



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8d

ACTION ITEM

Date of Meeting November 14, 2023

DATE: November 3, 2023

TO: Stephen P. Metruck, Executive Director

FROM: Eileen Francisco, Director Aviation Project Management
Darryl McKinney, Senior Manager, Security Strategy and Intelligence
Matt Breed, ICT Chief Information Officer

SUBJECT: Perimeter Access and Gate Enhancements and Perimeter Intrusion Detection System Phase 2 (CIP# C801363, C800844)

Amount of this request: \$3,816,000

Total estimated project cost: \$37,614,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to (1) authorize final design and preparation of construction bid documents for the Perimeter Access and Gate Enhancement (PAGE) project; (2) advertise, award, and execute a major public works construction contract for PAGE and Perimeter Intrusion Detection System (PIDS) Phase 2, and transfer budget/authorization, as necessary, between the two Projects; (3) procurement of long lead material items; (4) include a Project Labor Agreement for the contract. The amount of the request is \$3,816,000.

EXECUTIVE SUMMARY

The 2024 Airfield Projects – Contract 3 is comprised of two interdependent Capital Improvement Projects (CIPs) noted above. The two projects have overlapping work areas and design functionality, interdependent operational impacts, and share 2024 schedule milestones. As such, they are being planned, designed, and phased to be delivered concurrently for the purposes of Airfield safety and efficiency, while minimizing operational impacts.

The below table details the CIPs, corresponding authorizations requested, total authorizations to date, and the total estimated project cost for each CIP.

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CIP Name/#	Amount of this Request	Amount Authorized to Date	Total Estimated Project Cost
Perimeter Access & Gate Enhancements C801363	\$3,116,000	\$284,000	\$3,400,000
Perimeter Intrusion Detection System Phase 2 C800844,	\$700,000	\$33,514,000	\$34,214,000
Total Authorization of this Request	\$3,816,000		

JUSTIFICATION

The two projects being co-delivered via the 2024 Airfield Projects – Contract 3 consist of a variety of physically and functionally interdependent Capital Improvements designed to ensure continued operational safety and security and meet SEA’s regulatory requirements. The purpose of each project (CIP) is summarized below:

- The PAGE project will reduce the risk of unauthorized fence and gate intrusions. This project will also meet Port Security Standards to comply with our Airport Security Program (ASP) and Transportation Security Regulations by increasing the height of the defined Perimeter fence.
- The Perimeter Intrusion Detection System (PIDS) project will enhance the airport perimeter security to ensure public safety and improve operational efficiencies through use of technology and automation. PIDS Phase 2 enable PIDS to meet the operational and functional requirements by reducing nuisance alarms on high usage gates via Access Control.

Diversity in Contracting

Through the Diversity in Contracting program, a Women and Minority Business Enterprise (WMBE) aspirational goal will be established and included in the procurement of this construction contract.

DETAILS

These projects will interface with other projects and airfield operations. Continual coordination with Airport Operations, Airlines, and related Tenants will ensure the least possible operational impact during construction.

A project labor agreement will be used for these projects based on the importance of labor continuity and the need to minimize any risk of impact to operations during construction.

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Scope of Work

The PAGE project will automate three Airport Operations Area (AOA) perimeter vehicle access gates and install access control systems, cameras, and lighting; replace three seven foot gates with 12 feet gates and upgrade outdated equipment at the gates; replace perimeter fence and signage to comply with Port standards; and install razor wire on existing perimeter fence along the AOA perimeter.

The PIDS Phase 2 will install access control systems to two AOA perimeter gates so that personnel accessing the AOA area can be identified via technology, reducing nuisance alarms.

Schedule

Activity

Design complete	2024 Quarter 2
Construction start	2024 Quarter 3
In-use date	2024 Quarter 4

Cost Breakdown

This Request

Total Project

	This Request	Total Project
Perimeter Access and Gate Enhancements (C801363)		
Design	\$669,000	\$953,000
Construction	\$2,447,000	\$2,447,000
Total	\$3,116,000	\$3,400,000
Perimeter Intrusion Detection System (C800844)		
Design	\$0	\$3,025,000
Construction	\$700,000	\$23,044,000
Technology	\$0	\$8,145,000
Total	\$700,000	\$34,214,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Proceed with only the PAGE project scope. Do not proceed with the project scope in PIDS Phase 2 which includes installing access control to two Gates.

Cost Implications: \$3,116,000 in Capital Cost for Perimeter Access and Gate Enhancements

Pros:

- (1) Reduced capital spending in 2024.
- (2) Reduced construction impacts to airport/airline operations in 2024.
- (3) Meets Ports Security Standards to comply with our Airport Security Program (ASP) and Transportation Security Regulations.

Cons:

- (1) Requires PIDS Phase 2 to be handled as a separate effort.

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- (2) Does increase the risk of added cost to install access control at the two gates through a future project.

This is not the recommended alternative.

Alternative 2 – Construct each individual project with separate construction contracts.

Cost Implications: An estimated \$4,083,000 in Capital Cost to deliver the projects via two major construction contracts, \$267,000 more than delivering via one major construction contract as proposed by the recommended alternative.

Pros:

- (1) Less complexity for budget tracking during construction.

Cons:

- (1) Additional labor costs for contractor on-boarding and mobilizations, double-project ramp up and close out.
- (2) Increased coordination required between overlapping projects.
- (3) Increased construction safety risk due to overlapping work areas.
- (4) Additional and recurring impacts to airfield operations.
- (5) Additional risk in less attractive contracts for bidders.

This is not the recommended alternative.

Alternative 3 – Move forward to construct both projects as a single coordinated effort.

Cost Implications: \$3,816,000.

Pros:

- (1) Reduces safety risks, minimizes operational impacts and increases efficiencies as coordination and construction is managed as a single effort.
- (2) Minimizes time to completion, limiting exposure to future cost increases, while delivering benefits expeditiously.

Cons:

- (1) Additional accounting complexity during construction.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

PAGE Cost Estimate/Authorization Summary

COST ESTIMATE	Capital	Expense	Total
Original estimate	\$3,400,000	\$0	\$3,400,000
AUTHORIZATION			
Previous authorizations	\$284,000	0	\$284,000
Current request for authorization	\$3,116,000	0	\$3,116,000
Total authorizations, including this request	\$3,400,000	0	\$3,400,000
Remaining amount to be authorized	\$0	\$0	\$0

PIDS Cost Estimate/Authorization Summary

COST ESTIMATE	Capital	Expense	Total
Original estimate	\$10,000,000	\$0	\$10,000,000
Previous changes – net	\$23,969,000	\$245,000	\$24,214,000
Revised estimate	\$33,969,000	\$245,000	\$34,214,000
AUTHORIZATION			
Previous authorizations	\$33,269,000	\$245,000	\$33,514,000
Current request for authorization	\$700,000	0	\$700,000
Total authorizations, including this request	\$33,969,000	\$245,000	\$34,214,000
Remaining amount to be authorized	\$0	\$0	\$0

Annual Budget Status and Source of Funds

The Perimeter Access and Gate Enhancements (PAGE) – (CIP 801363) project was included in the 2023-2027 capital budget and plan of finance with a budget of \$3,400,000. The funding sources would be Airport Development Fund and revenue bonds.

The Perimeter Intrusion Detection System (PIDS) – (CIP 800844) project was included in the 2023-2027 capital budget and Plan of Finance for \$28,500,000. The capital budget increase of \$5,469,000 was transferred from the Aeronautical Allowance #C800753 resulting in zero net change to the Aviation capital budget. The funding sources would be Airport Development Fund and Airport Revenue Bonds. The additional \$245,000 expense budget for training will be budgeted in 2024. This project has a Majority-In-Interest (MII) approval from the airlines on March 28, 2019, in the amount of \$10 million. Per Signatory Lease Operating Agreement, Port Management has the discretion to utilize the MII Management Reserve for the budget increase.

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Financial Analysis and Summary

C801363 Perimeter Access and Gate Enhancements

Project cost for analysis	\$3,400,000
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	\$0.01 in 2025

CIP 800844 Perimeter Intrusion Detection System

Project cost for analysis	\$34,214,000
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	\$0.10 in 2025

Future Revenues and Expenses (Total cost of ownership)

Perimeter Access and Gate Enhancements (PAGE) – (CIP 801363)

Aviation Maintenance will see an increase in Operation and Maintenance Manuals (O&M) cost for Electrical and Electronic systems and lampers to maintain cameras, access controls and lighting (roughly 50 additional labor hours per year). Mechanical systems will see an increase in O&M costs to maintain the gate operating system. Labor hours and parts requirements will depend on Original Equipment manufacturer (OEM) maintenance requirements and the frequency of damage due to vehicles.

Perimeter Intrusion Detection System (PIDS) – (CIP 800844)

Annual recurring maintenance, license, and spare parts costs estimated for the PIDS scope prior to this authorization are not expected to change with this authorization.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

October 25, 2022 – The Commission authorized the executive director to (1) advertise, execute two separate construction contracts, and transfer budget/authorization, as necessary, among the 2023 Airfield Projects; (2) procure long lead items; (3) include a

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Project Labor Agreement for both contracts; (4) authorize use of Port crews for abatement work; (5) increase the budget for the Perimeter Intrusion Detection System Program by \$5,400,000 for a total project budget of \$34,045,000; and (6) increase the budget for the Secured Area Vehicle Checkpoint Project by \$400,000 for a total project budget of \$4,700,000.

May 24, 2022 – The Commission authorized the executive director to increase the Perimeter Intrusion Detection System (PIDS) with Siemens, contract #S-00319688 by \$374,000 to procure hardware, professional and installation services to ensure PIDS redundancy.

December 15, 2020 – The Commission authorized the Executive Director to (1) increase the Perimeter Intrusion Detection System (PIDS) project at Seattle-Tacoma International Airport (SEA) funding by \$18,645,000 for a total estimated project cost of \$28,645,000; (2) expand the PIDS coverage area; (3) execute contracts for required hardware, software, and technical vendor services, license(s) and maintenance; (4) complete design (5) enter into reimbursable agreements with the Federal Aviation Administration (FAA); and (6) execute contract(s) for up to ten years for licenses, service, and maintenance fees estimated not-to-exceed \$4,500,000, which will be paid from the Aviation annual operating budget. The amount requested under this authorization is \$6,625,000 with an estimated total program cost of \$28,645,000.

January 22, 2019 – The Commission authorized \$3,500,000 of a \$10,000,000 CIP to procure and implement a Perimeter Intrusion Detection system with limited coverage scope.