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COMMISSION
AGENDA MEMORANDUM   **Item No.**   10c

ACTION ITEM   **Date of Meeting**   September 28, 2021

DATE :   September 17, 2021

TO: Stephen P. Metruck, Executive Director

FROM: Laurel Dunphy, Director Airport Operations
               Krista Sadler, Director Technology Delivery

SUBJECT: **Seattle-Tacoma International Airport Checkpoint Virtual Queues (CIP#C801272)**

Amount of this request:	$1,200,000
Total estimated project cost:	$1,200,000
Estimated 5-year contract fee:	$1,500,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to 1) proceed with the Checkpoint Virtual Queue project at Seattle-Tacoma International Airport; 2) execute contract(s) for equipment, vendor implementation services, and up to five years of software license, service, and maintenance fees; and 3) advertise and execute small works contracts and utilize Port crews to perform construction work for self-service gate installation. The amount requested for project implementation is $1,200,000 and the estimated five-year software, service, and maintenance fee is $1,500,000. Fees for the five-year software license, service, and maintenance contract will be budgeted in the Aviation Operations annual expense budget.

EXECUTIVE SUMMARY

This project will expand the current pilot program for Virtual Queuing at the Seattle-Tacoma International Airport (SEA) security checkpoints to include all checkpoints where feasible, all airlines, automated flight information and checkpoint wait time interfaces, gates, and SEA mobile application integration.

The SEA Virtual Queue program, branded SEA Spot Saver, was implemented to respond to impacts of physical facility capacity constraints by reducing security queue lines and wait times during peak hours as well as enhance the passenger experience by providing a predictable travel journey. The program includes advanced registration and on-demand options to schedule a specific time to go through the SEA security checkpoint providing opportunities for SEA to balance checkpoint loads and the passenger to avoid long waits in a crowded queue. The service is free to all travelers, providing an equitable option to Transportation Security Administration (TSA) Pre-Check and Clear.

This technology was not widely available for an airport environment, so in late 2020 a competitive procurement was initiated to select two vendors for a pilot Virtual Queue implementation through August 2021, after which one vendor would be selected for a five-year contract. The goal of this pilot phase was to determine, both, product and operational ability to meet the goals of the program. Survey results from passengers were over 90% positive for questions related to ease of use, time savings, and overall experience, and while the pilot implementation was limited, SEA Airport Operations believes the program can help balance queues during peak loads. Both Delta Airlines and Alaska Airlines participated in the pilot and are supportive of the long-term implementation of the Spot Saver program.

Information and Communication Technology, the Aviation Division, and Port Construction Services will partner to complete this project with the selected vendor. The capital project was not included in the 2021-2025 capital budget and plan of finance, therefore the amount of $1,200,000 will be transferred from Aeronautical Reserve. Recurring costs estimated at $1,500,000 over five years will be budgeted in the Aviation Operations annual expense budget beginning in 2022. Aviation Operations will also utilize their current queue management service contract to support the Spot Saver program.

JUSTIFICATION

The full implementation of the Spot Saver Virtual Queue system has several customer service, health and safety, and operational benefits.

- Survey results from passengers participating in the Spot Saver program were over 90% positive for questions on ease of use, time savings, and overall experience. This is exceptional feedback for a program during a pilot phase without all planned features for a full implemented product.
- Reservations filled capacity from the very first day of the pilot program, proving strong traveler desire for this type of program.
- Those participating in the Spot Saver program can wait at any location pre-security until their reservation time minimizing the time spent in queues in close contact with other passengers.
- The SEA security checkpoints queues are severely space constrained. Without a reservation function, it is impossible to predict when passengers will arrive at the airport for screening. Utilizing a reservation system, will help the Airport forecast and balance peak periods at the five checkpoints for a more efficient customer experience.

Diversity in Contracting

Project staff will work with the Diversity in Contracting Department to determine if a direct women-and-minority-owned business enterprise (WMBE) aspirational goal should be assigned for the construction component of the project. The procurement for the technology solution has already been completed but included encouragement for diverse participation.

<u>**DETAILS**</u>

Scope of Work

The project includes the following scope:

(1) Configuration and implementation of the Virtual Queue system for all airlines and checkpoints
(2) Automated interfaces for flight information and checkpoint wait time data required to balance checkpoint queues
(3) Interfaces for statistics and survey results to measure Spot Saver program
(4) SEA Mobile App integration
(5) Installation of the Self-Service Gates at Security Checkpoints

Schedule

Commission authorization	2021 Quarter 3
Interface and SEA Mobile App Completion	2022 Quarter 3
Gate Installation	2022 Quarter 3
Project Completion	2022 Quarter 4

Cost Breakdown	This Request	Total Project
Vendor Equipment and Services	$520,000	$520,000
Design and Construction for Gate Installation	$335,000	$335,000
Port Labor for Non-Construction Activities	$345,000	$345,000
Total	$1,200,000	$1,200,000

<u>**ALTERNATIVES AND IMPLICATIONS CONSIDERED**</u>

Alternative 1 – Virtual Queue Implementation without Self-Service Gate Installation.

<u>Cost Implications:</u> $715,000 Capital; $1,400,000 Recurring Software Maintenance and Service Fee; $2,000,000 - $4,100,000 estimated cost range over 5 years for security queue management customer support. Costs vary depending on future Spot Saver hours of operation.

<u>Pros:</u>
(1) Customer service improvements reduce stress on travelers by offering an opportunity to move through security queue lines at a pre-determined time with lower wait times.
(2) The ability to balance checkpoint loads with throughput rates during peak times will help reduce long lines
(3) Fully staffed Spot Saver queue lanes will provide a high level of customer service for infrequent travelers with reservations.

<u>Cons:</u>
(1) Significantly higher program costs than the recommended solution.

This is not the recommended alternative.

Alternative 2 – Virtual Queue Implementation with Gate Installation

Cost Implications: $1,200,000 Capital; $1,500,000 Recurring Software Maintenance and Service Fee; $900,000 - $1,800,000 estimated cost range over 5 years for security queue management customer support. Costs vary depending on future Spot Saver hours of operation.

Pros:
  (1) Customer service improvements reduce stress on travelers by offering an opportunity to move through security queue lines at a pre-determined time with lower wait times.
  (2) The ability to balance checkpoint loads with throughput rates during peak times will help reduce long lines.
  (3) The installation of self-service gates will reduce the number of service contract labor required for program support and there is more flexibility to increase the Spot Saver program hours without significant cost increases. During the pilot, Spot Saver hours of operation were 4:00 am to Noon, leaving ample opportunity for program expansion.

Cons:
  (1) Funding is not available for other efforts.
  (2) Security checkpoint queues are often moved to address facility needs, projects, or TSA requests. Moving installed gates would require additional funding for power or communication changes.
  (3) Automated gates with less support staff may cause confusion for some customers.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary	Capital	Expense	Total
COST ESTIMATE			
Original estimate	$1,200,000	$0	$1,200,000
AUTHORIZATION			
Previous authorizations	$0	$0	$0
Current request for authorization	$1,200,000	$0	$1,200,000
Total authorizations, including this request	$1,200,000	$0	$1,200,000
Remaining amount to be authorized	$0	$0	$0

Annual Budget Status and Source of Funds

This project was not included in the 2021-2025 capital budget and plan of finance. A budget of $1,200,000 will be transferred from the Aeronautical Reserve CIP (C800753) resulting in zero net change to the Aviation capital budget. The project will be funded with the Airport Development Fund.

Financial Analysis and Summary

Project cost for analysis	$1,200,000
Business Unit (BU)	Terminal
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase due to inclusion of capital (and operating) costs in airline rate base.
IRR/NPV (if relevant)	NA
CPE Impact	$.02 in 2023

Future Revenues and Expenses (Total cost of ownership)

Annual recurring service, license, and maintenance fees estimated at $1,500,000 over five years will be budgeted in the Aviation Operations annual operating budgets beginning in 2022. Aviation Maintenance and ICT labor for system support will be budgeted in their own operating budgets.

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None