

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 6b

ACTION ITEM

Date of Meeting August 14, 2012

DATE: July 27, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: Elizabeth Leavitt, Director, Aviation Planning & Environmental
Dave Tomber, Aviation Planning Program Manager

SUBJECT: Airport Sustainability Master Plan

Amount of This Request: \$6.0 million **Source of Funds:** Airport Development Fund

Est. Total Project Cost: \$6.0 million **Est. Jobs Created:** N/A

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to: (1) approve the scope and budget for the creation of an airport sustainability master plan (SMP) at Seattle-Tacoma International Airport, and (2) advertise and execute a contract for consulting services for the Airport SMP, with a total estimated value of \$6.0 million.

SYNOPSIS:

The Airport SMP covers strategic planning needs related to coordinating long-term development of the Airport, and meeting the Commission's Century Agenda goals. The Airport is due to update its Master Plan, and with the increasing emphasis now being placed on sustainability, this update will be done as a sustainability master plan, which additionally looks at providing capacity for growth in a sustainable manner within the limited footprint of the Airport. The master plan will be developed between 2012 and 2016. This memorandum requests authorization to create the Airport SMP and advertise and execute a contract with an airport master plan consultant.

The FAA (Federal Aviation administration) Advisory Circular on airport master plans strongly recommends that airports prepare master plans. The FAA is closely linked to the master plan process in several ways, such as:

- **Airport Layout Plan (ALP)**—FAA grant assurances require that the ALP be kept current. The FAA approves the ALP, which is part of the airport master plan. Minor changes can be handled with a written description, but the FAA prefers to pull everything together in an updated drawing set when major changes are anticipated.

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- **Aviation Forecast**—The FAA also approves the forecast component of the master plan to ensure consistency with the FAA’s Terminal area Forecast (TAF). The FAA wants to ensure that the underlying assumptions and methodologies are appropriate. Projects must be shown on an FAA-approved ALP to be eligible for Airport Improvement Program (AIP) funding.
- **Environmental**—Projects identified on the ALP component of the master plan that require environmental review need to avoid segmentation. Segmentation can occur when projects approved individually on a piecemeal basis do not show as great an impact as when looked at together. A master plan is a best practice that enables projects to be examined holistically during environmental review in a comprehensive way.
- **Transparency**—Master plans have a public element for agencies, users, and communities. Transparency is a good relationship builder for communicating issues the airport is facing.

A key component of the Airport’s Master Plan is to integrate sustainability. A sustainability master plan is a blueprint for long-term Airport development that reduces environmental impacts, achieves economic benefits, and increases passenger experience and integration with local communities. Traditional master planning looks at accommodating an airport’s forecasted demand and the associated impacts. A sustainability master plan looks at sustainability issues (environmental, economic and social) as core objectives rather than secondary considerations. Examples include identifying ways to reduce building area, energy consumption, environmental impacts, and carbon footprint. Grant funding may be available from the Federal Aviation Administration (FAA) for pilot studies that integrate sustainability into master plans, and staff will pursue this potential opportunity.

The Airport SMP will require follow-on environmental review, with a total estimated value of \$3.9 million. This will be part of a separate request staff anticipates bringing to the Commission in 2015.

BACKGROUND:

Airports can be described as a three-legged stool, balancing capacity between airside, terminal and landside areas of the airport. Overall airport system capacity is limited by the pinch point of the area with the least capacity.

The last formal master plan for the Airport was done in the mid-1990s, and it was focused primarily on the new third runway. At that time, the Airport handled 22 million annual passengers (MAP). The Airport is now handling far more passengers, almost 33 MAP in 2011 a 50% increase in passenger traffic since the last master plan. Anticipated growth will approach 40 MAP over the next decade. , and planning studies since the last master plan have indicated that the airfield has the potential capability of providing capacity up to 55-60 MAP. This growth is the result of airlines flying larger aircraft with more seats and a higher load factor (percentage of seats filled with passengers). At the time of the last master plan, Sea-Tac had an annual average of 59 passengers per aircraft operation, and in 2011 this number had grown to an annual average of 104 passengers per aircraft operation. Peak activity drives the need for most facilities at the airport. At the time of the last master plan, Sea-Tac processed 3,800 peak hour departing

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passengers during a busy day in August, and in 2011 this number had grown to 5,500 peak hour departing passengers. Sea-Tac will need to plan for an activity level of 8,300 peak hour departing passengers during a busy day in August at 55-60 MAP.

The goal of the SMP is to creatively re-imagine the terminal and landside in a way that balances capacity with the airside, while optimizing capacity of a small footprint in a high-density operating environment. This will require addressing new challenges and issues that have emerged in the dynamic airport/airline industry, such as: airline mergers, new entrant airlines for international service, rapidly evolving technology, increased security, renewal of aging facilities, increased non-airline revenue, and improved environmental performance.

These challenges will drive many changes to our facilities, including:

- Addition of an Airport hotel
- Long-term federal inspection services (FIS) facility upgrades
- Transformation of check-in lobby
- Higher capacity baggage system
- Facility renewal/replacement
- Improvements that reduce energy/water/carbon and other operating costs
- Modifications to roadways and curbsides that increase capacity
- Increased vertical circulation
- Optimization of (?) Additional (?) security checkpoints
- Preparing facilities for flexibility and change
- Technology and process improvements

The Airport SMP will define the future vision for the Airport with solutions grounded in a balance of strategic goals for capacity, sustainability, customer service, technology evolution, passenger needs, and minimized cost of development through “inspiration.” The Airport SMP will address the following preliminary Century Agenda goals established by the Commission:

- Triple annual cargo volume to 750,000 metric tons.
- Make Sea-Tac Airport the West Coast “Gateway of Choice” for international travel.
- Double the number of international flights and destinations.
- Double the economic value of cruise traffic to Washington state.
- Meet all energy needs through conservation and renewable sources.
- Meet or exceed agency requirements for storm water leaving port owned or operated facilities.
- Reduce air pollutant emissions by 50 percent.
- Reduce carbon emissions from all Port operations by 50 percent compared to 2005 levels, and reduce aircraft-related carbon emissions at Sea-Tac by 25 percent.

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PROJECT JUSTIFICATION:

The purpose of this contract is to ensure coordinated development of the many complex functions across the Airport through a comprehensive approach. A piecemeal approach typically results in lost opportunities and higher development costs.

The Airport SMP will define the vision for future airport development. It will identify the issues, solutions, priority, sequence, cost, and financing. Without this master planning effort, the airport is at risk of moving forward with individual projects that might be in the wrong place, at the wrong time, at too high a development cost.

The immediate drivers for this project include several large and significant projects that need to be integrated into the Airport campus, including the following: an airport hotel, a long-term FIS facility, reconstruction of an aging runway, airfield improvements to improve safety, and baggage screening system recapitalization that will enhance both speed and security while reducing ongoing operating costs (a project potentially linked to federal funding from the Transportation Security Administration).

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work

The Airport SMP scope will include the following tasks:

- **Strategic Objectives**—Confirming study goals and focus areas.
- **Sustainability** – Determine, understand, and fully integrate environmental, social, and economic responsibilities.
- **Forecast**—Determining future activity levels for passengers, cargo, and flights.
- **Inventory**—Gathering and preparing background data and drawings for analyses.
- **Requirements**—Developing basis for sizing facilities to provide adequate capacity to meet future activity levels.
- **Options**—Testing potential layout options and identifying a preferred option.
- **Financial**—Analyzing financial capacity to support decision-making for capital improvements.
- **Implementation Plan**—Preparing a capital improvement program based on preferred option.
- **Airport Layout Plan (ALP)**—Updating the current ALP for approval by the FAA.
- **Public Involvement**—Communicating master plan progress and conclusions to the public and other stakeholders.

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Early action items in the Airport SMP will support known projects, such as:

- **Long-Term FIS Facility**—Planning-level definition for basis of design and environmental assessment.
- **Center Runway Reconstruction and Airfield Improvements**—Simulation and physical planning to support center runway reconstruction, analysis of requirements for larger gauge Group VI aircraft (i.e. Airbus A380 and Boeing 747-800), and taxiway improvements that will enhance safety by minimizing runway incursions.
- **Airport Hotel**—Collaborative workshops between Port staff and Hotel Developer, enabling each party to complete design and construction for respective work.

The proposed contract for the Airport SMP will provide consulting services for strategic planning needs related to coordinating long-term development of the airport, meeting Century Agenda goals and providing capacity for growth in a sustainable manner within the limited footprint of the airport.

Schedule

The timeline for the Airport SMP is as follows:

- **2012 (Q3)**—Commission approval.
- **2012 (Q4)**—Begin planning. Determine timing of early action items (FIS, Airfield, and Hotel).
- **2015 (Q3)**—Begin environmental review.
- **2015 (Q4)**—Complete planning.
- **2016 (Q4)**—Complete environmental review.
- **2016 (Q4)**—Airport SMP Complete.

A separate authorization will be submitted in 2015 for the procurement of a consultant to conduct environmental review of the Sustainability Master Plan.

FINANCIAL IMPLICATIONS:

| <i>Budget/Authorization Summary:</i> | Capital | Expense | Total Project |
|--|---------|-------------|---------------|
| Original Budget | \$0 | \$6,000,000 | \$6,000,000 |
| Previous Authorizations | \$0 | \$0 | \$0 |
| Current request for authorization | \$0 | \$6,000,000 | \$6,000,000 |
| Total Authorizations, including this request | \$0 | \$6,000,000 | \$6,000,000 |
| Remaining budget to be authorized | \$0 | \$0 | \$0 |
| Total Estimated Project Cost | \$0 | \$6,000,000 | \$6,000,000 |

| <i>Project Cost Breakdown:</i> | This Request | Total Project |
|---------------------------------------|--------------|---------------|
| Consulting Services | \$ 5,990,500 | \$ 5,990,500 |
| Total | \$6,000,000 | \$6,000,000 |

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Budget Status and Source of Funds:

The source of funds for this contract for the remainder of 2012 will be \$200,000 included in the 2012 operating budget for Aviation Planning, which is adequate to cover anticipated work this year. Future costs will be included in the annual operating budgets for 2013, 2014 and 2015.

The requested contract maximum is based on projected work and historical data for this type of project. No work is guaranteed to the consultants, and the Port is not obliged to pay consultants until a service directive is executed and work performed.

Grant funding may be available from the Federal Aviation Administration (FAA) for pilot studies that integrate sustainability into master plans, and staff will pursue this potential opportunity.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative 1) Do not create an Airport SMP. Many projects are anticipated to meet future growth of the airport, and this alternative does not allow for coordinated development of multiple complex functions. There is a risk of individual projects being in the wrong place, at the wrong time, at too high a development cost. There is a risk of project segmentation during environmental review if projects are not examined in a comprehensive way. This is not the recommended alternative.

Alternative 2) Create an Airport SMP using only in-house resources without hiring a consultant. This alternative cannot be completed within a reasonable timeframe due to the number of FTEs required to complete the work. Specialized expertise is also needed to supplement skills of Port staff. This is not the recommended alternative.

Alternative 3) Create an Airport SMP using in-house resources and a consulting firm with expertise in airport master planning. Many projects are anticipated to meet future growth of the airport, and this alternative allows for coordinated development of multiple complex functions. This alternative will enable the port to develop a vision for future airport development at least cost. **This is the recommended alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

- June 26, 2012 - Commission Briefing: Terminal Development Challenges.