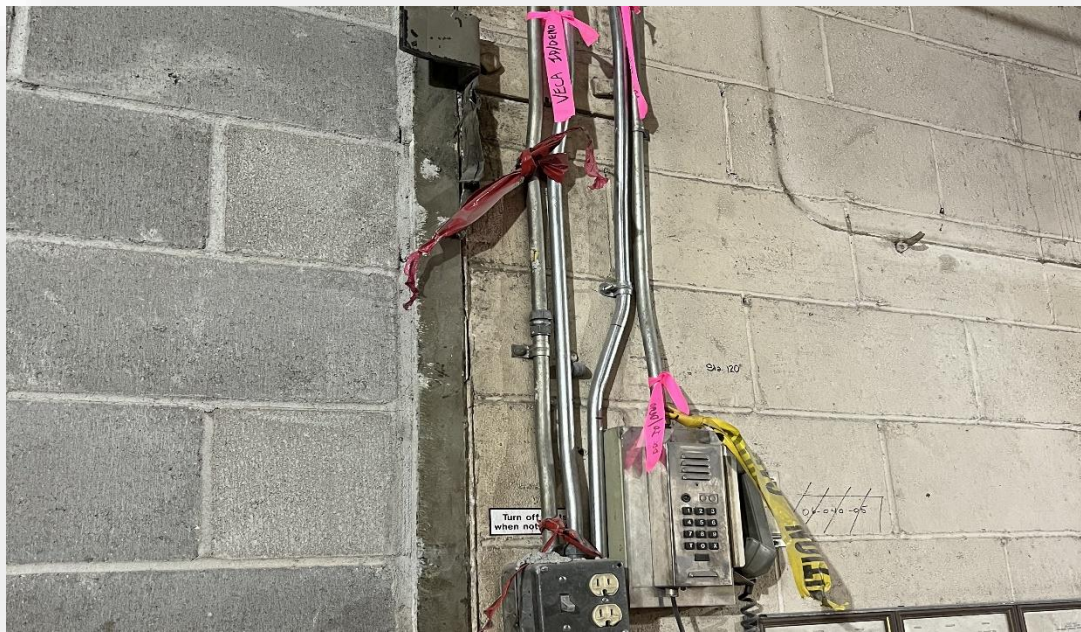


INTERNAL AUDIT REPORT

Operational Audit – Capital
Main Terminal Low Voltage System Upgrade Project (Pre-Construction)



Source: Port of Seattle

January 2019 – August 2023
Issue Date: August 24, 2023
Report No. 2023-10

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Executive Summary

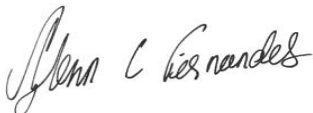
Internal Audit (IA) completed an audit of the Main Terminal Low Voltage System Upgrade Project (Pre-Construction) for the period January 2019 through August 2023. The audit was performed to assure the quality of the Port of Seattle's (Port) monitoring of the Project, to assess if it was meeting project management standards, and to determine if pay applications were properly approved, supported, and reasonable.

The Port utilized the General Contractor/Construction Manager (GC/CM) delivery method for the Project. In addition to this audit, Washington state law (RCW 30.10.385) requires an independent audit be conducted to confirm the proper accrual of costs for any alternatively selected subcontractors.

A GC/CM contract for the pre-construction portion of the Main Terminal Low Voltage System Upgrade Project (Project) was executed on August 9, 2019, by the Port with M.A. Mortenson (Mortenson). The initial Not-to-Exceed (NTE) amount was \$1,500,000 and pre-construction had an estimated performance period of three years. At the time of the initial agreement, design was less than 30% complete and it was expected that additional funds would be needed to support the pre-construction services being provided by the GC/CM and Electrical Contractor/Construction Manager (EC/CM). The Port and Mortenson agreed to begin with the initial 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. In August of 2021, an additional \$1,500,000 was authorized through a Change Order to fund the remainder of the Pre-Construction services. The total budget for pre-construction was \$3,000,000. The Pre-Construction portion of the project was completed in November 2022.

Our audit focused on a review of pay applications and compliance with Contract requirements. Our work identified an opportunity where internal controls could be enhanced or developed. This opportunity is listed below and discussed in more detail beginning on page six of this report.

1. **(Medium):** We identified opportunities for Engineering Construction Management to strengthen controls during the pay application review process. Additionally, supporting documentation to show compliance with the Port's Standard Operating Procedure 40.08, State law and the Contract, was not always maintained.



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Responsible Management Team

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Background

A GC/CM pre-construction portion of the Contract was executed on August 9, 2019, between the Port and M.A. Mortenson (Mortenson). The initial Not-to-Exceed amount was \$1,500,000 and pre-construction had an estimated performance period of three years. On August 18, 2020, an EC/CM contract was executed between Mortenson and VECA Electric & Technologies (VECA), and in November 2020, Mortenson and VECA mobilized and began providing preconstruction services. At the time of the initial agreement, design was 30% complete and it was expected that additional funds would be needed to support the pre-construction 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 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. In August of 2021, an additional \$1,500,000 was authorized through a Change Order to fund the remainder of the Pre-Construction services. The total budget for pre-construction was \$3,000,000.

The Project replaces Main Terminal's low-voltage distribution system at Seattle-Tacoma International Airport (SEA), which serves power to every floor of the main terminal and is at the end of its serviceable lifespan. The Project replaces nearly 300 separate electrical power panels and installs a new power center. Pre-construction services include detailed design reviews with recommendations to improve quality and reduce project costs. During construction, work performed by the GC/CM and EC/CM will be negotiated directly as part of the maximum allowable construction costs (MACC). All remaining work is competitively bid by the GC/CM with Port oversight. The total budget for the project is \$119,557,000. Construction is estimated to be completed in the second quarter of 2026.

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 are past 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. Specific scope items include:

- (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.

The construction contract was executed with Mortenson and the Port in November 2022 and will be completed in early 2026. The total cost of the Project is budgeted at about \$120 million, with a 7% Women-Owned and Minority-Owned Business Enterprise aspirational goal.

Audit Scope and Methodology

We conducted the engagement in accordance with Generally Accepted Government Auditing Standards and the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and conduct an engagement to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our engagement objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our engagement objectives.

In some instances, we used judgmental sampling methods to determine the samples selected for our audit test work. In those cases, the results of the work cannot be projected to the population as a whole.

The period audited was January 2019 through August 2023 and included the following procedures:

Pay Applications

- Obtained an understanding of management's review and approval process of pay applications.
- Reviewed supporting documentation for all pay applications, including receipts and timesheets.
- Verified labor hours were billed in compliance with contract requirements.
- Determined if receipts accurately supported pay applications and complied with contract requirements.
- Reviewed the use of the contingency and the other stipulated costs budgets to determine if expenses aligned with contract provisions.

Change Orders

- Obtained an understanding of management's Change Order review process.
- Verified approvals by required personnel.
- Confirmed the approved change order amounts tied to the Change Order Log.
- Reviewed Change Order supporting documentation for reasonableness and compliance with contract requirements.

Key Personnel Change

- Obtained an understanding of management's review process over key personnel changes.
- Reviewed key personnel changes occurring during the pre-construction phase.
- Obtained and reviewed supporting documentation for such changes.

Schedule of Findings and Recommendations

1) Rating: Medium

We identified opportunities for Engineering Construction Management to strengthen controls during the pay application review process. Additionally, supporting documentation to show compliance with the Port's Standard Operating Procedure 40.08, State law, and the Contract, was not always maintained.

We reviewed all pre-construction pay applications for compliance with the Port's Standard Operating Procedure (SOP) 40.08, the Washington State Auditor's Budgeting, Accounting and Reporting System (BARS) GAAP Manual 3.1.4.10/RCW 43.09.200, and the Contract.

SOP 40.08 states pay application oversight/administrative controls as "*CPO Contract Administration confirms required contract compliance documentation has been provided by the Contractor.*"

BARS GAAP Manual 3.1.4.10 Original Supporting Documentation requires: "*Local governments are responsible for obtaining and ensuring the integrity and retention of the original vouchers, receipts, and other documents – regardless of physical form – necessary to isolate and prove the validity of every transaction relating to the receipt, use and disposition of public funds or property (RCW 43.09.200). This requirement extends to all accounting entries, including interfund transactions or allocations of overhead costs.*"

Contract requirements were not properly followed, as outlined below:

Contract Section	Contract Language	Issue
III.B.1.	The hourly rates included in Attachment B (Preconstruction Work Plan) cover all of the GC/CM's direct and indirect costs or expenses arising out of or related to the performance of the Preconstructions Services authorized in this Agreement, including but not limited to: (in part) l) local travel and parking; m) Security Badging Costs; q) Mail and delivery services.	Our review found the following items were reimbursed by the Port: l) Parking expenses were overbilled by \$674.00. m) Security badging costs were overbilled by \$467.76. q) Mail and delivery services were overbilled by \$81.14.
III.B.2.	The GC/CM and any other subcontractors working on Preconstruction Services shall provide detailed time sheets for each day worked that show (a) the names of individuals that worked on the Project, (b) the hours each individual worked, and (c) the tasks each individual performed. For every day that an individual bills time to the Project, time sheets for that individual must show his/her billable and non-billable time for that day.	The GC/CM did not submit timesheets as part of the supporting documentation for Pay Applications. Instead, a total number of hours worked for each contractor was submitted on the invoice. We obtained timesheets from the GC/CM and compared the number of hours per the timesheets to the number of hours paid per the invoices. We determined one contractor overbilled by 2 hours, resulting in an overpayment of \$390.00.
III.B.3.	The Port will not compensate GC/CM for any exempt employee for more than; a) Eight (8) hours per day or forty (40) hours per week for employees on a "regular" five-day work schedule; b) Ten (10) hours per day or forty (40) hours per week for employees on a demonstrated four-day	Our review of timesheets obtained from the GC/CM found eight instances in which the Port paid more than 40 hours in a week for exempt employees. This resulted in an overpayment of \$6,997.00.

	work "alternative" work schedule.	
X.	GC/CM agrees not to replace or remove any individual who is satisfactory to the Port without the Port's prior written consent.	The Project Manager was replaced in September 2020. The Construction Management team for the Project stated they reviewed and approved the Key Personnel change, however, the approval was not documented.
Attachment C	The Port may require additional tasks be performed by the GC/CM related to this contract. A task is established to set up a contingency for those services. GC/CM shall not use or bill against this task without specific written direction from the Port. Such direction will be sent either via letter or email from the Engineering Construction Manager. The specific scope of work, deliverables, level of effort, and not to exceed value will be established in the letter or email.	The GC/CM requested to use the Contingency Budget, however, the GC/CM's purpose for using the Contingency was to complete pre-construction activities, not perform additional tasks, as outlined in the Contract. Additionally, we were unable to obtain the Port's approval for using the Contingency Budget. The Port's Construction Management team for this Project stated there were discussions regarding the approval to use these funds, however, it was not documented. A total of \$47,817.00 was charged to Contingency Budget on the final Pay Application.
Change Order 1	Specialized tools and safety gear as required by the EC/CM as well as parking for contractors who are on site occasionally will come from the Stipulated Other Costs Budget.	The GC/CM requested via e-mail to use the Stipulated Other Costs Budget, however, the purposes for using the Stipulated Other Costs Budget was to complete pre-construction activities, not for specialized tools, safety gear and parking, as required in the Change Order. Additionally, we were unable to obtain the Port's approval for using the Stipulated Other Costs Budget. The Port's Construction Management team for this Project stated there were discussions regarding the approval to use these funds, however, it was not documented. A total of \$37,585.00 was charged to Stipulated Other Costs Budget on the final Pay Application.

Recommendations:

Construction Management should:

1. Review overpayments identified in the audit and collect overpayment from the GC/CM, as appropriate.
2. Assure compliance with SOP 40.08, BARS GAAP Manual 3.1.4.10/RCW 43.09.200, and the Contract, by requiring the GC/CM to submit all required documentation to support transactions. For example, timesheets should be obtained as supporting documentation for the Pay Applications.
3. Maintain supporting documentation of Port management approval for all key personnel changes. For any staff change including key or supplemental staff, there should be support provided for a negotiated agreed upon rate.

Management Response/Action Plan:

1. Engineering Construction Management will review the identified overpayments and collect reimbursement as appropriate.
2. Engineering Construction Management, in collaboration with Central Procurement Office (CPO), and AV/Waterfront Project Management, will review documentation requirements for GC/CM preconstruction services contracts and ensure all SOPs contain GC/CM specific procedures.
3. Engineering Construction Management agrees with the recommendation and will continue to train staff to improve compliance with these existing requirements.

DUE DATE: 12/31/2023

Appendix A: Risk Ratings

Findings identified during the audit are assigned a risk rating, as outlined in the table below. Only one of the criteria needs to be met for a finding to be rated High, Medium, or Low. Findings rated Low will be evaluated and may or may not be reflected in the final report.

Rating	Financial Stewardship	Internal Controls	Compliance	Public	Commission/ Management
High	Significant	Missing or not followed	Non-compliance with Laws, Port Policies, Contracts	High probability for external audit issues and / or negative public perception	Requires immediate attention
Medium	Moderate	Partial controls Not functioning effectively	Partial compliance with Laws, Port Policies Contracts	Moderate probability for external audit issues and / or negative public perception	Requires attention
Low	Minimal	Functioning as intended but could be enhanced	Mostly complies with Laws, Port Policies, Contracts	Low probability for external audit issues and/or negative public perception	Does not require immediate attention