



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6j

**ACTION ITEM**

**Date of Meeting** June 11, 2019

**DATE:** June 4, 2019

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

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

**SUBJECT:** Passenger Loading Bridges Gate S12 (CIP #C801094)

**Amount of this request:** \$1,750,000

**Total estimated project cost:** \$1,750,000

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to (1) prepare design and construction bid documents for the replacement of the passenger loading bridge (PLB) and fixed walkway at Sea-Tac Airport Gate S12; (2) purchase one new PLB and fixed walkway; (3) use Port crews and small works contracts. The amount of this request is \$1,750,000 for a total estimated project cost of \$1,750,000.

**EXECUTIVE SUMMARY**

Reliable, well-operating passenger loading bridges are critical to airline and airport operations. Recently, during a quarterly preventative maintenance inspection, the structural integrity of the Gate S12 PLB was identified as critical; it was taken out of service on May 22 to evaluate repair and/or replacement options. This PLB, in service since 1982, services international flights and this closure will add operational stress and congestion to an already busy terminal. Staff recommends that this PLB be replaced as soon as possible. This funding request is being brought forward now to expedite the replacement of this highly critical PLB.

Funding for this project was not included in the 2019-2023 capital budget and plan of finance. The capital budget will be transferred from the Aeronautical Allowance #C800753 resulting in no net change to the Aviation Division capital budget.

**JUSTIFICATION**

The PLBs at Sea-Tac are highly utilized compared to airports with comparable annual enplanements. In 2015, Sea-Tac processed approximately 217,000 passengers per gate, the highest of all peer airports and well above the national average of approximately 153,000. Any unplanned downtime due to PLB or fixed walkway issues impacts airlines and customer service.

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**DETAILS**

The Gate S12 PLB was originally installed in 1982 and was refurbished in 2012; this refurbishment did not include any structural repairs, enhancements, or modifications.

***Scope of Work***

- (1) Design services for this scope of work will be provided under existing indefinite delivery, indefinite quantity (IDIQ) design services contract.
- (2) Purchase and installation of new PLB, associated fixed walkway, and related components at Gate S12 along with necessary architectural, structural, electrical, data, and mechanical infrastructure upgrades to meet new PLB standards and current code requirements.
- (3) Port Construction Services will perform work associated with preparing the foundation upgrade or replacement and provide construction management services for PLB installation.
- (4) The new bridge will be connected to the Port’s facility monitoring system so any malfunction that shuts the bridge down will be promptly reported to Maintenance for faster response.

***WMBE***

Through Port Construction Services (PCS), small works contracts are utilized, providing several small business opportunities within the project scope of work. Additionally, the IDIQ design firm uses a WMBE firm for structural design which is a vital part of the design process.

***Schedule***

*Activity*

Design start	2019 Quarter 2
Commission construction authorization	2019 Quarter 2
Construction start	2019 Quarter 3
In-use date	2019 Quarter 4

***Cost Breakdown***

	This Request	Total Project
Design	\$300,000	\$300,000
Construction	\$1,450,000	\$1,450,000
Total	\$1,750,000	\$1,750,000

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**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Operate flights that would use Gate S12 at hardstand locations and add the S12 replacement to the next phase of bridge replacements.

Cost Implications: \$1,750,000

Pros:

- (1) Deferred capital expenditure.

Cons:

- (1) With Gate S12 being out of service AV Operations is using hardstand operations to offset Gate S12 not being usable which has a trickledown effect that displaces several smaller aircraft vying for the same hardstand locations. One wide-body aircraft takes up the same amount of room as three narrow-bodies at Cargo 7. This displacement will impact the passenger experience with longer wait times, flight delays, and potentially canceled flights.
- (2) Stress airline operations with a gate closure.
- (3) This alternative would potentially lead to airlines insisting on processing departing passengers in severely congested hold rooms on other concourses already being used for other flights.
- (4) This alternative does not give airlines, tenants, and passengers a reliable gate system to provide customer service and process guests for arrivals and departures.
- (5) This alternative would significantly degrade the quality of passenger experience at Sea-Tac.
- (6) This alternative has the longest down time of the S12 gate.

This is not the recommended alternative.

**Alternative 2** – Proceed with prioritizing the design, construction, and replacement as outlined for Gate S12.

Cost Implications: \$1,750,000

Pros:

- (1) Replaces aged equipment giving it a new service life of 25+ years.
- (2) Upgrade the PLB, fixed walkway, and associated gate equipment to the current codes and standards (seismic, electrical, mechanical, Etc.).
- (3) This has the shortest potential for turn around to get the gate operational.
- (4) PCS can proactively work on the necessary upgrades while the bridge is being manufactured.
- (5) This alternative provides the Port dependable equipment to facilitate airline operations.

Cons:

- (1) This alternative could push out the replacement of a planned bridge due to resource availability.

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*This is the recommended alternative.*

**FINANCIAL IMPLICATIONS**

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$1,750,000	\$0	\$1,750,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$0	\$0	\$0
Current request for authorization	\$1,750,000	\$0	\$1,750,000
Total authorizations, including this request	\$1,750,000	\$0	\$1,750,000
Remaining amount to be authorized	\$0	\$0	\$0

***Annual Budget Status and Source of Funds***

The Passenger Loading Bridge Project CIP#C801094 was not included in the 2019-2023 capital budget and plan of finance. The capital budget will be transferred from the Aeronautical Allowance C800753 resulting in no net change to the Aviation Division capital budget. The funding source will be from existing revenue bond.

***Financial Analysis and Summary***

Project cost for analysis	\$1,750,000
Business Unit (BU)	Passenger Loading Bridge
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase
IRR/NPV (if relevant)	N/A
CPE Impact	\$.01 in 2020

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

This is a renewal and replacement program that replaces existing equipment that is old and dated. Replacement of the equipment will require a similar level of maintenance and an anticipated reduced level of repairs and does not have a material impact on current Aviation Maintenance O&M costs.

**ATTACHMENTS TO THIS REQUEST**

- (1) None

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None