



**COMMISSION
AGENDA MEMORANDUM**

Item No. 6b

ACTION ITEM

Date of Meeting November 22, 2016

DATE: November 15, 2016

TO: Ted Fick, Chief Executive Officer

FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group
Clare Gallagher, Director, Capital Project Delivery/Public Affairs

SUBJECT: Flight Corridor Safety Program – Phase 1

Amount of this request: \$475,000

Total estimated project cost: \$3,226,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to (1) award and execute a major public works construction contract for the Flight Corridor Safety Program Phase 1 project with the lowest responsible bidder, notwithstanding the low bid exceeding the engineer's estimate by more than 10 percent; (2) change the contract to extend the contract duration as necessary and include additional scope that may be identified, including deferral of work on selected sites so that those sites can be re-evaluated for tree removal and replanting; and (3) increase the budget by an amount not to exceed \$475,000 for a new total project cost of \$3,226,000.

EXECUTIVE SUMMARY

The Commission authorized advertisement for bids for the Flight Corridor Safety Program Phase 1 on August 9, 2016. Four contractor bids were received and opened on October 3, 2016. The lowest responsible bid exceeded the engineer's estimate by 28%. This represents a bid irregularity requiring further Commission action prior to contract award in accordance with the Port's General Delegation of Authority, Section 4.2.3.4. Port staff has reviewed the bids and the engineer's estimate and recommends award of the construction contract to the lowest responsible bidder. The additional \$475,000 funds are being requested to allow for construction contract time adjustments to complete Phase 1, to adjust the contract contingency to reflect the bid amount and to support any additional scope of work that is consistent with the State Environmental Policy Act (SEPA) Mitigated Determination of Non-Significance that was issued on August 26, 2016. The additional funds request is not associated with any form of additional mitigation associated with subsequent phases of the Flight Corridor Safety Program or any potential for community enhancements/amenities program.

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JUSTIFICATION

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 meet regulatory requirements and continue operating a world class airport. The program elements include significant mitigation to offset the tree removal by providing a 4:1 replanting ratio for the areas identified in Phase 1.

Justification for this program falls under the following categories:

1. Federal Aviation Administration 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, 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

The Port conducted an environmental review under the State Environmental Policy Act (SEPA) for Phase 1 of the project, and issued a Final Mitigated Determination of Non-Significance for Phase 1 in August 2016. Mitigation for Phase 1 of this program includes:

- Re-planting of approximately 4,000 trees for the removal of approximately 1,170 trees;
- Shrubs and hydro seeding to revegetate areas where ground vegetation or understory impacts occur;
- Erosion control best practices;
- Removal of trees outside of the bird-nesting season;
- Construction design and specifications that require the avoidance of ground-disturbing activities inside wetlands; and
- A monitoring period of five years within wetland and buffer areas.

The program is organized into three phases, beginning on Port-owned properties for initial removal and replanting, to allow additional time for coordination with local jurisdictions and property owners for work on property not owned by the Port. Work in all three phases will avoid or minimize impacts to critical areas, in compliance with federal and state laws.

On November 1st, 2016 Port Commissioners and Port Staff hosted a Community Meeting and Open House as an additional opportunity to present the Flight Corridor Safety Program to the public. The purpose of the meeting was to engage the community, learn about their concerns, listen to their questions and help clarify the program. There were over 100 attendees, and comments touched on areas such as the community impact of losing full-size trees; the additional impact of earlier tree removal for third runway construction; air quality; keeping re-

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planting in the impacted community; and the overall impact to communities from airport activity and growth. Based on public comments received, the Port may revise Phase 1 scope that has been bid, and staff has outlined possible contract modifications to consider.

Environmental review will be completed for phases 2 and 3, as will additional community engagement and direct negotiation with property owners regarding removal and replanting on their property. Port staff will also pursue broader-based community enhancements related to this program, such as the possibility of tree-banking or other municipal programs as part of the removal, and replanting activity in the later phases.

Further detail regarding the development of comprehensive assessments and planning work for the Conceptual Plan; Phase 1 Critical Areas Special Study and Phase 1 Implementation Plan, is contained in Appendix A of this memo along with excerpts from the Implementation Plan in Attachment B. These documents will be updated for phases 2 and 3.

Project Objectives

Program objectives are as follows:

- (1) Remove obstructions to facilitate safe aircraft operations
- (2) Communicate with transparency to the surrounding communities
- (3) Comply with local, state, and federal regulatory requirements
- (4) Revegetate with native low-growth vegetation and re-plant native trees in appropriate locations
- (5) Prevent any net loss of vegetation

DETAILS

Scope of Work

Scope of work for Phase 1 of the program includes removing trees/vegetation on and around the Airport and replanting tree and shrub vegetation. This scope also includes environmental review and permitting in compliance with applicable federal and state requirements. The work includes installation of temporary erosion and sediment control devices, removal of trees/vegetation, and removal of invasive species, extensive tree replanting, extensive shrub replanting and restoration.

Schedule

Execute Construction Contract	4 th Quarter	2016
Construction Completion	4 th Quarter	2017

Activity

Commission design authorization	2016 Quarter 1
Design start	2016 Quarter 2
Commission construction authorization	2016 Quarter 3

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Commission irregular bid authorization	2016 Quarter 4
Construction start	2017 Quarter 1
In-use date	N/A

Cost Breakdown	This Request	Total Project
Design	\$0	\$558,000
Construction	\$475,000	\$2,648,000
Total	\$0	\$3,226,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Do not award the project.

Cost Implications: Cost from Planned Budget deferred: \$2,173,000

Pros:

- (1) Under this option there is no near-term use of 2016 expense funds.

Cons:

- (1) Phase 1 work would have to be accomplished in 2017, along with Phase 2.
- (2) 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:
 - (a) Consider approach and/or departure procedures to be unsafe, and limit their use;
 - (b) Consider approach and/or departure procedures to be unsafe, and turn them off;
 - (c) Limit or eliminate FAA grant funding until the obstructions are removed. FAA entitlement grant funding is estimated to be ~\$6.6 million in 2016 and up to ~\$7.1 million in 2021.
 - (d) Requiring airlines to take weight penalties, with an additional effect of not serving certain markets, as aircraft would have to be lighter to take-off over the obstructions.
- (3) Does not meet the Airport’s strategic goal of ensuring safe and secure operations.

This is not the recommended alternative.

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Alternative 2 – Re-bid Phase 1 in 2017

Cost Implications: Estimated \$625,000 minimum of additional costs from escalation, administrative time and to change the contract as necessary to include additional scope that may be identified.

Pros:

- (1) Demonstrates the Port's commitment to removing obstructions while providing additional outreach and study of the program approach.

Cons:

- (1) Phase 1 work would be accomplished in 2017, in additional to Phase 2 work
- (2) 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, as noted in Alternative 1 description.
- (3) Does not meet the Airport's strategic goal of ensuring safe and secure operations.

This is not the recommended alternative.

Alternative 3 – Award the major works construction contract to the lowest responsive and responsible bidder, and make major contract changes to the removal and replanting scope for all Phase 1 sites. Contract time extension will be required.

Cost Implications: Estimated \$700,000 in additional costs to increase the project scope and change the contract as necessary to include possible contract time adjustments and to include additional scope that may be identified.

Pros:

- (1) Provides flexibility in Phase 1 for additional public engagement
- (2) Contractor is procured

Cons:

- (1) All Phase 1 work will be delayed until the contract plans and specs are revised, and negotiations with the contractor are agreed upon
- (2) Requires additional expense funds
- (3) Delays Phase 1 substantially from planned schedule
- (4) 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, as noted in Alternative 1 description.
- (5) Environmental best management practices to limit ground disturbance by tracked equipment may not be met
- (6) Greater disruption to the local communities
- (7) Reduces reforestation efforts by delaying establishment

This is not the recommended alternative.

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Alternative 4 – Award the major works construction contract to the lowest responsive and responsible bidder, change the contract to extend the contract duration as necessary, and include additional scope that may be identified. Awarding the contract will allow staff to defer the work in sites P4 and P5 so that these areas can be re-evaluated. The re-evaluation could result in a completely different approach or a modified approach to replanting and removal of trees and vegetation in these areas. The deferral will also allow a determination as to whether to include a change in approach within this contract or by subsequent means.

Port staff would brief the Commission and engage the local community before work would occur in areas P4 and P5, the southwest areas where most of the conifers and half the Phase 1 obstructions are located – see attachment D. Per the contract information, site P4 consists of 95 proposed trees to be removed with 1,054 trees to be replanted, and site P5 consists of 461 proposed trees to be removed with 1,557 trees to be replanted. Awarding the contract would allow obstruction removal and replanting to occur in areas P1, P2, P3, and P6 in early 2017.

Cost Implications: Estimated \$475,000 in additional costs to allow for contact time adjustments to complete Phase 1, to adjust the contract contingency to reflect the bid amount and to support any additional scope of work that is consistent with the SEPA MDNS that was issued on August 26, 2016.

Pros:

- (1) Provides time for additional public engagement to discuss removal and replanting alternatives
- (2) Allows for removal of Phase 1 obstructions to begin
- (3) Provides flexibility to explore additional replanting alternatives within specific sites
- (4) Revegetating best management practices will be met

Cons:

- (1) Requires additional expense funds
- (2) Delays Phase 1 from planned schedule
- (3) Re-design of specific work areas will occur

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary

Capital

Expense

Total

	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$0	\$2,731,000	\$2,731,000
Estimate increase	\$0	\$475,000	\$475,000
Revised estimate	\$0	\$3,226,000	\$3,226,000
AUTHORIZATION			
Previous authorizations	\$0	\$2,731,000	\$2,731,000

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Current request for authorization	\$0	\$475,000	\$475,000
Total authorizations, including this request	\$0	\$3,226,000	\$3,226,000
Remaining amount to be authorized	\$0	\$0	\$0

Annual Budget Status and Source of Funds

The Flight Corridor Safety Program costs are expense costs. \$150,000 was budgeted in 2015 to develop environmental documents to support the program. \$750,000 was included in the Aviation Division’s budget for 2016. The additional funds needed in 2016 are available from within the Capital Development Departments’ expense budgets. Future annual budgets will include provisions for the rest of the program.

Additional funding for Phase 1 monitoring and additional plantings as needed to offset unexpected mortality of vegetation will be included in the annual Aviation Operations operating budget requests.

The full cost of the program will be included in the Airfield Movement Area cost center in the year the costs are incurred and recovered from the airlines through increased landing fees. As such, all costs will be paid for out of the Airport Development Fund. If all costs were incurred in 2016, the incremental impact on the airline cost per enplaned passenger would be approximately \$.12. However, as discussed above, most of the costs will be spread into 2017.

Public Engagement

Outreach for the Flight Corridor Safety program began briefings in 2015, after the initial Commission briefing on November 24. Port staff briefed the FAA; the cities of Burien, Des Moines and SeaTac, the Highline School District; WSDOT; briefed the SeaTac City Council and participated in the Preliminary Design Review Conference with the City of SeaTac staff.

The Port hosted a public open house in April 2016; communicated to affected property owners by registered mail; and published information about the program in several Port newsletters – Air Mail, which goes to 33,000 area residents, Connections, an electronic newsletter which reaches 10,000 readers; and via the Port’s email and written distribution lists for SEPA-interested stakeholders. A Port Commission public meeting was held November 1, 2016.

In 2017, an online open house is planned for early 2017, plus public meetings to gather input on the options for work on sites P4 and P5 (S. 200th area), as well as community input on ecological community amenities the Port could support in airport-area communities.

Future Commission briefings and actions are anticipated to include authorization for Phase 2 and 3 environmental and design work in first quarter of 2017, briefings in second and third quarters on proposed changes to Phase 1 following the community engagement, and design plans and SEPA for Phases 2 and 3. Construction authorization for Phase 2 work would likely fall in third quarter 2017.

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ADDITIONAL BACKGROUND

Obstructions are any objects penetrating FAA-designated approach and departure paths at or around an airport posing a potential risk to safe aircraft operations. 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 obstruction data points consisting of trees and other vegetation. Subsequent field work was performed by a third party to verify the aerial obstruction analysis data. The field verification of the aerial obstruction data resulted in identifying approximately 2,800 tree obstructions at or around the airport.

The Port has developed a comprehensive Flight Corridor Safety Program that will address the removal of obstructions in several phases and span multiple years:

- Phase 1: 2016/2017 - Port-Owned property
- Phase 2: 2017/2018 – Public agency-owned properties including Highline Public School District, Washington State Department of Transportation, Seattle Public Utilities and public right of way within the cities of Burien, Des Moines and SeaTac.
- Phase 3: 2018/2019 - Residential and Commercial properties

The Port may change scope elements of this contract and/or introduce into subsequent contract changes based on input from the surrounding airport communities.

ATTACHMENTS TO THIS REQUEST

- (1) Attachment A – Flight Safety Environmental Overview
- (2) Attachment B – Phase 1 Implementation Plan (selected pages)
- (3) Attachment C - SEPA Mitigated Determination of Non-Significance
- (4) Attachment D – Site Plan
- (5) Attachment E – FAA Letters
- (6) Presentation Slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

October 25, 2016 – Commission considered authorization to award the irregular bid exceeding 10 percent of the engineer’s estimate to the lowest responsible bidder but took no action.

October 11, 2016 – Commission considered authorization to award the irregular bid exceeding 10 percent of the engineer’s estimate to the lowest responsible bidder but took no action.

August 23, 2016 – A special announcement to Commission by Aviation Operations Director, Michael Ehl, in regards to the Port issuing the final environmental Mitigated Determination of Non-Significance (MDNS) for tree removal and replanting as part of the Flight Corridor Safety Program in Phase One.

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August 9, 2016 – Commission authorized to advertise and execute a major works construction contract in the amount of \$1,831,000 for a total project cost of \$2,731,000.

February 9, 2016 – Commission authorized to design, advertise and execute a major works construction contract in the amount of \$750,000 for a total estimate project cost of \$900,000.

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.