



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8h

ACTION ITEM

Date of Meeting April 12, 2022

DATE: March 21, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Eileen Francisco, Interim Director, Aviation Facilities and Capital Programs
Wayne Grotheer, Director, Aviation Project Management

SUBJECT: Airport Terminal Solid Waste Project (CIP #800945)

Amount of this request: \$10,576,000

Total estimated project cost: \$12,576,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to: (1) increase the project budget for the Airport Terminal Solid Waste project in the amount of \$6,176,000; (2) advertise and award a major public works contract for the Airport's Terminal Solid Waste Project; and (3) use Port crews and small works contracts for construction support. The total estimated cost of this project is \$12,576,000.

EXECUTIVE SUMMARY

Solid Waste throughput and capacity are essential for Airport operations, passenger comfort, worker safety, and overall sanitation. The current solid waste infrastructure is at capacity and needs to be expanded to meet future demands.

This request is for project construction authorization to build an additional 2,400 square feet representing a 250 percent increase in dedicated refuse collection space and associated utilities at the North and South Ramp areas of the Central Terminal. In addition, the project will install sanitation stations at waste collection areas across the Airport to address regulatory findings. This project directly supports the Airport's Environmental Landfill Diversion Strategy.

The original project budget set before the start of project design was \$6,400,000. The new budget estimate is \$12,576,000, an increase of \$6,176,000. This budget increase includes material cost increases (primarily steel and concrete), changes in the building code, unprecedented escalation, required structural and utility upgrades, and associated soft costs necessary to accommodate the project.

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JUSTIFICATION

This action ensures adequate solid waste infrastructure is in place to meet operational, passenger comfort, pest control and worker safety needs. Solid waste generation is directly proportional to the number of passengers utilizing the Airport and the Airport's Dining and Retail services. Pre-pandemic terminal solid waste generation (2010 to 2019) grew by 45 percent from 5,500 to 8,000 tons annually. The current facilities are at capacity and require attention. The project requirements are based on the Airport's Solid Waste Management Plan and the 2016 Solid Waste Growth Forecast and Capacity Study.

The Central Terminal core solid waste refuse collection and processing areas were constructed in 2003. The space provided two-stream operations for garbage and recycling only. Composting operations began in 2006 and are handled by movable bins. The limited space in the current facility limits the ability for operational solutions to manage solid waste levels, which results in overflow of solid waste and unsanitary conditions. Overflowing waste is often blown onto the ramp creating foreign object debris, a serious safety hazard to aircraft engines. Additionally, when solid waste compactors are full tenants are more likely to incorrectly throw waste in other containers, contaminating them and eliminating their ability to be properly recycled. This project will build the required additional space and infrastructure to meet future demands for solid waste, including recycling and composting, while remaining compliant with federal code and sanitation guidelines.

This project directly supports the Port's Century Agenda goal to be the greenest and most energy efficient Port in North America by expanding compost and recycling capacity, which enables the airport to meet its solid waste diversion goals. Diverting waste from the Cedar Hills Regional landfill reduces greenhouse gas emissions and reduces airport costs to dispose of solid waste. Expanding solid waste capacity through system changes and expanded capacity containers reduces the total number of vehicle trips required from the Airport to Solid Waste processing facilities which reduces vehicular traffic and the Port's overall carbon footprint.

Diversity in Contracting

The Women and Minority Business Enterprise (WMBE) construction goal is set at 12%. The Design Consultant WMBE commitment is 20% and is achieving a participation rate of 33%.

DETAILS

The Terminal Solid Waste Project is essential work to right-size the facility infrastructure to accommodate the growth in the Airport and subsequent increase in solid waste volumes. The project accommodates passenger and terminal growth through 2036, aligns with Century Agenda and Environmental diversion goals and satisfies numerous regulatory requirements.

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Scope of Work

The Terminal Solid Waste project will construct 2,400 square feet of dedicated refuse collection space and associated utilities at the North and South Ramp areas of the Central Terminal. The project will install sanitation stations at waste collection areas across the Airport and make repairs to the current Central Terminal collection areas to improve drainage, general sanitation, and worker safety.

Schedule

The initial design strategy for this project was to utilize an existing Indefinite Delivery Indefinite Quantity (IDIQ) professional services contract. Due to the complex nature of the project’s multiple locations and timeline requirements, design fee proposals from several existing on-call design consultants exceeded expected costs and the limits of the IDIQ contract’s available capacity. The project returned to Commission in April 2020 for authority to procure a project specific contract. That action was expected to take 9 months. Further refinements to the schedule added an additional 3 months and included coordination with adjacent projects on timing of work and extensive phasing plans to mitigate construction impacts of the project.

Activity

Construction start	2023 Quarter 1
In-use date	2023 Quarter 4

Cost Breakdown

	This Request	Total Project
Design	\$0	\$2,000,000
Construction	\$10,576,000	\$10,576,000
Total	\$10,576,000	\$12,576,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Construct Central Terminal North refuse area only at cost of \$6,000,000. This alternative provides for a 1600 square foot purpose-built facility to dispose of refuse from the CT North and Concourses C & D. Additional sanitation stations are not included in this option.

Cost Implications: \$6,000,000

Pros:

- (1) Design within current budget.
- (2) No major gate impacts.
- (3) Construction can start as early as Fall 2022.

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Cons:

- (1) Does not meet the forecasted waste stream need of the South-Central Terminal or Concourses A and B.
- (2) Sanitary concerns and regulatory compliance issues with the Food and Drug Administration.

This is not the recommended alternative.

Alternative 2 – Fully fund the current requirement.

Cost Implications: \$12,576,000

Pros:

- (1) Provides capacity to meet the projected 15-year Solid Waste volumes; provides overflow capacity/flexibility to mitigate increased peak volumes, missed waste pickups, daily haul downtime and equipment breakdowns.
- (2) Allows Airport to meet environmental sustainability waste diversion goal through increased recycling and composting throughput capability.
- (3) Improves Airport refuse area sanitation conditions.

Cons:

- (1) Most expensive option.
- (2) Requires Gate B1 to be closed for approximately 7 ½ months.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$6,200,000	\$200,000	\$6,400,000
Current change	\$6,176,000	\$0	\$6,176,000
Revised estimate	\$12,376,000	\$200,000	\$12,576,000
AUTHORIZATION			
Previous authorizations	\$1,950,000	\$50,000	\$2,000,000
Current request for authorization	\$10,426,000	\$150,000	\$10,576,000
Total authorizations, including this request	\$12,376,000	\$200,000	\$12,576,000
Remaining amount to be authorized	\$0	\$0	\$0

Annual Budget Status and Source of Funds

This project, CIP C800945, was included in the 2022-2026 capital budget and plan of finance with a budget of \$6,200,000. A budget increase of \$6,176,000 was transferred from the Aeronautical Reserve CIP (C800753) resulting in zero net change to the Aviation capital budget.

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The \$200,000 of expense is to cover required tenant equipment relocation and be in the operating budget. The funding source will be the Airport Development Fund (ADF) and future revenue bonds.

Financial Analysis and Summary

Project cost for analysis	\$12,376,000
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	\$.03 in 2025

Future Revenues and Expenses (Total cost of ownership)

The recommended solution is expected to yield a 10-year cost avoidance of \$9,600,000 to the solid waste program. Avoidance is based on reduced tipping fees and costs to mitigate waste overages. Additional compactor equipment operations and maintenance costs will be \$45,000 annually.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

April 14, 2020 – The Commission authorized the Executive Director to advertise and execute a project specific design contract. Staff anticipated a project cost increase.

October 8, 2019 – The Commission authorized the Executive Director to design and prepare construction documents for Terminals Solid Waste Project. At that time the total estimated project cost was \$6,400,000.