

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**

**Item No.** 5f

**Date of Meeting** May 3, 2011

**DATE:** April 26, 2011

**TO:** Tay Yoshitani, Chief Executive Officer

**FROM:** David Soike, Director, Aviation Facilities and Capital Program  
Wayne Grotheer, Director Aviation Project Management

**SUBJECT:** Communications Cabling Additions Project (CIP# C800331)

**This Request:** \$377,000

**Source of Funds:** Airport Development Fund

**Total Project Budget:** \$377,000

**Jobs Created:** 2

**Sales Tax Paid:** \$9,000

**ACTION REQUESTED:**

Request Commission authorization for the Chief Executive Officer to authorize Port Construction Services (PCS) to self-perform the work in conjunction with small works contractors and issue small works contracts in support of the Communications Cabling Additions Project at Seattle-Tacoma International Airport (Airport). This authorization is for \$377,000 of a total estimated project cost of \$377,000.

**SYNOPSIS:**

This memorandum requests authorization for PCS to self-perform the work and use small works contractors to perform the work required to add communications cabling in the Main Terminal and Central Terminal. This is in support of the continued demand for communications infrastructure. This project will provide basic infrastructure to support future tenant future needs for network and voice connectivity and will provide a reliable communication cable pathway to ensure Port and Tenant operations.

**BACKGROUND:**

Rapid growth in the use of both fiber and copper systems related to baggage monitoring and security cameras has occurred over the last five years. In addition, the communications fiber and copper cabling capacity has been used up by airlines, capital projects, and airport tenants. There is little or no remaining available capacity in critical areas. This poses a limitation on continued

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growth for tenants and the Airport. It has also created potential single point failures for critical systems and networks due to the inability to provide redundant pathways.

### **PROJECT DESCRIPTION/SCOPE OF WORK:**

#### ***Project Objectives:***

This project will provide additional communication cabling in the Central Terminal and the Main Terminal in order to support continued demand for communications infrastructure. This project will provide basic infrastructure to support future tenant needs for network and voice connectivity, and will provide a timely response to tenant and airline needs.

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

The project will provide additional communication cabling in the Central Terminal and the Main Terminal. The scope will include standard tenant demarcation packages that improve the existing fiber and copper cabling capacity in areas that are in short supply. The new cabling will follow these Cable Infrastructure Backbone pathways: MDR-1 to TC-MT-1-BR; MDR-1 to TC-MT-2-BR; MDR-1 to TC-MT-3-BR; MDR-1 to TC-MT-4-BR; MDR-2 to TC-RN; TC2N and TCBN; MDR-2 to TC-RS and TC2S.

### **STRATEGIC OBJECTIVES:**

The Airport needs to stay ahead of the demand for cable. A demand driven allocation of cable pathway will not work due to material lead time and installation. The Airport must stay ahead of the need for cable pathway, and avoid causing delays while the projects wait for new cable to be installed. Tenants cannot be allowed to install long stretches of fiber and copper cabling specific to their projects as this would result in communication rooms filled with cable and clogged pathways. By providing cable, the Airport has managed the resources that provide a well-structured and organized cable-system-plant.

### **FINANCIAL IMPLICATIONS:**

#### **Budget/Authorization Summary**

Original Budget	\$ 377,000
Budget Increase	\$ 0
Budget Transfers	\$ 0
Revised Budget	\$ 377,000
Previous Authorizations	\$ 0
Current request for authorization	\$ 377,000
Total Authorizations, including this request	\$ 377,000
Remaining budget to be authorized	\$0

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<b><u>Project Cost Breakdown</u></b>	<b><u>This Request</u></b>	<b><u>Total Project</u></b>
Construction costs (PCS self perform; small works contractors)	\$245,000	\$245,000
Sales tax	\$9,000	\$9,000
In-house design – as built only	\$11,000	\$11,000
Aviation PMG and other soft costs	\$90,000	\$90,000
Reserve Funds	\$22,000	\$22,000
Total	\$377,000	\$377,000

### **Source of Funds:**

This project, CIP # C800331, is included in the 2011 – 2015 capital budget and plan of finance as a committed project. The funding source for this project will be the Airport Development Fund.

### **Financial Analysis Summary**

CIP Category	Enhancement
Project Type	New
Risk adjusted Discount Rate	N/A
Key risk factors	N/A
Project cost for analysis	\$377,000
Business Unit (BU)	Terminal
Effect on Business Performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	Less than \$0.01 in 2012, but no change compared to business plan forecast as this project was included.

As a cost recovery project, traditional financial analysis measures, such as net present value (NPV) and internal rate of return (IRR), are not meaningful.

### **ECONOMIC IMPACTS:**

This project proposes a common pathway for all tenants and effectively uses the resources and hence the project cost is reduced. This reduces the cost and time of tenant and Airport improvements.

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### **ENVIRONMENTAL SUSTAINABILITY/COMMUNITY BENEFITS:**

Use of a common pathway reduces the resources needed and hence creates a sustainable environment. The cost of the project is reduced and the savings can be used for other purposes.

### **TRIPLE BOTTOM LINE SUMMARY:**

This project helps the environment by having a common pathway and thereby reducing the amount of material used if each tenant builds their own pathway. This approach reduces the cost of capital investment needed by tenants and thus supports the tenants, ultimately helping passengers and the community.

### **PROJECT SCHEDULE:**

The project cabling work is expected to be complete in March 2012.

### **ALTERNATIVES CONSIDERED/RECOMMENDED ACTION:**

Alternative 1: Systematically add additional communications cabling to key areas of the Airport to ensure that the network backbone remains in robust condition. This project will eliminate the need to shut down the baggage system on a repetitive basis in order to add small amounts of cable, which fill the cable trays inefficiently. By auditing the existing and anticipated need throughout the airport on a regular basis, we can eliminate wasted cable tray usage. This is the recommended alternative.

Alternative 2: Patch and repair as needed, running additional conduit or open tray and interrupt baggage systems throughout the Airport. This is not the recommended alternative.

Alternative 3: Do nothing and risk failure due to choke points and inability to provide network connectivity to our customers. This is not the recommended alternative.

### **PREVIOUS COMMISSION ACTION:**

None.