



COMMISSION
AGENDA MEMORANDUM

Item No. 8d

ACTION ITEM

Date of Meeting September 12, 2023

DATE: August 31, 2023
TO: Stephen P. Metruck, Executive Director
FROM: Keri Stephens, Director AV Facilities & Capital Programs
Eileen Francisco, Director Aviation Project Management
SUBJECT: Telecommunication Meet Me Room Fiber Construction

Amount of this request: \$ 7,997,000
Total estimated project cost: \$21,700,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to (1) advertise, award, and execute a major works construction contract for the Telecommunication Meet Me Room Fiber project at Seattle-Tacoma International Airport (Airport), and (2) use Port of Seattle Crews for construction activities. The amount of this request is \$7,997,000 which will fully authorize the estimated project budget of \$21,700,000.

EXECUTIVE SUMMARY

The Telecommunication Meet Me Room (MMR) will establish a new secure connection point for the telecommunication entering and exiting Airport. The work included in this authorization will be installing fiber optic cables between the Airport's Communication Infrastructure Backbone System (CIBS) and the MMR facility. These fibers will allow connections from service providers in the MMR to be connected to the Main Distribution Rooms (MDR) and distributed throughout the Airport to the end users and systems.

JUSTIFICATION

The MMR building and new connection will serve as the gateway for the Airport to communicate to the outside world with internet, telephone, and data systems. Some of the data systems include airline check-in system, baggage handling systems, departure control system, and mobile applications.

The project will construct the facility on the south end of the airport that is near existing connection points for our service providers and the Airport infrastructure. The building will have secure spaces for the Port and Service Providers to house their equipment. A network of high-speed fiber will connect the service providers' equipment to the Port equipment and from there

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be transferred onto the Port’s existing Communication Infrastructure Backbone System (CIBS). This project will provide a space for the legacy service provider to relocate their equipment to a more serviceable and secure area outside of the Airport’s baggage operation area and to negotiate a new lease agreement.

The project will relocate and upgrade the legacy connections from a copper to high-speed fiber and install two pathways to connect the MMR to the Main Distribution Rooms (MDR). The two pathways will provide data redundancy and resiliency to the existing connections. The pathways established will have spare capacity for future fiber expansions as the data needs grow at the Airport.

Diversity in Contracting

The project staff, in coordination with the Diversity in Contracting Department, have set a 10% woman and minority business enterprise (WMBE) goal for the MMR - Fiber project.

DETAILS

The work detailed in this memo is to install the fiber connections between the Airport three MDRs and the MMR building. This work will also include connection between the Service provider space and the Airport secured space.

Scope of Work

The Telecommunication Meet Me Room Fiber project will consist of:

- (1) Installation of cable trays, conduit, and supports to create a primary and secondary pathway between the Main Distribution Rooms and the MMR facility for fiber optic cables.
- (2) Installation of fiber optic cable between the MDR 1, 2 and 3 to the MMR building.
- (3) Installation of MMR Building internal backbone to connect the Service Providers to the Airport Infrastructure.
- (4) Install passive and active equipment needed to transport services from the providers to the airport end users.

Schedule

Activity

Commission construction authorization	2023 Quarter 3
Advertisement	2024 Quarter 1
Construction start	2024 Quarter 2
In-use date	2025 Quarter 4

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Cost Breakdown	This Request	Total Project
Design	\$0	\$4,173,000
Construction	\$7,997,000	\$17,527,000
Total	\$7,997,000	\$21,700,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Do not proceed with project.

Cost Implications: Approximately \$3,500,000 would need to be expensed.

Pros:

- (1) No capital Investment.

Cons:

- (1) New facility would not be connected to the Airport data infrastructure.
- (2) Legacy connections would not be relocated and a future project would be needed to relocate those connections.
- (3) Additional scope, schedule, and cost would be required by future projects for temporary connections. This could result in significant disruption of service.
- (4) No new connections available for new services.
- (5) No new fiber connections that are connected to the Airport infrastructure.

This is not the recommended alternative.

Alternative 2 – Construct the MMR Building and install both fiber pathways (Primary and Secondary).

Cost Implications: \$21,349,000

Pros:

- (1) Construct a secure building for telecommunication interconnections.
- (2) Relocate legacy connections to a permanent location.
- (3) Provides space for new service providers to access the Airport infrastructure.
- (4) Creates leverage for a lease agreement with the legacy provider.
- (5) Upgrades copper connections to high-speed fiber.
- (6) Installs a secondary pathway to connect the MMR to each MDR. This will add additional connections and provide data redundancy.
- (7) Installs a new tray pathway for future fiber expansions.

Cons:

- (1) Capital Investment.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$5,100,000	\$50,000	\$5,150,000
Previous changes	\$16,249,000	\$301,000	\$16,550,000
Revised estimate	\$21,349,000	\$351,000	\$21,700,000
AUTHORIZATION			
Previous authorizations	\$13,352,000	\$351,000	\$13,703,000
Current request for authorization	\$7,997,000	\$0	\$7,997,000
Total authorizations, including this request	\$21,349,000	\$351,000	\$21,700,000
Remaining amount to be authorized	\$0		\$0

Annual Budget Status and Source of Funds

Telecommunication Meet Me Room Fiber Construction #C800762 is included in the 2023-2027 capital budget and plan of finance with a budget of \$21,349,000. The funding sources will be the Airport Development Fund and future revenue bonds. This project was presented to the airlines at an Airport Airlines Affairs Committee and the Majority in Interest (MII) ballot was approved on January 18, 2022.

Financial Analysis and Summary

Project cost for analysis	\$21,700,000
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	\$0.06 in 2025

Future Revenues and Expenses (Total cost of ownership)

This MMR facility will be monitored 24/7 with backup power. The maintenance cost is estimated at \$10,000 year.

ADDITIONAL BACKGROUND

The MMR project has been in discussion and design with the initial commission action in 2017. The scope at that time only included connection to one of the main distribution rooms (MDR-3) with new connections being established through this pathway and for legacy connections to be moved later.

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The project team underwent a detailed review of the various locations available to house legacy and future connections. The location at the south end of the airport is near existing connection points for both the Airport and Service Providers. The installation of fiber connections were limited at this stage to the minimum needed for basic functionality. The addition fiber connections for growth and to connect to additional MDRs were being considered for inclusion in other telecommunication work.

In July 2019, the project team advertised a design build package that included the construction of the building and the connection to the existing Airport infrastructure. That bid resulted in one bid with a cost greater than 35% over the engineers estimate. The bid was reviewed, with some line items removed. While the team began the process of returning to commission for additional funding when the project was put on hold and the deferred project list during the COVID-19 workplace disruption.

In September 2021 the project efforts were restarted, and scope increased to be fully functional by including the fiber required to connect to each MDR (3 in total), sufficient circuits to migrate the legacy connections, and to establish the connection infrastructure within the MMR facility for future growth from existing or new suppliers. Through the restarted efforts the secondary leg was identified and included to improve the Airport's data redundancy.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

September 13, 2022 – The Commission authorized \$2,000,000 and execute a design build contract.

February 8, 2022 – The Commission authorized \$7,725,000 for design and construction of the MMR Building and authorized design of the MMR Fiber work project. Commission authorization of the construction of the MMR fiber will be a future request.

September 26, 2017 – The Commission authorized \$3,978,000 for design and construction.