



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6g

**ACTION ITEM**

**Date of Meeting** January 28, 2020

**DATE:** January 21, 2020

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

**FROM:** Wendy Reiter, Director of Aviation Security  
Wayne Grotheer, Director Aviation Project Management

**SUBJECT:** Bollard Procurement for Airport Terminal Accessibility and Safety Enhancements (TSE) Phase II (CIP #C800862)

**Estimated contract:** \$2,000,000 - \$3,000,000

**ACTION REQUESTED**

Request commission authorization for the Executive Director to execute a contract to purchase structural bollards for the Terminal Security Enhancements Phase II Project at Seattle-Tacoma International Airport. The contract value for the 443 bollards is estimated between \$2 million and \$3 million.

**EXECUTIVE SUMMARY**

The purchase of the structural bollards is to complete the second phase of the TSE program and is intended to improve passenger safety with the installation of structural bollards along the airport's arrivals and departures curbsides, the courtesy vehicle plaza, and the pedestrian sky bridge entrances in the main garage. The installation of these bollards has been identified as a key component of the overall comprehensive security program at the airport. The project will also complete American with Disabilities Act (ADA) access improvements along the arrivals and departures curbsides and resurface the sidewalks.

By purchasing the bollards, the port hopes to increase competition among suppliers to lower the overall unit price per bollard and hopefully lowers construction cost the overall TSE project. In August 2019, construction bids were opened for this project that were significantly higher than the engineer's estimate. Due to the significant cost increase and the wide range of cost between the bids, the procurement was cancelled. One factor for the high construction bids was linked to the cost of the bollards. By pursuing owner procurement, the port also anticipates improving the overall project schedule since bollards are a long lead item. The project is planned to be redesigned and re-advertised in Q2 2020 with construction to begin in Q3 2020.

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No additional funds are being requested as part of this action; however, a future Commission action will be required to authorize additional funding to complete the project. The additional budget required will not be known until redesign is complete and new estimate developed. The overall project cost increase is also subject to a majority-in-interest (MII) vote of signatory airlines, anticipated to occur in April 2020. Should a negative MII vote occur, the delivery of the bollards, as well as the construction of the project, will be delayed one year per the terms of the Airline Operating Agreement.

### **JUSTIFICATION**

The Phase II of the TSE program is necessary, as it will provide an improved safe environment for the airport passengers, vendors and staff. These improvements also provide ADA compliant access improvements as recommended by the Accessibility Study completed by the Open Doors Organization (ODO). These improvements support the port's goal of making Seattle-Tacoma International Airport the most accessible airport in the nation for people with disabilities.

#### ***Diversity in Contracting***

Project staff worked with the Diversity in Contracting Department and have established an eight percent women- and minority-owned business enterprise (WMBE) aspirational goal for the construction project.

### **DETAILS**

TSE Phase II includes the installation of bollards on the arrivals and departures curbsides and at the entrances to each of the pedestrian skybridges and along the courtesy vehicle plaza in the main garage. Site and structural facility constraints limit the type of crash rated bollards that can be used, and therefore the number of potential vendors who can meet the project requirements.

On July 23, 2019, the project was advertised for construction bids with an engineer's estimate in the amount of \$8,568,103. A total of four bids were received, on August 28, 2019, ranging in price from \$11,660,474 to \$20,697,925. The apparent low bid was withdrawn due to a significant bid error resulting in a new apparent low bid of \$14,654,750 for a total overall project cost of \$24,500,000. Port staff reviewed the bid information and determined that one of the key differences between the engineer's estimate and the bids was a higher cost for the bollards. The review identified that the cost for the 443 vendor supplied bollards was \$3 million, more than double the engineer's estimate value of \$1.3 million. The bid review also clarified that all bidders were sourcing bollards from the same vendor, who likely realized they were sole source and as a result was able to demand a higher overall cost.

With the information from the bid results, the project team determined procuring the structural bollards separately may increase supplier competition resulting in a lower bollard cost. Since the initial bid opening, four vendors have been identified that can provide bollards that meet the project's requirements; two located in the United States and the two new

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vendors located in the United Kingdom. By purchasing the bollards ahead of the major works construction contract, the bollards should be supplied in time to support the anticipated construction schedule.

There are risks with the port purchasing the bollards for installation by the construction contractor and they are discussed below:

- **Delay Claims:** Any delay in the purchasing, production and delivery of the bollards could impact the contractor's construction schedule, putting the port at risk for a delay claim. This risk will be mitigated by purchasing the bollards in advance of the major works construction contract and planning enough time that they could be produced and delivered from the United Kingdom prior to issuing notice to proceed.
- **Damaged Bollards:** The port is responsible for the condition of the bollards until they are delivered to the contractor. The port is mitigating this risk by requiring the contractor to inspect and accept delivery of the bollards when they arrive at a location identified by the contractor. The contractor will be responsible for storage, transportation and installation of the bollards.
- **Design Error:** The port is responsible for ensuring that the bollards meet the project requirements. The port is having the design team prepare the requirements for the bollard procurement, and review the supplier provided shop drawings to ensure they meet the requirements. The shop drawings will also be provided to the contractor to support the installation effort.

Besides the cost of the bollards, two other factors were attributed to the higher than anticipated bid costs: mobilization costs and labor risk associated with operational constraints and an aggressive construction schedule. While the budget increase for the project has yet to be established, the project team has begun additional efforts to try and minimize the overall increase. The port held a design charrette to simplify the sidewalk resurfacing design, along with conducting contractor and supplier information meetings in mid-January to discuss the logistic and labor requirements for the work. Currently port staff estimates the completion of Phase II for an estimated \$17,500,000 to \$19,500,000, for a total project cost in the amount of \$21,000,000 to \$23,000,000 including Phase I.

### ***Scope of Work***

The TSE Phase II project will install bollards and ADA access ramps and resurface sidewalks. The access ramps will be installed at or near to entrances to the Main Terminal from the arrivals and departures curbsides. The number of accessible loading zones will increase from two to twelve on the arrivals curbside, and from three to twelve on the departures curbside. Bollards will also be installed in the main garage at the entrance to each of the six sky bridges, and along the third-floor courtesy vehicle plaza. The entire sidewalk along the arrivals, departures, and courtesy vehicle plaza will be resurfaced improving the customer experience for those facilities.

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**Schedule**

*Activity*

Issue Invitation to Bid – Bollards	2020 Quarter 1
Commission Authorization - Construction	2020 Quarter 1
Execute Purchase Contract – Bollards	2020 Quarter 2
Advertise for Construction Bids	2020 Quarter 2
Receive Bollards	2020 Quarter 3
Start Construction / Issue Notice to Proceed	2020 Quarter 3
Construction Complete	2021 Quarter 3

**Estimated Cost Breakdown**

This Request

Total Project

Design Phase	\$0	\$2,465,000
Construction Phase	\$0	\$13,651,000
Total	\$0	\$16,116,000

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Do not proceed with the project

Cost Implications: \$930,250

Pros:

- (1) No additional capital investment by the port.

Cons:

- (1) Does not increase the safety and security of the occupants of the Main Terminal.
- (2) Does not enhance ADA accessibility at the Main Terminal curbside.
- (3) Does not enhance the aesthetics of the Main Terminal curbside and courtesy vehicle plaza.
- (4) Design costs of \$930,250 would need to be expensed.

This is not the recommended alternative.

**Alternative 2** – Have contractor procure bollards for project

Cost Implications: \$2,500,000-\$3,500,000

Pros:

- (1) Removes risk from port for owner procured material including delay claims, damaged bollards, and design errors.

Cons:

- (1) May result in higher bollard costs.
- (2) Delay the start of construction so that construction would need to be phased around summer arrivals and departures curbside operations. Summer curbside operations would also be significantly impacted by partially completed facilities.

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This is not the recommended alternative.

**Alternative 3** – Execute a contract to procure structural bollards.

Cost Implications: \$2,000,000 - \$3,000,000

Pros:

- (1) Through more competition we anticipate obtaining a lower bollard costs thereby reducing overall project costs
- (2) Construction could start at the end of summer operations supporting the completion of the arrivals and departures curbsides prior to the next summer operation.

Cons:

- (1) Shifts risk to port for owner-procured material including delay claims, damaged bollards, and design error.

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

**FINANCIAL IMPLICATIONS**

***Cost Estimate/Authorization Summary***

	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$9,854,000	\$0	\$9,854,000
Previous changes	\$5,469,546	\$792,454	\$6,262,000
Revised estimate	\$15,323,546	\$792,454	\$16,116,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$15,616,000	\$500,000	\$16,116,000
Current request for authorization	(\$292,454)	\$292,454	0
Total authorizations, including this request	\$15,323,546	\$792,454	\$16,116,000
Remaining amount to be authorized	\$TBD	\$0	\$TBD

Please note that the “\$TBD” remainder of the project is a result of the project being redesigned to help minimize overall project costs. The early overall project cost is currently estimated between \$21,000,000 to \$23,000,000.

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

This project was included in the 2020 – 2024 capital budget and plan of finance with a budget amount of \$15,323,000. The funding source will be the Airport Development Fund and future revenue bonds. This project was approved by the airlines via the April 2019 majority-in-interest vote. However, the anticipated budget increase will require an additional majority-in-interest vote planned for April 2020.

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***Financial Analysis and Summary***

Project cost for analysis	\$16,116,000
Business Unit (BU)	Terminal Building
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	\$TBD in 2020

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

Port staff does not anticipate a significant change in the on-going operation and maintenance costs associated with these improvements since preventative maintenance is not performed on the security and access improvements.

**ATTACHMENTS TO THIS REQUEST**

None

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

May 3, 2019 – The Commission authorized the advertisement and execution of a major works construction contract for the Phase II of the Airport Terminal Safety Enhancements and Security Improvements project.

January 30, 2018 – The Commission authorized Design of Phase II of the Airport Terminal Safety Enhancements and Security Improvements.

October 24, 2017 – The Commission authorized Design and Construction of Phase I of the Airport Terminal Safety Enhancements and Security Improvements.