



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 8b

**ACTION ITEM**

**Date of Meeting** June 25, 2024

**DATE:** June 14, 2024

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

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

**SUBJECT:** Surface Area Management Project Additional Authorization (CIP #800650)

**Amount of this request:** \$2,614,000

**Total estimated project cost:** \$18,479,000

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to 1) increase the authorized project budget for the Surface Area Management project by \$2,614,000 for a total budget of \$18,479,000; and 2) include and use a Project Labor Agreement.

**EXECUTIVE SUMMARY**

The Surface Area Management (SAM) project, first authorized in June 2019, has implemented a system to improve airfield situational awareness and provide forensic and analytic information on airfield operations at Seattle-Tacoma International Airport (SEA). The system provides information to improve aircraft flow and gate docking efficiencies, reduce aircraft holds, and support safety initiatives by providing more detailed information on incident causes and contributing factors. Integrating with several Port and external data feeds, the system provides a real-time, actionable picture of operations that is invaluable to Airport Operations, emergency response, security, and our airline partners.

The system is being implemented in multiple phases and portions are now used by Port staff, Federal Aviation Administration (FAA), and Airlines. The first three phases deployed the core system, video analytics capabilities, integration with other Port systems, and vehicle and equipment tracking. In parallel to the delivery of these phases, the project team progressed the design work for phase four, the installation of sensors and cameras used by the new system to provide more detailed situational awareness on the airfield. The first three phases of the project have been completed using the Job Order Contract (JOC) and staff have proceeded with the procurement process to deliver the final phase of the work via a major public works contract.

The Port opened bids for the major public works contract phase of the project in March 2024. Only one bidder proposed on the project and the bid total is 47% above the engineer's estimate.

Meeting Date: June 25, 2024

After the bid opening, staff took the time to evaluate other delivery methods/alternatives to complete the work cost effectively and efficiently. The preferred alternative is to award the project to the sole bidder and increase the project budget by \$2,614,000.

**JUSTIFICATION**

The SAM system provides a holistic view or understanding of underlying reasons or root causes for delays, bottlenecks, or deficiencies and improve overall airfield efficiency and safety at the Airport. Additional funding through this request will allow the system to be constructed as designed providing the greatest opportunity to provide this holistic view.

***Diversity in Contracting***

The project team has worked with the Diversity in Contracting Department to establish a 10% women- and minority-owned business enterprise (WMBE) aspirational goal for this construction contract.

**DETAILS**

This system is comprised of sensors and cameras throughout the airfield which will provide forensic and analytical information on airfield operations at SEA. The intent of this project is to utilize system data to better determine root causes associated with delays, bottlenecks and deficiencies which will guide decisions to improve overall airfield efficiency and safety.

***Scope of Work***

The Phase 4 project scope of work includes sensor and camera installation at various locations in the airfield to improve identification of targets for situational awareness and provide gate turn monitoring at all gates. The scope also includes the setup of the all the required Power and Communication Infrastructure for the sensors and cameras.

***Schedule***

*Activity*

Construction start	Quarter 3 2024
In-use date	Quarter 4 2025

***Cost Breakdown***

	This Request	Total Project
<b>Capital</b>		
Hardware/Software/Vendor Services		\$3,283,000
Port Labor		\$649,000
Sensor/Camera Installation	\$2,614,000	\$14,147,000
<b>Total Capital</b>	<b>\$2,614,000</b>	<b>\$18,079,000</b>

Meeting Date: June 25, 2024

<b>Expense</b>		
Training		\$200,000
Spare Parts		\$200,000
<b>Total Expense</b>		<b>\$400,000</b>
<b>TOTAL PROJECT</b>	<b>\$2,614,000</b>	<b>\$18,479,000</b>

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Utilize the JOC contractor to complete the work at 21 locations.

Cost Implications: ~\$7,700,000 in additional funding.

Pros:

- (1) JOC contractor has completed 9 locations and has implemented lessons learned.
- (2) JOC contract is executed, and work order(s) can proceed as capacity allows.

Cons:

- (1) Highest cost alternative
- (2) JOC construction completion anticipated in July 2026 which is the longest path to complete the time sensitive scope of work.
- (3) JOC capacity likely will be a challenge.
- (4) Future JOC contracts may not be awarded to the current JOC contractor, losing lessons learned and decreasing efficiencies.

This is not the recommended alternative.

**Alternative 2** – Repackage the design-bid-build contract and re-bid the project.

Cost Implications: ~\$6,050,000 in additional funding.

Pros:

- (1) Re-bid documents would provide more detailed information to reduce unknown risks to bidders.
- (2) Opportunity for additional contractor outreach.

Cons:

- (1) No guarantee the re-bid package will attract more bidders.
- (2) Potential for bid(s) to be higher than the current sole low-bidder.
- (3) Major works construction completion anticipated in June 2026.
- (4) May require additional budget increases.

This is not the recommended alternative.

**Alternative 3** – Award Major Works contract to low bidder.

Cost Implications: ~\$5,600,000

Meeting Date: June 25, 2024

Pros:

- (1) Most efficient alternative to complete the SAMS project Q4 2025.

Cons:

- (1) 47% above engineer’s estimate.
- (2) Increase project funding and additional budget authorization by \$2,614,000.
- (3) Requires the low-bid contractor to hold their bid price for an additional 60-days.

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

**FINANCIAL IMPLICATIONS**

<b><i>Cost Estimate/Authorization Summary</i></b>	<b>Capital</b>	<b>Expense</b>	<b>Total</b>
<b>COST ESTIMATE</b>			
Original estimate	\$6,200,000	\$400,0000	\$6,600,000
Previous changes – net	\$9,265,000	\$0	\$9,265,000
Current change	\$2,614,000	\$0	\$2,614,000
Revised estimate	\$18,079,000	\$400,000	\$18,479,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$15,465,000	\$400,000	\$15,865,000
Current request for authorization	\$2,614,000	0	\$2,614,000
Total authorizations, including this request	\$18,079,000	\$400,000	\$18,479,000
Remaining amount to be authorized	\$0	\$0	\$0

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

This project, C800650 was included in the 2024-2028 capital budget and plan of finance for \$13,001,000. The capital budget increase of \$5,078,000 was transferred from the Aeronautical Allowance C800753 resulting in no net change to the Aviation Division capital budget. The funding source would be the Airport Development Fund and revenue bonds.

***Financial Analysis and Summary***

Project cost for analysis	\$18,479,000
Business Unit (BU)	Airfield Movement Area
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)	N/A
CPE Impact	\$0.07 in 2026

Meeting Date: June 25, 2024

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

Previously authorized annual recurring maintenance and license costs for this system, estimated at \$1,620,000 are budgeted in the Aviation Operations and Aviation Maintenance operating budgets.

**ADDITIONAL BACKGROUND**

Since the deployment of phase 1 of the project, the Port and its partners have realized several benefits from using the new system.

- (1) Alaska Airlines leveraged information from the new system and implemented a change to its operations that that resulted in reduction of wait time for gates upon arrival.
- (2) Ramp Tower and FAA coordination significantly improved coordination during impacts of the 2021 Airport Improvement Project (AIP) work and International Arrivals Facility (IAF) construction taxi lane closures
- (3) Sixty-seven (67) gates are currently under turn monitoring surveillance providing time stamps of up to 36 critical milestones throughout the progression of a turn which establishes a record to gauge vendor performance and predict off-block times.

**ATTACHMENTS TO THIS REQUEST**

None

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

December 12, 2023 – The Commission authorized (1) construction for major public works contract; (2) amend the contract with SAAB; (3) increase project budget; and (1) execute a Project Labor Agreement

February 8, 2022 – The Commission authorized construction using JOC, a budget increase and a contract amendment with the vendor SAAB, Inc.

June 11, 2019 –The Commission authorized proceeding with the project for \$4,782,000.