during both PDD development and design, including a total cost of ownership analysis. The project team will evaluate the environmental benefits and total cost of ownership for following strategies:

- (1) Reducing solar heat gain.
- (2) Providing on-site food collection to support our food donation program.
- (3) Installing dishwashing utility connections to encourage reusable service ware.
- (4) Adding power to service new electric vehicle charging stations.
- (5) Reducing embodied carbon in construction materials, specifically concrete.
- (6) Integrating electric cooking to reduce natural gas use.
- (7) Reducing potable water use 10 and 20 percent below 2018 State Plumbing code.
- (8) Achieving LEED Silver Certification at minimum and the feasibility of achieving Gold.

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The project team will present the results of these analyses and recommendations to the Commission's Sustainability, Environment And Climate (SEAC) Committee for review and comment prior to 30% design.

#### Project Schedule

The team's near term focus will be on:

- (1) Assembling a full, qualified team of professionals and contractors to deliver this next airport mega project.
- (2) Solidifying the management plans and procedures that will be used to ensure its successful and collaborative execution.

Launch PM Support (including the ATR liaison), 2022 Quarter 4  
Design, GC/CM, and Commissioning team procurements

Execute Project Management Plan 2023 Quarter 2  
Execute contracts for delivery team to start 2023 Quarter 4  
design/pre-construction phase  
Start design/pre-construction phase 2023 Quarter 4

The team's current overall project schedule:

Design complete 2025 Quarter 2  
Commission Authorization for MACC 2025 Quarter 2  
Early Construction Work 2026 Quarter 3

Construction Phase 1 2029 Quarter 1  
Construction Phase 2 2031 Quarter 2  
Construction complete 2031 Quarter 4

#### Project Budget

The current estimate is based on the programmatic scope of work defined in the Project Definition Document (PDD), which has a level of detail equivalent to approximately 15% design. The estimated cost includes allowances and contingencies. Project risks, operational mitigations, and environmental objectives will be further developed and are deferred to the design once professionals are on board. The level of detail for the estimate is normal and customary at this stage of the project.  
Current Estimate Range: \$1.4B – \$1.7B.

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Cost Breakdown This Request Total Project  
Design Phase \$100M \$100M  
Construction Phase \$0 \$1.3B-1.6B  
Total \$100M \$1.4B-1.7B

#### ALTERNATIVES AND IMPLICATIONS CONSIDERED

Various refinements of the 15% design were explored over the last year in preparing this design option to be presented. Port staff has evaluated design options for levels, passenger flow, customer experience of the final building, and the return on investment of non-aeronautical revenues to develop the club and ADR requirements for the project. A summary of different alternatives follows:

Alternative 1 – A fully developed interior and exterior clerestory system provides for daylighting throughout the concourse and a more refined mass exterior matches the exterior façade areas high roof building mass of the N Concourse and the International Arrivals Facility.  
Cost Implications: \$2.2B

##### Pros:

- (1) Provides for daylighting of the entire concourse level.
- (2) Complies with the business plans of the concourse.
- (3) Meets the program goals for the airport.

##### Cons:

- (1) Anticipated costs cannot be supported by the business plans for the concourse.

This is not the recommended alternative.

Alternative 2 – Improve only the critical code requirements, including structural and building systems upgrades.

Cost Implications: \$1B

##### Pros:

- (1) Complies with the business plans of the concourse.

##### Cons:

- (1) Does not meet the program goals for the airport.

This is not the recommended alternative.

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Alternative 3 – Complete the project as presented in the PDD document.  
Cost Implications: \$1.4B-1.7B

##### Pros:

- (1) Complies with the business plans of the concourse.
- (2) Meets the program goals for the airport.

##### Cons:

- (1) Does not fully commit the concourse to daylighting into the center of the facility on the east and center areas.

This is the recommended alternative.

#### FINANCIAL IMPLICATIONS

The initial placeholder value for the project in 2020 was \$1B, the current estimate range is

expected to be \$1.4-1.7B.

Cost Estimate/Authorization Summary Capital Expense Total

**COST ESTIMATE**

Original estimate \$1,000,000,000 \$0 \$1,000,000,000

Previous changes – net \$370,000,000 0 \$370,000,000

Current change 0 0

Revised estimate \$1.4B - \$1.7B 0 \$1.4B - \$1.7B

**AUTHORIZATION**

Previous authorizations \$2,750,000 0 \$2,750,000

Current request for authorization \$100,000,000 0 \$100,000,000

Total authorizations, including this request \$102,750,000 0 \$102,750,000

Remaining amount to be authorized TBD \$0 TBD

**Annual Budget Status and Source of Funds**

This project, CIP C801203, was included in the 2022-2026 capital budget and plan of finance with a budget of \$1 billion. A budget increase of \$370,000,000 was transferred from the Aeronautical Reserve CIP (C800753) resulting in zero net change to the Aviation capital budget. The funding source would be revenue bonds, Airport Development Fund (ADF), and the Bipartisan Infrastructure Law (BIL) grant funding through the FAA-AIP program.

**Financial Analysis and Summary**

Business Unit (BU) Terminal Terminal

Building Building

Project cost for analysis \$1.4B \$1.7B

Infrastructure grants \$250M \$250M

NPV incremental to Base \$(4.8)M \$(136)M

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Non-aero cashflow in 2031 \$(5.4)M \$(12.5)M

Non-aero cashflow positive In year 2038 In year 2044

CPE Impact in 2031 \$2.24 \$2.92

The financial analysis looked at the implications of this project on both the aeronautical and non-aeronautical businesses. For the aeronautical business, this project will add significant costs (primarily debt service on the bonds to fund the project) to the airline rate base, resulting in an increase to the passenger airline cost per enplaned passenger (CPE). The project will also allocate significant costs to the non-aeronautical business as a result of the space attributable to airport dining and retail. The table above shows a net present value (NPV) of the incremental net revenues compared to the costs for the non-aero business. At \$1.4 billion, the NPV is slightly negative. At \$1.7 billion the NPV is much more negative. The other measure we look at is non-aeronautical cash flow inclusive of the allocated debt service. This is important as an indicator of the project's impact on airport debt service coverage. The result will be negative cash flow in the early years, going positive in 2038 at \$1.4 billion, and 2044 for \$1.7 billion. Consequently, the project will reduce airport debt service coverage for many years. The analysis above assumes the project receives \$250 million of grant funding. More grant funding would improve the financial results.

**Future Revenues and Expenses (Total cost of ownership)**

The cost savings of keeping the current terminal operational would likely present no long-term savings even with discounting the risk of a potential catastrophic failure; the terminal is still in need of upgrades driven by code and safety. Balancing the deferral of these costs against the structural, seismic, and operational needs of the terminal is not recommended.

**ADDITIONAL BACKGROUND**

The South Concourse facility at SEA was opened in 1973 and is owned and operated by the Port. The facility depends on building systems that are well past their useful service life, and further development of the facility has been limited by the authorities having jurisdiction, owing to concerns stemming from current building code minimum requirements. The building systems and materials used in the original construction, due to their age and manufacture, are difficult to maintain. The facility also contains areas of encapsulated regulated materials, such as asbestos, complicating maintenance, renovation, and development. Since the South Concourse was constructed, passenger volumes and aircraft operations have increased dramatically, security regulations have expanded, passenger level of service expectations have evolved, and airlines and retailers have changed their marketing strategies. Recently, the South Concourse was connected directly to the new International

Arrivals Facility (IAF) across the taxi lane separating it via an above ground pedestrian walkway. The project will connect the continuity of design from the IAF and walkway to this project for a seamless continuous terminal aesthetic.

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ATTACHMENTS TO THIS BRIEFING

(1) Presentation slides.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

September 27, 2022 - The Commission was briefed on South Concourse Evolution and project status.

April 13, 2021 – The Commission was briefed on SSAT Renovation Renewal PDD.

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