

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

**COMMISSION AGENDA**  
**ACTION ITEM**

**Item No.** 4g  
**Date of Meeting** February 9, 2016

**DATE:** January 28, 2016  
**TO:** Ted Fick, Chief Executive Officer  
**FROM:** Michael Ehl, Director, Airport Operations  
Wayne Grotheer, Director, Aviation Project Management Group  
**SUBJECT:** 2016 Flight Corridor Safety Obstruction Management Project

**Amount of This Request:** \$750,000      **Source of Funds:** Airport Development Fund  
**Est. Total Project Cost:** \$900,000

**ACTION REQUESTED**

Request a single Commission authorization for the Chief Executive Officer to design, advertise and execute a major works construction contract for the 2016 Flight Corridor Safety Obstruction Management Project at Seattle-Tacoma International Airport in the amount of \$750,000 for a total estimated project cost of \$900,000.

**SYNOPSIS**

This request for authorization is needed to remove obstructions consisting of trees and other vegetation at and around Seattle-Tacoma International Airport. Design and construction authorization for the first phase of the program are being requested simultaneously to facilitate completion of the first phase of construction in 2016. Removal of the obstructions will ensure the Airport complies with Federal Aviation Administration (FAA) regulations for airport operators to protect flight operations into and out of the airport and assure that objects obstructing approach and departure areas are removed.

This project will replace trees and other vegetation with species to prevent future obstructions in the flight corridor. The Port is required to meet re-vegetation standards set forth by the local jurisdictions where obstructions are located. The local jurisdictions' re-vegetation standards exceed the Commission's guidance to achieve no net loss of trees. Re-vegetation will occur on-site where existing vegetation is removed or at off-site properties. Environmental best management practices will be implemented to minimize environmental impacts.

The flight corridor obstruction management costs will be treated as expense costs. The \$750,000 amount of this request is included in the 2016 operating budget. This authorization request completes the authorization for phase one of a three phase program that will be completed by 2018.

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### **BACKGROUND**

Obstructions are any objects penetrating FAA-designated approach and departure paths at or around an airport. Obstruction studies and the related publication of obstruction charts were completed every ten years by the FAA until approximately 1994. In preparing for the activation of the Third Runway, the FAA performed an obstruction analysis in 2005 that led to the removal of trees in 2006-2008. An aerial obstruction analysis was conducted by the Port in 2015 that identified approximately 1,600 obstructions consisting of trees and other vegetation.

The Port has developed a comprehensive Flight Corridor Safety Obstruction Management Plan that will address the program for the removal of obstructions in several phases and span multiple years. An advantage of a phased delivery approach allows the Port to apply lessons learned to obstruction removal on properties owned by others. Implementation of the program will be based on a phased delivery approach that will occur generally in the following sequence:

- Phase I: 2016 - Port-Owned Property including property not on the airfield
- Phase II: 2017 - Publicly-Owned Properties (Burien, Des Moines, SeaTac, Washington State Department of Transportation (WSDOT), Seattle Public Utilities and Highline Public Schools) and Commercial Properties
- Phase III: 2018 - Residential Properties

The Port has initiated the environmental review process for the removal of obstructions, which includes the opportunity for community input. This environmental review in accordance with federal, state, and local requirements will ensure that the Port evaluates alternatives and potential environmental impacts of the program. A re-vegetation plan is being developed that will minimize future obstructions, identify planting requirements and consider various approaches to re-planting which may include partnering with other organizations. The work will need to comply with the Migratory Bird Treaty Act and protect nesting birds between March 1 and July 15 annually.

To support effective communication and transparency with communities affected by the Flight Corridor Safety Obstruction Management Project, a comprehensive outreach and communication plan has been developed. The plan includes targeted communication and collaboration with the cities of SeaTac, Burien, and Des Moines; Highline Public Schools; Seattle Public Utilities; and WSDOT. Initial briefings with representatives from the cities of SeaTac, Burien, and Des Moines and the Highline School District have already been completed. Upcoming outreach efforts will focus next on presentations before airport community city councils and use of the Airport's community newsletter, *Airmail*, to inform residents within the airport communities about the project, its impacts, and its phasing.

The funds being requested are needed to complete the first phase of design and construction for the overall program that began in 2015 with a previously authorized \$150,000 to complete a comprehensive environmental plan for the program. Project expenses in 2016 will complete the

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environmental process, design documents, and construction for the first phase of the program. Port staff will return to the Commission for authorization of the subsequent phases of the program.

### **PROJECT JUSTIFICATION AND DETAILS**

This program is necessary to meet the Aviation Division's goals of ensuring safe and secure aircraft operations. The Port must remove obstructions to navigable airspace to continue operating a world class airport.

Justification for this program falls under the following categories:

1. Federal Requirements for Airport Operators to Control Obstructions
  - a. Federal Aviation Regulation (FAR) Part 139, Certification of Airports
  - b. Advisory Circular (AC) AC 150/5300.13A change 1, Maintenance of obstacle clearance surfaces
  - c. Grant Assurance 20 "Hazard Removal and Mitigation"
  - d. Grant Assurance 21 "Compatible Land Use"
2. State Requirement for Airport Operators to Control Obstructions
  - a. RCW 14.12.020 "Airport hazards contrary to public interest"
3. Airport's Strategic Goals and Objectives
  - a. Strategic Goal No. 1, Operate a world-class international airport by: Ensuring safe and secure operations

#### ***Program Objectives***

Program objectives are as follows:

- Remove obstructions, to facilitate safe aircraft operations
- Communication and transparency with the surrounding community
- Comply with local, state, and federal regulatory requirements
- Revegetate with low-growth vegetation and re-plant trees in appropriate locations
- No net loss of vegetation

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

Design for this scope of work will be procured under an existing design services indefinite delivery, indefinite quantity (IDIQ) contract. Scope of work for the 2016 project includes removing trees/vegetation on and around the Airport. Removal of trees/vegetation ensures the Airport can continue safe aircraft operations. This scope also includes environmental review and permitting in compliance with applicable federal, state, and local requirements. The work includes installation of temporary erosion and sediment control devices, removal of trees/vegetation, grading, revegetation, and restoration.

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### ***Schedule***

|                               |                         |      |
|-------------------------------|-------------------------|------|
| Commission Authorization      | 1 <sup>st</sup> Quarter | 2016 |
| Execute Construction Contract | 3 <sup>rd</sup> Quarter | 2016 |
| Construction Completion       | 4 <sup>th</sup> Quarter | 2016 |

## **FINANCIAL IMPLICATIONS**

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

|  | Expense   | Total Project |
|--|-----------|---------------|
| Original Budget                              | \$150,000 | \$150,000     |
| Previous Authorizations                      | \$150,000 | \$150,000     |
| Current request for authorization            | \$750,000 | \$750,000     |
| Total Authorizations, including this request | \$900,000 | \$900,000     |
| Remaining budget to be authorized            | \$0       | \$0           |
| Total Estimated Project Cost                 | \$900,000 | \$900,000     |

### ***Project Cost Breakdown***

|                                 | This Request | Total Project |
|---------------------------------|--------------|---------------|
| Construction                    | \$497,750    | \$497,750     |
| Design                          | \$200,000    | 350,000       |
| State & Local Taxes (estimated) | \$52,250     | \$52,250      |
| Total                           | \$750,000    | \$900,000     |

### ***Budget Status and Source of Funds***

The 2016 operating budget includes \$750,000 to complete the first phase. All costs will be charged to the airfield Movement Area cost center and recovered through landing fees. This request (\$750,000) will increase airline cost per enplaned passenger (CPE) approximately \$0.03 in 2016. Future phases will be incorporated into the operating budgets in 2017 and 2018.

## **STRATEGIES AND OBJECTIVES**

The 2016 Flight Corridor Safety Obstruction Management Project supports the Century Agenda goal to advance this region as a leading tourism destination and business gateway by meeting the region's air transportation needs. This project also supports the Aviation Division's strategic goals of operating a world-class international airport, providing extraordinary customer service, and being a model of environmental innovation for the region and industry.

One of the Century Agenda goals is to use the Port's influence as an institution to promote small business growth and workforce development. For the major construction contract, Port staff will coordinate with the Office of Social Responsibility to maximize opportunities for small business utilization within the contract.

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### **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

#### **Alternative 1) Status quo, do not remove obstructions.**

Pros:

- No expenditure required, saving estimated \$900,000 in costs

Cons:

- FAA could consider the Airport to be non-compliant with Federal rules and regulations. The FAA would have a number of options on how to address the non-compliance. The FAA's options would include:
  1. Considering approach and/or departure procedures to be unsafe, and limit their use;
  2. Consider approach and/or departure procedures to be unsafe, and turn them off;
  3. Limit or eliminate FAA grant funding until the obstructions are removed. FAA entitlement funding is estimated to be \$6.6 Million in 2016 and up to \$7.1 Million in 2021.
- Port would not be in compliance with Federal and State requirements regarding obstructions to navigable airspace.
- Airlines may be required to take weight penalties and/or not serve certain markets, as aircraft would have to be lighter to take-off over the obstructions.
- Does not meet the Airport's strategic goals and objectives such as ensuring safe and secure operations.

#### **This is not the recommended alternative.**

**Alternative 2) Remove all obstructions and complete project by 2017.** Under this alternative all obstructions identified would be removed by 2017. The total estimated cost for this alternative is approximately \$2,740,000.

Pros:

- Complies with FAA and state regulations to remove identified obstructions.
- Meets the Airport's strategic goals and objectives such as ensuring safe and secure operations.

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Cons:

- It may not be feasible to complete coordination with local agencies, jurisdictions, and residents for a 2017 project.
- The Migratory Bird Treaty Act protects nesting birds between March 1<sup>st</sup> and July 15<sup>th</sup> annually. Trees cannot be removed during this time which limits the duration for construction activities.

**This is not the recommended alternative.**

**Alternative 3) Phased delivery approach for obstruction removal.** Remove obstructions over a 3-year period starting with obstructions on Port-owned properties in 2016. The total estimated cost for the 2016 work is approximately \$750,000.

Pros:

- Provides a manageable program to meet FAA and state regulations to remove identified obstructions. The FAA concurs with this approach.
- Allows the Port to apply lessons-learned from Phase 1, to the subsequent phases.
- Allows time for coordination with local agencies and area residents for the subsequent program phases.
- All obstructions located on Port-owned properties will be removed in 2016.
- The Port will set precedent that removing obstructions is a high priority for the Port as demonstrated by removing all Port-owned obstructions in the first phase.
- Meets the Airport's strategic goals and objectives such as ensuring safe and secure operations.

Cons:

- Phased delivery approach does not remove all obstructions in 2016.
- The Airport will not fully be in FAA compliance until all the obstructions are removed.

**This is the recommended alternative.**

## **ATTACHMENTS TO THIS REQUEST**

- Obstruction Removal Program Map

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### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- November 24, 2015 – Commission briefed on the Flight Corridor Safety Obstruction Management program. The briefing provided an overview of state and federal laws/requirements, and staff's recommendation of a phased delivery approach to complete the program.