



**COMMISSION
AGENDA MEMORANDUM**

ACTION ITEM

Item No.	<u>8d</u>
Date of Meeting	<u>April 27, 2021</u>

DATE: April 9, 2021

TO: Stephen P. Metruck, Executive Director

FROM: Tina Soike, Engineering Director
Janice Zahn, Assistant Engineering Director, Construction Services

SUBJECT: Main Terminal Low Voltage System Upgrade (CIP # C800061)

Amount of this request: \$0

Total estimated project cost: \$100,300,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to execute a change order to Contract MC-0301904 Main Terminal Low Voltage System Upgrade – General Contractor/Construction Manager (GC/CM) Preconstruction Services Agreement for the remaining preconstruction services portion of the GC/CM contract with M. A. Mortenson Construction Inc. for work to be performed at Seattle-Tacoma International Airport (SEA). The amount of the change order is \$1,500,000 for a revised total Not-to-Exceed (NTE) contract amount of \$3,000,000.

EXECUTIVE SUMMARY

This change order will increase the NTE amount of MC-0301904 Main Terminal Low Voltage System Upgrade – GC/CM Preconstruction Services Agreement in the amount of \$1,500,000 to be paid to the GC/CM contractor on a time and material basis for actual work performed. The revised contract amount will be \$3,000,000.

This change order request requires no additional budget (zero dollars) because it can be accommodated within the previously authorized budget of \$30,733,000, and it requires no additional time (zero days) because it can be accommodated within the existing contract schedule parameters.

The GC/CM contract was executed with M.A. Mortenson by the Port of Seattle (Port) on August 9, 2019, with an initial Not-to-Exceed amount of \$1,500,000 and an estimated performance period of three (3) years. On August 18, 2020 an Electrical Contractor/Construction Manager (EC/CM) contract was executed with VECA Electric & Technologies (VECA). In November

Meeting Date: April 27, 2021

2020 both Mortenson and VECA mobilized and began providing preconstruction services under this contract. At the time of the initial agreement, it was expected additional funds would be needed to support the preconstruction services being provided by the GC/CM and EC/CM, although the full level of effort and services needed was difficult to fully quantify. Therefore, the Port and Mortenson agreed to begin with the initial Not-to-Exceed (NTE) funding of \$1,500,000 and increase the NTE amount once the full level of effort and costs for the services could be more accurately defined.

Description of Change Order

This change order will increase the NTE amount of MC-0301904 Main Terminal Low Voltage System Upgrade – GC/CM Preconstruction Services Agreement in the amount of \$1,500,000 to be paid to the GC/CM contractor on a time and material basis for actual costs incurred. The revised contract amount will be \$3,000,000.

Background

This project replaces the Main Terminal's low-voltage distribution system at SEA, which serves power to every floor of the main terminal and is at the end of its serviceable lifespan.

Since the last commission action in July 2018, the project has completed 30% design and will complete the 75% design by Q3 2021. Preconstruction services began in August 2019 and will be completed in Q3 2022. This contracting approach will help minimize and mitigate operational disruption during construction. The project replaces nearly 300 separate electrical power panels and installs a new power center. Other preconstruction services include detailed design reviews with recommendations to improve quality and reduce project costs. During construction, Work performed by the GCCM and ECCM will be negotiated directly as part of the maximum allowable construction costs (MACC). All remaining work will be competitively bid by the GCCM with Port oversight. As part of their preconstruction services, the GCCM will work with the Port to develop subcontract bid packages.

JUSTIFICATION

SEA's medium voltage electrical distribution system and power centers have all been renewed and replaced within the last 20 years. The next phase of SEA's renewal and replacement program for the electrical system is the low-voltage system. This infrastructure is critical to airport operations.

Large portions of the existing low-voltage electrical distribution system are over 40 years old and have reached the end of their useful operating life (30 years), raising concerns over their continued reliability. Additionally, much of the existing equipment is not compliant with the current National Electrical Code (NEC). This Main Terminal Low Voltage System Upgrade will correct all the issues in this area and bring the installation up to current standards and compliance with current codes.

Meeting Date: April 27, 2021

The project team has completed the 30% design which included a full physical inventory and condition assessment of all electrical equipment in the main terminal and is scheduled to complete the 75% design in Q3 2021. The major work elements are detailed below.

Normal Power Work

The project includes the replacement of nearly 300 of the 600 electrical panels; these panels are of similar age and condition and are at a similar risk of failure.

Emergency Power Work

The project includes the replacement and code corrections for the emergency power distribution system which is of similar age, condition and risk of failure as the normal building power.

Central Terminal Power Distribution Load Center

The Central Terminal Power Center is nearing the end of its useful life and is the only terminal power center that was not upgraded in circa 2005 and not configured for maximum reliability.

Energy Metering

Branch circuit metering will allow the Port of Seattle to identify and implement future energy saving projects to comply with Washington State Energy Code for 2015 as adopted by Port Resolution 3745.

Regulated Materials

Many of the work locations for this project are in areas where regulated materials are present. Due to the large geographic areas this project covers, asbestos abatement costs will be significant and have been estimated at \$13,000,000.

Diversity in Contracting

Diversity in Contracting is a key component in the selection process for the GC/CM contractor. As part of the evaluation process, GC/CM proposers were required to provide a detail summary of their plan to meet the 8% WMBE goal during the construction phase of the project. During the preconstruction services phase of the GC/CM contract, the Port and Mortenson will develop subcontract work packages, inclusion and outreach plans to meet this goal during construction.

DETAILS***Scope of Work***

This project covers the renewal and replacement of end of life low-voltage electrical distribution switchboards, feeders, panels, and tenant metering in the Main Terminal served by the five Main Terminal Power Distribution Load Centers. The work will be carried out in a manner that minimizes disruptions to normal airport operations.

Meeting Date: April 27, 2021

Specific Scope Items:

- (1) Normal Power renewal, replacement, optimization, and expansion.
- (2) Emergency Power renewal, replacement, optimization, and expansion.
- (3) Replacement of the Central Terminal Power Distribution Load Center.
- (4) Implement branch circuit level energy metering in new work.
- (5) Minimize disruption to normal airport operations during construction.
- (6) Abatement of regulated materials as incident to the overall scope.

Schedule

75% Design Complete	Q3 2021
Design Complete	Q2 2022
Commission construction authorization (MACC)	Q2 2022
Construction start	Q3 2022
Construction complete	Q4 2025

FINANCIAL IMPLICATIONS

There is no additional funding being requested in this memo. Previously authorized funding included the full amount of the revised contract value. Full budget authorization for construction will be requested in Q3 2022.

Cost Estimate/Authorization Summary)

Capital

Expense

Total

COST ESTIMATE			
Original estimate	\$19,640,000	\$1,090,000	\$20,730,000
Previous changes – net	\$67,120,000	\$12,450,000	\$79,570,000
Current change	\$0	\$0	\$0
Revised estimate	\$86,760,000	\$13,540,000	\$100,300,000
AUTHORIZATION			
Previous authorizations	\$30,193,000	\$540,000	\$30,733,000
Current request for authorization	\$0	\$0	\$0
Total authorizations, including this request	\$30,193,000	\$540,000	\$30,733,000
Remaining amount to be authorized	\$56,567,000	\$13,000,000	\$69,567,000

Meeting Date: April 27, 2021

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 - Do not execute the change order and perform remaining preconstruction services within current contract value.

Cost Implications: Reduces available funding by \$1,500,000 for preconstruction services.

Pros:

- (1) Delays or defers Port investment.

Cons:

- (1) Ability to utilize GC/CM's and EC/CM's knowledge and experience eliminated, especially regarding more cost-effective design and construction means and methods.
- (2) Port exposed to increased risk and cost during construction for unforeseen conditions and unplanned impacts during electrical outages during panel replacement.
- (3) Design cost will increase as field work currently performed by GC/CM and EC/CM in support of design will now have to be performed by designer.
- (4) Additional workload will be placed on Av/Maintenance to support access to electrical rooms for design team. Access is currently provided by GC/CM and EC/CM contractors.
- (5) Loss of GC/CM and EC/CM estimating skills and experience with current market conditions reduces Port's ability to effectively manage project costs and budget.
- (6) Ability to coordinate construction with other Port projects is reduced.

This is not the recommended alternative

Alternative 2 – Execute the change order and have the GC/CM and EC/CM perform all preconstruction services.

Cost Implications: \$1,500,000

Pros:

- (1) Increased ability to utilize GC/CM's and EC/CM's knowledge and experience to implement a more cost-effective design.
- (2) Risk to Port from unforeseen conditions and unplanned impacts during electrical outages significantly reduced.
- (3) Design support efforts performed by GC/CM and EC/CM in support of design reduce design cost while increasing GC/CM and EC/CM knowledge of the project.
- (4) Significantly reduces need for AV/Maintenance staff to support design efforts allowing AV/Maintenance to focus on core functions.
- (5) Retains GC/CM and EC/CM estimating skills and experience with current market conditions and increases Port's ability to effectively manage project costs and budget.
- (6) Knowledge developed by GC/CM and EC/CM contractors over the past year is retained by project team.

Meeting Date: April 27, 2021

Cons:

- (1) Knowledge developed by GC/CM and EC/CM contractors could be lost if current GC/CM and EC/CM staff providing preconstruction services are able to stay through the remaining preconstruction period.

This is the recommended alternative.

ATTACHMENTS

None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

July 10, 2018 – The Commission authorized an additional \$22,586,000 for a revised authorized amount of \$30,733,000. 1) Increase project scope and budget to \$100,300,000; 2) contract for design services; 3) advertise and execute General Contractor, Construction Manager construction contract and pre-construction services; 4) Negotiate and execute project labor agreement; 5) utilize Port crews for preconstruction activities and abatement.

June 12, 2018 - The Commission was briefed on upcoming July 10, 2018 authorize request.

August 5, 2014 - The Commission approved project consolidation and design.

June 28, 2007 - The Commission approved design and construction of a project which is much more limited scope and budget and is now included in the larger current effort.