Sekiu Airport
Final Report & ALP
July 2013

Washington State Department of Transportation
Aviation Division
"A Steward for Washington's Aviation System"

WHPacific
12100 NE 195th St, Ste 300 | Bothell, WA 98011
P: (425) 951-4800 | F: (425) 951-4808

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Table of Contents

Sekiu Airport
Sekiu, Washington
Port of Port Angeles

AIRPORT LAYOUT PLAN REPORT

Chapter Two – Aeronautical Activity Forecast

Chapter Three – Airport Facility Requirements

Chapter Four – Alternatives Analysis

Chapter Four - Exhibits

Chapter Five – Preferred Alternative

Chapter Five - Exhibits

Chapter Six – Capital Improvement Projects

Chapter Seven – Airport Plans

Plan Sheets

APPENDICES

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Executive Summary

The Port of Port Angeles undertook development of this Airport Layout Plan Report to update plans for the improvement of the Sekiu Airport. The previous approved plan was completed more than 30 years ago; various planning documents have peen prepared since, and this plan is intended to account for the changes that have occurred over the years.

A principal characteristic of the airport is very low activity. There is one based aircraft and infrequent operations by visiting aircraft. The forecasted future activity level is also very low. This activity level influences the proposed future development of the airport because it does not justify a high priority for funding.

A second driver of the future airport is the condition of several elements of the existing facility.

- 900 feet of the existing runway are on property not owned by the Port.
- That 900 feet of runway does not meet recommended safety design standards and the cost of reconstructing to meet the standards appears not to be justifiable.
- The existing runway pavement is in poor condition; it is being kept serviceable by maintenance but eventually will require reconstruction. Reconstruction would amount to constructing an entire new runway, with major drainage considerations.
- The site is marginal in terms of meeting the full expectations of a community airport; too narrow to meet standard setbacks and provide reasonable development space, and constrained by terrain and existing residential development.

The airport layout plan process included a public process, with a Planning Advisory Committee and public meetings. There was general agreement that the airport is an important element of community infrastructure but the activity level is not sufficient to justify significant investment.

The plan recommends that the site be retained and the runway be shortened to provide the maximum length possible on existing Port-owned property. The resulting length, approximately 2000 feet, is adequate to serve most of the aircraft currently using the airport, that is, small, light single-engine piston aircraft. The plan proposes that some limited improvements be made when funding is available, that will enhance safety and better serve the kind of activity that exists and is forecast to occur in the future.

Because the recommended improvements are limited, their cost is shown in a single group. It would be most effective to do most of them in a single project, when funds can be found. Total cost of the preferred improvements is estimated at $15,000. Although a runway reconstruction project is not anticipated in the foreseeable future, an estimate of $1,900,000 is shown in the long term planning period. At this time, funding for such a project cannot be identified or anticipated.

Reducing the length of the runway and completing limited safety-related improvements can provide a safer airport that meets the needs of most of the aircraft that use the airport.

The Following individuals and organizations participated in this planning study:

Port of Port Angeles

- Commissioner John Calhoun
- Executive Director Jeff Robb
- Airports Manager Doug Sandau

Technical Advisory Committee

- Patricia Hutson, Chief, Fire District 5
- Don Baker, Sekiu Citizen
- Gary Fernandes, Pilot and aircraft owner
- Martin Brand, Angler's Hideaway

Washington State Department of Transportation, Aviation Division

- Eric Johnson, Construction and Grants Program Manager

WHPacific, Inc.

- Sarah Lucas. Airport Planner
- David Field, Senior Aviation Consultant

Chapter 1 - Inventory

SEKIU AIRPORT LAYOUT PLAN NARRATIVE UPDATE

This Airport Layout Plan Narrative Report (Report) was undertaken to assess the role of the Sekiu Airport (Airport), evaluate the Airport's capabilities, forecast future aeronautical activity for the next 20 years, and plan for the timely development of any new or expanded airport facilities needed to accommodate future aviation activity.

The owner and operator of the Airport, the Port of Port Angeles (Port), obtained and matched a grant from the Washington State Department of Transportation – Aviation Division (WSDOT-Aviation) to fund this study. The Port has organized a Planning Advisory Committee (PAC), representing Airport users and neighbors, to participate in the planning process.

An initial step in the preparation of this Report is to collect data pertaining to the Airport and the area it serves. An inventory of the Airport was accomplished through physical observation of existing facilities, interviews with Airport users, PAC members and Port staff, and a review of previous Airport studies and records[1].

This chapter summarizes the Airport's background, historical aviation activity and financial data, existing airfield and landside facilities, airspace, land use and zoning, and environmental considerations. The information gathered as part of this initial step is the foundation for various analyses completed in the subsequent chapters of this Plan. An accurate inventory helps produce an aviation demand forecast that is reasonable and aids in identifying future facility development needs.

[1] Records referenced include: Sekiu Airport Layout Plan (1982); Drainage Study (1996), Pavement Management Report (2005) WSDOT-Aviation records, FAA Form 5010, and various Port correspondence.

BACKGROUND DATA

Airport Location and Access

The Airport is situated in Clallam County, which is located in northwestern Washington on the Olympic Peninsula. The County is bordered by Jefferson County to the south and east, the Pacific Ocean to the west, and British Columbia, Canada to the north. The Airport is located less than 0.5 miles south of the Strait of Juan de Fuca. The town of Sekiu is located approximately 0.5 miles east of the Airport. **Exhibit 1A** shows a map of the region and Airport vicinity.

The County is abundant in natural resources, which has influenced the six mainstay industries within the County: marine services, forest products, agriculture, technology, tourism, and education.

Vehicle access to the Airport is provided by State Route 112, which extends west from Port Angeles along the northern peninsula to the Pacific Coast at Neah Bay or routes 101/113. Local access from the Airport to the highway is provided by Sekiu Airport Road. No public transportation service is available.

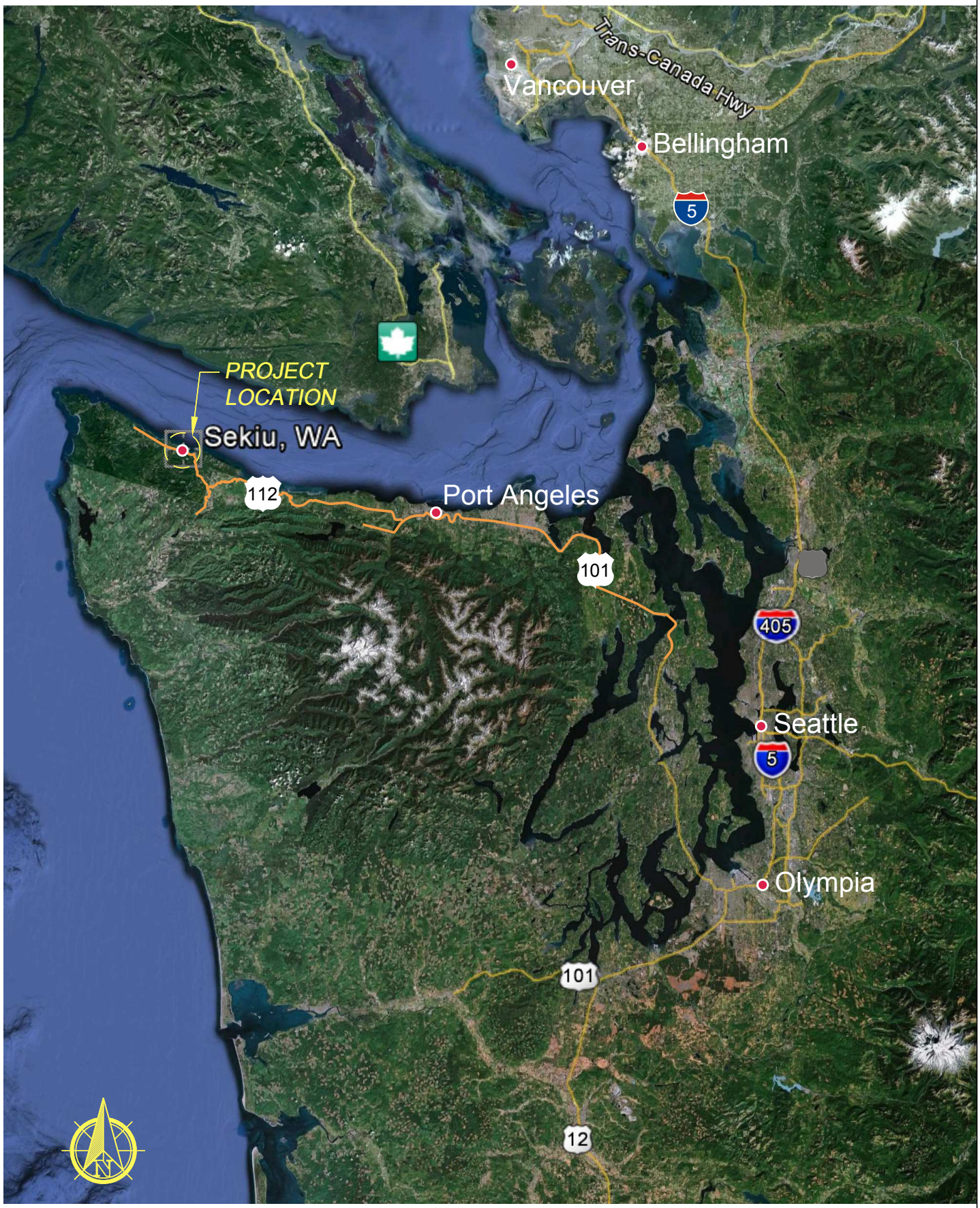
Area Topography

A rural county, Clallam encompasses marine, timber, and recreational lands (*i.e.*, numerous state parks and wilderness areas, the Olympic National Park, and the Olympic National Forest). The Olympic Peninsula is home to temperate rain forests, whose vegetation is located primarily in the western part of the peninsula, as the Olympic Mountains create a rain shadow effect in areas to the east, resulting in a much drier climate in those locales.

The Airport's elevation is 355 feet above mean sea level (MSL); overall the runway's elevation varies by approximately 20 feet along its length. The Airport is located on a plateau above the town of Sekiu, as the site was formerly a hilltop that was converted for airport development. The County's elevation ranges from -6 feet MSL to a high of 7,191 feet MSL. Most of the terrain above 4,500 feet MSL is in the Olympic National Park

Climate

The climate of Clallam County is generally described as maritime; consisting of mild, wet winters and cool, dry summers. However, the County's geographic features create extreme variations in precipitation. The rain shadow effect can be seen, as the annual precipitation ranges from 15 inches in the eastern part of the County (near Sequim) to over 200 inches in the western portion. The annual rainfall average for Sekiu is 102 inches. Temperatures generally maintain consistency in the County's lower elevations. The winter temperatures range from 30 to 45 degrees Fahrenheit, and summer temperatures generally range from 50 to 70 degrees Fahrenheit. The mean maximum temperature in the hottest month (August) is 66 degrees.



WHPacific

SOURCE: GOOGLE EARTH PRO

SEKIU AIRPORT	VICINITY MAP	EXHIBIT 1A

[DATE: ----] [AUTHOR: rtemplado] [PLOTTER: None] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\Exhibits\ACAD-037550-AIRP-EX1A.dwg] [LAYOUT: Layout1]

Community and Airport History

Clallam County is home of the traditional lands of the Klallam (for whom it is named), Makah, and Quileute peoples. The town of Sekiu was first settled by Europeans circa 1870. Early industries for the Sekiu and Clallam Bay areas included salmon canning, leather tanning, and logging.

The Sekiu Airport has been in existence since 1970, when 15 acres were converted by Walt C. Funk and Glenn E. Ballard to develop a 1,900-foot turf landing strip. In 1971 the Airport was added to the Port of Port Angeles' comprehensive land holdings. Over the next decade, improvements consisting of asphalt overlay and runway extension occurred. In 1977, the Airport became part of the WSDOT-Aviation system of airports. That was followed by construction of a security fence and three-unit hangar in 1980. An Airport Layout Plan was prepared in 1982. Maintenance of the facilities has occurred over the last thirty years, to include pavement maintenance, installation of visual approach aids, and obstruction removal. Today, the Airport encompasses approximately 22 acres of land owned by the Port of Port Angeles, with a portion of the Runway 8 end and approach area on property owned by Green Crow Properties.

AVIATION ACTIVITY DATA

There are two primary measures of aviation activity at a general aviation airport: based aircraft and aircraft operations. Each activity type is discussed below.

Based Aircraft

Based aircraft are the number of aircraft that are stored at an airport in a hangar or tied down on either a paved apron surface or a grassy area designated for such a use. WSDOT-Aviation's records indicate that there is currently one aircraft based at the Airport. Alternatively, the FAA's records indicate three based aircraft. **Table 1A** depicts the two records for based aircraft. For the purposes of this report, WSDOT's records are considered to be the more accurate[2].

TABLE 1A. BASED AIRCRAFT

Aircraft Category	WSDOT-Aviation Records	FAA Records
Single Engine	1	2
Jet	0	0
Multi-engine	0	0
Helicopter	0	0
Ultralight	0	1
Total	1	3

[2] Sources: WSDOT-Aviation, *Airport Facilities and Service Report for Sekiu Airport (2012).* FAA, *Airport Form 5010-1 (2009, May).*

Aircraft Operations

Annual operations are the total number of aircraft takeoffs and landings occurring at the Airport in a year. A touch-and-go, which occurs during pilot training, counts as two operations. Touch-and-go operations are categorized as local, along with other operations that remain within 20 miles of the Airport. Operations not categorized as local are categorized as itinerant. WSDOT-Aviation estimated annual operations for year ending 2011; the FAA's Form 5010 operation data was collected for year ending 2009. The operations estimates from both sources are shown in **Table 1B**. Again, for the purposes of this study, WSDOT's records are assumed to be the more accurate.

TABLE 1B. OPERATIONS RECORDS

	WSDOT-Aviation Estimate (2011)	**FAA Form 5010 (2009)**
Air Taxi	40	26
General Aviation Local	114	72
General Aviation Itinerant	636	400
Military	0	0
Total	790	498

AIRPORT FINANCIAL DATA

The following subsections provide a brief summary of historical financial information for the Airport.

Airport Operating Revenues and Expenses

Table 1C shows the Airport's revenues and expenses for the past six years. Average revenue over the period is $13,073 and average operating espenses over the same period is $17,227. The Port has covered the $4,154 gap between revenue and expenses.

Table 1C. REVENUES AND EXPENSES

SEKIU Airport Operating Revenue and Expenses						
Year	2007	2008	2009	2010	2011	2012
Revenue	$15,796	$15,565	$14,337	$9.620	$13,335	$9,785
Expense	$15,996	$27,840	$20,903	$17,858	$27,717	$13,950
Total	($200)	($12,275)	($6,566)	($8,238)	($14,382)	($4,165)

Source: Port of Port Angeles, WA.

RATES AND CHARGES

The Port leases hangar space to users at a rate of $155 per month.

EXISTING FACILITIES

Existing facilities at the Airport are divided into three categories: airfield, landside, and support facilities. Airfield facilities include areas such as runways, taxiways, and aprons. Landside facilities include areas such as hangars, airport buildings, and auto parking. Support facilities include emergency services, utilities, and miscellaneous facilities that do not logically fall into either airfield or landside facilities. **Exhibit 1B** shows the existing facilities at the Airport.

Airfield Facilities

Airfield facilities include pavements used for the movement of aircraft (*i.e.*, runways, taxiways, taxilanes, and aprons). In August, 2012, the runway condition was inspected and subsequently the Pavement Condition Index (PCI) was updated for the various airport pavements. The condition of the airport pavements was rated on a scale of 0-100 with 0 being an unusable paved surface and 100 reflecting a just-constructed paved surface. Generally, ratings with a PCI above 70 require only preventative maintenance in the short term, while ratings between 40 and 70 require major rehabilitation and ratings less than 40 typically require reconstruction. **Exhibit 1C** depicts the pavement condition map for the Airport. The established PCI is noted for various areas. None of the pavements was given a PCI higher than 65. The PCI determined for all of the pavements are at the levels that indicate major rehabilitation is necessary. The report includes a summary of the pavement construction history. This part of the report describes how the various individual sections of pavement were constructed. In general, most pavements at the Airport consist of two inches of asphalt on top of six inches of a crushed aggregate base. The pavement evaluation report, including copies of the pavement inspection report and pavement work histories is provided in **Appendix B**.

Runway. The Airport has one paved runway, 08/26, with the dimensions of 2,997 feet by 50/60 feet. The Runway 8 threshold has been displaced, thereby reducing the Runway 26 landing length to 2,100 feet. The runway 8 displacement area is on land that was formerly leased for that purpose. The lease has expired and the current property owner supports the airport and has indicated no objection to this use of the property. The displaced runway was constructed as a runway extension in 1979. Its width varies from 60 feet to 50 feet. It has no shoulders and no safety area. From the edge of pavement on both sides the ground slopes steeply to 20 or more feet below the runway elevation. There are trees growing adjacent to the runway and extending above the runway surface. The runway supports general aviation aircraft, which includes private and business operators but does not include commercial (airline) operators. The runway pavement surface is asphalt; in February 2006 it was given PCI ratings between 12 and 37, representative of pavement in need of major rehabilitation and reconstruction. A repeat inspection in August 2012 shows PCI ratings between 16 and 65. (See Appendix B). The pavement strength of the runway is unknown. Due to the poor drainage and subbase materials at the Airport, aircraft operations during wet conditions cause runway surface movement and the pavement strength has been compromised. This runway instability necessitated a temporary runway closure in 1996, to give the Port an opportunity to assess the runway's safety and their potential liability.

Taxiways and Taxilanes. Taxiways are constructed primarily to facilitate aircraft movements to and from the runway. Some taxiways are necessary simply to provide access between aprons and the runway, and other taxiways are necessary to provide safe and efficient use of the airfield.

There are no taxiways at the Airport. A short, approximately 400-foot, taxilane provides access from the hangars to the tiedown apron, which is adjacent to the runway. Access to Runway 8/26 is provided directly from the tiedown apron. Back-taxi operations (taxiing on the runway in the direction opposite to landing and departing aircraft) are necessary for aircraft ground movements. There are two run-up / turnaround areas at the end of Runway 8 and the displaced Runway 8 threshold (see Exhibit 1B).

Aprons and Aircraft Parking. There are six designated tiedown positions on the apron in front of the hangar area. Aircraft parking is allowed in the grass areas west of the apron when overflow parking is required and the soil conditions are dry.

Airfield Lighting. Airfield edge lighting systems are categorized as low, medium, or high intensity. The color of the lights is also important as it indicates to pilots where they are in the airport environment. For example, runway edge lights are white and taxiway edge lights are blue.

At the Airport, the lighting system is a low intensity system, which operates from sunset to sunrise. Edge lighting is located on the runway. The apron is identified with blue edge reflectors.

Airport Navigational Aids. Airport Navigational Aids, or NAVAIDS, provide navigational assistance to aircraft for approaches to an airport. NAVAIDS are classified as visual approach aids or instrument approach aids; the former providing a visual navigational tool and the latter supporting instrument-flight-rule operations. The types of approaches available at an airport are based on the NAVAIDS provided. The following sections describe existing NAVAIDS at the Airport.

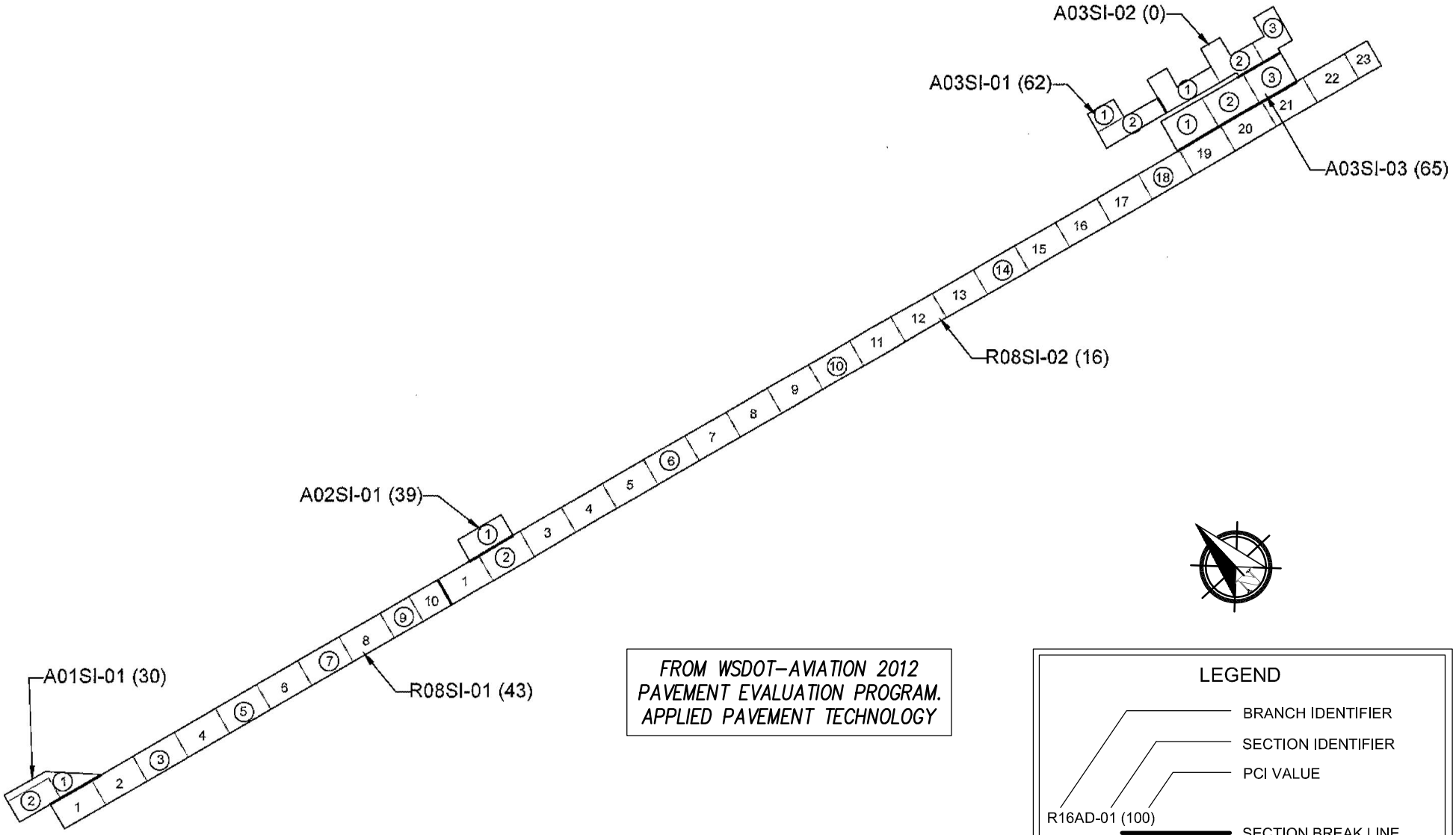
Visual Approach Aids. The Airport has one form of visual approach aid. A Visual Glide Slope Indicator (VGSI or SAVASI) is located at the Runway 26 end. VGSIs give glide slope information to pilots on final approach by displaying sequences of different colored lights which the pilots use to maintain a safe glide slope for landing. At Sekiu, the approach slope for the VGSI is reported to be set at 4 degrees. The typical slope for a VGSI is 3 degrees, but adjustments are made to match an individual airport's conditions. At the time of inspection the VGSI was not operational.

Instrument Approach Aids. There are no instrument approach procedures at the Airport. As a result, the Airport is effectively closed when the visibility and cloud ceiling are below minimums for Visual Flight Rules (VFR) conditions (1000-foot ceiling and 3 statute miles visibility).

Other NAVAIDS. There is a lighted windsock and a rotating beacon located at the Airport. The beacon is in poor condition and is reported as out-of-service (OTS). The nearest weather information comes from the Automated Surface Observing System (ASOS) located 34 nautical miles east of the Airport at the William R. Fairchild International Airport in Port Angeles.

WHPacific

	SEKIU AIRPORT	EXISTING AIRPORT FACILITIES	EXHIBIT 1B



FROM WSDOT–AVIATION 2012 PAVEMENT EVALUATION PROGRAM. APPLIED PAVEMENT TECHNOLOGY

LEGEND

- BRANCH IDENTIFIER
- SECTION IDENTIFIER
- PCI VALUE

R16AD-01 (100)

- SECTION BREAK LINE
- SAMPLE UNIT BREAK LINE
- SLAB JOINT
- 03 SAMPLE NUMBER
- (03) SAMPLE UNIT INSPECTED
- (03) ADDITIONAL SAMPLE UNIT

WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SEKIU AIRPORT	PAVEMENT CONDITION MAP	EXHIBIT 1C

Landside Facilities

Hangars and Other Buildings. There are five buildings on the Airport property. There are three conventional hangars, measuring roughly 80 feet x 40 feet each. The Port has allowed boat storage, as well as aircraft storage, in these hangars. A small outbuilding, located east of the hangars, houses a restroom and pay phone. South of the runway, approximately 500 feet from the Runway 26 end, there is an old hangar that appears to be used for storage. At the present time there is one aircraft stored in the hangars. One hangar is used by the Fire District.

Aviation Services. At general aviation airports, services are typically provided by a fixed based operator (FBO). This is an individual or a business that offers aviation-related services such as flight instruction, aircraft rental, aircraft maintenance, hangar/tiedown storage, and aircraft fueling to Airport users. There are no services available at the Airport, beyond aircraft tiedowns.

Airport Access and Vehicle Parking. There is one vehicle access point to the Airport. Exhibit 1B depicts the location. Access to the vehicular parking area, near the end of Runway 26, is provided by Sekiu Airport Road from State Route 112. Individual tenants may park adjacent to or in their hangars while flying. The access road is very close to the runway end, an issue that will be discussed in a later chapter. At the existing vehicle access point, there is a gravel parking lot that can support up to 20 vehicles. The parking lot surface is in poor condition.

Airport Support Facilities

Emergency Services. The Clallam County Fire District #5 provides fire protection. The Clallam County Sherriff's Department provides emergency services.

Airport Maintenance. Airport maintenance is provided by the Port of Port Angeles.

Airport Fencing. Fencing surrounds the perimeter of the airport environment. The fencing is chain-link security-style fencing. The vehicle access point is gated.

Utilities. Utilities and public services provided at the Airport include:

- Water – 40,000 gallon gravity feed tank located uphill of the Airport
- Sanitary Sewer – Individual drain field / septic tank system
- Telephone – Local franchise company
- Electricity – Clallam County Public Utility District

Airport Signage. Guidance signs to the Airport are located on State Route 112 and are maintained by WSDOT.

Other Support Facilities. There are no other known support facilities

AIRSPACE

The FAA is responsible for the control and use of navigable airspace within the United States. Aircraft in flight, whether approaching or departing an airport, are subject to varying degrees of FAA control depending on location and meteorological conditions. These levels of control are called airspace classes. The alphabet characters A through G distinguish the different classes. Each class has its own unique shape and rules that govern such things as visibility minimums and cloud clearances.

The Airport is located in Class G airspace, which is considered uncontrolled airspace in that pilots are not required to communicate with air traffic controllers; however, regulations regarding visibility minimums and cloud clearances still apply. The Airport's airspace is depicted on the Seattle sectional chart (see **Exhibit 1D)**. The Airport is located northwest of the Fairchild International Airport (CLM) and north of Forks Airport (S18). Various airports within British Columbia exist to the north and northeast of Sekiu. The Airport's location is such that it lies underneath Victor Airway V4, which is a "highway in the sky", sourced from the Tatoosh VORTAC. A Victor Airway is a corridor of protected airspace defined by radio navigational aids. The Victor Airway above Sekiu (depicted with semi-transparent blue lines on Exhibit 1D) makes over-flying traffic a common occurrence. Adding to the number of over-flight operations is the presence of two Military Operating Areas (MOAs) south of the Airport, which include the Olympic B and A MOAs. An MOA is a type of special use airspace in which military operations regularly occur that necessitate separation from civilian aircraft. Additionally, the Contiguous US Air Defense Identification Zone (ADIZ) is located off the Washington Coast, which necessitates additional communication and clearance requirements for civilian aircraft.

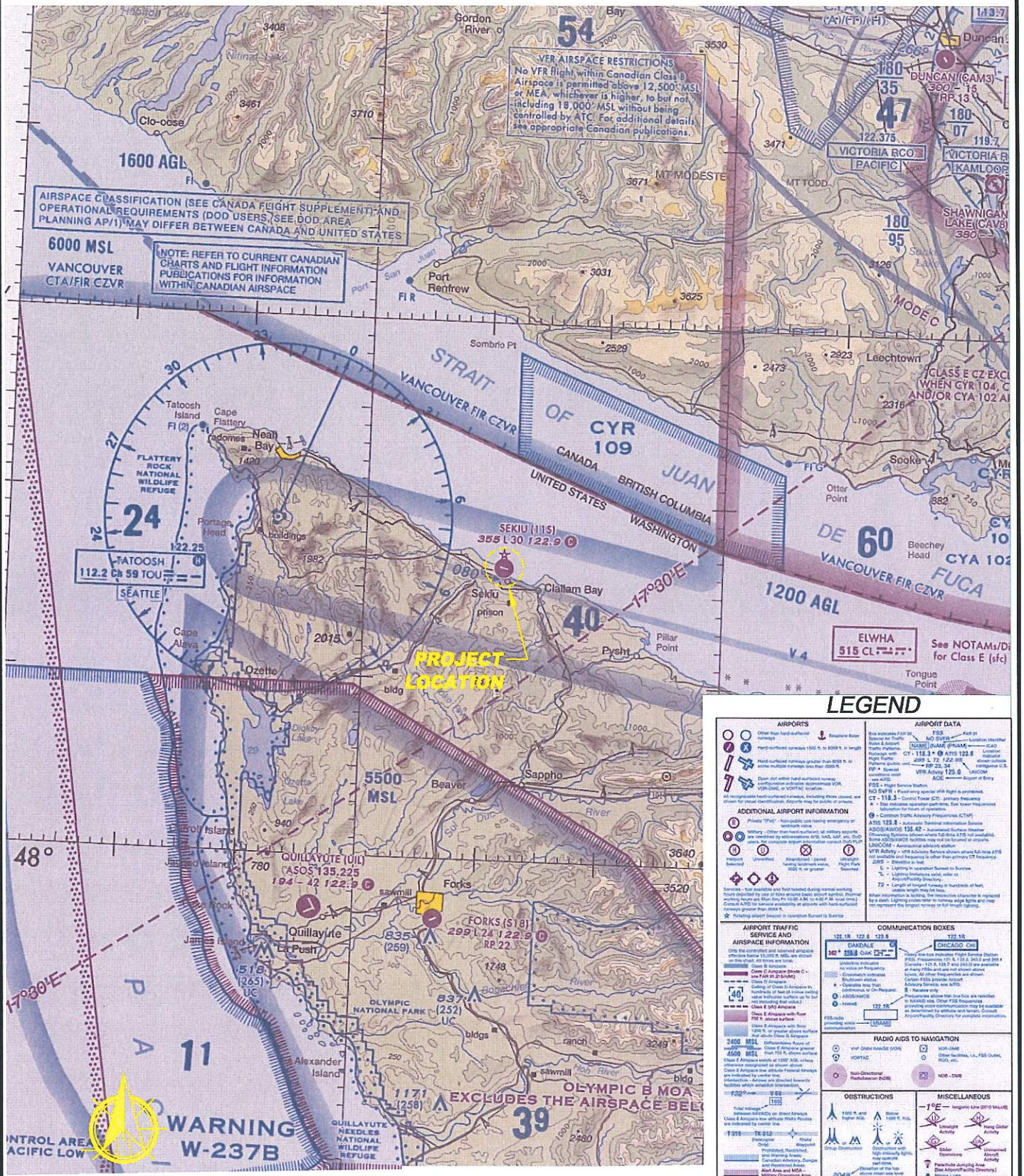
Traffic flows at the Airport are standard, left-hand patterns. Pilots are to fly the patterns at 1,000 feet above airport elevation (1,355 feet mean sea level). Airport users report that the majority of aircraft land and takeoff from Runway 26.

LAND USE PLANNING AND ZONING

The following land use and zoning discussion focuses on four areas:

- Airport Environs zoning and land use.
- Surrounding area zoning and land uses.
- Protection of airport airspace to prevent hazards and land uses that may interfere with the safety of aircraft operations.
- Ownership/control of Airport runway protection zones to enhance the safety of people and property on the ground.

Federal, State, Regional, County, and City land use regulations need consideration when reviewing existing land uses for airport compatibility and when planning for future development at and around an airport.



WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SEKIU AIRPORT	SECTIONAL	EXHIBIT 1D

[DATE: 5/30/2013 12:03 PM] [AUTHOR: ----] [PLOTTER: \\sea-file1\Ricoh6501] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\Exhibits\ACAD-037550-AIRP-EX1D.dwg] [LAYOUT: Layout1]

Federal regulations are also concerned with airspace protection (14 CFR Part 77) and noise levels, particularly for areas that fall within the 65-decibel (dBA) noise contour line. 14 CFR Part 77, *Objects Affecting Navigable Airspace,* establishes obstruction standards used to identify potential adverse effects to air navigation and notice standards for proposed construction. Imaginary surfaces are the basis for protecting the airspace around runways. There are five imaginary surfaces: primary, approach, transitional, horizontal, and conical. Definitions of each imaginary surface will be discussed in a later chapter. These surfaces should be kept clear of all obstructions.

Although the Airport is not currently in the FAA's National Plan of Integrated Airport System (NPIAS), FAA guidelines state that before grants can be received the Airport Sponsor must provide assurances that appropriate actions have been (or will be) taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the Airport to those that are compatible with normal airport operations. WSDOT's new grant assurances include a similar requirement with reference to WSDOT's Airports and Compatible Land Use Guidebook.

Washington State regulations are based on the Growth Management Act (GMA), Chapter 36.70A of the Revised Code of Washington, which requires counties and cities to adopt goals and regulations to discourage the siting of incompatible uses near airports that are open for public use.

The GMA establishes four basic principles related to public use airports:

- Local Ordinances must protect public use airports from development of incompatible land uses;
- Formal consultation with airport owners, pilots, and WSDOT-Aviation is required prior to adoption;
- WSDOT-Aviation is to provide a technical assistance program to develop such protection; and
- Airport is to be identified as an Essential Public Facility (EPF) in the Comprehensive Plan.

The Sekiu Airport is controlled by the Clallam County's Comprehensive Plan and has been designated as an EPF. The following subsections describe the existing land uses and zoning that are currently in place.

Airspace and Federal Aviation Regulation Part 77

FAR Part 77 describes surfaces around an airport and related to the airport's runways. Objects that penetrate the surfaces are considered "obstructions" and may or may not be considered by FAA to be a hazard. FAA has not made such a determination at this airport. The surfaces and obstructions are shown on the Layout Plan sheets.

At Sekiu, there are obstructions to several surfaces. The most significant penetrations are terrain penetrations of the transition and conical surfaces. Trees penetrate the approach surfaces at both runway ends. Hangar buildings and terrain penetrate the transition surface north of the runway. Vehicles on the airport entrance road penetrate the existing approach surface for runway 26. Terrain penetrations will remain; Tree clearing or trimming is recommended to clear the approaches; the hangar buildings could be marked with obstruction lights. The access road penetrations can be corrected by relocation of the runway 26 threshold.

Tree clearing is a necessary periodic maintenance issue in order to keep the approach surfaces as clear as possible.

Existing Airport Environs Zoning and Land Use

Clallam County is the planning and building permit authority for the Airport. The entire Airport Property is zoned "Urban Residential High Density (URH)" in the Clallam County Zoning Code (see **Exhibit 1E**). Airports are listed as a prohibited use in this zone, as the purpose of URH is to provide areas of high density multiple family residential development – free from encroachment of commercial and industrial activities. As a public use General Aviation

Airport, the county code provides for airport protection based on the application of FAR Part 77. The existing land uses within the area include: the airport, residential development, and undeveloped timberlands.

Surrounding Area Zoning and Land Use

Zoning north of the Airport consists of "Rural Very Low (R20)". Zoning to the south is predominantly "Commercial Forestry (CF)", with an area of "Industrial (M)" across State Route 112 from Airport Road. Lands to the west are mostly URH. East of the Airport, zoning is "Urban Center (UC)", which consists of the town of Sekiu.

The Airport is surrounded by forestry land uses to the north and west, a few residential dwellings to the north, a mobile home park on the south, and downtown Sekiu to the east.

Protection of Airport Airspace

The FAA and WSDOT require that airport sponsors of grant-supported projects – to the extent of their ability – restrict zoning on adjacent lands and lands within an airport's immediate vicinity to compatible land uses. The County has not established an Airport Overlay Zone to protect the Airport and its airspace from hazards to air navigation, such as tall structures and other non-compatible land uses, although the County code specifies proposed development is to be evaluated relative to FAR Part 77.

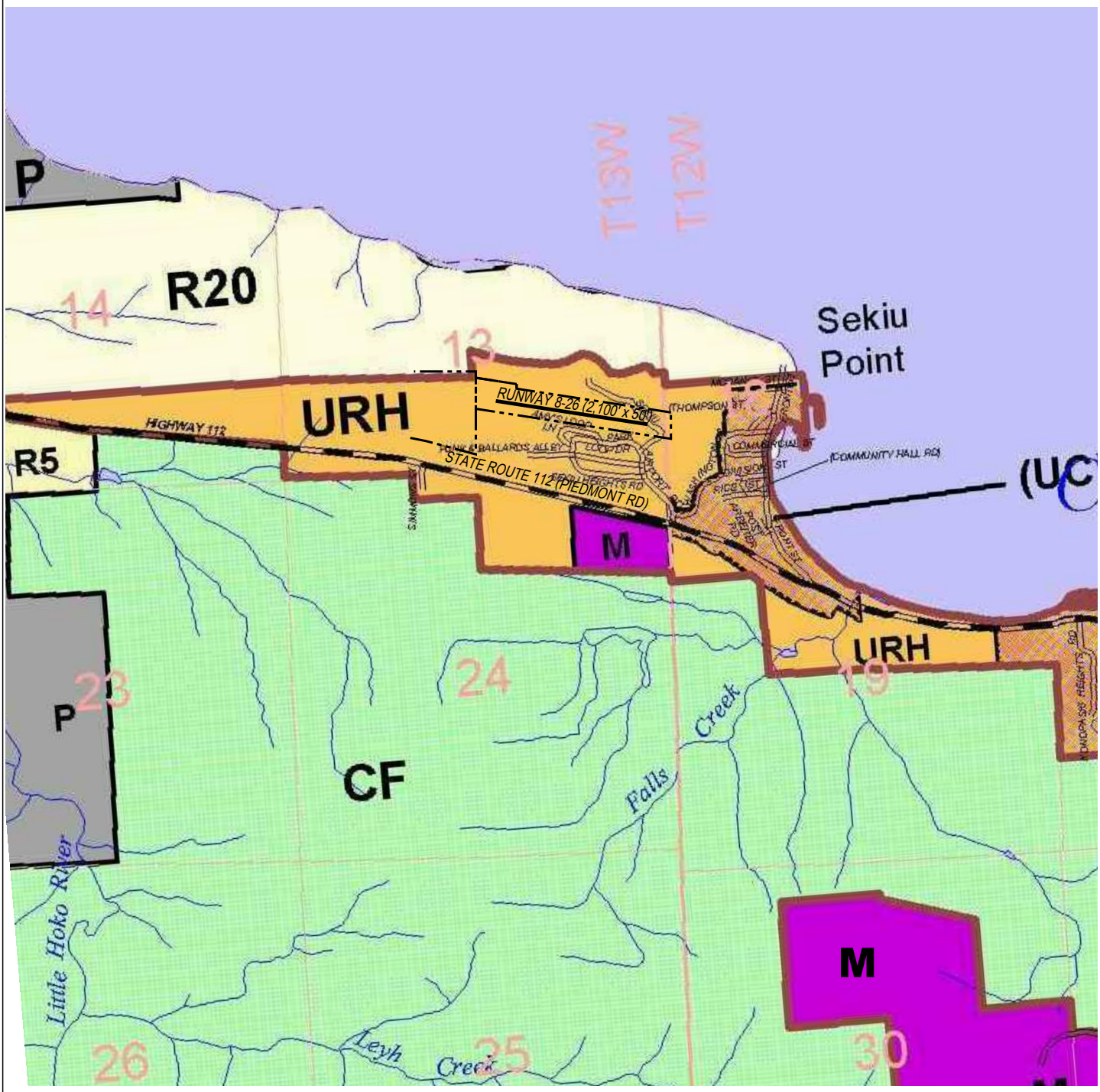
Ownership/Control of Runway Protection Zones

Runway Protection Zones (RPZs) are designated areas in runway approaches, close to the runway end, that enhance the protection of people and property on the ground. RPZs are trapezoidal in shape and have dimensions determined by the aircraft type and runway approach visibility minimums. The FAA strongly encourages Airport Sponsors to either own or exercise land use control within the RPZs. If an airport does not own the RPZs in fee, control of obstructions to airspace may be achieved through avigation easements. The Port owns portions of the property within the runway 26 RPZ. The runway 8 RPZ is located on land not owned by the airport, as noted above. There is no control of this RPZ except the owner's willingness to allow its use for that purpose. A portion of the Runway 26 RPZ extends over Sekiu Airport Road. This situation is discouraged by FAA and WSDOT-Aviation guidelines.

ENVIRONMENTAL INVENTORY

The purpose of this section is to summarize the environmental setting of the airport, and identify any potential environmental constraints.

Environmental constraints for airports typically fall into two general categories: human environment and natural environment. Human factors that can constrain airports include existing settlements and incompatible land use, noise, social or socioeconomic conditions, light and glare, and the general controversial nature of airports. Natural environmental elements include various aspects of air quality, water resources, fish and wildlife, hazardous materials, energy and other resource issues.



LEGEND:

R20	RURAL VERY LOW	M	INDUSTRIAL
R5	RURAL LOW	UC	URBAN CENTER
P	PUBLIC LAND	CF	COMMERCIAL FOREST
URH	URBAN RESIDENTIAL HIGH DENSITY		

N

SCALE

2000 0 1000 2000

(FEET)

1 INCH = 2000 FT.

WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SOURCE: CLALLAM COUNTY

SEKIU AIRPORT	COMPREHENSIVE LAND USE, SHORELINE & ZONING MAP	EXHIBIT 1E

[DATE: ----] [AUTHOR: rtemplado] [PLOTTER: None] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\Exhibits\ACAD-037550-AIRP-EX1E.dwg] [LAYOUT: Layout1]

Human Factors

Noise. The airport currently supports about 800 annual operations (WSDOT-Aviation), mostly single engine aircraft. The typical threshold of concern is when the 65 DNL contour extends over noise sensitive land uses. Because the majority of the adjacent land along the approaches is in forestry use, with some residential areas north and south of the runway, the number of noise sensitive land uses is minimal. Another threshold of significance is 90,000 annual adjusted propeller operations. The current usage of the airport is far below this level.

The developed area of Sekiu is approximately 0.5 miles from the airport; however, noise associated with the Airport does not appear to be an issue. There are a few residences adjacent to the Airport; however there have not been any noise issues associated with the airport in recent history according to members of the Planning Advisory Committee.

Land Use. The Clallam County Zoning Code designation for the airport property is "Urban Residential High Density." Airports are prohibited in this zone.

Social Impact and Induced Socioeconomic Issues. Social impacts are typically related to relocation of businesses, residences or the alteration of established patterns of life (e.g. roadway changes, new facilities that divide a community, et cetera.)

The Airport provides medical evacuation services to major hospitals. Aerial firefighting operations have temporarily based at the Airport while responding to nearby incidents. Additionally, the Clallam County Fire Protection District #5 has taken occupancy of one the Airport's hangars to establish an auxiliary fire station that is outside of the Tsunami critical area, as the principal fire station is within the critical area.

Socioeconomic issues include the potential for the airport to provide an economic attraction to the community, including on-airport jobs, off-airport jobs that are supported by the airport, or some attraction that provides incentive to use the airport. The airport provides some positive economic benefit to the community through the activities mentioned above, as well as off-airport spending by itinerant operators. Generally speaking, the Airport provides a critical link to the rural community, which provides tangible and intangible benefits.

Environmental Justice is a specific aspect of socioeconomic impact that addresses whether a facility places a disproportionate burden on a population that is otherwise subject to perceived discrimination or other burden, for example a low-income or ethnic minority community. There do not appear to be populations meeting the definition within the immediate airport vicinity.

Historic Properties, Cultural Resources (Section 106 Resources). The airport was developed as an Airport in 1970, after a portion of the hilltop was graded for the landing strip. The subject site has been disturbed as a result of the initial airport construction, as well as subsequent development.

Historically, the land fell into the range of the Klallam, Makah, and Quileute peoples. During excavation for the above mentioned activities, it is believed that no artifacts were found.

Recreational Lands (Section 4(f)) Resources. There do not appear to be any public recreation areas in the immediate vicinity of the airport.

Wild and Scenic Rivers. There do not appear to be any designated or candidate Wild and Scenic Rivers in the immediate vicinity of the airport.

Farmland Preservation. Certain types of soils are considered prime farmland because of their drainage, mineral, and other characteristics. These soils, when in urbanized or developed areas, are not considered prime due to the compaction and other activities that degrade the potential for farm use. The Natural Resources Conservation Service on-line soil database map (Soil Survey of Clallam County, Washington) found three soil types in the Airport area.

- Unit 49 – Palix loam (30 to 65 percent slopes) – This unit covers the majority of the Airport, including all areas of the runway and apron. Commonly found on hillslopes, this soil's parent material is Colluvium and residuum derived from sandstone. It is a well-drained soil, with water tables typically at depths of more than 80 inches.
- Unit 78 – Klahowya silt loam (5 to 35 percent slopes) – This unit consists of the southwest portion of the Airport environs, south of the displaced Runway 8 end. A hillslope soil, with till parent materials, it is moderately well-drained with a depth to the water table of 35 to 50 inches.
- Unit 51 – Palix loam, cool (65 to 90 percent slopes) – This unit represents those soils in the Runway 26 safety area, east of the runway. It has characteristics similar to those of Unit 49.

All of these soils may be considered hydric, given site-specific condition. They do not have potential to be either prime farmland or farmland of statewide significance, under the NRCS classifications, because of production limitations.

FAA Guidelines state that the Farmland Protection Policy Act (FPPA) is not applicable and no formal coordination with the Natural Resource Conservation Service (NRCS) is required if any of the following conditions apply:

- The land was purchased prior to August 6, 1984, for purposes of being converted.
- Acquisition does not directly or indirectly convert farmland (e.g., land acquired for clear zones or noise compatibility). Indirect conversion includes any use of land or operation of the facility which would prohibit the land from being farmed.
- The land is not prime farmland as defined in the FPPA.
- The land is not unique farmland.
- The soils are not considered prime farmland.
- The land has not been determined by a state or local government agency, with concurrence of the Secretary of Agriculture, to be of statewide or local importance.

Because the Airport is not presently considering acquisition of property outside of its current boundary and the current property has been in airport ownership since 1985 or prior, FPPA is not applicable.

Light and Glare. On-airport lighting is focused for visibility to aviators, without creating a disturbance or distraction. Current on-airport lighting is continuous from sunset to sunrise. Any additional facilities will need to consider the impact of light or glare, including the use of windows or roofing material, on aviation. Similarly, residences and other sensitive receptors located some distance from the airport should take the same consideration. Any additional lighting or structures will need to be focused such that light or glare is not projected into the community.

Natural Factors

Air Quality. Sekiu is within an area of attainment for air quality. Any construction impacts will need to consider the impact of particulate material on the local environment, including water quality and other resources. The airport does not currently generate a significant amount of surface traffic, and that is anticipated to continue in the future. There are no "air quality hot spots" for surface transportation facilities in the airport vicinity.

Water Quality. The Airport site lies on a hillslope. Due to ground slope, there is significant run-off drainage at the Airport. Any additions to impervious surfaces or changes in drainage plans for the airport must be evaluated in the context of the permit conditions.

Plants and Animals, Including Endangered and Threatened Species and Essential Fish Habitat. Species on the threatened and endangered list for Clallam County, prepared by the US Fish and Wildlife Department, include Brown pelican (*Pelecanus occidentalis*), recovery; Bull Trout (*Salvelinus confluentus*), threatened; Green sea turtle (*Chelonia mydas*), threatened; Leatherback sea turtle (*Dermochelys coriacea*), endangered; Marbled murrelet (*Brachyramphus marmoratus*), threatened; Northern spotted owl (*Strix occidentalis caurina*), threatened; Olympic pocket gopher (*Thomomys mazama melanops*), candidate; Short-tailed albatross (*Phoebastria (=Diomedea) albatrus*), endangered; and Taylor's *(=whulge*) Checkerspot (*Euphydryas editha taylori*), candidate. Deer and coyote have been seen on-airport. Airport vegetation also supports vermin and other small mammals.

The Airport property includes site conditions typical of an airport facility, in regards to the maintenance of the grounds and vegetation. Existing vegetation includes a mixture of invasive and native species, predominantly made-up of grasses, trees, shrubs, and blackberries. An extensive mowing schedule maintains all vegetation for airport safety and visibility as recommended by FAA regulations.

Any activity on the airport would need to consider impacts to these species under the Endangered Species Act as well as habitat impacts under the Magnuson-Stevens Act.

Wetlands and Floodplains. As a result of the creation of the airport, on-airport wet areas appear to have developed, due to poor drainage. Prior to any future development, the Port should consider conducting a Critical Area review.

No floodplain data is available online via the Federal Emergency Management Agency for the airport and surrounding property. However, due to the Airport's relatively high elevation it is unlikely the Airport is within a floodplain.

Energy Supply and Natural Resources. This category focuses on the impact of airport actions on energy and natural resources used in construction materials. In general, construction materials are not in short supply. Fuel for construction equipment is available nearby.

Solid Waste. Typically, general aviation airports do not generate significant amounts of solid waste. Often materials include food and beverage containers, or packaging for aircraft maintenance products. Food containers may create a bird and rodent attractant.

During construction, pavement materials are often recycled into the new pavement, reducing the need for disposal.

Plans for future activity at the airport should consider the manner in which waste is collected and removed.

Hazardous Materials. The airport has no commercial fueling, although tenants may provide fuel from personal storage tanks. There is potential for additional contamination anywhere maintenance or fueling takes place, as a result of accidental spills. Any such areas where construction is proposed would need to undergo some level of due diligence, such as a "Phase One Environmental Site Assessment" to identify any history of possible contamination.

Construction Impacts. Construction impacts typically include temporary noise, dust or traffic impacts, as well as the potential for erosion and water quality impacts associated with material spills, associated with construction. Once construction activities are identified, construction timing, phasing and mitigation measures need to be considered.

Controversy. Controversy is typically associated with off-airport impacts. In the case of Sekiu, there appears to be minimal, if any, controversy surrounding the airport.

Other Issues. There do not appear to be any other environmental-related issues on or around the airport.

Environmental Conclusion

There may be environmental issues on the airport or in the airport vicinity related to wetlands and endangered species. Possible hazardous material issues may also occur on-airport; however, it is unlikely due to the site's history. Additional study regarding these issues should be considered once a project is defined.

Chapter 2 – Aeronautical Activity Forecast

Aviation demand forecasts help to determine the size and timing of needed airport improvements. This chapter indicates the types and levels of aviation activity expected at the Sekiu Airport (Airport) during a 20-year forecast period. Projections of aviation activity for the Airport were prepared for the near-term (2016), mid-term (2021), and long-term (2031) timeframes. These projections are generally unconstrained and assume that the Port of Port Angeles (Port) will be able to develop the various facilities necessary to accommodate based aircraft and future operations. The methodology followed is from *Forecasting Aviation Activity by Airport* (GRA Incorporated, July 2001), which is the Federal Aviation Administration's (FAA) and WSDOT-Aviation's recommended guidance for airport forecasting.

The primary objective of a forecasting effort is to define the magnitude of change in aviation activity that can be expected over time. Because of the cyclical nature of the economy, it is virtually impossible to predict with certainty year-to-year fluctuations in activity, especially when looking 20 years into the future. However, trends can be identified and used to study long-term growth potential. While a single line is often used to express the anticipated growth, it is important to remember that actual growth may fluctuate above and below this line. Forecasts serve only as guidelines and planning must remain flexible to respond to unforeseen aviation facility needs and the economic/external conditions giving rise to those needs.

The Airport will likely continue to serve the type of aircraft it has historically served—small (maximum gross takeoff weight of less than 12,500 pounds), mostly single engine piston aircraft. The current Airport Reference Code for the Airport is A-I (small), exemplified by light single engine aircraft.

Forecasts for the following aviation activity parameters are presented in this chapter:

- Based Aircraft, including fleet mix: The number and type of based aircraft help determine the future aircraft hangar, tiedown apron and auto parking facility requirements.

- Aircraft Operations, including annual, local vs. itinerant, and fleet mix: This information helps in analyzing runway capacity and determining runway, taxiway and navigation aid requirements. The critical aircraft is derived from the fleet mix. The critical aircraft and its airport reference code determine many airfield design requirements, such as runway length, pavement strength, runway and taxiway width, and safety clearances needed for the runway and taxiways. An operation is counted as an aircraft either landing or taking off (*i.e.*, an aircraft landing then taking off counts as two operations).

Prior to projecting future activity at the Airport, national and regional aviation trends and forecasts were reviewed. Socioeconomic trends in the western Washington area were also analyzed to identify how they might affect aviation demand at the Airport.

National Aviation Trends and Forecasts

In the 1990s, general aviation (GA) in the United States of America was growing, due not only to an expanding economy, but also to the General Aviation Revitalization Act (GARA) of 1994. GARA set an 18-year limit on the liability of GA aircraft and component manufacturers, spurring production of single engine piston aircraft. This aircraft type has accounted for the majority of the nation's GA activity.

The terrorist attacks of 9/11 dampened GA activity with their effect on the national economy and the imposition of new aviation security restrictions. While the piston aircraft component of GA suffered in the aftermath of 9/11, the business, or corporate, segment of GA has grown. This growth is partly due to security measures implemented at commercial service airports and the increased personal travel times that have resulted. Business aircraft usage provides employee time savings, increased enroute productivity, minimized time away from home, enhanced industrial security, enhanced personal safety, and management control over scheduling.

Many of the nation's employers who use GA are members of the National Business Aircraft Association (NBAA). The NBAA's *Business Aviation Fact Book 2011* indicates that only about 3 percent of all Fortune 500 businesses operate GA aircraft, while the majority of GA aircraft are operated by a broad cross-section of organization such as government, universities, and businesses of all sizes. Business use of GA aircraft ranges from small, single-engine aircraft rentals to multiple aircraft corporate fleets supported by dedicated flight crews and mechanics. General aviation aircraft use allows employers to transport personnel and air cargo more efficiently than commercial passenger flights. Businesses often use GA aircraft to link multiple office locations or to reach existing and potential customers. Business aircraft use by smaller companies has escalated as various chartering, leasing, time-sharing, fractional ownership, interchange agreements, partnerships and management contracts have emerged. Fractional ownership arrangements have experienced rapid growth.

FAA Aerospace Forecasts Fiscal Years 2011-2031 describes aviation trends and forecasts growth in GA aircraft, hours flown and pilots. Active GA pilots are projected to increase to 527,660 in 2031, which is a 0.4% annual increase over the forecast period. Additionally, the number of GA hours flown is expected to increase by 2.2% annually over the same period. Overall, the GA fleet is projected to increase by 0.7% annually over the forecast period, with the greatest increase coming from the turbojet fleet (4.2% average annual growth rate).

Fractional, corporate and on-demand charter flights offer an alternative to traditional commercial air travel. The business/corporate side of GA is expected to continue growing faster than personal/sport use, resulting from corporate safety/security concerns and increased flight delays at many commercial airports. The steady growth of the turboprop and turbojet fleet is an example of the demand expected in this sector of GA.

The FAA projects high growth for the new category of Sport Aircraft (3.3% annually through 2031). In 2005, the Sport Pilot Rule was issued, requiring a driver's license rather than a medical certificate, a factor that may draw older pilots back into aviation.

Overall, rotorcraft (helicopters) and fixed-wing turbine aircraft are projected to increase at higher rates than fixed-wing piston aircraft. Increased utilization of aircraft is projected for the future, resulting in higher growth rates for hours flown than for the number of aircraft. **Table 2A** presents the FAA's forecast growth rates for GA aircraft and hours flown.

TABLE 2A. FAA GENERAL AVIATION FORECASTS, AVERAGE ANNUAL GROWTH RATES THROUGH 2031

AIRCRAFT CATEGORY		AIRCRAFT	HOURS FLOWN
Total GA		0.9%	2.2%
	National Piston Growth Rate	0.2%	0.8%
	National Turbine Growth Rate	3.0%	3.7%
Total Piston Fixed Wing		0.2%	0.7%
	Single Engine	0.3%	0.8%
	Multi-engine	-0.9%	-0.6%
Total Turbine Fixed Wing		3.1%	4.0%
	Turboprop	1.4%	1.3%
	Turbojet	4.2%	5.3%
Total Rotorcraft		2.6%	3.1%
	Piston	2.9%	3.2%
	Turbine	2.4%	2.9%
Experimental		1.4%	3.1%
Sport Aircraft		3.3%	5.4%

Note: Average annual growth rates are for the period 2010 through 2031.

Source: FAA Aerospace Forecasts Fiscal Years 2011-2031, Tables 27 and 28.

REGIONAL AVIATION TRENDS AND FORECASTS

While broad industry trends influence aviation activity at individual airports, regional and local factors may have a greater influence.

The Washington Aviation System Plan[1] describes the following trends that would fuel aviation demand:

- Based aircraft within the state will increase at an average annual growth rate of 1.49% between 2005 and 2030.
- General aviation operations from 2005 to 2030 will increase at a 1.60% average annual growth rate.

These statewide forecasts show a similar trend to the FAA's forecast: aircraft utilization will increase over the planning period.

REGIONAL SOCIOECONOMIC TRENDS AND FORECASTS

Aviation activity at an airport is usually tied closely to the local and regional economy. As population around the airport grows, airport activity grows. Aviation activity has also traditionally been linked to employment and income factors because of the discretionary nature of personal and business travel as well as the recreational nature of some GA activity.

The Airport is located in Clallam County, with a 30-minute service area that remains in the County. **Table 2B** presents historical and projected populations for Clallam County. This table also presents average annual growth rates for population.

Clallam County saw a rapid increase in population between 1970 and 1980. Since that time, population levels have been steady, with moderate and constant growth representing an average annual growth rate of 1.82%. The projected population trend represents a conservative growth rate.

[1] WSDOT-Aviation. (2009, July). *Washington Aviation System Plan*.

TABLE 2B. HISTORICAL AND PROJECTED POPULATIONS

YEAR		CLALLAM COUNTY POPULATION
HISTORICAL	1970	34,770
	1980	51,648
	1990	56,464
	2000	64,525
	2010	71,404
PROJECTED	2020	73,616
	2030	76,112
	2040	77,224
YEAR		AVERAGE ANNUAL GROWTH RATES
HISTORICAL	1970 - 1980	4.04%
	1980 - 1990	0.90%
	1990 - 2000	1.34%
	2000 - 2010	1.02%
PROJECTED	2010 - 2020	0.31%
	2020 - 2030	0.33%
	2040 - 2040	0.15%

Sources: Historical Population Data - US Census Bureau; Projected Population Data (intermediate projection) – Office of Financial Management, State of Washington (2011)

Higher income usually correlates with GA activity; in comparison to the State of Washington and the United States, Clallam County's per capita personal income growth has kept pace, as is shown in **Table 2C,** but the dollar amount is less than the statewide average. This trend would indicate the potential for constant aviation activity in Clallam County, similar to statewide and national trends; however, the degree of impact is difficult to assess.

TABLE 2C. PER CAPITA PERSONAL INCOME HISTORY, CLALLAM COUNTY, WASHINGTON AND THE U.S.

	1980	1990	2000	2010	ANNUAL GROWTH 1980-2010
Clallam County	$9,334	$17,259	$24,879	$36,463	4.65%
State of Washington	$10,810	$19,637	$32,410	$42,589	4.68%
U.S.	$10,114	$19,477	$30,319	$39,945	4.69%

Source: US Bureau of Economic Analysis, 2011

In recent years, unemployment in Washington has been slightly lower than the U.S. as a whole. In April 2012, Washington's unemployment rate[2] was 8.1%, compared to 8.7 % for the U.S. The unemployment rate in Clallam County was 11.2% indicating the relative instability of its economy. For the last 20 years or so, Washington has

[2] Seasonally adjusted. Information from Bureau of Labor Statistics, http://www.bls.gov/lau/.

been moving from a resource-based economy to a more mixed manufacturing and marketing economy, with an emphasis on high technology. The effects of this can be seen in rural parts of the state, which have tended to be less successful at changing to a new economy. Clallam County reflects a typical trend of many small communities whose economic base has been shifting from the timber and natural resource industries.

The US Census American Community Survey reports total employment in Clallam County was 51.2%. Of these jobs, 66% were in private industry, 13% were self-employed and 21% were in federal, state or local government. The leaders in industry jobs were education services, healthcare and social services (20.7%); retail trade (12.0%); arts, entertainment, recreation, accommodation and food services (9.2%); and construction (8.8%).

BASED AIRCRAFT FORECAST

The based aircraft forecast begins by presenting historical numbers of based aircraft. Then, various forecast models prepared for the Airport are analyzed and the preferred forecast for based aircraft and fleet mix through 2031 is presented.

Historical Based Aircraft Data

No historical based aircraft data is available. As such, the baseline year will reflect one based aircraft, per WSDOT-Aviation's records.

Based Aircraft Forecast Through 2032

Four different forecasts or forecasting models were analyzed to provide a range of the possible numbers of based aircraft. The average annual growth rates for these four models ranged from 0.20% to 1.49%, as shown in **Table 2D**.

The preferred forecast was selected to be the State System Plan forecasting model, which results in an average annual growth rate of 1.49%. Each forecast method is described and evaluated, and the methodology for selecting the preferred forecast is given, in the paragraphs that follow. While the models present the forecasts as increasing year-by-year according to average growth rates, actual growth will occur in phases, as facilities are constructed and made available for based aircraft.

TABLE 2D. COMPARISON OF BASED AIRCRAFT FORECASTS

	2016	2021	2031	AVERAGE ANNUAL GROWTH RATE
National Piston Growth Rate Model	1	1	1	0.20%
National Growth Rate Model	1	1	1	0.90%
Washington Aviation System Plan	1	1	2	1.49%
Population-Related Model	1	1	1	0.26%
Preferred Forecast	**1**	**1**	**2**	**1.49%**

Note: Base year was 2011 with 1 aircraft. Source: WHPacific, Inc., 2012.

National Piston Growth Rate Model (0.20% Average Annual Growth)

The majority of airplanes based at the Airport now and in the past have been piston-powered. It is reasonable to assume that the based aircraft at the Airport may grow at the rate forecast for piston airplanes nationwide, shown in Table 2A.

National Growth Rate Model (0.90% Average Annual Growth)

The FAA's projected growth rate for the national GA fleet is shown in Table 2A. It applies to a fleet mix that is mostly single engine piston. The national fleet mix is 62% single engine piston, 7% multi-engine piston, 4% turboprop, 5% turbojet, 5% helicopter, and 17% other aircraft including sport and experimental. One potential problem with this model is that local influences on the number of based aircraft at the Airport are not considered.

Washington Aviation System Plan (1.49% Average Annual Growth)

The forecast for the state of Washington equates to 1.49% average annual growth. This forecast accounts for statewide socioeconomic factors; however, the local economic climate may not be accurately reflected.

Population-Related Model (0.26% Average Annual Growth)

The population of Clallam County is projected to grow at an annual rate of 0.26% from 2010 to 2040. An increase in population can suggest a conservative increase in aircraft ownership levels.

Preferred Based Aircraft Forecast (1.49% Average Annual Growth)

A moderate growth rate – that of the state System Plan – has been selected as the Preferred Based Aircraft Forecast. Economic and demographic statistics are at a low point, as is true with many communities during this current economic downturn. The state System Plan appears to most closely reflect characteristics of the Airport to create a solid basis for planning. The remaining models appear to be too stagnant for the region's growth potential.

The fleet mix of aircraft based at the Airport will likely not change significantly over the planning period, although single engine piston-powered aircraft will still be predominant. **Table 2E** presents the based aircraft fleet mix forecast. The forecast includes a slight increase in the number of helicopters in the future, which reflects the national trends shown in Table 2A, as well as existing operations. The Airport's inability to accommodate aircraft with wingspans greater than 49 feet will likely be a deterrent to owners of turbine aircraft, which tend to be larger than single engine aircraft.

TABLE 2E. PREFERRED BASED AIRCRAFT FLEET MIX FORECAST

YEAR	SINGLE ENGINE	MULTI-ENGINE (PISTON & TURBOPROP)	TURBOJET	HELICOPTER	TOTAL
2011	1	0	0	0	1
2016	1	0	0	0	1
2021	1	0	0	0	1
2031	1	0	0	1	2

Source: WHPacific, Inc., 2012.

AIRCRAFT OPERATIONS FORECAST

Previously prepared aircraft operations forecasts are reviewed and the preferred aircraft operations forecast is explained and presented. Other forecast information presented in this section includes operations fleet mix, critical aircraft and Airport Reference Code, and local vs. itinerant operations.

Since the Airport is unattended and no traffic count surveys have been conducted, the actual number of aircraft operations can only be estimated from anecdotal accounts. Currently, there is an annual fly-in – held every Memorial weekend – that creates a surge of activity (18 aircraft were parked on the apron in 2011). Summer is the peak season for aviation activity, due to improved weather conditions and recreation.

A typical indicator of aviation activity is records of fuel sales. However, since there is no fuel available at the Airport, there is no means of tracking activity trends.

The types of operations expected at the Airport include: recreational flights, aircraft charter, Coast Guard training, life flight evacuation, and seasonal firefighting.

Aircraft Operations Forecast Through 2031

The national FAA forecasts presented in Table 2A indicate that GA aircraft usage will increase. While the fleet is projected to grow 0.9% per year, hours flown are projected to grow 2.2% per year. For the piston fleet, the hours flown are projected to grow 0.8% annually, while the number of piston aircraft is projected to grow only 0.2% annually. Similarly, for the turbine fleet, the hours flown are forecasted to grow 3.7% annually, while the turbine aircraft fleet is expected to grow 3.0% annually. Based upon these differences in growth rates, it would be logical to assume that aircraft operations will grow at a higher rate than based aircraft nationally.

Table 2F presents three forecasts for aircraft operations: Operations per Based Aircraft Forecast, Washington Aviation System Plan Forecast, and National Growth Rate Model.

TABLE 2F. COMPARISON OF AIRCRAFT OPERATIONS FORECASTS

YEAR	OPERATIONS / BASED AIRCRAFT	STATE AVIATION SYSTEM PLAN	NATIONAL GROWTH RATE MODEL	PREFERRED FORECAST
2016	830	855	881	855
2021	909	926	982	926
2031	1,063	1,085	1,220	1,085
Average Annual Growth	1.49%	1.60%	2.20%	1.60%

Source: WHPacific, Inc., 2012. Base operations of 790 for year 2011 (WSDOT-Aviation).

Operations per Based Aircraft Forecast (1.49% Average Annual Growth)

Taking the operations per based aircraft ratio and applying it to the preferred forecast for based aircraft, which was 1.49%, the average annual growth rate would be 1.49%. The ratio is well above FAA guidance, which states small GA airports should have roughly 250 operations per based aircraft. However, the growth rate does not reflect the increased aircraft utilization trends previously discussed.

Washington Aviation System Plan Forecast (1.60% Average Annual Growth)

The Washington System Plan forecasted an annual operations growth rate of 1.60%. This growth rate takes into consideration local variables that may impact aircraft operations and is keeping with the national trends of higher aircraft utilization.

National Growth Rate Model (2.20% Average Annual Growth)

The existing fleet of aircraft is expected be have higher utilization for the duration of the planning period, which is why the National Growth Rate Model has the highest average annual growth rate of the selected forecasting models, at 2.20%. The limitation of this model is that it does not take local factors, such as employment and income, into consideration.

Preferred Operations Forecast (1.60% Average Annual Growth)

The Washington Aviation System Plan is the preferred aircraft operations forecast, calculated as 1.60% average annual growth. Not only does this model account for state and regional economic trends, it corresponds with the expectation of higher aircraft utilization, as aircraft operations will increase at a rate higher than based aircraft.

Table 2G presents the breakdown of the preferred forecast for aircraft operations. The preferred forecast assumes future GA operations will be similarly divided between itinerant and local, with a continuing increase of the itinerant operations share.

TABLE 2G. PREFERRED AIRCRAFT OPERATIONS FORECAST

YEAR	AIR TAXI	GA ITINERANT	MILITARY	GA LOCAL	TOTAL
2011	40	636	0	114	790
2016	45	660	0	150	885
2021	50	700	0	176	926
2031	60	805	0	220	1,085

Source: WHPacific, Inc., 2012.

Operations Fleet Mix

Because of transient aircraft traffic, the fleet mix for aircraft operations is not the same as the fleet mix for based aircraft. Uses at the Airport range from aircraft charter operations, life flight operations, Coast Guard training to tourism and recreational uses. For example, while there are no helicopters based at the Airport, life flight helicopters operate at the Airport.

Table 2H presents the estimated current (2011) and projected future operations fleet mix. Operations will likely continue to be in small, single engine aircraft due to limitations in runway length and weight bearing capacity. Additionally, firefighting operations – helicopter – are hard to forecast as they are highly seasonal. The share of helicopter operations is expected to increase, as helicopters currently use the Airport and are not as constrained by factors such as runway length, as are larger fixed wing aircraft.

TABLE 2H. PREFERRED OPERATIONS FLEET MIX FORECAST

YEAR	SINGLE ENGINE PISTON	MULTI-ENGINE PISTON	TURBOPROP	TURBOJET	HELICOPTER
2011	98.50%	0.50%	0.00%	0.00%	1.00%
2016	96.45%	0.55%	0.00%	0.00%	3.0%
2021	94.45%	0.55%	0.50%	0.00%	4.50%
2031	93.40%	0.60%	0.50%	0.00%	5.50%

Source: WHPacific, Inc., 2012.

Critical Aircraft and Airport Reference Code

An airport is designed based on the characteristics of the most demanding aircraft, or critical aircraft, which uses the airport regularly (defined as 500 annual itinerant operations). Based upon the estimated operations fleet mix in Table 2H the critical aircraft will remain a small single engine piston aircraft for the duration of the planning period.

The Airport Reference Code (ARC) is the main criterion for determining applicable FAA airport design standards. The ARC is defined by the Aircraft Approach Category and the Airplane Design Group of the critical aircraft. The Aircraft Approach Category is determined by the approach speed, or 1.3 times the stall speed of the aircraft in its landing configuration at its maximum landing weight. The Aircraft Approach Category is represented by the letters (A, B, C and so on). The Airplane Design Group of the aircraft is based on wingspan and/or tail height and is defined by Roman numerals.

For existing and future conditions, the Airport's ARC will remain A-I (small), which is an aircraft with approach speeds of less than 91 knots, a wingspan of less than 49 feet, and a maximum takeoff weight of less than 12,500 pounds.

FORECAST SUMMARY

The long-term growth of the Airport will be influenced by national and regional trends outlined within this chapter. With this forecast data, the next step in the master planning process is to calculate the ability of existing facilities to meet the forecasted demand. Additionally, the next chapter will identify needed enhancements of airside and/or landside facilities to accommodate forecasted demand.

It is important to note that the aviation industry tends to cycle through highs and lows. Current activity levels are low at the Airport and the addition of just one based aircraft would substantially impact the Airport. Actual growth may be more aggressive or passive at times over the planning period, so it is essential to identify opportunities beyond the basic needs so the Port can proactively accommodate unforeseen growth.

Chapter 3 – Facility Requirements

SEKIU AIRPORT LAYOUT PLAN NARRATIVE UPDATE

In this chapter, existing airport facilities are evaluated to identify their functionality, condition, compliance with design standards, and capacity to accommodate the demand projected in Chapter Two, *Aeronautical Activity Forecasts*.

The objective of this effort is to identify, in general terms, what facilities are needed and the adequacy of the existing airport facilities in meeting those needs. Where differences between existing and needed facilities are noted, this chapter identifies when those additional facilities may be needed. Once the facility requirements have been established, in the next chapter alternatives for providing these facilities will be created and discussed.

BACKGROUND DATA

Airport Planning and Development Criteria

Airport planning and development criteria are defined by both federal and state agencies. The FAA provides specific guidance concerning dimensional standards and many state agencies provide generalized guidance based on facilities offered and aircraft activity levels. WSDOT-Aviation has adopted FAA airport design standards as the state standard. WSDOT Aviation recommends the FAA standards be met to the extent feasible. Both sets of planning criteria are discussed below, along with some industry criteria.

The FAA specifies design standards by Airport Reference Code (ARC) and instrument approach visibility minimums. In the previous chapter it was determined that at Sekiu the critical aircraft for airport design is the small, single engine airplane, which has an ARC of A-I (small). Currently, there is no instrument approach at the Sekiu Airport and the runway is classified as a visual runway. For determining airport design criteria, instrument approach visibility minimums are divided into three categories:

- Visual and not lower than 1 statute mile (sm), (the current airport design standard)
- Not lower than ¾ sm
- Lower than ¾ sm

Due to Sekiu's location near Clallam Bay, rain and fog are common and often reduce visibility below visual flight rule standards. Consequently, the usability of the Airport is also reduced. It is, therefore, desirable for an instrument approach procedure to be implemented. In addition, air taxi aircraft typically fly under instrument flight rules (IFR), regardless of the weather conditions. New technology allows instrument approaches using the Global Positioning System (GPS) to be implemented at a minimal cost, in terms of airport-based navigational aids. For many small general aviation airports, however, the cost of upgrading airport facilities to the minimum requirements for the different approach visibility categories is a significant constraint to establishing an instrument approach. To aid in assessing the feasibility of an instrument approach, this chapter presents, in table 3B and the following narrative, the airport design requirements for the existing visual and not lower than 1 sm and the not lower than ¾ sm approach categories,.

In addition to FAA criteria, WSDOT-Aviation has created general guidelines for airport development based on the roles, or classifications, of airports within the statewide system (Aviation System Plan 2009, July). Six classifications were created, each with its own set of performance criteria. The classifications are based on factors such as access, facilities, services, expansion and preservation, and economic opportunities. The classifications are: 1) Commercial Service, 2) Regional Service, 3) Community Service, 4) Local Service, 5) Rural Essential, and 6) Seaplane Bases. The Sekiu Airport has been classified as a Local Service Airport, which serve communities with populations of less than 6,000 and have service objectives geared towards small piston general aviation aircraft and visual operations. **Table 3A** outlines the performance criteria for Local Service Airports, per WSDOT-Aviation. The airport meets 4 of the 16 applicable objectives.

TABLE 3A. WSDOT-AVIATION LOCAL SERVICE AIRPORT PERFORMANCE CRITERIA

OBJECTIVE		LOCAL SERVICE AIRPORTS	
		DESIRED OBJECTIVES	EXISTING AT SEKIU?[1]
OPERATIONAL FACTORS	Standard Runway Safety Area	X	No
	Runway PCI 75	X	No
	Taxiway PCI 70	X	No
	Apron PCI 70	X	No
	No Obstacles in Threshold Siting Surface	X	No
	No Obstacles in Obstacle Free Zone	X	No
PLAN	Planning Documents Less Than 7 Years Old	X	Updating
LAND USE COMPATIBILITY PROTECTION	Compatibility Policies in Comprehensive Plan	X	No
	Appropriate Zoning Designation for Airport	X	No
	Land Use Controlled in Runway Protection Zones	X	No
	Height Hazard Zoning or Regulations	X	No
	Zoning Discouraged Incompatible Development	X	No
FACILITIES	Runway Length	2,400 feet	2,997 feet[2]
	Taxiway	Turnaround	Rwy 8 only
	Instrument Approach	Not an Objective	No
	Lighting	Low Intensity	Low Intensity
	Visual Glide Slope Indicators	X	Yes (Rwy 26)
	Weather Reporting	Not an Objective	No
SERVICES	Fuel Sales	Not an Objective	No
	Maintenance Service	Not an Objective	No

The FAA specifies design standards by Airport Reference Code (ARC) and instrument approach visibility minimums. In the previous chapter, it was determined that the ARC at the Airport is A-I (small). The ARC is a coding system used to relate airport design criteria to the operational (Aircraft Approach Category – AAC) and the physical (Airplane Design Group – ADG) characteristics of the airplanes intended to operate at an airport.; therefore, A-I (small) represents an aircraft with an approach speed less than 91 knots, a wingspan less than 49 feet, and maximum takeoff weight less than 12,500 pounds.

[1] Per March 2012 on-site inventory.

[2] approximately 2100 feet on airport property.

AIRFIELD REQUIREMENTS

As discussed in Chapter One, airfield facilities are those that are related to the arrival, departure, and ground movement of aircraft. Airfield facility requirements are addressed for the following areas:

- Airfield Capacity
- Airfield Design Standards
- Runway Orientation, Length, Width, and Pavement Strength
- Taxiways
- Airport Visual Aids
- Airport Lighting
- Radio Navigational Aids & Instrument Approach Procedures
- Other Airfield Recommendations

Airfield Capacity

Capacity is the amount of activity, takeoffs, landings and training operations that a particular runway configuration can handle. A capacity analysis determines the capacity of the airfield configuration, called its Annual Service Volume (ASV). The ASV is an estimate of an Airport's maximum annual capacity based on factors such as aircraft mix and weather conditions. FAA Advisory Circular (AC) 150/5060-5, *Airport Capacity and Delay*, provides guidance on determining an airport's ASV. The annual capacity of a single runway configuration without a parallel taxiway is approximately 161,000 operations (takeoffs, landings, and training operations). The forecast for Sekiu projects annual operations of 1,058 by 2031 – well below the maximum capacity of the existing airfield system.

Airfield Design Standards

FAA AC 150/5300-13, *Airport Design,* sets forth the FAA's recommended standards for airport design. As noted earlier, FAA design standards are required to be used on FAA-funded projects, and recommend for use on others. The Sekiu Airport is not eligible for FAA funding. However, WSDOT-Aviation recommends that, to the maximum extent feasible, the FAA standards be used on WSDOT-funded projects.

A few of the more critical design standards are those for runways and the areas surrounding runways, including:

- **Runway Safety Area (RSA)**: The RSA is a defined surface surrounding the runway that is prepared or suitable for reducing the risk of damage to airplanes in the event of an airplane undershoot, overshoot, or an excursion from the runway.

- **Object Free Area (OFA)**: The OFA is an area on the ground centered on the runway or taxiway centerline that is provided to enhance the safety of aircraft operations. No above ground objects are allowed except for those that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

- **Obstacle Free Zone (OFZ)**: The OFZ is a volume of airspace that is required to be clear of objects, except for frangible items required for the navigation of aircraft. It is centered along the runway and extended runway centerline. For this airport it is the volume of airspace above the OFA.

- **Runway Protection Zone (RPZ)**: The RPZ is defined as an area off each runway end whose purpose is to enhance the protection of people and property on the ground. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The dimensions of an RPZ are a function of the runway ARC and approach visibility minimums. The FAA recommends that RPZs be clear of all residences and places of public assembly (churches, schools, hospitals, etc.) and that airports own the land within the RPZs.

In addition to these design standards, the FAA provides recommended dimensions for runway width, taxiway width, taxiway safety areas and other elements. For airports not in the NPIAS, these standards have "recommendation" status. It is important to note that while these are FAA recommendations, WSDOT-Aviation generally follows the same criteria. **Table 3B** compares the Airport's existing dimensions to the recommended design standards for Airplane Design Group (ADG) I based on two different approach categories, which are the two potential upgrades at the Airport. One column reflects dimensions based on visual approaches (and not lower than 1 statute mile) and another column reflects dimensions based on approach visibility minimums as low as ¾ statute mile.

As shown in Table 3B, the Airport is deficient in nearly all design standards for visual and instrument approaches with minimums as low as 1 statute mile or as low as ¾ statute mile.

Runway Orientation

For the operational safety and efficiency of an airport, it is desirable for the primary runway to be oriented as close as possible to the direction of the prevailing wind. This reduces the impact of crosswind components during landing or takeoff.

The FAA recommends providing a crosswind runway when the primary runway configuration provides less than 95 percent wind coverage at specific crosswind components.

The Airport has a single runway oriented east-west (Runway 8/26). No wind data is available for the Airport; however, it is believed that the runway orientation is reasonable because westerly winds are most common at the airport location. This is confirmed by pilot users.

Runway Length

Runway length requirements for an airport are based on several factors including airport elevation, mean maximum temperature of the hottest month, runway gradient, airplane operating weights, runway surface conditions (*i.e.*, wet or dry), and others. FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design*, as well as the FAA's Airport Design Computer Program, was consulted for guidance on recommended runway lengths at the Airport. Both the Advisory Circular and the computer program classify aircraft based on weight. For "small" airplanes (those weighing no more than 12,500 lbs), the classifications are further divided into two additional categories – small airplanes with fewer than 10 passenger seats and small airplanes with 10 or more passenger seats. The computer program, using site-specific data, reflects runway length recommendations by grouping general aviation aircraft into several categories, reflecting the percentage of the fleet within each category. **Table 3C** summarizes FAA's generalized recommended runway lengths for the Sekiu Airport.

The Sekiu Airport's runway length is 2,997 feet, with a displaced threshold reducing the Runway 26 landing length to 2,100 feet. Without the displaced threshold, the runway can accommodate nearly 95 percent of the small aircraft fleet with fewer than 10 passenger seats. WSDOT-Aviation's desired length for a Local Service Airport is 2,400 feet. Topographical constraints impact the longitudinal gradient and limit the runway length at Sekiu. FAA recommends a runway length of 3,200 feet for runways that have a non-precision instrument approach, although with a visual glides slope indicator, a runway as short as 2400 feet may support an instrument approach.

TABLE 3B. AIRFIELD DESIGN STANDARDS

	EXISTING DIMENSIONS	ADG I VISUAL AND NOT LOWER THAN 1 STATUTE MILE	ADG I NOT LOWER THAN ¾ STATUTE MILE
Runway Width	60'/50'	60'	60'
Runway Centerline to Parallel Taxiway Centerline Separation	N/A	150'	150'
RSA (Width)	120'[1]	120'	120'
Length beyond runway end (8/26)	100' / 220'	240'	240'
OFA (Width)	varies	250'	250'
Length beyond runway end (8/26)	100' / 220'	240'	240'
OFZ (Width)	120'	250	250
Length beyond runway end (16/34)	100' / 220'	200'	200'
RPZ (Inner Width x Outer Width x Length)	250' x 450'x 1,000'	250' x 450'x 1,000'	1,000' x 1,510' x 1,700'
Runway Blast Pads			
Length	0'	60'	60'
Width	0'	80'	80'
Approach Lighting	No	No	Yes
Runway Shoulder Width	5'	10'	10'
Taxiway Width	N/A	25'	25'
Taxiway Safety Area Width	N/A	49'	49'
Taxiway Object Free Area Width	N/A	89'	89'
Part 77 Imaginary Surfaces (airspace)[2]			
Primary Surface Width	250'	250'	500'
Horizontal Surface Radius	5,000'	5,000'	5,000'
Approach Surface Width at end	1,250'	1,250'	2,000'
Approach Surface Length	5,000'	5,000'	5,000'
Approach Slope	20:1	20:1	20:1

Source: FAA Advisory Circular 150/5300-13

[1] No safety area in runway 08 displacement area

[2] Federal Aviation Regulation Part 77 Surfaces are not a design standard; the FAA recommends that they be free of penetrations in order to enhance the safety of arriving and departing aircraft.

TABLE 3C. RUNWAY LENGTH RECOMMENDATIONS

AIRPORT AND RUNWAY DATA	
Airport elevation	355 feet
Mean daily maximum temperature of the hottest month	66.00 F
Maximum difference in runway centerline elevation	20 feet
Wet and slippery runways	
RUNWAY LENGTHS RECOMMENDED FOR AIRPORT DESIGN	
Small airplanes with less than 10 passenger seats	
75 percent of these small airplanes	2,360 feet
95 percent of these small airplanes	2,890 feet
100 percent of these small airplanes	3,450 feet
Small airplanes with 10 or more passenger seats	3,920 feet

Runway Width

The runway varies in width from 50 to 60 feet. Except in the runway 08 displacement area, the width is 60 feet. The standard for runway width is 60 feet for an ARC of A-I (small), for a visual runway and for both instrument approach minimum criteria per Table 3B.

The standard for the runway environment includes both runway shoulders and a safety area. The runway 08 displacement area has no shoulders and very steep slopes that do not meet the safety area standards

Runway Pavement Strength

The most important feature of airfield pavement is its ability to withstand repeated use by the most weight-demanding aircraft that operates at an airport. The current pavement strength rating of Runway 8/26 is unknown. However, a WSDOT-Aviation pavement study and other documents indicate that the pavement strength has been compromised for reasons including poor drainage and inadequate subbase materials. To meet standards, the runway would have to be fully reconstructed so as to correct these deficiencies. Alternatively, the runway could be converted to a grass/turf landing strip. Both of the options will be shown in Chapter 4, *Airport Development Alternatives*.

Taxiways

The runway currently has no taxiways. Access to the runway is provided via the tiedown apron and two turnaround areas. This nonstandard layout promotes back-taxi operations, wherein the aircraft operator uses the runway to taxi, rather than exiting and clearing the active runway.

A full-length parallel taxiway provides a safe, efficient traffic flow and eliminates the need for aircraft to back taxi before take-off or after landing. The FAA recommends a parallel taxiway for nonprecision instrument approaches with visibility minimums of one mile or more and requires a parallel taxiway for instrument approaches with visibility minimums lower than one mile. To meet the FAA standards, a parallel taxiway should be developed; however, it is not a WSDOT-Aviation objective. Due to topographic constraints, a large amount of fill material would be necessary to construct a taxiway, which would likely make the project financially infeasible.

Similar to runway width, taxiway width is also determined by the ADG of the most demanding aircraft to use the taxiway. Any future taxiways at the Airport should be at least 25 feet wide.

Run-Up Areas

Currently, there are two run-up areas on the airfield, although they are not in a standard configuration. The run-up areas should be maintained and expanded so that run-ups can be performed safely and out of the runway safety area.

Airport Visual Aids

Airports commonly include a variety of visual aids, such as pavement markings and signage to assist pilots using the airport.

Pavement Markings. Runway markings are designed according to the type of instrument approach available on the runway. FAA Advisory Circular 150/5340-1J, *Standards for Airport Markings*, provides the guidance for airport markings. Visual approach markings are currently in place on Runway 8/26 and are in good condition. If a nonprecision approach is implemented, they should be upgraded to nonprecision with threshold markings.

There are no hold markings at the runway access points. The purpose of hold markings is to ensure that aircraft waiting for arriving or departing aircraft to clear the runway are not holding in the RSA. Hold markings should be placed at all runway access points if there is enough paved area to provide acceptable separation from the runway.

Airfield Signage. The Airport currently has no signage. Signage, particularly at the runway access points is important for pilot situational awareness. Signage should be installed for the runway and any future taxiways and/or runway access points.

Airport Lighting

Beacon. The Airport's rotating beacon is located on top of a hangar building and is adequate for the planning period. It is currently out of service and requires repair or replacement.

Visual Glide Slope Indicators. As discussed in Chapter One, the Airport has a Visual Glide Slope Indicator (VGSI) on the Runway 26 end. Replacement parts for these facilities are becoming more difficult to find. Additionally, the VGSI is set to a 4 degree slope, rather than the standard 3 degree slope, in order to clear trees in the approach. It is recommended that the VGSI be replaced with a Precision Approach Path Indicator (PAPI), when practical.

Runway and Taxiway Lighting. Airport lighting systems provide critical guidance to pilots at night and during low visibility conditions. Runway 8/26 is equipped with low intensity runway lighting (LIRL). It is recommended this system be maintained throughout the planning period. LIRL is acceptable for not lower than 1 mile minimums.

Runway identification lighting provides the pilot with a rapid and positive identification of the runway end. The most basic system involves runway end identifier lights (REILs). It is desirable that both runway ends have REILs installed, particularly because of the frequent low visibility conditions.

If an instrument approach with visibility minimums lower than 1 mile were implemented, medium intensity runway lights and an instrument approach lighting system would be required. The lower cost omnidirectional approach lights (ODALs) are acceptable. Due to topographic constraints, ODAL installation would be difficult to achieve. Other airport design characteristics are sufficiently limited that approval of an instrument approach procedure by FAA is questionable.

The Airport currently does not have pilot-controlled lighting (PCL). PCL allows pilots to turn runway lighting on when needed. The PCL system is energy-efficient and its installation at the airport should be considered.

Radio Navigational Aids & Instrument Approach Procedures

Radio Navigational Aids. There are no radio navigational aids at the Airport, which is acceptable.

Instrument Approach Procedures. The Airport currently has no instrument approaches. In order to evaluate the potential of implementing a nonprecision instrument approach procedure, the alternatives should show the improvements required to upgrade to an instrument approach with visibility minimums of either 1 statute mile or ¾ statute mile. Final determination of feasibility of implementing a precision instrument approach procedure would require an aeronautical obstruction survey meeting rigorous FAA standards and then an evaluation by the FAA Flight Procedures Office.

Helicopter Facilities

The Airport does not have a public helipad. Helicopters are used regionally for medical evacuation, firefighting, sightseeing, and other uses. It is expected that these uses will continue to grow throughout the planning period. Planning for future improvement projects at the Airport should consider reserving space for helicopter ground operations.

Other Airfield Recommendations

Traffic Pattern. The current traffic pattern is a left-hand traffic for Runways 8/26. The existing traffic pattern procedure is adequate.

Wind Indicators/Segmented Circle. The existing windcone is near the Airport entrance. Although at the time of installation it probably met the then-current standards, it is now a penetration of the OFA. Relocation to a position nearer the center of the runway, outside of the OFA, with a supplemental windcone at each runway end, is desirable and should be considered with any significant improvement project.

Weather Reporting. The nearest real-time weather reporting is located at the William R. Fairchild Airport in Port Angeles via an Automated Weather Observation System (AWOS). The weather varies significantly between the two locations. Although on-site weather reporting is not a WSDOT-Aviation objective, it may be beneficial for Airport operations when activity increases.

LANDSIDE REQUIREMENTS

Landside facilities are those facilities necessary for handling aircraft on the ground, and those facilities that provide an interface between the air and ground transportation modes. Landside requirements are addressed for the following facilities:

- Hangars
- Aprons and Aircraft Parking
- Airport Access & Vehicle Parking
- Aviation Services
- General Aviation Terminal Facility

Hangars

The utilization of hangars varies as a function of local climate, security and owner preferences. The trend in general aviation aircraft is toward higher performance, higher value aircraft. Therefore, many aircraft owners prefer enclosed hangar space rather than outside tie-downs. In planning for hangar development, the number and type of aircraft to be based at the Airport is analyzed. Hangar development should be based upon actual demand trends and financial investment conditions, not solely on forecasts.

At the Airport, the one based aircraft is currently stored in a hangar. There are two additional hangars at the Airport being used for non-aeronautical purposes. Over the planning period, it is anticipated that one more aircraft (possibly a helicopter) will relocate to the Airport. Aircraft should have preference over non-aeronautical uses of hangars; therefore, it is anticipated any future based aircraft will utilize an existing hangar. The existing hangars do penetrate the Part 77 transitional surface; however, it is recommended but not required that this surface be clear of obstructions. While the hangars are close to the runway, they do not infringe upon any design standard surface.

There are no hangar needs at the Airport over the planning period, as existing facilities will likely be able to meet the forecast demand. However, because actual demand may exceed the forecasted demand, it is recommended a future development area be identified in the alternatives chapter.

Aprons and Aircraft Parking

Currently, there are six tiedown positions at the Airport. The FAA has developed an approach for determining the number of tiedowns needed for itinerant aircraft operating at an airport. The following general methodology was taken from *Airport Design*, Appendix 5, Change 10 and is based on peak operations calculations:

- Peak Day Operations
- Divide by 2 (50% of operations are departures)

- Multiply by 50% (assumes 50% of the transient airplanes will be on the apron during the peak day)

Using this methodology, the Airport will need to have transient tiedown space for 2 aircraft by 2031. Considering this, the size of the current apron is adequate for the planning period. However, the tiedowns are located approximately 60 feet away from the runway centerline. The standard separation from the runway centerline to any aircraft parking area is 125 feet. A location that meets the design standard should be identified. Additionally, the current pavement strength has been compromised, as discussed above, and construction of a new apron should be designed to maintain a desirable pavement strength rating.

Airport Access

Access to the Airport is provided by Sekiu Airport Road from State Route 112. Approximately six automobile parking spaces are available near the end of Runway 26. During most of the year, automobile parking is sufficient; however, during the summer months the parking needs exceed the available area. An expansion of the parking area should be identified for future development. Additionally, Sekiu Airport Road is too close to the Runway 26 end. One of the alternatives in Chapter 4, or the recommended alternative will identify the requirements for meeting the applicable design standards.

Aviation Services

As discussed in Chapter One, there are no aviation services or fixed base operators (FBOS) currently available at the Airport. To date, there is no interest in developing any of these services at the Airport. It is recommended that if any services are to be offered in the future they locate in one of the existing hangars.

SUPPORT FACILITY REQUIREMENTS

Facilities that are not classified as airfield or landside are known as Support Facilities. The following support facilities were evaluated:

- Emergency Services
- Airport Maintenance
- Airport Fencing
- Utilities
- Storm Drainage
- Aviation Fueling Facilities

Emergency Services

Currently, emergency services related to structural, aircraft, and vegetation fires are provided by the Clallam Fire District #5. The Clallam County Sherriff's Department provides law enforcement services. No changes are recommended.

Airport Maintenance

Airport maintenance is adequately provided by the Port of Port Angeles with equipment stored off-airport. No changes are recommended

Airport Fencing

The Airport has chain link perimeter fencing and one vehicle gate. No changes are recommended.

Utilities

Utilities available at the Airport include electricity, water, septic, and telephone. It was mentioned during the first planning advisory committee meeting that water is a limiting factor for development in areas nearby and adjacent to the Airport. The Port should take part in any discussions relating to expansion of the existing water system in order to ensure the Airport is fairly represented.

Storm Drainage

Any future development or expansion of existing facilities will increase the Airport's existing impervious surfaces. These additional surfaces must be evaluated to ensure that the requirements of the Clean Water Act[3] are met. Because a specific layout for future development has not yet been defined, the exact amount of increased impervious surface is to be determined. One alternative, conversion of the runway to turf, would reduce requirements. The ground surface surrounding the airport pavements is not sloped so as to effectively drain storm water from the site. As a result, the pavement strength is reduced during wet conditions (winter) and pavement shoulders are subject to significant erosion.

Aviation Fueling Facilities

No fuel is available for sale at the Airport. Given forecasted demand levels, it is unlikely there will be a demand for this service during the planning period.

LAND USE PLANNING & ZONING RECOMMENDATIONS

There are several items the Port should work toward with regard to land use and zoning around the Airport. Recommendations are provided below, and come primarily from WSDOT's "Airports and Compatible Land Use

[3] The federal Clean Water Act mandates jurisdictional control of the quality of stormwater runoff. This mandated program is found in the Code of Federal Regulation part 122.26. The Airport may fall under the scope of these regulations and may need to apply for a National Pollution Discharge Elimination Permit (NPDES) for the discharge of rain water to the surface water system.

Guidebook". Note that one of the WSDOT Airport Grant assurances requires sponsor action toward acceptable compatible land use.

Zoning Code

- Consider rezoning the underlying designations within the Airport property as "Airport" to ensure that only compatible uses occur within the Airport property boundary. The rezoning should specify height limits for the various airport surfaces. The airport property is currently zoned urban residential high density. There are existing residential uses in close proximity to the airport.
- Establish an airport overlay zone similar to the AOZ adopted for Sequim Airport.

Comprehensive Plan

- Adopt the final Airport Layout Plan, by reference, into Clallam County's Comprehensive Plan. In doing so, insert a description of the Sekiu Airport and its facilities into the Plan.

- Identify the Sekiu Airport as an Essential Public Facility.

- Adopt a title notice or similar requirement to inform purchasers of property within one mile of the Airport that their property is located adjacent to or in close proximity to the Airport and their property may be impacted by a variety of aviation activities. Note that such activities may include but are not limited to noise, vibration, chemical odors, hours of operations, low overhead flights, and other associated activities.

Chapter 4 – Development Alternatives

The preceding chapter identified deficiencies of the Sekiu Airport (Airport) with respect to existing and anticipated aeronautical demand, and to current Federal Aviation Administration (FAA) design standards and Washington Department of Transportation – Aviation Division (WSDOT-Aviation) development guidelines. This chapter presents several development alternatives that focus on meeting the Airport's facility needs for the long-term future.

While the development alternatives focus on meeting aeronautical demand projected for 2031, it is prudent to consider the ultimate potential of airport property. By doing so, the planning documents remain flexible and functional, considering the possibility that unforeseen events or increases in user demand occur. Consequently, the alternatives highlight possible airfield and landside uses that could meet facility needs projected to occur after 2031.

The west 900 feet of the runway (the displaced threshold area) is constructed on property not owned by the Port. Improvement meeting any of these alternatives would require resolution of this property deficiency.

SUMMARY OF FACILITY REQUIREMENTS

The preceding chapter, *Facility Requirements*, identified development needs to accommodate forecasted aeronautical activity. It may not be feasible to develop the Airport to meet ADG-I design standards that are applicable or necessary in order to provide an instrument approach. Without considering environmental or financial feasibility, Chapter Three identified the following needs over the 20-year planning period:

Airfield Requirements

- For the current visual approach and any possible future upgrades to an instrument approach, improvements would be required in order to meet several design standards, including runway width, runway safety area (RSA), object free area (OFA), object free zone (OFZ), runway protection zone (RPZ), and others.
    - The following alternatives will show both approach options 1) visual and not lower than 1 statute mile and 2) not lower than ¾ statute mile. Final determination of feasibility of implementing a precision instrument approach procedure would need an aeronautical obstruction survey meeting rigorous FAA standards and then an evaluation by the FAA Flight Procedures Office.
- The current runway width of 50 feet in the displaced threshold area is deficient. A runway width of 60 feet and standard safety areas would be needed to meet FAA recommendations, whether or not the runway has an instrument approach procedure
- The current pavement strength is inadequate. Options for either reconstruction or conversion to a turf/ gravel landing strip are presented.
- The turnarounds at the Runway 8 end should be improved for better ground operations and separation from the runway.
- If an instrument approach procedure is pursued markings on Runway 8/26 should be upgraded to non-precision with threshold markings,. Hold markings should be painted at all runway access points.
- There is currently no signage on the airfield. Signage should be installed at the runway access points.
- It is recommended that the Runway 26 Visual Glide Slope Indicator (VGSI) be replaced with Precision Approach Path Indicator (PAPI), when practical.
- If an instrument approach, with minimums greater than 1 statute mile, were pursued, the Airport lighting would need to be upgraded to medium intensity and an approach lighting system would be required.
- If the runway lighting is upgraded to MIRL, install runway end identifier lights (REILs) at each runway end.
- Installation of pilot controlled lighting (PCL) would reduce energy costs.
- Develop a public helipad to accommodate helicopter parking. It should be located away from the fixed wing tiedown area, so as to reduce potential damage from rotorwash.
- It is preferred that a lighted wind cone be located approximately at midfield, with a supplemental wind cone at each runway end. Due to property limitations and nearby terrain, a location better than the current may not be possible.

- Tree clearing along the runway edges and the extended centerline was completed in 2012. Regular maintenance is necessary to remove obstructions within the obstacle-free area and to the extent practical, within the Part 77 imaginary surfaces. There are existing tree penetrations adjacent to the runway in the displaced threshold area.

- The dimensions of RPZs are dependent upon the ARC and approach visibility minimums. The following alternatives depict the different dimensional requirements for the various approach minimums considered. The FAA recommends that RPZs be clear of all residences, places of public assembly, and roadways, as well as that airports own the land within the RPZs.

LANDSIDE REQUIREMENTS

- Sekiu Airport Road infringes on the Runway 26 approach and runway protection zone (RPZ) and the runway safety area. To correct this deficiency, either the road should be relocated or the runway end should be relocated.

- The vehicular parking area should be expanded or relocated to allow for more parking area.

- Weather reporting is desired at the Airport, regardless of approach instrumentation.

SUPPORT FACILITY REQUIREMENTS

- The Port of Port Angeles should be included in any discussions relating to the expansion of the nearby water system.

LAND USE PLANNING & ZONING

- Consider rezoning the Airport property as "Airport".

- Adopt the Airport Layout Plan Narrative into the Clallam County Comprehensive Plan and identify the Airport as an Essential Public Facility.

- Adopt a title notice for the area within one mile of the Airport.

DEVELOPMENT ALTERNATIVES

Three alternatives for the long-term future development of the Airport are presented in this chapter:

- No-Build Alternative, which assumes maintenance of existing facilities and no expansion of airfield or landside facilities and no improvement to meet safety-related design standards.

- Development Alternative 1 consists of the development required to meet design standards and forecast activity.

- Development Alternative 2 is an option to develop the Airport within the existing and formerly leased property.

No-Build Alternative

Exhibit 4A illustrates the No-Build alternative. By showing the consequences of not developing the Airport, the Airport Sponsor (Port of Port Angeles) can assess the advantages and disadvantages of development alternatives.

As shown in Chapter 2, *Aeronautical Activity Forecast*, the Airport is expected to experience very little increased demand. Additionally, Chapter 3, *Facility Requirements*, identified numerous design standard deficiencies. These would not be addressed under the No-Build Alternative. The No-Build Alternative would not optimize the Airport's potential.

While the No-Build Alternative is essentially a do-nothing option, it does not mean that there would be no financial impact to the Airport. Most prominently, there would still be a cost associated with maintaining the current pavements and facilities.

The no-build alternative, as well as any development alternative, requires resolution of the west end property if the existing runway length is to be preserved.

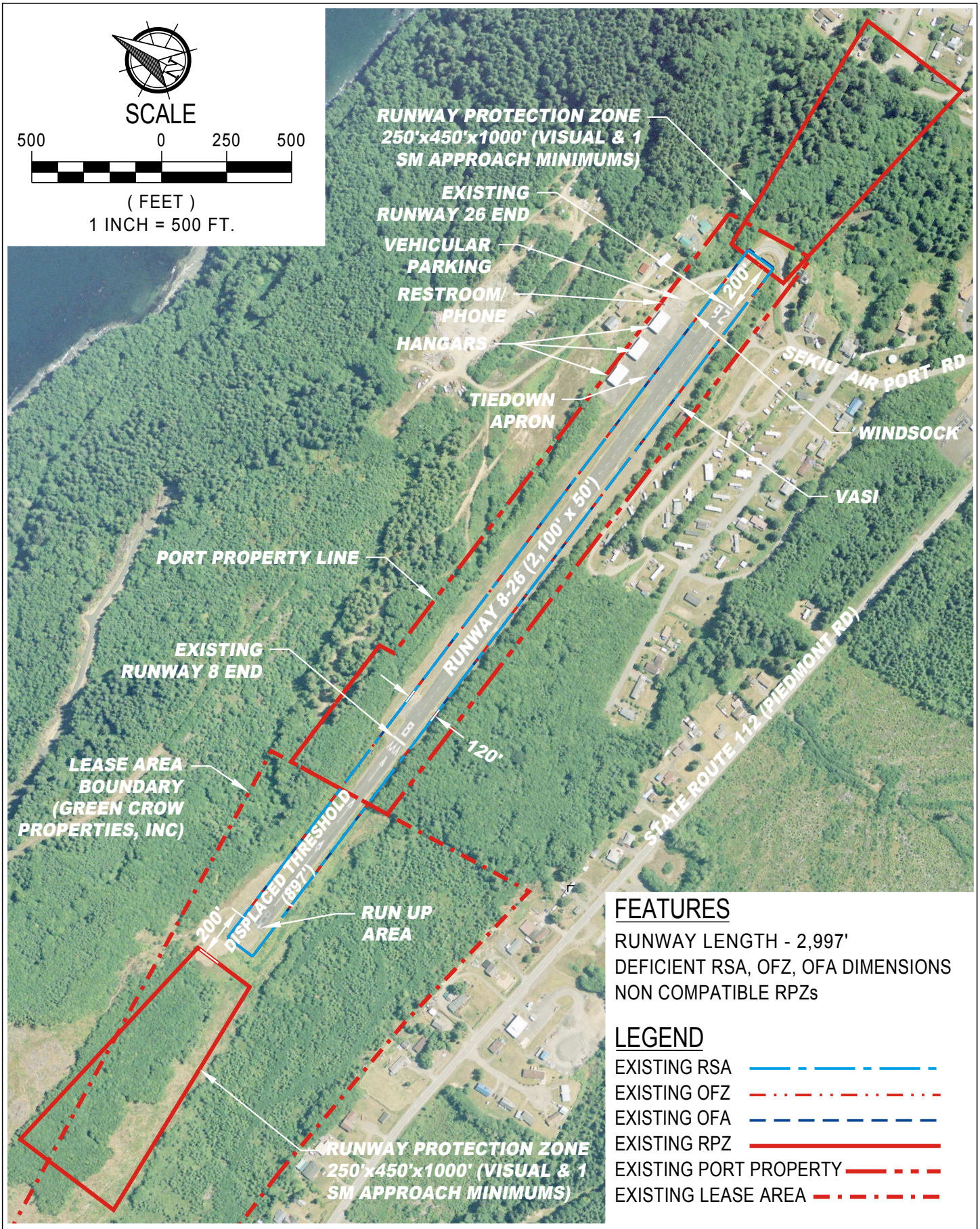
Development Alternative 1

Development Alternative 1 represents all of the Facility Requirement recommendations, including an instrument approach with visibility minimums of not lower than ¾ statute mile, as is shown in **Exhibit 4B**. Generally speaking, it is the most aggressive development alternative presented. The most notable change from the existing Airport condition is the RPZ area requirement associated with the instrument approach. Approximately 68.74 acres have been identified for acquisition to ensure control of land uses within the RPZs. Within those RPZs, omnidirectional approach lights (ODALs) are shown, which are a requirement of the instrument approach. Topographical constraints may prohibit installation of the ODALs.

A feature associated with Development Alternative 1 that is not reflected on the exhibit is the remedial action needed to correct the Sekiu Airport Road's location within the RPZ. Two potentially feasible options exist to correct this deficiency: 1) relocation of the road outside of the RPZ or 2) displace the runway 26 threshold. These options will be discussed later in this chapter.

Airfield. Airfield developments for Development Alternative 1 are outlined below.

- Resolution of the "Green Crow" property.
- Increase runway width to 60 feet for its full length.
- Standard runway safety area (RSA), object free area (OFA), and obstacle free zones (OFZ).
- Instrument approach capabilities, with minimums not lower than ¾ statute mile.
- Increase RPZ area, required for the instrument approach.
- Land acquisition of approximately 68.74 acres to secure land uses within the RPZs.
- Expanded run-up areas.
- Assumes either full reconstruction or overlay of the runway to enhance the pavement strength.
- Installation of precision approach path indicators (PAPIs), runway end identifier lights (REILs), medium intensity runway lights (MIRLs), and ODALs. Pilot controlled lighting would be included with the upgrade to MIRLs.
- Installation of a weather reporting system.
- Installation of two supplemental windcones and a lighted segmented circle at mid-field.
- Tree clearing to remove penetrations of Part 77 surfaces.



FEATURES

RUNWAY LENGTH - 2,997'
DEFICIENT RSA, OFZ, OFA DIMENSIONS
NON COMPATIBLE RPZs

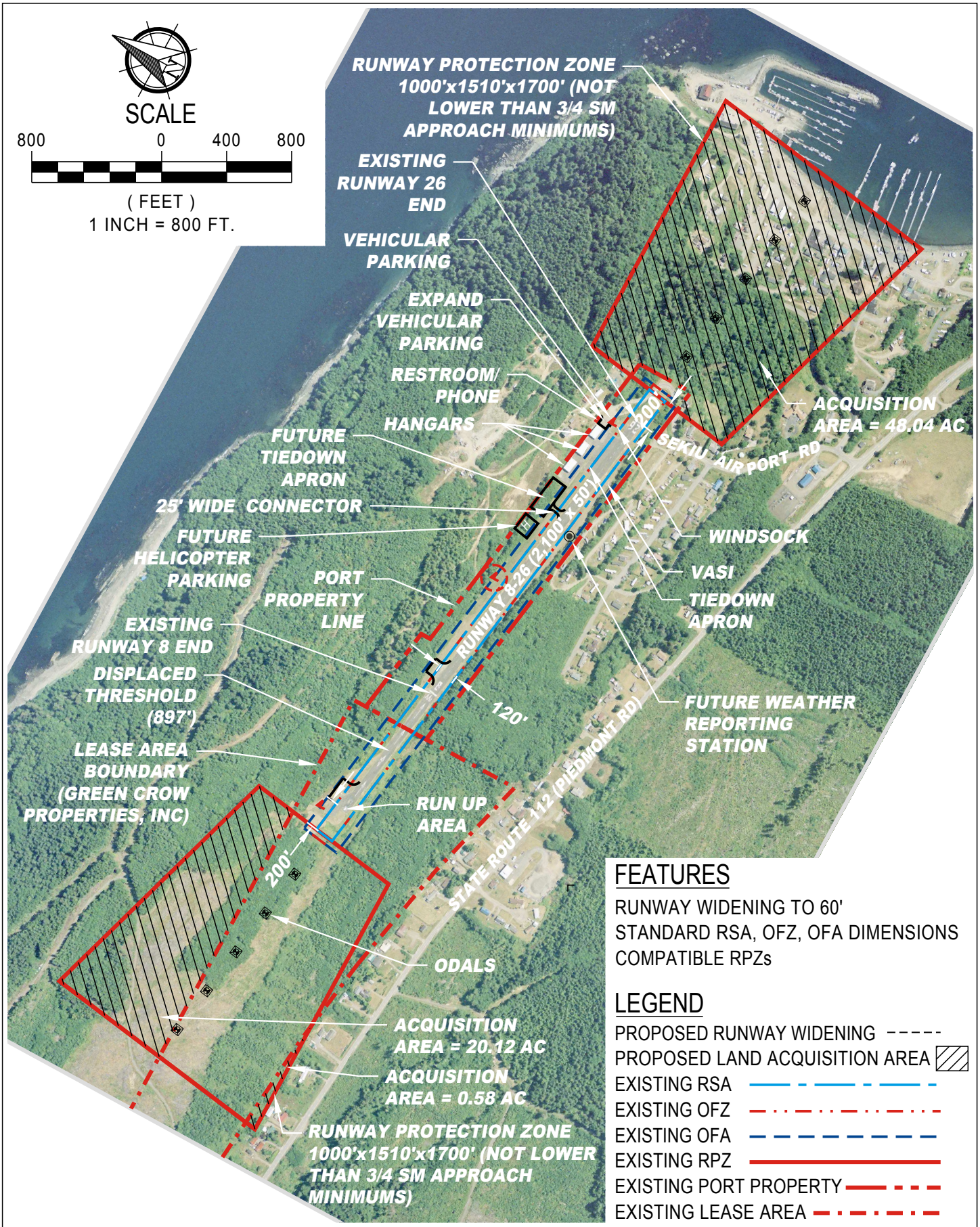
LEGEND

EXISTING RSA
EXISTING OFZ
EXISTING OFA
EXISTING RPZ
EXISTING PORT PROPERTY
EXISTING LEASE AREA

WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SEKIU AIRPORT	NO-BUILD ALTERNATIVE	EXHIBIT 4A



FEATURES

RUNWAY WIDENING TO 60'
STANDARD RSA, OFZ, OFA DIMENSIONS
COMPATIBLE RPZs

LEGEND

PROPOSED RUNWAY WIDENING
PROPOSED LAND ACQUISITION AREA
EXISTING RSA
EXISTING OFZ
EXISTING OFA
EXISTING RPZ
EXISTING PORT PROPERTY
EXISTING LEASE AREA

WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SEKIU AIRPORT	DEVELOPMENT ALTERNATIVE 1	EXHIBIT 4B

[DATE: ----] [AUTHOR: rtemplado] [PLOTTER: None] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\Exhibits\ACAD-037550-AIRP-EX4B.dwg] [LAYOUT: Layout1]

Overall, Development Alternative 1 includes aggressive airfield improvements for the planning period. Significant topographic features likely would constrain the ability to fully implement the airfield improvements, particularly those associated with the upgraded instrumentation.

Landside. The landside development features proposed in Development Alternative 1 include:

- Expanded vehicle parking area – achieved by relocating the fencing at the current airport entrance.
- Relocation of the tiedown apron to the west of the hangars.
- Location of helicopter parking area further west of the proposed future tiedown apron.
- Relocation of Sekiu Airport Road outside of the Runway 26 approach area.

Development Alternative 1 satisfies the recommendations presented in Chapter Three. However, the feasibility – from a financial and environmental perspective – of implementing all of the components is questionable and will be discussed in greater detail below.

Development Alternative 2

Development Alternative 2, depicted in **Exhibit 4C**, includes a conversion of the runway pavement to a turf landing surface. The proposed approach instrumentation reflects minimums of not lower than 1 statute mile, which requires the same RPZ area as the existing visual approach. This alternative also requires acquisition of the Green Crow property through fee or lease. Therefore, avigation easement acquisition is proposed to secure land use control within the RPZs.

Airfield. Airfield developments for Development Alternative 2 are outlined below.

- Resolution of the "Green Crow" property ownership.
- Conversion of landing surface to turf.
- Enhanced turf run-up areas at the Runway 8 end.
- Installation of two supplemental windcones and a lighted segmented circle at mid-field.
- Acquisition of avigation easements for approximately 8.16 acres to secure land use control within the RPZs.
- Clearing of safety-related design surfaces and some Part 77 surfaces.

A significant feature of Development Alternative 2 is the conversion of the landing strip to turf. Some weight limitations on using aircraft may be necessary during the rainy season.

Landside. The landside development features proposed in Development Alternative 2 include:

- Development of turf tiedowns and helicopter parking west of the existing hangars.

Development Alternative 2 represents a change in the role of the Sekiu Airport. While it would remain available to the same aircraft as it currently serves, there would likely be a trend towards more recreational general aviation activity. Accessibility by helicopter would likely be unaffected.

COMPARISON OF ALTERNATIVES

Detailed costs estimates were not prepared for each alternative because of the conclusion that funding is not available to provide any significant improvement. Development Alternative 1 would have the highest capital cost, mostly as a result of the land acquisition costs, RPZ clearing and grading, and the disposition of Sekiu Airport Road. Development Alternative 2 would have the second highest cost, with the largest expenses being the conversion of the runway and easement acquisition. The No-Build Alternative has a minimal cost associated with pavement and general airport maintenance. Both of these alternatives would include a very high cost in order to improve the 900 feet of displaced threshold to meet standard criteria for runway width and safety area.

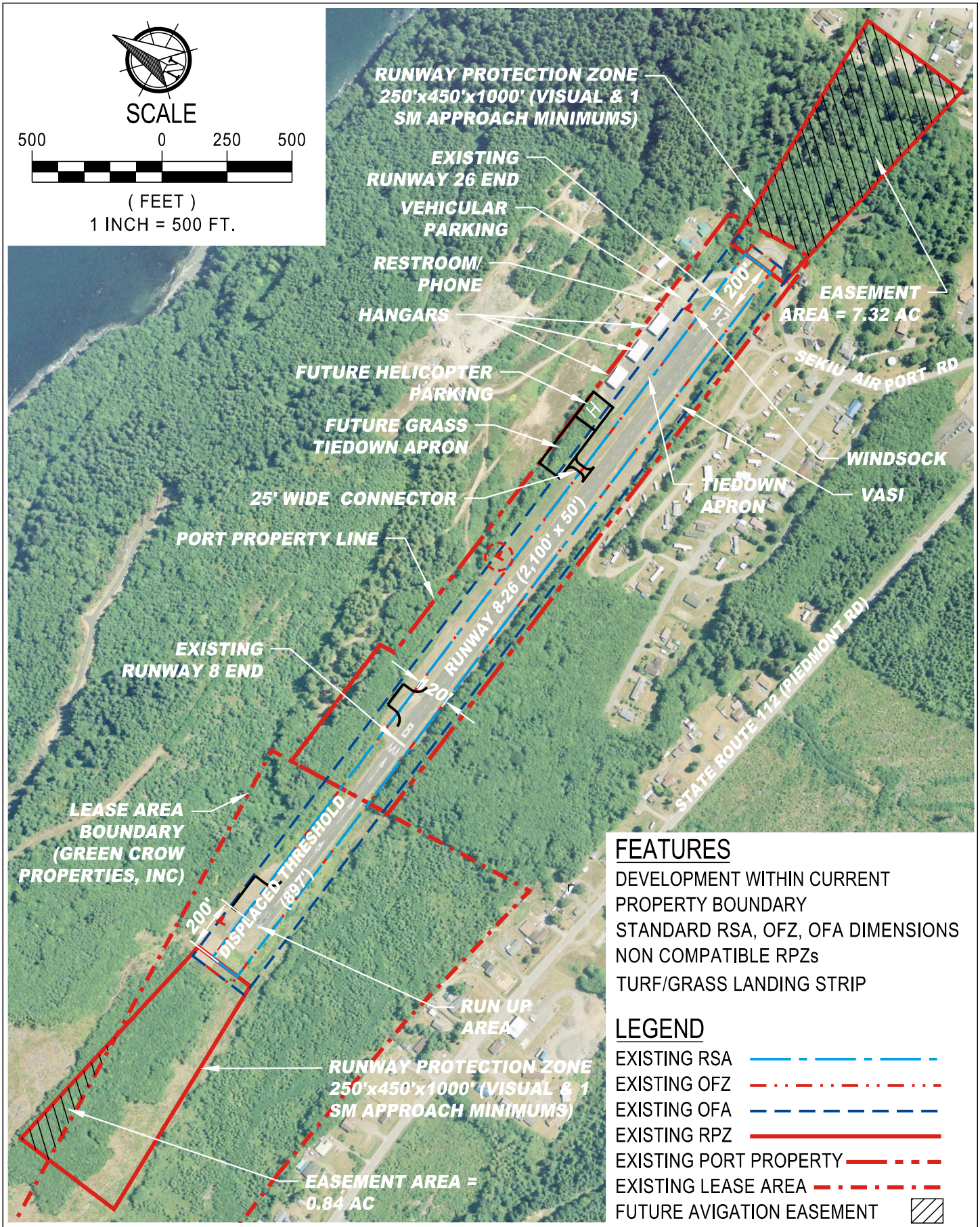
The instrument approach minimums shown for each development alternative vary greatly. The existing, No-Build Alternative is a visual-only approach; however, the existing required RPZ dimensions are the same as those required for an approach with minimums of not lower than 1 statute mile, as shown in Development Alternative 2. Development Alternative 1 depicts the design standards necessary for an instrument approach with minimums not lower than ¾ statute mile. Facility requirements associated with the upgraded approach in Development Alternative 1 include ODALs, among others. The terrain under the Runway 26 approach descends more than 200 feet within the area ODALs should be located. Installation of an ODALS in this situation is not feasible. It is, therefore, recommended an approach to runway 26, with minimums not lower than ¾ statute mile not be pursued. An approach with 1-mile minimums will be considered.

The correction of the pavement strength issue is proposed by either reconstruction/overlay (Alternative 1) or conversion to grass/turf (Alternative 2). The biggest impacts these alternatives present relate to cost and operations. The cost of retaining airfield pavement far outweighs the cost of developing and maintaining a turf runway. However, there would likely be instances during the wet season when a turf runway would be unusable, even if constructed properly to convey water away from the runway system. Given the current and forecasted operations level any impacts to operations would likely be minimal. Both options have maintenance costs to consider. A draft study conducted by the Oregon Department of Aviation concludes the annual cost of pavement maintenance over the pavement's lifecycle of 20 years is $1.974 per square yard per year. Based on the Airport's current runway surface of approximately 16,650 square yards the annual maintenance cost would be around $32,865 – over the pavement's lifespan the maintenance cost would exceed $650,000. Comparatively, maintenance of a turf runway typically consists of mowing, fertilizing, and irrigation (see the State of Montana's guide to turf runways at http://www.mdt.mt.gov/publications/brochures.shtml). No estimates are available for the annual cost of maintaining a turf runway, but it is less than that of maintaining a paved surface.

Correction of Sekiu Airport Road within the Runway 26 approach and RPZ includes the aforementioned options: 1) relocate the road outside of the RPZ or 2) relocate the runway 26 threshold. These options are further described as:

1. Relocation of Sekiu Airport Road. Due to the terrain and property limitations, relocation of Sekiu Airport Road is not feasible.
2. Relocation of the Runway 26 threshold by approximately 200 feet would clear Sekiu Airport Road from the Runway Safety Area (RSA). The road is below the runway elevation. Applying the appropriate threshold location surface results in no further necessary displacement.

Of these options, relocation of the threshold is the only feasible alternative.



FEATURES

DEVELOPMENT WITHIN CURRENT PROPERTY BOUNDARY
STANDARD RSA, OFZ, OFA DIMENSIONS
NON COMPATIBLE RPZs
TURF/GRASS LANDING STRIP

LEGEND

EXISTING RSA
EXISTING OFZ
EXISTING OFA
EXISTING RPZ
EXISTING PORT PROPERTY
EXISTING LEASE AREA
FUTURE AVIGATION EASEMENT

WHPacific

PORT of PORT ANGELES
WASHINGTON STATE

SEKIU AIRPORT	DEVELOPMENT ALTERNATIVE 2	EXHIBIT 4C

ENVIRONMENTAL SCREENING OF ALTERNATIVES

Each alternative was reviewed to assess its relative environmental impact, as well as to identify any environmental constraints that may prohibit development. The results of this analysis are presented in **Table 4A**.

Each alternative presents an array of environmental opportunities and constraints. The following discussion summarizes the potential environmental concerns associated with each alternative.

TABLE 4A. DEVELOPMENT ALTERNATIVES - ENVIRONMENTAL CONSTRAINTS AND IMPACTS

Impact Categories	*No-Build Alternative*	*Development Alternative 1*	*Development Alternative 2*
Air Quality	No apparent issues.	No apparent issues.	No apparent issues.
Biotic Resources	No apparent issues.	No apparent issues.	No apparent issues.
Land Use Impacts	No apparent issues.	Recommend land use changes per WSDOT-Aviation guidelines.	Recommend land use changes per WSDOT-Aviation guidelines.
Construction Impacts	No apparent issues.	Temporary impacts relative to apron construction.	Temporary impacts related to apron construction.
Section 4(f) Resources	No apparent issues.	No apparent issues.	No apparent issues.
Threatened and Endangered Species	No apparent issues.	No apparent issues.	No apparent issues.
Energy Supplies, Natural Resources and Sustainability	No apparent issues.	No apparent issues.	No apparent issues.
Environmental Justice	No apparent issues.	No apparent issues.	No apparent issues.
Farmlands	No apparent issues.	No apparent issues.	No apparent issues.
Hazardous Materials	No apparent issues.	Risk for spills with landside development	Risk for spills with landside development
Historical, Archaeological and Cultural Resources	No apparent issues.	No apparent issues.	No apparent issues.
Induced Socioeconomic Impacts	No apparent issues.	Development of landside improvements could create jobs and rent revenue.	No apparent issues.
Light Emissions and Visual Effects	No apparent issues.	No apparent issues.	No apparent issues.

Impact Categories	*No-Build Alternative*	*Development Alternative 1*	*Development Alternative 2*
Energy Supply & Natural Resources	No apparent issues.	No apparent issues.	No apparent issues.
Noise	No apparent issues.	Perception of noise increase could occur as a result of Runway 26 RPZ clearing/grading.	No apparent issues.
Social Impacts	No apparent issues.	Slight potential for perception of change in community structure.	Slight potential for perception of change in community structure.
Solid Waste	No apparent issues.	No apparent issues.	No apparent issues.
Water Quality	No apparent issues.	Slight increase in impervious surface area.	No apparent issues.
Wetlands	No apparent issues.	Potential to impact wetlands during RPZ, RSA, OFA, OFZ and safety area clearing/grading.	Potential to impact wetlands during RPZ, RSA, OFA, OFZ and safety area clearing/grading.
Cumulative Impact	No apparent issues.	No apparent issues.	No apparent issues.
Controversy	No apparent issues.	No apparent issues.	No apparent issues.

No-Build Alternative

The No-Build Alternative does not propose any new use designations on the airport. It includes only maintenance for the next 20 years. The No-Build Alternative does not present land use compatibility concerns, noise concerns, changes to the social environment, or direct threats to plant and animal communities. In terms of overall impact, **this alternative has the least impact to the existing natural and built environments. This alternative presents serious risk to the Port of Port Angeles due to the very significant deviation from the width and safety area standards in the runway 08 threshold displacement area.**

Development Alternative 1

Development Alternative 2 is the most aggressive of the alternatives, in that it proposes grading and clearing of the Runway 26 approach path for installation of ODALs and modifications to Sekiu Airport Road. Additional airside improvements consist of improved lighting and weather reporting. Landside development would include land acquisition, tiedown apron, helicopter parking, and expanded vehicular parking.

The greatest impact of this alternative is associated with Runway 26 RPZ area. Clearing and grading of the RPZ would change the "look" of the Airport, as well as potentially alter surface transportation patterns. The increased visibility of the Airport environment could bring greater awareness of the Airport – both in terms of its beneficial impacts (tourism, emergency services, etc.) and complaints of noise and/or light pollution. No noise impacts are anticipated from this alternative, other than the forecast increases in aviation use.

There is a potential for biotic, threatened and endangered species, and archaeological impacts during construction. An environmental assessment would be required prior to undertaking the RPZ and road alteration projects.

This alternative has the greatest environmental impact of the two build alternatives.

Development Alternative 2

This alternative converts the paved runway to turf and proposes avigation easements to secure land uses within the RPZs. Minimal landside improvements are proposed, all of which are turf (tiedown apron and helicopter parking).

Impervious surface would decrease in this alternative, thereby improving the water quality situation. Wetlands would be impacted, as they would be graded to convey stormwater away from the runway environment. There is a small potential for impacts to habitat to clear and grade the RSA, OFA, and OFZ areas.

This alternative has the least environmental impact of the Build Alternatives.

Cost Estimates

After these alternatives were developed and reviewed, an inspection of the displaced threshold area of runway 08 showed serious deficiencies that would be very expensive to correct. The cost of various elements of the alternatives was estimated. The costs estimates are presented in **Table 4B.** The costs, compared with the existing and forecast activity level led to consideration of additional, less expensive improvement alternatives.

TABLE 4B; COSTS OF SELECTED POTENTIAL AIRPORT IMPROVEMENT ITEMS

Sekiu Airport Improvement Costs				
	Project	Total Cost	State (95%)	Port Cost (5%)
1	Relocate runway 26 Threshold – mark new threshold, remove some existing paint, add new threshold lights to existing LIRL	$ 10,000	$ 9,500	$ 500
2	Shorten Runway (close displaced threshold) – mark with chevrons; remove existing paint; remove bulbs from existing lighting system.	$ 5,000	$ 4,750	$ 250
3	Construct Apron	$ 125,000	$ 118,750	$ 6,250
4	Construct Taxi Turnaround	$ 40,000	$ 38,000	$ 2,000
5	Install Rotating Beacon near middle of runway, install new power cable	$ 40,000	$ 38,000	$ 2,000
6	Install Lighted Wind Cone – power with beacon project	$ 5,000	$ 4,750	$ 250
7	Relocate Hydrant – approx. 25 feet	$ 5,000	$ 4,750	$ 250
	Total to meet standards 1800'runway	**$ 230,000**	**$261,250**	**$ 13,750**
8	Correct safety area to provide for a 2000' runway (approx. 500')	$ 800,000	**	
9	Rehabilitate 2000' Runway	$ 1,900,000	**	
	Total to complete standard 2000' runway	**$ 2,930,000**		
10*	Correct safety area (runway cross section) in displaced threshold area (runway 08)	$ 1,500,000	**	
11	Reconstruct 900' runway – displaced threshold area. Add fill to improve line-of-sight	$ 1,000,000	**	
	Total to correct displaced threshold area	**$ 2,500,000**	**	
	Total to meet standards for entire 2800 foot runway.	**$5,430,000**	**	
12	Airport Camera	$ 5,000	$ 4,750	$ 250

* There are potential additional drainage costs in this area – the extent of required drainage improvement is not clear without further engineering and topographic information,

** State share of these large projects can't be forecasted; state participation depends on availability of state grant program funds.

PREFERRED ALTERNATIVE

The three alternatives were presented to the Port of Port Angeles, Planning Advisory Committee (PAC), WSDOT-Aviation, and members of the public. Based on comments received, and consideration of costs as described above, a Preferred Alternative was developed. The preferred alternative differed significantly from the alternatives described above. It is described in Chapter 5 and is the basis for the Airport Layout Plan shown in Chapter 7.

The principal driver of the preferred alternative was the very low activity, existing and forecast, which makes investment of significant improvement funding very improbable. It is difficult to justify significant investment to support additional activity, when shortening the runway and providing continued maintenance will meet the requirements of most of the using aircraft.

Chapter 5 – Recommended Alternative

The three alternatives described in the previous chapter were provided to the Port of Port Angeles, WSDOT Aviation and to the project Technical Advisory Committee for their review and comment. The alternatives were discussed at a public/TAC meeting at Sekiu on January 23, 2013. The reviewers were essentially unanimous in their recognition that the airport serves an important purpose in the local Sekiu community but the level of activity is insufficient to justify significant expenditures for improvement. Because of the low existing and forecast use, the alternatives focus on meeting appropriate recommended design standards, primarily those related to safety.

A preferred alternative was developed based on the comments received after review of the alternatives. None of the presented alternatives was acceptable as described. The no-development alternative came closest to meeting the comments of the reviewers. However, that alternative was modified to the extent necessary to meet minimum airport design standards recommended by WSDOT Aviation Division.

An adjustment to the alternatives became necessary at this stage in the planning. It was established that the property at the west end of the airport, on which most of the runway's displaced threshold was constructed, is no longer controlled by a lease held by the Port of Port Angeles. WSDOT grants require that the airport sponsor certify that they have good title to the property on which improvements are to be constructed. In addition, an inspection of the displaced threshold area shows an extreme deviation from the runway and safety area standards – a significant risk for the Port. **Thus, the preferred alternative will show future development only on the existing airport property. This results in a future reduced runway length, although a length that will adequately serve most of the existing users**.

Elements of Alternatives 1 and 2 were incorporated into the final preferred development only to the extent they are required to meet WSDOT and FAA recommended airport design standards. No recommendation was made regarding the major issue of inadequate pavement strength. Neither reconstruction nor conversion to turf was adopted as a recommendation. Essentially, the preferred development plan puts off that decision until there is an absolute necessity to do something with the existing pavement. Note that the recent WSDOT pavement evaluations of the airport indicate that the existing pavement is in such poor condition that reconstruction is necessary. In that condition, WSDOT is unlikely to approve a grant to support continued maintenance. The preferred alternative does not include an instrument approach procedure. It is assumed that the airport improvements necessary to meet FAA requirements related to an instrument approach procedure would be too expensive. Most importantly, the ultimate runway length is far short of the FAA minimum length needed to support an IAP.

The preferred development plan includes closure of the runway 08 displaced threshold area. That part of the runway is far short of meeting recommended dimensional standards, and the cost of meeting the standards is very high.

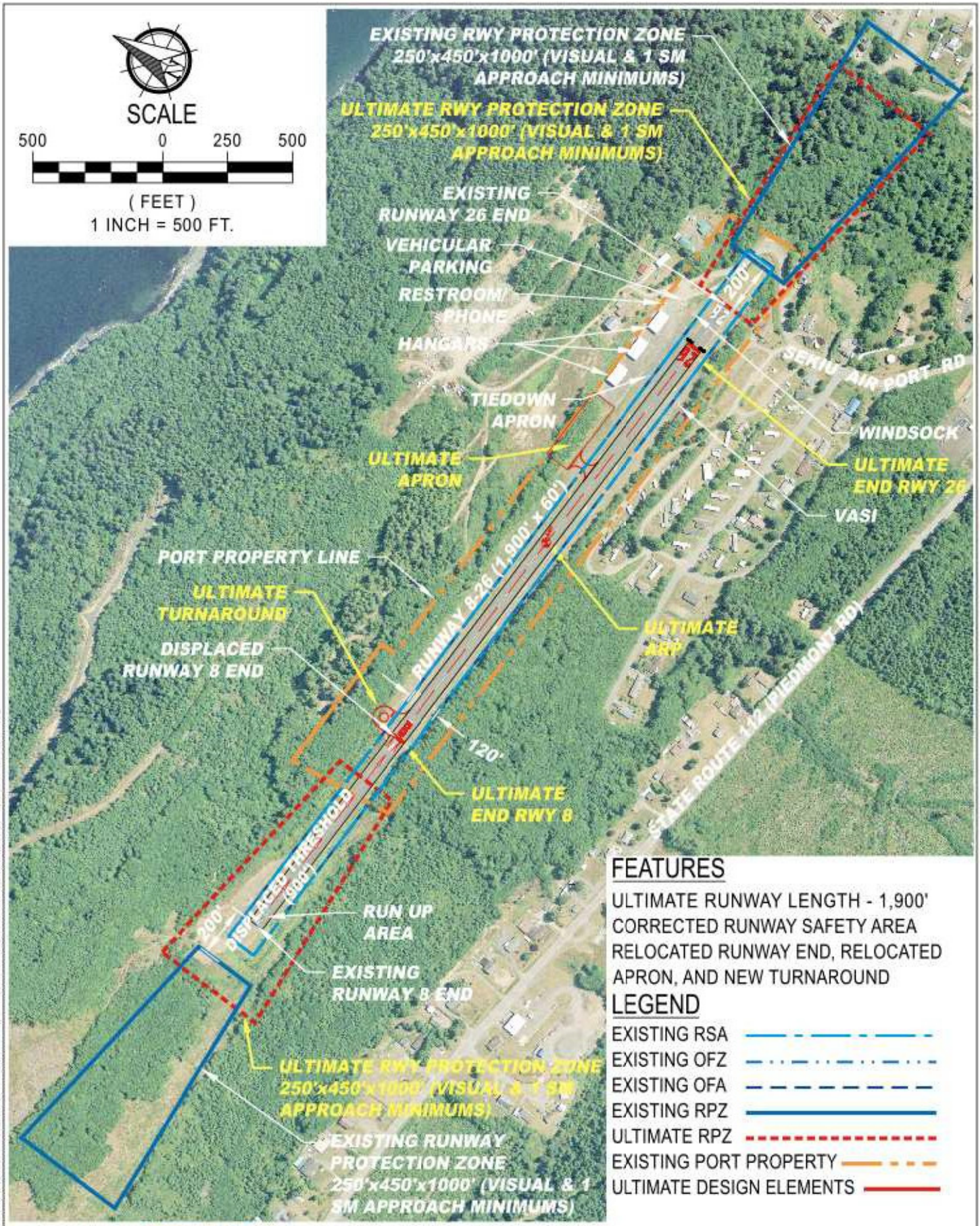
The recommended development plan differs from any of the alternatives shown in chapter 4. It is shown in Exhibit 5A and forms the basis for the Airport Layout Plan set to be presented in chapter 7. The recommended improvements are safety related. The recommendations related to the relocation of the runway 26 threshold involve very limited cost and should be undertaken as soon as funds are available or when the existing paint needs to be refreshed. Relocation or replacement of the VGSI, as part of the threshold relocation, is a more expensive item and due to its age, a preferred solution may be to decommission the device. Recommendations for construction of aircraft parking and turnaround aprons involve greater cost, and perhaps more important, should include drainage improvements, which could be very costly. Their cost is difficult to estimate without significant analysis of the drainage situation. Cost estimates are shown in chapter 4, and had a significant impact on selection of the preferred development option.

The preferred alternative includes the following items

- Relocate runway 26 threshold to provide a standard safety area
    - Replace or decommission the SAVASI due to the reduced threshold crossing height.
- Maintain tree clearing within the Obstacle Free Area and clear tree obstructions to the approach surfaces to the maximum extent possible.
- Maintain the existing pavement with regular crack sealing and surface treatments in order to keep it in usable condition for as long as possible.
- Reduce the runway length to the maximum allowable within airport property (approximately 1900' total length). If the approach surfaces can be maintained clear, consider application of "declared distances".

Environmental Screening of Preferred Alternative

The Preferred Alternative involves less development than the two development alternatives presented in chapter 4. They were reviewed and minimal potential impacts were identified. The preferred alternative, with a shorter runway and no development anticipated outside of the existing Port-owned property has lower potential impacts. The preferred alternative was reviewed and minor potential impacts in the following environmental categories were noted: land use, construction impacts, hazardous materials and wetlands.



FEATURES

ULTIMATE RUNWAY LENGTH - 1,900'
CORRECTED RUNWAY SAFETY AREA
RELOCATED RUNWAY END, RELOCATED APRON, AND NEW TURNAROUND

LEGEND

- EXISTING RSA
- EXISTING OFZ
- EXISTING OFA
- EXISTING RPZ
- ULTIMATE RPZ
- EXISTING PORT PROPERTY
- ULTIMATE DESIGN ELEMENTS

WHPacific

PORT OF PORT ANGELES WASHINGTON

SEKIU AIRPORT	RECOMMENDED ALTERNATIVE	EXHIBIT 5A

[DATE: ----] [AUTHOR: rtemplado] [PLOTTER: None] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\Exhibits\ACAD-037550-AIRP-EX5A.dwg] [LAYOUT: Layout1]

Chapter 6 – Capital Improvement Projects

Through the evaluation of the facility requirements, identification of the preferred alternative, and the development of the Airport Layout Plan, the improvements needed at Sekiu Airport over the next 20-year period have been determined. The capital improvement plan provides the basis for planning the funding of these improvements. The usual planned phases of development are in the 5-, 10- and 20-year time frames. Because of the very limited recommended development for this airport, and the decision to limit investment in the airport, the improvements are listed without reference to a time period. Runway reconstruction, a major potential cost item, has not been recommended. Reconstruction of the existing runway will be necessary at some point in the future unless a decision is made to convert to a turf/gravel runway. That project would cost nearly as much as construction of a complete new runway, because grading of the entire site would be necessary in order to protect the new pavement and provide adequate safety areas and areas for associated development.

Capital Improvement Projects

A list of potential improvements and costs is included in **Table 6A**. The improvements are related to the preferred alternative, which envisions a reduction of runway length to the maximum length feasible on existing property. The only other recommended improvement involves relocating the runway 26 threshold in order to provide a standard runway safety area for that runway. The costs are estimated in 2013 dollars and have been estimated without the benefit of detailed engineering; they are considered "planning-level" estimates. Other possible airport improvement items, including those listed in chapter 4, are not included in the "preferred development" option. The cost of other improvements exceeds likely available funding.

Funding Sources

The Sekiu Airport is in the Washington State Airport System Plan so funding for airport improvement projects could be provided by the State Department of Transportation Aviation Division (WSDOT), the Port of Port Angeles, and private sources. The airport is not in the FAA National Plan of Integrated Airport Systems (NPIAS) so it is not eligible to receive federal Airport Improvement Program (AIP) funding. The Port and the Aviation Division concur in the limited potential for funding of improvements at the airport. Hence, the limited improvements proposed in the preferred alternative.

WSDOT provides grants of up to a maximum of $250,000 per grant per year. For projects funded by the State, the minimum sponsor share is 5%. It is important to note that eligibility for State funds does not ensure that funds will be available or be granted. Timing of improvements is recommended on the basis of "as grant funds may be available".

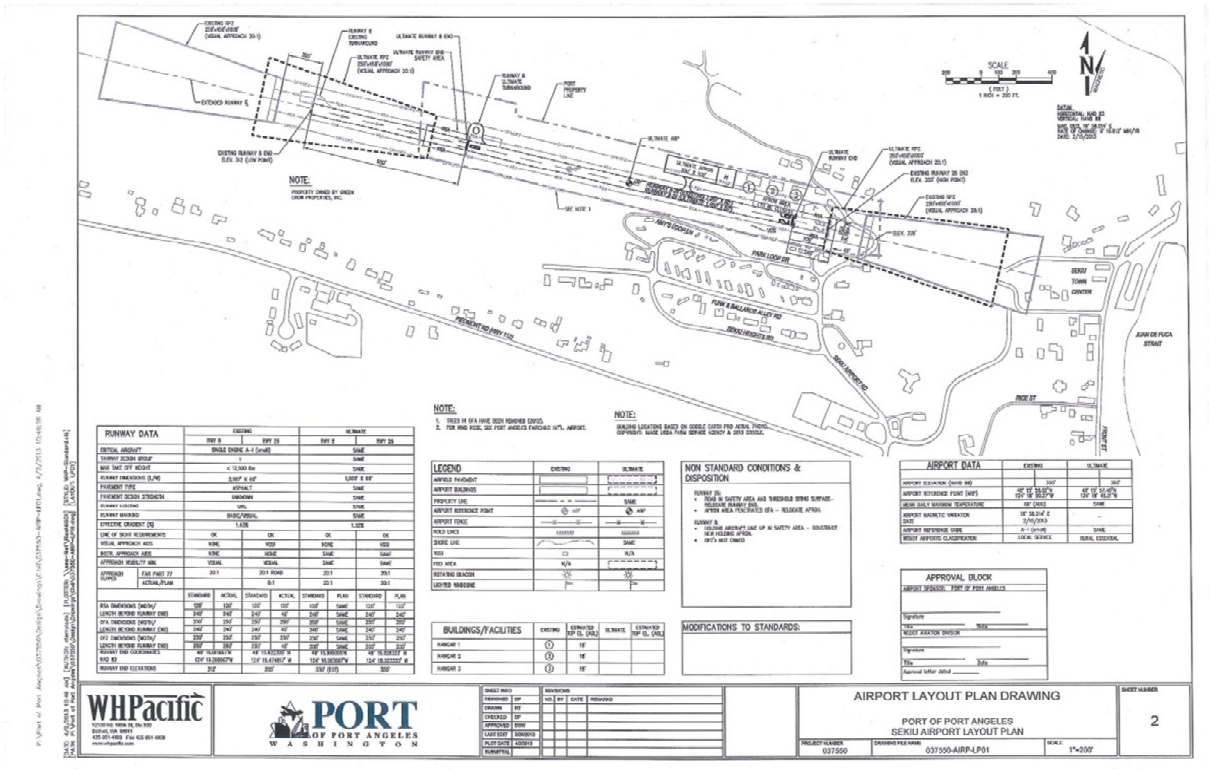
TABLE 6A: POTENTIAL IMPROVEMENTS AND COSTS

	Project Description	Total Cost	Port Cost (5%)	WSDOT Cost (95%)
1	Relocate Runway 26 Threshold	$10,000	$500	$9,500
2	Shorten Runway by closing runway 08 displaced threshold	$5,000	$250	$4,750

Note: For other costs not part of the preferred development, see chapter 4, Table 4A.

Chapter 7 – Airport Layout Plans

SEKIU AIRPORT LAYOUT PLAN NARRATIVE UPDATE



The Airport Layout Plan (ALP) drawings are a pictorial representation and summarization of the efforts made in this planning process. The previous chapters on Inventory, Forecasting, Facility Requirements, and Alternatives Analysis and the reviews provided by the Planning Advisory Committee and the Port of Port Angeles supply the basis for the future airport layout that is shown in the drawing set.

AIRPORT LAYOUT PLAN DRAWING SET

The following section describes the specific elements found on each sheet within the ALP drawing set.

Cover Sheet

The cover sheet shows location and vicinity maps of Seiku Airport and a sheet index to the airport layout plan drawing set. It provides pertinent information such as the airport sponsor, airport name, grant number the project is funded through, and date the plan was completed. It also includes a windrose. Because wind data is unavailable for Sekiu, the windrose for Fairchild International Airport is shown.

Airport Layout Plan Drawing

The airport layout plan depicts the current airport layout and the proposed improvements to the airport for the 20-year planning period. Descriptions of the improvements and costs over the next 20-years are included in Chapter 6, *Capital Improvement Projects*. As previously mentioned, the preferred alternative selected by the Port of Port Angeles after consultation with the Advisory Committee was the basis for determining the proposed improvements at the Airport. The future airport development is shown on the airport layout plan as required by WSDOT Aviation Division. The plan can be modified to accommodate development as dictated by demand.

Runway approach visibility minimums, runway protection zones, the runway object free area, the runway safety area and other standard airport dimensions are shown in the plan and in the runway data tables. Other tables include an airport data table, buildings/facilities table, modifications to standards, and a non-standard conditions and disposition table.

Airport Airspace Plan Drawing

This drawing shows the Part 77 Imaginary Surfaces for the future layout of Sekiu Airport with a USGS topographic map as the background. Part 77 defines five distinct surfaces, each with a different size and shape. The dimensions of these surfaces are based on the type of runway and the type of approach that exist or that is planned for the Airport. Each imaginary surface and its dimension as it applies to Sekiu Airport are defined below. The surfaces are shown based on the existing runway because they cover more area than would those for the future runway, if its length is reduced. All surfaces for existing and future conditions are based on the Part 77 criteria for a visual, utility runway.

Primary Surface: A rectangular surface with a width (centered on the runway centerline) that varies for each runway and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline. The width of the primary surface of Runway 8-26 is 250 feet.

Approach Surface: A surface centered on the extended runway centerline, starting at each end of the primary surface (200 feet beyond each end of the runway), at a width equal to that of the primary surface and an elevation equal to that of the end of the runway. The approach surfaces at Sekiu Airport reflect visual approaches to both runway ends. The surface extends for a horizontal distance of 5,000 feet at a slope of 20:1 to a width of 1,250 feet.

Transitional Surface: A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.

Horizontal Surface: An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging arcs of a 5,000-foot radius from the center of each end of the primary surface.

Conical Surface: A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

The Part 77 surfaces are the basis for protection of the airspace around the Airport, therefore, it is ideal to keep these surfaces clear of obstructions whenever possible. At Sekiu Airport, there are obstructions to the primary, approach, transition and conical surfaces, as depicted on the Airspace drawing. The obstruction data tables on Sheets 3 and 4 identify each obstruction, and note the proposed disposition of the described obstructions.

Obstructions to the Part 77 surfaces were determined based on preliminary field observation performed by WHPacific. The height of obstructions has not been determined by a survey.

Inner Approach Surface Plan & Profile Drawing

This drawing provides a plan and profile view of the runway and the Runway Protection Zones.

Land Use Plan Drawing

A land use plan has been developed for the airport and the surrounding area. This plan includes the land uses on and around the airport per the Clallam County Comprehensive Plan.

The land use plan drawing shows existing zoning for the airport and vicinity. It also shows the WSDOT Aviation Land Use recommended areas. A detail of the airport property shows these land use and zoning elements on the airport property.

PORT OF PORT ANGELES
AIRPORT LAYOUT PLAN
SEKIU AIRPORT
PORT ANGELES, WASHINGTON
JULY 2013

AIRPORT SITE

LOCATION MAP
NOT TO SCALE

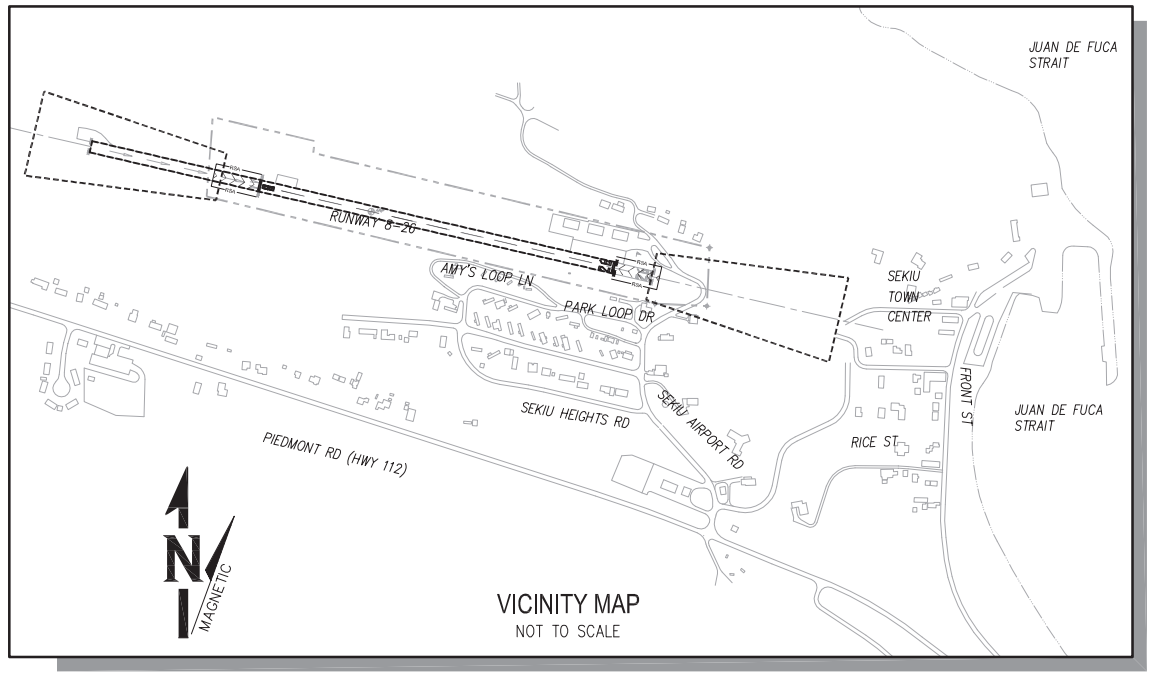
SHEET INDEX

VISUAL FLIGHT RULES WIND ROSE

VISUAL FLIGHT RULES (70,984 OBSERVATIONS)

CROSSWIND	RWY 8-26
10.5 KNOTS	99.89 %
13 KNOTS	99.96 %
16 KNOTS	100.00 %
20 KNOTS	100.00 %

NOTE:
SOURCE OF WINDROSE FROM PORT OF PORT ANGELES WILLIAM R. FAIRCHILD INTERNATIONAL AIRPORT.



VICINITY MAP
NOT TO SCALE

INCLUDES RECOMMENDED DEVELOPMENT - SUBJECT TO APPROVAL

WHPacific
12100 NE 195th St, Ste 300
Bothell, WA 98011
425-951-4800 Fax 425-951-4808
www.whpacific.com

Washington State Department of Transportation

SHEET INFO	
DESIGNED	DF
DRAWN	RT
CHECKED	DF
APPROVED	DSW
LAST EDIT	7/17/2013
PLOT DATE	7/17/2013
SUBMITTAL	

REVISIONS			
NO.	BY	DATE	REMARKS

PORT OF PORT ANGELES WASHINGTON

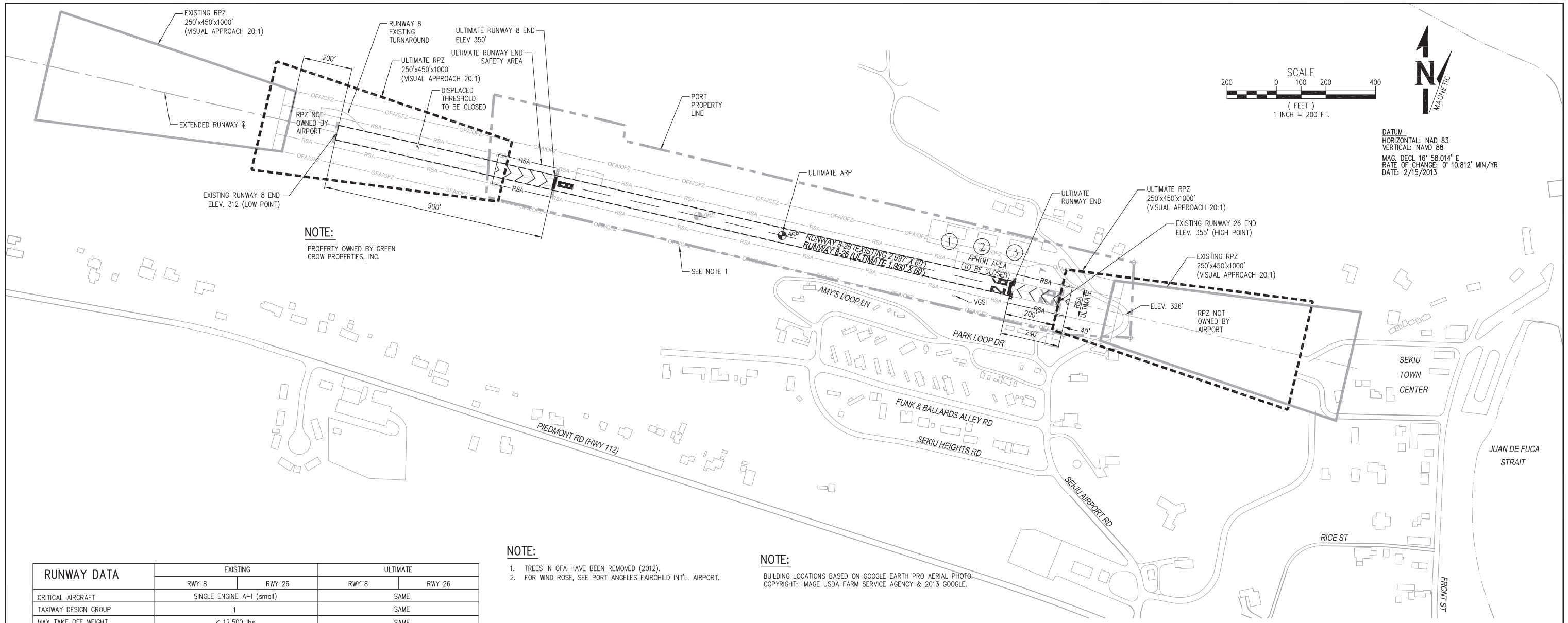
COVER SHEET

PORT OF PORT ANGELES
SEKIU AIRPORT LAYOUT PLAN

PROJECT NUMBER	DRAWING FILE NAME	SCALE
037550	037550-AIRP-CS01	AS NOTED

SHEET NUMBER
1

[DATE: 7/17/2013 8:19 AM] [AUTHOR: rtempleton] [PLOTTER: GutePDF Writer.pc3] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\037550-AIRP-CS01.dwg] [LAYOUT: CS01]



DATUM
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

MAG. DECL 16° 58.014' E
RATE OF CHANGE: 0° 10.812' MIN/YR
DATE: 2/15/2013

NOTE:

PROPERTY OWNED BY GREEN CROW PROPERTIES, INC.

NOTE:

1. TREES IN OFA HAVE BEEN REMOVED (2012).
2. FOR WIND ROSE, SEE PORT ANGELES FAIRCHILD INT'L. AIRPORT.

NOTE:

BUILDING LOCATIONS BASED ON GOOGLE EARTH PRO AERIAL PHOTO.
COPYRIGHT: IMAGE USDA FARM SERVICE AGENCY & 2013 GOOGLE.

RUNWAY DATA		EXISTING				ULTIMATE			
		RWY 8		RWY 26		RWY 8		RWY 26	
CRITICAL AIRCRAFT		SINGLE ENGINE A-I (small)				SAME			
TAXIWAY DESIGN GROUP		1				SAME			
MAX TAKE OFF WEIGHT		< 12,500 lbs				SAME			
RUNWAY DIMENSIONS (L/W)		2,997' X 60'/50'				1,900' X 60'			
PAVEMENT TYPE		ASPHALT				SAME			
PAVEMENT DESIGN STRENGTH		UNKNOWN				SAME			
RUNWAY LIGHTING		LIRL				SAME			
RUNWAY MARKING		BASIC/VISUAL				SAME			
EFFECTIVE GRADIENT (%)		1.43%				1.32%			
LINE OF SIGHT REQUIREMENTS		OK		OK		OK		OK	
VISUAL APPROACH AIDS		NONE		VGSI		NONE		NONE	
INSTR. APPROACH AIDS		NONE		NONE		SAME		SAME	
APPROACH VISIBILITY MIN.		VISUAL		VISUAL		SAME		SAME	
APPROACH SLOPES	FAR PART 77	20:1		20:1 ROAD		20:1		20:1	
	ACTUAL/PLAN			0:1		20:1		20:1	
		STANDARD	ACTUAL	STANDARD	ACTUAL	STANDARD	PLAN	STANDARD	PLAN
RSA DIMENSIONS (WIDTH/ LENGTH BEYOND RUNWAY END)		120' / 240'	120' / 240'	120' / 240'	120' / 40'	120' / 240'	SAME	120' / 240'	120' / 240'
OFA DIMENSIONS (WIDTH/ LENGTH BEYOND RUNWAY END)		250' / 240'	250' / 240'	250' / 240'	250' / 40'	250' / 240'	SAME	250' / 240'	250' / 240'
OFZ DIMENSIONS (WIDTH/ LENGTH BEYOND RUNWAY END)		250' / 200'	250' / 200'	250' / 200'	250' / 40'	250' / 200'	SAME	250' / 200'	250' / 200'
RUNWAY END COORDINATES NAD 83		48° 16.011667"N 124° 19.200967"W		48° 15.922300" N 124° 18.474817" W		48° 15.985000"N 124° 18.983667"W		48° 15.928333" N 124° 18.523333" W	
RUNWAY BEARING		S 76°58'07" E		S 76°58'07" E		S 76°58'07" E		S 76°58'07" E	
RUNWAY END ELEVATIONS		312'		355'		330' (EST)		355'	

LEGEND	EXISTING	ULTIMATE
AIRFIELD PAVEMENT		
AIRPORT BUILDINGS		
PROPERTY LINE		SAME
AIRPORT REFERENCE POINT	ARP	ARP
AIRPORT FENCE		
HOLD LINES		
SHORE LINE		SAME
VGSI		N/A
FBO AREA	N/A	
ROTATING BEACON		
LIGHTED WINDCONE		

BUILDINGS/FACILITIES	EXISTING	ESTIMATED TOP EL. (AGL)	ULTIMATE	ESTIMATED TOP EL. (AGL)
HANGAR 1	1	18'		
HANGAR 2	2	18'		
HANGAR 3	3	18'		

NON STANDARD CONDITIONS & DISPOSITION

RUNWAY 26:
- ROAD IN SAFETY AREA AND THRESHOLD SITING SURFACE– RELOCATE RUNWAY END.
- APRON AREA PENETRATES OFA – RELOCATE APRON.

RUNWAY 8:
- WAITING AIRCRAFT HOLD IN SAFETY AREA
- RPZ's NOT OWNED

MODIFICATIONS TO STANDARDS:

AIRPORT DATA	EXISTING	ULTIMATE
AIRPORT ELEVATION (NAVD 88)	355'	355'
AIRPORT REFERENCE POINT (ARP)	48° 15' 58.02"N 124° 18' 50.27"W	48° 15' 57.40"N 124° 18' 45.21"W
MEAN DAILY MAXIMUM TEMPERATURE	66° (AUG)	SAME
AIRPORT MAGNETIC VARIATION DATE	16° 58.014' E 2/15/2013	–
AIRPORT REFERENCE CODE	A-I (small)	SAME
WSDOT AIRPORTS CLASSIFICATION	LOCAL SERVICE	SAME

APPROVAL BLOCK

AIRPORT SPONSOR: PORT OF PORT ANGELES

Signature

Title Date

WSDOT AVIATION DIVISION

Signature

Title Date

Approval letter dated _____

WHPacific
12100 NE 195th St, Ste 300
Bothell, WA 98011
425-951-4800 Fax 425-951-4808
www.whpacific.com

Washington State Department of Transportation

SHEET INFO	
DESIGNED	DF
DRAWN	RT
CHECKED	DF
APPROVED	DSW
LAST EDIT	7/17/2013
PLOT DATE	7/17/2013
SUBMITTAL	

REVISIONS			
NO.	BY	DATE	REMARKS

PORT OF PORT ANGELES
WASHINGTON

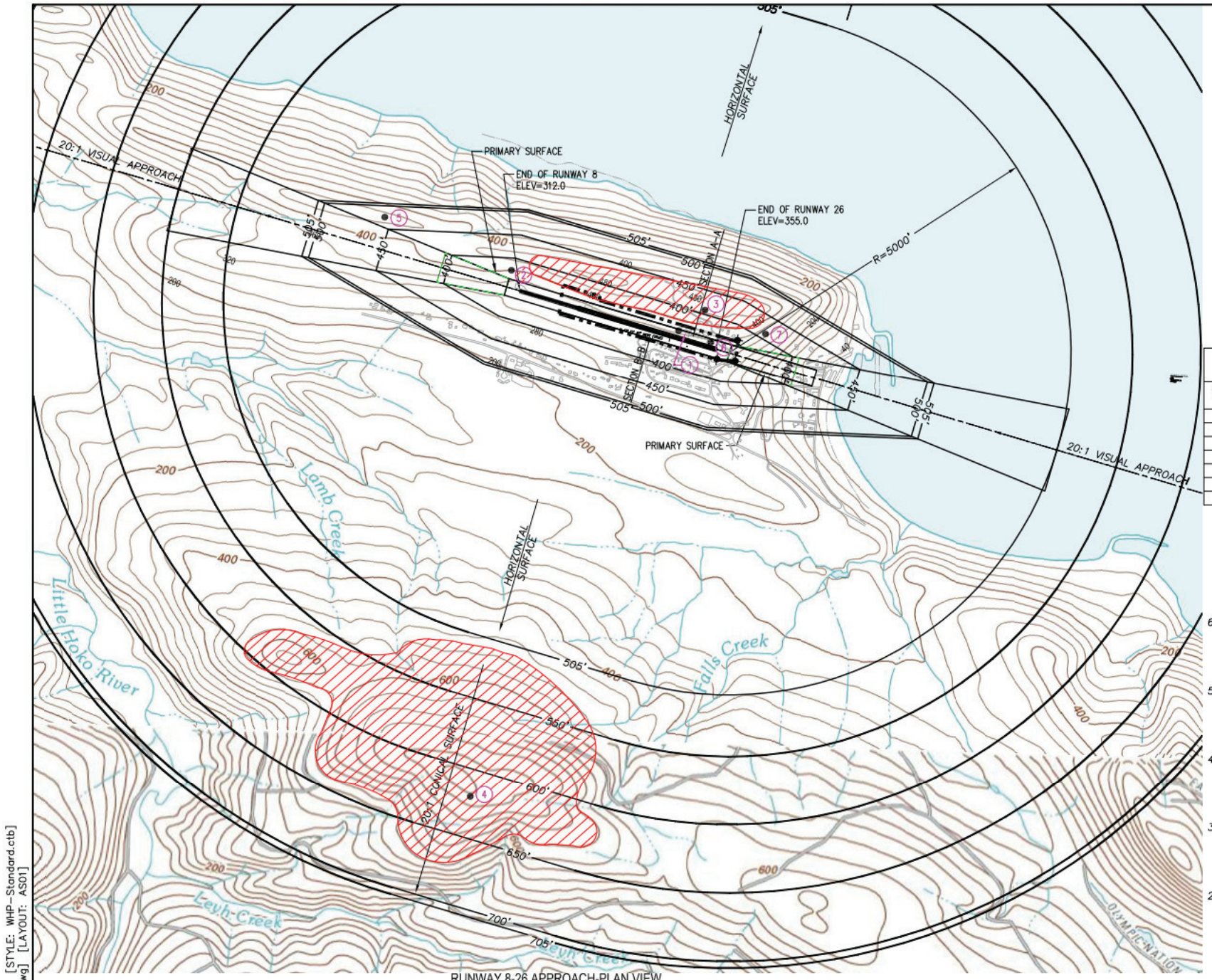
AIRPORT LAYOUT PLAN DRAWING

PORT OF PORT ANGELES
SEKIU AIRPORT LAYOUT PLAN

PROJECT NUMBER	DRAWING FILE NAME	SCALE
037550	037550-AIRP-LP01	1"=200'

SHEET NUMBER 2

[DATE: 7/17/2013 8:04 AM] [AUTHOR: rtempleton] [PLOTTER: CutePDF Writer.pc3] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\design\Drawings\Civil\037550-AIRP-LP01.dwg] [LAYOUT: LP01]



RUNWAY 8-26 APPROACH-PLAN VIEW
SCALE: 1" = 1000'

NOTES:

1. A GROWTH ALLOWANCE WAS NOT INCORPORATED INTO THE OBSTRUCTION REVIEW.
2. THE FOLLOWING HEIGHTS WERE ADDED TO THE SURFACE ELEVATION FOR CERTAIN GROUND FEATURES:
   10FT FOR A PRIVATE ROAD
   15FT FOR A PUBLIC ROAD
3. ALL ELEVATIONS ARE ON THE NAVD 88 DATUM, WITH THE EXCEPTION OF THE USGS MAP, WHICH IS NGVD 29. AT SEKIU AIRPORT. THE DIFFERENCE BETWEEN THESE TWO DATUMS IS 3.63'
4. PLAN VIEW SHOWN IS BASED ON CURRENT CONFIGURATION. IF RUNWAY LENGTH IS REDUCED, PART 77 SURFACE WILL BE SLIGHTLY REDUCED.
5. NO FIELD SURVEY HAS BEEN PERFORMED. OBSTRUCTIONS INFORMATION IS BASED ON ESTIMATED DATA GATHERED DURING THE INVENTORY EFFORT OF THE PLAN.
6. OBSTRUCTIONS MUST BE SURVEYED TO MEASURE ACTUAL HEIGHTS AND PENETRATION. DETERMINATION OF ACTUAL HEIGHTS AND PART 77 PENETRATION REQUIRES A SURVEY.

DATUM
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

MAG. DECL 16° 58.014' E
RATE OF CHANGE: 0° 10.812' MIN/YR
DATE: 2/15/2013

LEGEND:

⑦ OBSTRUCTIONS

PART 77 TERRAIN PENETRATIONS

EXISTING/ULTIMATE PART 77 OBSTRUCTION DATA TABLE

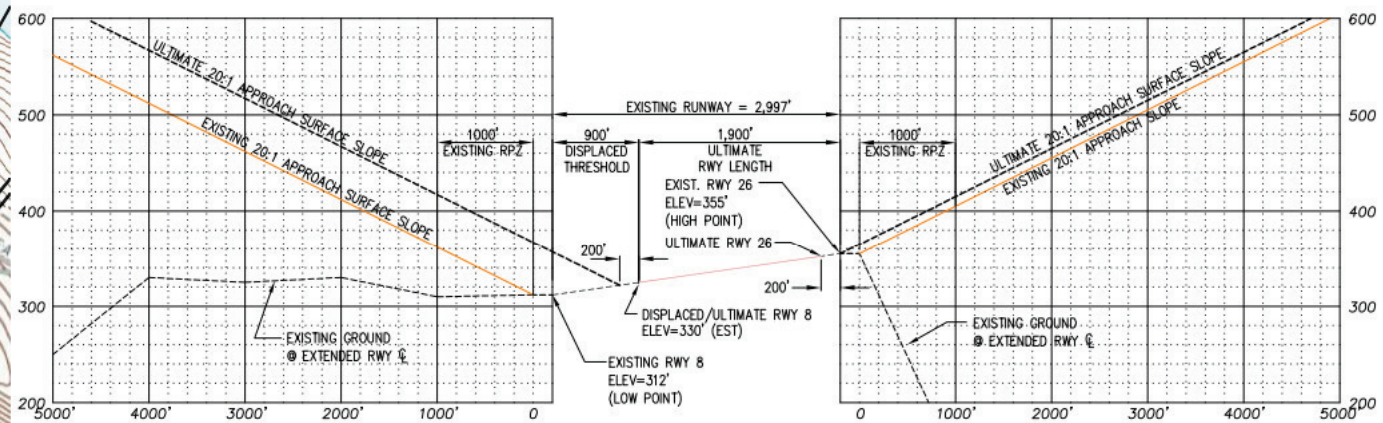
OBSTRUCTION NO.(#)	DESCRIPTION	ELEVATION	PART 77 SURFACE OBSTRUCTED	SURFACE ELEVATION	PENETRATION	PROPOSED DISPOSITION OF OBSTRUCTION
1	HANGARS		TRANSITION	350'	20'	OBSTRUCTION LIGHT
2	TREES		TRANSITION	*	20'–30'	TOP OR REMOVE
3	TERRAIN NORTH		TRANSITION	440'	40'	–
4	TERRAIN SOUTH		CONICAL	600'	200'	–
5	TREES WEST		APPROACH	330'	10'–20'	TOP OR REMOVE
6	ROAD		PRIMARY	355'	5'	RELOCATE RUNWAY END
7	TERRAIN EAST		APPROACH	375'	10'	RELOCATE RUNWAY END

* RUNWAY ELEVATION

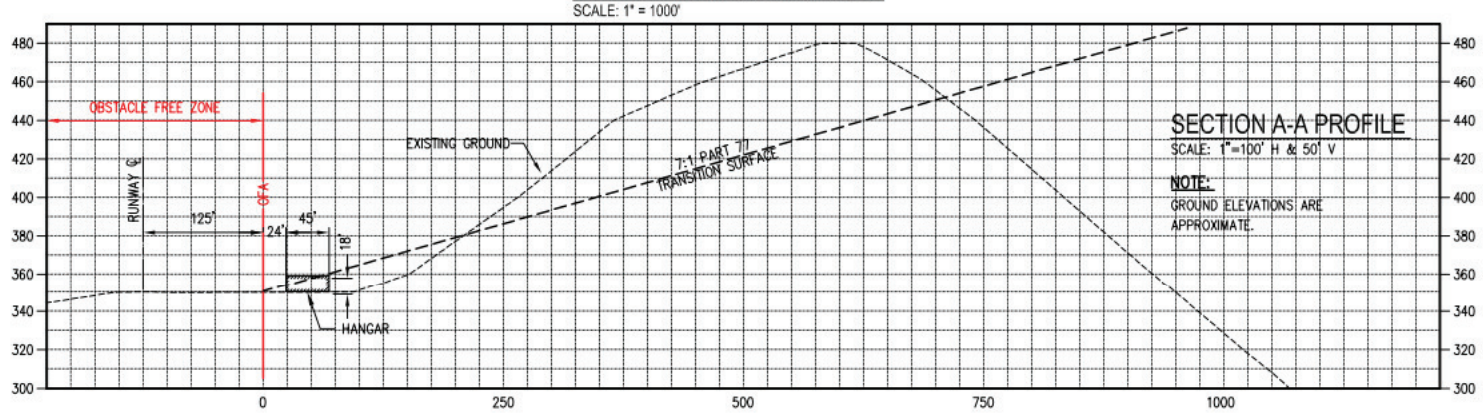
NOTES:

1. ALL OBJECTS IDENTIFIED AS PART 77 PENETRATIONS ARE OUTSIDE THE AIRPORT OBSTACLE FREE ZONE. A FAA AIRSPACE ANALYSIS OF THE OBSTRUCTIONS HAS NOT BEEN CONDUCTED. PENETRATIONS ARE NOT LIGHTED.
2. GROUND ELEVATIONS ARE APPROXIMATE.

PART 77 DIMENSIONAL STANDARDS
RUNWAY TYPE = VISUAL, UTILITY
PRIMARY SURFACE WIDTH = 250'
APPROACH SURFACE INNER WIDTH = 250'
APPROACH SURFACE OUTER WIDTH = 1,250'
APPROACH SURFACE LENGTH = 5,000'
RADIUS OF HORIZONTAL SURFACE = 5,000'
APPROACH SLOPE = 20:1

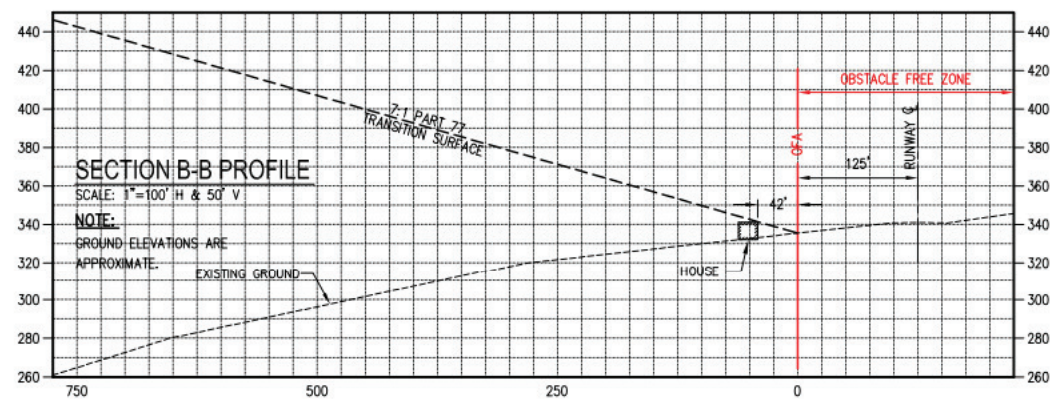


RUNWAY 8-26 APPROACH PROFILE
SCALE: 1"=1000' H & 100' V



SECTION A-A PROFILE
SCALE: 1"=100' H & 50' V

NOTE:
GROUND ELEVATIONS ARE APPROXIMATE.



SECTION B-B PROFILE
SCALE: 1"=100' H & 50' V

NOTE:
GROUND ELEVATIONS ARE APPROXIMATE.

WHPacific
12100 NE 195th St, Ste 300
Bothell, WA 98011
425-951-4800 Fax 425-951-4808
www.whpacific.com

Washington State Department of Transportation

PORT OF PORT ANGELES
WASHINGTON

SHEET INFO	
DESIGNED	DF
DRAWN	RT
CHECKED	DF
APPROVED	DSW
LAST EDIT	7/17/2013
PLOT DATE	7/17/2013
SUBMITTAL	

REVISIONS			
NO.	BY	DATE	REMARKS

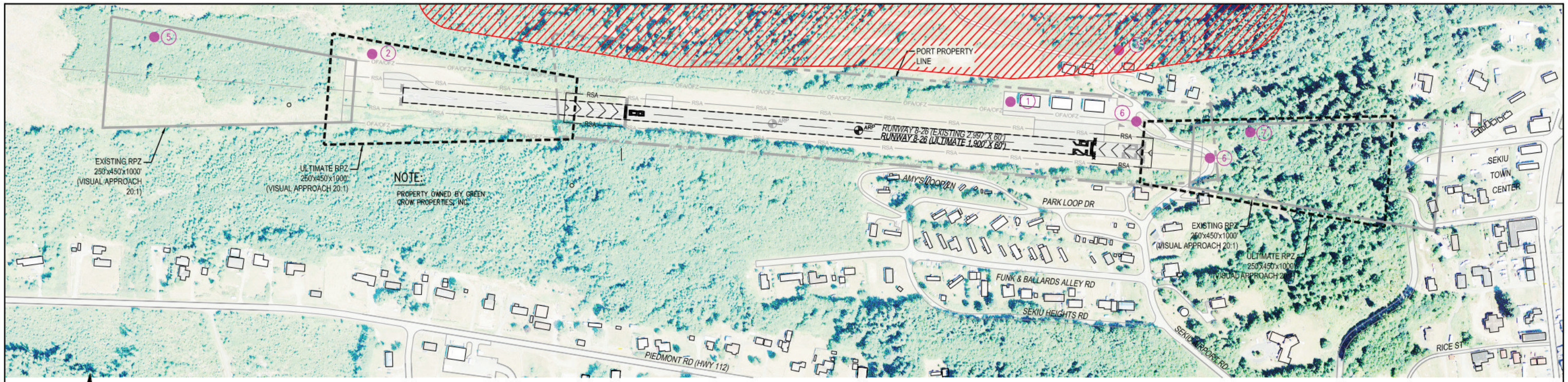
AIRPORT AIRSPACE DRAWING

PORT OF PORT ANGELES
SEKIU AIRPORT LAYOUT PLAN

PROJECT NUMBER	DRAWING FILE NAME	SCALE
037550	037550-AIRP-AS01	AS NOTED

SHEET NUMBER
3

[DATE: 7/17/2013 8:05 AM] [AUTHOR: rtemplodo] [PLOTTER: CutePDF Writer.pc3] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\037550-AIRP-AS01.dwg] [LAYOUT: AS01]



N MAGNETIC

SCALE
200 0 100 200 400
(FEET)
1 INCH = 200 FT.

DATUM
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

MAG. DECL 16° 58.014' E
RATE OF CHANGE: 0° 10.812' MIN/YR
DATE: 2/15/2013

NOTES:

1. NO FIELD SURVEY HAS BEEN PERFORMED. OBSTRUCTIONS INFORMATION IS BASED ON ESTIMATED DATA GATHERED DURING THE INVENTORY EFFORT OF THIS PLAN.
2. A GROWTH ALLOWANCE WAS NOT INCORPORATED INTO THE OBSTRUCTION REVIEW.
3. THE FOLLOWING HEIGHTS WERE ADDED TO THE SURFACE ELEVATION FOR CERTAIN GROUND FEATURES:

   10FT FOR A PRIVATE ROAD
   15FT FOR A PUBLIC ROAD
   17FT FOR AN INTERSTATE ROAD
   23FT FOR RAILROAD TRACKS

4. OBSTRUCTIONS MUST BE SURVEYED TO VERIFY ACTUAL HEIGHTS & PENETRATION AMOUNTS.
5. EXISTING AND FUTURE THRESHOLD SITING SURFACE IS TYPE 2– APPROACH END OF RUNWAYS EXPECTED TO SERVE SMALL AIRPLANES WITH APPROACH SPEEDS OF 50 KNOTS OR MORE. (VISUAL RUNWAYS ONLY, DAY/NIGHT).
6. THERE ARE NO OBSTRUCTIONS IN THE PRIMARY OR APPROACH SURFACES TO DEPICT IN PROFILE VIEW.

RUNWAY 8-26 APPROACH-PLAN VIEW
SCALE: 1"=200'

LEGEND	EXISTING	ULTIMATE
AIRFIELD PAVEMENT		
AIRPORT BUILDINGS		
PROPERTY LINE		SAME
AIRPORT REFERENCE POINT	ARP	ARP
AIRPORT FENCE		
HOLD LINES		
SHORE LINE		SAME
VGSI		N/A
FBO AREA	N/A	
ROTATING BEACON		
LIGHTED WINDCONE		SAME

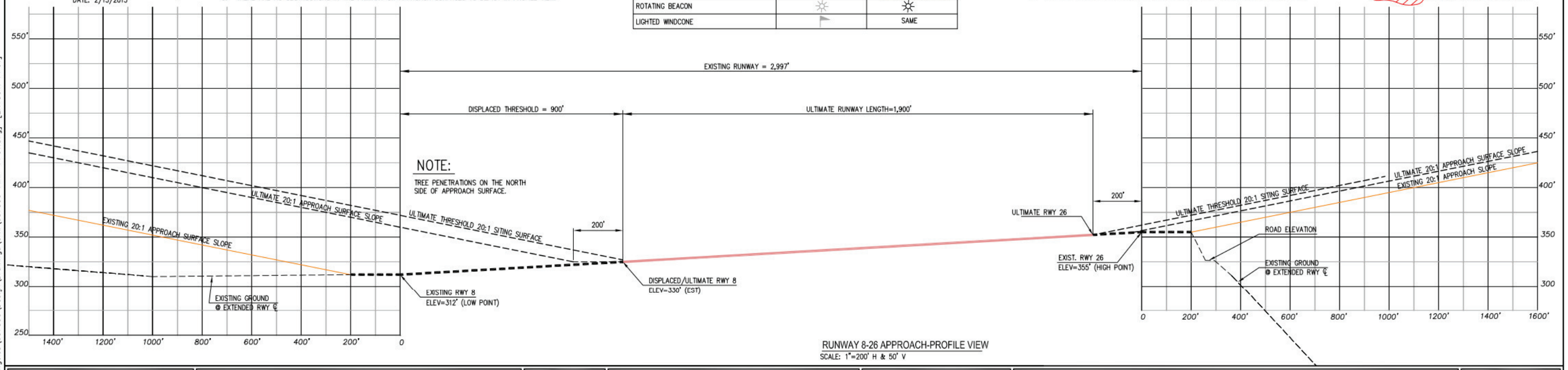
EXISTING/ULTIMATE PART 77 OBSTRUCTION DATA TABLE

OBSTRUCTION NO. (#)	DESCRIPTION	ELEVATION	PART 77 SURFACE OBSTRUCTED	SURFACE ELEVATION	PENETRATION	PROPOSED DISPOSITION OF OBSTRUCTION
1	HANGARS		TRANSITION	350'	20'	OBSTRUCTION LIGHT
2	TREES		TRANSITION	*	20'–30'	TOP OR REMOVE
3	TERRAIN NORTH		TRANSITION	440'	40'	–
4	TERRAIN SOUTH		TRANSITION	600'	200'	–
5	TREES WEST		APPROACH	330'	10'–20'	TOP OR REMOVE
6	ROAD		PRIMARY	365'	10'	RELOCATE RUNWAY END
7	TREES EAST		APPROACH	375'	10'	RELOCATE RUNWAY END

* RUNWAY ELEVATION

NOTES:
1. ALL OBJECTS IDENTIFIED AS PART 77 PENETRATIONS ARE OUTSIDE THE AIRPORT OBSTACLE FREE ZONE. A FAA AIRSPACE ANALYSIS OF THE OBSTRUCTIONS HAS NOT BEEN CONDUCTED. PENETRATIONS ARE NOT LIGHTED.
2. GROUND ELEVATIONS ARE APPROXIMATE.
3. AIRPORT ACCESS ROAD DOES NOT PENETRATE FUTURE THRESHOLD SITING SURFACE.

LEGEND:
● (7) OBSTRUCTIONS
PART 77 TERRAIN PENETRATIONS



RUNWAY 8-26 APPROACH-PROFILE VIEW
SCALE: 1"=200' H & 50' V

WHPacific
12100 NE 195th St, Ste 300
Bothell, WA 98011
425-951-4800 Fax 425-951-4808
www.whpacific.com

Washington State Department of Transportation

SHEET INFO	
DESIGNED	DF
DRAWN	RT
CHECKED	DF
APPROVED	DSW
LAST EDIT	7/17/2013
PLOT DATE	7/17/2013
SUBMITTAL	

REVISIONS			
NO.	BY	DATE	REMARKS

PORT OF PORT ANGELES WASHINGTON

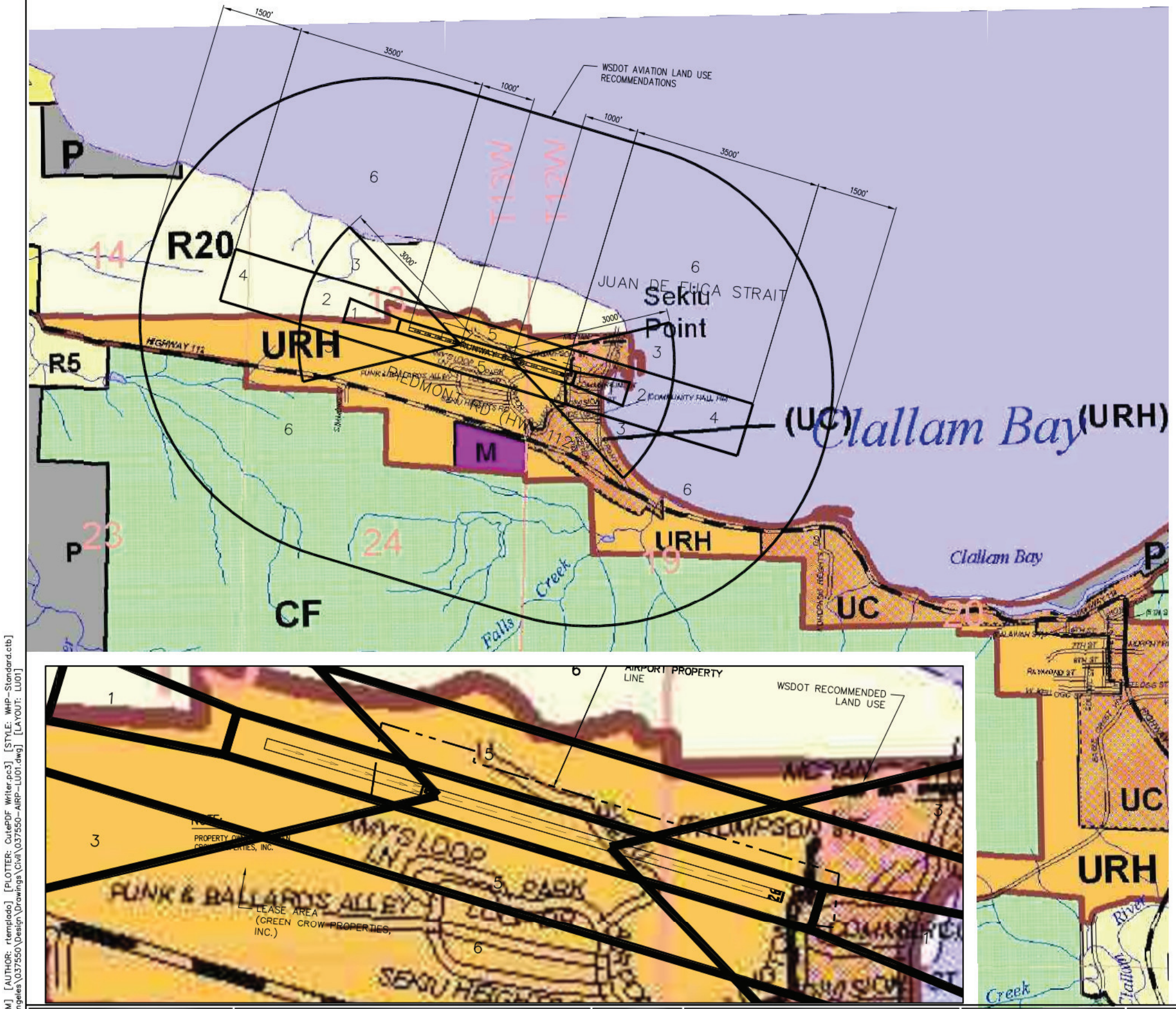
INNER APPROACH SURFACE DRAWING

PORT OF PORT ANGELES
SEKIU AIRPORT LAYOUT PLAN

PROJECT NUMBER	DRAWING FILE NAME	SCALE
037550	037550-AIRP-PP01	1"=200'

SHEET NUMBER 4

[DATE: 7/17/2013 8:07 AM] [AUTHOR: rtemplado] [PLOTTER: CutePDF Writer.pc3] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\037550-AIRP-PP01.dwg] [LAYOUT: PP01]



LEGEND	EXISTING	ULTIMATE
ZONING		
PROPERTY LINE		
AIRFIELD PAVEMENTS		
WSDOT LAND USE RECOMMENDATIONS	1–6	1–6

EXISTING SEKIU ZONING	
R20	RURAL VERY LOW
R5	RURAL LOW
P	PUBLIC LAND
URH	URBAN RESIDENTIAL HIGH DENSITY
M	INDUSTRIAL
UC	URBAN CENTER
CF	COMMERCIAL FOREST

FUTURE SEKIU ZONING	
A	AIRPORT

N MAGNETIC

SCALE
1000 0 500 1000 2000
(FEET)
1 INCH = 1000 FT.

NOTES:

1. AIRPORT PROPERTY IS NOT SUBJECT TO SECTION 303 (C) OF TITLE U.S.C.
2. AIRPORT DEVELOPMENT PROJECTS MAY REQUIRE STATE HISTORIC PRESERVATION OFFICE COORDINATION.
3. AIRPORT PROPERTY TO BE REZONED AS "AIRPORT".

LAND USE AND ZONING ORDINANCES DESCRIPTION	
DATE	

NOTE:
SEE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AIRPORTS AND COMPATIBLE LAND USE GUIDEBOOK APPENDIX E SAFETY ZONES FOR ZONING DESCRIPTION AND FIGURE E-5 FOR EXAMPLE OF GENERAL AVIATION RUNWAY.

LEGEND:

R20	RURAL VERY LOW	M	INDUSTRIAL
R5	RURAL LOW	UC	URBAN CENTER
P	PUBLIC LAND	CF	COMMERCIAL FOREST
URH	URBAN RESIDENTIAL HIGH DENSITY		

[DATE: 7/17/2013 8:15 AM] [AUTHOR: rtemplado] [PLOTTER: CutePDF Writer.pc3] [STYLE: WHP-Standard.ctb]
[PATH: P:\Port of Port Angeles\037550\Design\Drawings\Civil\037550-AIRP-LU01.dwg] [LAYOUT: LU01]

WHPacific
12100 NE 195th St, Ste 300
Bothell, WA 98011
425-951-4800 Fax 425-951-4808
www.whpacific.com

Washington State Department of Transportation

SHEET INFO	
DESIGNED	DF
DRAWN	RT
CHECKED	DF
APPROVED	DSW
LAST EDIT	7/17/2013
PLOT DATE	7/17/2013
SUBMITTAL	

REVISIONS			
NO.	BY	DATE	REMARKS

PORT OF PORT ANGELES WASHINGTON

LAND USE DRAWING

PORT OF PORT ANGELES
SEKIU AIRPORT LAYOUT PLAN

PROJECT NUMBER	DRAWING FILE NAME	SCALE
037550	037550-AIRP-LU01	1"=300'

SHEET NUMBER
5

Appendix A

Acronyms and Definitions

Acronyms

AC ..... Advisory Circular
ADG ..... Airplane Design Group
ADO ..... Airport District Office
AGL ..... Above Ground Level
AIM ..... Aeronautical Information Manual
AIP ..... Airport Improvement Program
ALP ..... Airport Layout Plan
ANM ..... FAA Northwest Mountain Region Division
ARC ..... Airport Reference Code
ARFF ..... Airport Rescue and Fire Fighting
ARP ..... Airport Reference Point
ARTCC ..... Air Route Traffic Control Center
ASDA ..... Accelerate-Stop Distance Available
ASV ..... Annual Service Volume
ATC ..... Air Traffic Control
ATCT ..... Air Traffic Control Tower
AVGAS ..... Aviation Gasoline
AWOS ..... Automated Weather Observing System
CFR ..... Code of Federal Regulations
CIP ..... Capital Improvement Plan
CWY ..... Clearway
dB ..... Decibel
dBA ..... A-weighted Decibels
DH ..... Decision Height
DME ..... Distance Measuring Equipment
DOT ..... Department of Transportation
EA ..... Environmental Assessment
EIS ..... Environmental Impact Statement
FAA ..... Federal Aviation Administration
FAR ..... Federal Aviation Regulations
FBO ..... Fixed Based Operator
GA ..... General Aviation
GPS ..... Global Positioning System

IFR ..... Instrument Flight Rules
INM ..... Integrated Noise Model
LDA ..... Landing Distance Available
LIRL ..... Low Intensity Runway Lights
MIRL ..... Medium Intensity Runway Lights
MSL ..... Mean Sea Level
NAVAIDS ..... Navigational Aids
NDB ..... Non-Directional Beacon
NEPA ..... National Environmental Policy Act
OFA ..... Object Free Area
OFZ ..... Obstacle Free Zone
PAPI ..... Precision Approach Path Indicator
RPZ ..... Runway Protection Zone
RSA ..... Runway Safety Area
RW ..... Runway
SEPA ..... State Environmental Protection Act
SWY ..... Stopway
TH ..... Threshold
TL ..... Taxilane
TODA ..... Take-Off Distance Available
TORA ..... Take-Off Run Available
TSA ..... Taxiway Safety Area
TW ..... Taxiway
VASI ..... Visual Approach Slope Indicator
VFR ..... Visual Flight Rules
VGSI ..... Visual Glide Slope Indicator
WSCASP ..... Washington State Continuous Airport System Plan
WSDOT ..... Washington State Department of Transportation

Definitions

Aeronautical Activity .... Any activity commonly performed at airports involving, required for, or permitting the operation of aircraft, or required for or contributing to the safety of aircraft operations. Aeronautical activities include, but are not limited to: pilot training, aircraft rental, air taxi, charter operations, sightseeing, air carrier operations, aircraft repair and maintenance, sale of aircraft parts, sale of aviation fuels and petroleum products, air cargo, aerial crop applications, aerial photography, aerial surveying, aerial advertising, aircraft sales, aircraft storage, ultralight operations, skydiving, and power assisted hang gliding or parasailing.

Aeronautical Service .... Any service involving, required for or permitting the operation of aircraft or required for or contributing to the safety of aircraft operations. These services are commonly conducted on the airport by persons or businesses who lease facilities or have permission from the airport operator to provide such services.

Air Taxi ..... An air carrier certificated in accordance with FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Air taxi operators generally operate small aircraft "for hire" for specific trips.

Aircraft Approach Category ..... A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at maximum gross landing weight. The aircraft approach categories are:

Category A Speed less than 91 knots;
Category B Speed 91 knots or more but less than 121 knots;
Category C Speed 121 knots or more but less than 141 knots;
Category D Speed 141 knots or more but less that 166 knots; and
Category E Speed 166 knots or more.

Aircraft Mix ..... The classification of aircraft into groups which are similar in size, noise, and operational characteristics. (Also see Fleet Mix.)

Aircraft Operations ..... The airborne movement of aircraft. There are two types of operations: local and itinerant, defined as follows:

1. Local Operations are performed by aircraft which:
   a. operate in the local traffic pattern or within sight of the airport;
   b. are known to be departing for or arriving from a local practice area.
2. Itinerant operations are all others.

Airfield ..... A defined area on land or water including any buildings, installations, and equipment intended to be used either wholly or in part for the arrival, departure, or movement of aircraft.

Airplane Design Group ..... A grouping of airplanes based on wingspan. The groups are as follows:

Group I: Up to but not including 49 feet (15 m).
Group II: 49 feet (15 m) up to but not including 79 feet (24 m).
Group III: 79 feet (24 m) up to but not including 118 feet (36 m).
Group IV: 118 feet (36 m) up to but not including 171 feet (52 m).
Group V: 171 feet (52 m) up to but not including 214 feet (65 m).
Group VI: 214 feet (65 m) up to but not including 262 feet (80 m).

Airport ..... All of the property, buildings, facilities and improvements within the property boundaries of the airport as it now exists or will exist in the future. This area is defined on the Airport Layout Plan or Exhibit A.

Airport Elevation ..... The highest point on an airport's usable runway expressed in feet above mean sea level (MSL).

Airport Layout Plan (ALP) .. The plan of an airport showing the layout of existing and proposed airport facilities.

Airport Owner ..... The Port of Port Angeles and/or its designee who is charged with the operation and administration of the airport.

Airport Reference Point (ARP) ..... The latitude and longitude of the approximate center of the airport.

Airside ..... The runways, taxiways, aprons, ramps, buildings and facilities located inside the security fencing.

Airspace ..... The area above the ground in which aircraft travel. It is divided into corridors, routes, and restricted zones for the control and safety of aircraft.

Ambient Noise Level ..... Background noise level, exclusive of the contribution made by aircraft.

Annual Service Volume ..... A reasonable estimate of an airport's annual capacity. It accounts for differences in runway use, aircraft mix, weather conditions, etc., that would be encountered over a year's time.

Approach End of Runway ... The near end of the runway as viewed from the cockpit of a landing aircraft.

Approach Surface ..... An imaginary surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of the runway based upon the planned approach. The inner edge of the approach surface is the same width as the primary surface and expands uniformly, depending upon the planned approach.

Approved Instrument Approach ..... Instrument approach meeting the design requirement, equipment specifications, and accuracies, as determined by periodic FAA flight checks, and which are approved for general use and publication by the FAA.

Apron ..... A defined area where aircraft are maneuvered and parked, and where activities associated with the handling of flights can be carried out.

Automated Weather Observing System (AWOS) ..... An automatic recording instrument for measuring cloud height, visibility, wind speed and direction, temperature, and dew point.

Aviation Gasoline (AVGAS) ..... Fuel used in reciprocating (piston) aircraft engines. Avgas is manufactured in the following grades: 80/87; 100LL; 100/130; and 115/145.

Avigation Easement ..... A form of limited property right purchase that establishes legal land-use control prohibiting incompatible development of areas required for airports or aviation-related purposes.

Based Aircraft ..... Aircraft stationed at an airport.

CFR Part 77 ..... Federal Aviation Regulations which establish standards for determining obstructions in navigable airspace.

Circling Approach ..... An instrument approach procedure in which an aircraft executes the published instrument approach to one runway, then maneuvers visually to land on a different runway. Circling approaches are also used at airports that have published instrument approaches with a final approach course that is not aligned within 30 degrees of any runway.

Clearway ..... A clearway is an area available for the continuation of the take-off operation which is above as clearly defined area connected to and extending beyond the end of the runway. The area over which the clearway lies need not be suitable for stopping aircraft in the event of an aborted take-off. Clearways are applicable only in the take-off operations of turbine-engined aircraft.

Commercial Service or Activity..... Any commerce, trade or business involved in the exchange of goods, property or services of any kind.

Conical Surface ..... A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

Controlled Airspace ..... Airspace designated as continental control area, control area, control zone, or transition area within which some or all aircraft may be subject to air traffic control.

Critical Aircraft ..... The aircraft which controls one or more design items based on wingspan, approach speed and/or maximum certificated take-off weight. The same aircraft may not be critical to all design items.

Crosswind ..... When used concerning wind conditions, the word means a wind not parallel to the runway or the path of an aircraft.

dBA ..... Decibels measured on the A-weighted scale to factor out anomalies.

Decibel (dB) ..... The standard unit of noise measurement relating to a logarithm scale in which 10 units represents a doubling of acoustic energy.

Displaced Threshold ..... Actual touchdown point on specific runway designated due to obstructions which make it impossible to use the actual physical runway end.

Effective Runway Gradient . The maximum difference between runway centerline elevations divided by the runway length, expressed as a percentage.

Environmental Assessment (EA) ..... A report prepared under the National Environmental Policy Act (NEPA) analyzing the potential environmental impacts of a federally funded project.

Environmental Impact Statement (EIS) ..... A report prepared under NEPA fully analyzing the potential significant environmental impacts of a federally-funded project.

Federal Aviation Administration (FAA) ..... A branch of the US Department of Transportation responsible for the regulation of all civil aviation activities.

Final Approach ..... The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, beginning at the point of interception of that course and extending to the airport or the point where circling for landing or missed approach is executed.

Fixed Base Operation (FBO) ..... An individual or business property licensed and authorized by written agreement with the airport owner to provide specified aeronautical services at the airport, and who rents or leases facilities on the airport to conduct these services. These operators commonly occupy an office, hangar or shop on the airport, and are required to comply with the written agreements and referenced rules and regulations.

Fixed Wing ..... For the purposes of this report, any aircraft not considered rotorcraft.

Flying Club ..... A non-commercial organization established to promote flying. Activities include, but are not limited to, development of aeronautical skills such as pilotage, navigation, airmanship, and the awareness and appreciation of aviation requirements and techniques.

Fuel ..... Aviation gasoline, jet fuel, automotive fuel or diesel.

General Aviation ..... All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.

Global Positioning System (GPS) ..... A system of US satellites orbiting the earth which is used to instantly and accurately determine the navigational position of users on or above the earth's surface.

Hazard to Air Navigation .... An object which, as a result of an aeronautical study, the FAA determines will have a substantial adverse effect upon the safe and efficient use of a navigable airspace by aircraft, operation of air navigation facilities, or existing or potential airport capacity.

Horizontal Surface ..... An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 5,000-foot radius arcs from the center of each end of the primary surface. Tangent lines then connect these arcs.

Independent Flight Instructor ..... A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, licensed/certified flight instruction.

Independent Mechanic ..... A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, certificated repair and/or maintenance services for aircraft or aeronautical components.

Instrument Flight Rules (IFR) ..... Instrument Flight Rules governing the procedures for conducting instrument flight. Pilots are required to follow these rules when operating in controlled airspace with visibility of less than three miles and/or ceiling lower than 1,000 feet.

Itinerant Operation ..... All aircraft operations at an airport other than local.

Landside ..... All buildings and surfaces on the airport used by pedestrian or surface vehicular traffic located outside the airport security fence. The entire Sekiu airport is fenced, so this designation is not applicable here.

Large Airplane ..... An airplane of more than 12,500 pounds (5,700 kg) maximum certificated takeoff weight.

Local Operation ..... Aircraft operation in the traffic pattern or within sight of the tower, or aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.

Minimum Standards ..... Standards established by the airport owner as the minimum requirements to be met as a condition for the right to provide commercial services on the airport.

Navigational Aid (NAVAID) .. Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight.

Non-Aeronautical Service .. Any service conducted on the airport that provides products or services that are not associated with aviation. These services are provided by persons or businesses who lease facilities or have permission from the airport operator to provide such services on the airport.

Non-Directional Beacon (NDB) ..... Non-Directional Beacon which transmits a signal on which a pilot may "home" using equipment installed in the aircraft.

Object ..... Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

Object Free Area (OFA) ..... An area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

Obstacle Free Zone (OFZ) .. The OFZ is the airspace below 150 feet (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches. The OFZ is subdivided as follows:

Runway OFZ - The airspace above a surface centered on the runway centerline.

Inner-approach OFZ - The airspace above a surface centered on the extended runway centerline. It applies to runways with an approach lighting system.

Inner-transitional OPZ - The airspace above the surfaces located on the outer edges of the runway OFZ and the inner-approach OFZ. It applies to runways with approach visibility minimums lower than ¾-statute mile (1,200 m).

Obstruction to Air Navigation ..... An object of greater height than any of the heights or surfaces presented in Subpart C of the Code of Federal Regulation (14 CFR), Part 77. (Obstructions to air navigation are presumed to be hazards to air navigation until an FAA study has determined otherwise).

Precision Approach Path Indicator (PAPI) ..... A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. PAPIs contain red and white light units which are configured in a single row.

Primary Surface ..... A rectangular surface of a width specified in 14 CFR Part 77 (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline.

Rotorcraft (Helicopter) ..... A heavier-than-air aircraft supported in flight by the reactions of the air on one or more power-driven rotors on substantially vertical axis.

Runway (RW) ..... A defined rectangular surface on an airport prepared or suitable for the landing or takeoff of airplanes.

Runway Blast Pad ..... A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash.

Runway Protection Zone (RPZ) ..... An area off the runway end to enhance the protection of people and property on the ground.

Runway Safety Area (RSA) .. A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

Segmented Circle ..... A system of visual indicators designed to provide traffic pattern information at airports without operating control towers.

Self-Fueling Operator ..... A person who dispenses aviation fuel to aircraft owned by that person, or leased from others and operated by that person.

Shoulder ..... An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support of aircraft running off the pavement; enhanced drainage; and blast protection.

Small Airplane ..... An airplane of 12,500 pounds (5,700 kg) or less maximum certificated takeoff weight.

Stopway (SWY) ..... A defined rectangular surface beyond the end of a runway prepared or suitable for use in lieu of runway to support an airplane, without causing structural damage to the airplane, during an aborted takeoff.

Taxilane (TL) ..... The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.

Taxiway (TW) ..... A defined path established for the taxiing of aircraft from one part of an airport to another.

Taxiway Safety Area (TSA) . A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

Threshold (TH) ..... The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.

Touch and Go Operation .... Practice flight performed by a landing touch down and continuous take-off without stopping or exiting the runway.

Transitional Surface ..... A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.

Ultralight ..... An aeronautical vehicle operated for sport or recreational purposes which does not require FAA registration, an airworthiness certificate, nor pilot certification. They are primarily single occupant vehicles, although some two-place vehicles are authorized for training purposes.

Utility Runway ..... A runway that is constructed for, and intended to be used by, aircraft of 12,500 pounds maximum gross weight and less.

Visual Approach Slope Indicator (VASI) ..... A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. VASIs are configured in bars (versus a single row like PAPIs)

Visual Flight Rules (VFR) .... Visual Flight Rules by which aircraft are operated by visual reference to the ground. Weather conditions for flying under these rules must include a ceiling greater than 1,000 feet, three miles visibility, and standard cloud clearance.

Visual Runway ..... A runway without an existing or planned straight-in instrument approach procedure.

Wind Coverage ..... Wind coverage is the percent of time for which aeronautical operations are considered safe due to acceptable crosswind components.

Wind Rose ..... A scaled graphical presentation of wind information.

Appendix B

Preliminary Pavement Evaluation Data (2012)

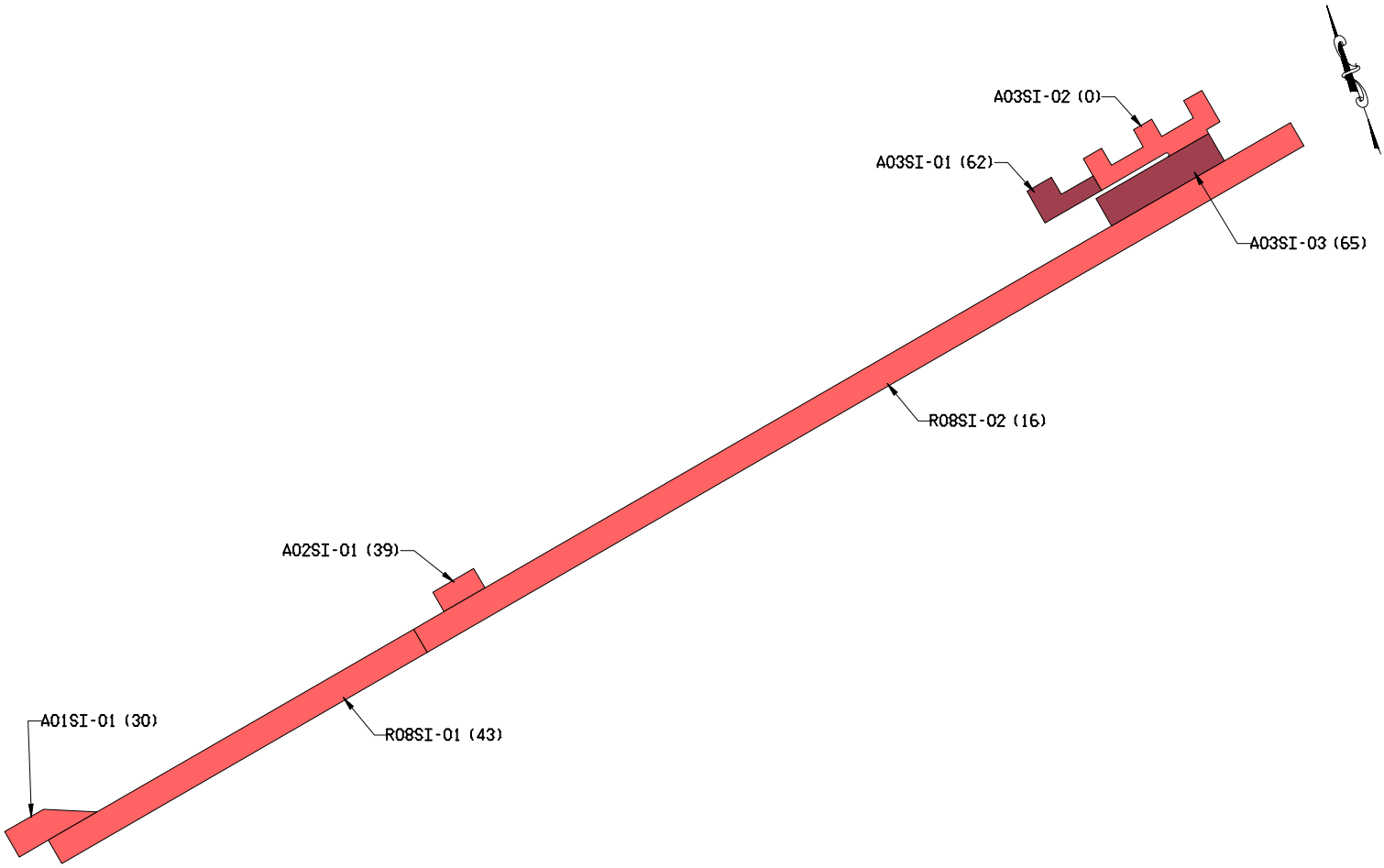
Unlimited Budget Maintenance and Rehabilitation (M&R) Plan

The following table summarizes the 8-year M&R Plan for years 2013 to 2020 under an unlimited budget scenario and using a 2.5 percent annual inflation factor. The recommendations made in this report are based on a broad network level analysis and are meant to provide the airport with an indication of the type of pavement-related work required during the next 8 years. Further engineering investigation may be needed to identify which repair action is most appropriate. In addition, the cost estimates provided are based on a statewide policy, and the airport should adjust the plan to reflect local costs.

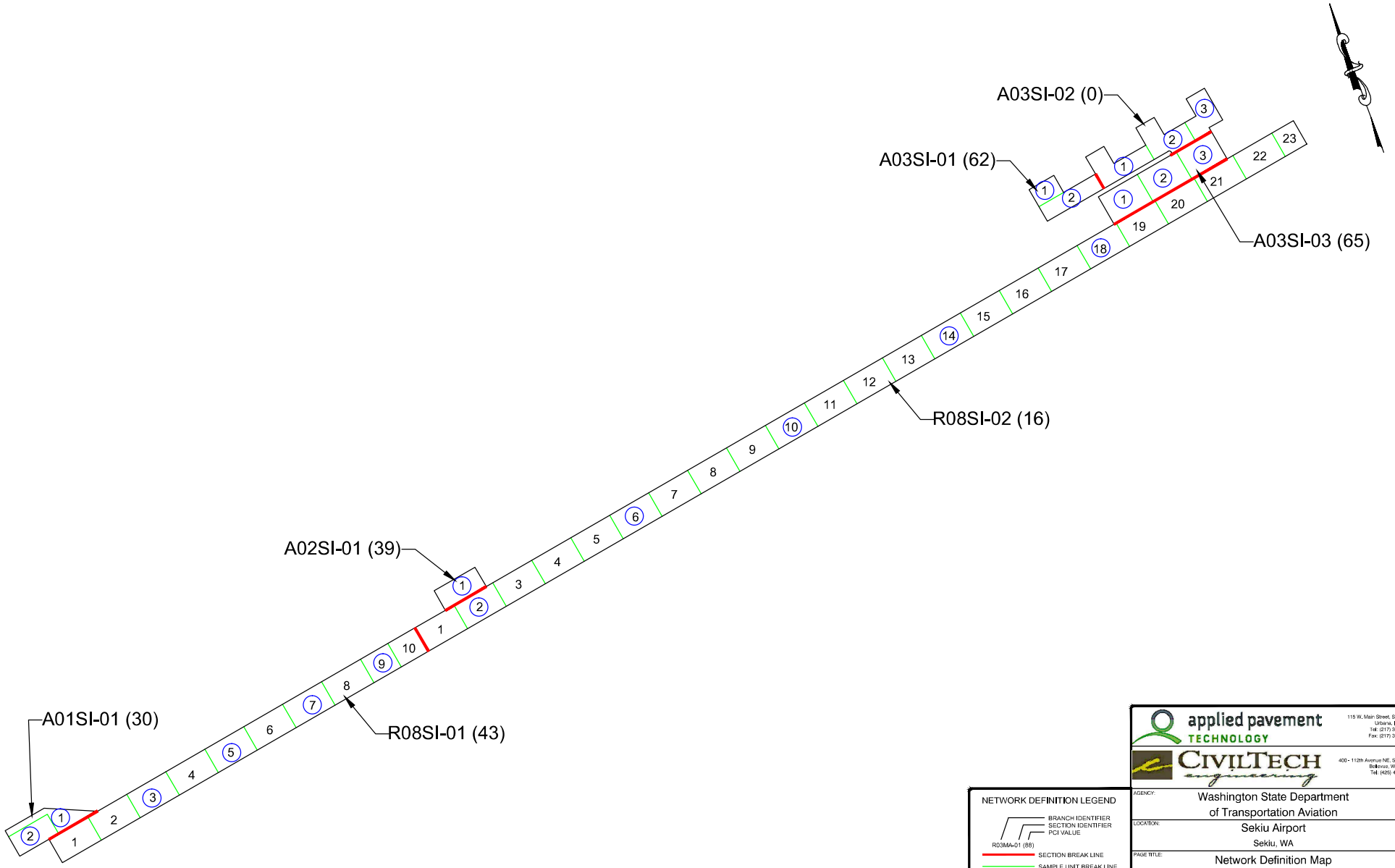
Please note that the following table does not reflect any pavement rehabilitation or reconstruction work that may have occurred since the pavement inspection was conducted. It is important to remember that just because work is recommended it does not mean funding will be available from the FAA or WSDOT Aviation to perform the work.

SEKIU AIRPORT - All Plan Years

Plan Year	Branch	Section	Surface Type	Preventive Maintenance Cost	Fog Seal Cost	Slurry Seal Cost	Major Rehabilitation Cost	Total Cost
2013								No work identified for 2013
			2013 Total:	$0	$0	$0	$0	$0
2014	A01SI	01	AC	$0	$0	$0	$69,157	$69,157
2014	A02SI	01	AC	$0	$0	$0	$37,238	$37,238
2014	A03SI	02	AC	$0	$0	$0	$131,213	$131,213
2014	R08SI	01	AAC	$0	$0	$0	$400,045	$400,045
2014	R08SI	02	AAC	$0	$0	$0	$959,683	$959,683
			2014 Total:	$0	$0	$0	$1,597,336	$1,597,336
2015	A03SI	01	AC	$0	$0	$0	$11,970	$11,970
2015	A03SI	03	AAC	$0	$0	$0	$29,859	$29,859
			2015 Total:	$0	$0	$0	$41,829	$41,829
2016								No work identified for 2016
			2016 Total:	$0	$0	$0	$0	$0
2017								No work identified for 2017
			2017 Total:	$0	$0	$0	$0	$0
2018								No work identified for 2018
			2018 Total:	$0	$0	$0	$0	$0
2019								No work identified for 2019
			2019 Total:	$0	$0	$0	$0	$0
2020								No work identified for 2020
			2020 Total:	$0	$0	$0	$0	$0
EIGHT-YEAR PLAN TOTAL:				$0	$0	$0	$1,639,166	$1,639,166



None | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020



NETWORK DEFINITION LEGEND

- BRANCH IDENTIFIER
- SECTION IDENTIFIER
- PCI VALUE
- R03MA-01 (88)
- SECTION BREAK LINE
- SAMPLE UNIT BREAK LINE
- SLAB JOINT
- 03 SAMPLE UNIT NUMBER
- SAMPLE UNIT INSPECTED
- ADDITIONAL SAMPLE UNIT

applied pavement TECHNOLOGY
115 W. Main Street, Suite 400
Urbana, IL 61801
Tel: (217) 398-3977
Fax: (217) 398-1027

CIVILTECH engineering
400 - 112th Avenue NE, Suite 120
Bellevue, WA 98004
Tel: (425) 453-8468

AGENCY:	Washington State Department of Transportation Aviation
LOCATION:	Sekiu Airport Sekiu, WA
PAGE TITLE:	Network Definition Map

PROJECT DATE:	CREATION DATE:	PROJECT MANAGER:	JOB NUMBER:
May 2012	May 2012	MRC	10-104-AM01
DRAWING SCALE:	LAST MODIFIED DATE:	REVISED BY:	DRAWN BY:
1" = 200'	Nov. 2012	DSP	TMM
FILENAME:		LAYOUT NAME:	PAGE NUMBER:
Seiku.dwg		NET. DEF.	1

Work History Report

Pavement Database:WA2012ALL

Network: SEKIU **Branch:** A01SI (APRON 01) **Section:** 01 **Surface:** AC
L.C.D.: 09/02/1979 **Use:** APRON **Rank** P **Length:** 65.00 Ft **Width:** 200.00 Ft **True Area:** 9,750.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/02/1979	NC-AC	New Construction - AC (Major		2.00	True	
09/01/1979	BA-AG	Base Course - Aggregate		6.00	False	

Network: SEKIU **Branch:** A02SI (APRON 02) **Section:** 01 **Surface:** AC
L.C.D.: 09/02/1972 **Use:** APRON **Rank** T **Length:** 50.00 Ft **Width:** 105.00 Ft **True Area:** 5,250.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/02/1972	NC-AC	New Construction - AC (Major		2.00	True	
09/01/1972	BA-AG	Base Course - Aggregate		6.00	False	

Network: SEKIU **Branch:** A03SI (APRON 03) **Section:** 01 **Surface:** AC
L.C.D.: 09/02/1979 **Use:** APRON **Rank** T **Length:** 190.00 Ft **Width:** 37.00 Ft **True Area:** 8,138.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/02/1979	NC-AC	New Construction - AC (Major		2.00	True	
09/01/1979	BA-AG	Base Course - Aggregate		6.00	False	

Network: SEKIU **Branch:** A03SI (APRON 03) **Section:** 02 **Surface:** AC
L.C.D.: 09/02/1972 **Use:** APRON **Rank** T **Length:** 305.00 Ft **Width:** 37.00 Ft **True Area:** 18,499.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/02/1972	NC-AC	New Construction - AC		2.00	True	
09/01/1972	BA-AG	Base Course - Aggregate		6.00	False	

Network: SEKIU **Branch:** A03SI (APRON 03) **Section:** 03 **Surface:** AAC
L.C.D.: 07/01/1987 **Use:** APRON **Rank** P **Length:** 290.00 Ft **Width:** 70.00 Ft **True Area:** 20,300.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
07/01/1987	OL-AS	Overlay - AC Structural (Major			True	
07/02/1972	NC-AC	New Construction - AC (Major		2.00	True	
07/01/1972	BA-AG	Base Course - Aggregate		6.00	False	

Network: SEKIU **Branch:** R08SI (RUNWAY 8-26) **Section:** 01 **Surface:** AAC
L.C.D.: 07/01/1987 **Use:** RUNWAY **Rank** P **Length:** 940.00 Ft **Width:** 60.00 Ft **True Area:** 56,400.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/01/1990	SS-FS	Surface Seal - Fog Seal (Globa			False	
07/01/1987	OL-AS	Overlay - AC Structural (Major			True	
09/02/1979	NC-AC	New Construction - AC (Major		4.00	True	
09/01/1979	BA-AG	Base Course - Aggregate		6.00	False	

Work History Report

Pavement Database:WA2012ALL

Network: SEKIU **Branch:** R08SI (RUNWAY 8-26) **Section:** 02 **Surface:** AAC
L.C.D.: 07/01/1987 **Use:** RUNWAY **Rank** P **Length:** 2,255.00 Ft **Width:** 60.00 Ft **True Area:** 135,300.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
09/02/2008	ST-SS	Surface Treatment - Slurry Sea	$0	0.00	False	
09/01/2008	CS-AC	Crack Sealing - AC	$0	0.00	False	
09/01/1990	SS-FS	Surface Seal - Fog Seal (Globa			False	
07/01/1987	OL-AS	Overlay - AC Structural (Major			True	
07/02/1972	NC-AC	New Construction - AC (Major		2.00	True	
07/01/1972	BA-AG	Base Course - Aggregate		6.00	False	

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Aggregate	7	253,637.01	6.00	.00
Crack Sealing - AC	7	253,637.01	.00	.00
New Construction - AC	1	18,499.00	2.00	
New Construction - AC (Major MR)	6	235,138.01	2.33	.82
Overlay - AC Structural (Major MR)	3	212,000.01		
Surface Seal - Fog Seal (Global	2	191,700.00		
Surface Treatment - Slurry Seal	4	41,637.00	.00	.00
Surface Treatment - Slurry Seal	3	212,000.01	.00	.00

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: A01SI Name: APRON 01 Use: APRON Area: 9,750.00SqFt

Section: 01 of 1 From: SEE MAP To: RUNWAY 8 APPROACH Last Const.: 09/02/1979
Surface: AC Family: DEFAULT Zone: WEST Category: Rank: P
Area: 9,750.00SqFt Length: 65.00Ft Width: 200.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 2 Surveyed: 2
Conditions: PCI : 30
Inspection Comments:

Sample Number: 01 Type: R Area: 4,750.00SqFt PCI = 18
Sample Comments:

45 DEPRESSION	M	240.00	SqFt	Comments:
41 ALLIGATOR CRACKING	M	300.00	SqFt	Comments:
50 PATCHING	M	300.00	SqFt	Comments:
52 RAVELING	M	2,400.00	SqFt	Comments:
52 RAVELING	L	2,400.00	SqFt	Comments:
45 DEPRESSION	L	140.00	SqFt	Comments:
50 PATCHING	L	100.00	SqFt	Comments:
56 SWELLING	M	24.00	SqFt	Comments:

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 42
Sample Comments:

45 DEPRESSION	M	100.00	SqFt	Comments:
52 RAVELING	L	3,000.00	SqFt	Comments:
52 RAVELING	M	2,000.00	SqFt	Comments:
45 DEPRESSION	L	210.00	SqFt	Comments:
50 PATCHING	L	100.00	SqFt	Comments:

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: A02SI Name: APRON 02 Use: APRON Area: 5,250.00SqFt

Section: 01 of 1 From: SEE MAP To: R08SI-02 Last Const.: 09/02/1972
Surface: AC Family: DEFAULT Zone: WEST Category: Rank: T
Area: 5,250.00SqFt Length: 50.00Ft Width: 105.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 1 Surveyed: 1
Conditions: PCI : 39
Inspection Comments:

Sample Number: 01 Type: R Area: 5,250.00SqFt PCI = 39
Sample Comments:

43 BLOCK CRACKING	L	5,250.00 SqFt	Comments:	
52 RAVELING	M	1,000.00 SqFt	Comments:	
52 RAVELING	L	4,250.00 SqFt	Comments:	
45 DEPRESSION	L	650.00 SqFt	Comments:	

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: A03SI Name: APRON 03 Use: APRON Area: 46,937.00SqFt

Section: 01 of 3 From: SEE MAP To: A03SI-02 Last Const.: 09/02/1979
Surface: AC Family: DEFAULT Zone: WEST Category: Rank: T
Area: 8,138.00SqFt Length: 190.00Ft Width: 37.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 2 Surveyed: 2
Conditions: PCI : 62
Inspection Comments:

Sample Number: 01 Type: R Area: 2,773.00SqFt PCI = 62
Sample Comments:

57 WEATHERING	L	2,200.00	SqFt	Comments:
52 RAVELING	M	550.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	148.00	Ft	Comments:

Sample Number: 02 Type: R Area: 5,365.00SqFt PCI = 62
Sample Comments:

57 WEATHERING	L	3,600.00	SqFt	Comments:
52 RAVELING	M	1,065.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	178.00	Ft	Comments:

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: A03SI Name: APRON 03 Use: APRON Area: 46,937.00SqFt

Section: 02 of 3 From: A03SI-01 To: SEE MAP Last Const.: 09/02/1972
Surface: AC Family: STTWAPRONNP Zone: WEST Category: Rank: T
Area: 18,499.00SqFt Length: 305.00Ft Width: 37.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 3 Surveyed: 3
Conditions: PCI : 0
Inspection Comments:

Sample Number: 01 Type: R Area: 6,840.00SqFt PCI = 0
Sample Comments:

52 RAVELING	M	6,000.00 SqFt	Comments:
52 RAVELING	H	840.00 SqFt	Comments:
45 DEPRESSION	M	2,000.00 SqFt	Comments:
41 ALLIGATOR CRACKING	M	4,000.00 SqFt	Comments:
41 ALLIGATOR CRACKING	H	800.00 SqFt	Comments:

Sample Number: 02 Type: R Area: 6,369.00SqFt PCI = 0
Sample Comments:

41 ALLIGATOR CRACKING	M	3,000.00 SqFt	Comments:
41 ALLIGATOR CRACKING	H	1,000.00 SqFt	Comments:
45 DEPRESSION	M	1,000.00 SqFt	Comments:
52 RAVELING	M	6,369.00 SqFt	Comments:

Sample Number: 03 Type: R Area: 5,290.00SqFt PCI = 0
Sample Comments:

41 ALLIGATOR CRACKING	H	500.00 SqFt	Comments:
52 RAVELING	H	800.00 SqFt	Comments:
41 ALLIGATOR CRACKING	M	1,200.00 SqFt	Comments:
52 RAVELING	M	4,490.00 SqFt	Comments:

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: A03SI Name: APRON 03 Use: APRON Area: 46,937.00SqFt

Section: 03 of 3 From: A03SI-02 To: R08SI-02 Last Const.: 07/01/1987
Surface: AAC Family: DEFAULT Zone: WEST Category: Rank: P
Area: 20,300.00SqFt Length: 290.00Ft Width: 70.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 3 Surveyed: 3
Conditions: PCI : 65
Inspection Comments: DEPRESSIONS OBSERVED IN 2009 NOT OBSERVED IN 2012

Sample Number: 01 Type: R Area: 7,000.00SqFt PCI = 65
Sample Comments:

52 RAVELING	L	6,800.00	SqFt	Comments:
52 RAVELING	M	200.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	20.00	Ft	Comments:LU

Sample Number: 02 Type: R Area: 7,000.00SqFt PCI = 65
Sample Comments:

52 RAVELING	L	6,800.00	SqFt	Comments:
52 RAVELING	M	200.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	20.00	Ft	Comments:LU

Sample Number: 03 Type: R Area: 6,300.00SqFt PCI = 65
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	20.00	Ft	Comments:LU
52 RAVELING	L	6,100.00	SqFt	Comments:
52 RAVELING	M	200.00	SqFt	Comments:

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: R08SI Name: RUNWAY 8-26 Use: RUNWAY Area: 191,700.00SqFt

Section: 01 of 2 From: RUNWAY 8 APPROACH To: R08SI-02 Last Const.: 07/01/1987
Surface: AAC Family: DEFAULT Zone: WEST Category: Rank: P
Area: 56,400.00SqFt Length: 940.00Ft Width: 60.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 10 Surveyed: 4
Conditions: PCI : 43
Inspection Comments:

Sample Number: 03 Type: R Area: 6,000.00SqFt PCI = 43
Sample Comments:

45 DEPRESSION	L	200.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	140.00	Ft	Comments:
52 RAVELING	L	3,000.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:

Sample Number: 05 Type: R Area: 6,000.00SqFt PCI = 33
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	172.00	Ft	Comments:
45 DEPRESSION	L	180.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:

Sample Number: 07 Type: R Area: 6,000.00SqFt PCI = 43
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	175.00	Ft	Comments:
45 DEPRESSION	L	190.00	SqFt	Comments:
52 RAVELING	L	3,000.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:

Sample Number: 09 Type: R Area: 4,200.00SqFt PCI = 58
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	205.00	Ft	Comments:
52 RAVELING	L	3,200.00	SqFt	Comments:
52 RAVELING	M	1,000.00	SqFt	Comments:

Re-inspection Report

WA2012ALL
Report Generated Date: January 14, 2013

Network: SEKIU Name: SEKIU AIRPORT

Branch: R08SI Name: RUNWAY 8-26 Use: RUNWAY Area: 191,700.00SqFt

Section: 02 of 2 From: R08SI-01 To: RUNWAY 26 APPROACH Last Const.: 07/01/1987
Surface: AAC Family: DEFAULT Zone: WEST Category: Rank: P
Area: 135,300.00SqFt Length: 2,255.00Ft Width: 60.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 08/01/2012 Total Samples: 23 Surveyed: 5
Conditions: PCI : 16
Inspection Comments:

Sample Number: 02 Type: R Area: 6,000.00SqFt PCI = 15
Sample Comments:

41 ALLIGATOR CRACKING	M	900.00	SqFt	Comments:
53 RUTTING	L	800.00	SqFt	Comments:
43 BLOCK CRACKING	L	5,000.00	SqFt	Comments:
52 RAVELING	L	3,000.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:

Sample Number: 06 Type: R Area: 6,000.00SqFt PCI = 11
Sample Comments:

41 ALLIGATOR CRACKING	M	2,000.00	SqFt	Comments:
53 RUTTING	L	400.00	SqFt	Comments:
43 BLOCK CRACKING	L	4,000.00	SqFt	Comments:
52 RAVELING	L	2,000.00	SqFt	Comments:
52 RAVELING	M	4,000.00	SqFt	Comments:

Sample Number: 10 Type: R Area: 6,000.00SqFt PCI = 17
Sample Comments:

41 ALLIGATOR CRACKING	M	500.00	SqFt	Comments:
53 RUTTING	L	750.00	SqFt	Comments:
43 BLOCK CRACKING	L	5,500.00	SqFt	Comments:
52 RAVELING	L	3,000.00	SqFt	Comments:
52 RAVELING	M	3,000.00	SqFt	Comments:

Sample Number: 14 Type: R Area: 6,000.00SqFt PCI = 15
Sample Comments:

41 ALLIGATOR CRACKING	M	500.00	SqFt	Comments:
53 RUTTING	L	500.00	SqFt	Comments:
43 BLOCK CRACKING	L	6,000.00	SqFt	Comments:
52 RAVELING	L	2,500.00	SqFt	Comments:
52 RAVELING	M	3,500.00	SqFt	Comments:

Sample Number: 18 Type: R Area: 6,000.00SqFt PCI = 19
Sample Comments:

41 ALLIGATOR CRACKING	M	400.00	SqFt	Comments:
53 RUTTING	L	800.00	SqFt	Comments:
43 BLOCK CRACKING	L	5,600.00	SqFt	Comments:
52 RAVELING	L	4,000.00	SqFt	Comments:
52 RAVELING	M	2,000.00	SqFt	Comments:

Appendix C

Airport Layout Plan Checklist

WSDOT AVIATION
AIRPORT LAYOUT PLAN (ALP) CHECKLIST
(Revised April 2013)

Location: Sekiu WA **Airport:** Sekiu Airport

Prepared By: DField **Date:** 7/15/13

Reviewed By: _____ **Date:** _____

APPLICABLE FAA ADVISORY CIRCULARS:
Citizen Participation in Airport Planning, AC 150/5050-4
Airport Master Plans, AC 150/5070-6B, Change 1
Airport Design, AC 150/5300-13A

CRITICAL AIRCRAFT:

Make: small general aviation aircraft **Model:** _____

Airport Reference Code (ARC): A-1 (small **Annual Operations:** _____

Desired Approach Minimums:
Runway End 08 **Minimum** **Visual only** _____

Runway End 26 **Minimum** **Visual only** _____

Runway End _____ **Minimum** _____

	Required		Included		
	FAA	WSDOT	Yes	No	Remarks
ALP COMPONENTS:					
I. Narrative Report	✓	✓	X		
II. Airport Layout Plan Drawing Set	✓	✓	X		
1. Airport Layout Drawing	✓	✓	X		
2. Airport Airspace Drawing	✓	✓	X		
3. Inner Portion of the Approach Surface Drawing	✓	✓	X		
4. Terminal Area Drawing	✓	(Optional)		X	
5. Land Use Drawing	✓	✓	X		
6. Runway Departure Surfaces Drawing	✓	(Optional)			
7. Airport Property Map	✓	(Optional)		X	NO SURVEY AVAILABLE

I. NARRATIVE REPORT

DATE: 7/15/13

MASTER PLAN ( )

ALP REPORT (X)

	Required		Included		
	FAA	**WSD OT**	**Yes**	**No**	**Remarks**
FORECAST AVIATION DEMAND:					
Current 5 yrs, 10 yrs, 20 yrs	✓	✓	X		
Local Operations	✓		X		
Annual Itinerant Operations					
All Aircraft	✓		X		
Current Design Aircraft	✓	✓	X		
Future Design Aircraft	✓	✓	X		
Total Annual Operations	✓	✓	X		
Based Aircraft	✓	✓	X		Existing = 1; future = 2
Annual Instrument Approaches	✓				NA – No IFR approaches
Enplaned Passengers (Commercial Service Locations Only)	✓				NA
Design Aircraft (Current & Future)	✓	✓	X		GA (small)
STAGE DEVELOPMENT:					
(Drawings, Schedule, Project Costs)	✓				No stage development due to limited total development
COORDINATION:					
(Highways, Planning Agencies, etc.)	✓	✓	X		County Planning
ADDITIONAL COMMENTS:					

II. AIRPORT LAYOUT PLAN DRAWING SET

DATE: 7/15/13

An Airport Layout Plan (ALP) is a graphic presentation to scale of existing and ultimate airport facilities, their location on the airport and the pertinent clearance and dimensional information required to show relationships with applicable standards.

The following list provides general guidelines in preparing the Airport Layout Plan drawing set. The individual sheets that comprise the ALP 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.

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
1. AIRPORT LAYOUT DRAWING					
a. Sheet size – Minimum 24" x 36"	✓	✓	X		
b. Scale –Within a range of 1" = 200' to 1" = 600'	✓	✓	X		1"= 200 ft.
c. North Arrow					
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					
1) Data source and the time period covered	✓	*(only if available)*		X	Fairchild Int'l Airport
2) Include individual and combined coverage for:					
a) Runways with 10.5 knots crosswind	✓				No local information – local knowledge indicates good wind coverage
b) Runways with 13 knots crosswind	✓				
c) Runways with 16 knots crosswind	✓				
d) Runways with 20 knots crosswind	✓				
e. Airport Reference Point (ARP) – Existing and ultimate, with latitude and longitude to the nearest second based on NAD 83	✓	✓			
f. Ground contours at intervals of 2' to 10', lightly drawn	✓				

	Required		Included		
	FAA	WSDOT	Yes	No	Remarks
g. Elevations (Existing and Ultimate to 1/10 of a foot)					
1) Runway	✓	✓			No survey information
2) Displaced thresholds	✓				Elevations estimated to 1’
3) Touchdown zones	✓				
4) Intersections	✓				
5) Runway high and low points	✓	✓	X		
6) Roadways where they intersect the RPZ edges and extended runway centerlines	✓	✓			
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 or RPZ.	✓	✓		X	Property is too narrow to allow buildings
i. Runway Details (Existing and Ultimate)					
1) Dimensions – length and width within the outline of the runway	✓	✓	X		
2) Orientation – Runway end numbers and true bearing to the 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 0.01 second	✓	✓	X		
7) Displaced threshold coordinates, to the nearest 0.01 second	✓	✓	X		
8) Declared Distances – For each runway direction if applicable. Identify any clearway/stopway portions in the declared distances	✓	✓			NA
j. Taxiway details (Existing and Ultimate)					
1) Taxiway widths and separations from the runway centerlines, parallel taxiway, aircraft parking, and objects	✓	✓			NA – no taxiways

	Required		Included		
	FAA	WSDOT	Yes	No	Remarks
k. RPZ Details (Existing and Ultimate)					
1) Dimensions	✓	✓	X		
2) Type of property acquisition (fee or easement)	✓	✓			None existing
l. Approach slope ratio (20:1; 34:1; 50:1)	✓	✓	X		
m. Airport Data Table (Existing and Ultimate)					
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)					
1) Percent effective gradient	✓	✓	X		
2) Percent wind coverage	✓	✓		X	No local data
3) Maximum elevation above MSL	✓	✓	X		
4) Runway length and width	✓	✓	X		
5) Runway surface type	✓	✓	X		
6) Runway strength	✓	✓	X		unknown
7) FAR Part 77 approach category	✓	✓	X		
8) Approach type	✓	✓	X		VISUAL
9) Approach slope	✓	✓	X		
10) Runway lighting (HIRL, MIRL, LIRL)	✓	✓	X		
11) Runway marking	✓	✓	X		
12) Navigational and visual aids	✓	✓	X		VGSI (SAVASI) RWY 26
13) RSA dimensions	✓	✓	X		
o. Title and Revision Blocks					
1) Name and location of the airport	✓	✓	X		
2) Name of preparer	✓	✓	X		
3) Date of drawing	✓	✓	X		

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
4) Drawing title	✓	✓	X		
5) Revision block	✓	✓	X		
6) Approval block (Sponsor)	✓	✓	X		
7) Approval block (WSDOT)	✓	✓	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		
ADDITIONAL COMMENTS:					
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 the 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 profiles	✓	✓	X		
f. Title and revision blocks - same as the airport layout drawing	✓	✓	X		
g. Approach Plan View Details					
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 others with dashed lines	✓	✓			
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		

	Required		Included		
	FAA	WSDOT	Yes	No	Remarks
6) For precision instrument runways, show balance of 40,000' approach on a separate sheet.	✓				NA
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 top 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		
ADDITIONAL COMMENTS:					
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	✓	✓			NA
d. Sheet size – Same as Airport Layout drawing	✓	✓	X		
e. Scale – Horizontal 1" = 200'; vertical 1" = 20'	✓	✓	X		
f. Title and revision blocks – Same as for Airport Layout drawing	✓	✓	X		
g. Plan View Details					
1) Aerial photos for base maps	✓	✓	X		
2) Numbering system to identify obstructions	✓	✓	X		

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
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	✓	✓			
h. Profile View Details					
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	✓	✓			
i. Obstruction Table Details					
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	✓	✓			
4) Prepare a separate table for each RPZ	✓	✓			
5) Include obstruction identification number and description, the amount of the approach surface penetration, and the proposed disposition of the obstructions	✓	✓			
ADDITIONAL COMMENTS:					

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
4. TERMINAL AREA DRAWING 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.		**(Optional)**			
a. Large scale plan view of the area or areas where aprons, buildings, hangars, and parking lots are located	✓				NA
b. Sheet size – Same as Airport Layout drawing	✓				
c. Scale – Range of 1" = 50' to 1" = 100'	✓				
d. Title and revision blocks – Same as for Airport Layout drawing	✓				
e. Building Data Table – To list structures and show pertinent information about them. Include space and columns for:					
1) A numbering system to identify structures	✓				
2) Top elevation of structures	✓				
3) Existing and planned obstruction markings	✓				
ADDITIONAL COMMENTS:					
Terminal area and buildings shown on inner-approach drawing					
5. LAND USE DRAWING					**NOTE: Use ALP as a base map**
a. Include all land uses (industrial, residential, and so forth), on and off the airport, to at least the 65 DNL contour	✓	✓	X		*(to within Part 77 Horizontal Surface)*
b. Sheet size – Same as Airport Layout drawing	✓	✓	X		
c. Scale – Same as the Airport Layout drawing	✓	✓		X	1" = 1000' to show entire Part 77 area
d. Title and revision blocks – Same as for Airport Layout drawing	✓	✓	X		
e. Aerial base map	✓	✓		X	County Zoning map
f. Legend (symbols and land use descriptions)	✓	✓			

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
g. Identify public facilities (such as schools, parks, and other)	✓	✓			NA
h. Drawing details – Normally limited to existing and future airport features (i.e., runways, taxiways, aprons, RPZs, terminal buildings and navigational aids)	✓	✓			
ADDITIONAL COMMENTS:					
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.	✓				NA
b. Large scale projected profile views of departure surfaces for each runway that is designated primarily for instrument departures.	✓				
c. Sheet size – Same as Airport Layout drawing	✓				
d. Scale – Horizontal 1" = 1000'; vertical 1" = 100' (runway departure surfaces); and Scale – Horizontal 1" = 2000'; vertical 1" = 100' (OEI obstacle identification surfaces)	✓				
e. Title and revision blocks – Same as for Airport Layout drawing	✓				
f. Plan View Details					
1) Aerial photos for base maps	✓				
2) Numbering system to identify obstructions	✓				
3) Depict property line, including easements	✓				
4) Identify, by numbers, all traverse ways with elevations and computed vertical clearance in the departure surface	✓				
5) Depict the existing and ultimate physical end of the runways. Note runway end number and elevation	✓				
6) Show ground contours, lightly drawn	✓				

	Required		Included		
	FAA	**WSDOT**	**Yes**	**No**	**Remarks**
g. Profile View Details					
1) Depict terrain and significant objects, including fences, roadways, rivers, structures, and buildings.	✓				NA
2) Identify obstructions with numbers on the plan view	✓				
3) Show roads and railroads with dashed lines at edge of the departure surface	✓				
h. Obstruction Table Details					
1) Depict terrain and significant objects, including fences, roadways, rivers, structures and buildings	✓				
2) Identify obstructions with numbers on the plan view	✓				
3) Show roads and railroads with dashed lines at edge of the approach	✓				
4) Prepare a separate table for each departure surface	✓				
5) Include obstruction identification number and description, the amount of the departure surface penetration, and the proposed disposition of the obstructions	✓	X			
ADDITIONAL COMMENTS:					

	Required		Included		
	FAA	WSDOT	Yes	No	Remarks
7. AIRPORT PROPERTY MAP		(Optional)			
a. Sheet size – Same as Airport Layout drawing	✓				
b. Scale – Same as the Airport Layout drawing	✓				
c. Title and revision blocks – Same as for Airport Layout drawing	✓				
d. Legend	✓				
e. Data Table					
1) A numbering or lettering system to identify tracts of land	✓				
2) The date the property was acquired	✓				
3) The Federal aid project number under which it was acquired	✓				
4) Type of ownership (fee, easement, federal surplus, and others)	✓				
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.	✓				
ADDITIONAL COMMENTS:					
One parcel – shown on ALP drawing					

WHPacific
12100 NE 195th St., Ste. 300
Bothell, WA 98011