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COMMISSION

AGENDA MEMORANDUM Item No. 8c

ACTION ITEM Date of Meeting January 10, 2023

DATE : December 22, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Randy Krause, Fire Chief

Krista Sadler, Technology Delivery Director

SUBJECT: Fire Station Alerting System (C801328)

Amount of this request: \$710,000

Total estimated project cost: \$710,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to 1) proceed with the Fire Station Alerting System project and 2) execute contract(s) for hardware, software, and implementation services for a total project cost not-to-exceed \$710,000.

EXECUTIVE SUMMARY

This project will replace the antiquated Fire Station alerting system (FSA) used in both Seattle-Tacoma International Airport (SEA) fire stations. This system is the method used by our 911 Dispatch to alert and often awaken firefighters when their services are required immediately using audio tones and flashing lights. The Port's current FSA was implemented over 30 years ago and features have not been updated since. Unlike modern alerting systems, our existing system has very limited configuration capabilities to target alerts to the specific teams that need to respond. Instead, all personnel on all equipment at both stations are alerted and awakened for every alarm.

Equipment newly installed for the alerting system in Fire Station Two will be utilized for the new system. The Fire Station One Continuing Operations Preservation project will build upon the new system with fully constructed dorm zones and communications infrastructure that will support additional benefits.

This planned project is part of the 2023-2027 plan of finance as a \$710,000 CIP. This project will be completed by Information and Communication Technology, Aviation Maintenance, and Port Construction Services.

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JUSTIFICATION

While replacement parts are getting scarce for this very old system, the health and safety benefits for our Fire Department personnel are also significant. Modern systems offer capabilities to configure audio and visual alerts only to the specific firefighters that need to respond to a specific alarm and alerts can be modulated depending on the situation. Currently, Firefighters are awoken six to eight times a night with the strident tones and harsh lighting regardless of whether they need to respond. Following are some specific benefits of the new system.

- (1) Psychological and physical stress reduction from the elimination of unnecessary alerts that trigger transition from sleep, cognition of audible tones, and reactive intensity.
- (2) Critical resources will react at more optimal capacity.
- (3) Prevention of symptoms associated with the loss of sleep that can be experienced by firefighters who currently face unnecessary and harsh awakenings. This can lead to unsafe situations.

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.

DETAILS

Scope of Work

- (1) Procure and implement new system for both SEA Fire Stations and the 911 Dispatch Center
- (2) Installation of individual dorm room audio and visual equipment. The Fire Station One Renovation project will utilize installed equipment when dorm rooms are fully constructed but the benefit of the individualized alerts will be realized with this project.

Schedule

Activity

Commission authorization 2023 Quarter 1

Procurement Complete 2023 Quarter 2

In-use date 2024 Quarter 1

Cost Breakdown This Request Total Project

Equipment, Software, and Vendor Services \$300,000 \$300,000

Port Construction Services \$275,000 \$275,000

Port Labor \$135,000 \$135,000

Total \$710,000 \$710,000

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ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Postpone project 2 years until after related fire station projects are complete.

Cost Implications: \$0

Pros:

(1) Capital dollars are available for other projects.

(2) Avoid costs of interfacing to the current 911 Dispatch system and interface to the planned system replacement scheduled for 2024.

Cons:

(1) Increased risk of FSA system failure due to aging and scarcity of parts.

(2) Postpones health and safety benefits for Firefighters that a new FSA system will provide.

This is not the recommended alternative.

Alternative 2 – Procure and implement a comprehensive FSA system.

Cost Implications: \$710,000

Pros:

(1) Significantly reduce risk of FSA system failure.

(2) Reduces fatigue and stress on Firefighters caused by harsh and unnecessary awakenings.

(3) Promotes improved safety and better performance on the job from rested crews.

Cons:

(1) Implementation of some features and benefits of the new FSA won't occur until new infrastructure improvements are delivered to Fire Station 1.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary Capital Expense Total

COST ESTIMATE

Original estimate \$710,000 \$0 \$710,000

AUTHORIZATION

Previous authorizations \$0 \$0 \$0

Current request for authorization \$710,000 \$0 \$710,000

Total authorizations, including this request \$710,000 \$0 \$710,000

Remaining amount to be authorized \$0 \$0 \$0

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Annual Budget Status and Source of Funds

This project was included in the 2023-2027 capital budget and plan of finance for \$710,000. The project will be funded by the Airport Development Fund or revenue bonds.

Financial Analysis and Summary

Project cost for analysis \$710,000

Business Unit (BU) Airfield Movement Area

Effect on business performance NOI after depreciation will increase due to inclusion of (NOI after depreciation) capital (and operating) costs in airline rate base.

IRR/NPV (if relevant) N/A

CPE Impact Less than \$.01 in 2024

Future Revenues and Expenses (Total cost of ownership)

Annual license and maintenance costs estimated at \$18,000 will be budgeted in the Aviation Maintenance operating budget.

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None

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