

Appendix G

FAA CORRESPONDENCE

Airport Master Plan Update

Mulino Airport



U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98057-3366

February 25, 2007

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

Dear Mr. Gately:

Airport Layout Plan (ALP) Review Comments
Portland - Mulino Airport; Portland, OR
AIP Project Number 3-41-0072-010

The coordination for review within the Federal Aviation Administration (FAA) has been completed on the draft Airport Layout Plan set of drawings for the proposed improvements at Portland - Mulino Airport. Our review comments, previously sent to you on January 25, 2007, are again provided herein.

Also, an aeronautical study (No. 2007-ANM-786-NRA) was conducted on the proposed development to determine its effect on the safe and efficient utilization of the navigable airspace by aircraft. There were no objections based on that evaluation.

The Master Plan report will be accepted upon receipt of two copies of the final document. The FAA will approve the ALP and drawings related to Federal Aviation Regulation (FAR) Part 77 once our comments are reflected on the final drawings, with proposed development subject to environmental approval, where applicable. Please send us 3 sets of prints, signed and dated by you, the sponsor, plus 1 set of mylars (unsigned), along with the ALP CADD files on disk when they are finalized. We will return 1 approved set to you, the sponsor. Please call me at (425) 227-2654 if I can be of further assistance.

Sincerely,



Stanley C. Allison
OR/ID State Planner

1 Enclosure

cc:
Dan Clem, Oregon Department of Aviation
Sarah Lucas, W&H Pacific

**FAA REVIEW COMMENTS
DRAFT AIRPORT LAYOUT PLAN (ALP) SET
PORTLAND - MULINO AIRPORT**

Previously Submitted Comments on 1/25/07

Sheet 1 – Airport Layout Plan

1. The FAA's ALP Checklist specifies that the elevations of roadways "where they intersect the RPZ edges and extended runway centerline be depicted. Extended runway centerline elevation is shown, however, the edge elevations are not. Please show the additional elevations.
2. The FAA's ALP Checklist specifies that the elevations of structures on the airport be shown. "If a terminal area plan is not included, show structure top elevations on this sheet." Please add. Also, Building 16 is shown within the BRL. What is the top elevation of this structure? Does it penetrate the Part 77 Transitional Surface?
3. The dimension between the full length parallel taxiway and the partial parallel taxiway is shown as 270 feet, however, the arrowhead of the dimension line is drawn to the edge of the full-length parallel taxiway, not the centerline. Please correct.
4. The FAA's ALP Checklist specifies that the Design Aircraft be shown in the Airport Data Table for each runway or airfield component. Please add.
5. The FAA's ALP Checklist specifies that the Maximum elevation of the runway above MSL be shown in the Runway Data Table. Please add.
6. The FAA's ALP Checklist specifies that the Name and Location of the airport be shown in the Title and Revision Blocks. Airport name is shown as "Mulino Airport". Name of record for the airport is "Portland-Mulino Airport" and is located in Portland, OR. Please correct.

Sheet 2 – Airspace Plan

7. The FAA's ALP Checklist specifies that the Airspace Plan include small scale profile views of existing and ultimate approaches. Sheet 3 shows Inner Portion of Approach profiles within the RPZ, but not much beyond. Scope of Work states that the entire approach profiles shall be shown. Please modify the drawing set to include. Refer to ALP Checklist for specifications on what must be shown on these profiles (i.e., Items 2.h.(1), (2), and (3)).
8. ALP on file with the FAA (dated 8/8/06) indicates two additional structures have been airspaced since that ALP was approved. Airspace case numbers were: 2006-ANM-661-OE and 2006-ANM-4864-OE. Please verify if these two structures have been constructed, or not, or whether they are obstructions, or not.

Sheet 3 – Inner Portion of the Approach Surface

9. Suggest renaming the sheet from RWY 14/32 Approach Surface Plan and Profile to Inner Portion of the Approach Surface to coincide with the FAA's ALP Checklist.
10. The FAA's ALP Checklist specifies that the horizontal scale of the drawing be 1" = 200' and the vertical scale be 1" = 20'. All scales are correct except the graphic scale for the Horizontal portion of the Profile view is shown as 1" = 1,000'. Please correct.

11. The FAA's ALP Checklist specifies that all traverse ways be identified, by numbers, with elevations and computed vertical clearance in the approach. Please add intersection points with edges of the RPZ.
12. The FAA's ALP Checklist specifies that the existing and ultimate physical end of the runways be depicted. "Note runway end number and elevation." Please add elevations.
13. ALP on file with the FAA (dated 8/8/06) indicates many more obstructions than are shown on this sheet. Please verify whether or not these obstructions have been removed. If not, make sure they are added to the current plans and profiles. This may be a scale issue and the fact that the entire length of the approaches are not shown.

Sheet 5 – Land Use Plan

14. The FAA's ALP Checklist specifies that the land use drawing include all land uses, on and off the airport, to at least the 65 DNL contour. The Checklist also specifies that the scale of the drawing be the same as the Airport Layout drawing. Scale shown is 1" = 1,600 feet.
15. The FAA's ALP Checklist specifies that the drawing "identify public facilities (such as schools, parks, and others)." Please verify if this is applicable.



U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98057-3356

January 25, 2007

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

Dear Mr. Gately:

Draft Airport Layout Plan (ALP) Review Comments
Portland - Mulino Airport; Portland, OR
Airport Improvement Program (AIP) Project Number 3-41-0072-010

We have reviewed the draft ALP set of drawings for Portland-Mulino Airport. Our preliminary review comments are enclosed and will be forwarded to other Federal Aviation Administration (FAA) divisions reviewing the ALP and conducting an aeronautical study on the proposed improvements. These comments are being provided at this time as a convenience to the consultant and to expedite revisions to the drawings.

The plans should not be finalized for submittal until the aeronautical study has been completed, as additional revisions may be necessary. We will forward final comments upon completion of the aeronautical study. Please call me at (425) 227-2654 if I can be of further assistance.

Sincerely,

ORIGINAL SIGNED BY

Stanley C. Allison
OR/ID State Planner

1 Enclosure

cc:
Dan Clem, Oregon Department of Aviation
Sarah Lucas, W&H Pacific

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JAN 30 2008

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**FAA REVIEW COMMENTS
DRAFT AIRPORT LAYOUT PLAN (ALP) SET
PORTLAND - MULINO AIRPORT**

Airport District Office Comments

Sheet 1 – Airport Layout Plan

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9755 SW Barnes Road, Suite 300
Portland, Oregon 97225
503.626.0455
Fax 503.526.0775

TRANSMITTAL

To: **Mr. Stan Allison, SEA-644** Date:

Company: Federal Aviation Administration Project Number: 33211
Seattle Airports District Office

Address: 1601 Lind Ave. SW Project Name: Mulino Airport Master Plan Update

City/State: Renton, WA 98055 Re: Final ALP Set (revised)

Phone: 425-227-2654

Fax: 425-227-1650

From: Sarah Lucas

Phone: (503) 372-3533

Fax: (503) 526-0775

We are sending:	These Are Transmitted:	Copied To:
☒ Attached	☐ For Your Info/File	<u>Jason Gately, Port (1 copy via USPS)</u>
☐ Facsimile	☐ As Requested	<u>Larry Weber, ODA (1 copy via USPS)</u>
	☒ For Review & Comment	<u>Project File</u>

Copies	Description
5	ALP Drawing Set (full size) via UPS 2 nd Day Air

Stan,

All comments provided in Dave Roberts' letter dated October 11, 2007 have been addressed in the attached revised ALP drawing set – with the exception of comment #6 as the wind rose period provided is the only data available. An electronic copy of the Master Plan text will be posted to our FTP site for your review. I will e-mail you once this data is available, with the link to the FTP site. All changes made as a result of Dave's letter will be highlighted in track changes.

Please contact me if you have any questions or concerns.

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planners

surveyors

engineers

landscape architects



U.S. Department
of Transportation
**Federal Aviation
Administration**

Seattle Airports District Office
1601 Lind Avenue, S. W., Ste 250
Renton, Washington 98055-4056

October 11, 2007

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

Dear Mr. Gately:

Draft Airport Layout Plan (ALP) Review Comments
Mulino Airport
AIP Project No. 3-41-0072-010

I have reviewed the draft ALP set of drawings for Mulino Airport and the final draft of the Master Plan. My preliminary review comments are enclosed. Please revise the ALP to address these comments and send five corrected copies so that we may coordinate with other Federal Aviation Administration (FAA) division. These comments are provided at this time as a convenience to the consultants and to expedite revisions to the drawings.

The plans should not be finalized for submittal until the aeronautical study has been completed, as additional revisions may be necessary. I will forward final comments upon completion of the aeronautical study. Please call me at (425) 227-2629 if I can be of further assistance.

Sincerely,

Dave Roberts
Civil Engineer

Enclosure: FAA Review Comments Draft Airport Layout Plan (AIP) Set
FAA Associate Administrator's letter of August 29, 2005
Portion of Director's Determination 16-06-06

Cc Sarah Lucas W&H Pacific

www.faa.gov/airports_airtraffic/airports/regional_guidance/northwest_mountain/

FAA REVIEW COMMENTS
DRAFT AIRPORT LAYOUT PLAN (ALP) SET
MULINO AIRPORT

Sheet 1 – AIRPORT LAYOUT PLAN

1. Under “Buildings and Facilities ” table number 15, a non-aviation Reserve (Aviation compatible) has been established. The land in this area was purchased with Federal Funds 1988 for aviation development purposes. Federal law does not permit use of land acquired for aviation development purposes be used for non-aviation purposes. Please remove the designation and shaded area.

2. Under Note 2 and item 16 of the “Buildings and Facilities ” table, residential airparks are considered to be a non-compatible land use on or adjacent to publicly owned airports. See attached Associate Administrators letter dated August 29, 2005 and portion of Director’s Determination for Afton-Lincoln County Docket No. 16-06-06. Please remove the note and reference to item 16. Also, on the first sheet , we do not label areas off the airport “potential aviation compatible” unless the area is also designated for future acquisition and inclusion into the airport. If an area is aviation compatible, it should be shown on the land-use sheet.

3. Need to add note that existing runway width exceeds the design standards for the critical aircraft and that the need for the wider runway will be addressed at the time of the next runway rehabilitation.

4. The future access road shown on the ALP will cut off aviation access to a portion of the airport. Please revise access road so the aviation access is not cut off to that section of the airport.

5. At each proposed AWOS location show 500 foot radius clear area.

6. The wind rose period just says 1980, usually there is a range of dates for when the coverage was measured.

On the Runway Data table:

- a. For Runway 32 use 45-12-43.743 latitude and 122-35-16.359 longitude (est.) These coordinates provide a runway that is 3425 feet long. These are also what is shown in the NAS.

ALL OTHER DRAWINGS

Revisions must be made where appropriate for consistency with the above comments. Please make needed corrections and/or provide information from available sources to the extent specified in the approved scope of work.

MASTER PLAN REPORT REVIEW COMMENTS

The following comments were provided in our January 10, 2007 letter to the airport, "runway Pavement Length, page 4-7: is there a need for this footnote? We do not usually include guidance from other regions in our documents." and "Airpark, page 4-15: Remove section. .." These comments were not addressed in the final revised master plan.

On page 3-17 after paragraph on the decrease in operations between 2006 and 2012, indicate that this reduced operations results in smaller noise contours.

On page 5-20 first paragraph change to indicate proposed non-aviation reserve area is contrary to use of development land purchased with FAA federal funds.

On page 5-20 second paragraph. It is against FAA policy as outlined in Carey v. Afton-Lincoln County Municipal Airport, FAA Docket No. 16-06-06, Directors Determination dated January 19, 2007, to permit federally obligated airports to enter into in new ingress-egress (through-the-fence) agreements with residential airparks. This paragraph should be modified to remove reference to airpark. Also since the area should not be noted on the ALP per earlier comment. The paragraph should simple refer to the area west of the airport as having future potential for aviation development.

On page 7-4, Capital Improvement Program, T-hangers are considered eligible for AIP funding and could be included under FAA funding source.

Vasconcelos



U.S. Department
of Transportation
Federal Aviation
Administration

Office of Associate Administrator
for Airports

800 Independence Ave., SW.
Washington, DC 20591

AUG 29 2006

Mr. Hal Shevers
Chairman
Clermont County-Sporty's Airport
Batavia, OH 45103

Dear Mr. Shevers:

Thank you for your letter of July 18. In your letter, you suggested the Federal Aviation Administration promote developing residential airparks as a means to improve airport security and reduce the closure rate of general aviation airports. Residential airparks developed next to an airport usually rely on "through-the-fence" agreements to gain access to the airfield.

First, I would like to make clear that the FAA does not oppose residential airparks at private use airports. Private use airports are operated for the benefit of the private owners, and the owners are free to make any use of airport land they like. A public airport receiving Federal financial support is different, however, because it is operated for the benefit of the general public. Also, it is obligated to meet certain requirements under FAA grant agreements and Federal law. Allowing residential development on or next to the airport conflicts with several of those requirements.

An airpark is a residential use and is therefore an incompatible use of land on or immediately adjacent to a public airport. The fact there is aircraft parking collocated with the house does not change the fact that this is a residential use. Since 1982, the FAA has emphasized the importance of avoiding the encroachment of residential development on public airports, and the Agency has spent more than \$300 million in Airport Improvement Program (AIP) funds to address land use incompatibility issues. A substantial part of that amount was used to buy land and houses and to relocate the residents. Encouraging residential airparks on or near a federally obligated airport, as you suggest, would be inconsistent with this effort and commitment of resources.

Allowing an incompatible land use such as residential development on or next to a federally obligated airport is inconsistent with 49 USC §47104(a)(10) and associated FAA Grant Assurance 21, *Compatible Land Use*. This is because a federally obligated airport must ensure, to the best of its ability, compatible land use both off and on an airport. We would ask how an airport could be successful in preventing incompatible residential development before local zoning authorities if the airport operator promotes residential airparks on or next to the airport.

Additionally, residential airparks, if not located on airport property itself, require through-the-fence access. While not prohibited, the FAA discourages through-the-fence operations because

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OCT 15 2007

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they make it more difficult for an airport operator to maintain control of airport operations and allocate airport costs to all users.

A through-the-fence access to the airfield from private property also may be inconsistent with security guidance issued by the Transportation Security Administration (TSA). TSA created guidelines for general aviation airports: Information Publication (IP) A-001, *Security Guidelines for General Aviation Airports*. The TSA guidelines, drafted in cooperation with several user organizations including the Aircraft Owners and Pilots Associations (AOPA), recommend better control of the airport perimeter with fencing and tighter access controls. Accordingly, we do not agree with your view that a residential airpark and the associated through-the-fence access points can be said to improve airport security. In fact, multiple through-the-fence access points to the airfield could hinder rather than help an airport operator maintain perimeter security.

Finally, we find your statement that general aviation airports have been closing at an alarming rate to be misleading, because it is simply untrue with respect to *federally obligated* airports. In fact, the FAA has consistently denied airport closure requests. Of approximately 3,300 airports in the United States with Federal obligations, the number of closures approved by the FAA in the last 20 years has been minimal. The closures that have occurred generally relate to replacement by a new airport or the expiration of Federal obligations. AOPA has recognized our efforts. In its latest correspondence to the FAA on the *Revised Flight Plan 2006-2010*, AOPA stated, "the FAA is doing an excellent job of protecting airports across the country by holding communities accountable for keeping the airport open and available to all users."

For the above reasons, we are not able to support your proposal to promote the development of residential airparks at federally obligated airports.

I trust that this information is helpful.

Sincerely,

**Original signed by:
Woodie Woodward**

Woodie Woodward
Associate Administrator
for Airports

Cntl: 20051267-0/FAA-050816-006

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Page: 1

[0] Statistics 20051267-0 Shevers2.doc, 705 words

Original, 26 Aug 2005 07:18

Style Index 11, Excellent for a Letter

Average Sentence 22, Fair

Passive Index 16, Good

Carey v. Davenport v. Afton - Lincoln County Municipal Airport Joint Powers Bd.
Doclet No. 16-06-06, 1/9/07 Directors Determination.

on airport property.²³ Neither does the Town of Afton permit residential dwellings on airport property.²⁴ [FAA DD Exhibit 1, Item 3, exhibit page 33.] Even though zoning may be the responsibility of the Town of Afton, the Respondent is expected to meet its grant assurance obligations. The Respondent is responsible for ensuring hangars are not used for residential facilities and that no residential facilities are developed on the airport in conflict with the Airport Layout Plan and the other grant assurances.

The administrative record in this matter is persuasive. Complainants allege at least one tenant is permitted to use his hangar as a residence. The Respondent does not deny the claim. Rather, the Respondent attempts to deflect attention by stating (a) it is not the responsibility of the Respondent to enforce zoning violations, and (b) the Complainants have or had also used hangars for personal activities. [FAA DD Exhibit 1, Item 5, pages 7-8.] It does appear the Respondent is not enforcing the ban on residential hangars on airport property. We expect the Respondent to confirm that hangars are not being used for residential facilities and to exert whatever effort is necessary to ensure this activity is not permitted on airport property. At this time, the Director finds the Respondent is in violation of grant assurance 21, *Compatible Land Use*, by failing to enforce a prohibition on residential use of hangars on the airport.

(2) Issue 7(b): Residential Hangars Adjacent to Airport Property

Whether Respondent is in violation of grant assurance 21, *Compatible Land Use*, by encouraging the development of a residential airpark adjacent to the airport.

The administrative record shows a residential airpark was developed adjacent to airport property with Airport Board support.

- On August 18, 2004, the Airport Board discussed a proposal to combine privately owned acreage adjacent to the airport for use as an airpark that would include hangars, residences, and a camping area. The Airport Board discussed turning the old runway into a road to provide access to the park area. [FAA DD Exhibit 1, Item 3, exhibit page 93.]
- On November 17, 2004, the Airport Board again discussed plans for the proposed airpark. [FAA DD Exhibit 1, Item 3, exhibit page 109.]
- On January 27, 2005, the Airport Board discussed the water source for the airpark, the resolution of the old taxiway, and the general aviation camping area.

²³ See *Land Use Compatibility and Airports: A Guide for Effective Land Use Planning* at http://www.faa.gov/airports/airtraffic/airports/environmental/land_use/. Page 2 of 141 lists examples of incompatible land uses, including residential, schools, and churches. Grant assurance 21, *Compatible Land Use*, obligates the airport to implement whatever steps are necessary to prevent incompatible land use.

²⁴ In a September 19, 2005, letter to Complainant M. Daniel Carey from James K. Sanderson, Counsel for the Town of Afton, Mr. Sanderson stated, "under no circumstances were there to be living quarters contained within the hangars at the airport. The airport is not currently zoned for any residential dwellings." [FAA DD Exhibit 1, Item 3, exhibit page 217.]



9755 SW Barnes Road, Suite 300
Portland, Oregon 97225
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Fax 503.526.0775

TRANSMITTAL

To: **Dave Roberts, SEA-643** Date:

Company: Federal Aviation Administration Project Number: 33211

Address: 1601 Lind Ave. SW Project Name: Mulino Airport Master Plan Update

City/State: Renton, WA 98055 Re: Draft Final Report

Phone: 425-227-2654

Fax:

From: Sarah M. Lucas

Phone: (503) 626-0455

Fax: (503) 526-0775

We are sending:	These Are Transmitted:	Copied To:
☒ Attached	☐ For Your Info/File	<u>Jason Gately, Port</u>
☐ Facsimile	☐ As Requested	<u>Project File</u>
# Of Pages Including Cover	☒ For Review & Comment	_____

Copies	Description
1	Draft Final Master Plan Report
1	ALP Drawing Set (full size)

Dave,

Please contact me if you have any questions.

Regards,

Sarah

whpacific.com

planners

surveyors

engineers

landscape architects



9755 SW Barnes Road, Suite 300
Portland, Oregon 97225
503.626.0455
Fax 503.526.0775

TRANSMITTAL

To: Suzanne Lee-Pang
Company: FAA
Address: 1601 Lind Ave. SW
City/State: Renton, WA 98057
Phone: 425-227-2654
Fax:

Date: _____
Project Number: 33211
Project Name: Mulino Airport Master Plan Update
Re: Draft Tasks 6 and 7 (Airport Layout and Capital Improvement Plans)

From: Sarah Lucas
Phone: (503) 626-0455
Fax: (503) 526-0775

Confidentiality Notice: This facsimile is intended only for the use of the individual and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that the unauthorized dissemination, distribution or copying of this communication, or the taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this facsimile in error, please notify us immediately by telephone (collect). Thank you.

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☒ Attached	☐ For Your Info/File	_____
☐ Facsimile	☐ As Requested	_____
# Of Pages Including Cover	☒ For Review & Comment	_____

Copies	Description
2	Draft Task 6 – Airport Layout Plan
2	Draft Task 7 – Capital Improvement Plan
1	ALP Drawing Set (full size)
1	ALP Drawing Set (1/2 size)
2	ALP Checklist

Suzanne,

The advisory committee meeting to discuss the above items will be held at the Mulino Elementary School on June 5th from 5:30 – 6:00 pm. I look forward to receiving your comments and please let me know if you have any questions.

whpacific.com

planners

surveyors

engineers

landscape architects

Article I. APPENDIX F - AIRPORT LAYOUT PLAN DRAWING SET

The following list provides general guidelines in preparing the Airport Layout Plan drawing set. The individual sheets that comprise the Airport Layout Plan drawing set will vary with each planning effort. During the project scoping activities, planners must determine which sheets will be necessary. Checklists from FAA Regional and District Offices and many state aviation offices may supplement the guidance provided in this Appendix. Since these checklists are comprehensive, not all items will be applicable to a specific project.

1. Airport Layout Drawing					
	Sponsor/Consultant				
	Yes	No	N/A		FAA
a. Sheet size – Minimum 24" x 36"		X			
b. Scale – Within a range of 1" = 200' to 1" = 600'	X				
c. North Arrow	X				
1) True and Magnetic North	X				
2) Year of the magnetic declination	X				
3) Orient drawing so that north is to the top or left of the sheet	X				
d. Wind rose	X				
1) Data source and the time period covered	X				
2) Include individual and combined coverage for:	X				
a) Runways with 10.5 knots crosswind	X				
b) Runways with 13 knots crosswind	X				
c) Runways with 16 knots crosswind			X		
d) Runways with 20 knots crosswind			X		
e. Airport Reference Point (ARP) – Existing and ultimate, with latitude and longitude to the nearest second based on NAD 83	X				
f. Ground contours at intervals of 2' to 10', lightly drawn	X				
g. Elevations (Existing and Ultimate to 1/10 of a foot)	X				
1) Runway	X				
2) Displaced thresholds	X				
3) Touchdown zones	X				
4) Intersections			X		
5) Runway high and low points	X				
6) Roadways where they intersect the RPZ edges and extended runway centerlines	X				
7) Structures on Airport – If a terminal area plan is not included, show structure top elevations on this sheet		X			
h. Building limit lines – show on both sides of the runways and extend to the airport property line of	X				

RPZ					
i. Runway Details (Existing and Ultimate)	X				
1) Dimensions – length and width within the outline of the runway	X				
2) Orientation – Runway end numbers and true bearing to nearest 0.01 degree	X				
3) Markings	X				
4) Lighting – Threshold lights only	X				
5) Runway Safety Areas – Dimensions may be included in the Runway Data Table	X				
6) End Coordinates – Note near end (existing and ultimate) of each runway end, to nearest second		X			
7) Displaced threshold coordinates, to the nearest second			X		
8) Declared Distances – For each runway direction if applicable. Identify any clearway/stopway portions in the declared distances		X			
j. Taxiway details (Existing and Ultimate)	X				
1) Taxiway widths and separations from the runway centerlines, parallel taxiway, aircraft parking, and objects	X				
k. RPZ Details (Existing and Ultimate)	X				
1) Dimensions	X				
2) Type of property acquisition (fee or easement)	X				
l. Approach slope ratio (20:1; 34:1; 50:1)	X				
m. Airport Data Table (Existing and Ultimate)	X				
1) Airport elevation (MSL)	X				
2) Airport Reference Point data	X				
3) Mean maximum temperature	X				
4) Airport Reference Code for each runway	X				
5) Design Aircraft for each runway or airfield component	X				
n. Runway Data Table (Existing and Ultimate)	X				
1) Percent effective gradient	X				
2) Percent wind coverage	X				
3) Maximum elevation above MSL	X				
4) Runway length and width	X				
5) Runway surface type	X				
6) Runway strength	X				
7) FAR Part 77 approach category	X				
8) Approach type	X				
9) Approach slope	X				
10) Runway lighting (HIRL, MIRL, LIRL)	X				
11) Runway marking	X				
12) Navigational and visual aids	X				

13) RSA dimensions	X				
o. Title and Revision Blocks	X				
1) Name and location of the airport	X				
2) Name of preparer	X				
3) Date of drawing	X				
4) Drawing title	X				
5) Revision block	X				
6) FAA disclaimer	X				
7) Approval block	X				
p. Other					
1) Standard legend	X				
2) Existing and Ultimate airport facility and building list	X				
3) Location map	X				
4) Vicinity Map	X				
<i>Remarks</i>					
Explanation for fields answered "No." • Sheet size = 22" x 34" so sheet can be printed on 11" x 17" • g.7. Structure top elevations currently unavailable. Information forthcoming will be surveyed June 5, 2007. • i.6. End coordinate data located in Runway Data Table. • i.8. Declared distances presented in Declared Distances Table.					
2. Airport Airspace Drawing					
a. Plan view of all FAR Part 77 surfaces, based on ultimate runway lengths	X				
b. Small scale profile views of existing and ultimate approaches	X				
c. Obstruction data tables, as appropriate	X				
d. Sheet size – same as airport layout drawing	X				
e. Scale – 1" = 2,000' for the plan view; 1" = 1,000' for approach profiles; and 1" = 100' (vertical) for approach profile	X	X			
f. Title and revision blocks – same as the airport layout drawing	X				
g. Approach Plan View Details	X				
1) USGS for base map	X				
2) Show runway end numbers	X				
3) Include 50' elevation contours on all slopes	X				
4) Show the most demanding surfaces with solid lines and other with dashed lines		X			
5) Identify top elevations of objects that penetrate any of the surfaces. For objects in the inner approach, add note "See inner portion of the approach plan view for close-in obstructions."	X				

6) For precision instrument runways, show balance of 40,000' approach on a separate sheet.			X		
h. Approach Profile Details					
1) Depict the ground profile along the extended runway centerline representing the composite profile, based on the highest terrain across the width and along the length of the approach surface.	X				
2) Identify all significant objects (roads, rivers, and so forth) and tope elevations within the approach surfaces, regardless of whether or not they are obstructions	X				
3) Show existing and ultimate runway ends and FAR Part 77 approach slopes.	X				
<i>Remarks</i>					
Explanation for fields answered "No." e. See Sheet C-3 for profile views. - g.4. All lines shown as solid. - H.1. thru h.3, see Sheet C-3 for profile views.					
3. Inner Portion of the Approach Surface Drawing					
a. Large scale plan views of inner portions of approaches for each runway, usually limited to the RPZ areas	X				
b. Large scale projected profile views of inner portions of approaches for each runway, usually limited to the RPZ areas	X				
c. Interim stage RPZs when plans for interim runways extensions are firm and construction is expected in the near future			X		
d. Sheet size – same as Airport Layout drawing	X				
e. Scale – 1" = 200'; vertical 1" = 20'		X			
f. Title and revision blocks – Same as for Airport Layout drawing	X				
g. Plan View Details	X				
1) Aerial photos for base maps	X				
2) Numbering system to identify obstructions	X				
3) Depict property line	X				
4) Identify, by numbers, all traverse ways with elevations and computed vertical clearance in the approach	X				
5) Depict the existing and ultimate physical end of the runways. Note runway end number and elevation	X				
6) Show ground contours, lightly drawn	X				
h. Profile View Details	X				
1) Depict terrain and significant items (fences, roadways, and so forth)	X				

2) Identify obstruction with numbers on the plan view	X				
3) Show roads and railroads with dashed lines at edge of the approach	X				
i. Obstruction Table Details	X				
1) Depict terrain and significant items (fences, roadways, and so forth)	X				
2) Identify obstructions with numbers on the plan view	X				
3) Show roads and railroads with dashed lines at edge of the approach.	X				
4) Prepare a separate table for each RPZ		X			
5) Include obstruction identification number and description, the amount of the approach surface penetration, and the proposed disposition of the obstructions.	X				
Remarks					
Explanation for fields answered "No." e. Vertical Scale – 1" = 200' - i.4. All obstructions are within one table, and identified clearly.					
4. Terminal Area Drawing					
<i>The need for this drawing will be decided on a case-by-case basis. For small airports, where the Airport Layout drawing is prepared to a fairly large scale, a separate drawing for the terminal area may not be needed.</i>					
a. Large scale plan view of the area or areas where aprons, building, hangars, and parking lots are locate	N/A				
b. Sheet size – Same as Airport Layout drawing	N/A				
c. Scale – 1" = 50' to 1" = 100'	N/A				
d. Title and revision blocks – Same are for Airport Layout drawing	N/A				
e. Building Data Table – To list structures and show pertinent information about them. Include space and columns for:	N/A				
1) A numbering system to identify structures	N/A				
2) Top elevation of structures	N/A				
3) Existing and planned obstruction markings	N/A				
Remarks					
A Terminal Area Drawing is not being updated as part of this AIP project.					
5. Land Use Drawing					
a. Include all land uses (industrial, residential, and so forth) on and off the airport, to at least the 65 DNL contour	X to 55 DNL				

b. Sheet size – Same as Airport Layout drawing	X				
c. Scale – Same as Airport Layout drawing	X				
d. Title and revision blocks – Same as for Airport Layout drawing	X				
e. Aerial base map	X				
f. Legend (symbols and land use descriptions)	X				
g. Identify public facilities (such as schools, parks, and others)	X				
h. Drawing details – Normally limited to existing and future airport features (i.e. runways, taxiways, aprons, RPZs, terminal buldings, and navigational aids)	X				
<i>Remarks</i>					
Oregon Department of Environmental Quality requests noise contours be depicted to the 55 DNL line.					
6. Runway Departure Surfaces Drawing					
a. Large scale plan views of departure surfaces for each runway end that is designated primarily for instrument departures. The one-engine inoperative (OEI) obstacle identification surface (OIS) should be shown for any departure runway end supporting air carrier operations.	N/A				
b. Large scale projected profile views of departure surfaces for each runway that is designated primarily for instrument departures.	N/A				
c. Sheet size – Same as Airport Layout drawing	N/A				
d. Scale – Horizontal 1" = 1000'; vertical 1" = 100' (runway departure surfaces); and Scale – Horizontal 1" = 2000'; vertical 1" = 100' (OEI obstacle identification surfaces)	N/A				
e. Title and revision blocks – Same as for Airport Layout drawing	N/A				
j. Plan View Details	N/A				
1) Aerial photos for base map	N/A				
2) Numbering system to identify obstructions	N/A				
3) Depict property line, including easements	N/A				
4) Identify, by numbers, all traverse ways with elevations and computed vertical clearance in the departure surface	N/A				
5) Depict the existing and ultimate physical end of the runways. Note runway end number and elevation	N/A				
6) Show ground contours, lightly drawn	N/A				
k. Profile View Details	N/A				
1) Depict terrain and significant objects, including	N/A				

fences, roadways, rivers, structures, and buildings					
2) Identify obstructions with numbers of the plan view	N/A				
3) Show roads and railroads with dashed lines at edge of the departure surface	N/A				
I. Obstruction Table Details	N/A				
1) Depict terrain and significant objects, including fences, roadways, rivers, structures, and buildings	N/A				
2) Identify obstructions with numbers of the plan view	N/A				
3) Show roads and railroads with dashed lines at edge of the departure surface	N/A				
4) Prepare a separate table for each departure surface	N/A				
5) Include obstruction identification number and description, the amount of the departure surface penetration, and the proposed disposition of the obstructions	N/A				
<i>Remarks</i>					
The Runway Departure Surfaces Drawing is not being updated as part of this AIP project.					
7. Airport Property Map					
a. Sheet size – Same as Airport Layout drawing	N/A				
b. Scale – Same as the Airport Layout drawing	N/A				
c. Title and revision blocks – Same as for Airport Layout drawing	N/A				
d. Legend	N/A				
e. Data Table	N/A				
1) A numbering or lettering system to identify tracts of land	N/A				
2) The date property was acquired	N/A				
3) The Federal aid project number under which it was acquired	N/A				
4) Type of ownership (fee, easement, federal surplus, and others)	N/A				
f. Show existing and future airport features (i.e. runways, RPZs, navigational aids and so forth) that would indicate a future aeronautical need for airport property.	N/A				
<i>Remarks</i>					
The Airport Property Map is not being updated as part of this AIP project.					



U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98057-3356

January 10, 2007

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

RECEIVED
JAN 12 2007
W&H PACIFIC

Dear Mr. Gately:

Airport Master Plan Update
Portland-Mulino Airport
Airport Improvement Program Project Number 3-41-0072-10
Review Chapter 4 Airport Facility Requirements

I have reviewed the Airport Facility Requirements working paper received in December 2006 from the consultants for the Airport Layout Plan Update project for Portland-Mulino Airport (4S9). My review comments at this time are as follows:

- a. Table 3A: Blast pads are not required unless blast erosion control is required for takeoff operations. The way it is presented in the table may present the perception that the airport needs blast pads. If this is not the case, either remove the line item or place a footnote that blast pads are not needed at the airport.

Provide better distinction between the width, and length of the RSA, OFA and OFZ, etc in the table. The data in the table appears to run together.

- b. Runway Pavement Length, page 4-7: Is there a need for this footnote? We do not usually include guidance from other regions in our documents.
- c. Airpark, page 4-15: Remove section. We do not support **any** residential development near an airport including airparks. It is not a compatible use. If this is allowed, it would probably lead to a through the fence agreement. The airport does not have through the fence operations now nor does the FAA recommend these types of agreements. Some of these agreements have been found to be detrimental to the economic viability of the airport. Further discussion can be conducted with our office if there are more questions.

As to identifying airport land as "surplus" and then eventually selling it, this is **not** an option. The land shown on Exhibit A as airport property was acquired for airport/aviation use from 1984 onwards with AIP funding. This was fairly recent and we see no benefit to civil aviation in releasing the land, especially not for the reasons stated.

This whole section presents unfeasible ideas that may be better off not presented and the section removed. Or if presented, state that it is unfeasible because... and leave it at that. Discussion on the surplus option should be totally removed.

Please call me at (425) 227-2654 if you have any questions.

Sincerely,

Original signed by Suzanne Lee-Pang

Suzanne Lee-Pang
Oregon/Idaho State Airport Planner/Engineer

cc:
Sarah Lucas, W&H Pacific



U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98057-3356

March 26, 2007

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

Dear Mr. Gately:

RECEIVED

MAR 28 2007

W&H PACIFIC

Airport Master Plan Update
Portland-Mulino Airport
Approval of Chapter 3, Aeronautical Activity Forecast

I have reviewed the revised Chapter 3, Aeronautical Activity Forecast submitted by the consultants for the Master Plan Update project for Portland-Mulino (4S9). The revisions, including the forecasts, are hereby approved by the Federal Aviation Administration (FAA). If I can be of further assistance, please call me at (425) 227-2654.

Sincerely,

ORIGINAL SIGNED BY

Suzanne Lee-Pang
Oregon/Idaho State Planner-Engineer

cc:

Sarah Lucas, W&H Pacific



9755 SW Barnes Road, Suite 300
Portland, Oregon 97225
503.626.0455
Fax 503.526.0775

Suzanne Lee-Pang
Oregon-Idaho State Planner/Engineer
Federal Aviation Administration
1601 Lind Avenue SW, Suite 250
Renton, WA 98057-3356

Re: Mulino Airport Master Plan Aeronautical Activity Forecast
AIP Project Number 3-41-0072-10

Dear Suzanne,

Thank you for reviewing and commenting on the Mulino Airport Aeronautical Activity Forecast. We have incorporated information and clarification, as requested. Your comments were addressed as follows:

1. *Table 3G – Indicate how the preferred forecast was calculated for year 2027.*
 - a. Item accomplished by providing further explanation of forecast calculation within the preceding paragraph.
2. *Page 3-13 – Elaborate in more detail the rationale in selecting the “preferred forecast.”*
 - a. More detail within the paragraph has been included for selection rationale.
3. *Page 3-14 – last sentence on page, which “numbers” are being referred to?*
 - a. The reference is to aircraft operations. Clarification has been made.
4. *Page 3-15 – 3rd paragraph, when was the 21,300 reported by the Airport? On what basis was the count provided?*
 - a. Date of the Airport Master Record Form 5010 was added. The count was based on Oregon Department of Aviation RENS counts.

In last paragraph, elaborate more on why the increase in operations more likely indicates more transient traffic.

- b. Additional clarification was included.
5. *Page 3-16 – first paragraph. Add sentence to why fuel sales can’t be used as a measure of activity, i.e. no fuel facility at the time.*
 - a. Statement has been refined to exemplify this.

• Suzanne Lee-Pang
July 11, 2007
Page 2

6. *Page 3-17 – first paragraph – elaborate more on why 568 ops are reasonable to use. Present the justification behind this.*

- a. More justification has been added within the paragraph.

Third paragraph, last sentence, "... from 2006 to 2012." Add words "... based on "TAF forecasts. However..."

- a. Sentence has been restructured.

*Table 3K – what do the ** indicate?*

- a. The following was added to the table: * *The accuracy of the base year (2006) operations figure is questionable; a more accurate number may be 21,300, the number reported for 2004 in the FAA's Airport Master Record (5015 Form).*

7. *Table 3O – under operations fleet mix, expound on why the multi-engine ops drops then increase again.*

- a. The following statement was added: * *Multi-engine Piston operations decline from 2012 to 2017 because their share of the operations mix declines from 1.5% to 1.0%, as shown in Table 3M. Their share of the operations mix stays at 1.0% between 2017 and 2027 and so the number of multi-engine operations grows from 2017 to 2027 because total operations are projected to grow.*

8. *We concur that the Airport reference code (ARC) BII is appropriate to establish current design standards for the airfield.*

- a. ARC BII has been retained for planning purposes at the Airport.

Enclosed is an updated version of the Aeronautical Activity Forecast chapter. We anticipate your approval of the revised document. Please contact me at your earliest convenience if you have any questions.

Best regards,

W&H PACIFIC, INC.

Rainse E. Anderson, P.E.
Project Manager

cc: Jason Gately, Port of Portland

enc: Mulino Airport Master Plan – Aeronautical Activity Forecast



U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98057-3356

RECEIVED

JAN 08 2007

W&H PACIFIC

November 20, 2006

Mr. Jason Gately
Port of Portland
P. O. Box 3529
Portland, OR 97208

Dear Mr. Gately:

Airport Master Plan Update
Portland-Mulino Airport
Airport Improvement Program Project Number 3-41-0072-10
Review Chapter 3 Aeronautical Activity Forecast

I have reviewed the draft Forecasts of Aviation Activity working paper submitted by the consultants for the Airport Master Plan Update project for Portland-Mulino Airport (4S9). The working paper contains much useful information and reflects considerable effort. My comments are as follows:

1. Table 3G – Indicate how the preferred forecast was calculated for year 2027.
2. Page 3-13 – Elaborate in more detail the rationale in selecting the " preferred forecast."
3. Page 3-14 – last sentence on page, which "numbers" are being referred to?
4. Page 3-15 – 3rd paragraph, when was the 21,300 reported by the airport? On what basis was the count provided?

In last paragraph, elaborate more on why the increase in operations more likely indicates more transient traffic.

5. Page 3-16 – first paragraph. Add sentence to why fuel sales can't be used as a measure of activity, i.e. no fuel facility at the time.
6. Page 3-17 – first paragraph – elaborate more on why 568 ops are reasonable to use. Present the justification behind this.

third paragraph, last sentence, "...from 2006 to 2012." Add words "...based on "TAF forecasts. However..."

Table 3K – what do the ** indicate?

7. Table 3O – under operations fleet mix, expound on why the multi-engine ops drops then increase again.
8. We concur that the airport reference code (ARC) BII is appropriate to establish current design standards for the airfield.

Sincerely,

Original signed by Suzanne Lee-Pang

Suzanne Lee-Pang
Oregon-Idaho State Planner/Engineer

cc:
Sarah Lucas - W&H Pacific



U.S. Department
of Transportation

**Federal Aviation
Administration**

Seattle Airports District Office
1601 Lind Avenue, S. W., Ste 250
Renton, Washington 98055-4056

May 4, 2006

Mr. Jason A. Gately
Aviation Planner
7000 NE Airport Way, 3rd Floor
Portland, OR 97218

Jason
Dear ~~Mr. Gately~~:

Airport Master Plan Update
Portland-Mulino Airport, Mulino, Oregon
FAA Review Comments on Draft Workscope
AIP Project No. 3-41-0072-10

I have reviewed the draft workscope submitted by the consultants for the Airport Master Plan Update for Portland-Mulino Airport (4S9). My comments on the workscope are enclosed. This letter constitutes conditional approval of the workscope, subject to the enclosed comments. If you have any questions or concerns about the review comments, please let me know so we can discuss. Otherwise, the draft workscope should be revised to include the enclosed comments, as appropriate. The revised workscope, *less proposed hours and costs*, should then be sent to the independent estimator. Upon completion of the independent estimate, please contact me for resolution of any outstanding issues. The final workscope, including approved costs, should then be submitted as Part IV of the final grant application.

Before a notice to proceed can be issued to the consultant, I have to approve the proposed consultant contract. Afterwards, I will need a copy of the executed final agreement. Also, as a condition of project approval, I would like to receive monthly status/progress reports in support of billings submitted by the consultant. If I can be of further assistance, please call me at (425) 227-2652. Be advised, however, that I will be out of the office, on training, May 22-30.

Sincerely,

Don M. Larson

Don M. Larson
Airport Planner

Enclosure

cc:
Rainse Anderson, W&H Pacific

**FAA Review Comments on Draft Workscope
Airport Master Plan Update
Portland-Mulino Airport**

1. **Page 2, para. 1** – The airport layout plan (ALP) was also updated in 2004, and an unofficial “obstruction chart” prepared, in conjunction with an Oregon Aviation System Plan project to conduct field surveying for potential instrument approach procedures. That ALP has not yet been submitted by the Port of Portland to FAA for approval.
2. **Page 2, Task 0.3** – With the final application workscope, please submit a budget table with hours/costs distribution by element, and a project timeline schedule by element.
3. **Page 7, Task 3.3** – The FAA spreadsheet noted may be found in the FAA guidelines contained in “Forecasting Aviation Activity by Airport”: http://www.faa.gov/data_statistics/aviation_data_statistics/forecasting/media/AF1.doc. That guidance also contains two Excel templates in Appendix B and C. Please provide the preliminary forecasts to me in those Excel spreadsheets (via e-mail) before finalizing the draft working paper. This should not create extra work, but should actually facilitate preparation of approvable forecasts as well as FAA review of them. The reason for this is that FAA Headquarters is getting very strict on forecast approvals relative to the FAA Terminal Area Forecasts (TAF), as can be seen in the current guidance: <http://www.faa.gov/arp/planning/Forecast04.pdf>.
4. **Page 10, Task 6.2** – The ALP “checklist” is now in Appendix F of AC 150/5070-6B. I will provide via email an electronic version of it (verbatim from the AC) in true checklist format, but our FAA Region has not yet modified it.
5. **Page 12, para. 6** – It is suggested that noise contours beyond five years not be prepared. Aviation demand forecasts for 20 years out, as well as the state of aircraft technology and noise characteristics at that time, are so speculative as to be essentially meaningless for planning purposes. That is why existing- and 5th-year noise contours are used in Noise Exposure Maps (NEM’s) under Federal Aviation Regulation (FAR) Part 150 noise compatibility planning.
6. **Page 14, Task 8.1** – Upon project commencement, please provide an organizational chart depicting Sponsor and other involved agencies, and a listing of the Master Plan Advisory Group members and their affiliations. Working papers/draft reports should be received by FAA and the MPAG members *at least one week prior to meetings*.