Chapter 8 – Airport Layout Plan

Chapter 8 – Airport Layout Plan Drawings

Introduction

The options that were considered for the long-term development of Auburn Municipal Airport resulted in the selection of a preferred alternative. The preferred alternative has been incorporated into the airport layout plan drawings, which are depicted in this chapter. The set of airport plans, which is referred to in aggregate as the "Airport Layout Plan" (ALP) has been prepared in accordance with FAA guidelines. The drawings illustrate existing conditions, recommended changes in airfield facilities, property ownership, land use, and obstruction removal. The ALP set is presented at the end of this chapter:

- Sheet 1 – Cover Sheet
- Sheet 2 – Airport Data Sheet
- Sheet 3 – Airport Layout Plan
- Sheet 4 –North Terminal Area Plan
- Sheet 5 –South Terminal Area Plan
- Sheet 6 – Airport Airspace Plan (FAR Part 77)
- Sheet 7 – Runway 16 RPZ and Inner Approach Plan and Profile
- Sheet 8 – Runway 34 RPZ and Inner Approach Plan and Profile
- Sheet 9 – Runway 16 Approach Plan and Profile
- Sheet 10 – Runway 34 Approach Plan and Profile
- Sheet 11 –Airport Land Use Plan W/2032 Noise Contours
- Sheet 12 – Exhibit "A" Airport Property Plan

The airport layout plan drawings provide detailed information for existing and future facilities. The future improvements depicted in the drawing set are consistent with the airport master plan's updated 20-year capital improvement program contained in Chapter 7. The ALP drawing set will be submitted along with the draft final airport master plan report to Federal Aviation Administration (FAA) for review and approval. The drawings will be reviewed by the FAA Airports District Office (ADO) with additional review coordinated with other FAA offices (Flight Procedures, Flight Standards, etc.). Once approved, the final ALP drawing set will be signed by the Port of Auburn and the FAA Seattle Airports District Office (ADO). As individual projects are completed, minor "as-built" updates to the ALP drawing may be completed (with FAA coordination) without updating the airport master plan. A complete update of the full ALP drawing set will be conducted as part of the next master plan update.

The airport layout plan drawings are prepared using AutoCAD® computer-aided drafting software, which allows for easier updating and revision. The drawing files may also be imported into local geographic information systems (GIS) to support land use planning, airport overlay zone mapping, etc.

A brief summary of the individual drawings is provided below:

AIRPORT DATA SHEET DRAWING

The Airport Data Sheet drawing contains detailed runway and airfield dimensions, FAA dimensional standards, wind roses, and other data that is reflected on the sheets in the drawing set.

AIRPORT LAYOUT PLAN DRAWING

The Airport Layout Plan (ALP) drawing graphically depicts existing and future airfield facilities. The current and future design standards for the runway-taxiway system are based on Airplane Design Group I (ADG I) for small aircraft (Airport Reference Code B-I – small), which corresponds to the multi-engine piston design aircraft. An ADG II development reserve is also identified based on the potential to accommodate single-engine turboprops such as the Cessna Caravan or Pilatus PC-12. These aircraft are also classified as small aircraft with takeoff weights below 12,500 pounds and they are included in Aircraft Approach Category A (Airport Reference Code: A-II).

Increasing the length of Runway 16/34 is recommended as high priority project in the current 20-year planning period. The increase in runway length will improve safety and the ability to accommodate the current and forecast fleet of multi-engine piston aircraft for both takeoff and accelerate-stop distances.

Based on the site configuration, FAA design standards, and approach obstruction clearing requirements, extensions are at both ends of Runway 16/34 are recommended. The new sections of runway will be configured as displaced thresholds to maintain current approach obstruction clearance from a variety of off-airport built items in including structures and major overhead electrical transmission lines. The extension at the Runway 16 end is 475 feet long and will have adequate taxiway OFA clearances for both ADG I and ADG II (reserve) aircraft to the adjacent fence. A blast fence is recommended to be located

beyond the north end of the runway on frangible (breakaway) mounts. The blast fence would be designed to protect pedestrians and vehicles travelling on NE 30th Street from prop or jet blast for aircraft takeoffs on Runway 16. The extension at the Runway 34 end is 234 feet long.

Aircraft operations at both runway ends will be similar in that aircraft may begin their takeoff roll at the far ends of the runway and landings will occur at the displaced thresholds. Published declared distances will limit usable runway lengths for various operations to reflect the close proximity of the runway ends and fixed objects (fences, etc.). The runway length available for takeoff will be defined by the existing runway threshold location at the end opposite of takeoff. This design feature maintains the existing runway protection zones (RPZ) in their current locations, required by FAA to avoid increasing the presence or prominence of roads within the RPZs.

Two additional exit taxiways will be added at the north and south ends of the east parallel taxiway (Taxiway A).

The airport's two primary landside areas located on the east side of the runway will be reconfigured to accommodate a variety of facility upgrades.

The main terminal area, located near mid-runway includes several upgrades:

- Reconfigured Aircraft Parking Apron (small airplane tiedowns and drive through parking for business class aircraft)
- Relocated Aircraft Fueling Area
- FBO/Commercial Aviation Building (new)
- New/Reconfigured Access Roads and Vehicle Parking

The south terminal area, located near the southeast corner of the airport includes several upgrades:

- Reconfigured Aircraft Parking Apron (includes Auburn Flight Service apron)
- FBO/Commercial Aviation Building (new) with ADG II Taxilane Access
- New/Reconfigured Access Roads and Vehicle Parking
- Conventional Hangar Sites

The proposed development in the southwest section of the airport is initially limited to low impact helicopter facilities (parking pads, buildings, etc.) that could be developed without significantly impacting onsite wetlands. A new vehicle access roadway would be extended to the development from NE 16th Street. Longer term development options will be considered by the City based on the cost of wetland mitigation. Expansion reserves are depicted near the southern end of the development area.

Several areas of property acquisition are depicted on the ALP including the motel located near the southeast corner of the airport; the Metro Park & Ride Lot located near the south end of the runway; a

parcel located near the southwest corner of the airport; and an area of industrial development near the northeast corner of the airport. Several of these parcels were previously recommended for acquisition (as depicted on the 2002 ALP) while others represent areas identified in the current master plan as having high potential for aviation use. The northeast area consists of several smaller parcels, some of which extend east of the area depicted on the ALP. The City of Auburn has indicated an interest in acquiring parcels in this area for airport use, with potential redevelopment of portions located further east for commercial (non-airport) use.

Future facilities are color-coded (red) to distinguish them from existing facilities. Future facilities are represented in the airport master plan's 20-year capital improvement program (CIP) as individual projects or project groupings. Long term development reserves depicted on the ALP are also color coded (green). These items are intended to serve as placeholders or are provided for reference only. Demand for facilities identified as development reserves is not anticipated to occur in the current 20-year planning period and therefore the corresponding projects are not included in the master plan CIP. A change of events that could move a development reserve into an actual project would require updated planning and coordination with FAA.

TERMINAL AREA PLAN DRAWINGS

Terminal Area Plan drawings for the main landside areas located on the east side of Runway 16/34 provide additional detail for existing and new facilities. Recommended improvements include reconfigured/expanded aircraft parking apron, new fixed base operator (FBO) buildings, new hangar areas, fuel storage facilities, taxiway reconfigurations and access roads.

FAR PART 77 AIRSPACE DRAWING

The FAR Part 77 Airspace drawing depicts the protected airspace defined for Runway 16/34 in Federal Air Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*. The airspace plan drawings depict the five "imaginary surfaces" defined in FAR Part 77.25 including the primary, transitional, approach, horizontal and conical surfaces, previously described in Chapter 4. Part 77 surfaces should be free of built or terrain obstructions to the great extent possible. Objects that penetrate FAR Part 77 surfaces may require action to mark or remove depending on their severity, location and the feasibility of the action. The drawing includes a table of obstructions with recommended dispositions.

The physical characteristics of the Part 77 surfaces are defined the size of aircraft using the runway and the approach capabilities of the runway. Runway 16/34 accommodates small aircraft (12,500 pounds or less) with nonprecision instrument approach capabilities (to the airport environment).

- **Runway Approach Surfaces**: Both approach surfaces extend 5,000 feet from the end of the runway primary surface with a slope of 20:1. The approach surface slope represents the horizontal distance required for each increment of vertical rise.

- **Primary Surface:** Based on the approach capabilities (nonprecision instrument with visual final approach segments), the primary surface is 250 feet wide (125 feet on either side of runway centerline), extending 200 feet beyond each end of the runway. The primary surface is a flat plane of airspace centered on the runway with the same elevation as the nearest point on the runway centerline. For Runway 16/34, the ultimate primary surface is 4,518 feet long and 250 feet wide.
- **Runway Transitional Surface:** The runway transitional surfaces extend outward and upward from the outer edges of the primary surface. The transitional surfaces have a slope of 7:1 and extend to an elevation 150 feet above airfield elevation and connect to the runway horizontal surface. On- and off-airport structures constructed under the transitional surfaces on both sides of Runway 16/34 have generally been sited to avoid penetrating the surface that extends outward from the edges of the 250-foot wide primary surface.
- **Horizontal Surface:** The horizontal surface is drawn from 5,000-foot radii that extend from both ends of the primary surface to form an oval. The horizontal surface is a flat plane of airspace with an elevation 150 feet above airport elevation.
- **Conical Surface:** The conical surface extends from the outer edge of the horizontal surface at a slope of 20:1 for 4,000 feet. Areas of terrain penetration are identified in the west and east sections of the conical surface.

RUNWAY APPROACH SURFACE PLAN AND PROFILE DRAWINGS

The Approach Surface drawings depict plan and profile views of the runway approach surfaces depicted in the FAR Part 77 airspace plan. The drawings provide additional detail in identify obstructions, terrain and other physical features within the approach surfaces. The drawings include obstruction data tables for items depicted on the drawing, using the same numbering identifiers from the overall Part 77 Airspace Plan. The drawing also depicts the threshold siting surface (TSS) that is used to mitigate obstructions to the Part 77 approach surfaces. The appropriate applications, dimensions and slope for the TSS are defined in FAA Advisory Circular (AC) 150/5300-13A (paragraph 303, section b.).

RUNWAY RPZ & INNER APPROACH SURFACE DRAWINGS

The runway protection zone (RPZ) and inner approach surface drawings depict detailed plan views of these areas and a profile view of the approach surface and threshold siting surface (when used). The drawings include obstruction data tables for items depicted on the drawing, using the same numbering identifiers from the overall Part 77 Airspace Plan and Approach Surface Plan and Profile drawings.

AIRPORT LAND USE PLAN

The Airport Land Use Plan drawing depicts existing land uses and zoning for the airport and its immediate vicinity. 20-year noise contours are also depicted on the drawing. The land areas surrounding the Airport are heavily developed with industrial (light and heavy) and commercial land

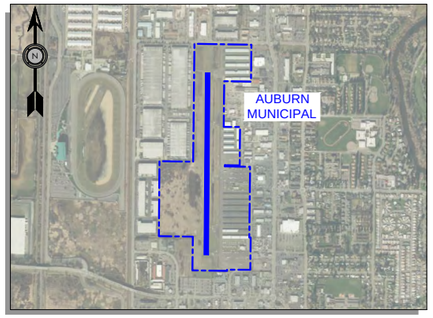
uses. These land uses provide a buffer between airport operations and nearby residential land uses and other noise sensitive land uses (hospitals, churches, schools, etc.). The Airport and its immediate surroundings are located within the Auburn city limits.

EXHIBIT "A" – AIRPORT PROPERTY PLAN

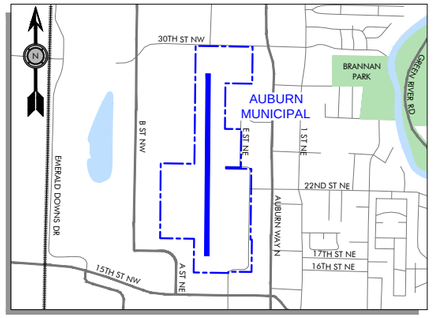
The Airport Property Plan drawing provides depicts all property owned by the City on the airport. The drawing notes the form of ownership or control (fee simple, avigation easement, etc.) and the date of acquisition per FAA guidelines. Areas of recommended property acquisition are also depicted.

AUBURN MUNICIPAL AIRPORT (S50)
AIRPORT MASTER PLAN

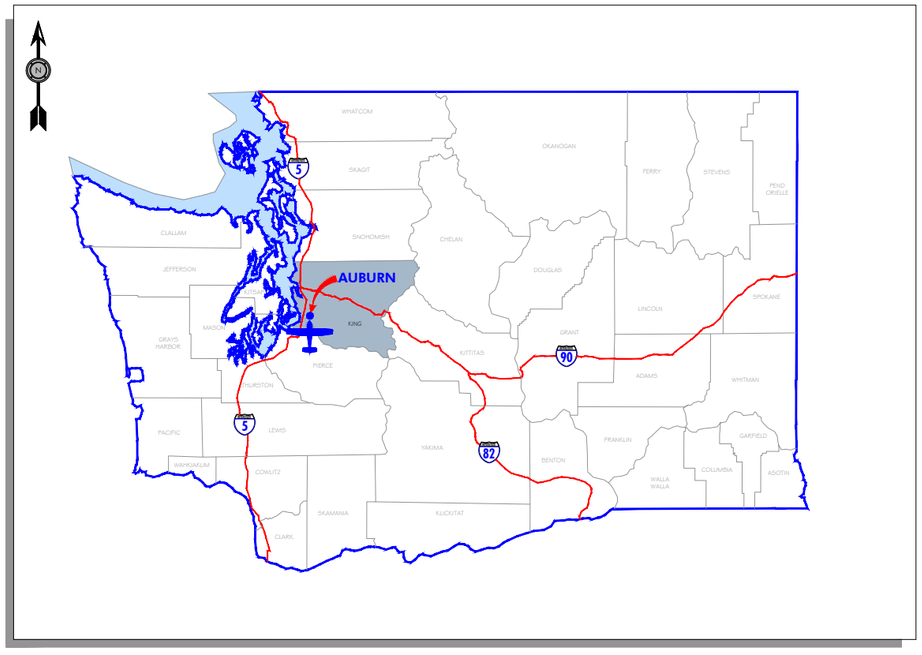
CITY OF AUBURN, WASHINGTON
AIP NO. 3-53-0003-018-2012
AIRPORT LAYOUT PLAN
MAY 2015



AERIAL PHOTO



VICINITY MAP



LOCATION MAP

SHEET INDEX

NUMBER	CONTENTS
1	COVER SHEET
2	AIRPORT DATA SHEET
3	AIRPORT LAYOUT PLAN
4	NORTH TERMINAL AREA PLAN
5	SOUTH TERMINAL AREA PLAN
6	AIRPORT AIRSPACE PLAN (FAR PART 77)
7	RUNWAY 16 RPZ AND INNER APPROACH PLAN AND PROFILE
8	RUNWAY 34 RPZ AND INNER APPROACH PLAN AND PROFILE
9	RUNWAY 16 APPROACH PLAN AND PROFILE
10	RUNWAY 34 APPROACH PLAN AND PROFILE
11	AIRPORT LAND USE PLAN W/2032 NOISE CONTOURS
12	EXHIBIT "A" AIRPORT PROPERTY PLAN

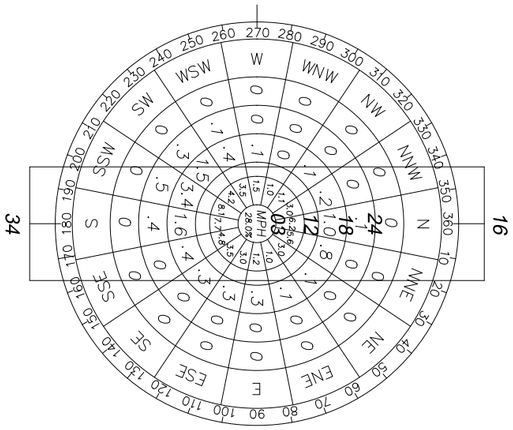
CENTURY WEST
ENGINEERING CORPORATION
1020 S.W. Emkay Drive, Suite 100
Bend, Oregon 97702
541-322-8962 phone ♦ 541-382-2423 fax
www.centurywest.com

AIRPORT DATA TABLE

DESCRIPTION		EXISTING	FUTURE
AIRPORT ELEVATION (MSL)		62.8'	63.4' EST.
AIRPORT ACREAGE		110	123.83
ARP COORDINATES	LAT. LONG.	N 47° 19' 39.66" W 122° 13' 35.96"	N 47° 19' 40.79" W 122° 13' 35.96"
MAGNETIC DECLINATION		16°8'25"E (3/2014) ANNUAL RATE OF CHANGE 0°10.6'W	ANNUAL RATE OF CHANGE 0°10.6'W
MEAN MAX. DAILY TEMPERATURE		78.8°	SAME
FAA IDENTIFIER		S50	SAME
DATUM		NAD 83/NGVD 88	SAME

NON STANDARD CONDITIONS

NO.	ITEM	DESCRIPTION	DISPOSITION
1	TAXILANE OFA	CLEARANCE TO PARKED AIRCRAFT LESS THAN STANDARD	RECONFIGURE APRON
2	TAXILANE OFA	CLEARANCE TO ADJACENT HANGAR LESS THAN STANDARD	USE FAA ALTERNATIVE TAXILANE OFA CLEARANCE STANDARD BASED ON MAX AC WINGSPAN
3	OFA / OFZ / RSA	AREA PROVIDED BEYOND RUNWAY ENDS LESS THAN ADG I STANDARD	DISPLACED THRESHOLDS AND DECLARED DISTANCES USED TO PROVIDE STANDARD DIMENSIONS BEYOND RUNWAY ENDS FOR SPECIFIC OPERATIONS



ALL WEATHER WIND ROSE

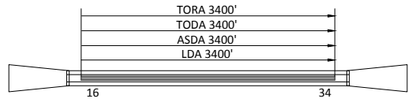
SOURCE:
ESTIMATED BY CH2MHILL, JULY 1977
12 MPH 98.9%

RUNWAY DATA TABLE

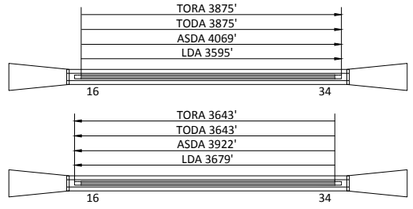
	EXISTING CONDITIONS RUNWAY 16 - 34	FUTURE CONDITIONS RUNWAY 16 - 34
RUNWAY LENGTH AND WIDTH	3400' X 75'	4118' X 75' (SEE NOTE 1)
RUNWAY LIGHTING	MIRL	SAME
RUNWAY PAVEMENT STRENGTH (LBS)	12,500 SW	SAME
RUNWAY PAVEMENT TYPE	ASPHALT	SAME
RUNWAY PERCENT WIND COVERAGE (12 MPH)	98.9%	SAME
RUNWAY PERCENT GRADIENT / MAXIMUM GRADE	0.194%	0.230% EST.
AIRPORT REFERENCE CODE (ARC)	B-I (SMALL)	SAME / (A-II RESERVE)
FAR PART 77 DESIGNATION	UTILITY (VISUAL)	SAME
NPIAS ROLE / SERVICE LEVEL	RELIEVER	SAME
TERMINAL NAVAIDS	NONE	SAME
TAXIWAY LIGHTING	MITL	SAME
TAXIWAY MARKING	CENTERLINE	SAME

RUNWAY 16-34 DECLARED DISTANCES

EXISTING



FUTURE



RUNWAY DATA TABLE

	EXISTING CONDITIONS	EXISTING STANDARD	FUTURE CONDITIONS	FUTURE STANDARD
RUNWAY SAFETY AREA LENGTH AND WIDTH LENGTH BEYOND RUNWAY END (SEE NOTE 2)	3880' X 120' 240'	3880' X 120' 240'	4598' X 120' 240' (SEE NOTE 2)	4598' X 120' 240' (SEE NOTE 2)
OBJECT FREE AREA LENGTH AND WIDTH LENGTH BEYOND RUNWAY END (SEE NOTE 2)	3880' X 250' 240'	3880' X 250' 240'	4598' X 250' 240' (SEE NOTE 2)	4598' X 250' 240' (SEE NOTE 2)
OBSTACLE FREE ZONE LENGTH AND WIDTH LENGTH BEYOND RUNWAY END (SEE NOTE 2)	3800' X 250' 200'	3800' X 250' 200'	4518' X 250' 200' (SEE NOTE 2)	4518' X 250' 200' (SEE NOTE 2)
OFZ PENETRATION (YES/NO) (SEE NOTE 2)	NO	NO	NO	NO

		EXISTING CONDITIONS		FUTURE CONDITIONS	
RUNWAY END		16	34	16	34
RUNWAY APPROACH CATEGORY		VISUAL	VISUAL	SAME	SAME
RUNWAY APPROACH SLOPE	PART 77 REQUIRED	20:1	20:1	20:1	20:1
	ACTUAL	20:1 (SEE NOTE 3)	20:1 (SEE NOTE 3)	20:1 (SEE NOTE 3)	20:1 (SEE NOTE 3)
APPROACH VISIBILITY MINIMUMS		1 MILE	1 MILE	SAME	SAME
RUNWAY MARKINGS		VISUAL	VISUAL	SAME	SAME
RUNWAY END COORDINATES	LAT. LONG.	N 47° 19' 56.43" W 122° 13' 36.13"	N 47° 19' 22.88" W 122° 13' 35.78"	N 47° 20' 01.11" W 122° 13' 36.18"	N 47° 19' 20.47" W 122° 13' 35.75"
INSTRUMENTATION AND APPROACH AIDS		GPS	GPS	GPS / NEXTGEN	GPS / NEXTGEN
VISUAL AIDS		VASI4; REIL	VASI4; REIL	PAPI4; REIL	PAPI4; REIL
CRITICAL AIRCRAFT (ARC)		CESSNA 340A		SAME / PILATUS PC-12 (RESERVE)	
WINGSPAN		<49'		SAME (RESERVE <79')	
WEIGHT (LBS)		<12,500		SAME	
APPROACH SPEED		<91 KNOTS		SAME	
LENGTH OF HAUL		<500 MILES		SAME	

NOTES:

1. FUTURE RUNWAY HAS DISPLACED THRESHOLDS (RWY 16 475'; RWY 34 243'.)
2. THE ENDS OF THE FUTURE OFZ, RSA, AND OFA BASED ON THE LIMITS OF AIRPORT PROPERTY (FENCE). RUNWAY LENGTHS AVAILABLE FOR TAKEOFF AND LANDING DEFINED BY DECLARED DISTANCES (PER FAA AC 150/5300-13A).
3. UNOBSTRUCTED 20:1 APPROACH OBTAINED WITH THRESHOLD SITING SURFACES ESTABLISHED AT EACH RUNWAY THRESHOLD.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

AIRPORT DATA SHEET

FIGURE NO.
-

SHEET NO.
2 OF 12

BUILDING/FACILITY KEY

	DESCRIPTION
①	TERMINAL / FBO APRON
②	SMALL AIRCRAFT TIEDOWN APRON (EXISTING)
③	BUILDING "506" AIRPORT MANAGER OFFICE (CITY OWNED)
④	AUBURN FLIGHT SERVICE FBO HANGAR (EXISTING)
⑤	TENANT OWNED CONVENTIONAL HANGAR (EXISTING)
⑥	CITY OWNED T-HANGAR (EXISTING)
⑦	TENANT OWNED T-HANGAR/EXECUTIVE HANGAR (EXISTING)
⑧	AVIATION FUEL STORAGE/ SELF FUELING AREA (EXISTING)
⑨	AVIATION USE BUILDINGS (FUTURE)
⑩	CONVENTIONAL HANGAR (FUTURE)
⑪	AWOS (FUTURE)
⑫	AIRCRAFT FUEL APRON (FUTURE)
⑬	AIRCRAFT PARKING APRON (FUTURE)
⑭	HELICOPTER PARKING POSITION (FUTURE)
⑮	OFFICE (EXISTING)
⑯	AIRPORT FBO/COMMERCIAL BUILDING (FUTURE)
⑰	VEHICLE PARKING (FUTURE)

NOTES:

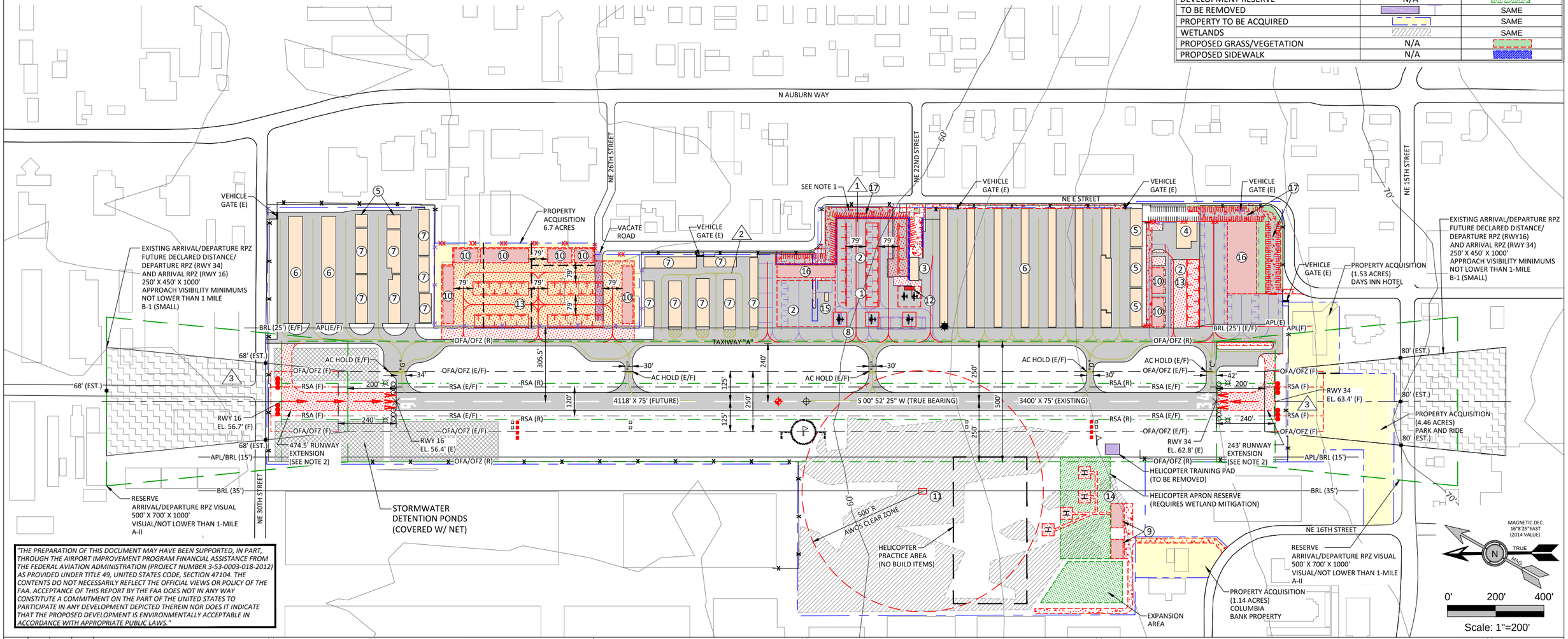
1. SEE TERMINAL AREA PLAN DRAWINGS (SHEETS 4 AND 5) FOR DETAILS ON FUTURE APRON CONFIGURATIONS.
2. FUTURE RUNWAY LENGTHS AVAILABLE FOR TAKEOFF AND LANDING WILL BE LIMITED BY DECLARED DISTANCES (TO BE PUBLISHED A/FD). ADDITIONAL USEABLE RUNWAY PROVIDED BY BOTH ENDS TO BE CONFIGURED WITH DISPLACED THRESHOLDS.
3. THE EXISTING ARRIVAL/DEPARTURE RUNWAY PROTECTION ZONES (RPZ) FOR RUNWAY 16 AND 34 WILL BE MAINTAINED IN THEIR CURRENT LOCATIONS. THE END OF USEABLE RUNWAY FOR TAKEOFF WILL BE DETERMINED BY THE LOCATIONS OF THE EXISTING DEPARTURE RPZ FOR EACH RUNWAY END. DEPARTURE RPZ CONFIGURATIONS DETERMINED BY USE OF DECLARED DISTANCES TO MITIGATE UNACCEPTABLE INCOMPATIBLE LAND USES (PER AC 150/5300-13A).
4. ARC A-II RSA & OFA RESERVES DEPICTED FOR REFERENCE.
5. A-II RESERVE RPZ (500' X 700' X 1000') DEPICTED FOR REFERENCE. CONTINUED USE OF "SMALL AIRPLANES EXCLUSIVELY" RPZ (250' X 450' X 1000') SHOULD BE CONSIDERED FOR TYPICAL A-II SINGLE ENGINE TURBOPROPS (<12,000)
6. PROPERTY ACQUISITION APPROXIMATELY 13.83 ACRES TO BE PURSUED AS PARCELS AND FUNDING BECOME AVAILABLE.

NON STANDARD CONDITIONS

NO.	ITEM	DESCRIPTION	DISPOSITION
1	TAXILANE OFA	CLEARANCE TO PARKED AIRCRAFT LESS THAN STANDARD	RECONFIGURE APRON
2	TAXILANE OFA	CLEARANCE TO ADJACENT HANGAR LESS THAN STANDARD	USE FAA ALTERNATIVE TAXILANE OFA CLEARANCE STANDARD BASED ON MAX AC WINGSPAN
3	OFA / OFZ / RSA	AREA PROVIDED BEYOND RUNWAY ENDS LESS THAN ADG I STANDARD	DISPLACED THRESHOLDS AND DECLARED DISTANCES USED TO PROVIDE STANDARD DIMENSIONS BEYOND RUNWAY ENDS FOR SPECIFIC OPERATIONS

LEGEND

	EXISTING	FUTURE
BUILDINGS		
AIRFIELD PAVEMENT		
BUILDING RESTRICTION LINE (BRL)	BRL (E)	BRL (F)
AIRCRAFT PARKING LINE (APL)	APL (E)	APL (F)
AIRPORT PROPERTY LINE		
RUNWAY SAFETY AREA (RSA)		
OBJECT FREE AREA (OFA)		
OBSTACLE FREE ZONE (OFZ)		
TAXIWAY OBJECT FREE AREA (TOFA)		
RUNWAY PROTECTION ZONE (RPZ)		SAME
GROUND CONTOURS	10'	SAME
AIRPORT REFERENCE POINT (ARP)		
RUNWAY END IDENTIFIER LIGHTS (REIL)		SAME
VISUAL GUIDANCE INDICATORS	(VASI)	(PAPI)
WIND INDICATOR		SAME
SEGMENTED CIRCLE WIND INDICATOR		SAME
FENCE		
BEACON		SAME
THRESHOLD LIGHTS		
ACCESS ROAD/VEHICLE PARKING	N/A	
AVIGATION EASEMENT		SAME
DEVELOPMENT RESERVE	N/A	
TO BE REMOVED		SAME
PROPERTY TO BE ACQUIRED		SAME
WETLANDS		SAME
PROPOSED GRASS/VEGETATION	N/A	
PROPOSED SIDEWALK	N/A	



"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING. 0" 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL
APPROVAL DATE: _____
SIGNATURE

CITY OF AUBURN APPROVAL
APPROVAL DATE: _____
SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

AIRPORT LAYOUT PLAN

FIGURE NO. -

SHEET NO. 3 OF 12

BUILDING/FACILITY KEY

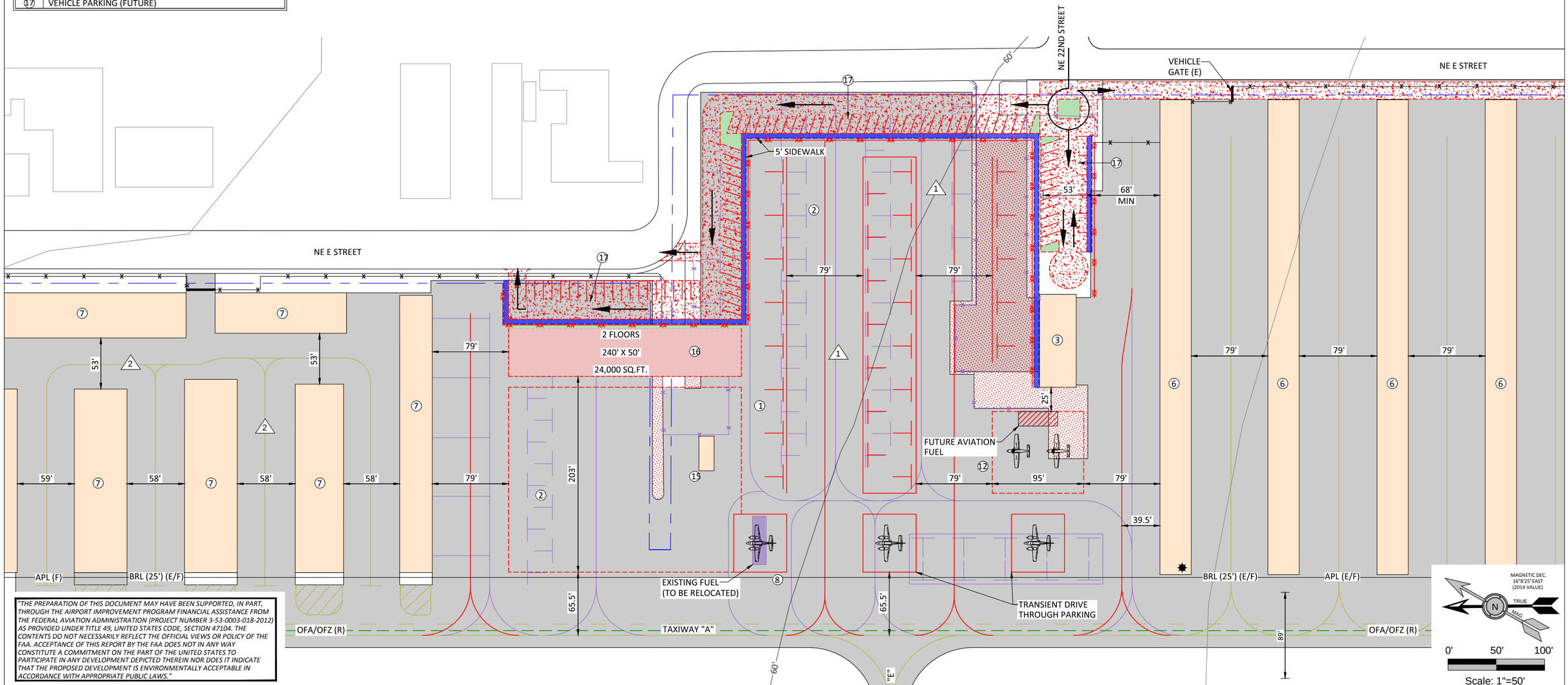
	DESCRIPTION
1	TERMINAL / FBO APRON
2	SMALL AIRCRAFT TIEDOWN APRON (EXISTING)
3	BUILDING "506" AIRPORT MANAGER OFFICE (CITY OWNED)
4	AUBURN FLIGHT SERVICE FBO HANGAR (EXISTING)
5	TENANT OWNED CONVENTIONAL HANGAR (EXISTING)
6	CITY OWNED T-HANGAR (EXISTING)
7	TENANT OWNED T-HANGAR/EXECUTIVE HANGAR (EXISTING)
8	AVIATION FUEL STORAGE/ SELF FUELING AREA (EXISTING)
9	AVIATION USE BUILDINGS (FUTURE)
10	CONVENTIONAL HANGAR (FUTURE)
11	AWOS (FUTURE)
12	AIRCRAFT FUEL APRON (FUTURE)
13	AIRCRAFT PARKING APRON (FUTURE)
14	HELICOPTER PARKING POSITION (FUTURE)
15	OFFICE (EXISTING)
16	AIRPORT FBO/COMMERCIAL BUILDING (FUTURE)
17	VEHICLE PARKING (FUTURE)

NON STANDARD CONDITIONS

NO.	ITEM	DESCRIPTION	DISPOSITION
1	TAXILANE OFA	CLEARANCE TO PARKED AIRCRAFT LESS THAN STANDARD	RECONFIGURE APRON
2	TAXILANE OFA	CLEARANCE TO ADJACENT HANGAR LESS THAN STANDARD	USE FAA ALTERNATIVE TAXILANE OFA CLEARANCE STANDARD BASED ON MAX AC WINGSPAN
3	OFA / OFZ / RSA	AREA PROVIDED BEYOND RUNWAY ENDS LESS THAN ADG I STANDARD	DISPLACED THRESHOLDS AND DECLARED DISTANCES USED TO PROVIDE STANDARD DIMENSIONS BEYOND RUNWAY ENDS FOR SPECIFIC OPERATIONS

LEGEND

	EXISTING	FUTURE
BUILDINGS		
AIRFIELD PAVEMENT		
BUILDING RESTRICTION LINE (BRL)	BRL (E)	BRL (F)
AIRCRAFT PARKING LINE (APL)	APL (E)	APL (F)
AIRPORT PROPERTY LINE		
OBJECT FREE AREA (OFA)		
OBSTACLE FREE ZONE (OFZ)		
GROUND CONTOURS	10'	SAME
FENCE		
ACCESS ROAD/VEHICLE PARKING	N/A	
TO BE REMOVED		N/A
PROPOSED GRASS/VEGETATION	N/A	
PROPOSED SIDEWALK	N/A	



"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" ■■■■■ 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

NORTH TERMINAL AREA PLAN

FIGURE NO. -

SHEET NO. 4 OF 12

BUILDING/FACILITY KEY

	DESCRIPTION
①	TERMINAL / FBO APRON
②	SMALL AIRCRAFT TIEDOWN APRON (EXISTING)
③	BUILDING "506" AIRPORT MANAGER OFFICE (CITY OWNED)
④	AUBURN FLIGHT SERVICE FBO HANGAR (EXISTING)
⑤	TENANT OWNED CONVENTIONAL HANGAR (EXISTING)
⑥	CITY OWNED T-HANGAR (EXISTING)
⑦	TENANT OWNED T-HANGAR/EXECUTIVE HANGAR (EXISTING)
⑧	AVIATION FUEL STORAGE/ SELF FUELING AREA (EXISTING)
⑨	AVIATION USE BUILDINGS (FUTURE)
⑩	CONVENTIONAL HANGAR (FUTURE)
⑪	AWOS (FUTURE)
⑫	AIRCRAFT FUEL APRON (FUTURE)
⑬	AIRCRAFT PARKING APRON (FUTURE)
⑭	HELICOPTER PARKING POSITION (FUTURE)
⑮	OFFICE (EXISTING)
⑯	AIRPORT FBO/COMMERCIAL BUILDING (FUTURE)
⑰	VEHICLE PARKING (FUTURE)

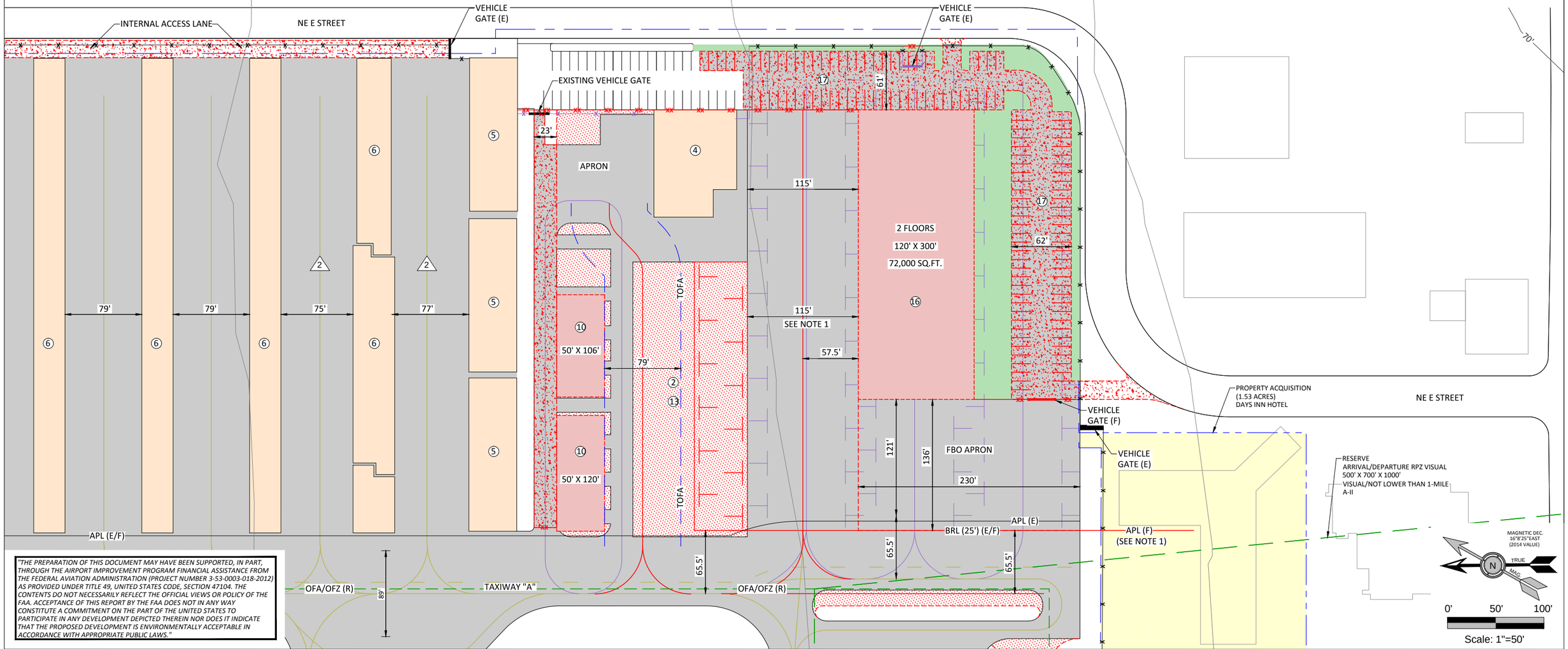
NON STANDARD CONDITIONS

NO.	ITEM	DESCRIPTION	DISPOSITION
1	TAXILANE OFA	CLEARANCE TO PARKED AIRCRAFT LESS THAN STANDARD	RECONFIGURE APRON
2	TAXILANE OFA	CLEARANCE TO ADJACENT HANGAR LESS THAN STANDARD	USE FAA ALTERNATIVE TAXILANE OFA CLEARANCE STANDARD BASED ON MAX AC WINGSPAN
3	OFA / OFZ / RSA	AREA PROVIDED BEYOND RUNWAY ENDS LESS THAN ADG I STANDARD	DISPLACED THRESHOLDS AND DECLARED DISTANCES USED TO PROVIDE STANDARD DIMENSIONS BEYOND RUNWAY ENDS FOR SPECIFIC OPERATIONS

LEGEND

	EXISTING	FUTURE
BUILDINGS		
AIRFIELD PAVEMENT		
BUILDING RESTRICTION LINE (BRL)	BRL (E)	BRL (F)
AIRCRAFT PARKING LINE (APL)	APL (E)	APL (F)
AIRPORT PROPERTY LINE		
OBJECT FREE AREA (OFA)		
OBSTACLE FREE ZONE (OFZ)		
GROUND CONTOURS	10'	SAME
FENCE		
ACCESS ROAD/VEHICLE PARKING	N/A	
TO BE REMOVED		N/A
PROPOSED GRASS/VEGETATION	N/A	
PROPERTY TO BE ACQUIRED		N/A
TAXIWAY OBJECT FREE AREA (TOFA)		SAME

NOTE:
1. SOUTH APRON AND TAXIWAY A CLEARANCES BASED ON ADG II STANDARD (RESERVE)



"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL
APPROVAL DATE: _____
SIGNATURE

CITY OF AUBURN APPROVAL
APPROVAL DATE: _____
SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

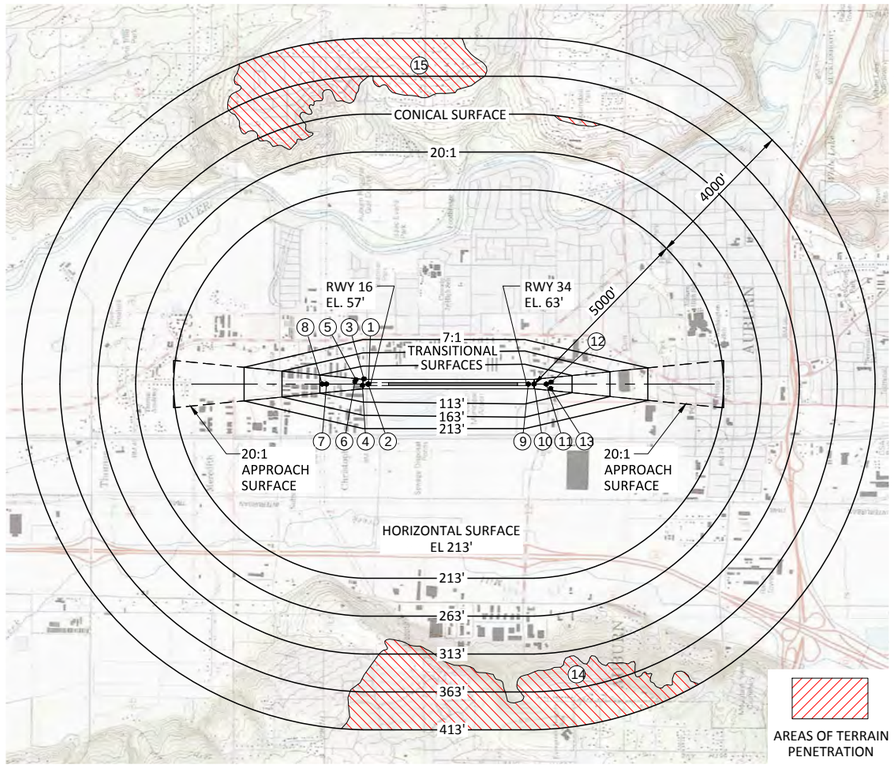
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

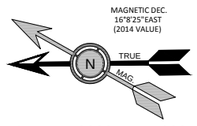
SOUTH TERMINAL AREA PLAN

FIGURE NO. -

SHEET NO. 5 OF 12

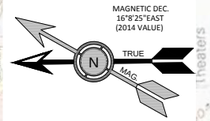


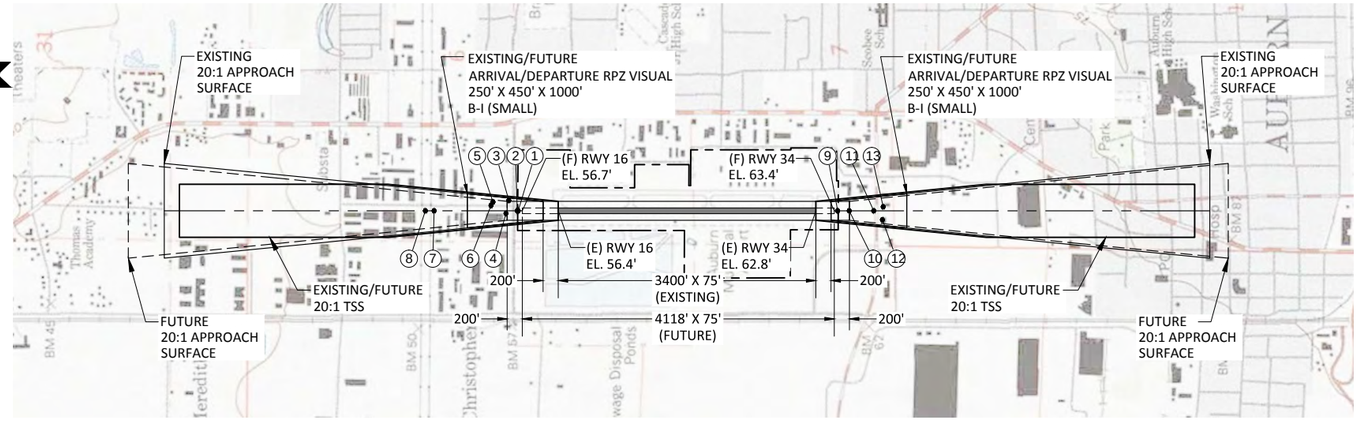
FAR PART 77 PLAN VIEW



0' 2000' 4000'

Scale: 1"=2000'

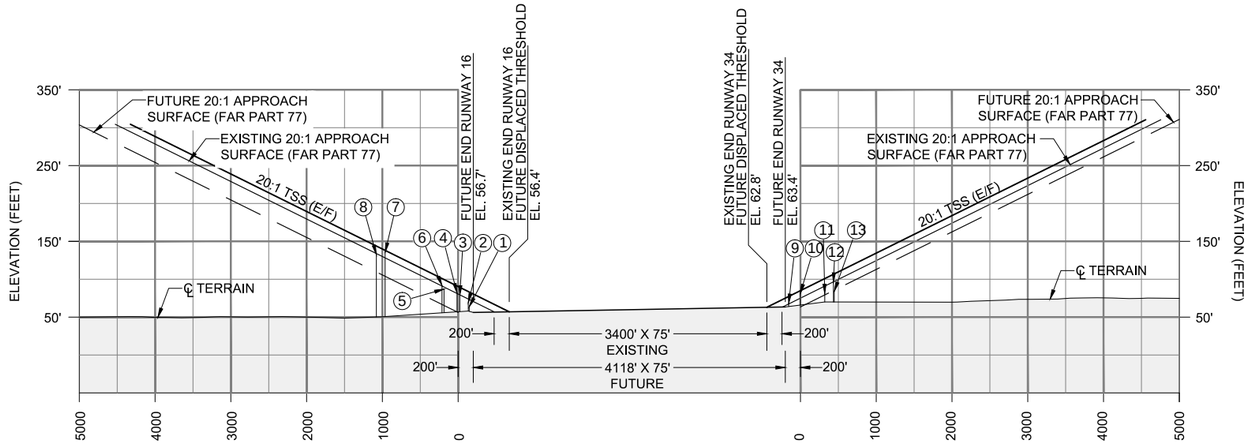




RUNWAY 16-34 PLAN VIEW

0' 1000' 2000'

Scale: 1"=1000'



RUNWAY 16-34 PROFILE VIEW

0' 100' 200'

SCALE OF FEET
VERTICAL SCALE 1"=100'

0' 1000' 2000'

SCALE OF FEET
HORIZONTAL SCALE 1"=1000'

RUNWAY 16/34

FAR PART 77 DIMENSIONAL STANDARDS

RUNWAY ULTIMATE LENGTH = 4118'
RUNWAY TYPE = B-I (SMALL)
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

OBSTRUCTION CHART

NO.	ITEM	PART 77 SURFACE	MSL ELEV (EST.)	DISTANCE FROM RWY CL	DISTANCE FROM RWY END	AMOUNT OF PENETRATION (ESTIMATED)	AIRPORT PROPERTY	DISPOSITION
1	FENCE	APPROACH (RWY 16)	64'	0'	54'	6'	YES	OCS/TSS W/ DISPLACED THRESHOLD
2	NE 30TH STREET	APPROACH (RWY 16)	69'	0'	66'	10'	NO	OCS/TSS W/ DISPLACED THRESHOLD
3	BUILDING	APPROACH (RWY 16)	79'	138'	178'	22'	NO	OCS/TSS W/ DISPLACED THRESHOLD
4	BUILDING	APPROACH (RWY 16)	83'	34'	215'	25'	NO	OCS/TSS W/ DISPLACED THRESHOLD
5	BUILDING	APPROACH (RWY 16)	87'	117'	387'	22'	NO	OCS/TSS W/ DISPLACED THRESHOLD
6	POWER POLE	APPROACH (RWY 16)	92'	69'	413'	25'	NO	OCS/TSS W/ DISPLACED THRESHOLD
7	POWER LINE	APPROACH (RWY 16)	132.6'	0'	1164'	32'	NO	OCS/TSS W/ DISPLACED THRESHOLD
8	POWER LINE	APPROACH (RWY 16)	135.6'	0'	1279'	23'	NO	OCS/TSS W/ DISPLACED THRESHOLD
9	FENCE	APPROACH (RWY 34)	68'	0'	45'	4'	YES	OCS/TSS W/ DISPLACED THRESHOLD
10	PARKING LOT	APPROACH (RWY 34)	81'	0'	197'	15'	NO	OCS/TSS W/ DISPLACED THRESHOLD
11	NE 15TH STREET	APPROACH (RWY 34)	81'	0'	520'	2'	NO	OCS/TSS W/ DISPLACED THRESHOLD
12	BUILDING	APPROACH (RWY 34)	96'	119'	635'	11'	NO	OCS/TSS W/ DISPLACED THRESHOLD
13	BUILDING	APPROACH (RWY 34)	84'	53'	645'	0'	NO	OCS/TSS W/ DISPLACED THRESHOLD
14	TERRAIN	CONICAL	300' - 520'	6730'	-498'	0'	NO	NO ACTION
15	TERRAIN	CONICAL	320' - 480'	6191'	2134'	0'	NO	NO ACTION

NOTES:

1. DISTANCES FOR NOTED OBSTRUCTIONS ARE BASED ON THE ULTIMATE RUNWAY CONFIGURATION. DIMENSIONS INCLUDE 200' DISTANCE FROM RUNWAY END TO BEGINNING OF APPROACH.
2. FUTURE RUNWAY TO BE CONFIGURED WITH DISPLACED THRESHOLDS AT BOTH ENDS TO MAINTAIN EXISTING APPROACH OBSTRUCTION CLEARANCE. THRESHOLD SITING SURFACES (20:1) IDENTIFIED FOR BOTH RUNWAY ENDS.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" ——— 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

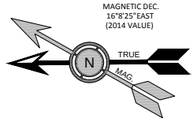
AIRPORT AIRSPACE PLAN (FAR PART 77)

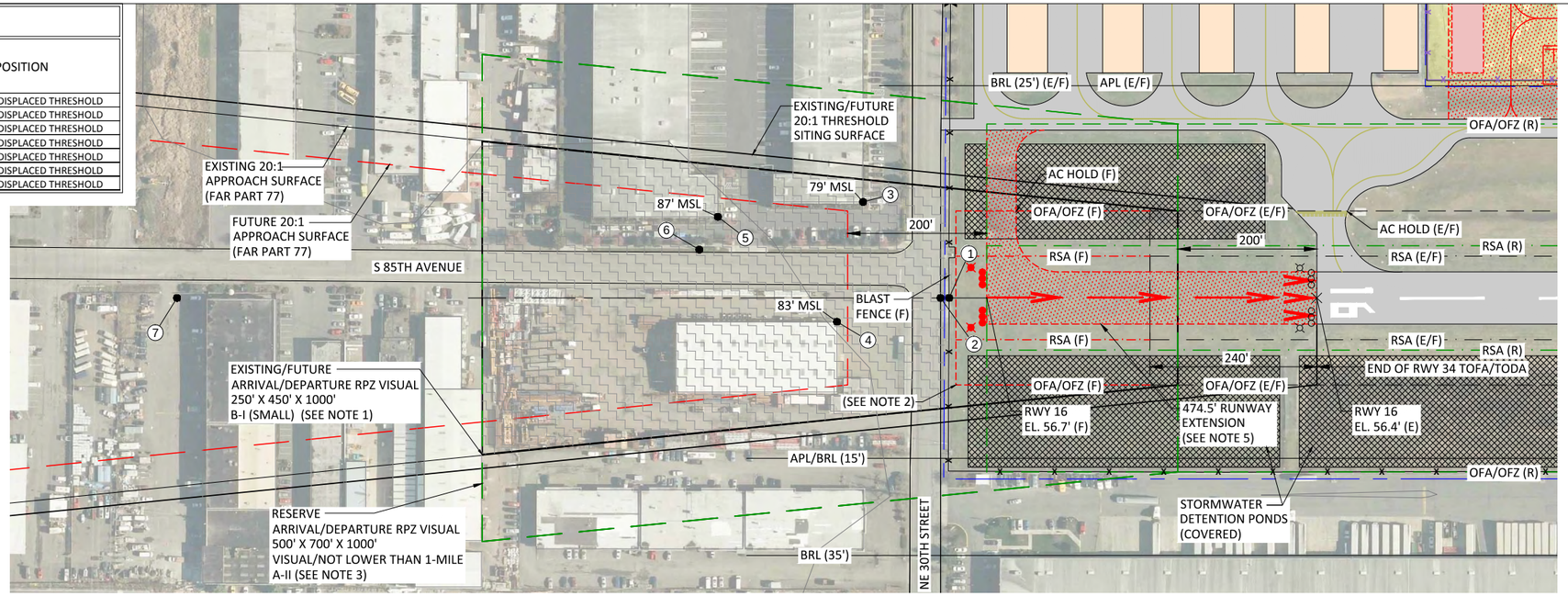
FIGURE NO. -

SHEET NO. 6 OF 12

OBSTRUCTION CHART

NO.	ITEM	PART 77 SURFACE	MSL ELEV (EST.)	DISTANCE FROM RWY CL	DISTANCE FROM RWY END	AMOUNT OF PENETRATION (ESTIMATED)	AIRPORT PROPERTY	DISPOSITION
1	FENCE	APPROACH (RWY 16)	64'	0'	54'	6'	YES	OCS/TSS W/ DISPLACED THRESHOLD
2	NE 30TH STREET	APPROACH (RWY 16)	69'	0'	66'	10'	NO	OCS/TSS W/ DISPLACED THRESHOLD
3	BUILDING	APPROACH (RWY 16)	79'	138'	178'	22'	NO	OCS/TSS W/ DISPLACED THRESHOLD
4	BUILDING	APPROACH (RWY 16)	83'	34'	215'	25'	NO	OCS/TSS W/ DISPLACED THRESHOLD
5	BUILDING	APPROACH (RWY 16)	87'	117'	387'	22'	NO	OCS/TSS W/ DISPLACED THRESHOLD
6	POWER POLE	APPROACH (RWY 16)	92'	69'	413'	25'	NO	OCS/TSS W/ DISPLACED THRESHOLD
7	POWER LINE	APPROACH (RWY 16)	132.6'	0'	1164'	32'	NO	OCS/TSS W/ DISPLACED THRESHOLD

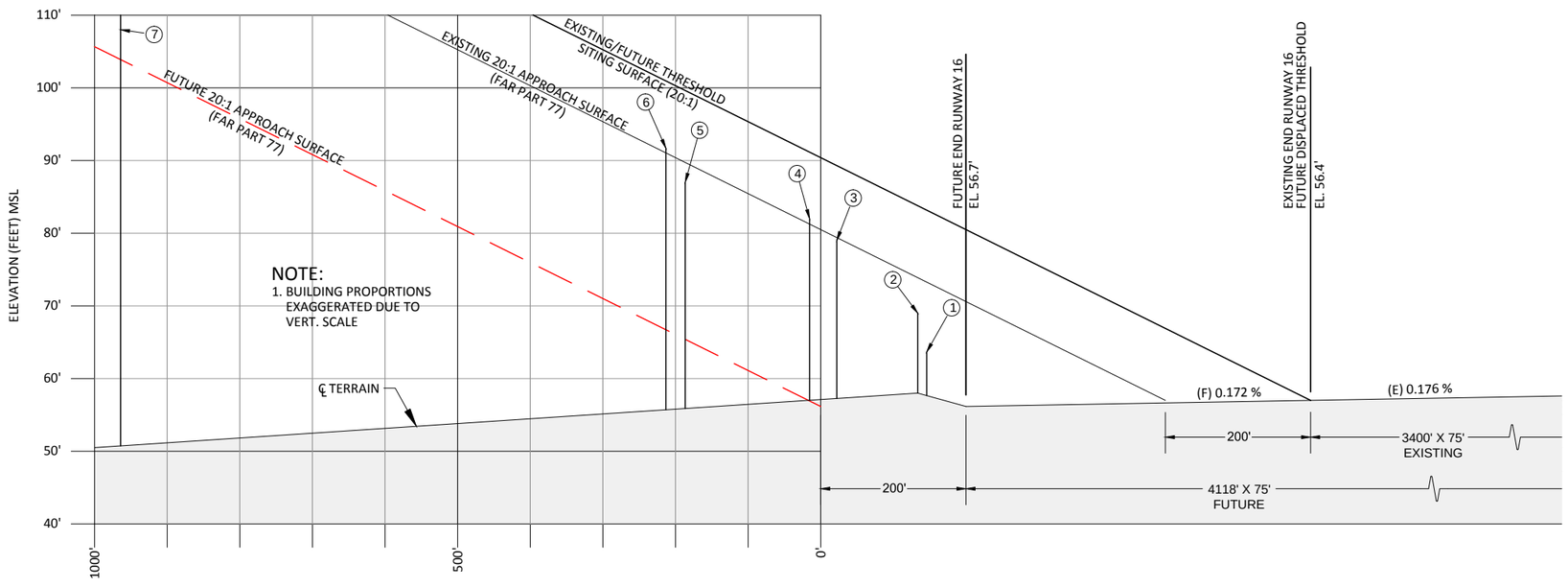




0' 100' 200'

Scale: 1"=100'

RUNWAY 16 PLAN VIEW



0' 10' 20'

Vertical Scale: 1"=10'

RUNWAY 16 PROFILE VIEW

0' 100' 200'

Horizontal Scale: 1"=100'

NOTES:

1. FUTURE RPZ LOCATION DETERMINED BY DECLARED DISTANCES TO MITIGATE ROAD AND OTHER OFF-AIRPORT LAND USES WITHIN EXISTING RPZ (NO CHANGE IN EXISTING CONDITIONS WITHIN RPZ, PER FAA GUIDANCE ON LAND USES IN RPZ'S).
2. FUTURE END OF RSA, OFA, AND OFZ AT RUNWAY 16 END LIMITED BY FIXED OBJECT FENCE. DECLARED DISTANCES AND DISPLACED THRESHOLD USE TO PROVIDE REQUIRED PROTECTED/CLEAR AREAS, FOR TAKEOFF AND LANDING OPERATIONS.
3. A-II RESERVE RPZ (500' X 700' X 1000') DEPICTED FOR REFERENCE. CONTINUED USE OF "SMALL AIRPLANES EXCLUSIVELY" RPZ (250' X 450' X 1000') SHOULD BE CONSIDERED FOR TYPICAL A-II SINGLE ENGINE TURBOPROPS (<12,000)
4. SEE SHEET (3 OF 12) FOR FULL LEGEND.
5. FUTURE RUNWAY LENGTHS AVAILABLE FOR TAKEOFF AND LANDING WILL BE LIMITED BY DECLARED DISTANCES (TO BE PUBLISHED A/FD). ADDITIONAL USEABLE RUNWAY PROVIDED BY BOTH ENDS TO BE CONFIGURED WITH DISPLACED THRESHOLDS.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

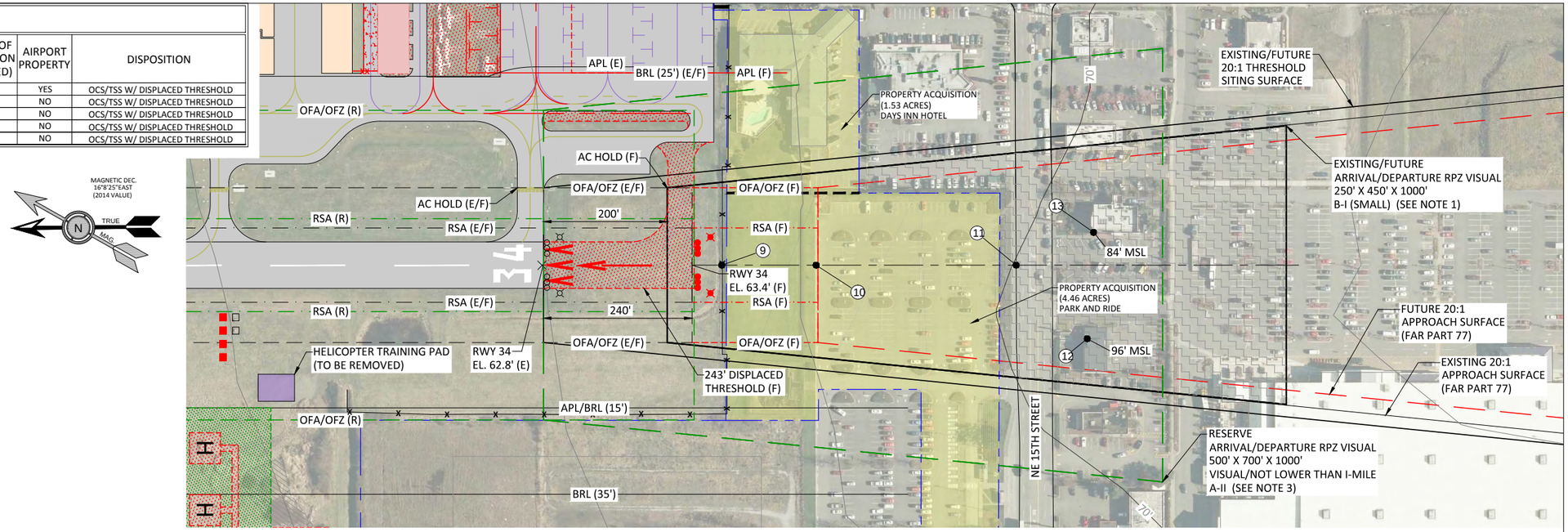
RUNWAY 16 RPZ AND INNER APPROACH PLAN AND PROFILE

FIGURE NO. -

SHEET NO. 7 OF 12

OBSTRUCTION CHART

NO.	ITEM	PART 77 SURFACE	MSL ELEV (EST.)	DISTANCE FROM RWY CL	DISTANCE FROM RWY END	AMOUNT OF PENETRATION (ESTIMATED)	AIRPORT PROPERTY	DISPOSITION
(9)	FENCE	APPROACH (RWY 34)	68'	0'	45'	4'	YES	OCS/TSS W/ DISPLACED THRESHOLD
(10)	PARKING LOT	APPROACH (RWY 34)	81'	0'	197'	15'	NO	OCS/TSS W/ DISPLACED THRESHOLD
(11)	NE 15TH STREET	APPROACH (RWY 34)	81'	0'	520'	2'	NO	OCS/TSS W/ DISPLACED THRESHOLD
(12)	BUILDING	APPROACH (RWY 34)	96'	119'	635'	11'	NO	OCS/TSS W/ DISPLACED THRESHOLD
(13)	BUILDING	APPROACH (RWY 34)	84'	53'	645'	0'	NO	OCS/TSS W/ DISPLACED THRESHOLD



0' 100' 200'

Scale: 1"=100'

RUNWAY 34 PLAN VIEW

0' 10' 20'

Vertical Scale: 1"=10'

RUNWAY 34 PROFILE VIEW

0' 100' 200'

Horizontal Scale: 1"=100'

NOTES:

1. FUTURE RPZ LOCATION DETERMINED BY DECLARED DISTANCES TO MITIGATE ROAD AND OTHER OFF-AIRPORT LAND USES WITHIN EXISTING RPZ (NO CHANGE IN EXISTING CONDITIONS WITHIN RPZ, PER FAA GUIDANCE ON LAND USES IN RPZ'S).
2. FUTURE END OF RSA, OFA, AND OFZ AT RUNWAY 16 END LIMITED BY FIXED OBJECT FENCE. DECLARED DISTANCES AND DISPLACED THRESHOLD USE TO PROVIDE REQUIRED PROTECTED/CLEAR AREAS, FOR TAKEOFF AND LANDING OPERATIONS.
3. A-II RESERVE RPZ (500' X 700' X 1000') DEPICTED FOR REFERENCE. CONTINUED USE OF "SMALL AIRPLANES EXCLUSIVELY" RPZ (250' X 450' X 1000') SHOULD BE CONSIDERED FOR TYPICAL A-II SINGLE ENGINE TURBOPROPS (<12,000).
4. SEE SHEET (3 OF 12) FOR FULL LEGEND.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" ■■■■■ 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN

DATE: MAY 2015

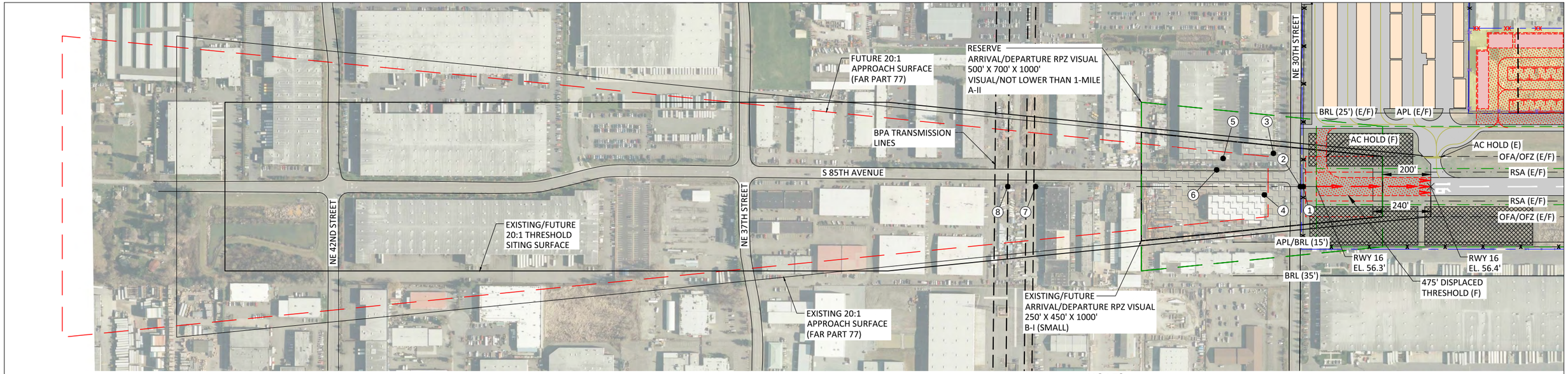
PROJECT NO: 12446001.01

AUBURN MUNICIPAL AIRPORT

RUNWAY 34 RPZ AND INNER APPROACH PLAN AND PROFILE

FIGURE NO. -

SHEET NO. 8 OF 12



0' 200' 400'

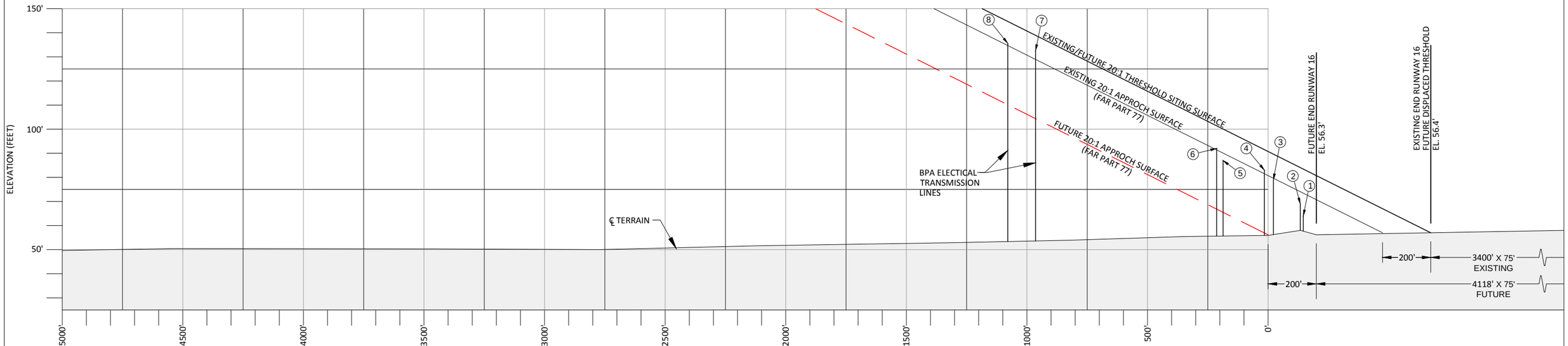
Scale: 1"=200'

RUNWAY 16 PLAN VIEW

SEE SHEET 6 OF 12 FOR OBSTRUCTION DETAIL (LIST)

NOTES:

1. TSS DIMENSIONS BASED ON DAY/NIGHT OPERATIONS FOR VISUAL RUNWAY (FAR PART 77); APPROACHES: CIRCLING PROCEDURES.
2. FUTURE RUNWAY 16 THRESHOLD (DISPLACED) TO MAINTAIN EXISTING APPROACH OBSTRUCTION CLEARANCE.
3. SEE SHEETS 6 & 7 FOR OBSTRUCTION DETAILS.



0' 20' 40'

Vertical Scale: 1"=20'

RUNWAY 16 PROFILE VIEW

0' 200' 400'

Horizontal Scale: 1"=200'

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

MAGNETIC DEC.
16°8'25"EAST
(2014 VALUE)

TRUE
MAG.

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

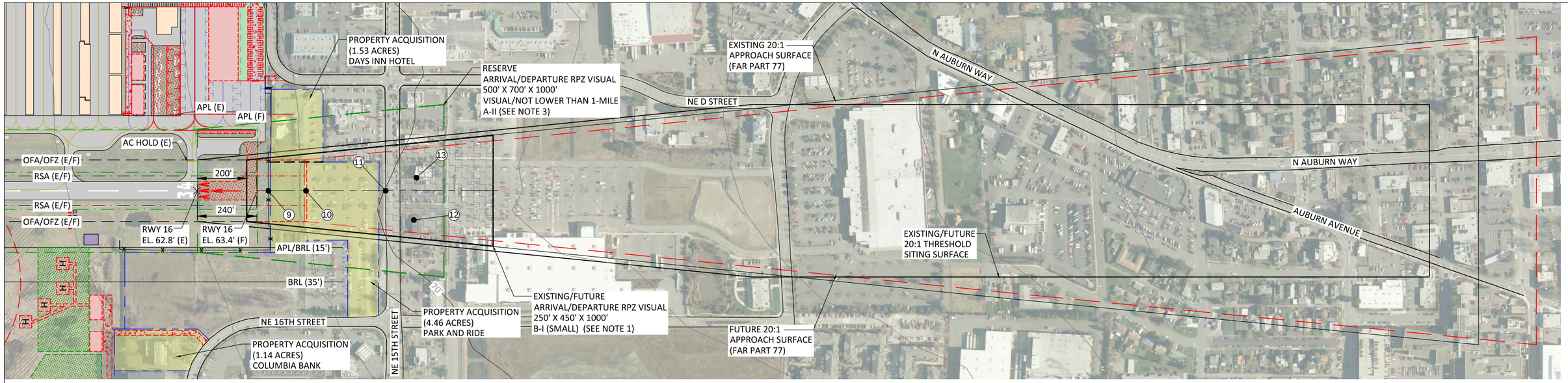
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

RUNWAY 16 APPROACH PLAN AND PROFILE

FIGURE NO.
-

SHEET NO.
9 OF 12



0' 200' 400'

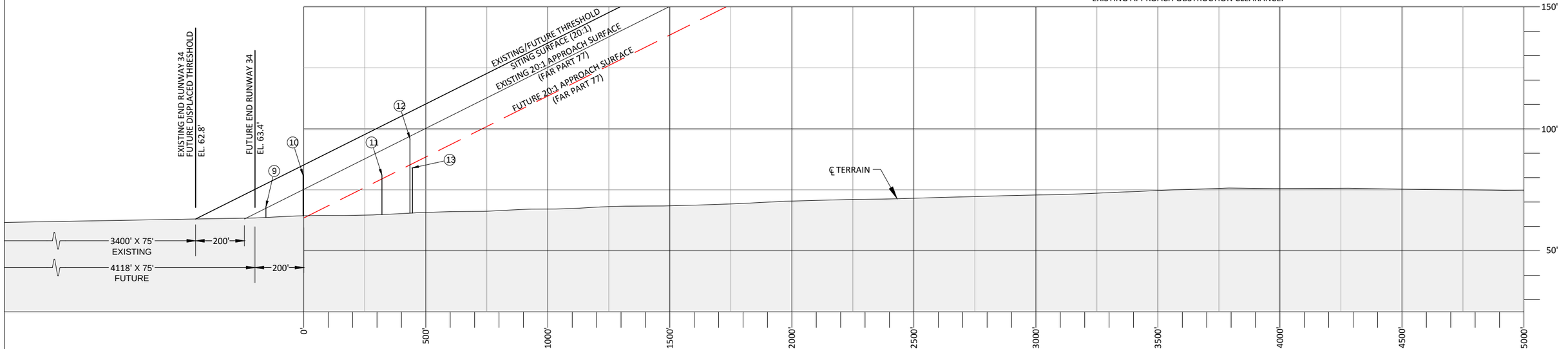
Scale: 1"=200'

RUNWAY 34 PLAN VIEW

SEE SHEET 6 OF 12 FOR OBSTRUCTION DETAIL (LIST)

NOTES:

1. TSS DIMENSIONS BASED ON DAY/NIGHT OPERATIONS FOR VISUAL RUNWAY (FAR PART 77); APPROACHES: CIRCLING PROCEDURES.
2. FUTURE RUNWAY 34 THRESHOLD (DISPLACED) TO MAINTAIN EXISTING APPROACH OBSTRUCTION CLEARANCE.
3. SEE SHEETS 6 & 8 FOR OBSTRUCTION DETAIL.



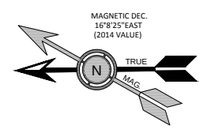
0' 20' 40'

Vertical Scale: 1"=20'

RUNWAY 34 PROFILE VIEW

0' 200' 400'

Horizontal Scale: 1"=200'



"THE PREPARAT1ON OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

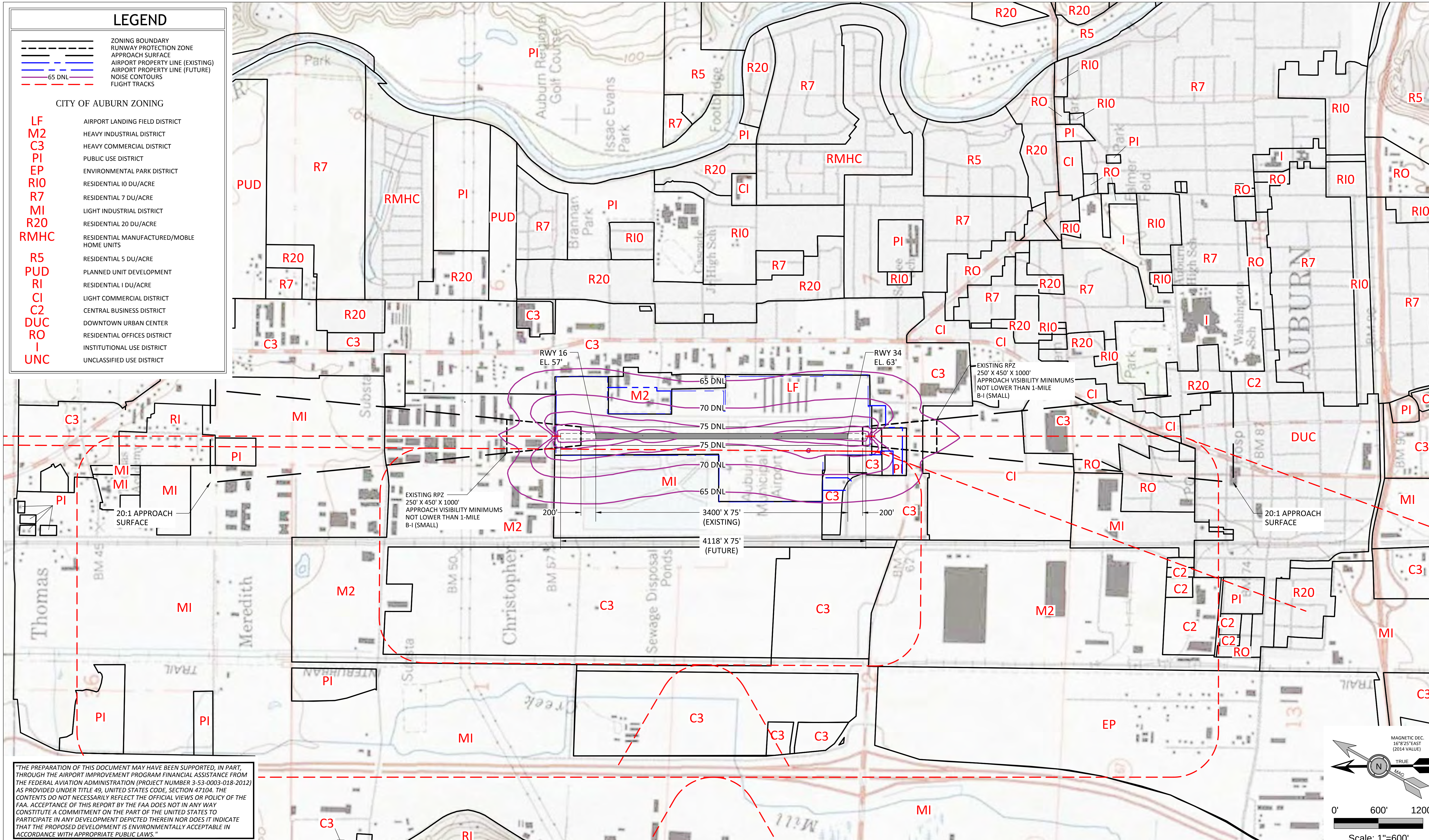
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

RUNWAY 16 APPROACH PLAN AND PROFILE

FIGURE NO. -

SHEET NO. 10 OF 12



LEGEND

- ZONING BOUNDARY
- RUNWAY PROTECTION ZONE
- APPROACH SURFACE
- AIRPORT PROPERTY LINE (EXISTING)
- AIRPORT PROPERTY LINE (FUTURE)
- 65 DNL — NOISE CONTOURS
- FLIGHT TRACKS

CITY OF AUBURN ZONING

LF	AIRPORT LANDING FIELD DISTRICT
M2	HEAVY INDUSTRIAL DISTRICT
C3	HEAVY COMMERCIAL DISTRICT
PI	PUBLIC USE DISTRICT
EP	ENVIRONMENTAL PARK DISTRICT
RI0	RESIDENTIAL I0 DU/ACRE
R7	RESIDENTIAL 7 DU/ACRE
MI	LIGHT INDUSTRIAL DISTRICT
R20	RESIDENTIAL 20 DU/ACRE
RMHC	RESIDENTIAL MANUFACTURED/MOBLE HOME UNITS
R5	RESIDENTIAL 5 DU/ACRE
PUD	PLANNED UNIT DEVELOPMENT
RI	RESIDENTIAL I DU/ACRE
CI	LIGHT COMMERCIAL DISTRICT
C2	CENTRAL BUSINESS DISTRICT
DUC	DOWNTOWN URBAN CENTER
RO	RESIDENTIAL OFFICES DISTRICT
I	INSTITUTIONAL USE DISTRICT
UNC	UNCLASSIFIED USE DISTRICT

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: ____________

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: ____________

SIGNATURE

CENTURY WEST
ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

LAND USE PLAN W/2032 NOISE CONTOURS

FIGURE NO.
-

SHEET NO.
11 OF 12

AIRPORT PROPERTY OWNERSHIP INFORMATION

FEE PARCELS	PRIOR OWNER	CURRENT OWNER	ACRES	DATE ACQUIRED	AUDITORS FILE NUMBER	ACQUISTION PURPOSE	FAA PROJECT NUMBER
1	AUBURN SEWER DEPT	CITY OF AUBURN		7/27/82	8207299002	AERONAUTICAL	5-53-0003-01 1978,1979 3-53-0003-01 1982
2	AUBURN STREET DEPT	CITY OF AUBURN	0.15	12/29/82	8212290512	AERONAUTICAL	
3	GARRETT	CITY OF AUBURN	22.05	3/17/97	9704030925	AERONAUTICAL	
4	VALLEY CENTER LLC	CITY OF AUBURN	2.98	03/06/98	9803061751	AERONAUTICAL	3-53-0003-08
5	AUBURN STREET DEPT	CITY OF AUBURN	0.34	12/11/86	8703100683	AERONAUTICAL	

PARCEL TO BE ACQUIRED	CURRENT OWNERSHIP	TOTAL ACRES	ACQUISITION PURPOSE
1	KING COUNTY DEPT OF TRANS	1.17	APPROACH

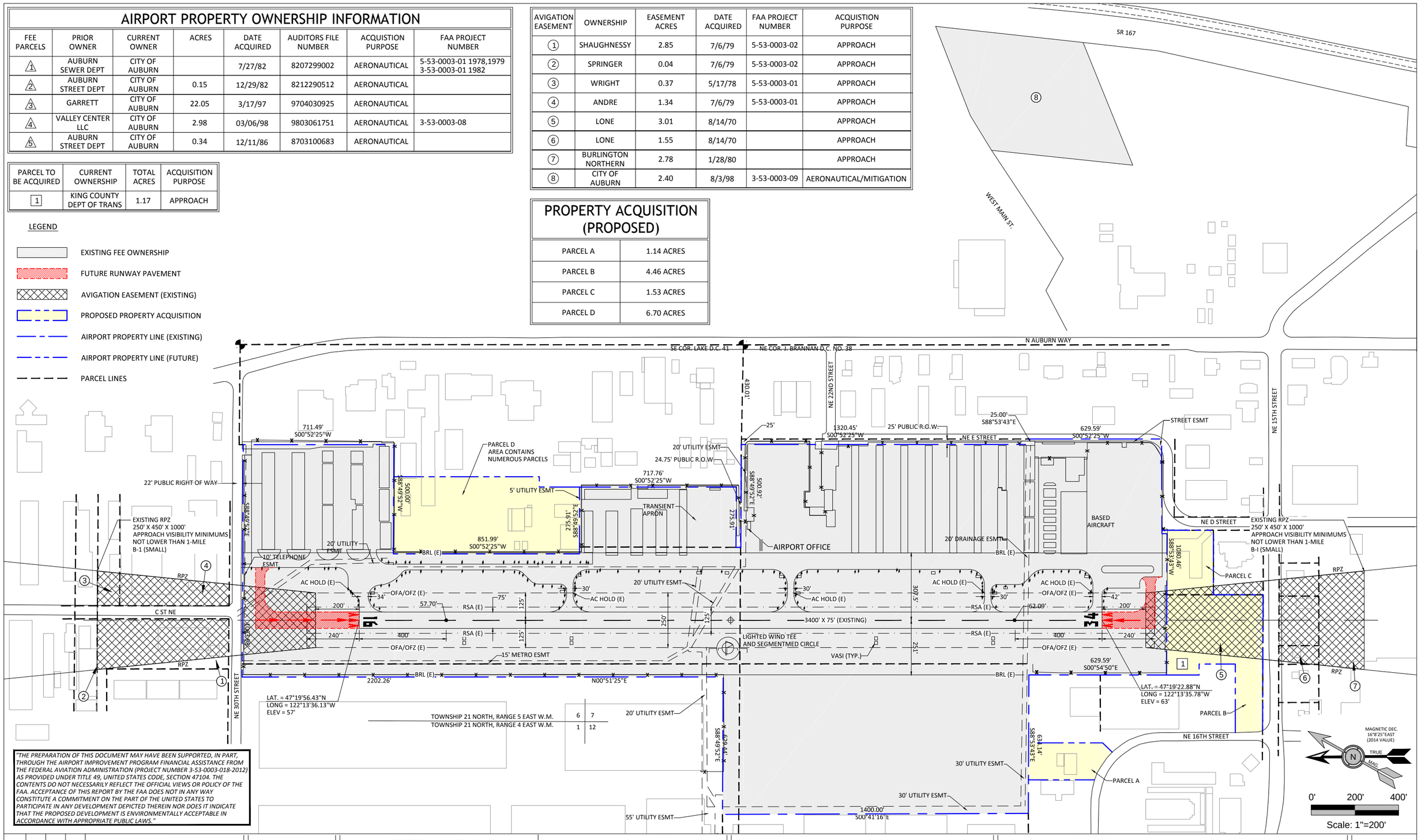
AVIGATION EASEMENT	OWNERSHIP	EASEMENT ACRES	DATE ACQUIRED	FAA PROJECT NUMBER	ACQUISTION PURPOSE
1	SHAUGHNESSY	2.85	7/6/79	5-53-0003-02	APPROACH
2	SPRINGER	0.04	7/6/79	5-53-0003-02	APPROACH
3	WRIGHT	0.37	5/17/78	5-53-0003-01	APPROACH
4	ANDRE	1.34	7/6/79	5-53-0003-01	APPROACH
5	LONE	3.01	8/14/70		APPROACH
6	LONE	1.55	8/14/70		APPROACH
7	BURLINGTON NORTHERN	2.78	1/28/80		APPROACH
8	CITY OF AUBURN	2.40	8/3/98	3-53-0003-09	AERONAUTICAL/MITIGATION

PROPERTY ACQUISITION (PROPOSED)

PARCEL A	1.14 ACRES
PARCEL B	4.46 ACRES
PARCEL C	1.53 ACRES
PARCEL D	6.70 ACRES

LEGEND

- EXISTING FEE OWNERSHIP
- FUTURE RUNWAY PAVEMENT
- AVIGATION EASEMENT (EXISTING)
- PROPOSED PROPERTY ACQUISITION
- AIRPORT PROPERTY LINE (EXISTING)
- AIRPORT PROPERTY LINE (FUTURE)
- PARCEL LINES



"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0003-018-2012) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	WMR	AS SHOWN
DATE: MAY 2015		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

EXHIBIT "A" AIRPORT PROPERTY PLAN

FIGURE NO. -

SHEET NO. 12 OF 12

Chapter 9 – Airport Land Use Compatability

Chapter 9 – Airport Land Use Compatability

Introduction

This chapter describes land use associated with Auburn Municipal Airport and its surroundings, land use controls and other issues related to airport compatibility and jurisdictional responsibilities. A summary of environmental conditions associated with the airport, including updated noise exposure is provided in Chapter Six and in **Appendices D, E and G**.

Government Roles in Airport Land Use

FEDERAL

The Federal Aviation Administration (FAA) does not have authority to regulate off airport land use, including the construction of built items. Land use regulation is a local responsibility and FAA has a technical advisory role based on its interest in protecting the airspace associated with an airport as part of the national airspace system. The FAA has a role in regulating on-airport land use through approval of the Airport Layout Plan (ALP) and airport sponsor compliance with FAA Airport Improvement Program (AIP) grant assurances, which include measures to maintain airport land use compatibility and to protect the aeronautical function of an airport by restricting the location of non-aviation land uses.

Under 14 Code of Federal Regulations (CFR), Part 77, the FAA has the authority to review proposed construction through its 7460-1 (Notice of Construction or Alteration) process. The FAA review

addresses compatibility both on and off airport based on the potential for creating a "hazard to air navigation" that is associated with obstructions/penetrations in defined airspace. FAA airspace reviews include FAR Part 77 surfaces; Terminal Instrument Procedures (TERPS) surfaces, visual runway traffic patterns, and visual navigation aid (e.g., VASI, PAPI, etc.) protected airspace. When a proposed structure penetrates navigable airspace, the FAA will issue a letter objecting to the proposed action (determination of presumed hazard to air navigation) for the consideration of local authorities. When proposed actions do not present a hazard to air navigation, a "no objection" finding is issued. It is important to note that this analysis is based on an obstruction evaluation and is not intended to address land use compatibility in terms of noise exposure or proximity to an airport or runway.

In cases where the airport sponsor is also the local land use authority, local land use actions are reviewed for compliance with the FAA grant assurances intended to protect airports from incompatible land uses.

The FAA recommends that local jurisdictions include the following language in their development codes: "Nothing in this chapter shall diminish the responsibility of project proponents to submit a Notice of Construction or Alteration to the Federal Aviation Administration if required in accordance with Federal Aviation Regulations Part 77, "Objects Affecting Navigable Airspace."

FAR Part 150 (Airport Noise Compatibility Planning) provides guidance for land use compatibility around airports. The 1990 Airport Noise and Capacity Act (ANCA) defines federal policy on the regulation of airport noise (operating curfews, aircraft restrictions, etc.), with the intent of standardizing noise controls throughout the national system.

STATE

Washington State's goals for land use planning are defined by the Growth Management Act (GMA), adopted by the Washington State Legislature in 1990. In 1996, the GMA was amended to assist in preserving the social and economic benefits of aviation. The GMA requires towns, cities and counties to address airport land use compatibility, and identifies airports as "essential public facilities."

The following summary developed by the WSDOT Aviation Division explains the intent of the Act:

"RCW 36.70.547 and RCW 36.70A.510 require all cities and counties to adopt comprehensive plan goals, policies and regulations to discourage development of incompatible land uses adjacent to public use airports. Local jurisdictions must consult with aviation interests, including WSDOT Aviation, when adopting comprehensive plan amendments to address airport land use compatibility during GMA updates, subject to the schedule designated by state law."

WSDOT Aviation Division reviews comprehensive plans and regulations; provides technical assistance on aviation issues; and provides land use compatibility guidelines to help local jurisdictions protect airports from incompatible uses. The Aviation Division recommends that local jurisdictions consider three primary areas in determining potential land use compatibility: height hazards, noise, and safety. The specific measures used by each jurisdiction are locally determined based on the guidelines provided by the

Aviation Division. Although local compliance with RCW 36.70 is required, the means and degree to which local jurisdictions (cities and counties) achieve compliance are not mandated.

It is recognized that an airport's surrounding land use may extend beyond the immediate jurisdiction to include unincorporated county land areas, or nearby municipalities. Since the responsibility for land use controls may involve more than one jurisdiction, it is critical that effective communication and coordination occur between the airport and all local jurisdictions.

The Washington Department of Transportation – Aviation Division (WSDOT Aviation) recommends that local land use jurisdictions develop practices that protect the airspace surrounding airports within the FAA Part 77 Airspaces and establish when it is appropriate to submit a FAA 7460-1 form prior to construction.

- This could be accomplished by incorporating FAR Part 77 airspace surface layers into GIS mapping to automatically flag land parcels located beneath a defined surface to determine whether a new development will penetrate the airspace.

- Require applicants for all proposed development located within the boundaries of the defined FAR Part 77 airspace surfaces to submit FAA Form 7460-1 Notice of Proposed Construction or Alternation and receive a "no hazard" finding from FAA, prior to issuing local permits.

Consider adding or modifying language to the Comprehensive Plan to strengthen airport protection:

- Establishing the airport as an Essential Public Facility "EPF", WAC 365-196-550 to protect the airport and surrounding areas. Cities and Counties should create their own lists of EPF to include the minimum set forth in RCW 36.70A.200.

- Include the airport in the Transportation System Inventory.

- Recognize the significance of the airport for economic development.

- Create policies that discourage the development of incompatible land uses adjacent to the airport.

LOCAL

The role of Local government is to ensure that their comprehensive plans, goals, policies and regulations discourage development of incompatible land uses near airports. As noted earlier, these rules are codified in the Revised Code of Washington (RCW) 36.70.547 and 36.70A.510 for all local jurisdictions.

Land Use Jurisdiction

The City of Auburn has land use authority for Auburn Municipal Airport and its immediate surroundings. Auburn Municipal Airport is situated on approximately 110 acres of land, approximately

two miles north of downtown Auburn. Two major highways are located within 1 to 2 miles of the airport. Highway 167 is approximately 4,400 feet west of the runway and Highway 18 is approximately 7,300 feet south of the runway.

The surrounding areas north, south, east and west of the City of Auburn are under the jurisdiction of King County or the adjacent municipalities of Kent, Algona, Federal Way and Pacific. **Figure 9-1** depicts the defined city limit boundaries and urban growth areas for the City of Auburn.

Comprehensive Plan Land Use

The City of Auburn's Comprehensive Plan is a guidance document which expresses City's long term vision for growth and development within the community. The Comprehensive Plan land use designation for Auburn Municipal Airport is **"Public and Quasi-Public"** use**,** which designates areas of significant size that provide public and quasi-public services to the community. There are three designations amongst the Public and Quasi-Public category, which the airport falls under the "Landing Field (LF)" category, which provides for the operation and management of the Auburn Municipal Airport. **Figure 9-1** depicts current City of Auburn Comprehensive Plan Land Use designations.

Zoning

Auburn City Code Title 18 - Zoning defines permitted/prohibited uses and development standards for buildings and improvements for land areas in the jurisdiction of the City of Auburn. **Figure 9-2** depicts current zoning within the City of Auburn.

Chapter 18.38 LF Airport Landing Field District defines development restrictions for Auburn Municipal Airport and also incorporates elements of airport overlay zoning (**18.38.040 Zones established generally**). The chapter includes specific airport elevation and other numeric references that will need to be updated upon adoption of the airport master plan. See **Appendix C** for ACC 18.38.

The **LF zone** defines **permitted uses** (18.38.020) for buildings, structures, or parcels of land which shall only be used for the following, unless otherwise noted:

A. Landing, taking off and flying of aircraft, excluding ultralights;

B. Businesses incidental to and necessary or convenient for airport operations, including offices, eating establishments, restrooms, hangars, shops for light repairs, gasoline and oil sales and accessory structures; and

C. Other uses as determined by the hearing examiner to be related to operation and use of the airport.

The **LF zone** defines **restricted uses** (18.38.030) as no use may be made of land within any airport zone in such a manner to create electrical interference with radio communication between the airport and

aircraft, making it difficult for fliers using the airport, impair visibility in the vicinity thereof, or otherwise endanger the landing, taking off or maneuvering of aircraft.

Airport Overlay Zone

Chapter 18.38.040-130 defines protected zones and height limitations that coincide with the runway's FAR Part 77 imaginary airspace surfaces (Approach, Transitional, Horizontal, and Conical surfaces) and runway obstacle free area. The FAR Part 77 Airspace for Auburn Municipal Airport is located primarily within the City of Auburn with a portion of the Conical surface extending over the City of Kent.

The City of Auburn has identified the zones surrounding the airport as having compatible land uses. Compatible meaning there is shown to be no significant risk to the safety of persons on the ground or inflight over the area of land. All development surrounding the airport must adhere to the Municipal Code Regulations. The City Planning Department will advise prior to future development and based on the structures proximity and height to the airport if the developer needs to file a FAA 7460-1 Form.

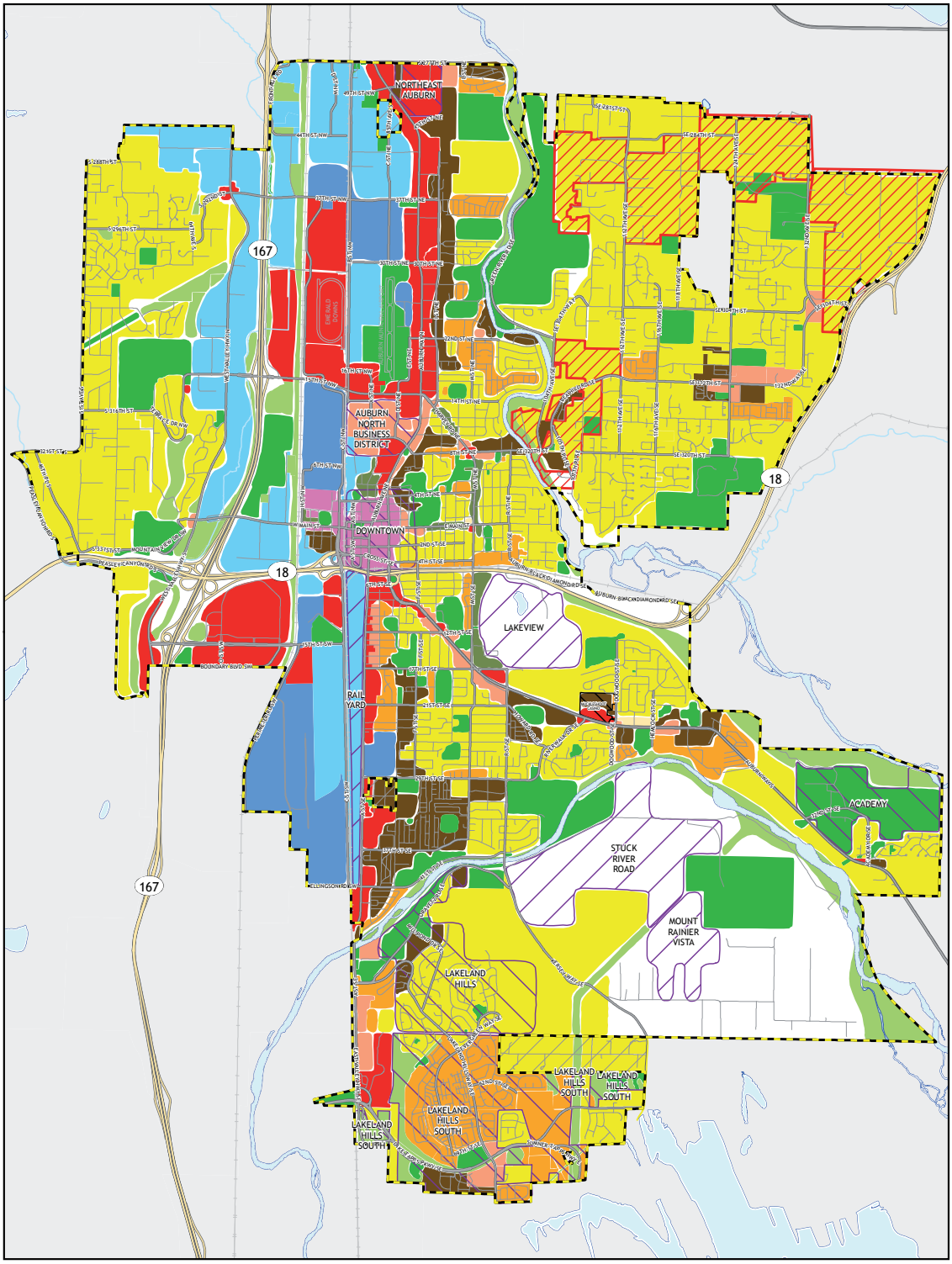
Airport Vicinity Zoning

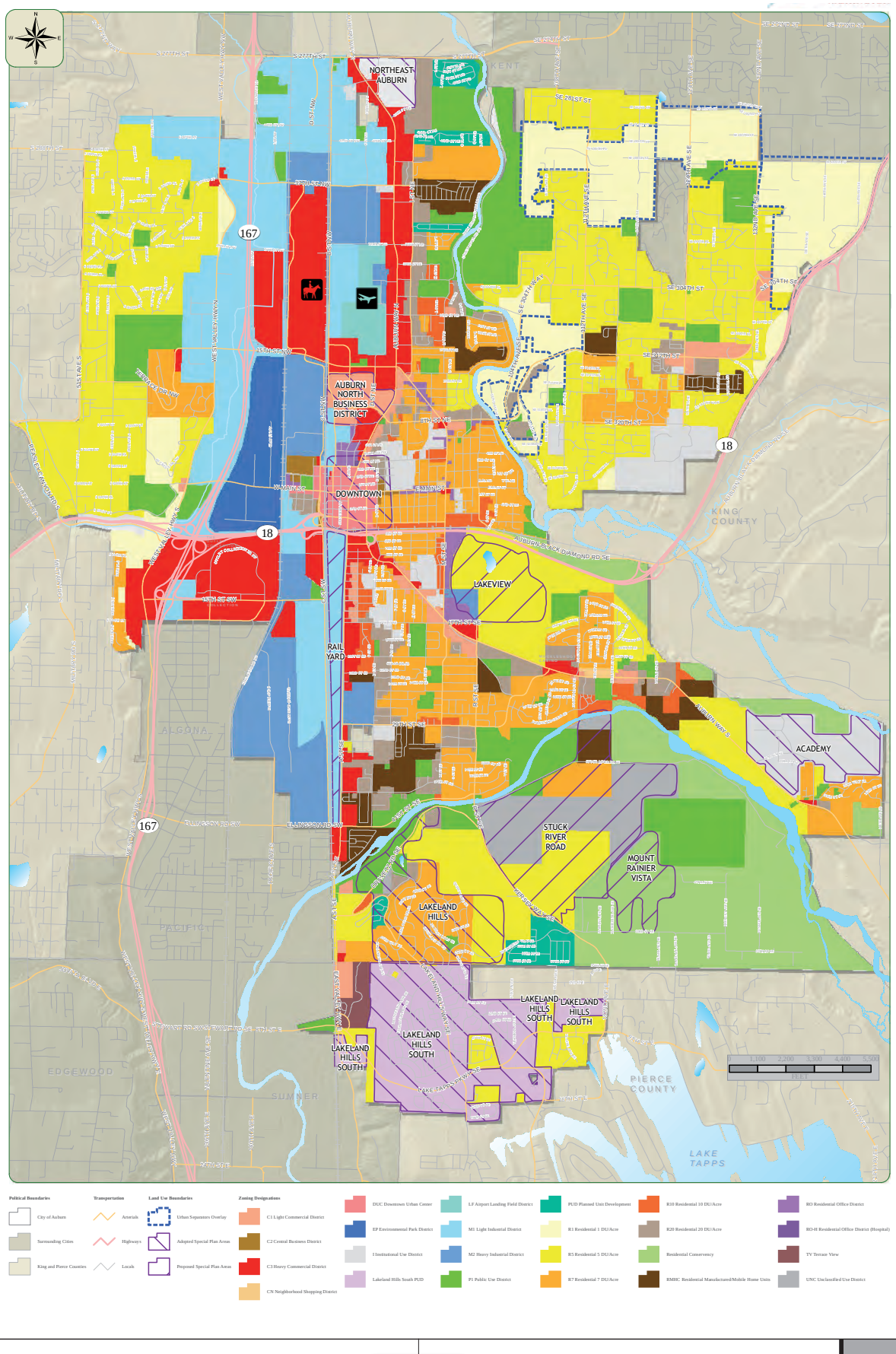
Chapter 18.23 Commercial and Industrial Zones defines development restrictions for the City's range of commercial and industrial areas. The primary zones surrounding the airport include of the **Light Industrial District (M1), Heavy Industrial District (M2), Light Commercial District (C1), Heavy Commercial District (C3) and Public Use District (P1)**. These zones have maximum height limitations set on them which aids in protecting the airspace surrounding the airport, varying between 45 feet and 75 feet.

Innovation Partnership Zone (IPZ)

The City of Auburn defined and adopted an Innovative Partnership Zone (IPZ) in 2011, which is designed to "create a sustainable model for business & product development, ultimately creating living wage jobs for our citizens and region!" "The Auburn IPZ is a complex business plan that brings the cutting-edge ideas and research programs of our great institution and partners them with the 'real world' of manufacturing and business which operates right here daily in Auburn." More information regarding IZP is on the City of Auburns website as well as on choosewashingtonstate.com.

Auburn Municipal Airport is located entirely within the IPZ boundary of the City; various other stakeholders are within the boundary including Boeing, Green River Community College, FedEx and Century Link. A summary of IPZ designation within the Auburn City Code is provided in **Appendix A.**


NORTHEAST AUBURN
AUBURN NORTH BUSINESS DISTRICT
DOWNTOWN
LAKEVIEW
RAIL YARD
STUCK RIVER ROAD
MOUNT RAINIER VISTA
ACADEMY
LAKELAND HILLS
LAKELAND HILLS SOUTH
167
18
Auburn City Limits
Potential Annexation Areas
Water Features
Adopted Special Plan Areas
Proposed Special Plan Areas
Residential Conservency
Single-Family Residential
Moderate Density Residential
High Density Residential
Office Residential
Neighborhood Commercial
Light Commercial
Heavy Commercial
Downtown
Light Industrial
Heavy Industrial
Public and Quasi-Public
Open Space
Urban Separators Overlay
0 1,000 2,000 3,000 4,000 5,000
FEET
N
W
E
S
Printed On: 01/06/10
Updated On: 01/06/10
Map ID: 1142
Ordinance No: 6280
Information shown is for general reference purposes only and does not necessarily represent exact geographic or cartographic data as mapped. The City of Auburn makes no warranty as to its accuracy.



AUBURN MUNICIPAL AIRPORT | AIRPORT MASTER PLAN

CITY OF AUBURN ZONING | **FIG. 9-2**

CENTURY WEST ENGINEERING CORPORATION

Chapter 10 – FAA Compliance Review

Chapter 10 – FAA Compliance Review

This chapter discusses the elements associated with the operation and management of Auburn Municipal Airport, as a federally-obligated airport. The Federal Aviation Administration (FAA) encourages airport sponsors to establish and implement programs that promote sound operating practices and ongoing compliance with regulatory requirements. The FAA currently recommends that compliance be addressed during the airport planning process through the review of airport documents; plans, and other records, such as an approved ALP, Exhibit" A" Property Map, Airport Ordinance, Zoning Ordinance, Rules and Regulations, Minimum Standards, airport budgets, leases, easements, permits, and other documents.

City of Auburn Compliance

The City of Auburn maintains a high degree of control over the operation of Auburn Municipal Airport. The City meets all applicable financial reporting and record keeping requirements and employs a variety of "best practices" including periodic review of market rates and fees; land appraisals, formal procurement and contracting practices, coordination with adjacent land owners (avigation easements), local government (land use planning, zoning), state government (airport overlay zoning, environmental agencies, etc.), and tribal government.

There are no known compliance issues associated with airport development, tenant leases, airport land uses or other items. However, as the City moves forward with future airport development, a review is recommended of existing agreements between the City of Auburn and adjacent property owners to

accommodate stormwater generated off site in detention ponds constructed on the north end of airport property. The review should examine the terms of the original agreement and the current financial structure associated with the improvements. A review of all compensation paid to the City stormwater and airport funds through initial development of the stormwater facility and through ongoing leasing of airport property is recommended to ensure that the airport has, and continues to receive the equivalent to "fair market value" for the non-aviation use of airport land. In the event that past use of airport land to accommodate off-airport stormwater management impacts the airport's ability to accommodate additional stormwater generated by future airfield improvements, consideration may be given to modifying existing systems or seeking off-site stormwater management solutions for the airport, which would not typically be eligible for FAA funding. The original documentation associated with the stormwater detention ponds is provided in **Appendix H.**

FAA Compliance Overview

A management program based on the FAA's "Planning for Compliance" guidance and the adoption of airport management "Best Practices" is recommended to address FAA compliance requirements and avoid noncompliance, which could have significant consequences.

Airport management "Best Practices" are developed to provide timely information and guidance related to good management practices and safe airport operations for airport managers and sponsors. The practices outlined herein are designed for use by the City of Auburn for evaluating and improving their current and future operation and management program.

Airport sponsors must comply with various federal obligations through agreements and/or property conveyances. These are outlined in FAA Order 5190.6B, Airport Compliance Manual. The contractual federal obligations that a sponsor accepts when receiving federal grant funds or transfer of federal property can be found in a variety of documents including:

- Grant agreements issued under the Federal Airport Act of 1946, the Airport and Airway Development Act of 1970, and Airport lmprovement Act of 1982. Included in these agreement are the requirement for airport sponsors to comply with:
    - Grant Assurances
    - Advisory Circulars
    - Application commitments
    - FAR procedures and submittals
    - Special conditions
- Surplus airport property instruments of transfer
- Deeds of conveyance
- Commitments in environmental documents prepared in accordance with FAA requirements.
- Separate written requirements between a sponsor and the FAA.

Land use compliance and compatible land use planning is often a significant compliance issue for airports. Compliance and suggested best practices are discussed under the following subheadings in this chapter:

- Airport Compliance with Federal and State Grant Assurances
- Environmental Compliance
- Airport User Compliance
- Other Airport Operational Policies and Procedures

Airport Compliance with Grant Assurances

As a recipient of both federal and state airport improvement grant funds, the City of Auburn is contractually bound to various sponsor obligations referred to as "Grant Assurances", that have been put together by the FAA and the Washington Department of Transportation – Aviation Division. These obligations, presented in detail in federal and state grants and state statute and administrative code, document the commitments made by the airport sponsor to fulfill the intent of the grantor (FAA and State of Washington) required in association with acceptance necessary of federal and/or state funding for airport improvements. Failure to comply with the grant assurances may result in a finding of noncompliance and/or forfeiture of future funding. Grant assurances and their associated requirements are to protect the significant investment made by the FAA, state and the City, to preserve and maintain the nation's airports as a valuable national transportation asset, as mandated by Congress.

FAA GRANT ASSURANCES

The FAA's Airport Compliance Program defines the interpretation, administration, and oversight of federal sponsor obligations contained in grant assurances. Currently **FAA Order 5190.6B,** Airport Compliance Manual, defines policies and procedures for the Airport Compliance Program. Although it is not regulatory or controlling with regard to airport sponsor conduct, it establishes the policies and procedures for FAA personnel to follow in carrying out the FAA's responsibilities for ensuring compliance by the sponsor.

Order 5190.6B states: the FAA Airport Compliance Program is, "…designed to monitor and enforce obligations agreed to by airport sponsors in exchange for valuable benefits and rights granted by the United States in return for substantial direct grants of funds and for conveyances of federal property for airport purposes. The Airport Compliance Program is designed to protect the public interest in civil aviation. Grants and property conveyances are made in exchange for binding commitments (federal obligations) designed to ensure that the public interest in civil aviation will be served. The FAA bears the important responsibility of seeing that these commitments are met. This Order addresses the types of commitments, how they apply to airports and what FAA personnel are required to do to enforce them."

To better understand the intent of the FAA Compliance Program, it is important to understand the FAA's goals for a national airport system. The national airport system is currently known as the National Plan of

Integrated Airport Systems (NPIAS), which has historic origins dating back to the 1946 Federal Airports Act. The airport system has evolved through several legislative updates in concert with changes in the organization and scope of the Federal Aviation Administration (FAA). The NPIAS was adopted as part of the Airport and Airway Development Act of 1982, replacing the National Airspace System Plan (NASP), created by earlier legislation. There are approximately 2,500 general aviation airports and 800 commercial service airports in the NPIAS.

According to the FAA, cooperation between the FAA, state and local agencies should result in an airport system with the following attributes:

- Airports should be safe and efficient, located at optimum sites, and be developed and maintained to appropriate standards.
- Airports should be operated efficiently both for aeronautical users and the government, relying primarily on user fees and placing minimal burden on the general revenues of the local, state, and federal governments.
- Airports should be flexible and expandable, able to meet increased demand and accommodate new aircraft types.
- Airports should be permanent, with assurance that they will remain open for aeronautical use over the long term
- Airports should be compatible with surrounding communities, maintaining a balance between the needs of aviation and the requirements of residents in neighboring areas.
- Airports should be developed in convert with improvements to the air traffic control system
- The airport system should support national objectives for defense, emergency readiness, and postal delivery
- The airport system should be extensive, providing as many people as possible with convenient access to air transportation, typically not more than 20 miles of travel to the nearest NPIAS airport
- The airport system should help air transportation contribute to a productive national economy and international competitiveness.

FAA AIP grant assurances are summarized and categorized in **Table 10-1**. While Sponsors should understand and comply with all grant assurances, there are several assurances that are common and recurring issues for airport sponsors throughout the country. These are summarized in more detail below. A complete description of current AIP grant assurances is provided in **Appendix I**. It is important to note that the assurances (and corresponding numbers) are applied to Non-Airport Sponsors Undertaking Noise Compatibility Program Projects and Planning Agency Sponsors. These can also be found in the Airport Improvement Program under Grant Assurances.

TABLE 10-1: SUMMARY OF FAA AIP GRANT ASSURANCES (AIRPORT SPONSOR ASSURANCES 3/2014)

GRANT ASSURANCE NO.	GENERAL AIRPORT	PROJECT PLANNING / DESIGN & CONTRACTING	AIRPORT OPERATIONS AND LAND USE	DAY TO DAY AIRPORT MANAGEMENT	PROJECT CONSTRUCTION	LEASES & FINANCIAL	OTHER
1. General Federal Requirements							
2. Responsibility and Authority of the Sponsor							
3. Sponsor Fund Availability							
4. Good Title							
5. Preserving Rights and Powers							
6. Consistency with Local Plans							
7. Consideration of Local Interest							
8. Consultation with Users							
9. Public Hearings							
10. Metropolitan Planning Organization							
11. Pavement Preventative Maintenance							
12. Terminal Development Prerequisites							
13. Accounting System, Audit, and Record Keeping Requirements							
14. Minimum Wage Rates							
15. Veteran's Preference							

GRANT ASSURANCE NO.	GENERAL AIRPORT	PROJECT PLANNING / DESIGN & CONTRACTING	AIRPORT OPERATIONS AND LAND USE	DAY TO DAY AIRPORT MANAGEMENT	PROJECT CONSTRUCTION	LEASES & FINANCIAL	OTHER
16. Conformity to Plans and Specifications		■					
17. Construction Inspection and Approval					■		
18. Planning Projects		■					
19. Operations and Maintenance			■				
20. Hazard Removal and Mitigation			■				
21. Compatible Land Use			■				
22. Economic Nondiscrimination				■			
23. Exclusive Rights				■			
24. Fee and Rental Structure						■	
25. Airport Revenues						■	
26. Reports and Inspections				■			
27. Use by Government Aircraft							■
28. Land for Federal Facilities							■
29. Airport Layout Plans	■						
30. Civil Rights		■					
31. Disposal of Land	■						

GRANT ASSURANCE NO.	GENERAL AIRPORT	PROJECT PLANNING / DESIGN & CONTRACTING	AIRPORT OPERATIONS AND LAND USE	DAY TO DAY AIRPORT MANAGEMENT	PROJECT CONSTRUCTION	LEASES & FINANCIAL	OTHER
32. Engineering and Design Services		■			■		
33. Foreign Market Restrictions		■					
34. Policies, Standards and Specifications		■					
35. Relocation and Real Property Acquisition		■					
36. Access by Intercity Bus							■
37. Disadvantaged Business Enterprises		■			■		
38. Hangar Construction				■			
39. Competitive Access							■

As the airport sponsor, the City of Auburn is responsible for the direct control and operation of Auburn Municipal Airport. Familiarity with, proper monitoring and implementation of sponsor obligations and FAA grant assurances in particular, is the key to maintaining compliance. FAA Order 5190.6B and ongoing communication with the FAA Northwest Mountain Region Compliance Office are both excellent resources for the City when addressing policy and compliance.

DURATION

The terms, conditions and assurance of a grant agreement with the FAA remain in effect for the useful life of a development project, which is typically 20 years from the receipt of the last grant. However, terms, conditions and assurances associated with land purchased with federal funds do not expire.

The airport sponsor should have a clear understanding of and comply with all assurances. The following sections describe the selected assurances in more detail.

Project Planning/Design and Contracting

Sponsor Fund Availability (Assurance # 3)

Once a grant is given to an airport sponsor, the receiving sponsor commits to providing the funding to cover their portion of the total project cost. Currently this amount is ten percent of the total eligible project cost, although it may be higher depending on the particular project components or makeup. Once the project has been completed, the receiving airport also commits to having adequate funds to maintain and operate the airport in the appropriate manner to protect the investment in accordance with the terms of the assurances attached to and made a part of the grant agreement.

Consistency with Local Plans (Assurance #6)

All projects must be consistent with city and county comprehensive plans, transportation plans, zoning ordinances development code, and hazard mitigation plans. The airport sponsor and planners should all familiarize themselves with local planning documents before a project is considered and ensure that all projects follow local plans and ordinances.

In addition to understanding local plans, airport sponsors should be proactive in order to prevent noncompliance with this assurance. The airport sponsor should assist in the development of local plans that incorporate the airport and consider its unique aviation related needs. Sponsor efforts should include the development of goals, policies and implementation strategies to protect the airport as part of local plans and ordinances.

Accounting System Audit and Record Keeping (Assurance# 13)

All project accounts and records must be made available at any time. Records should include documentation of cost, how monies were actually spent, funds paid by other sources and any other financial record associated with the project at hand. Any books, records, documents or papers that pertain to the project should be available at all times for an audit or examination.

General Airport

Good title (Assurance #4)

The airport owner must have a Good Title to affected property when considering projects associated with land, building or equipment. Good Title means the sponsor can show complete ownership of the property without any legal questions, or show it will soon be acquired.

Preserving Rights and Powers (Assurance #5)

No actions are allowed which might take away any rights or powers from the sponsor which are necessary for the sponsor to perform or fulfill any condition set forth by the assurance included as part of the grant agreement. If there is an action taken or activity permitted that might hinder any of those rights or powers

it should be discontinued. An example of an action which can adversely affect the rights and powers of the airport is a Through-the-Fence (TTF) activity. TTF activities allow access to airport facilities from off-airport users. In many instances, the airport sponsor cannot control the activities of those operating off the airport resulting in less sponsor control. This loss of control can potentially have an adverse impact to airport users. For example, TTF activities many times do not pay the same rates and charges as on-airport users, resulting in an unfair competitive advantage for business/users located off-airport versus those on-airport.

Airport Layout Plan (ALP) (Assurance #29)

The airport should at all times keep an up-to-date ALP which should include on it both current and future boundaries, facilities/structures, and the location of any non-aviation areas and existing improvements. No changes should be made at the airport to hinder the safety of operations; also no changes should be made to the airport that is not in conformity with the ALP. Any changes of this nature could adversely affect the safety, utility or efficiency of the airport. lf any changes are made to the airport without authorization the alteration must be changed back to their original condition or the airport will have to bear all cost associated with moving or changing the alteration to an acceptable design or location. Additionally no federal participation will occur for improvement projects not shown on an approved ALP.

Disposal of Land (Assurance #31)

Land purchased with the financial participation of an FAA Grant cannot be sold or disposed of by the airport sponsor at their sole discretion. Disposal of such lands are subject to FAA approval and a definitive process established by the FAA. If airport land is no longer considered necessary for airport purposes, and the sale is authorized by the FAA, the land must be sold at fair market value. Proceeds from the sale of the land must either be repaid to the FAA or reinvested in to another eligible airport improvement or noise compatibility project. Land disposal requirements typically arise when a community is building a new airport and the land on which the airport was located is sold with the proceeds used to offset costs of the new airport. In general, land purchased with FAA funds is rarely sold by a sponsor.

<u>Airport Operations and Land Use</u>

Pavement Preventative Maintenance (Assurance #11)

Since January 1995, the FAA has mandated that it will only give a grant for airport pavement replacement or reconstruction projects if an effective airport pavement maintenance-management program is in place. The program should identify the maintenance of all pavements funded with federal financial assistance. The report provides a pavement condition index (PCl) rating (0 to 100) for various section of aprons, runways, taxiways, and a score for overall airport pavements.

Operations and Maintenance (Assurance #19)

All federally funded airport facilities must operate at all times in a safe and serviceable manner. The airport sponsor should not allow for any activities which inhibit or prevent this. The airport sponsor must always promptly mark and light any hazards on the airport, and promptly issue Notices to Airmen (NOTAMs) to advise of any conditions which could affect safe aeronautical use. Exceptions to this assurance include when temporary weather conditions make it unreasonable to maintain the airport. Further, this assurance does not require the airport sponsor to repair conditions which have happened because of a situation beyond the control of the sponsor.

Compatible Land Use (Assurance #21)

Land uses around an airport should be planned and implemented in a manner which ensures surrounding development and activities are compatible with the airport. To ensure compatibility, the sponsor is expected to take appropriate action, to the extent reasonable, including the adoption of zoning laws to guide land use in the vicinity of airports under their jurisdiction. Incompatible land use around airports represents one of the greatest threats to the future viability of airports.

Day to Day Airport Management

Economic Non-Discrimination (Assurance #22)

Any reasonable aeronautical activity offering service to the public should be permitted to operate at the airport as long as the activity complies with airport established standards for that activity. Any contractor agreement made with the airport will have provisions making certain the person, firm or corporation will not be discriminatory when it comes to services rendered as well as rates or prices charged to customers. Provisions include:

- All FBOs on the airport should be subject to the same rate fees, rentals and other charges.
- All persons, firms or corporations operating aircraft can work on their own aircraft with their own employees.
- If the airport sponsor at any time exercises the rights and privileges of this assurance they will be under all of the same conditions as any other airport user would be.
- The sponsor can establish fair conditions which need to be met by all airport users to make the airport safer and more efficient.

The sponsor can prohibit any type, kind or class of aeronautical activity if it is for the safety of the airport. An example of an activity which may be considered for prohibition is sky diving. It is important to point out that the FAA will review such prohibitions and will make the final determination as to whether or not a particular activity type is deemed unsafe at the airport based on current operational dynamics.

Exclusive Rights (Assurance #23)

Exclusive Rights at an airport is often a complicated subject usually specific to individual airport situations. The assurance states the sponsor "will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public..." There are exceptions to this rule. If the airport sponsor can prove that permitting a similar business would be unreasonably costly, impractical or result in a safety concern, the sponsor may consider granting an exclusive right. To deny a business opportunity because of safety, the sponsor must demonstrate how that particular business will compromise safety at the airport. Exclusive rights are very often found in airport relationships with fixed base operations (FBO) but exclusive rights can also be established with any other business at the airport which could assist in the operation of an aircraft at the airport. If an unapproved exclusive rights agreement exists it must be dissolved before a future federal grant is awarded to the airport.

If a sponsor is contemplating denial of a business use at the airport, it is strongly encouraged that they contact their FAA ADO in order to ensure that they have all necessary information and that denial of access is not going to be seen as unjust discrimination. For more in depth information on exclusive rights reference Advisory Circular 150/5190-6, "Exclusive Rights at Federally Obligated Airports."

Leases and Financial

Fee and Rental Structure (Assurance #24)

Simply put, the fee and rental structure at the airport must be implemented with the goal of generating enough revenue from airport related fees and rents to become self-sufficient in funding day to day operational needs. The airport sponsor should routinely monitor its fee and rental structure to ensure reasonable fees are being charged to meet this goal. Common fees charged by airports include fuel flowage, tie-down, and landing fees and hangar rent.

Airport Revenue (Assurance #25)

All airport revenue and local taxes on aviation fuel should be used toward the operating costs of the airport, the local airport system, or other local facilities which are owned by the same owner of the airport which will directly impact air transportation passengers or property or for noise mitigation on or off airport property. In other words, revenue generated by airport activities must be used to support the continued operation and maintenance of the airport. Use of airport revenue to support or subsidize other non-aviation activities or functions of the sponsor is not allowed and is considered revenue diversion. Revenue diversion is a significant compliance issue subject to cause scrutiny by the FAA.

Other FAA Compliance Requirements

OTHER FEDERAL CONTRACTING AND PROCUREMENT DOCUMENTS

When an airport sponsor accepts an FAA Airport improvement Program (AIP) grant, they agree to adhere to all applicable federal contracting and procurement requirements. Advisory circulars are required for use in AIP funded projects. Included in each grant request is a federal funding checklist that identifies the requirements an airport should consider before accepting the grant. The following items are noted in the checklist:

- ALPs should be up to date
- Exhibit A Property Map may need to be updated if acquiring additional property
- Land Inventory may need to be updated if you have recently acquired land with federal assistance
- Airports must hold good title to the airport landing area
- Appropriate signage and markings must be in place
- RPZ and approach surface deficiencies must be identified and steps to address deficiencies must be noted
- RSAs must meet FAA standards if planning a runway project
- DBE program goals must be met on projects more than $250,000
- Procedures should be in place to handle bid protests
- Open AIP grant projects need to be identified
- Project closeout form must be submitted within 90 days of work completion
- A "Certification of Economic Justification" must be included for routine pavement maintenance projects
- A "Revenue Generating Facility Eligibility Evaluation" must be completed for hangar constructing or fueling facilities
- A "Reimbursable Agreement" and "Non-Fed Coordination" must be completed for navigational aid projects
- A "Relocation Plan" must be completed if a project requires residences or businesses to be relocated

SPECIAL CONDITIONS

In addition to the standard grant assurances discussed above, the state or the FAA may require "Special Conditions" to individual grants which supplement or expand the standard grant assurances. Special Conditions are unique to an individual airport and can be project or administrative in nature. Airport sponsors need to be aware of such conditions that may be applied to their airport.

MULTIJURISDICTIONAL CHALLENGES

In some instances, airports are jointly owned and operated by more than one airport sponsor. In other instances, airports may be located within multiple jurisdictions. While the official airport sponsor is ultimately responsible for adherence with the grant assurance, the actions, or inactions, of surrounding

jurisdictions can and do impact the airport sponsor's ability in meeting its sponsor obligations. This is particularly true with land use compatibility issues around airports. As a result, it is important in either circumstance that all jurisdictions affected by the airport understand the operational needs and complexities of having an airport within its jurisdiction. Mutual agreements addressing airport operational or land use protection needs, or other cooperative measures, are recommended by all jurisdictions to both protect the functionality of the airport as well as the safety and well-being of airport user and neighbors.

WSDOT Aviation Division Grant Assurances

In 2013, WSDOT Aviation adopted new grant assurances (WAC Chapter 468-260) for airport sponsors that are intended to protect the public's investment in the Washington aviation system. The WSDOT grant assurances apply to both NPIAS and non-NPIAS airports that receive funding through the WSDOT Airport Aid Grant Program. The WSDOT grant assurances are consistent and complimentary to FAA grant assurances with a significant emphasis placed on land use planning, public process, and environmental stewardship.

A summary of WSDOT grant assurances is provided in **Appendix J**.

Appendix A

IPZ Business Plan

1. Mission:

The mission of Auburn's Urban Center for Innovative Partnerships is to support a vibrant vital economy for the City of Auburn, our local region and the State of Washington. Encouraging the adaption of warehouse districts to mixed use, market-affordable technology clusters and facilitating collaborative partnering among private sector employers, research partners, and programmed workforce development, the IPZ will implement a multi-phased plan across a variety of business sectors beginning with Ecosystems and Rainwater Management. These collaborative clusters will realize new businesses and products; expand our existing knowledge based middle-wage jobs while creating new higher paying employment opportunities for the citizens of our City. Through new partnerships and the clustering of entrepreneurs, ideas will flourish, manufacturing efficiencies will be developed and our diverse business community will expand, creating investment opportunities, new technologies and the general growth of our economy.

2. Goals:

The focal point the State's overall IPZ program is as a resource development tool for general economic development within this zone, the City of Auburn and throughout the State of Washington. Specifically for the City of Auburn our primary goal is job creation for our citizens and the general economic development of our City as a regional center for business enterprise and technology.

Historically, Auburn has developed as a manufacturing center and as a hub for supply/distribution warehouse space. Some of this IPZ's existing businesses and clusters surround advanced technology/high-wage employment manufacturing; the greater percentage of Auburn industry is made up of solid, well established manufacturing clusters employing a significant number of knowledge-based middle-wage workers.

A certain goal of this Innovation Partnership Zone is to capitalize on our diverse manufacturing technology clusters and through the introduction of research partnering, encourage their expansion and development; another goal will be to maximize efficiencies within our supply chain warehousing/distribution industries; and a third and critically important goal will be to persuade our Auburn property owners to encourage the conversion of warehouse inventory to new market-affordable, mid to high-wage employment technology clusters.

In addition, our overall goals also emphasize the creation of marketable products, business retention and expansion, the formation of new business partnerships (including the diversification of manufactures across traditional business lines) and the creation of new technological advances.

3. Leadership/Governance:

a. Administrator:
The IPZ Administrator shall be the Economic Development Manager for the City of Auburn. As administrator he/she will be responsible for day-to-day implementation of this business plan including its Mission, Goals, as well as the general overall success of the IPZ program. The Administrator shall work with the Management Team to promote the economic sustainability of the IPZ and its partners. Further, the Administrator shall actively work to assist existing business organizations within the zone, introduce new partnerships, encourage creativity and fresh ideas, and to promote Auburn as a destination for new businesses and clusters.

b. Management Team:
The Management Team of the Auburn IPZ will include a representative of the following:

- Mayor – Nancy Backus
- Economic Development Manager/Zone Administrator – **Douglas Lein**
- Assistanct Director of Community Development Services – **Jeff Tate**

c. IPZ Advisory Board:
The Management Team shall select representatives to serve as an IPZ Advisory Board. The Board shall consist of 14 members representing the following categories:

- 2 members - City of Auburn City Council
- 1 member - Auburn Area Chamber of Commerce
- 1 member - Washington State University
- 1 member - Green River Community College
- 1 member - Auburn School District
- 1 member - Enterprise Seattle
- 1 member - King County Executive or Representative

- 1 member - Private Sector, Ecosystems & Rainwater Management
- 1 member - Private Sector, Aeronautic Technologies
- 1 member - Private Sector, Construction Technologies & Materials
- 1 member - Private Sector, Green Technologies
- 1 member - Private Sector, Alternative Energy
- 1 member - Private Sector, Green Technologies

The role of the IPZ Advisory Board is to aid in providing oversight to the Management Team in the successful implementation of this Business Plan and general operations of the Urban Center for Innovative Partnership (IPZ). It is with purpose that this Board is formed to help strengthen the IPZ"s commitments, partnerships, controls, communications and overall sustainability.

In its fulfillment of duties, the Board shall meet to periodically to review performance and progress within the IPZ and verify success in achieving the stated purposes of promoting collaboration, research, new technologies, marketable products, company formation/expansion and job creation. The Advisory Board shall formulate a review of operations upon meeting and if needed, present suggestions for improvements to the Management Team for implementation.

The IPZ Administrator shall preside over all meetings and serve as secretary to the Board. The Board shall initially convene by March 30, 2012 and meet not less than annually thereafter; except that any member of the Advisory Board may make a request to the Management Team for consideration of an additional meeting; and the Management Team may direct the Administrator to convene a meeting of the group.

d. Partnership Involvement/Investment

Just as it exists within our community, Auburn celebrates its diversity and believes that it is a cornerstone of our community strength. The same is true within our business community.
The Urban Center for Innovative Partnership is by design, building on our diversity of technology clusters.

Our diverse industries are strong and we are committed through the formation of this IPZ to build on that strength and to encourage growth within and between its various segments. To this end, Auburn has chosen a governance structure that will allow representatives of the various technologies participating through the Advisory Board as equal parts of the whole.

The Auburn IPZ will encourage active partnerships; partnerships where investment in the relationships is done willingly and where involvement comes from our collective good.

As Administrator, Auburn will actively work to make introductions among our businesses. We will encourage meaningful relationships and partnerships; and we will monitor and report on the progress of those relationships.

e. Sustainability Plan (4 years)

To achieve the sustainability and success of the Auburn Urban Center for Innovative Partnership the following steps have been, or will be taken:

1. Investment into numerous "existing sustainability efforts have been accomplished in the recent past within and around the Auburn's IPZ Zone. Examples of those efforts include:

i. Public/private infrastructure investment into the Auburn Junction project (6 blocks of downtown redevelopment, planned for multi-story mixed use office, retail, & residential) featuring cutting edge design concepts brought to the City through the WSU – IDEX project, including storm water vaults; relocation of utilities out of alley ways; fiber optic infrastructure; the installation of green materials; impervious sidewalks and plazas; and the creation of public plazas.
ii. Creation of a Store Front Improvement program.
iii. An Ordinance (ACC 3.60.035) authorizing the reimbursement of the City's portion of the Sales and Use Tax for construction materials and services up to $100,000 to encourage retail business expansion and location within Auburn.
iv. The creation of cultural improvements among employees within the City's Development Departments which instills client/customer friendly approaches to development review.

It should be noted that as was done with the infrastructure improvements in our downtown redevelopment, the IPZ will encourage, track and leverage private sector improvements to maximize the benefits to all IPZ stakeholders.

2. The City as IPZ Administrator will explore and execute incentives to encourage the mission and goals of this business plan. This effort will include:

i. A policy review by City Council to ensure that all Council actions forward demonstrate a consideration of alignment and with the facilitation of this IPZ's mission and goals. This will

include a requirement that all Ordinance and Actions taken by the City Council will include a section in the staff report which summarizes the "Business Impacts" of the Action under consideration for Council review.

ii. The City will consider expansion of its existing Ordinance (ACC 3.60.035) to provide a reimbursement of the City's portion of Sales & Use Tax up to $100,000 to encourage opportunities for the conversions of warehouse space to manufacturing; expansion of existing manufacturing space; and the development of new manufacturing facilities within the IPZ.

iii. The Administrator will work to move an Ordinance forward to City Council for the exemptions of requirements for the undergrounding of aerial utility lines which are upgraded or installed as part of the infrastructure improvements within districts of the Auburn IPZ.

iv. The City will explore incentives for the reduction of System Development Charges and Fee Rates for low impact development techniques.

3. Marketing and Commercialization:

The vision, mission and goals of the Auburn IPZ will be clearly communicated out in a variety of means to the zones stakeholders, to our local community and to potential new clients or industries. Communication methods will include:

i. The Administrator will provide a verbal presentation announcing the creation of this Innovative Partnership Zone and reviewing the vision, mission and goals to all relative City of Auburn Departments. Each such presentation shall be co-presented and supported by the appropriate Department Director or Manager.

ii. Investment of $30,000 dollars will be made into a marketing campaign in 2012 which will include advertising for this Urban Center for Innovative Partnerships. This campaign will include brochure which will be used as a mailer to potential client or industry partners; displayed prominently within City Hall; the City Permit Center; and within the Auburn Area Chamber of Commerce.

iii. Print ads and announcements will be displayed within the Auburn Reporter and/or other news advertising sources. These announcements will include IPZ branding; new business recruitment; the creation of new partnerships; announcements regarding new technologies; general policy and mission statements, and educational opportunities for business retention, training and development.

iv. An education and information forum will be presented; and invitation will be sent to each and every licensed business within the Auburn IPZ.

v. A web presentation of the IPZ will be developed and taped and made available for viewing on the City"s Economic Development Web Page and Channel 21.

vi. Signage will be created and posted prominently throughout the IPZ and City announcing the presence of a State of Washington Innovation Partnership Zone.

vii. The City will commit to the physical branding of the IPZ and using each and every event (where appropriate) to discuss, display and advance the vision, mission and goals of the Auburn Center for Emergent Business.

4. Strengths of the Auburn IPZ:

The Urban Center for Innovative Partnerships has numerous strengths. Among those strengths are:

a. This business hub has several existing and well established business clusters and a strong foundational workforce of knowledge-based middle-wage jobs from which we can and will build upon.

b. An eagerness among the business community to talk, share idea, and consider new opportunities. A strong entrepreneurial spirit.

c. A significant amount of warehouse space which is easily converted to market-affordable manufacturing clusters.

d. A City Government which is ready, willing and eager to welcome new business enterprise. Our Mayor, City Council and City Staff are fully prepared to consider new innovative solutions to old problems.

e. A diverse, well balanced workforce; ranging from well trained middle-wage earners to highly educated professionals.

f. An established well developed basic infrastructure and a commitment on the part of the City and partners to add high tech improvements to our established urban environment.

g. A strong team of partners, who are well prepared and willing to make structured investment.

5. Long Term Market Growth for Technologies:

The Auburn IPZ has a significant amount of design and fabrication facilities which offer an opportunity for the formation of new business partnerships including the diversification of manufactures across traditional business lines. These creative partnerships offer the opportunity to bring new ideas, methods and products to market; as well as the opportunity to bring upgrades in our knowledge-based middle-wage jobs and through established, quality, training

and workforce development programs, encourage business growth and the growth of high-wage technology type employment for our citizens.

Our IPZ is also home to many Tiers I, II & III suppliers to the aeronautics industry and the Boeing Company. Through partnering and strategies for workforce development we will assist our Aeronautics Clusters to meet the workforce and production demands of the future. In addition we are confident that industry growth will materialize and that our Tier II & III suppliers will be developed into more profitable Tier I suppliers.

The introduction of nano-technologies from our private technology developers, as well as from our research partner (WSU) is already beginning to show promise within the diverse industries of our IPZ. Opportunities for improvements to Epoxies; Resins; Plastics; Paper; Concrete; and Glass have all recently surfaced as areas of significant interest and promise. When we consider the ability which exists here in Auburn to connect this cutting edge research; its introduction to material manufacturing to create lighter and stronger materials; and then the further connection to industries also located within Auburn which are manufacturing real life consumer products, the opportunities are staggering.

6. Entrepreneurial Climate of the Auburn IPZ:

In addition to those outlined in Section 5 above as "Long Term Market Growth for Technologies"; there exists in Auburn an entrepreneurial spirit which has been growing organically, but which is waiting to be cultivated in a more formal way as through the creation of this IPZ and more importantly through the links the IPZ will create between the business, research and training industries.

Auburn's Office of Economic Development in partnership with the Auburn Area Chamber of Commerce recently held its first business retention, expansion and educational opportunity on "Import/Export Forum". The day's forum brought political, economic, business, and community entrepreneurs together to discuss the opportunities for Auburn Manufacturers to expand into the world of Importing and Exporting their goods and services.

This well attended event provided outstanding presentations and panel discussions by many of the State's leading Business Persons and experts from the Dept. of Commerce, World Trade, Port Authorities, Economic Development, etc. and much was gained; but a really amazing

Observation was the interactions, communications and deals that were made during the forums intermissions and break periods.

Local Chocolate manufacturers made connections with World Wide Exporters and now are selling their products in Asia; the same hold true for another manufacturer of Coffee Syrups. A nano scientist made introductions with an Epoxy manufacturer and gained permission to work with their chemists in their lab. An experienced company who imports Foods provided mentoring guidance to a young hydraulics manufacturer who is having trouble navigating the State Department regulations. Representative David Reichert discussed how when he was a young man growing up in Auburn, that he always knew this City would grow as a regional hub of business and how happy he is to be a part of that growth.

These are real life examples of the entrepreneurial spirit that exists here within the Auburn Center for Emergent Business.

7. Commercialization Plan:

As an Economic Development Model, the Auburn IPZ through a phased approach, works with a variety of well established industry clusters and is unique as it offers growth through the dynamic facilitation of partnerships within these working clusters and the Research capabilities of Washington State University (WSU) as well as the workforce development capabilities of Green River Community College (GRCC) and the Auburn High School (AHS) districts.

Our industry clusters and the products they produce are ever-changing and every sector has well established commercialization plans for their goods and services. The IPZ will support research and development within these sectors through design projects such as the WSU - IDEX project which offers creative new approaches to public and private development projects. Ideas from these projects are and will continue to be used to spur fresh new markets and products.

The IPZ will proactively use public projects to introduce private research, investment and development such as its outreach and commitment to Century Link and there investment into public/private fiber-optic development within the downtown IPZ district and throughout our manufacturing districts to encourage high-tech re-development of existing low-rent warehouse districts.

The Urban Center for Innovative Partnerships will serve as a bridge to "tie-in" cutting edge research and development with private sector industries to invigorate low cost manufacturing districts into robust centers of market rate and high paying workforce employment.

8. Performance Measures and Reporting:

The Administrator will collect and report annual performance criteria which will include:

- Number of trained workers added to state workforce as a result of training provided within IPZ;
- Number of potential business sites added (commercial and industrial building developed, redeveloped or newly occupied) attributable to IPZ innovation, research, and commercial application;
- Number and type of other assets developed (to retain, grow and attract business)
- Dollar value of infrastructure and other investments completed;
- Evidence of commercialization of IPZ research (licenses, patents, trademarks, etc.);
- Descriptions of research being conducted within the IPZ and potential commercial applications;
- The IPZ will track private sector investment and will provide information as to how that investment is leveraged for the benefit of the IPZ mission and its stakeholders;
- Other reasonable performance criteria that may be developed by Commerce.

The IPZ Administrator certifies that we will:

- Participate in the annual conference of IPZs, convened by Commerce, and share "lessons learned" and best practices for technology transfer and accelerated commercialization;
- Place the IPZ logo where practical (web, signage, stationery), and market the zone as a State-designated IPZ;
- Notify Commerce of any news events, special events, major changes, innovation activity, new commercialization, or other information that would be of interest to Commerce and the IPZ program.

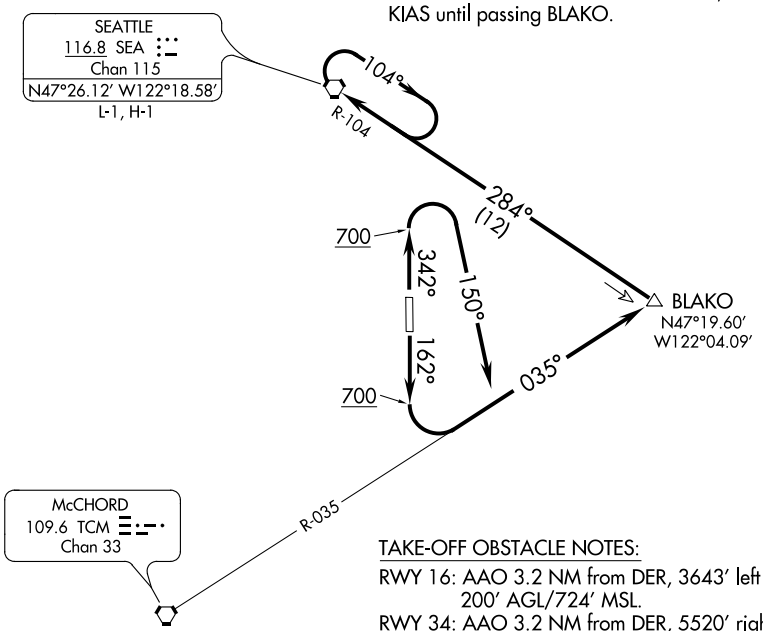
Appendix B

SEATTLE CLNC DEL
128.0
SEATTLE DEP CON
123.85

TAKE-OFF MINIMUMS

RWY 16: Standard with minimum climb of 266′ per NM to 1200 or 1200-2½ for climb in visual conditions, do not exceed 180 KIAS until passing BLAKO.

RWY 34: Standard with minimum climb of 300′ per NM to 900 or 1200-2½ for climb in visual conditions, do not exceed 180 KIAS until passing BLAKO.



TAKE-OFF OBSTACLE NOTES:

RWY 16: AAO 3.2 NM from DER, 3643′ left of centerline 200′ AGL/724′ MSL.

RWY 34: AAO 3.2 NM from DER, 5520′ right of centerline 200′ AGL/639′ MSL. Powerline 1804′ from DER, on centerline, 80′ AGL/122′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climb heading 162° to 700, then climbing left turn to 3000 via the TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC; or climb in visual conditions east of RWY 16/34 to cross Auburn Muni southbound at or above 1200′, then climb to 3000 via heading 150° and TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC. Do not exceed 180 KIAS until passing BLAKO. Thence....

TAKE-OFF RUNWAY 34: Climb heading 342° to 700, then climbing right turn to 3000 via heading 150° to TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC; or climb in visual conditions east of RWY 16/34 to cross Auburn Muni southbound at or above 1200′, then climb to 3000 via heading 150° and TCM R-035 to BLAKO INT then left turn via the SEA R-104 to SEA VORTAC. Do not exceed 180 KIAS until passing BLAKO. Thence....

....hold E SEA VORTAC, RT, 284° inbound; when authorized by ATC, climb-in-hold to 5000, or as assigned before proceeding on course.

NW-1, 24 JUL 2014 to 21 AUG 2014
NW-1, 24 JUL 2014 to 21 AUG 2014

APP CRS	Rwy Idg	N/A
331°	TDZE	N/A
	Apt Elev	63

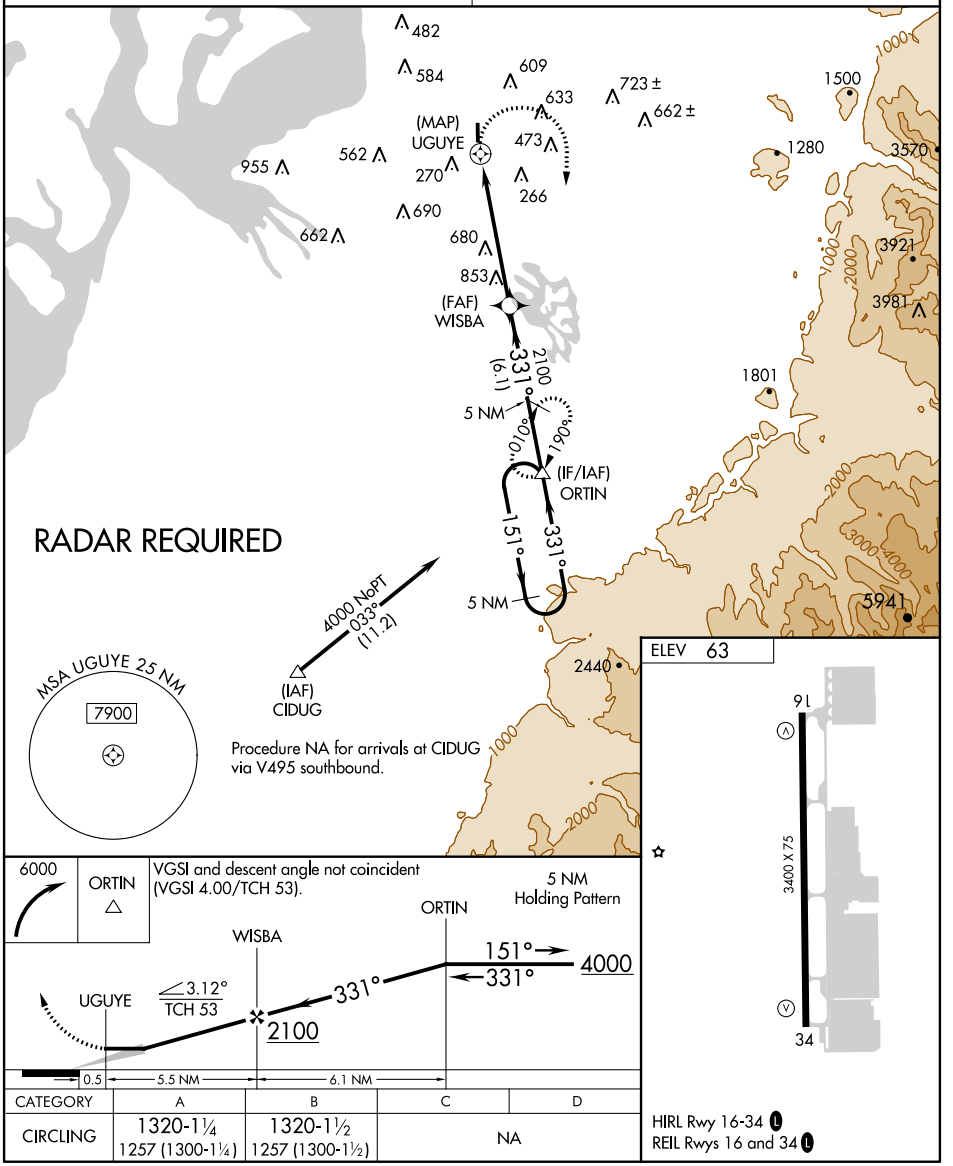
RNAV (GPS)-A
AUBURN MUNI (S50)

T
NA

Circling NA west of Rwy 16-34.
Procedure NA at night.
DME/DME RNP- 0.3 NA.
Use Seattle-Tacoma Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 6000 direct ORTIN and hold, continue climb-in-hold to 6000.

SEATTLE APP CON	AUNICOM
123.85	122.8 (CTAF) L



6000 ORTIN

VGSI and descent angle not coincident (VGSI 4.00/TCH 53).

5 NM Holding Pattern

CATEGORY	A	B	C	D
CIRCLING	1320-1¼ 1257 (1300-1¼)	1320-1½ 1257 (1300-1½)	NA	

HIRL Rwy 16-34 L
REIL Rwys 16 and 34 L

NW-1, 24 JUL 2014 to 21 AUG 2014
NW-1, 24 JUL 2014 to 21 AUG 2014

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned a departure procedure (i.e.,ODP, SID, or radar vector) as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) TAKEOFF minima are published below. For military takeoff minima, refer to appropriate service directives.

24 JUL 2014 to 21 AUG 2014

NAME	TAKEOFF MINIMUMS

AFTON, WY

AFTON MUNI (AFO)
AMDT 1 06271 (FAA)

DEPARTURE PROCEDURE: **Rwy 16,** Use LUNDI DEPARTURE. **Rwy 34,** use AFTON DEPARTURE.

ALBANY, OR

ALBANY MUNI (S12)
AMDT 2A 11237 (FAA)

DEPARTURE PROCEDURE: **Rwy 16,** turn right. **Rwy 34**, turn left.
All aircraft climb direct CVO VOR/DME and continue climb in CVO VOR/DME holding pattern, (East, right turns, 261° inbound) to cross CVO VOR/DME at or above 3400.

NOTE: **Rwy 34,** light poles 860' from DER, 69' right of centerline, 40' AGL/262' MSL. Light poles 906' from DER, 15' left of centerline, 41' AGL/262' MSL.

NAME	TAKEOFF MINIMUMS

ANACONDA, MT

BOWMAN FIELD (3U3)
AMDT 1 07186 (FAA)

TAKEOFF MINIMUMS: **Rwy 4,** std. w/ min. climb of 417' per NM to 9000, or 2800-3 for climb in visual conditions. **Rwy 17,** std. w/ min. climb of 321' per NM to 10200, or 2800-3 for climb in visual conditions. **Rwy 22,** NA-obstacles. **Rwy 35,** std. w/ min. climb of 369' per NM to 9100, or 2800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 4, 35,** climbing right turn to 10200 via heading 130° and CPN VOR/DME R-340 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound). **Rwy 17,** climbing left turn to 10200 via heading 100° and CPN VOR/DME R-335 to CPN VOR/DME, continue climb -in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound).

NOTE: **Rwy 17,** multiple trees beginning 865' from DER, 243' left of centerline, up to 70' AGL/5097' MSL. Rod on hangar 570' from DER, 278' left of centerline, 54' AGL/5054' MSL. Multiple trees beginning 787' from DER, 165' right of centerline, up to 70' AGL/5098' MSL. Multiple transmission lines beginning 4602' from DER, 1664' right of centerline, 80' AGL/5159' MSL. **Rwy 35,** multiple transmission lines beginning 2242' from DER, 964' left of centerline, up to 80' AGL/5159' MSL.

ARCO, ID
ARCO-BUTTE COUNTY (AOC)
AMDT 1 08157 (FAA)
TAKEOFF MINIMUMS: **Rwy 6,** NA - Obstacles.
DEPARTURE PROCEDURE: Use JATTS DEPARTURE.

ARLINGTON, WA
ARLINGTON MUNI (AWO)
AMDT 3 11237 (FAA)
TAKEOFF MINIMUMS: **Rwy 11,** std. w/min. climb of 400'per NM to 1000, or 1200-2½ for climb in visual conditions. **Rwy 16,** std. w/min. climb of 300'per NM to 1500, or 1200-2½ for climb in visual conditions. **Rwy 29,** std. w/min. climb of 245'per NM to 1400, or 1200-2½ for climb in visual conditions. **Rwy 34,** std. w/min. climb of 260'per NM to 800, or 1200-2½ for climb in visual conditions.
DEPARTURE PROCEDURE: **Rwy 11,** climbing right turn direct WATON LOM, or for climb in visual conditions, cross Arlington Muni at or above 1200 then proceed on 161° course to WATON LOM, thence... **Rwy 16,**climb direct WATON LOM, or for climb in visual conditions, cross Arlington Muni at or above 1200 then proceed on 161° course to WATON LOM, thence ... **Rwy 29,** climbing left turn on 113° course to WATON LOM, or for climb in visual conditions, cross Arlington Muni at or above 1200 then proceed on 161° course to WATON LOM, thence ... **Rwy 34,** climbing left turn on 134° course to WATON LOM, or for climb in visual conditions, cross Arlington Muni at or above 1200 then proceed on 161° course to WATON LOM, thence ...
... Aircraft departing WATON LOM on bearings 150° CW 340° from WATON LOM climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM, climb in holding pattern (South, left turns, 342° inbound) to cross WATON LOM at or above 4500 before proceeding on course.
NOTE: **Rwy 11,** airport beacon 1116' from DER, 699' left of centerline, 58' AGL/186' MSL. Tree 1443' from DER, 803' left of centerline, 108' AGL/236' MSL. Tree 1819' from DER, 688' right of centerline, 46' AGL/174' MSL. Trees beginning 1.2 NM from DER, left and right of centerline, up to 127' AGL/486' MSL. **Rwy 16,** tree 1240' from DER, 723' left of centerline, 47' AGL/174' MSL. Trees beginning 1289' from DER, 713' right of centerline, up to 87' AGL/214' MSL. **Rwy 29,** trees beginning 897' from DER, 548' right of centerline, up to 97' AGL/229' MSL. **Rwy 34,** trees beginning 1557' from DER, left and right of centerline, up to 96' AGL/236' MSL. Trees beginning 2379' from DER, 196' right of centerline, up to 84' AGL/224' MSL.

ASTORIA, OR
ASTORIA RGNL (AST)
AMDT 5 99364 (FAA)
TAKEOFF MINIMUMS: **Rwy 8**, 800-3 or std. with a min. climb of 320' per NM to 900. **Rwy 13**, 700-2 or std. with a min. climb of 350' per NM to 800.
DEPARTURE PROCEDURE: **Rwys 8,31,** turn left. **Rwy 13**, climb runway heading to 800 then climbing right turn. **Rwy 26**, turn right. Aircraft departing northwestbound climb via AST R-290 on course. **All other aircraft** climb to 1500 or above via AST R-290 then left turn to AST VOR/DME and continue climbing on course.

AUBURN, WA
AUBURN MUNI (S50)
ORIG 07298 (FAA)
DEPARTURE PROCEDURE: Use AUBURN DEPARTURE.

AURORA, OR
AURORA STATE (UAO)
AMDT 3 11349 (FAA)
TAKEOFF MINIMUMS: **Rwy 17,** std. w/min. climb of 292'per NM to 2100 or 1500-2½ for climb in visual conditions. **Rwy 35,** std. w/min. climb of 312'per NM to 2100 or 1500-2½ for climb in visual conditions.
DEPARTURE PROCEDURE: **Rwy 17,** climbing right turn, thence ... Or for climb in visual conditions cross Aurora State airport at or above 1500 thence... **Rwy 35,** climbing left turn, thence ... Or for climb in visual conditions cross Aurora State airport at or above 1500 thence ...
... Aircraft departing on V23 intercept BTG R-175 and climb on course. All others proceed direct UBG VOR/DME and Hold (hold South, left turns, 003° Inbound) continue climb in hold to cross UBG VOR/DME at or above MEA for direction of flight before proceeding on course.
NOTE: **Rwy 17,** trees beginning 31' from DER, 246' right of centerline, up to 87' AGL/316' MSL. Tree 2270' from DER, 836' left of centerline, 87' AGL/303' MSL. Vehicle on road 254' from DER, 349' left of centerline, 16' AGL/209' MSL. **Rwy 35,** trees beginning 30' from DER, 163' left of centerline, up to 65' AGL/329' MSL. Vehicle on road 212' from DER, 390' left of centerline, 16' AGL/212' MSL. Trees 973' from DER, 281' right of centerline, up to 65' AGL/253' MSL.

BAKER, MT
BAKER MUNI (BHK)
ORIG-A 14037 (FAA)
TAKEOFF MINIMUMS: **Rwy 13,** NA-Environmental.
NOTE: **Rwy 31,** fence and vertical structure 168' from DER, 498' left of centerline, up to 10' AGL/2974' MSL. Wind sock on building 1015' from DER, 727' left of centerline, 36' AGL/2998' MSL. Antenna 3832' from DER, 136' left of centerline, 111' AGL/3073' MSL.

24 JUL 2014 to 21 AUG 2014

Appendix C

Chapter 18.38
LF AIRPORT LANDING FIELD DISTRICT[1]

Sections:

18.38.010 Intent.

The intent of this chapter is to provide for the operation and management of the Auburn Municipal **Airport**. It is found that an **airport hazard** endangers the lives and property of users of the municipal **airport** and of

occupants of land or property in its vicinity, and also, if of the obstruction type, in effect reduces the size of the area available for the landing, taking off and maneuvering of aircraft, thus tending to destroy or impair the utility of the municipal **airport** and the public investment therein. Accordingly, it is declared that:

A. The creation or establishment of an **airport hazard** is a public nuisance and an injury to the region served by the municipal **airport**;

B. It is necessary in the interest of the public health, public safety and general welfare that the creation or establishment of **airport hazards** be prevented; and

C. The prevention of these hazards should be accomplished, to the extent legally possible, by the exercise of the police power without compensation. It is further declared that both the prevention or the creation or establishment of **airport hazards** and the elimination, removal, alteration, mitigation or marking and lighting of existing **airport hazards** are public purposes for which political subdivisions **may** raise and expend public funds and acquire land or interests in land. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.020 Permitted uses.

Hereafter all **buildings**, **structures**, or parcels of land **shall** only be **used** for the following, unless otherwise provided for in this title:

A. Landing, taking off and flying of aircraft, excluding ultralights as defined by ACC 8.36.010;

B. Businesses **incidental** to and necessary or convenient for **airport** operations, including offices, eating establishments, restrooms, hangars, shops for light repairs, gasoline and oil sales and accessory **structures** therefor;

C. Other **uses** as determined by the hearing examiner to be related to operation and **use** of the **airport**. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.030 Restricted uses.

Restricted **uses** shall be as follows: no **use** may be made of land within any **airport** zone in such a manner as to create electrical interference with radio communication between the **airport** and aircraft, making it difficult for fliers using the **airport**, impair visibility in the vicinity thereof, or otherwise endanger the landing, taking off or maneuvering of aircraft. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.040 Zones established generally.

In order to carry out the provisions of this chapter, there are created and established certain **zones** which include all of the land lying within the noninstrument approach **zone**, transition **zone**, horizontal **zone**, conical **zone** and obstacle free areas. Such areas and **zones** are shown on the "City of Auburn Municipal **Airport** Master Plan Update, 1993-2013, dated February 1995, and Federal Air Regulations (FAR) Part 77 as amended, which is on file in the city clerk's office. The various **zones** are established and defined as follows in ACC 18.38.050 through 18.38.085. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.050 Approach zone.

A noninstrument approach surface is established at each end of all noninstrument runways for landings and takeoffs. The inner width of the approach surface is 250 feet at a distance of 200 feet beyond the physical end of the runway, and it expands uniformly to a width of 1,250 feet. This approach surface extends for a horizontal distance of 5,000 feet at a slope of twenty to one (20:1). The elevation of the inner width of the approach surface is the same as the elevation of the nearest point on the runway centerline. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.060 Transitional zone.

The transitional surface extends outward and upward at right angles to the runway centerline and the runway centerline extends at a slope of seven to one (7:1) from a line 125 feet from the runway centerline or runway end and from the sides of the approach surfaces. The elevation of the line 125 feet from the runway centerline or runway centerline extended for 200 feet beyond each runway end is the same as the elevation of the nearest point on the runway centerline. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.070 Horizontal zone.

A horizontal surface is established above the **airport**. This horizontal surface is a plane 150 feet above the established **airport elevation**, the perimeter of which is constructed by swinging arcs 5,000 feet in a radius from the center of each end of the primary surface of the runway and connecting the adjacent arcs by lines tangent to those arcs. The primary surface is longitudinally centered on the runway with a width of 250 feet and extends 200 feet beyond each end of the runway. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.080 Conical zone.

A conical surface is established which extends outward and upward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of 4,000 feet. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.085 Obstacle free area.

An area extending 250 feet either side of the runway and 600 feet off either end of the runway. The obstacle free area (OFA) must be kept clear of any **structures**, fencing, **landscaping**, parking, or vehicular circulation not directly related to aircraft operations at the Auburn Municipal **Airport**. (Ord. 5026 § 1, 1997.)

18.38.090 Height limitations – Generally.

Except as otherwise provided in this chapter, no **structure** or tree **shall** be erected, altered, allowed to grow or maintained in any **zone** created in this chapter to a height in excess of the height limit established in ACC 18.38.100 through 18.38.130 for such **zone**. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.100 Height limitations – Noninstrument approach zone.

The height limitations for noninstrument approach surfaces begin at a point 200 feet from and at the centerline elevation of the end of the runway and extend for a horizontal distance of 5,000 feet at a slope of twenty to one (20:1). (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.110 Height limitations – Transition zones.

The height limitations for transition **zones** shall be as follows: One foot in height for each seven feet in horizontal distance beginning at any point 125 feet normal to and at the elevation of the centerline of noninstrument runways, extending 200 feet beyond each end thereof, extending to a height of 150 feet above the **airport elevation** which is 59 feet above mean sea level. In addition to the foregoing, there are established height limits of one foot vertical height for each seven feet horizontal distance measured from the edges of all approach **zones** for the entire length of the approach **zones** and extending upward and outward to the points where they intersect the horizontal or conical surfaces. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.120 Height limitations – Horizontal zones.

The height limitation for a horizontal **zone** shall be as follows: 150 feet above the **airport elevation** or a height of 209 feet above mean sea level. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.130 Height limitations – Conical zones.

The conical surface involves a slope of twenty to one (20:1) for a horizontal distance of 4,000 feet. The relative difference in elevation between the inner and outer edge of the conical surface is 200 feet. The elevation of the outer edge of the conical surface is 300 feet above the established **airport elevation**. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.140 Nonconforming structures and trees – Continuation allowed when.

The regulations prescribed by this chapter **shall** not be construed to require the removal, lowering or other change or alteration of any **structure** or tree not conforming to the regulations as of March 22, 1969, or otherwise interfere with the continuance of any **nonconforming use**. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.150 Nonconforming structures and trees – Marking and lighting.

Notwithstanding the provisions of ACC 18.38.140, the owner of any nonconforming **structure** or tree is required to permit the installation, operation and maintenance thereon of such markers and lights as are deemed necessary by the **airport** manager to indicate to the operators of aircraft in the vicinity of the **airport** the presence of such aircraft hazards. Such markers and lights **shall** be installed and operated and maintained by the city. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.160 Structure and use permits.

Except as specifically provided in subsections A, B and C of this section, no material change **shall** be made in the **use** of land and no **structure** or tree **shall** be erected, altered, planted or otherwise established in any **zone** created by this chapter unless a permit has been applied for and granted by the **building** department of the city. Each application for a permit **shall** indicate the purpose for which the permit is desired, with sufficient information to permit it to be determined whether the resulting **use**, **structure** or tree would conform to the regulations therein prescribed. If such determination is in the affirmative, the permit **shall** be granted.

A. In the area lying within the limits of the horizontal **zone** and the conical **zone**, no permit **shall** be required for any tree or **structure** less than 75 feet of vertical height above the ground, except when because of terrain, land contour or topographic features such tree or **structure** would extend above the height limits prescribed for such **zone**.

B. In the area lying within the limits of the noninstrument approach surface but at a horizontal distance of not less than 5,000 feet from a point 200 feet from each end of the runway, no permit **shall** be required for any tree or **structure** less than 75 feet of vertical height above the ground, except when such trees or **structures** would extend above the height limit prescribed for such noninstrument approach **zone**.

C. The transitional surface does not extend beyond the perimeter of the horizontal surface. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.170 Nonconforming structures or trees – Alteration.

A. Before any nonconforming **structure** or tree **may** be replaced, substantially altered or repaired, rebuilt, allowed to grow higher or replanted, a permit must be secured from the **airport** manager and, if applicable, the **building** official.

B. No permit **shall** be granted that would allow the establishment or creation of an **airport hazard** or permit a **nonconforming use**, **structure** or tree to be made or become higher, or become a greater hazard to air navigation, than it was on March 22, 1969, or than it is when the application for a permit is made. Except as indicated, all applications for such a permit **shall** be granted. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.180 Nonconforming structures or trees – Abandoned or destroyed – Permit prohibited.

Whenever the **airport** manager determines that a nonconforming **structure** or tree has been abandoned or more than 80 percent torn down, physically deteriorated or decayed, no permit **shall** be granted that would allow such **structure** or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.190 Requirements for variances.

Any **person** desiring to erect or increase the height of any **structure**, or permit the growth of any tree, or **use** his property, not in accordance with the regulations prescribed in this chapter, **may** apply to the hearing examiner for a **variance** from such regulation. Such **variances** shall be allowed where it is duly found that a literal application or enforcement of the regulation should result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest but will do substantial justice and be in accordance with the spirit of this chapter. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.200 Variance – Grant conditions.

Any **variance** granted **may**, if such action is deemed advisable to effectuate the purpose of this chapter and is reasonable in the circumstances, be so conditioned as to require the owner of the **structure** or tree requesting a **variance** to install, operate and maintain at **his** own expense such markers and lights as **may** be necessary to indicate to fliers the presence of an **airport hazard**. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.210 Decision appeals – Generally.

Any **person** aggrieved, or any taxpayer affected, by any decision of the city made in its administration of this chapter **may** appeal to the hearing examiner. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.220 Conflicting regulations.

Where there exists a conflict between any of the regulations or limitations prescribed in this chapter and any other regulations applicable to the same area, whether the conflict is with respect to the height of **structures** or trees, the **use** of land, or any other matter, the more stringent limitation or requirement **shall** govern and prevail. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.230 Enforcement.

It **shall** be the duty of the **airport** manager and **building** official to administer and enforce the regulations prescribed in this chapter. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.240 Violation – Penalty.

Each violation of this chapter or of any regulation, order or ruling promulgated under this chapter constitutes a misdemeanor and is punishable as provided in ACC 1.24.010. Each day a violation continues to exist constitutes a separate offense. (Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

18.38.250 Development standards.

Development standards in a LF district are as follows:

A. Minimum **lot** area: none required;

B. Minimum **lot** width: none required;

C. Minimum **lot** depth: none required;

D. Maximum **lot** coverage: none required;

E. Maximum **building** height: 45 feet, except as restricted elsewhere by this chapter;

F. Minimum **yard** setbacks:

1. Front: 20 feet,
2. Side, interior: none required,
3. Side, street: 15 feet,
4. Rear: none required;

G. Fences and hedges: see Chapter 18.31 ACC;

H. Parking: see Chapter 18.52 ACC;

I. Landscaping: see Chapter 18.50 ACC;

J. Signs: see Chapter 18.56 ACC. (Ord. 5777 § 1, 2003; Ord. 5026 § 1, 1997; Ord. 4229 § 2, 1987.)

Appendix D

411 108TH AVENUE NE, SUITE 1800
BELLEVUE, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

TECHNICAL MEMORANDUM

Date:	April 29, 2014
To:	W. Matt Rogers
From:	Paul Fendt, P.E.
Subject:	Stormwater Management Evaluation
cc:	Jennifer Lundberg, CEP Julie Brandt, P.E.
Project Number:	553-2694-006
Project Name:	Auburn Airport Master Plan

INTRODUCTION

This technical memorandum assesses potential stormwater management needs to implement the Auburn Airport Master Plan Update Alternatives. Master Plan elements that could require revised stormwater facilities include:

- New impervious surfaces
- Replaced impervious surfaces or existing impervious surfaces requiring a retrofit to pre-development conditions
- New industrial activities or existing areas under the Industrial Stormwater Permit requiring corrective actions
- Modifications to the drainage system or hydrologic changes (i.e. added or removed impervious surface)
- Development in the floodplain
- New or modified stormwater facilities that require adjustments to limit wildlife attraction

As each new area develops or redevelops, stormwater could be managed through several different approaches. New and modified stormwater management facilities could be constructed to provide flow control and/or water quality treatment at site-specific locations throughout the airport. In addition to or in place of individual facilities, larger joint stormwater facilities could be constructed that serve multiple areas and would be associated with a discharge point from the airport to surrounding receiving streams.

This Technical Memorandum provides background on the drainage areas at the airport; existing available information on the Airport's drainage system and stormwater management facilities; briefly outlines the potential regulatory drivers for stormwater requirements; outlines proposed Master Plan projects by drainage basin; and proposes approaches to managing stormwater from the proposed Master Plan Update.

EXISTING ENVIRONMENT

The majority of the Airport lies in the Green River Basin in King County (Basin "I" in the City's Comprehensive Stormwater Drainage Plan). A small portion of the south end of the airport, which includes some minor Master Plan improvements areas, is located in the Mill Creek basin (Basin "O"). Most of the existing airport and runways drains north to several ponds in the northerly portion of the airport, then directly east in the 30th Street trunk line to the Brannon Park Pump Station, where it is discharged to the Green River. The south end of the airport drains north and west to a small pond that discharges into the storm sewer system draining west and north to Mill Creek outfall at 29th St NW.

The existing drainage system for the majority of the existing airport, including the runway, taxiways, hangars, and related airport facilities, flows north in a storm sewer trunk line to the east of the runway and taxiway and in a bioswale between the runway and taxiway. The storm sewer trunk line drains land via storm sewer lines from the trunk line east to a north-south line approximately following E Street, including all of the hangars and related pavement. The bioswale drains the runway, taxiway, and infield between. Four detention ponds are located at the north end of the airport. Pond "I" lies at the north end of the runway and taxiway, collecting stormwater from the hangar area in the northest portion of the airport and discharging it to 30th Street trunk line. Ponds "F", "G", and "H" collect stormwater from the warehouses located to the west and offsite of the airport and discharge to the 30th Street trunk line. No stormwater from the airport uses Ponds F, G, and H.

Stormwater in the south, Basin O, is collected from the runway, taxiway, parking, buildings, maintenance shop, and hangars in an east-west trunk line and drains west to a small pond located west of the runway. This pond discharges west to a storm sewer which then flows north and west to the Mill Creek outfall.

The purpose and service area of the existing stormwater ponds is not known, nor is it apparent if the ponds have additional available capacity for new development. Ponds F, G, and H appear to serve the warehouses not in the airport property. Pond I appears to serve the north hangars, and the small pond at the outlet of Basin O serves all of the developed areas at the south end of the airport.

The grassy infields are an effective recognized runoff water quality treatment and dispersion area, provided there is sufficient flow travel distance and adequate soils type to meet the Ecology standards for filter strip dispersion. Areas can often be readily enhanced or modified to achieve this effective stormwater management strategy. The bioswale between the runway and taxiway would provide additional treatment and it is likely that those areas of the airport would require no additional stormwater controls, provided that minimum design standards are met and that all runoff from the runway and taxiway are directed to the filter strips and bioswale. There are no other known stormwater management facilities at the Airport.

There are existing flooding problems at the airport and in the drainage system draining the airport. A summary of the problem area is described in the Comprehensive Stormwater Drainage Plan (Brown and Caldwell 2011). As described in the Comprehensive Plan, 30th St. NE experiences significant flooding "…once every few years" that inundates the street near C St. NE and threatens local businesses. The segment of the storm sewer from the airport to the Brannan Park Pump Station does not have enough capacity and surcharges frequently, thus causing drainage backups at the airport (Brown and Caldwell 2011). The proposed solution includes an upgrade of the storm sewer from the airport to the pump station from a 30-inch storm sewer to a new 42-inch storm sewer.

Portions of the north end or the airport property are mapped as Zone AE or Zone X on the FEMA floodplain maps. No portion of runway or taxiway is included in the floodplain.

APPLICABLE STORMWATER MANAGEMENT REGULATIONS

The City of Auburn is a Phase 2 community with a permit under the National Pollutant Discharge Elimination System (NPDES) Municipal Separated Storm Sewer System (MS4) program administered by Ecology. One requirement of the permit is to manage and control stormwater at new development and redevelopment sites, which

the City regulates through Chapter 13.48 of the Auburn City Code and the 2009 Surface Water Management Manual (2009 City of Auburn). Additional or replaced impervious surfaces exceeding minimum areas defined in the code are required to provide water quality treatment and stormwater flow control. Flow control requirements include matching stormwater runoff flows for pre-development conditions, which means the apparent site conditions that existed prior to European settlement (e.g. a forested site). This generally means that the proposed Master Plan projects will be required to retrofit to existing water quality control standards and stormwater flow to pre-development flow rates. Existing problem areas, such as those described above at 30th Street NE, may require additional controls or upgrades to those systems before developing in those basins to those outfalls.

Industrial activities at the airport are regulated under an NPDES Industrial Stormwater General Permit, Number WAR000399. Industrial sites are required to prepare and implement Stormwater Pollution Prevention Plans, monitor stormwater outfalls and report results, and engage in corrective actions if stormwater benchmarks are exceeded. It is often difficult to separate stormwater from industrial sites located at airports, therefore co-permitting is not uncommon and collective stormwater facilities serving multiple sites are often constructed and operated by the airport. Source controls and operational controls are usually applied by tenants, if any. The permit-required Stormwater Pollution Prevention Plan (City of Auburn 2012) has been prepared for the Airport. The SWPPP shall contain a site map, a detailed assessment of the facility, a detailed description of the BMPs, Spill Prevention and Emergency Cleanup Plan, and a sampling plan. These reports may require updates when new development or operational changes occur at the airport.

The airport is also monitoring Outfall A, as required by the permit, located at 30th Street NE. Discharge Monitoring Reports (DMR) filed with Ecology indicate that no benchmarks have been exceeded in the past four quarters and there are no Action Levels in effect.

PROJECT EVALUATION

The proposed Master Plan projects will require measures to minimize the potential impact of stormwater runoff to the area receiving waters and local drainage systems. In addition, retrofitting existing impervious areas and development may be required. The Airport may decide to consolidate stormwater improvements by catchment area, normally near the fringes of the Airport property, before discharging to local receiving waters (i.e. the Green River or Mill Creek), or require individual projects to construct stormwater facilities related to the individual project's footprint and retrofit obligation. The City of Auburn uses design guidelines outlined in the 2009 Storm Water Management Manual (City of Auburn 2009).

For the purpose of this evaluation, consolidated stormwater facilities will be evaluated. If individual site stormwater improvements are proposed, that evaluation would be made as part of the site design and no further coordinated planning would be needed. Master Plan projects are grouped by the existing outfall locations as follows:

- Pond I - 30th Street NE outfall
- Ponds F, G, H – 30th Street NE outfall
- Central hangars – 30th Street NE outfall
- Runway/Taxiway bioswale outfall
- Basin O SW outfall

Table 1 shows the Master Plan projects by drainage catchment and provides a brief description of consolidated facilities. Future reserve areas could be included in the detailed design or considered when sizing to either include additional storage or set aside land to accommodate future system enlargements.

Table 1. Master Plan Projects by Drainage Catchment

Facility Catchment	Master Plan Projects	Proposed Facility(s)
Pond I – 30th Street NE outfall	• Runway extension • New taxiway	• Filter strips for runway and taxiway • Pond I modification (with wildlife deterrents and safety modifications) • Additional shallow detention storage may be required (with wildlife deterrents)
Ponds F, G, H – 30th Street NE outfall	None	• Additional storage for runway extension or lost Pond I storage
Central hangars – 30th Street NE outfall	• New hangars • Airfield pavement • Roads and parking • New buildings • New or replaced pavement	• Shallow detention facility (with wildlife deterrents) – space not shown or available
Runway/Taxiway bioswale outfall	None	• Confirm filter strip design and modify as needed
Basin O SW outfall	• Runway extension • New taxiway • New buildings • Airfield pavement • New or replaced pavement • Roads and parking	• Filter strips for runway and taxiway • Shallow detention facility (with wildlife deterrents) – space available south of existing facility

Note that all surface facilities would require consideration of the Airport Runoff Manual procedures for wildlife deterrents. Site-specific conditions may facilitate the use of potentially preferred infiltration facilities. Use of Low Impact Design (LID) techniques may be required where feasible.

DATA SOURCES USED FOR EVALUATION

Brown and Caldwell. 2011. City of Auburn 2009 Comprehensive Stormwater Drainage Plan, Amended 2011. Prepared for City of Auburn Public Works Department, Auburn, WA.

City of Auburn. 2012. Stormwater Pollution Prevention Plan for Auburn Municipal Airport. Prepared for Auburn Municipal Airport, Auburn, WA.

City of Auburn. 2009. Storm Water Management Manual. Prepared for City of Auburn Public Works Department, Auburn, WA.

FEMA. 2011 Flood hazard maps for Auburn, WA. Green River form SR 18 to the Duwamish River, Panel 7.

WSDOT. 2008 Aviation Stormwater Design Manual. Prepared for WSDOT Aviation Division, Arlington, WA

LEGEND

	EXISTING	FUTURE
BUILDINGS		
AIRFIELD PAVEMENT		
BUILDING RESTRICTION LINE (BRL)	BRL (E)	BRL (F)
AIRCRAFT PARKING LINE (APL)	APL (E)	APL (F)
AIRPORT PROPERTY LINE		
RUNWAY SAFETY AREA (RSA)		
OBJECT FREE AREA (OFA)		
OBSTACLE FREE ZONE (OFZ)		
TAXIWAY OBJECT FREE AREA (TOFA)		
RUNWAY PROTECTION ZONE (RPZ)		
GROUND CONTOURS	10'	SAME
AIRPORT REFERENCE POINT (ARP)		
RUNWAY END IDENTIFIER LIGHTS (REIL)		
VISUAL GUIDANCE INDICATORS (PAPI)		
WIND INDICATOR		
SEGMENTED CIRCLE WIND INDICATOR		
FENCE		
BEACON		
THRESHOLD LIGHTS		
ACCESS ROAD/VEHICLE PARKING	N/A	
AVIGATION EASEMENT		
DEVELOPMENT RESERVE	N/A	
TO BE REMOVED		N/A
MEDIUM INTENSITY RUNWAY LIGHTS (MIRL)		
PROPERTY TO BE ACQUIRED		N/A

N AUBURN WAY

NE 22ND STREET

NE 15TH STREET

NE E STREET

NE 30TH STREET

NE 16TH STREET

POND I CATCHMENT

CONTOURS HANGARS CATCHMENT

RUNWAY/TAXWAY CATCHMENT

SOUTHWEST OUTFALL CATCHMENT

POND F, G, H, CATCHMENT

BASIN I

BASIN O

FUTURE DECLARED DISTANCE DEPARTURE 34 OPERATIONS
250' X 450' X I000'
APPROACH VISIBILITY MINIMUMS
NOT LOWER THAN I-MILE
B-I (SMALL)

EXISTING RPZ
250' X 450' X I000'
APPROACH VISIBILITY MINIMUMS
NOT LOWER THAN I-MILE
B-I (SMALL)

POND I
AC HOLD (E)
OFA/OFZ (F)
RSA (F)
200'
240'
OFA/OFZ (F)
RWY 16
EL. 57'
POND H
OFA/OFZ (E)
POND G
POND F
34'
OFA/OFZ (E)
RSA (E)
30'
AC HOLD (E)
125'
250'
3400' X 75' (EXISTING)
79'
AC HOLD (E)
OFA/OFZ (E)
DONE
42'
RWY 34
EL. 63'

0' 200' 400'

Scale: 1"=200'

DRAFT

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER X-XX-XXXX-XXX-XX) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	SLK	AS SHOWN
DATE: -		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

AIRPORT LAYOUT PLAN

FIGURE NO. -

SHEET NO. 3 OF X

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

411 108th Avenue NE, Suite 1800
Bellevue, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

TECHNICAL MEMORANDUM

Date:	April 29, 2014
To:	W. Matt Rogers, Century West Engineering
From:	Jennifer Lundberg and Michael Hall, Parametrix
Subject:	Auburn Airport – Master Plan Project Environmental Conditions Inventory
cc:	Julie Brandt
Project Number:	553-2694-006
Project Name:	Auburn Municipal Airport – Airport Master Plan

The Auburn Municipal Airport (Airport) is located at 506 23rd Street NE in Auburn, WA. The Airport is within the Auburn city limits in King County, Washington, in Sections 6 and 7 of Township 21 North, Range 5 East, and Section 12 of Township 21 North, Range 4 East, Willamette Meridian. The land where the Airport is located falls within the Mill Creek-Green River watershed, ultimately draining to the Puget Sound.

The purpose of this memorandum is to summarize the findings of the environmental conditions inventory and identify any environmental regulations that would need to be addressed before the implementation of proposed airport improvements in the Master Plan. This overview is not intended to provide environmental review in accordance with the National Environmental Policy Act (NEPA) and FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*; those requirements will be met before the implementation of any improvements described in the Master Plan. This overview focuses on those environmental resources and conditions considered to have the greatest potential to be adversely affected by development alternatives. The resources addressed in this memorandum are land use (including zoning; noise; geological hazards and flood hazards that may limit development; and parks and recreation); utilities; water resources including stormwater, wetlands, and streams; air quality; species of concern; and wildlife hazards.

LAND USE

The Airport is located within the city limits and the Urban Growth Area (UGA) of the City of Auburn. Neighboring properties to the west, south, and east are zoned for heavy commercial uses, and those to the north and east are zoned for heavy industrial uses. The nearest residential areas are approximately 1,000 feet away, to the east and southeast of the Airport and outside of the designated flight paths.

Based on a review of the City of Auburn's noise regulations (AMC 8.28), current and proposed uses of the airport are compatible with the standards for adjacent land uses. Additionally, the City of Auburn has an Auburn Municipal Airport Rules and Regulations document (Finance 100-80, effective 10/2/10) that includes the noise abatement policies and procedures for the airport. The document is available at

https://auburnmunicipalairport.com/uploads/Rules_and_Regulations_Website_Version_10-02-2010.pdf. In general, all aircraft must follow the prescribed approach and take off patterns for the airport landing areas and climb to 1,000 feet as soon as possible. Pilots must also reduce their engine RPMs when it is safe to do so to also minimize noise over sensitive receptors including residential areas, schools and hospitals, and densely populated areas.

Sensitive receptors within 1 mile of the airport facilities include, but may not be limited to:

- Emerald Downs 0.3 miles west of the airport runway
- Dick Scobee Elementary School 0.3 miles south east
- Cascade Middle School 0.3 miles east
- Brannan Park 0.3 miles east
- White River Buddhist Temple 0.4 miles north
- Victory Fellowship 0.5 miles south
- Auburn Municipal Golf Course 0.6 miles east
- Isaac Evans Park 0.6 miles east
- Dystra Park 0.6 miles east
- Auburn High School and Veteran's Memorial Park 0.7 miles south
- The Church of Jesus Christ of Latter-Day Saints 0.7 miles southeast
- Messiah Lutheran Church 0.8 miles southeast
- Frank Fulmer Field 0.8 miles southeast
- Scootie Brown Park 0.8 miles southeast
- Multi-Care Auburn Medical Center 0.9 miles south

Additional information about land use planning and zoning in the vicinity of the Airport is provided below. This information was drawn (with minor editorial adjustments) from the February 2013 Inventory of Existing Conditions prepared by Century West.

Land use planning and zoning for the Airport and in the immediate vicinity are administered by the City of Auburn. Areas north, south, west and east of the Auburn city limits are under the jurisdiction of King County or adjacent municipalities of Kent, Algona, Pacific, and Federal Way.

Comprehensive Plan Land Use Designation

The Comprehensive Plan is a guidance document which expresses the way in which the city seeks to grow and develop. The City of Auburn Comprehensive Plan land use designation for Auburn Municipal Airport is "Public and Quasi-Public." The stated purpose of this land use designation is to reflect the coordinated effort of local officials to designate an area of significant size needed to provide public or quasi-public services to the community, and which are not more appropriate for inclusion in another designation. The "Public and Quasi-Public: designation of the Airport is consistent with the community-serving transportation and economic development function of the Airport. Examples of other uses also encompassed by the "Public and Quasi-Public" designation elsewhere in the City include large churches, large private schools, and similar uses. Industrial and

commercial uses affiliated with or managed by educational institutions may also be classified as a public use and permitted on a conditional basis.

The land use designations in the vicinity of the Auburn Municipal Airport include Light Industrial, Heavy Industrial, and Heavy Commercial. Properties to the west of the Airport are designated Light Industrial; the purpose of this designation is specifically to reserve quality lands for the City's economic development goals while providing a location attractive for manufacturing, processing and assembling land use activities that benefit from quality surroundings and appropriate commercial retail uses that benefit from the location, access, physical configuration, and building types of these properties. Lighter industrial and heavy commercial uses may be permitted in this land use designation. In contrast, the Heavy Industrial land use designation of properties located to the north and east provides for a wide range of heavier accommodate a wide range of heavier commercial uses involving extensive storage or heavy vehicular movement meeting both a local and regional need for such services.

Airport Zoning

Auburn Municipal Airport is zoned "Airport Landing Field District (LF)" by the City of Auburn. The LF district zoning is intended to accommodate the operation and management of the Auburn Municipal Airport. Inherent in the operation and management of the Airport is avoiding actions that endanger the lives and property of users of the Auburn Municipal Airport and of occupants of land or property in its vicinity, and actions that have the effect of reducing the size of the area available for the landing, taking off and maneuvering of aircraft and that tend to impair the utility of the municipal airport and the public investment. This zoning classification establishes certain zones which include all of the land lying within the non-instrument approach zone, transition zone, horizontal zone, conical zone and obstacle free areas consistent with Federal Air Regulations (FAR) Part 77 as amended. The LF District accounts for approximately 112 acres in the City of Auburn, or 0.57% of the total city area. This LF District exists at only one location within the City and only implements the "Public and Quasi-Public" land use designation of the City's Comprehensive Plan.

Airport Vicinity Zoning

The zoning classification of properties in the vicinity of the Airport includes Light Industrial (M1), Heavy Industrial (M2) and Heavy Commercial (C3) districts. There are minimal land use restrictions on any of these land use zoning classifications.

Light Industrial Zone (M1) is intended for a variety of industrial, commercial, and limited residential uses in an industrial park setting. The uses are non-nuisance generating for air and water pollution, noise, vibration, glare and odor. Most uses should be carried out indoors including those that would degrade visual quality of the area, such as outdoor storage.

Heavy Industrial Zone (M2) is intended to accommodate a broad range of manufacturing and industrial uses. Adjacent land uses may not discourage or interfere with a properties heavy industrial use or produce traffic in conflict with industrial uses.

Heavy Commercial Zone (C3) is intended to allow for medium to high intensity uses consisting of a wide range of retail, commercial, entertainment, office, services, and professional uses. The zone is oriented towards automobiles but fostering pedestrian use. This is the least restrictive commercial use zone.

Airport Overlay Zone

The City of Auburn zoning ordinances do not include the convention of an airport overlay zoning but achieve the same effect according to city planning staff. Specific protective elements within the basic zoning designations in the vicinity of the airport will be described in the land use compatibility section of the master plan. Airport overlay zoning is intended to prevent airspace obstructions around airports by establishing height limitations based on an airport's FAR Part 77 airspace surfaces. Airport overlay zoning may also limit land use and densities, as outlined in airport land use compatibility guidelines created by WSDOT Aviation Division.

Flood Hazard Areas

Portions of the northern end of the Airport property have been identified as special flood hazard areas by the Federal Emergency Management Agency (FEMA), indicating that they are subject to inundation by a 100-year flood (FEMA Zone AE). These include the three stormwater detention ponds, as well as some of the lands underlying the hangars in the northeastern corner of the property, immediately south of 30th Street NE. Some adjoining areas have been identified as being subject either to inundation by a 500-year flood or with average depths of less than 1 foot (FEMA Zone X). These include some areas identified for potential off-airport terminal development near the northeastern corner of the Airport property. In addition, King County has identified the northern portion of the Airport property (generally, north of 22nd Street NE) as an area at risk for possible flood inundation if flows in the Green River exceed the capacity of the containing levees by a factor of approximately 2.

Geological Hazard Areas

The Auburn Municipal Code (AMC) places restrictions on constructing structures or impervious surface near critical geologic hazard areas, which are defined as lands subject to high or severe risks of geologic hazard, including critical erosion hazard areas, critical landslide hazard areas, and critical seismic hazard areas. Based on a review of geologic hazard maps developed by the Washington Department of Natural Resources, no such areas have been identified in or near the Airport property. In addition, no soils identified by the U.S. Department of Agriculture Natural Resource Conservation Service as having a severe or very severe erosion hazard have been mapped in or near the Airport property. The Airport is not within a potential lahar inundation zone but is within an area potentially subject to erosion and sedimentation following a volcanic eruption.

Parks and Recreation Resources

Several parks and recreational facilities are located within 1 mile of the Airport. Most of these are owned and operated by the City of Auburn and are east of the Airport property. Moving from north to south, these include the following:

- **Auburn Golf Course**—A full-service 18-hole facility operated by the City of Auburn Parks, Arts, and Recreation Department. The facility includes putting and chipping greens, a pro shop, and restaurant facilities.
- **Isaac Evans Park**—A riverfront park with a grassy space featuring picnic tables, picnic shelters, restroom facilities and playground equipment. The park is connected to Dykstra Park by a footbridge over the Green River.
- **Brannan Park**—The location of one of Auburn's most heavily used sports complexes. The park features lighted baseball fields, a basketball court, and a soccer field, as well as a skate park, play structures, picnic facilities, restrooms, and a concession stand.
- **Dykstra Park**—A neighborhood park with picnic facilities and a play structure, and a footbridge connection to Isaac Evans Park.
- **Scootie Brown Park**—A small park featuring play structures, picnic tables, a softball field, a pickleball court, and a basketball court.
- **Fulmer Field**—An active sports facility with two softball fields, a play structure, and restrooms.
- **Veteran's Memorial Park**—A popular community park that includes a play structure, basketball court, lawn area, and community building.

The most prominent private recreational facility in the vicinity of the Airport is Emerald Downs, a thoroughbred racing facility featuring a 1-mile race track, grandstand, barns, a sales pavilion, equine hospital, and a wetland mitigation site.

None of the recreational and park facilities located within 1 mile of the Airport appears to limit master planning efforts.

UTILITIES

Utilities that support the airport operations include water, sanitary sewer, stormwater, power, and gas. The following discussion was drawn (with minor editorial adjustments) from the February 2013 Inventory of Existing Conditions prepared by Century West.

Water

Water service for the airport property is provided by the City of Auburn. The water system enters the property at several locations and provides service to the north hangar area, the central hangar area, the airport office, and south hangar area.

The north hangar area is served with an 8" looped water main connected in two locations on 30th Street NE. Two hydrants are located along 30th Street NE and three hydrants are located on the east side of the east drive aisle.

The central hangar area is served with an 8" water main connected through 26th Street NE and then extending south along the east taxiway to the hangar area. The main loops through the hangars, providing water services. There are two fire hydrants located in front of the hangar area along the east taxiway.

The small office adjacent to the center tiedown apron (formerly the airport management office) is served with an 8" main extending from 23rd Street NE. There are two fire hydrants along the entrance road to the office and just north of the central tie down area.

An 8" water main parallels the southern hangar area in the E Street NE right of way. There are service lines for Building 506 (formerly Northwest Aviation College) and the wash rack. Fire hydrants are evenly spaced in the E Street NE right of way.

The southern tiedown area and fixed-base operator (FBO) is served from the 8" main in E Street NE where it transitions onto the airport property just south of the southern hangar where there is a fire hydrant. The main then extends south to 16h Street NE. There is one fire hydrant located just west of the FBO providing service to the tie down area.

Water mains of various sizes (8", 12", and 16") have been extended just outside the western perimeter of the airport property and currently serve the warehouses and business to the west.

Fire protection is provided by the Valley Regional Fire Authority.

Sanitary Sewer

The City of Auburn owns and operates the sanitary sewer system serving the airport property and serves the same buildings that have water service.

The northern hangar area is served by a sewer main that is extended from 30th Street NE along the eastern hangar access road.

The central east side of the airport property is served by a sewer main the parallels the north section of the east parallel taxiway along the frontage of the central hangar area, to the airport office. This main serves the central hangars and the office. The sewer main crosses the runway in two locations between Exits E and F at approximately the midpoint of the runway. The sewer then extends to the north along the western airport boundary and connects to the sewer main in 30th Street NE.

The FBO in the south tiedown area and the wash rack located in the NE corner of the south hangar area are both served by the sewer main in E Street NE. This main flows north and connects to the main crossing runway 16/34 at midfield.

Stormwater

The stormwater management system is more fully described in the Stormwater Management Evaluation prepared by Parametrix in April 2014. The airport has a stormwater drainage system that utilizes a series of building roof drains, catch basins, swales, and culverts. Three detention points are located on the airport property in the northwest corner. The City of Auburn maintains a Stormwater Pollution Prevention Plan (SWPPP) for Auburn Municipal Airport that complies with the Industrial Stormwater General Permit (ISWGP) Condition S3.A.1 through 3. The best management Practices (BMPs) outlined in these sections provide adequate methods to control

and treat stormwater pollution. They are also consistent with the 2005 Stormwater Management Manual for Western Washington (SWMM). Examples of the BMPs include providing proper disposal of waste oil and fuel, having an emergency spill response and cleanup plan, and adequate monitoring of the aircraft fuel tanks to ensure no leakage is unnoticed.

The airport property is divided into two drainage basins. Basin 0 is located at the south end of the airport and includes the south aircraft tie down apron, the FBO office and parking lot, the southernmost row of hangars in the south hangar area, the adjacent portion of Taxiway A, and approximately 250 feet of Runway 34. Stormwater runoff from Basin 0 is collected in a series of catch basins, pipes, swales, and ponds that ultimately join together to flow west approximately 200 feet north of the end of Runway 34. The stormwater then enters a swale that continues west, off the airport property, and joins the City stormwater system along B Street NW. There is a small area along the southern fence line routinely floods and encroaches on the southernmost Taxiway and run up area. It should also be noted that D Street NE and the southern end of E Street NE are also connected to the storm system as it passes through the airport.

Basin 1 contains the entire airport area north of Basin 0. This basin also is a series of catch basins, pipes, swales, and ponds. The entire basin flows to the north. The runoff from the hangar areas, aprons, and taxiways are collected in a pipe that runs along the east side of parallel Taxiway A and discharges to the City stormwater system in 30th Street NE. The runoff from runway 16/34 is collected in underdrains that parallel both sides if the runway. These underdrains are routed to the swales between the runway and parallel Taxiway. The swales ultimately flow to the north and also discharge to the City stormwater system in 30th Street NE.

The three large ponds along the northwest property line primarily collect and treat stormwater from the large warehouse area west of the airport. The ponds are connected with culverts and drain to the City stormwater system in 30th Street NE. The three ponds are covered with netting so they do not attract birds.

The swale between the 30th Street NE and the northernmost hangar experiences flooding that encroaches on the hangar taxiway. Also the small grassy area at the west end of the northernmost hangar experiences flooding that encroaches on Taxiway A.

Power

Electrical service is provided by Puget Sound Energy and enters the airport on the east side. Most electrical service lines located on the airport are underground with some overhead lines serving buildings along the east side of the airport.

Gas

Natural gas service is provided by Puget Sound Energy and enters the airport on the east side.

WATER RESOURCES

Stormwater

The Airport's stormwater drainage system involves a series of building roof drains, catch basins, swales, and culverts, along with three detention ponds at the northwest corner of the property. The direction of flow and basin information is available in the Stormwater Management Evaluation technical memorandum for the Auburn Airport Master Plan. For purposes of this section, the system involves a series of above ground features including swales and ponds. The stormwater that does not infiltrate is collected and piped to the City of Auburn storm sewer where it is discharged into either Mill Creek or the Green River. Three of the pond features, Ponds "F", "G", and "H", collect stormwater from an offsite location to the west but do not collect stormwater from the airport facility.

Wetlands

Wetlands and waters of the U.S. are regulated under the Clean Water Act, as amended in 1977, and Executive Order 11990, Protection of Wetlands, as implemented by DOT Order 5660.1A, Preservation of the Nation's Wetlands. In addition, the City of Auburn's critical areas ordinance places restrictions on development activities in and near streams and wetlands. Wetlands have been documented on and near Airport property, indicating that development activities in some portions of the Airport would require mitigation of wetland impacts. Potential development projects affecting wetlands require permits from the U.S. Army Corps of Engineers and appropriate in-kind mitigation as required by federal, state, and local regulations.

A reconnaissance-level field investigation was conducted in 2013 to verify wetland delineations performed in 2007 and to identify potential mitigation opportunities if wetlands on Airport property were to be impacted by future development. The study area for that review was an approximately 27-acre portion of King County Parcel Number 0000800009, at the southwestern corner of the Airport property.

The 2013 field investigation confirmed the presence of four wetlands in the study area. The largest of these is classified as a Category II wetland (partially forested, partially scrub/shrub/emergent) by the City of Auburn (AMC 16.10.080); the others are Category IV wetlands. Any development activities that impact wetlands or wetland buffers would be required to implement mitigation measures, including the creation of new wetlands or the enhancement of existing wetlands. The amount of wetland creation or enhancement is determined by replacement ratios established in the critical areas ordinance.

Table 1 identifies the City of Auburn's replacement ratios for direct impacts to wetlands. Mitigation for impacts to forested Category II wetlands entails the highest replacement ratios. If new wetlands are created to mitigate for impacts, the replacement ratios are one-half the ratios that would be required if existing wetlands are enhanced.

Table 1. City of Auburn wetland replacement ratios, per AMC 16.10.110 C.3

Wetland Category	Wetland Creation Ratio	Wetland Enhancement Ratio
Category II – Forested	3:1	6:1
Category II – Scrub/Shrub/Emergent	2:1	4:1
Category IV	1.25:1	2.5:1

A range of options for development in the study area was reviewed in 2013, along with estimated costs for mitigation for wetland impacts associated with each option. The estimated costs ranged from approximately $250,000 for a minimal development option (entailing approximately 2.5 acres of on-site enhancement of wetlands and wetland buffers) to more than $5 million for a scenario involving full development of the property and the construction and enhancement of off-site wetlands. Actual costs of mitigation and permitting for any proposed development activities would of course vary, depending on the amount and type of wetland and buffer impacts, as well as the existing conditions of any proposed mitigation sites.

Streams

No streams or rivers run through the Airport property. In general, surface water runoff sheet flows to the City of Auburn's stormwater system west and north of the Airport. The Airport site falls within the Mill Creek-Green River watershed, ultimately draining to the Puget Sound. Mill Creek, a tributary to the Green River, is approximately 0.5 mile west of the Airport, and the Green River is approximately 0.5 mile east of the Airport.

The quality of surface waters is protected through the implementation of water quality standards pursuant to the Clean Water Act. The water quality standards are established to sustain public health and public enjoyment of the waters and the propagation and protection of fish, shellfish, and wildlife. When surface water features clearly do not meet their established standards, they are identified as impaired under Section 303(d) of the Clean Water Act. The Washington State Department of Ecology regularly reviews and determines the water quality status of polluted water bodies within Washington and publishes them in a 303(d) list. For each water body listed, Ecology then develops a pollutant management plan where total maximum daily loads (TMDLs) are established to rectify and maintain water quality within standards for those exceeded parameters.

Segments of Mill Creek closest to the Airport are on the most recent 303(d) list, based on low levels of dissolved oxygen and high levels of bacteria. A TMDL has been established to address high temperatures in the portion of the Green River closest to the Airport. In addition, the Green River where it is joined by Mill Creek is on the 303(d) list for low levels of dissolved oxygen.

WDFW has documented the presence of several salmonid fish species in Mill Creek and the Green River. Mill Creek provides spawning habitat for coho salmon, and Chinook salmon, steelhead, and cutthroat trout are known to be present in the stream. The Green River provides spawning habitat for Chinook, chum, coho, pink, and sockeye salmon, as well as steelhead and cutthroat trout; bull trout may also be present in the river.

AIR QUALITY

Three agencies have jurisdiction over ambient air quality in the analysis area: the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA). These agencies establish regulations that govern both the concentrations of pollutants in the outdoor air and contaminant emissions from air pollution sources. Although their regulations are similar in stringency, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the EPA standards pertain.

Areas that have experienced persistent air quality problems are designated by EPA as nonattainment areas. The federal Clean Air Act requires additional air pollution controls in these areas. After air monitoring shows that a nonattainment area is meeting health-based air quality standards, EPA redesignates the area as an attainment area. To be redesignated, an area must both meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards and other requirements of the Clean Air Act. Areas that are redesignated to attainment are called maintenance areas.

The portions of King County surrounding the Airport have been designated as a maintenance area for carbon monoxide and ozone. EPA approved a 10-year maintenance plan for carbon monoxide and ozone in the central Puget Sound area in 2004. The plan relies on control strategies that focus on motor vehicle emissions but also includes emissions associated with the Seattle-Tacoma International Airport in the area-wide emissions inventory through the maintenance period. EPA's general conformity guidance for airports encourages airport operators to 1) develop comprehensive emissions inventories for their facilities, 2) generate estimates of future activities and associated emissions, and then 3) work with local and state air quality agencies to ensure that any corresponding maintenance plans accurately reflect and account for all emissions at the airport and growth rates for operations at the airport.

Piston-engine aircraft operating on leaded aviation gasoline have been identified as a potential source of lead emissions. Auburn Municipal Airport was included in a recent airport monitoring study conducted by EPA, assessing concentrations of lead in the air. Draft results of the study found that the maximum 3-month rolling average of lead concentrations near the Airport were less than 50 percent of the air quality standard, indicating a low level of concern.

SPECIES OF CONCERN

For this analysis, species of concern are defined as those protected by environmental regulations that would need to be addressed before the implementation of proposed airport improvements in the Master Plan. Such species include those listed or proposed for listing under the federal Endangered Species Act (ESA), as well as species for which wildlife habitat areas have been established in the City of Auburn's critical areas ordinance (AMC Chapter 16.10). Per AMC 16.10.080, wildlife habitat areas include those where the presence of species or habitat listed by federal or state agencies as endangered, threatened, or sensitive has been documented, as well as areas with unusual nesting or resting sites, such as heron rookeries. Critical wildlife habitat also includes Category I wetlands and Class I streams; neither of which are located on or adjacent to the study area.

Table 2 identifies ESA-listed or proposed species and state-listed endangered, threatened, or sensitive fish and wildlife species that could occur in King County. Discussions in this document focus on fish and wildlife species because there are no known populations of ESA-listed plants in the county, and state listing status confers no regulatory authority concerning the management of plant species. The table also summarizes information about the potential for each species to occur in the area addressed by the Master Plan, based on the presence of documented observations or potentially suitable habitat within or near Airport property. The Washington Department of Fish and Wildlife (WDFW) database of priority habitats and species was reviewed for documented observations of endangered, threatened, or sensitive species within a 2 mile radius of the Airport.

Table 2. Fish and wildlife species of concern that may occur in the Auburn Airport Master Plan analysis area

Species	Status (Federal / State)	Occurrence in Analysis Area
Bull trout (*Salvelinus confluentus*)	Threatened / Candidate	No suitable habitat or documented occurrences, but potential effects on downstream water quality need to be assessed
Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*)	Threatened / Candidate	No suitable habitat or documented occurrences, but potential effects on downstream water quality need to be assessed
Puget Sound steelhead (*Oncorhynchus mykiss*)	Threatened / Candidate	No suitable habitat or documented occurrences, but potential effects on downstream water quality need to be assessed
Olympic mudminnow (*Novumbra hubbsi*)	None / Sensitive	No suitable habitat or documented occurrences
Pygmy whitefish (*Prosopium coulterii*)	Species of Concern / Sensitive	No suitable habitat or documented occurrences
Larch Mountain salamander (*Plethodon larselli*)	Species of Concern / Sensitive	No suitable habitat or documented occurrences
Oregon spotted frog (*Rana pretiosa*)	Proposed Threatened / Endangered	No suitable habitat or documented occurrences
Pacific (Western) pond turtle (*Actinemys marmorata*)	Species of Concern / Endangered	No suitable habitat or documented occurrences
Common loon (*Gavia immer*)	None / Sensitive	No suitable habitat or documented occurrences
Marbled murrelet (*Brachyramphus marmoratus*)	Threatened / Threatened	No suitable habitat or documented occurrences

Table 2. Fish and wildlife species of concern that may occur in the Auburn Airport Master Plan analysis area

Species	Status (Federal / State)	Occurrence in Analysis Area
Northern spotted owl (*Strix occidentalis caurina*)	Threatened / Endangered	No suitable habitat or documented occurrences
Bald eagle (*Haliaeetus leucocephalus*)	Species of Concern / Sensitive	No suitable habitat or documented occurrences
Peregrine falcon (*Falco peregrinus*)	Species of Concern / Sensitive	No suitable nesting habitat or documented occurrences
Yellow-billed cuckoo (*Coccyzus americanus*)	Proposed Threatened / Candidate	No suitable habitat or documented occurrences
Canada lynx (*Lynx canadensis*)	Threatened /	No suitable habitat or documented occurrences
Gray wolf (*Canis lupus*)	Endangered / Endangered	No suitable habitat or documented occurrences
Grizzly bear (*Ursus arctos horribilis*)	Threatened / Endangered	No suitable habitat or documented occurrences
Fisher (Pekania pennanti)	Candidate / Endangered	No suitable habitat or documented occurrences
North American wolverine (*Gulo gulo luscus*)	Proposed Threatened / Candidate	No suitable habitat or documented occurrences

No species that are listed or proposed for listing under the ESA are known or expected to occur in the Master Plan analysis area, and no critical habitat for ESA-listed species has been proposed or designated in the analysis area. The nearest locations where ESA-listed or proposed species are known to occur are Mill Creek and the Green River, which support populations of Chinook salmon and steelhead, and where bull trout may be present. Although both streams are several hundred feet away from the Airport, fish in the streams could be affected by stormwater runoff from Airport lands.

According to information provided by WDFW, no documented observations of state-listed endangered, threatened, or sensitive species have been made within 2 miles of the Airport. The following paragraphs briefly summarize each species' potential to use habitats in the analysis area.

Bull trout require cold water temperatures in low-gradient stream reaches with loose, clean gravel for successful egg incubation and juvenile rearing. These conditions are not present in the Green River or Mill Creek near the Airport. However, the lower Green River provides foraging, migration, and overwintering habitat for subadult and adult bull trout. Although pollutants in stormwater from the Airport are unlikely to reach the Green River in

concentrations that would affect fish, individual projects may be required to analyze potential effects related to water quality.

Puget Sound Chinook salmon are known to spawn in the Green River and may be present in Mill Creek. The National Marine Fisheries Service (NMFS) has designated critical habitat for Puget Sound Chinook salmon in the Green River. Although pollutants in stormwater from the Airport are unlikely to reach Mill Creek or the Green River in concentrations that would affect fish, individual projects may be required to analyze potential effects related to water quality.

Steelhead are known to spawn in the Green River and may be present in Mill Creek. NMFS has proposed designating critical habitat for Puget Sound steelhead in the Green River. Although pollutants in stormwater from the Airport are unlikely to reach Mill Creek or the Green River in concentrations that would affect fish, individual projects may be required to analyze potential effects related to water quality.

Olympic mudminnows are found in the southern and coastal drainages of the Olympic Peninsula and the southern Puget Sound basin. There is no evidence to suggest that historical sightings from streams in King County represent naturally occurring populations. No observations of Olympic mudminnows have been reported within 5 miles of the Airport. For this reason, improvements proposed in the Master Plan would have no effect on Olympic mudminnows.

Pygmy whitefish are found in coldwater lakes and streams in mountainous areas. The Airport is in the lower Green River valley, where no such habitat is present. No observations of pygmy whitefish have been reported within 5 miles of the Airport. For this reason, improvements proposed in the Master Plan would have no effect on pygmy whitefish.

Larch Mountain salamanders are found on steep slopes with talus and other rocky substrates. No such habitat is present near the Airport, and no observations of Larch Mountain salamanders have been reported within 5 miles. For this reason, improvements proposed in the Master Plan would have no effect on Larch Mountain salamanders.

Oregon spotted frogs are known to occur in Washington State only at large wetland complexes in Klickitat, Skamania, and Thurston Counties. Oregon spotted frogs depend on perennial bodies of water and associated wetlands. No such habitat is present near the Airport, and no observations of spotted frogs have been reported within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on Oregon spotted frogs.

Pacific (Western) pond turtles require shallow bodies of water with sufficient basking surfaces and vegetative cover. Female turtles dig nests and deposit eggs in compact, dry soil on upland sites, generally within 300 feet of suitable water bodies. No such habitat is present near the Airport, and no observations have been reported within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on Pacific (western) pond turtles.

Common loons nest on secluded shorelines of lakes larger than 30 acres and winter on lakes and marine waters. No such habitat is present within 2 miles of the Airport, and no observations of common loons have been reported

within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on common loons.

Marbled murrelets nest in old-growth forest and forage in marine areas. No such habitat is present within 2 miles of the Airport, and no observations of marbled murrelets have been reported within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on marbled murrelets.

Northern spotted owls nest, roost, and forage in old-growth forest. No such habitat is present within 2 miles of the Airport, and no observations of spotted owls have been reported within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on marbled murrelets.

Bald eagles use large trees for nesting, roosting, and perching. In Washington, nearly all bald eagle nests are within 1 mile of a lake, river, or marine shoreline. Bald eagles typically forage over open water and use riparian trees (often cottonwood) for perching. No large water bodies likely to provide suitable foraging habitat are present within or near the Airport property, and the nearest known nesting area is approximately 4 miles away. For these reasons, improvements proposed in the Master Plan would have no effect on bald eagles.

Peregrine falcons typically nest on cliffs that are at least 150 feet tall, although they will also use buildings and bridges. No suitable nesting cliffs occur within 2 miles of the Airport, and no observations of peregrine falcons have been reported within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on peregrine falcons.

Yellow-billed cuckoos require large blocks of riparian habitat for breeding. No such habitat is present within 2 miles of the Airport and no observations of yellow-billed cuckoos have been reported within 5 miles. The last confirmed breeding record of yellow-billed cuckoos in Washington State was from the 1930s; it is probable that the species no longer nests in the state. For these reasons, improvements proposed in the Master Plan would have no effect on yellow-billed cuckoos.

Canada lynx, gray wolf, grizzly bear, and **North American wolverine** require remote areas with low levels of human activity. The Airport is in a lowland setting with relatively high levels of human activity no nearby roadless areas and does not, therefore, provide suitable habitat for any of these species. No observations of any of these species have been documented within 5 miles of the project action area. For these reasons, improvements proposed in the Master Plan would have no effect on Canada lynx, gray wolves, grizzly bears, or North American wolverines.

Fishers require forests with diverse successional stages containing a high proportion of mid- and late-successional characteristics. No such habitat is present near the Airport and no observations of this species have been documented within 5 miles. For these reasons, improvements proposed in the Master Plan would have no effect on fishers.

In addition to the species discussed above, WDFW also identified several state- and/or federally listed species of fish and marine mammals with the potential to occur in marine waters of King County; none of these species is expected to use any habitats that could be affected by any airport improvements proposed in the Master Plan.

Other statutes and regulations that may result in analysis requirements or project restrictions are the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Migratory Bird Treaty Act makes it unlawful to take migratory birds or their nests, eggs, and feathers. Nearly all bird species that may occur in the analysis area are protected under this act, which can result in the imposition of timing restrictions on activities with the potential to harm bird nests. The Bald and Golden Eagle Protection Act prohibits activities that may disturb bald or golden eagles. Proposals for ground-disturbing activities within 660 feet of bald eagle nests, roost sites, or foraging areas may be required to comply with federal guidelines for bald eagle management[1].

WILDLIFE HAZARDS

Most airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. However, these areas can also encourage wildlife to enter an airport's airspace. Constructed or natural areas around airports can provide wildlife with ideal locations for feeding, reproduction, and escape. Many airports have been required to develop Wildlife Hazard Assessments and/or Wildlife Hazard Management Plans in accordance with 14 CFR Part 139.337. Information from such documents can help identify current wildlife challenges, available habitat, and recommendations for habitat mitigation, thereby decreasing instances of wildlife interaction with airport operations. One of the most commonly identified challenges is the risk of bird strikes. The three stormwater detention ponds at the northwest corner of the Airport property are covered with netting to discourage use by birds.

DATA SOURCES

Ecology (Washington State Department of Ecology) 2012. Water quality assessment for Washington: 303(d)/305(b) integrated report viewer. Available at http://www.ecy.wa.gov/programs/wq/303d/currentassessmt.html.

King County. 2010. Lower Green River flood boundary work map, Plate LG07. Draft, 3/11/2010. Available at http://www.kingcounty.gov/environment/waterandland/flooding/maps.aspx. Accessed April 7, 2014.

NMFS (National Marine Fisheries Service). 2014. ESA listings of west coast salmon and steelhead. Available at http://www.westcoast.fisheries.noaa.gov/maps_data/species_population_boundaries.html. Accessed April 3, 2014.

Parametrix. 2013. Estimated wetland boundary verification. Technical Memorandum from Matt Maynard, Parametrix, to W. Matt Rogers, Century West Engineering. April 9, 2013.

Parametrix. 2013. Development/mitigation options. Technical Memorandum from Matt Maynard, Parametrix, to W. Matt Rogers and Bill Thomas, Century West Engineering. June 10, 2013.

[1] Until recently, WDFW also required bald eagle management plans for proposed development projects. Following the removal of bald eagles from the federal list of endangered species in 2007, the Washington State Fish and Wildlife Commission amended state bald eagle protection rules so that such plans are no longer required.

Puget Sound Clean Air Agency. Available at http://www.pscleanair.org/airq/network/default.aspx. Accessed April 7, 2014.

U.S. Department of Agriculture Natural Resources Conservation Service. 2014. Web Soil Survey. Available at http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 7, 2014.

USFWS (U.S. Fish and Wildlife Service). 2014. Species list for Kitsap County, Washington. Available at http://www.fws.gov/wafwo/speciesmap_new.html. Accessed April 3, 2014.

USFWS (U.S. Fish and Wildlife Service). 2013b. U.S. Fish and Wildlife Service critical habitat mapper. Available at http://ecos.fws.gov/crithab/. Accessed April 3, 2014.

Washington Department of Natural Resources. 2014. Washington State geologic information portal: natural hazards interactive map. Available at http://www.dnr.wa.gov/ResearchScience/Topics/GeosciencesData/Pages/geology_portal.aspx. Accessed April 7, 2014.

WDFW (Washington Department of Fish and Wildlife). 2014. PHS on the Web: An interactive map of WDFW priority habitats and species information for project review. Available at http://wdfw.wa.gov/mapping/phs/. Accessed April 3, 2014.

WDFW (Washington Department of Fish and Wildlife). 2014. SalmonScape web application. Available at http://apps.wdfw.wa.gov/salmonscape/. Accessed April 3, 2014.

Williamson, J. 2013. 2012 airport lead study, Auburn Municipal Airport and Harvey Field. Final report: April 3, 2013. Washington State Department of Ecology.

LEGEND

	EXISTING	FUTURE
BUILDINGS		
AIRFIELD PAVEMENT		
BUILDING RESTRICTION LINE (BRL)	BRL (E)	BRL (F)
AIRCRAFT PARKING LINE (APL)	APL (E)	APL (F)
AIRPORT PROPERTY LINE		
RUNWAY SAFETY AREA (RSA)		
OBJECT FREE AREA (OFA)		
OBSTACLE FREE ZONE (OFZ)		
TAXIWAY OBJECT FREE AREA (TOFA)		
RUNWAY PROTECTION ZONE (RPZ)		
GROUND CONTOURS	10'	SAME
AIRPORT REFERENCE POINT (ARP)		
RUNWAY END IDENTIFIER LIGHTS (REIL)		
VISUAL GUIDANCE INDICATORS (PAPI)		
WIND INDICATOR		
SEGMENTED CIRCLE WIND INDICATOR		
FENCE		
BEACON		
THRESHOLD LIGHTS		
ACCESS ROAD/VEHICLE PARKING	N/A	
AVIGATION EASEMENT		
DEVELOPMENT RESERVE	N/A	
TO BE REMOVED		N/A
MEDIUM INTENSITY RUNWAY LIGHTS (MIRL)		
PROPERTY TO BE ACQUIRED		N/A

N AUBURN WAY

NE 22ND STREET

NE 15TH STREET

NE E STREET

NE 30TH STREET

NE 16TH STREET

POND I CATCHMENT

CONTOURS HANGARS CATCHMENT

RUNWAY/TAXWAY CATCHMENT

SOUTHWEST OUTFALL CATCHMENT

POND F, G, H, CATCHMENT

BASIN I

BASIN O

FUTURE DECLARED DISTANCE DEPARTURE 34 OPERATIONS
250' X 450' X I000'
APPROACH VISIBILITY MINIMUMS
NOT LOWER THAN I-MILE
B-I (SMALL)

EXISTING RPZ
250' X 450' X I000'
APPROACH VISIBILITY MINIMUMS
NOT LOWER THAN I-MILE
B-I (SMALL)

POND I
AC HOLD (E)
OFA/OFZ (F)
RSA (F)
200'
240'
OFA/OFZ (F)
RWY 16
EL. 57'
POND H
OFA/OFZ (E)
POND G
POND F
34'
OFA/OFZ (E)
RSA (E)
30'
AC HOLD (E)
125'
250'
3400' X 75' (EXISTING)
79'
AC HOLD (E)
OFA/OFZ (E)
DONE
42'
RWY 34
EL. 63'

0' 200' 400'

Scale: 1"=200'

DRAFT

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER X-XX-XXXX-XXX-XX) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. 0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

SIGNATURE

CITY OF AUBURN APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST ENGINEERING CORPORATION

BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	SLK	AS SHOWN
DATE: -		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

AIRPORT LAYOUT PLAN

FIGURE NO. -

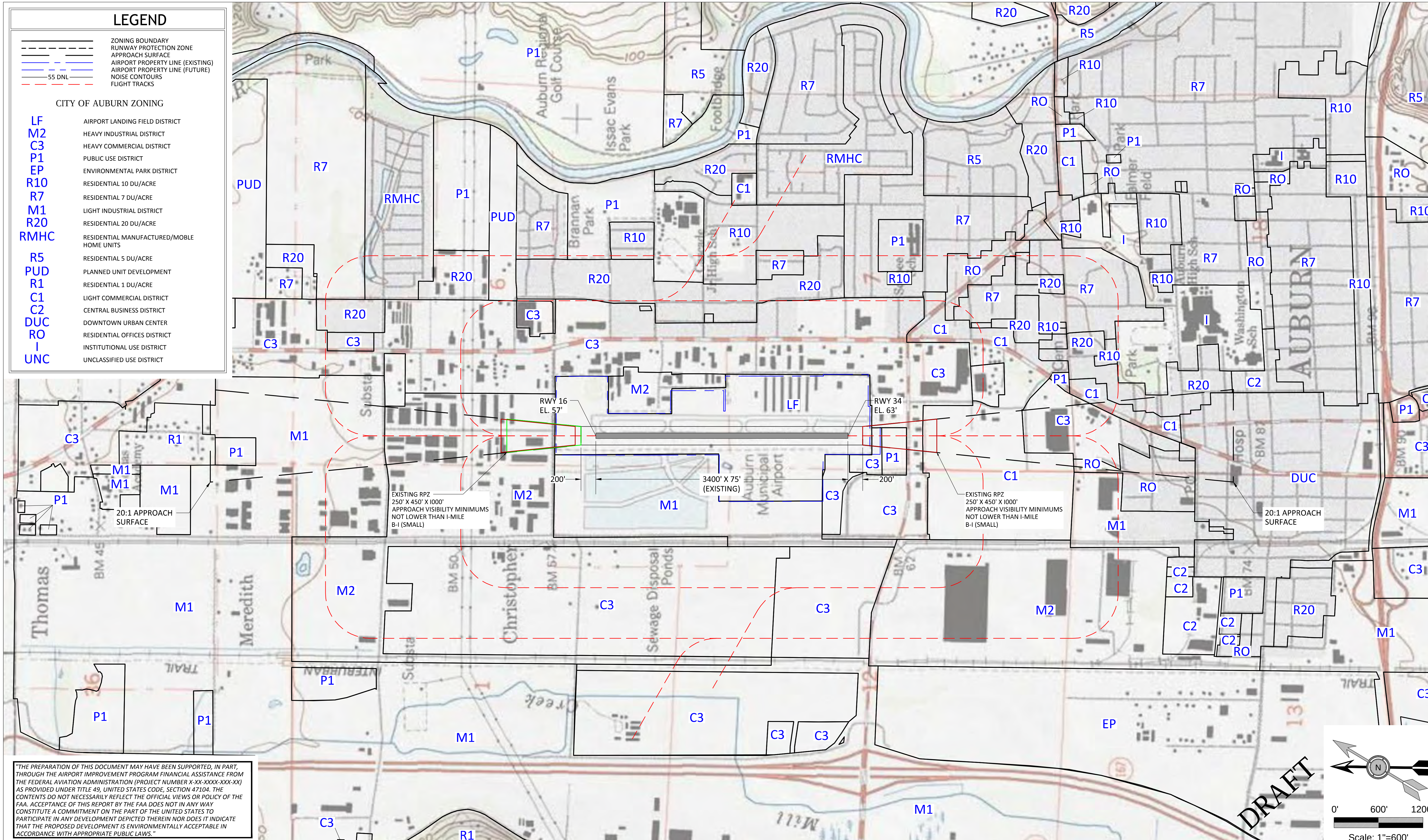
SHEET NO. 3 OF X

LEGEND

- ZONING BOUNDARY
- RUNWAY PROTECTION ZONE
- APPROACH SURFACE
- AIRPORT PROPERTY LINE (EXISTING)
- AIRPORT PROPERTY LINE (FUTURE)
- 55 DNL — NOISE CONTOURS
- FLIGHT TRACKS

CITY OF AUBURN ZONING

LF	AIRPORT LANDING FIELD DISTRICT
M2	HEAVY INDUSTRIAL DISTRICT
C3	HEAVY COMMERCIAL DISTRICT
P1	PUBLIC USE DISTRICT
EP	ENVIRONMENTAL PARK DISTRICT
R10	RESIDENTIAL 10 DU/ACRE
R7	RESIDENTIAL 7 DU/ACRE
M1	LIGHT INDUSTRIAL DISTRICT
R20	RESIDENTIAL 20 DU/ACRE
RMHC	RESIDENTIAL MANUFACTURED/MOBLE HOME UNITS
R5	RESIDENTIAL 5 DU/ACRE
PUD	PLANNED UNIT DEVELOPMENT
R1	RESIDENTIAL 1 DU/ACRE
C1	LIGHT COMMERCIAL DISTRICT
C2	CENTRAL BUSINESS DISTRICT
DUC	DOWNTOWN URBAN CENTER
RO	RESIDENTIAL OFFICES DISTRICT
I	INSTITUTIONAL USE DISTRICT
UNC	UNCLASSIFIED USE DISTRICT



"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER X-XX-XXXX-XXX-XX) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL
APPROVAL DATE: ____________
SIGNATURE

CITY OF AUBURN APPROVAL
APPROVAL DATE: ____________
SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
BEND OFFICE
1020 SW EMKAY DRIVE #100
BEND, OR 97702
541.322.8962
541.382.2423 (FAX)
WWW.CENTURYWEST.COM

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	SLK	AS SHOWN
DATE: -		PROJECT NO: 12446001.01	

AUBURN MUNICIPAL AIRPORT

LAND USE PLAN W/2032 NOISE CONTOURS

FIGURE NO. -

SHEET NO. 11 OF X

Appendix E

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

411 108th AVENUE NE, SUITE 1800
BELLEVUE, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

TECHNICAL MEMORANDUM

Date:	May 14, 2013
To:	Matt Rogers
From:	Matthew Maynard
Subject:	Development/Mitigation Options
cc:	Gary Maynard
Project Number:	553-2689-006 (01/05)
Project Name:	Auburn Airport

The purpose of this memorandum is to provide potential development/mitigation options and the approximate costs associated with those options to offset impacts that could occur to wetlands located on an undeveloped portion of the Auburn Airport, should the site be developed in the future. The subject property is a 27-acre portion of King County Parcel Number 0000800009 (Auburn Airport), located immediately west of the runway. Three potential options are presented below.

The first option is to optimize the on-site upland areas for development, and utilize a portion of the site to provide on-site compensatory mitigation for the associated impacts. This option would keep wetland impacts below 0.5 acre, the threshold for an individual permit from the U.S. Army Corps of Engineers (Corps). Under this option, the development would likely qualify for a Corps nationwide permit (Nationwide Permit 39 - Commercial and Institutional Developments). This would provide an irregular shaped area to be developed, but would allow for approximately 7.9 acres of land for development (Figure 1). It would impact all of Wetlands B, C, and D, but these would be mitigated for using the remaining wetland area on the site.

The second option is similar to the first, but would provide a more regular shaped area for development (Figure 2). Like the first option, this would keep impacts below 0.5 acre and allow for on-site compensatory mitigation. This option would impact all of Wetland D and a portion of Wetland A and would likely impact less wetland buffer than the first option. The total developable area would be approximately 4.8 acres.

The costs associated with these first two options would be similar, as the permitting and mitigation needs would be approximately the same. Both options would require environmental documentation and permits. A SEPA environmental checklist would be necessary to obtain a determination of non-significance or a mitigated determination of non-significance from the City of Auburn (as the SEPA lead agency). If federal funds are involved then documentation for NEPA would also apply (FAA would the lead agency), as well as compliance with other federal regulations such as the Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act. Permits would likely include the Corps Nationwide Permit 39, Ecology NPDES General Construction Stormwater permit, FAA Notice of Construction, and City of Auburn critical areas approval and site development permits (these may include a right-of-way, grading, and construction permits). The costs for the environmental review process would be in the range of $15,000-$25,000.

The cost of mitigation installation would vary, because it's dependent upon the needs of the individual site. However, $75,000 per acre is a relatively conservative cost estimate. Thus, the estimated costs of Options 1 and 2 range from $90,000 to $105,000.

The third option would be for the City of Auburn to purchase mitigation credits from King County to fully satisfy compensatory mitigation obligations. King County has an in-lieu fee mitigation program that could be used to compensate for any unavoidable impacts to wetlands on the study area. Typically, an agreement between the County and any interested City would need to be reached to utilize the program outside of un-incorporated King County (an incorporated city). This would be the most costly option. Although prices have not been officially set yet, the costs would range from $600,000 to $1,000,000 per acre. Therefore, costs would be dependent upon the amount of impacts that occur to the wetlands and buffers.

Currently, there are no other mitigation banks with a service area near the study area. However, if the City of Auburn (or other entity) were to establish a mitigation bank that would include the study area in its service area, that would be another potential option to consider.

Document Path: U:\Bell\Projects\Clients\2694-Century\West\553-2694-006 Auburn Airport\99Svcs\GIS\Ph01 Ta05 Airport Wetlands\Fig1 Developable.mxd

Parametrix

Source: (Parametix GPS 2013)

N

0 200

Feet

Estimated Wetland

Figure 1
Auburn Airport
Developable Area

Auburn Airport Master Plan

Document Path: U:\Bell\Projects\Clients\2694-Century\West\553-2694-006 Auburn Airport\99Svcs\GIS\Ph01 Ta05 Airport Wetlands\Fig2 Developable.mxd

Parametrix

Source: (Parametix GPS 2013)

N

0 200

Feet

Developable Land

Estimated Wetland

Figure 2
Auburn Airport
Developable Land

Auburn Airport Master Plan

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

411 108th AVENUE NE, SUITE 1800
BELLEVUE, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

TECHNICAL MEMORANDUM

Date:	April 9, 2013
To:	Matt Rogers
From:	Matthew Maynard
Subject:	Estimated Wetland Boundary Verification
cc:	Gary Maynard
Project Number:	553-2694-006 (01/05)
Project Name:	Auburn Airport Master Plan

The purpose of this technical memorandum is to provide the results of a reconnaissance level verification of a wetland delineation performed by ESA Adolfson in January of 2007 and to provide some potential mitigation opportunities should wetlands on the study area be impacted by future development. The verification was performed on an undeveloped area (study area), immediately west of the Auburn Airport runway. The study area is an approximately 27-acre portion of King County Parcel Number 0000800009 (Auburn Airport), owned by the City of Auburn.

At the request of Century West, Parametrix performed a reconnaissance level field investigation to verify the 2007 wetland delineation and determine if site conditions have changed. The results of the Auburn Airport Property Wetland Report (ESA Adolfson 2007) indicated the presence of four wetlands (Wetlands A through D) within the study area. The wetlands included one large shallow depressional wetland with multiple vegetation communities (Wetland A), including a forested community, and three shallow depressional wetlands primarily dominated by shrubs (Wetlands B, C, and D) (see Attachment A).

METHODS

Parametrix performed the reconnaissance level verification of the 2007 wetland delineation on April 1, 2013. The wetland verification was generally performed in accordance with the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers 2010). Wetlands were classified according to the U.S. Fish & Wildlife Service (Cowardin et al. 1979) and hydrogeomorphic (Brinson 1993) classification systems. Because this was a reconnaissance-level field investigation, data were collected at informal sample plots to distinguish wetland areas from non-wetland areas and wetland boundaries were approximated. The approximated wetland boundaries were surveyed with a hand-held GPS unit (Trimble Geo XH 6000 Series) (not flagged).

The 2007 wetland delineation was not surveyed, but a hand sketch was provided in the Wetland Report (Attachment A). This sketch map was used to visually compare the 2007 results to the 2013 verification map in order to determine if changes have occurred to the wetland boundaries.

RESULTS

Generally, current site conditions and wetland boundaries appear to be similar to those documented for the 2007 wetland delineation. Four wetlands (Wetlands A-D) were observed on the site. The boundary of Wetland A appears to have changed slightly since the previous delineation, primarily in the southeast portion of the wetland, which appears to now extend further to the south, and in the center of the wetland which now has an upland lobe extending to the north. Wetland D, previously noted as a palustrine emergent (PEM) wetland, now appears to be either dominated by shrubs, or no longer appears to meet wetland criteria and a new palustrine scrub-shrub (PSS) wetland, consistent with the conditions of Wetlands B and C, is in the same vicinity.

Wetland A is a depressional, palustrine forested (PFO), palustrine scrub-shrub (PSS), and PEM wetland that covers nearly half of the study area. Wetland A is dominated by black cottonwoods (*Populus balsamifera*), reed canarygrass (*Phalaris arundinacea*), red-osier dogwood (*Cornus sericea*), and Douglas' meadowsweet (*Spiraea douglasii*). It encompasses approximately 13 acres, primarily throughout the northern half of the study area (Figure 1).

Wetland B is a depressional, PSS and PEM wetland located near the center of the study area (Figure 1). It is dominated by Douglas' meadowsweet and reed canarygrass and encompasses approximately 0.21 acre.

Wetland C is a depressional, PSS and PEM wetland located in the southeastern quadrant of the study area (Figure 1). It is dominated by red-osier and yellow-twig dogwood and reed canarygrass. It encompasses approximately 0.12 acre.

Wetland D is a depressional, PSS and PEM wetland located near the southern boundary of the study area (Figure 1). It is dominated by yellow-twig dogwood and Douglas' meadowsweet and encompasses approximately 0.15 acre.

A stormwater pond is present near the northern study area boundary. As discussed in Attachment A, it was not included as part of the 2007 delineation per Auburn Municipal Code 16.10.020, but further information may be needed to determine if the pond would be regulated by the Washington Department of Ecology or the United State Corps of Engineers.

POTENTIAL MITIGATION OPPORTUNITIES

The first potential mitigation opportunity is associated with land located to the west of the study area. Based on aerial imagery, two parcels west of B Street and south of the Emerald Downs race track appear to potentially contain wetlands and may be dominated by invasive emergent vegetation. Further investigation would be required to determine if the property owner would be open to a land purchase agreement and to determine if the area has already been used as compensatory mitigation for past development. It would also need to be reviewed to see if sufficient land would be available to compensate for any proposed impacts to wetlands and their buffers on the study area.

Another option that would likely be available to the City of Auburn is to purchase mitigation credits from King County to fully satisfy compensatory mitigation obligations. King County has an in-lieu fee mitigation program that could be used to compensate for any unavoidable impacts to wetlands on the study area. Typically, an agreement between the County and any interested City would need to be reached to utilize the program outside of un-incorporated King County (an incorporated city).

Document Path: U:\Bell\Projects\Clients\2694-CenturyWest\553-2694-006 Auburn Airport\99Svcs\GIS\Ph01 Ta05 Airport Wetlands\Fig1 Estimated Wetlands.mxd

Parametrix

Source: (Parametix GPS 2013)

N

0 200

Feet

Estimated Wetland

Study Area

Figure 1
Auburn Airport
Estimated Wetland Boundaries

REFERENCES

Brinson, M.M. 1993. A Hydrogeomorphic Classification for Wetlands. Wetlands Research Program Technical Report WRP-DE-4. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

Corps (U.S. Army Corps of Engineers). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. U.S. Army Corps of Engineers Engineer Research and Development Center, Vicksburg, Mississippi.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Government Printing Office, Washington, D.C.

Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1, Environmental Laboratory, Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi.

ESA Adolfson. 2007. Auburn Airport Property Wetland Report. Seattle, Washington.

Appendix F

Noise Complaint

Is there a legal minimum altitude that airplanes can fly over residential areas?

Federal Aviation Regulations specify a minimum altitude of 1,000 feet over congested areas and 500 feet over non-congested areas. The exception to this rule are helicopters and aircraft that are in the process of taking off or landing.

What can the Airport Authority do to keep airplanes from flying over my neighborhood?

In an odd "Catch 22,", the Airport Authority is responsible for airport noise but has absolutely no control over how and where the aircraft fly. Once the wheels of the aircraft leave the pavement, the aircraft is under the control of the Federal Aviation Administration.

Federal Aviation Administration Flight Standards District Office
425-227-1813
(weekdays only-leave message evenings/weekends)

Why is there airplane traffic during the middle of the night?

Auburn Municipal Airport is open 24 hours a day. A large portion of our overnight flights are also air-ambulance flights transporting patients, blood, or organs to points throughout the state and country. Additionally, law enforcement and news media also use the airport regularly at night.

Auburn Airborne & Noise Complaint Form

Please use this from regarding complaints of aircraft noise in and around the Auburn area and airport.

What type of aircraft was causing the problem?

- Helicopter
- Single Engine Airplane
- Jet Aircraft

Twin Engine Airplane

Military

Police/Rescue

Unknown

Please give the exact time of day and date.

What was the aircraft doing at the time of the incident?

Flying low

Remaining in local area, circling

Both

Has this happen before?

Yes

No

Please give an address of the
incident and direction of flight.

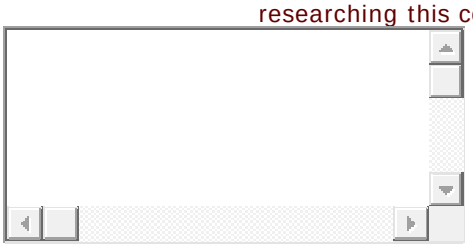
Color of aircraft and registration number if able,
please be accurate as possible.

Is this the first complaint you have made regarding aircraft noise?

Yes

No

ny other information that you feel would benefit airport management in researching this complaint.



ould we have further questions regarding this incident please leave your name and email address?

Name:

E-mail Address

hank you for your time. Airport management will use this information to help inform both based and
rrounding pilots to have a fly friendly attitude while flying in the area. If we suspect a specific FAA violation
happened we will forward this form to the local FAA office, which may or may not result in an investigation.

Submit Reset

Appendix G

INM 7.0d SCENARIO RUN INPUT REPORT 16-Dec-13 14:04

STUDY: C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2012\
  Created   : 18-Nov-13 08:47
  Units   : English
  Airport   : S50
  Description :
    Your description

SCENARIO: CURRENT
  Created   : 10-Dec-13 14:20
  Description :
  Last Run   : 11-Dec-13 09:02
  Run Duration : 000:00:06

STUDY AIRPORT
  Latitude   : 47.327684 deg
  Longitude   : -122.226654 deg
  Elevation   : 63.0 ft

CASES RUN:

CASENAME: EXISTING
  Temperature : 58.8 F
  Pressure   : 29.92 in-Hg
  AverageWind : 8.0 kt
  ChangeNPD   : No

STUDY RUNWAYS
  16
    Latitude : 47.332340 deg
    Longitude : -122.226600 deg
    Xcoord   : 0.0022 nmi
    Ycoord   : 0.2795 nmi
    Elevation : 57.0 ft
    OtherEnd : 34
    Length   : 3399 ft
    Gradient : 0.18 %
    TkoThresh : 0 ft
    AppThresh : 0 ft

CASENAME: EXISTING
    RwyWind   : 8.0 kt
  34
    Latitude : 47.323020 deg
    Longitude : -122.226610 deg
    Xcoord   : 0.0018 nmi
    Ycoord   : -0.2800 nmi
    Elevation : 63.0 ft
    OtherEnd : 16
    Length   : 3399 ft
    Gradient : -0.18 %
    TkoThresh : 0 ft
    AppThresh : 0 ft

CASENAME: EXISTING
    RwyWind   : 8.0 kt

CASENAME: EXISTING
    RwyWind   : 8.0 kt

STUDY HELIPADS
  HELI
    Latitude : 47.324199 deg
    Longitude : -122.227413 deg
    Xcoord   : -0.0310 nmi
    Ycoord   : -0.2092 nmi

STUDY TRACKS
  RwyId-OpType-TrkId
   Sub PctSub   TrkType   Delta(ft)
  16-APP-23
    0   100.00   Vectors   0.0
  16-APP-25
    0   100.00   Vectors   0.0
  16-DEP-4
    0   100.00   Vectors   0.0
  16-DEP-6

0 100.00 Vectors 0.0
16-TGO-51
0 100.00 Vectors 0.0
34-APP-20
0 100.00 Vectors 0.0
34-APP-22
0 100.00 Vectors 0.0
34-DEP-1
0 100.00 Vectors 0.0
34-DEP-3
0 100.00 Vectors 0.0
34-TGO-50
0 100.00 Vectors 0.0
HELI-APP-550
0 100.00 Vectors 180.0
HELI-APP-551
0 100.00 Vectors 0.0
HELI-APP-552
0 100.00 Vectors 180.0
HELI-DEP-501
0 100.00 Vectors 0.0
HELI-DEP-502
0 100.00 Vectors 180.0
HELI-DEP-503
0 100.00 Vectors 0.0
HELI-DEP-504
0 100.00 Vectors 180.0

STUDY TRACK DETAIL
RwyId-OpType-TrkId-SubTrk
SegType Dist/Angle Radius(nmi)
16-APP-23-0
1 Straight 0.2000 nmi
2 Left-Turn 60.0000 deg 0.1000
3 Straight 1.3317 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 1.0519 nmi
16-DEP-4-0
1 Straight 1.2823 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 1.0025 nmi
6 Left-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
16-DEP-6-0
1 Straight 1.2823 nmi
2 Right-Turn 20.0000 deg 0.1000
3 Straight 1.0000 nmi
16-TGO-51-0
1 Straight 1.2824 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 2.3342 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 0.5571 nmi
8 Right-Turn 90.0000 deg 0.1000
9 Straight 1.0519 nmi
34-APP-20-0
1 Straight 0.2000 nmi
2 Right-Turn 60.0000 deg 0.1000
3 Straight 1.0025 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Left-Turn 90.0000 deg 0.1000
7 Straight 0.7227 nmi
34-DEP-1-0
1 Straight 1.6114 nmi
2 Left-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 1.3316 nmi
6 Right-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
34-DEP-3-0
1 Straight 3.0000 nmi
34-TGO-50-0
1 Straight 1.6114 nmi
2 Left-Turn 90.0000 deg 0.1000

```
     3  Straight        0.5571 nmi
     4  Left-Turn       90.0000 deg      0.1000
     5  Straight        2.3342 nmi
     6  Left-Turn       90.0000 deg      0.1000
     7  Straight        0.5571 nmi
     8  Left-Turn       90.0000 deg      0.1000
     9  Straight        0.7227 nmi
   HELI-APP-550-0
     1  Straight        0.2000 nmi
     2  Left-Turn       60.0000 deg      0.1000
     3  Straight        0.6628 nmi
     4  Right-Turn       90.0000 deg      0.1000
     5  Straight        0.2766 nmi
     6  Right-Turn       90.0000 deg      0.1000
     7  Straight        0.8665 nmi
   HELI-APP-551-0
     1  Straight        0.2000 nmi
     2  Right-Turn       60.0000 deg      0.1000
     3  Straight        0.3440 nmi
     4  Left-Turn       90.0000 deg      0.1000
     5  Straight        0.2766 nmi
     6  Left-Turn       90.0000 deg      0.1000
     7  Straight        0.1354 nmi
   HELI-APP-552-0
     1  Straight        2.0000 nmi
   HELI-DEP-501-0
     1  Straight        0.8647 nmi
     2  Left-Turn       90.0000 deg      0.1000
     3  Straight        0.2766 nmi
     4  Left-Turn       90.0000 deg      0.1000
     5  Straight        0.6628 nmi
     6  Right-Turn       60.0000 deg      0.1000
     7  Straight        0.2000 nmi
   HELI-DEP-502-0
     1  Straight        0.1354 nmi
     2  Right-Turn       90.0000 deg      0.1000
     3  Straight        0.2766 nmi
     4  Right-Turn       90.0000 deg      0.1000
     5  Straight        0.3440 nmi
     6  Left-Turn       60.0000 deg      0.1000
     7  Straight        0.2000 nmi
   HELI-DEP-503-0
     1  Straight        2.0000 nmi
   HELI-DEP-504-0
     1  Straight        0.1354 nmi
     2  Right-Turn       20.0000 deg      0.1000
     3  Straight        1.0000 nmi

AIRCRAFT GROUP ASSIGNMENTS

--------------------------------------------------------------------------------

STUDY AIRPLANES
   BEC58P       Standard data
   CNA208       Standard data
   CNA441       Standard data
   CNA510       Standard data
   GASEPF       Standard data
   GASEPV       Standard data

STUDY SUBSTITUTION AIRPLANES

USER-DEFINED NOISE CURVES

USER-DEFINED METRICS

USER-DEFINED PROFILE IDENTIFIERS

USER-DEFINED PROCEDURAL PROFILES

USER-DEFINED FIXED-POINT PROFILES

USER-DEFINED FLAP COEFFICIENTS

USER-DEFINED JET THRUST COEFFICIENTS

USER-DEFINED PROP THRUST COEFFICIENTS

USER-DEFINED GENERAL THRUST COEFFICIENTS

--------------------------------------------------------------------------------
```

STUDY MILITARY AIRPLANES

USER-DEFINED MILITARY NOISE CURVES

USER-DEFINED MILITARY PROFILE IDENTIFIERS

USER-DEFINED MILITARY FIXED-POINT PROFILES

STUDY HELICOPTERS
R22 Standard data
S70 Standard data

USER-DEFINED HELICOPTER PROFILE IDENTIFIERS

USER-DEFINED HELICOPTER PROCEDURAL PROFILES

USER-DEFINED HELICOPTER NOISE CURVES

USER-DEFINED HELICOPTER DIRECTIVITY

CASE FLIGHT OPERATIONS - [EXISTING]

Acft	Op	Profile	Stg	Rwy	Track	Sub	Group	Day	Evening	Night
BEC58P	APP	STANDARD	1	16	23	0	---	0.5314	0.0000	0.0221
BEC58P	APP	STANDARD	1	34	20	0	---	0.3545	0.0000	0.0148
BEC58P	DEP	STANDARD	1	16	4	0	---	0.2657	0.0000	0.0111
BEC58P	DEP	STANDARD	1	16	6	0	---	0.2657	0.0000	0.0111
BEC58P	DEP	STANDARD	1	34	1	0	---	0.1773	0.0000	0.0074
BEC58P	DEP	STANDARD	1	34	3	0	---	0.1773	0.0000	0.0074
BEC58P	TGO	STANDARD	1	16	51	0	---	0.2656	0.0000	0.0111
BEC58P	TGO	STANDARD	1	34	50	0	---	0.1772	0.0000	0.0074
CNA208	APP	STANDARD	1	16	23	0	---	0.0005	0.0000	0.0000
CNA208	APP	STANDARD	1	34	20	0	---	0.0003	0.0000	0.0000
CNA208	DEP	STANDARD	1	16	4	0	---	0.0002	0.0000	0.0000
CNA208	DEP	STANDARD	1	16	6	0	---	0.0002	0.0000	0.0000
CNA208	DEP	STANDARD	1	34	1	0	---	0.0002	0.0000	0.0000
CNA208	DEP	STANDARD	1	34	3	0	---	0.0002	0.0000	0.0000
CNA441	APP	STANDARD	1	16	23	0	---	0.0008	0.0000	0.0000
CNA441	APP	STANDARD	1	34	20	0	---	0.0005	0.0000	0.0000
CNA441	DEP	STANDARD	1	16	4	0	---	0.0004	0.0000	0.0000
CNA441	DEP	STANDARD	1	16	6	0	---	0.0004	0.0000	0.0000
CNA441	DEP	STANDARD	1	34	1	0	---	0.0003	0.0000	0.0000
CNA441	DEP	STANDARD	1	34	3	0	---	0.0003	0.0000	0.0000
CNA510	APP	STANDARD	1	16	23	0	---	0.0012	0.0000	0.0001
CNA510	APP	STANDARD	1	34	20	0	---	0.0008	0.0000	0.0000
CNA510	DEP	STANDARD	1	16	4	0	---	0.0006	0.0000	0.0000
CNA510	DEP	STANDARD	1	16	6	0	---	0.0006	0.0000	0.0000
CNA510	DEP	STANDARD	1	34	1	0	---	0.0004	0.0000	0.0000
CNA510	DEP	STANDARD	1	34	3	0	---	0.0004	0.0000	0.0000
GASEPF	APP	STANDARD	1	16	23	0	---	34.9436	0.0000	1.4560
GASEPF	APP	STANDARD	1	34	20	0	---	23.3133	0.0000	0.9714
GASEPF	DEP	STANDARD	1	16	4	0	---	17.4718	0.0000	0.7280
GASEPF	DEP	STANDARD	1	16	6	0	---	17.4718	0.0000	0.7280
GASEPF	DEP	STANDARD	1	34	1	0	---	11.6566	0.0000	0.4857
GASEPF	DEP	STANDARD	1	34	3	0	---	11.6566	0.0000	0.4857
GASEPF	TGO	STANDARD	1	16	51	0	---	17.4631	0.0000	0.7276
GASEPF	TGO	STANDARD	1	34	50	0	---	11.6508	0.0000	0.4855
GASEPV	APP	STANDARD	1	16	23	0	---	23.2957	0.0000	0.9707
GASEPV	APP	STANDARD	1	34	20	0	---	15.5422	0.0000	0.6476
GASEPV	DEP	STANDARD	1	16	4	0	---	11.6479	0.0000	0.4853
GASEPV	DEP	STANDARD	1	16	6	0	---	11.6479	0.0000	0.4853
GASEPV	DEP	STANDARD	1	34	1	0	---	7.7711	0.0000	0.3238
GASEPV	DEP	STANDARD	1	34	3	0	---	7.7711	0.0000	0.3238
GASEPV	TGO	STANDARD	1	16	51	0	---	11.6420	0.0000	0.4851
GASEPV	TGO	STANDARD	1	34	50	0	---	7.7672	0.0000	0.3236
R22	APP	STANDARD	1	HELI	550	0	---	1.6360	0.0000	0.0485
R22	APP	STANDARD	1	HELI	551	0	---	1.5515	0.0000	0.0646
R22	APP	STANDARD	1	HELI	552	0	---	1.1636	0.0000	0.0485
R22	DEP	STANDARD	1	HELI	501	0	---	1.1636	0.0000	0.0485
R22	DEP	STANDARD	1	HELI	502	0	---	0.7757	0.0000	0.0323
R22	DEP	STANDARD	1	HELI	503	0	---	1.1636	0.0000	0.0485
R22	DEP	STANDARD	1	HELI	504	0	---	0.7757	0.0000	0.0323
S70	APP	STANDARD	1	HELI	550	0	---	0.0197	0.0000	0.0008
S70	APP	STANDARD	1	HELI	551	0	---	0.0263	0.0000	0.0011
S70	APP	STANDARD	1	HELI	552	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	501	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	502	0	---	0.0131	0.0000	0.0005
S70	DEP	STANDARD	1	HELI	503	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	504	0	---	0.0131	0.0000	0.0005

CASE RUNUP OPERATIONS - [EXISTING]

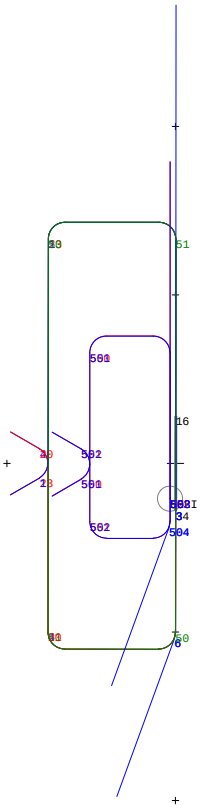
Acft	RunupId	X(nmi)	Y(nmi)	Head	Thrust	Dur(sec)	Day	Evening	Night
BEC58P	16	47.3319	-122.2259	0.0	80.0 %	30.0	0.5314	0.0000	0.0221
BEC58P	34	47.3228	-122.2260	0.0	80.0 %	30.0	0.3545	0.0000	0.0148
GASEPF	16	47.3319	-122.2259	0.0	80.0 %	30.0	34.9436	0.0000	1.4560
GASEPF	34	47.3228	-122.2260	0.0	80.0 %	30.0	23.3133	0.0000	0.9714
GASEPV	16	47.3319	-122.2259	0.0	80.0 %	30.0	23.2957	0.0000	0.9707
GASEPV	34	47.3228	-122.2260	0.0	80.0 %	30.0	15.5422	0.0000	0.6476

SCENARIO RUN OPTIONS

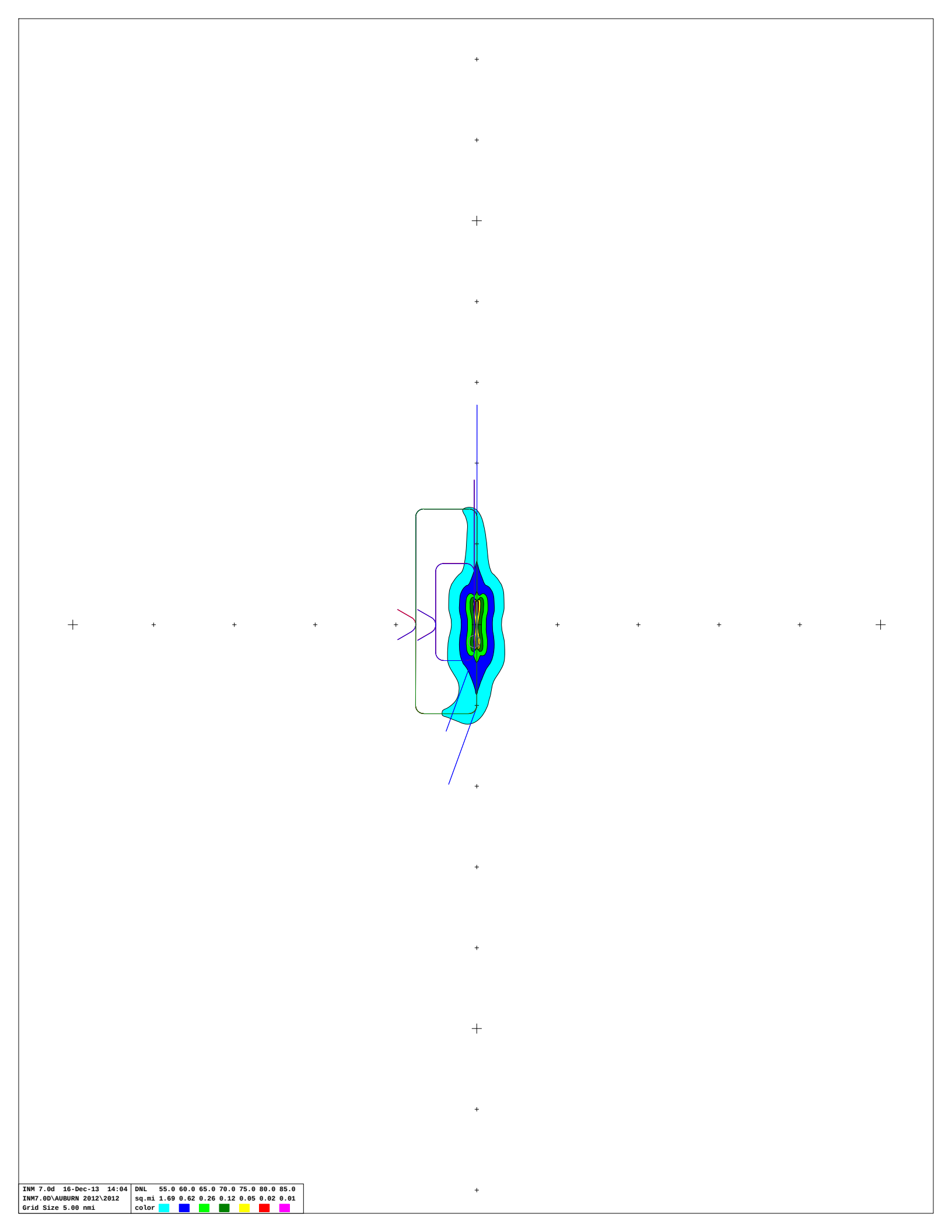
- Run Type : Single-Metric
- NoiseMetric : DNL
- Do Terrain : No Terrain
- Do Contour : Recursive Grid
- Refinement : 11
- Tolerance : 0.50
- Low Cutoff : 55.0
- High Cutoff : 85.0
- Ground Type : All-Soft-Ground
- Do Population : No
- Do Locations : No
- Do Standard : No
- Do Detailed : No
- Compute System Metrics:
  - DNL : No
  - CNEL : No
  - LAEQ : No
  - LAEQD : No
  - LAEQN : No
  - SEL : No
  - LAMAX : No
  - TALA : No
  - NEF : No
  - WECPNL : No
  - EPNL : No
  - PNLTM : No
  - TAPNL : No
  - CEXP : No
  - LCMAX : No
  - TALC : No

SCENARIO GRID DEFINITIONS

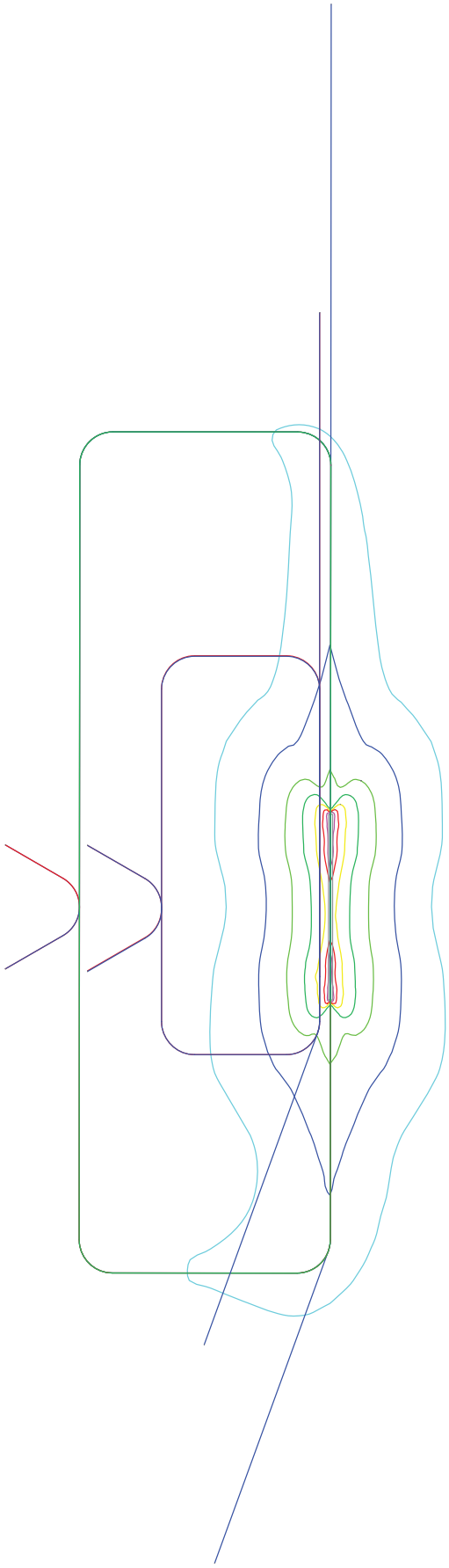
Name	Type	X(nmi)	Y(nmi)	Ang(deg)	DisI(nmi)	DisJ(nmi)	NI	NJ	Thrsh	dAmb	(hr)
CONTOUR	Contour	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
DETAILED	Detailed	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
STANDARD	Standard	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00



INM 7.0d 16-Dec-13 14:03
C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2012\
Grid Size 5.00 nmi



INM 7.0d 16-Dec-13 14:04	DNL 55.0 60.0 65.0 70.0 75.0 80.0 85.0
INM7.0D\AUBURN 2012\2012	sq.mi 1.69 0.62 0.26 0.12 0.05 0.02 0.01
Grid Size 5.00 nmi	color



INM 7.0d SCENARIO RUN INPUT REPORT 16-Dec-13 13:56

STUDY: C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2017\
  Created   : 18-Nov-13 08:47
  Units   : English
  Airport   : S50
  Description :
    Your description

SCENARIO: 5 YEAR
  Created   : 05-Dec-13 12:49
  Description :
  Last Run   : 16-Dec-13 08:24
  Run Duration : 000:00:07

STUDY AIRPORT
  Latitude   : 47.327999 deg
  Longitude   : -122.226658 deg
  Elevation   : 63.0 ft

CASES RUN:

CASENAME: FIVE YEAR
  Temperature : 58.8 F
  Pressure   : 29.92 in-Hg
  AverageWind : 8.0 kt
  ChangeNPD   : No

STUDY RUNWAYS
  16
    Latitude : 47.333644 deg
    Longitude : -122.226717 deg
    Xcoord   : -0.0024 nmi
    Ycoord   : 0.3389 nmi
    Elevation : 57.0 ft
    OtherEnd : 34
    Length   : 4117 ft
    Gradient : 0.15 %
    TkoThresh : 0 ft
    AppThresh : 475 ft

CASENAME: FIVE YEAR
    RwyWind   : 8.0 kt
  34
    Latitude : 47.322355 deg
    Longitude : -122.226599 deg
    Xcoord   : 0.0024 nmi
    Ycoord   : -0.3388 nmi
    Elevation : 63.0 ft
    OtherEnd : 16
    Length   : 4117 ft
    Gradient : -0.15 %
    TkoThresh : 0 ft
    AppThresh : 243 ft

CASENAME: FIVE YEAR
    RwyWind   : 8.0 kt

CASENAME: FIVE YEAR
    RwyWind   : 8.0 kt

STUDY HELIPADS
  HELI
    Latitude : 47.324514 deg
    Longitude : -122.227417 deg
    Xcoord   : -0.0310 nmi
    Ycoord   : -0.2092 nmi

STUDY TRACKS
  RwyId-OpType-TrkId
   Sub PctSub   TrkType   Delta(ft)
  16-APP-23
    0   100.00   Vectors   0.0
  16-APP-25
    0   100.00   Vectors   0.0
  16-DEP-4
    0   100.00   Vectors   0.0
  16-DEP-6

0 100.00 Vectors 0.0
16-TGO-51
0 100.00 Vectors 0.0
34-APP-20
0 100.00 Vectors 0.0
34-APP-22
0 100.00 Vectors 0.0
34-DEP-1
0 100.00 Vectors 0.0
34-DEP-3
0 100.00 Vectors 0.0
34-TGO-50
0 100.00 Vectors 0.0
HELI-APP-550
0 100.00 Vectors 180.0
HELI-APP-551
0 100.00 Vectors 0.0
HELI-APP-552
0 100.00 Vectors 180.0
HELI-DEP-501
0 100.00 Vectors 0.0
HELI-DEP-502
0 100.00 Vectors 180.0
HELI-DEP-503
0 100.00 Vectors 0.0
HELI-DEP-504
0 100.00 Vectors 180.0

STUDY TRACK DETAIL
RwyId-OpType-TrkId-SubTrk
SegType Dist/Angle Radius(nmi)
16-APP-23-0
1 Straight 0.2000 nmi
2 Left-Turn 60.0000 deg 0.1000
3 Straight 1.3127 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 1.0519 nmi
16-DEP-4-0
1 Straight 1.3606 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 1.0218 nmi
6 Left-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
16-DEP-6-0
1 Straight 1.3606 nmi
2 Right-Turn 20.0000 deg 0.1000
3 Straight 1.0000 nmi
16-TGO-51-0
1 Straight 1.2824 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 2.3345 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 0.5571 nmi
8 Right-Turn 90.0000 deg 0.1000
9 Straight 1.0521 nmi
34-APP-20-0
1 Straight 0.2000 nmi
2 Right-Turn 60.0000 deg 0.1000
3 Straight 1.0218 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Left-Turn 90.0000 deg 0.1000
7 Straight 0.7229 nmi
34-DEP-1-0
1 Straight 1.6517 nmi
2 Left-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 1.3127 nmi
6 Right-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
34-DEP-3-0
1 Straight 3.0000 nmi
34-TGO-50-0
1 Straight 1.6117 nmi
2 Left-Turn 90.0000 deg 0.1000

3	Straight	0.5571 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	2.3345 nmi	
6	Left-Turn	90.0000 deg	0.1000
7	Straight	0.5571 nmi	
8	Left-Turn	90.0000 deg	0.1000
9	Straight	0.7228 nmi	

HELI-APP-550-0

1	Straight	0.2000 nmi	
2	Left-Turn	60.0000 deg	0.1000
3	Straight	0.6252 nmi	
4	Right-Turn	90.0000 deg	0.1000
5	Straight	0.2766 nmi	
6	Right-Turn	90.0000 deg	0.1000
7	Straight	0.8480 nmi	

HELI-APP-551-0

1	Straight	0.2000 nmi	
2	Right-Turn	60.0000 deg	0.1000
3	Straight	0.3816 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	0.2766 nmi	
6	Left-Turn	90.0000 deg	0.1000
7	Straight	0.1539 nmi	

HELI-APP-552-0

1	Straight	2.0000 nmi	

HELI-DEP-501-0

1	Straight	0.8480 nmi	
2	Left-Turn	90.0000 deg	0.1000
3	Straight	0.2766 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	0.6252 nmi	
6	Right-Turn	60.0000 deg	0.1000
7	Straight	0.2000 nmi	

HELI-DEP-502-0

1	Straight	0.1539 nmi	
2	Right-Turn	90.0000 deg	0.1000
3	Straight	0.2766 nmi	
4	Right-Turn	90.0000 deg	0.1000
5	Straight	0.3816 nmi	
6	Left-Turn	60.0000 deg	0.1000
7	Straight	0.2000 nmi	

HELI-DEP-503-0

1	Straight	2.0000 nmi	

HELI-DEP-504-0

1	Straight	0.1354 nmi	
2	Right-Turn	20.0000 deg	0.1000
3	Straight	1.0000 nmi	

AIRCRAFT GROUP ASSIGNMENTS

STUDY AIRPLANES

BEC58P	Standard data
CNA208	Standard data
CNA441	Standard data
CNA510	Standard data
GASEPF	Standard data
GASEPV	Standard data

STUDY SUBSTITUTION AIRPLANES

USER-DEFINED NOISE CURVES

USER-DEFINED METRICS

USER-DEFINED PROFILE IDENTIFIERS

USER-DEFINED PROCEDURAL PROFILES

USER-DEFINED FIXED-POINT PROFILES

USER-DEFINED FLAP COEFFICIENTS

USER-DEFINED JET THRUST COEFFICIENTS

USER-DEFINED PROP THRUST COEFFICIENTS

USER-DEFINED GENERAL THRUST COEFFICIENTS

STUDY MILITARY AIRPLANES

USER-DEFINED MILITARY NOISE CURVES

USER-DEFINED MILITARY PROFILE IDENTIFIERS

USER-DEFINED MILITARY FIXED-POINT PROFILES

STUDY HELICOPTERS
R22 Standard data
S70 Standard data

USER-DEFINED HELICOPTER PROFILE IDENTIFIERS

USER-DEFINED HELICOPTER PROCEDURAL PROFILES

USER-DEFINED HELICOPTER NOISE CURVES

USER-DEFINED HELICOPTER DIRECTIVITY

CASE FLIGHT OPERATIONS - [FIVE YEAR]

Acft	Op	Profile	Stg	Rwy	Track	Sub	Group	Day	Evening	Night
BEC58P	APP	STANDARD	1	16	23	0	---	0.6034	0.0000	0.0251
BEC58P	APP	STANDARD	1	34	20	0	---	0.4023	0.0000	0.0168
BEC58P	DEP	STANDARD	1	16	4	0	---	0.3017	0.0000	0.0126
BEC58P	DEP	STANDARD	1	16	6	0	---	0.3017	0.0000	0.0126
BEC58P	DEP	STANDARD	1	34	1	0	---	0.2011	0.0000	0.0084
BEC58P	DEP	STANDARD	1	34	3	0	---	0.2011	0.0000	0.0084
BEC58P	TGO	STANDARD	1	16	51	0	---	0.3020	0.0000	0.0126
BEC58P	TGO	STANDARD	1	34	50	0	---	0.2014	0.0000	0.0084
CNA208	APP	STANDARD	1	16	23	0	---	0.0223	0.0000	0.0009
CNA208	APP	STANDARD	1	34	20	0	---	0.0148	0.0000	0.0006
CNA208	DEP	STANDARD	1	16	4	0	---	0.0111	0.0000	0.0005
CNA208	DEP	STANDARD	1	16	6	0	---	0.0111	0.0000	0.0005
CNA208	DEP	STANDARD	1	34	1	0	---	0.0074	0.0000	0.0003
CNA208	DEP	STANDARD	1	34	3	0	---	0.0074	0.0000	0.0003
CNA441	APP	STANDARD	1	16	23	0	---	0.0414	0.0000	0.0017
CNA441	APP	STANDARD	1	34	20	0	---	0.0276	0.0000	0.0011
CNA441	DEP	STANDARD	1	16	4	0	---	0.0207	0.0000	0.0008
CNA441	DEP	STANDARD	1	16	6	0	---	0.0207	0.0000	0.0008
CNA441	DEP	STANDARD	1	34	1	0	---	0.0138	0.0000	0.0006
CNA441	DEP	STANDARD	1	34	3	0	---	0.0138	0.0000	0.0006
CNA510	APP	STANDARD	1	16	23	0	---	0.0012	0.0000	0.0001
CNA510	APP	STANDARD	1	34	20	0	---	0.0009	0.0000	0.0000
CNA510	DEP	STANDARD	1	16	4	0	---	0.0007	0.0000	0.0000
CNA510	DEP	STANDARD	1	16	6	0	---	0.0007	0.0000	0.0000
CNA510	DEP	STANDARD	1	34	1	0	---	0.0004	0.0000	0.0000
CNA510	DEP	STANDARD	1	34	3	0	---	0.0004	0.0000	0.0000
GASEPF	APP	STANDARD	1	16	23	0	---	36.5808	0.0000	1.5242
GASEPF	APP	STANDARD	1	34	20	0	---	24.3896	0.0000	1.0162
GASEPF	DEP	STANDARD	1	16	4	0	---	18.2904	0.0000	0.7621
GASEPF	DEP	STANDARD	1	16	6	0	---	18.2904	0.0000	0.7621
GASEPF	DEP	STANDARD	1	34	1	0	---	12.1948	0.0000	0.5081
GASEPF	DEP	STANDARD	1	34	3	0	---	12.1948	0.0000	0.5081
GASEPF	TGO	STANDARD	1	16	51	0	---	18.3103	0.0000	0.7629
GASEPF	TGO	STANDARD	1	34	50	0	---	12.2081	0.0000	0.5087
GASEPV	APP	STANDARD	1	16	23	0	---	24.4296	0.0000	1.0179
GASEPV	APP	STANDARD	1	34	20	0	---	16.2880	0.0000	0.6787
GASEPV	DEP	STANDARD	1	16	4	0	---	12.2148	0.0000	0.5090
GASEPV	DEP	STANDARD	1	16	6	0	---	12.2148	0.0000	0.5090
GASEPV	DEP	STANDARD	1	34	1	0	---	8.1440	0.0000	0.3393
GASEPV	DEP	STANDARD	1	34	3	0	---	8.1440	0.0000	0.3393
GASEPV	TGO	STANDARD	1	16	51	0	---	12.2281	0.0000	0.5095
GASEPV	TGO	STANDARD	1	34	50	0	---	8.1529	0.0000	0.3397
R22	APP	STANDARD	1	HELI	550	0	---	1.1929	0.0000	0.0497
R22	APP	STANDARD	1	HELI	551	0	---	1.5905	0.0000	0.0663
R22	APP	STANDARD	1	HELI	552	0	---	1.1929	0.0000	0.0497
R22	DEP	STANDARD	1	HELI	501	0	---	1.1929	0.0000	0.0497
R22	DEP	STANDARD	1	HELI	502	0	---	0.7953	0.0000	0.0331
R22	DEP	STANDARD	1	HELI	503	0	---	1.1929	0.0000	0.0497
R22	DEP	STANDARD	1	HELI	504	0	---	0.7953	0.0000	0.0331
S70	APP	STANDARD	1	HELI	550	0	---	0.0197	0.0000	0.0008
S70	APP	STANDARD	1	HELI	551	0	---	0.0263	0.0000	0.0011
S70	APP	STANDARD	1	HELI	552	0	---	1.1929	0.0000	0.0497
S70	DEP	STANDARD	1	HELI	501	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	502	0	---	0.0131	0.0000	0.0005
S70	DEP	STANDARD	1	HELI	503	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	504	0	---	0.0131	0.0000	0.0005

CASE RUNUP OPERATIONS - [FIVE YEAR]

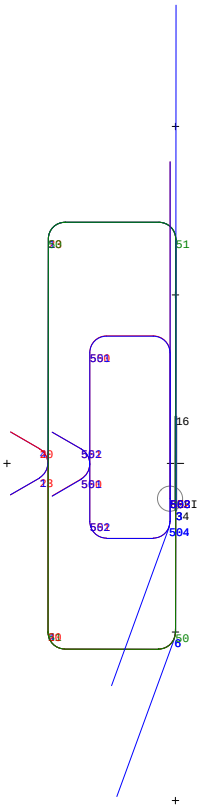
Acft	RunupId	X(nmi)	Y(nmi)	Head	Thrust	Dur(sec)	Day	Evening	Night
BEC58P	16	47.3335	-122.2261	270.0	80.0 %	30.0	0.6034	0.0000	0.0251
BEC58P	34	47.3224	-122.2260	270.0	80.0 %	30.0	0.4023	0.0000	0.0168
GASEPF	16	47.3335	-122.2261	270.0	80.0 %	30.0	36.5808	0.0000	1.5242
GASEPF	34	47.3224	-122.2260	270.0	80.0 %	30.0	24.3896	0.0000	1.0162
GASEPV	16	47.3335	-122.2261	270.0	80.0 %	30.0	24.4296	0.0000	1.0179
GASEPV	34	47.3224	-122.2260	270.0	80.0 %	30.0	16.2880	0.0000	0.6787

SCENARIO RUN OPTIONS

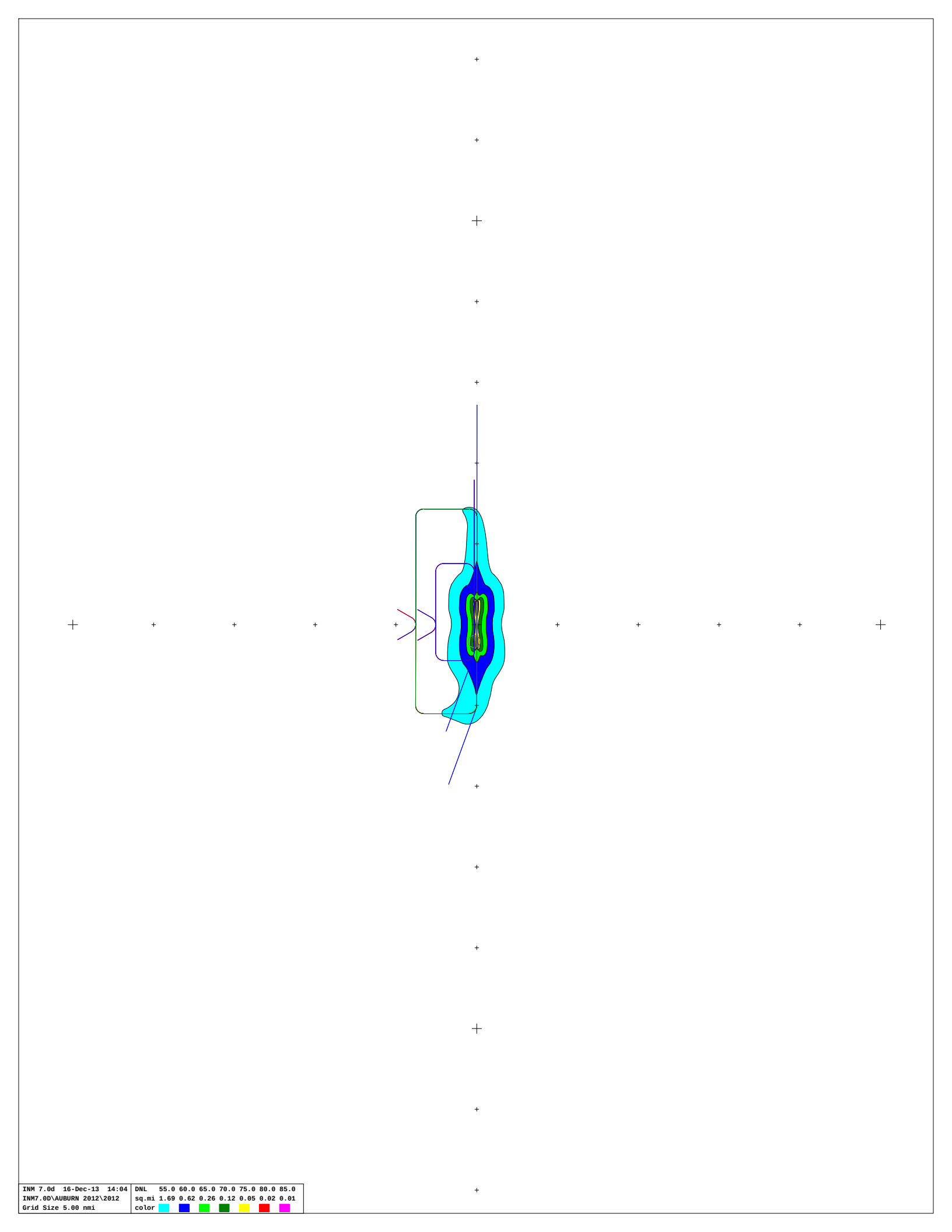
- Run Type : Single-Metric
- NoiseMetric : DNL
- Do Terrain : No Terrain
- Do Contour : Recursive Grid
- Refinement : 11
- Tolerance : 0.50
- Low Cutoff : 55.0
- High Cutoff : 85.0
- Ground Type : All-Soft-Ground
- Do Population : No
- Do Locations : No
- Do Standard : No
- Do Detailed : No
- Compute System Metrics:
  - DNL : No
  - CNEL : No
  - LAEQ : No
  - LAEQD : No
  - LAEQN : No
  - SEL : No
  - LAMAX : No
  - TALA : No
  - NEF : No
  - WECPNL : No
  - EPNL : No
  - PNLTM : No
  - TAPNL : No
  - CEXP : No
  - LCMAX : No
  - TALC : No

SCENARIO GRID DEFINITIONS

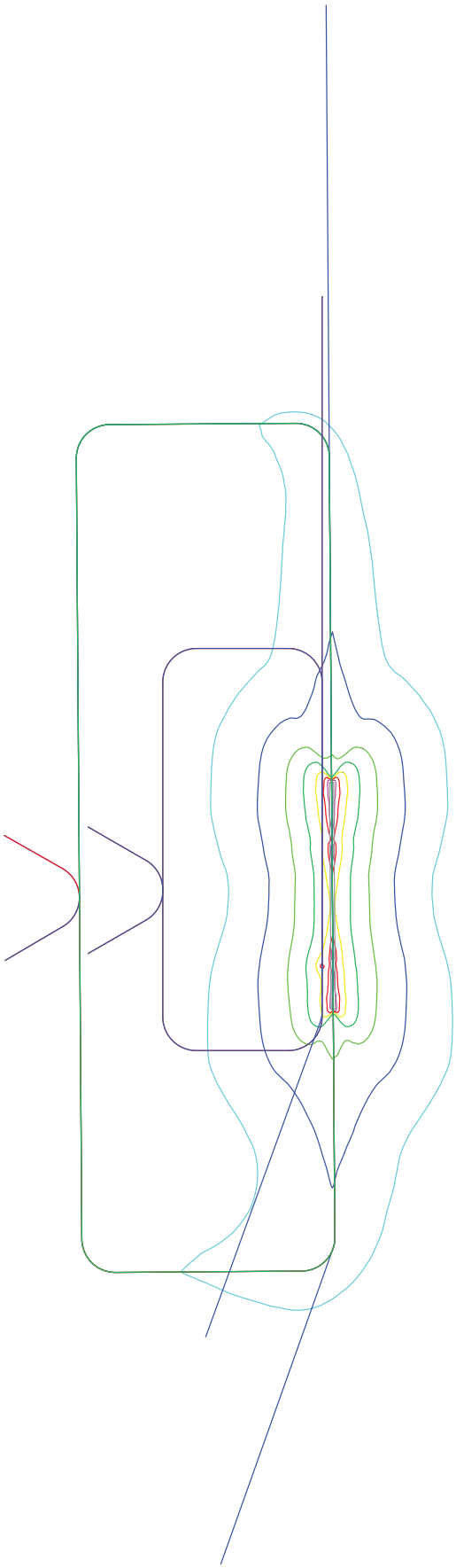
Name	Type	X(nmi)	Y(nmi)	Ang(deg)	DisI(nmi)	DisJ(nmi)	NI	NJ	Thrsh	dAmb	(hr)
CONTOUR	Contour	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
DETAILED	Detailed	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
STANDARD	Standard	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00



INM 7.0d 16-Dec-13 14:03
C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2012\
Grid Size 5.00 nmi



INM 7.0d 16-Dec-13 14:04	DNL 55.0 60.0 65.0 70.0 75.0 80.0 85.0
INM7.0D\AUBURN 2012\2012	sq.mi 1.69 0.62 0.26 0.12 0.05 0.02 0.01
Grid Size 5.00 nmi	color



INM 7.0d SCENARIO RUN INPUT REPORT 16-Dec-13 13:46

STUDY: C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2032\
  Created   : 18-Nov-13 08:47
  Units   : English
  Airport   : S50
  Description :
    Your description

SCENARIO: 20 YEAR
  Created   : 10-Dec-13 10:17
  Description :
  Last Run   : 16-Dec-13 12:35
  Run Duration : 000:00:06

STUDY AIRPORT
  Latitude   : 47.327999 deg
  Longitude   : -122.226658 deg
  Elevation   : 63.0 ft

CASES RUN:

CASENAME: TWENTY YEAR
  Temperature : 58.8 F
  Pressure   : 29.92 in-Hg
  AverageWind : 8.0 kt
  ChangeNPD   : No

STUDY RUNWAYS
  16
    Latitude : 47.333644 deg
    Longitude : -122.226717 deg
    Xcoord   : -0.0024 nmi
    Ycoord   : 0.3389 nmi
    Elevation : 57.0 ft
    OtherEnd : 34
    Length   : 4117 ft
    Gradient : 0.15 %
    TkoThresh : 0 ft
    AppThresh : 475 ft

CASENAME: TWENTY YEAR
    RwyWind   : 8.0 kt
  34
    Latitude : 47.322355 deg
    Longitude : -122.226599 deg
    Xcoord   : 0.0024 nmi
    Ycoord   : -0.3388 nmi
    Elevation : 63.0 ft
    OtherEnd : 16
    Length   : 4117 ft
    Gradient : -0.15 %
    TkoThresh : 0 ft
    AppThresh : 243 ft

CASENAME: TWENTY YEAR
    RwyWind   : 8.0 kt

CASENAME: TWENTY YEAR
    RwyWind   : 8.0 kt

STUDY HELIPADS
  HELI
    Latitude : 47.324514 deg
    Longitude : -122.227417 deg
    Xcoord   : -0.0310 nmi
    Ycoord   : -0.2092 nmi

STUDY TRACKS
  RwyId-OpType-TrkId
   Sub PctSub   TrkType   Delta(ft)
  16-APP-23
    0   100.00   Vectors   0.0
  16-APP-25
    0   100.00   Vectors   0.0
  16-DEP-4
    0   100.00   Vectors   0.0
  16-DEP-6

0 100.00 Vectors 0.0
16-TGO-51
0 100.00 Vectors 0.0
34-APP-20
0 100.00 Vectors 0.0
34-APP-22
0 100.00 Vectors 0.0
34-DEP-1
0 100.00 Vectors 0.0
34-DEP-3
0 100.00 Vectors 0.0
34-TGO-50
0 100.00 Vectors 0.0
HELI-APP-550
0 100.00 Vectors 180.0
HELI-APP-551
0 100.00 Vectors 0.0
HELI-APP-552
0 100.00 Vectors 180.0
HELI-DEP-501
0 100.00 Vectors 0.0
HELI-DEP-502
0 100.00 Vectors 180.0
HELI-DEP-503
0 100.00 Vectors 0.0
HELI-DEP-504
0 100.00 Vectors 180.0

STUDY TRACK DETAIL
RwyId-OpType-TrkId-SubTrk
SegType Dist/Angle Radius(nmi)
16-APP-23-0
1 Straight 0.2000 nmi
2 Left-Turn 60.0000 deg 0.1000
3 Straight 1.3127 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 1.0519 nmi
16-DEP-4-0
1 Straight 1.3606 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 1.0218 nmi
6 Left-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
16-DEP-6-0
1 Straight 1.3606 nmi
2 Right-Turn 20.0000 deg 0.1000
3 Straight 1.0000 nmi
16-TGO-51-0
1 Straight 1.2824 nmi
2 Right-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Right-Turn 90.0000 deg 0.1000
5 Straight 2.3345 nmi
6 Right-Turn 90.0000 deg 0.1000
7 Straight 0.5571 nmi
8 Right-Turn 90.0000 deg 0.1000
9 Straight 1.0521 nmi
34-APP-20-0
1 Straight 0.2000 nmi
2 Right-Turn 60.0000 deg 0.1000
3 Straight 1.0218 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 0.5571 nmi
6 Left-Turn 90.0000 deg 0.1000
7 Straight 0.7229 nmi
34-DEP-1-0
1 Straight 1.6517 nmi
2 Left-Turn 90.0000 deg 0.1000
3 Straight 0.5571 nmi
4 Left-Turn 90.0000 deg 0.1000
5 Straight 1.3127 nmi
6 Right-Turn 60.0000 deg 0.1000
7 Straight 0.2000 nmi
34-DEP-3-0
1 Straight 3.0000 nmi
34-TGO-50-0
1 Straight 1.6117 nmi
2 Left-Turn 90.0000 deg 0.1000

3	Straight	0.5571 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	2.3345 nmi	
6	Left-Turn	90.0000 deg	0.1000
7	Straight	0.5571 nmi	
8	Left-Turn	90.0000 deg	0.1000
9	Straight	0.7228 nmi	

HELI-APP-550-0

1	Straight	0.2000 nmi	
2	Left-Turn	60.0000 deg	0.1000
3	Straight	0.6252 nmi	
4	Right-Turn	90.0000 deg	0.1000
5	Straight	0.2766 nmi	
6	Right-Turn	90.0000 deg	0.1000
7	Straight	0.8480 nmi	

HELI-APP-551-0

1	Straight	0.2000 nmi	
2	Right-Turn	60.0000 deg	0.1000
3	Straight	0.3816 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	0.2766 nmi	
6	Left-Turn	90.0000 deg	0.1000
7	Straight	0.1539 nmi	

HELI-APP-552-0

1	Straight	2.0000 nmi	

HELI-DEP-501-0

1	Straight	0.8480 nmi	
2	Left-Turn	90.0000 deg	0.1000
3	Straight	0.2766 nmi	
4	Left-Turn	90.0000 deg	0.1000
5	Straight	0.6252 nmi	
6	Right-Turn	60.0000 deg	0.1000
7	Straight	0.2000 nmi	

HELI-DEP-502-0

1	Straight	0.1539 nmi	
2	Right-Turn	90.0000 deg	0.1000
3	Straight	0.2766 nmi	
4	Right-Turn	90.0000 deg	0.1000
5	Straight	0.3816 nmi	
6	Left-Turn	60.0000 deg	0.1000
7	Straight	0.2000 nmi	

HELI-DEP-503-0

1	Straight	2.0000 nmi	

HELI-DEP-504-0

1	Straight	0.1354 nmi	
2	Right-Turn	20.0000 deg	0.1000
3	Straight	1.0000 nmi	

AIRCRAFT GROUP ASSIGNMENTS

STUDY AIRPLANES

BEC58P	Standard data
CNA208	Standard data
CNA441	Standard data
CNA510	Standard data
GASEPF	Standard data
GASEPV	Standard data

STUDY SUBSTITUTION AIRPLANES

USER-DEFINED NOISE CURVES

USER-DEFINED METRICS

USER-DEFINED PROFILE IDENTIFIERS

USER-DEFINED PROCEDURAL PROFILES

USER-DEFINED FIXED-POINT PROFILES

USER-DEFINED FLAP COEFFICIENTS

USER-DEFINED JET THRUST COEFFICIENTS

USER-DEFINED PROP THRUST COEFFICIENTS

USER-DEFINED GENERAL THRUST COEFFICIENTS

STUDY MILITARY AIRPLANES

USER-DEFINED MILITARY NOISE CURVES

USER-DEFINED MILITARY PROFILE IDENTIFIERS

USER-DEFINED MILITARY FIXED-POINT PROFILES

STUDY HELICOPTERS
R22 Standard data
S70 Standard data

USER-DEFINED HELICOPTER PROFILE IDENTIFIERS

USER-DEFINED HELICOPTER PROCEDURAL PROFILES

USER-DEFINED HELICOPTER NOISE CURVES

USER-DEFINED HELICOPTER DIRECTIVITY

CASE FLIGHT OPERATIONS - [TWENTY YEAR]

Acft	Op	Profile	Stg	Rwy	Track	Sub	Group	Day	Evening	Night
BEC58P	APP	STANDARD	1	16	23	0	---	0.8611	0.0000	0.0359
BEC58P	APP	STANDARD	1	34	20	0	---	0.5741	0.0000	0.0239
BEC58P	DEP	STANDARD	1	16	4	0	---	0.4306	0.0000	0.0179
BEC58P	DEP	STANDARD	1	16	6	0	---	0.4306	0.0000	0.0179
BEC58P	DEP	STANDARD	1	34	1	0	---	0.2870	0.0000	0.0120
BEC58P	DEP	STANDARD	1	34	3	0	---	0.2870	0.0000	0.0120
BEC58P	TGO	STANDARD	1	16	51	0	---	0.4329	0.0000	0.0180
BEC58P	TGO	STANDARD	1	34	50	0	---	0.2886	0.0000	0.0120
CNA208	APP	STANDARD	1	16	23	0	---	0.0974	0.0000	0.0041
CNA208	APP	STANDARD	1	34	20	0	---	0.0649	0.0000	0.0027
CNA208	DEP	STANDARD	1	16	4	0	---	0.0487	0.0000	0.0020
CNA208	DEP	STANDARD	1	16	6	0	---	0.0487	0.0000	0.0020
CNA208	DEP	STANDARD	1	34	1	0	---	0.0325	0.0000	0.0014
CNA208	DEP	STANDARD	1	34	3	0	---	0.0325	0.0000	0.0014
CNA441	APP	STANDARD	1	16	23	0	---	0.1461	0.0000	0.0061
CNA441	APP	STANDARD	1	34	20	0	---	0.0974	0.0000	0.0041
CNA441	DEP	STANDARD	1	16	4	0	---	0.0730	0.0000	0.0030
CNA441	DEP	STANDARD	1	16	6	0	---	0.0730	0.0000	0.0030
CNA441	DEP	STANDARD	1	34	1	0	---	0.0487	0.0000	0.0020
CNA441	DEP	STANDARD	1	34	3	0	---	0.0487	0.0000	0.0020
CNA510	APP	STANDARD	1	16	23	0	---	0.1623	0.0000	0.0068
CNA510	APP	STANDARD	1	34	20	0	---	0.1082	0.0000	0.0045
CNA510	DEP	STANDARD	1	16	4	0	---	0.0812	0.0000	0.0034
CNA510	DEP	STANDARD	1	16	6	0	---	0.0812	0.0000	0.0034
CNA510	DEP	STANDARD	1	34	1	0	---	0.0541	0.0000	0.0023
CNA510	DEP	STANDARD	1	34	3	0	---	0.0541	0.0000	0.0023
GASEPF	APP	STANDARD	1	16	23	0	---	45.4921	0.0000	1.8955
GASEPF	APP	STANDARD	1	34	20	0	---	30.3291	0.0000	1.2637
GASEPF	DEP	STANDARD	1	16	4	0	---	22.7461	0.0000	0.9478
GASEPF	DEP	STANDARD	1	16	6	0	---	22.7461	0.0000	0.9478
GASEPF	DEP	STANDARD	1	34	1	0	---	15.1646	0.0000	0.6319
GASEPF	DEP	STANDARD	1	34	3	0	---	15.1646	0.0000	0.6319
GASEPF	TGO	STANDARD	1	16	51	0	---	22.8717	0.0000	0.9530
GASEPF	TGO	STANDARD	1	34	50	0	---	15.2484	0.0000	0.6353
GASEPV	APP	STANDARD	1	16	23	0	---	30.3051	0.0000	1.2627
GASEPV	APP	STANDARD	1	34	20	0	---	20.2041	0.0000	0.8418
GASEPV	DEP	STANDARD	1	16	4	0	---	15.1525	0.0000	0.6314
GASEPV	DEP	STANDARD	1	16	6	0	---	15.1525	0.0000	0.6314
GASEPV	DEP	STANDARD	1	34	1	0	---	10.1020	0.0000	0.4209
GASEPV	DEP	STANDARD	1	34	3	0	---	10.1020	0.0000	0.4209
GASEPV	TGO	STANDARD	1	16	51	0	---	15.2363	0.0000	0.6348
GASEPV	TGO	STANDARD	1	34	50	0	---	10.1579	0.0000	0.4232
R22	APP	STANDARD	1	HELI	550	0	---	2.5361	0.0000	0.1057
R22	APP	STANDARD	1	HELI	551	0	---	3.3814	0.0000	0.1409
R22	APP	STANDARD	1	HELI	552	0	---	2.5361	0.0000	0.1057
R22	DEP	STANDARD	1	HELI	501	0	---	2.5361	0.0000	0.1057
R22	DEP	STANDARD	1	HELI	502	0	---	1.6907	0.0000	0.0704
R22	DEP	STANDARD	1	HELI	503	0	---	2.5361	0.0000	0.1057
R22	DEP	STANDARD	1	HELI	504	0	---	1.6907	0.0000	0.0704
S70	APP	STANDARD	1	HELI	550	0	---	0.0197	0.0000	0.0008
S70	APP	STANDARD	1	HELI	551	0	---	0.0263	0.0000	0.0011
S70	APP	STANDARD	1	HELI	552	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	501	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	502	0	---	0.0132	0.0000	0.0005
S70	DEP	STANDARD	1	HELI	503	0	---	0.0197	0.0000	0.0008
S70	DEP	STANDARD	1	HELI	504	0	---	0.0132	0.0000	0.0005

CASE RUNUP OPERATIONS - [TWENTY YEAR]

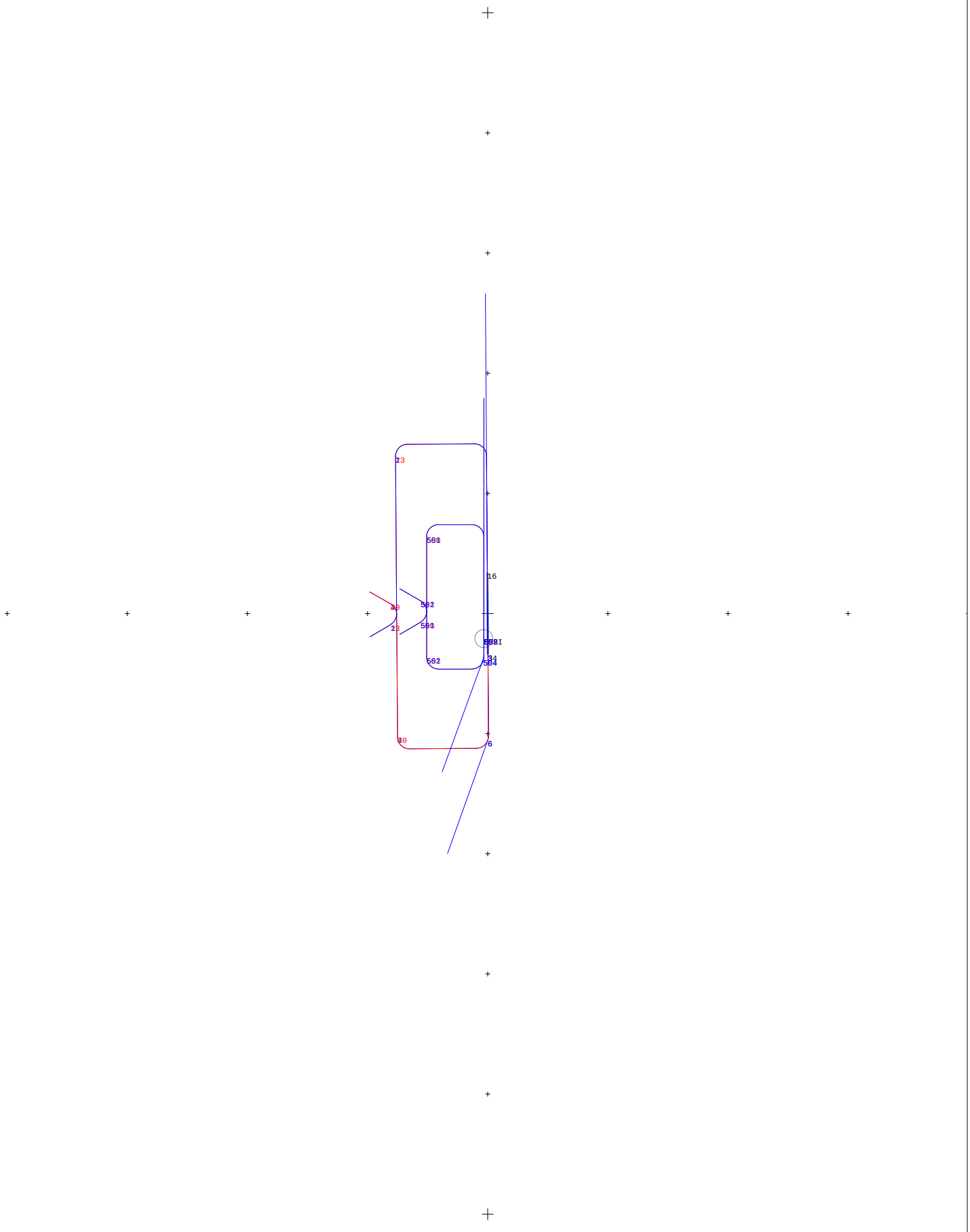
Acft	RunupId	X(nmi)	Y(nmi)	Head	Thrust	Dur(sec)	Day	Evening	Night
BEC58P	16	47.3335	-122.2261	270.0	80.0 %	30.0	0.8611	0.0000	0.0359
BEC58P	34	47.3224	-122.2260	270.0	80.0 %	30.0	0.5741	0.0000	0.0239
GASEPF	16	47.3335	-122.2261	270.0	80.0 %	30.0	45.4921	0.0000	1.8955
GASEPF	34	47.3224	-122.2260	270.0	80.0 %	30.0	30.3291	0.0000	1.2637
GASEPV	16	47.3335	-122.2261	270.0	80.0 %	30.0	30.3051	0.0000	1.2627
GASEPV	34	47.3224	-122.2260	270.0	80.0 %	30.0	20.2041	0.0000	0.8418

SCENARIO RUN OPTIONS

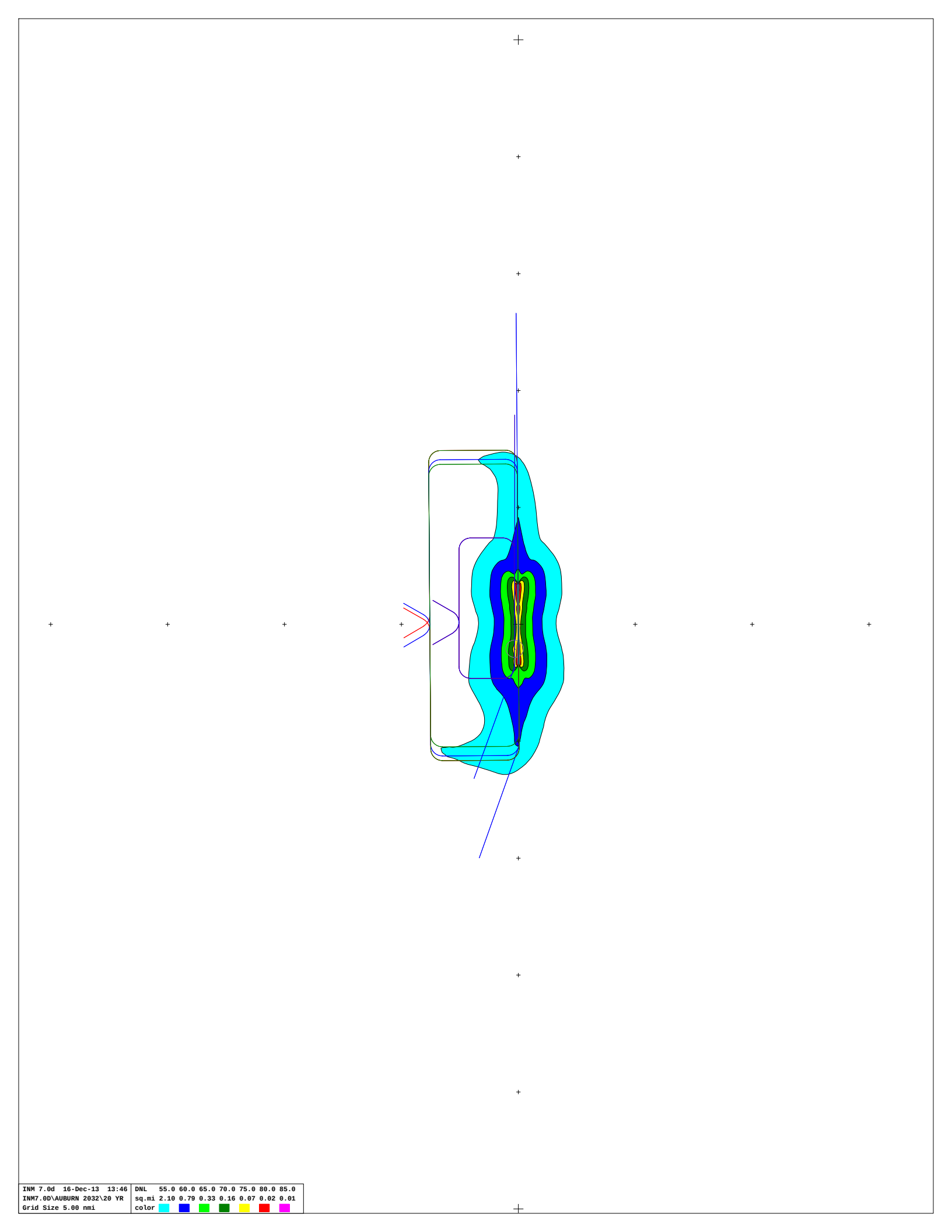
- Run Type : Single-Metric
- NoiseMetric : DNL
- Do Terrain : No Terrain
- Do Contour : Recursive Grid
- Refinement : 11
- Tolerance : 0.50
- Low Cutoff : 55.0
- High Cutoff : 85.0
- Ground Type : All-Soft-Ground
- Do Population : No
- Do Locations : No
- Do Standard : No
- Do Detailed : No
- Compute System Metrics:
  - DNL : No
  - CNEL : No
  - LAEQ : No
  - LAEQD : No
  - LAEQN : No
  - SEL : No
  - LAMAX : No
  - TALA : No
  - NEF : No
  - WECPNL : No
  - EPNL : No
  - PNLTM : No
  - TAPNL : No
  - CEXP : No
  - LCMAX : No
  - TALC : No

SCENARIO GRID DEFINITIONS

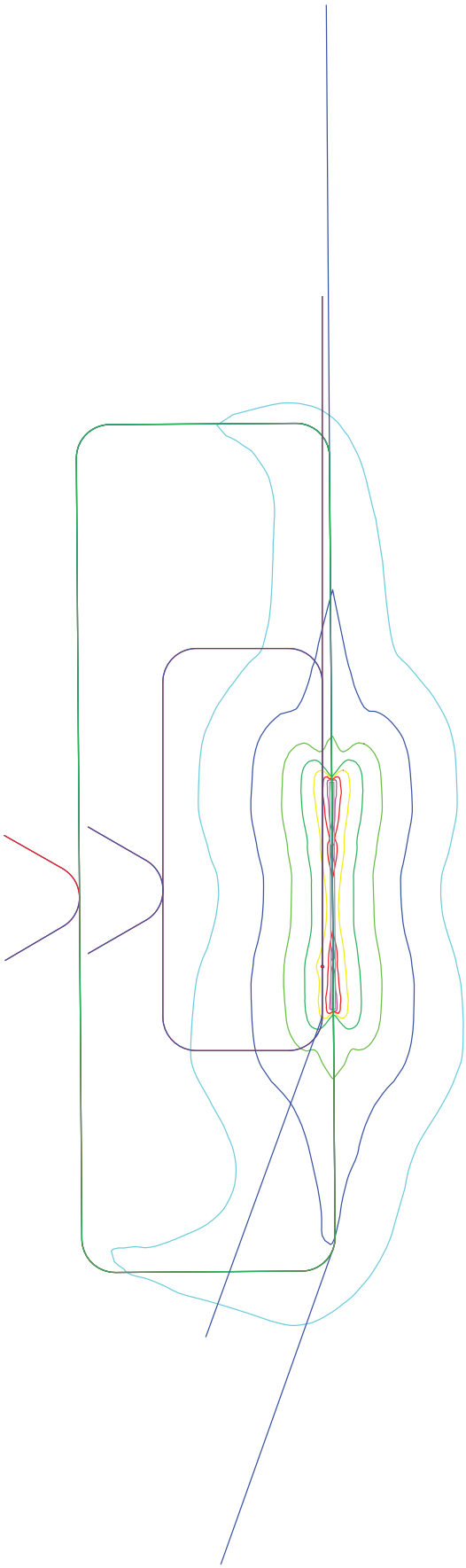
Name	Type	X(nmi)	Y(nmi)	Ang(deg)	DisI(nmi)	DisJ(nmi)	NI	NJ	Thrsh	dAmb	(hr)
CONTOUR	Contour	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
DETAILED	Detailed	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00
STANDARD	Standard	-8.0000	-8.0000	0.0	16.0000	16.0000	2	2	85.0	0.0	0.00



INM 7.0d 16-Dec-13 13:44
C:\PROGRAM FILES (X86)\INM7.0D\AUBURN 2032\
Grid Size 5.00 nmi



INM 7.0d 16-Dec-13 13:46	DNL 55.0 60.0 65.0 70.0 75.0 80.0 85.0
INM7.0D\AUBURN 2032\20 YR	sq.mi 2.10 0.79 0.33 0.16 0.07 0.02 0.01
Grid Size 5.00 nmi	color



Appendix H

FAA
Airports

ASSURANCES

Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

   The terms, conditions and assurances of this grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

   The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.**

Unless otherwise specified in this grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34 in Section C apply to planning projects. The terms, conditions, and assurances of this grant agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.**

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act – 5 U.S.C. 1501, et seq.[2]
e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.[1 2]
f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).[1]
g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]
h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
i. Clean Air Act, P.L. 90-148, as amended.
j. Coastal Zone Management Act, P.L. 93-205, as amended.
k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.[1]
l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).
p. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
q. American Indian Religious Freedom Act, P.L. 95-341, as amended.
r. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.[1]
s. Power plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.[1]
t. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]
u. Copeland Anti-kickback Act - 18 U.S.C. 874.1
v. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]
w. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
x. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]
y. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

z. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).

Executive Orders

a. Executive Order 11246 - Equal Employment Opportunity[1]
b. Executive Order 11990 - Protection of Wetlands
c. Executive Order 11998 – Flood Plain Management
d. Executive Order 12372 - Intergovernmental Review of Federal Programs
e. Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction[1]
f. Executive Order 12898 - Environmental Justice

Federal Regulations

a. 2 CFR Part 180 - OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).
b. 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. [OMB Circular A-87 Cost Principles Applicable to Grants and Contracts with State and Local Governments, and OMB Circular A-133 - Audits of States, Local Governments, and Non-Profit Organizations].[4, 5, 6]
c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment
d. 14 CFR Part 13 - Investigative and Enforcement Procedures14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
e. 14 CFR Part 150 - Airport noise compatibility planning.
f. 28 CFR Part 35- Discrimination on the Basis of Disability in State and Local Government Services.
g. 28 CFR § 50.3 - U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.
h. 29 CFR Part 1 - Procedures for predetermination of wage rates.[1]
i. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]
j. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]
k. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]
l. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]
m. 49 CFR Part 20 - New restrictions on lobbying.
n. 49 CFR Part 21 – Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
o. 49 CFR Part 23 - Participation by Disadvantage Business Enterprise in Airport Concessions.

p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.[1] [2]
q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.
r. 49 CFR Part 27 – Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.[1]
s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.
t. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)
v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).
w. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.

Specific Assurances

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

Footnotes to Assurance C.1.

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and 2 CFR Part 200 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

[4] On December 26, 2013 at 78 FR 78590, the Office of Management and Budget (OMB) issued the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR Part 200. 2 CFR Part 200 replaces and combines the former Uniform Administrative Requirements for Grants (OMB Circular A-102 and Circular A-110 or 2 CFR Part 215 or Circular) as well as the Cost Principles (Circulars A-21 or 2 CFR part 220; Circular A-87 or 2 CFR part 225; and A-122, 2 CFR part 230). Additionally it replaces Circular A-133 guidance on the Single Annual Audit. In accordance with 2 CFR section 200.110, the standards set forth in Part 200 which affect administration of Federal awards issued by Federal agencies become effective once implemented by Federal agencies or when any future amendment to this Part becomes final. Federal agencies, including the Department of Transportation, must implement the policies and procedures applicable to Federal awards by promulgating a regulation to be effective by December 26, 2014 unless different provisions are required by statute or approved by OMB.

[5] Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

[6] Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

2. **Responsibility and Authority of the Sponsor.**

   a. Public Agency Sponsor:

   It has legal authority to apply for this grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. Private Sponsor:

   It has legal authority to apply for this grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.**

   It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in this grant agreement and shall insure that such arrangement also requires compliance therewith.

g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. **Consistency with Local Plans.**

   The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.**

   It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.**

   In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. **Public Hearings.**

   In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Metropolitan Planning Organization.**

    In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. **Pavement Preventive Maintenance.**

    With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.**

    For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and

has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

    a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this grant, the total cost of the project in connection with which this grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

    b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. **Minimum Wage Rates.**

    It shall include, in all contracts in excess of $2,000 for work on any projects funded under this grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. **Veteran's Preference.**

    It shall include in all contracts for work on any project funded under this grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. **Conformity to Plans and Specifications.**

    It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans,

specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this grant agreement.

17. **Construction Inspection and Approval.**

    It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. **Planning Projects.**

    In carrying out planning projects:

    a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.

    b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.

    c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.

    d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.

    e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.

    f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

    g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.

    h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. **Operation and Maintenance.**

    a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal,

state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

1) Operating the airport's aeronautical facilities whenever required;
2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
3) Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. **Hazard Removal and Mitigation.**

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. **Compatible Land Use.**

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or

to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

e. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. **Exclusive Rights.**

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and

b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. **Fee and Rental Structure.**

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. **Airport Revenues.**

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:

1) If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or

operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

2) If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.

3) Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at Section 47102 of title 49 United States Code), if the FAA determines the airport sponsor meets the requirements set forth in Sec. 813 of Public Law 112-95.

b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. **Reports and Inspections.**

It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

1) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and

2) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. **Use by Government Aircraft.**

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or

b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. **Land for Federal Facilities.**

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. **Airport Layout Plan.**

a. It will keep up to date at all times an airport layout plan of the airport showing

1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;

2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and

roads), including all proposed extensions and reductions of existing airport facilities;

3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon; and

4) all proposed and existing access points used to taxi aircraft across the airport's property boundary. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. **Civil Rights.**

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this grant.

a. Using the definitions of activity, facility and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR § 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by, or pursuant to these assurances.

b. Applicability

1) Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.

2) Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

3) Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1) So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or

2) So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this grant agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

e. Required Contract Provisions.

1) It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

2) It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.

3) It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

4) It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a

covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

a) For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and

b) For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.

g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. **Disposal of Land.**

a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order, (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund. If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested or transferred to another

eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order: (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. **Engineering and Design Services.**

It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. **Foreign Market Restrictions.**

It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. **Policies, Standards, and Specifications.**

It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated _____ (the latest approved version as of this grant offer) and included in this grant, and in accordance

with applicable state policies, standards, and specifications approved by the Secretary.

35. **Relocation and Real Property Acquisition.**

    a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.
    b. It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.
    c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. **Access By Intercity Buses.**

    The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. **Disadvantaged Business Enterprises.**

    The sponsor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its DBE and ACDBE programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1936 (31 U.S.C. 3801).

38. **Hangar Construction.**

    If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. **Competitive Access.**

a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-

   1) Describes the requests;

   2) Provides an explanation as to why the requests could not be accommodated; and

   3) Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

Appendix I

RESOLUTION NO. 3077

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, GRANTING A RELEASE OF EASEMENT FROM THE CITY OF AUBURN STORMWATER UTILITY TO THE CITY OF AUBURN AIRPORT AND GRANTING A NEW EASEMENT FROM THE CITY OF AUBURN AIRPORT TO THE CITY OF AUBURN STORMWATER UTILITY.

WHEREAS, the City of Auburn adopted Short Plat No. SP-15-81, King County Recording No. 82-07299002; and

WHEREAS, Short Plat No. Sp-15-81 granted a 30-foot wide utility and drainage easement as depicted by cross hatch in Exhibit "A", attached hereto and by this reference made a part hereof; and

WHEREAS, the City of Auburn Stormwater Utility Enterprise Fund has been operating a stormwater detention pond on the City of Auburn Airport property within said easement at the Municipal Airport; and

WHEREAS, the City of Auburn Stormwater Utility will no longer make use of the existing utility and drainage easement as granted in Short Plat No. SP-15-81; and

WHEREAS, the City of Auburn Stormwater Utility Enterprise Fund desires to continue to develop and operate a regional stormwater detention pond on the City of Auburn

Airport property at the Municipal Airport to serve tributary areas within and adjacent to the Municipal Airport; and

WHEREAS, through mutual agreement between the City of Auburn Stormwater Utility and the City of Auburn Airport, a location for a regional stormwater detention facility has been agreed to, and said drainage easement is depicted by cross hatch in Exhibit "B", attached hereto and by this reference made a part hereof; and

WHEREAS, the City of Auburn Stormwater Utility will compensate the City of Auburn Airport in the final amount of $175,717.71, as determined in Exhibit "C", attached hereto and by this reference made a part hereof; and

WHEREAS, this arrangement is in the best interests of the City of Auburn Stormwater Utility and the City of Auburn Airport.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, IN A REGULAR MEETING DULY ASSEMBLED, HEREWITH RESOLVES THAT:

Section 1. There is herewith granted a release of easement from the City of Auburn Stormwater Utility to the

City of Auburn Airport the property legally described as follows:

A 30.00 ft. wide utility and drainage easement, beginning at the northeast corner of the J. A. Lake Donation Land Claim No. 41 T21N, R5E, W.M., King County, Washington; thence S 00° 52′ 25″ W along the east boundary of said Lake Claim, 30.00 feet; thence N 88° 49′ 52″ W along a line 30.00 feet south and parallel to the north boundary of said Lake Claim, 455.93 feet to the true point of beginning; thence S 00° 52′ 25″ W, 689.49 feet; thence N 88° 49′ 52″ W, 530.00 feet; thence N 00° 52′25″ E, 30.00 feet; thence S 88° 49′ 52″ E, 500.00 feet; thence N 00° 52′ 25″ E, 659.49 feet; thence S 88° 49′ 52″ E, 30.00 feet to the true point of beginning.

Said easement contains 0.812 acres, more or less.

Section 2. There is herewith granted an easement from the City of Auburn Airport to the City of Auburn Stormwater Utility legally described as follows:

A parcel of land located within the J. Brannan D.C. No. 38 and the J.A. Lake D.C. No. 41, Section 6 and Section 7, Township 21 North, Range 5 East, W.M., King County, Washington. More Particularly described as follows:

Commencing at a monument at the intersection of 30th Street NE and C Street NE; Thence N 89°03'18" W for a distance of 226.72 feet along the centerline of said 30th Street NE; Thence S 0°56'47" W for a distance of 51.82 feet to the POINT OF BEGINNING;

Thence S 89°19'51" E for a distance of 396.57 feet; Thence S 0°38'16" W for a distance of 436.00 feet; Thence N 89°21'44" W for a distance of 133.05 feet; Thence N 0°38'16" E for a distance of 406.00 feet; Thence N 89°21'44" W for a distance of 160.00 feet; Thence S 0°38'16" W for a distance of 915.00 feet; Thence N 89°21'44" W for a distance of 22.54 feet; Thence S 0°38'16" W for a distance of 958.37 feet; Thence N 89°21'44" W for a distance of 67.96 feet; Thence S 0°38'16" W for a distance of 397.63 feet; Thence S 89°21'44" E for a distance of 85.01 feet; Thence S 0°38'16" W for a distance of 144.00 feet; Thence N 89°21'44" W for a distance of 44.51 feet; Thence S 0°38'16" W for a distance of 60.00 feet; Thence S 89°21'44" E for a distance of 44.51 feet; Thence S 0°38'16" W for a distance of 364.35 feet; Thence N 89°21'44" W for a distance of 27.34 feet; Thence S 0°38'16" W for a distance of 17.08 feet; Thence S 89°21'44" E for a distance of 27.34 feet; Thence S 0°38'16" W for a distance of 423.56 feet; Thence N 89°21'44" W for a distance of 59.51 feet; Thence S 0°38'16" W for a distance of 60.00 feet; Thence S 89°21'44" E for a distance of 31.95 feet; Thence S 0°38'16" W for a distance of 54.42 feet; Thence S 89°21'44" E for a distance of 33.05 feet; Thence S 0°38'16" W for a distance of 785.15 feet to the south boundary of the City of Auburn Airport; Thence N 89°07'06" W for a distance of 162.19 feet along said south boundary to the west boundary of the City of Auburn Airport; Thence N 0°39'02" E for a distance of 624.47 feet along said west boundary; Thence S 89°21'44" E for a distance of 46.55 feet; Thence N 0°38'16" E for a distance of 214.41 feet; Thence S 89°21'44" E for a distance of 30.50 feet; Thence N 0°38'16" E for a distance of 60.00 feet; Thence N 89°21'44" W for a distance of 30.50 feet; Thence N 0°38'16" E for a distance of 805.00 feet; Thence S 89°21'44" E for a distance of 45.50 feet; Thence N 0°38'16" E for a

distance of 60.00 feet; Thence N 89°21'44" W for a distance of 45.50 feet; Thence N 0°38'16" E for a distance of 144.00 feet; Thence S 89°21'44" E for a distance of 5.00 feet; Thence N 0°38'16" E for a distance of 264.00 feet; Thence N 89°22'22" W for a distance of 60.50 feet to the west boundary of the City of Auburn Airport; Thence N 0°38'02" E for a distance of 2037.00 feet along said west boundary; Thence S 89°33'25" E for a distance of 67.62 feet; To the true point of beginning.

Said easement contains 14.084 acres, more or less.

Section 3. Upon the passage and approval of this Resolution, the City of Auburn City Clerk is hereby authorized to record this Resolution with King County.

Section 4. The Mayor is hereby authorized to implement such administrative procedures as may be necessary to carry out the directives of this legislation.

DATED and SIGNED this 17th day of May, 1999.

Charles A. Booth

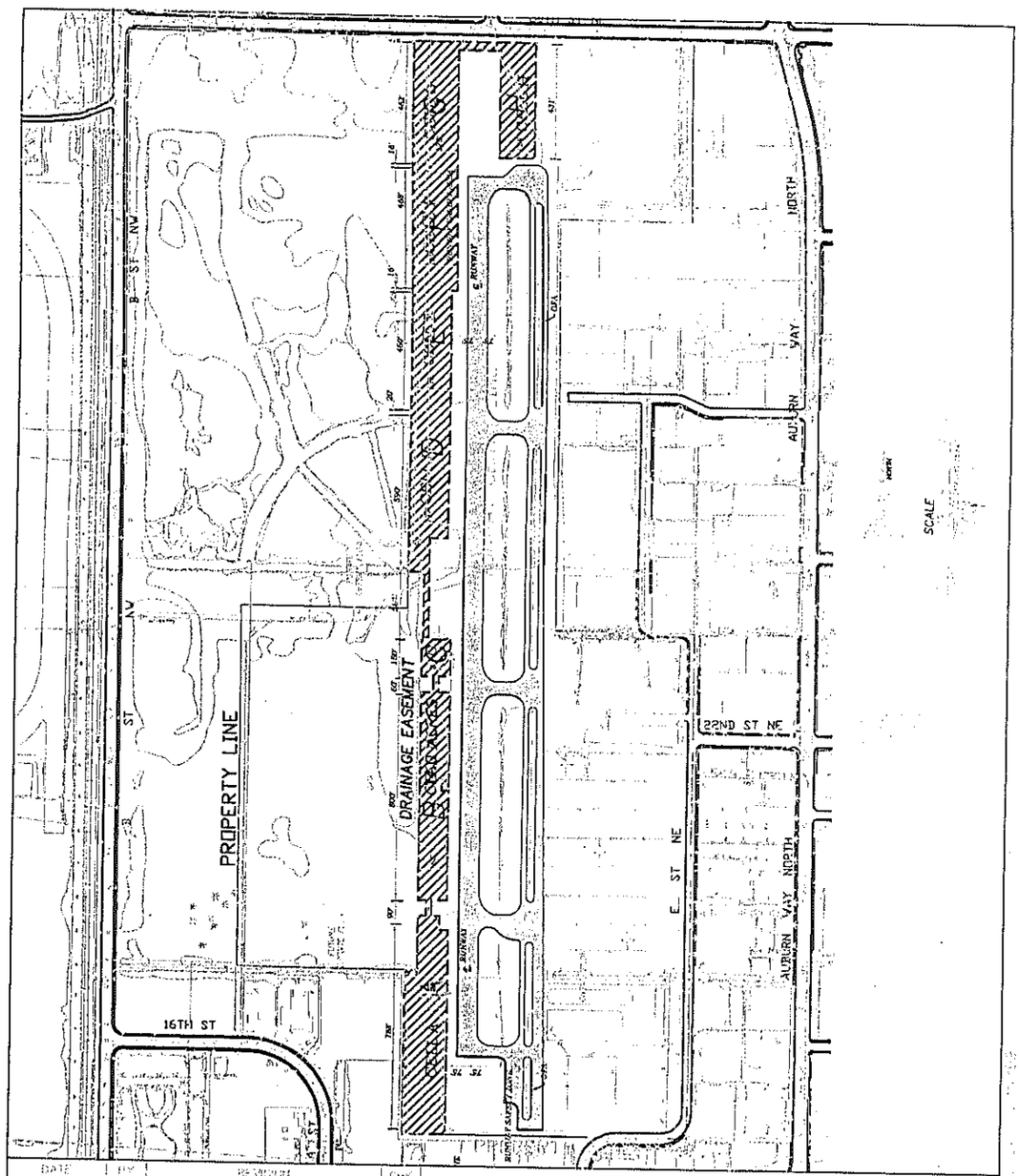
CHARLES A. BOOTH
MAYOR

ATTEST:

Danielle E. Daskam,
City Clerk

APPROVED AS TO FORM:

Michael J. Reynolds,
City Attorney



CITY OF AUBURN
REGIONAL DETENTION FACILITY
DRAINAGE EASEMENTS
EXHIBIT B

W&H PACIFIC

EXHIBIT "C"

AUBURN AIRPORT STORM DRAINAGE AGREEMENT

Easement Value

	Ex. Easement	Fee Value/foot	New Easement	Encumbered Value/foot	(exp) / rev Airport
Area	35,389	$ 5.50		$ 0.825	$ (29,196)
		$ 5.50	613,499	$ 0.825	$ 506,137

Lost Volume Costs @ "L" Shaped Pond

Volume	Value/ac-ft	
3.5	$ 49,700	$ (173,950)

Volume Costs Required for Hanger Project

Volume	Value/ac-ft	
1.61	$ 49,700	$ (79,867)

Oversize

Item	Unit price*	Quantity	
30" RCP	$ 42	657	$ 27,594

*Unit price based upon bid tab by W&H Pacific

TOTAL	$ 250,717.71

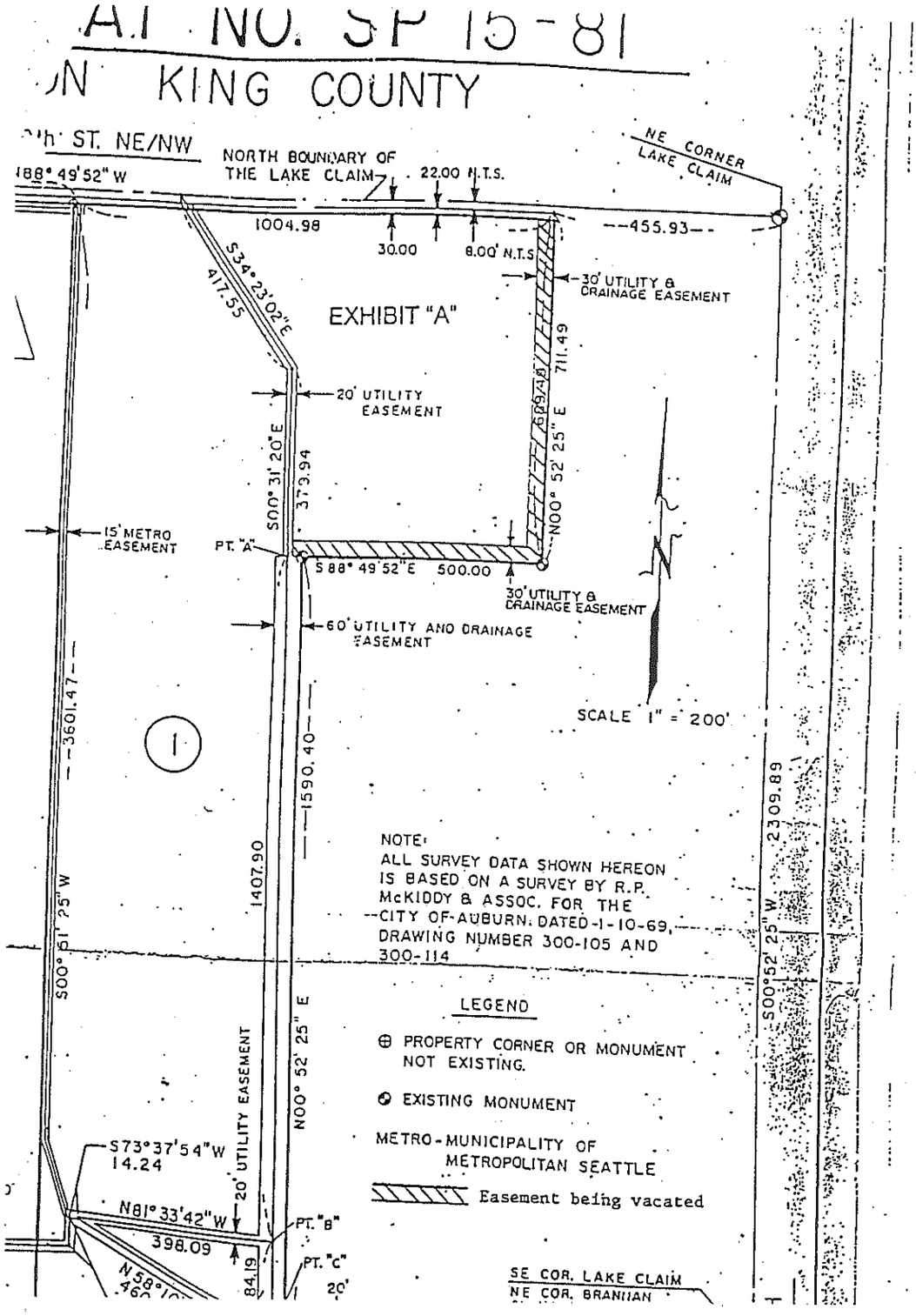
Storm Utility owes Airport Enterprise Fund	$ 250,717.71

Owed	$	250,717.71
less option previously paid	$	(75,000.00)
	$	***175,717.71***

h:/tjc/cip/airport/storm1d.xls
5/6/99 11:57 AM

A.I NO. SP 15-81

N KING COUNTY



CITY OF AUBURN MISC 17.00

19990712000632
PAGE 009 OF 010
07/12/1999 10:14
KING COUNTY, WA

Please Type or Print on This Form

KR025

Form Approved OMB NO. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

Notice of Proposed Construction or Alteration

Failure To Provide All Requested Information May Delay Processing Of Your Notice

Aeronautical Study Number: 99-SEA-159-NRA

1. Nature of Proposal

A. Type	B. Class	C. Work Schedule Dates
[X] New Construction	[X] Permanent	Beginning 8/6/99
[ ] Alteration *	[ ] Temporary (Duration _____ months)	End 11/30/99

* If Alteration, provide previous FAA Aeronautical Study Number, if available :

3A. Name, address, and telephone number of individual, company corporation, etc. proposing the construction or alteration. (Number, Street, City, State, and Zip Code)

CITY OF AUBURN
25 WEST MAIN ST.
AUBURN, WA 98001-4998

(253) 931-3010
Area Code Telephone Number

3B. Name, address and telephone number of proponent's representative, if different than 3A. above.

W&H PACIFIC
3350 MONTE VILLA PARKWAY
BOTHELL, WA 98021

(425) 951-4800
Area Code Telephone Number

2. Complete Description of Structure

Please describe the proposed construction or alteration.

A. For proposals involving transmitting stations, include effective radiated power (ERP) and assigned frequency. If not known, give frequency band and maximum ERP.

B. For proposals involving overhead wire, transmission lines, etc., include the size and the configuration of the wires and their supporting structures.

C. For buildings, include site orientation, dimensions, and construction materials.

D. **Optional**— Describe the type of obstruction marking and lighting system desired. The FAA will consider this in their study.

- REGIONAL DETENTION FACILITY INCLUDING 5 STORMWATER CELLS AND THE NECESSARY UNDERGROUND CONTROL STRUCTURES AND PIPING.

4. Location Of Structure

A. Coordinates (to hundredths of seconds, if known)

Latitude 0 ' "
47 | 19 | 43.

Longitude 0 ' "
122 | 13 | 30.

4D. Source for item 4A data.

[ ] USGS 7.5' Quad Chart [X] Survey [ ] Other Specify

Indicate the reference datum.

[ ] NAD 27 [ ] NAD 83 [ ] Other Specify

B. Nearest City or Town and State: AUBURN, WA

(1). Distance to 4B: IN CITY LIMITS

(2). Direction to 4B: NORTH END OF LIMITS

C. Nearest public or military airport, heliport, flightpark, or seaplane base: AUBURN MUNICIPAL

(1). Distance from structure to nearest point of nearest runway: 75 FEET

(2). Direction from structure to airport: EAST

5. Height and Elevation (to nearest foot)

A. Elevation of ground above mean sea level.	56
B. Height of structure including all appurtenances and lighting above ground or water.	0
C. Overall height above mean sea level	56

4E. **Description of site location with respect to highways, street, airports, prominent terrain, features, existing structures, etc.** Please attach a U.S. Geological Survey Map (or equivalent) showing the construction site. If available, attach a copy of a documented site survey with the surveyor's certification.

400 23RD NE ST., AUBURN, WA 98001 - SEE ATTACHED

Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. app. § 1501). Persons who knowingly and willfully violate the Notice requirements of Part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to Section 901(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app § 1471(a)) as well as the fine (criminal penalty) of not more than $500 for the first offense and not more than $2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app § 1472(a)).

I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date	Typed or Printed Name and Title of Person Filing Notice	Signature
6-29-99	JOHN ANDERSON AIRPORT DIR.	John Anderson

FOR FAA USE ONLY

FAA will either return this form or issue a separate acknowledgement.

The Proposal:

[ ] Does not require a notice to FAA.
[X] Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.
[ ] Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.
[ ] Should be obstruction [ ] marked [ ] lighted per FAA Advisory Circular 70/7460-1, Chapters _____
[ ] Obstruction marking and lighting are not necessary.

Supplemental Notice of Construction. FAA Form 7460-2, is required any time the project is abandoned, or

[ ] At least 48 hours before the start of construction.
[ ] Within five days after the construction reaches its greatest height.

This determination expires on _____ unless:
(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit is made to the FCC on or before the above expiration date. In such cases the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that agency.

Remarks: The proposal has been designed in consultation with USDA and every effort has been made to comply with our Wildlife Hazard Advisory Circular 150/5200-33. Should there be a bird problem, mitigation measures should be discussed with USDA and the Seattle ADO.

NAD 83 Coordinates (Use these coordinates for any future correspondence with the FAA) Latitude ° ' " Longitude ° ' "

Issued in	Signature	Date
Renton, WA		7/2/99

FAA Form 7460-1 (5-94) Supersedes Previous Edition

NSN: 0052-00-012-0007

Creative Solutions ... Superior Service

W&H PACIFIC
3025 112th Ave., NE
Bellevue, WA 98009
(425) 827-0220

FAX TRANSMITTAL

To:	**Tim Carlaw, P.E.**		
Company:	**City of Auburn Public Works**	Date:	**July 24, 1998**
Address:	**25 West Main Street**	Project Number:	**3-0223-1201**
City/State:	**Auburn, WA 98001-4998**	Project Name:	**Auburn Airport Drainage**
Tel/Fax #s:	**(253) 804-506/(253) 931-3053**	Regarding:	

From: **Mark S. Van Wormer, P.E.**

Phone No. (425) 828-2839

Fax No. (425) 822-5341

We are Sending:	These are Transmitted:	Copied To:
☐ Attached	☐ For Your Info/File	
■ Facsimile	☐ As Requested	
____ # of Pages Including Cover	■ For Review & Comment	

Copies	Description
1	Memorandum summarizing meeting notes
1	**Memorandum justifying the use of the airport for a regional detention site**

Comments:

A copy of the two memos was also sent to John Anderson. Please call me after you have reviewed the meeting notes. I will incorporate any additional comments and send the memo to the FAA. Mark Napier and I plan to meet with you, John Anderson, Cayla Morgan and Jeff Young at the airport July 29 to review detention site alternative designs and wildlife protection methods.

As we discussed I prepared a memo to explain the justification for using the airport as a stormwater detention site. This draft memo can be used to formulate an explanation to the FAA.

Mark Van Wormer

Creative Solutions ... Superior Service

W&H PACIFIC
3025 112th Ave., NE
Bellevue, WA 98009
(425) 827-0220

MEMORANDUM

To:	Tim Carlaw, P.E.		
Company:	Auburn Public Works Department	Date:	July 24, 1998
Address:	25 West Main Street	Project Number:	3-0233-1201
City/State:	Auburn, Washington 98001-4998	Project Name:	Auburn Airport Drainage Review
Tel/Fax #s:	253-804-5060/253-931-3053	Regarding:	Notes from Meeting of 7-14-98

From: Mark S. Van Wormer, P.E.
Phone No.: (425) 828-2839
Fax No.: (425) 822-5341

cc: John Anderson

A meeting was held July 14, 1998 at the Federal Aviation Administration (FAA) to review proposed regional stormwater detention alternatives at the Auburn Municipal Airport. In attendance were Cayla Morgan (FAA), John Anderson (Auburn Airport), Tim Carlaw (City of Auburn Public Works), Rob Millar (W&H Pacific) and Mark Van Wormer (W&H Pacific). The following is a summary of notes from that meeting.

A general overview of the regional stormwater detention analysis and proposed alternatives was presented that included project goals, site selection and detention design alternatives. Flooding in the vicinity of the airport is common during extended rainy periods due, in large part, to runoff originating from the airport. The City of Auburn is evaluating potential solutions to this problem. A copy of the Stormwater Detention Alternative Review and the schematic drawings were presented to Cayla.

The FAA is concerned about stormwater detention facilities that may impair safety, function or future airport expansion. However, the FAA is interested in addressing existing and future stormwater detention needs of the airport. Cayla requested specific information on the quantity of stormwater detention needed for runoff originating from the airport.

The FAA will require the proposed airport stormwater detention system to comply with federal grant assurances and pertinent FAA Advisory Circulars. The FAA may participate in a drainage project that benefits the airport if funding is available.

The FAA suggested consulting with Animal Damage Control (ADC) (Department of Agriculture) for recommendations on possible treatment of detention facilities that will prohibit wildlife from interfering with airport operations. Jeff Young, of ADC (tel. 425-753-9884) is the primary contact. Cayla will arrange a meeting at the airport to review the detention alternatives on site with Jeff Young, Cayla Morgan, the City of Auburn and W&H Pacific.

The City of Auburn is willing to allow the "L" shaped ditch located at the northeast end of the airport to be filled and developed to benefit airport growth. Provisions will be necessary to make up for this loss of stormwater detention elsewhere on the airport property.

The FAA requested information from the City of Auburn to provide justification for locating and proposed regional stormwater detention facilities on the airport property.

MSV:cya
I:\PROJECT\022312.01\WORD\MEMA1IB03.DOC

Creative Solutions ... Superior Service

W&H PACIFIC
3025 112th Ave., NE
Bellevue, WA 98009
(425) 827-0220

MEMORANDUM

To:	Tim Carlaw, P.E.		
Company:	Auburn Public Works Department	Date:	July 24, 1998
Address:	25 West Main Street	Project Number:	3-0233-1201
City/State:	Auburn, Washington 98001-4998	Project Name:	Auburn Airport Drainage Review
Tel/Fax #s:	253-804-5060/253-931-3053	Regarding:	Detention Site Justification

From: Mark S. Van Wormer, P.E.
Phone No.: (425) 828-2839
Fax No.: (425) 822-5341

cc: John Anderson

During our meeting July 14th with the FAA, Cayla Morgan voiced concern regarding the decision to use the airport as the preferred site for a proposed regional stormwater detention facility. The FAA requested justification for not using other potential non-airport sites for detention facilities.

The sites available for a regional stormwater detention facility in the vicinity of the airport are limited due to industrial and commercial development surrounding the airport. The airport is the only large tract of land owned by the City in the vicinity. In an effort to maximize the benefits the property provides to the public, the City is investigating ways to convert areas within the airport property that are usable only for airfield operations (safety areas, runway protection zones, etc.) for use as stormwater detention facilities without restricting airport operations, safety and future expansion.

Further, the flat terrain and shallow groundwater table characteristic of the river valley make it difficult to find suitable sites for stormwater detention. Most of the area in the vicinity is privately owned. The area adjacent to the airport is currently developed or is planned for future airport facilities. The City of Auburn currently has plans to develop two off-site detention facilities. These sites, however, do not have the capacity to handle all the existing and future needs of this drainage basin.

The airport currently does not have adequate stormwater detention facilities to satisfy its own demands. There are flooding problems throughout the area just north of the airport during extended rainy periods. The City of Auburn is reviewing opportunities at the airport to construct facilities that will satisfy the stormwater detention needs and not impair airport operations. Special attention will be given to construct facilities that do not attract wildlife and can be easily maintained.

Water currently ponds on airport property for extended periods during winter and spring months due to the flat terrain. Construction of more defined and efficient drainage facilities may, in fact, reduce the cumulative duration of the ponding and result in a lesser overall wildlife attraction. Additionally, the proposed stormwater detention facilities have been sited beyond runway and taxiway safety areas in locations that will not conflict with future aviation related development.

MSV:cya
\\bellevue1\data\PROJECT\02231201\WORD\MEMAUB02.doc

Appendix J

WSDOT adopts new grant assurances

On March 13, 2013, the Washington State Department of Transportation (WSDOT) convened a public hearing to adopt new grant assurances in the Washington Administrative Code Chapter 468-260 WAC. Grant assurances are terms and conditions used to protect the public's investment in the aviation system. They require airport sponsors to maintain and operate their facilities safely, efficiently and in accordance with specified conditions.

WSDOT's Airport Aid Grant Program provides about $1 million to airports for crucial projects every year. The program also uses state and local match funds to leverage millions in federal dollars. Funding for the grant program comes from aviation users – an 11-cent fee on aviation fuel and a portion of the state aircraft registration and excise tax fees.

Aviation Division Director Tristan Atkins noted, "Grant Assurances are an important part of WSDOT's Airport Aid Grant program. We have limited state airport aid grant funds, and that means we have to choose airport investments wisely and be transparent to the public."

Implementing these new airport grant assurances will preserve and protect the State's investments in the aviation system. Developing new assurances was a recommendation of the Washington State Aviation Planning Council in July 2009.

Modeled after the Federal Aviation Administration (FAA) assurances, WSDOT grant assurances provide enhanced oversight of airport aid grant funds, and add benefits to airports receiving funds. The similarity of FAA and WSDOT grant assurances simplifies the grant process for the 64 National Plan of Integrated Airport Systems (NPIAS) airports that also abide by FAA grant assurances, reinforces the Aviation Division's policy to encourage Non-NPIAS (only state grant eligible) airports to strive to meet FAA standards, and demonstrates the WSDOT Aviation's continuing partnership with the FAA.

WSDOT's new grant assurances carry forward all the provisions of the previous grant agreement:

- Compliance with plans and specifications
- Real property acquisition procedures
- Local jurisdiction funds availability
- Maintain public access for useful life of a project, not to exceed 20 years
- Airport shall not charge state agencies for limited/reasonable use
- Inspections and Reporting

The new grant assurances add new components tied to compatible land-use planning, public hearings, pavement maintenance, non-discrimination, environmental stewardship, and a host of similar programmatic improvements:

- References to state RCWs, WACs and Executive Orders
- Good title
- Preserving rights and powers
- Consistency with local plans
- Consideration of local interest
- Consultation with users
- Public hearings
- Air and water quality standards
- Pavement preventive maintenance
- Accounting system, audit, and recordkeeping requirements
- Wage rates
- Nondiscrimination requirements
- Equal employment opportunity (EEO) responsibilities
- Veteran's preference
- Planning projects
- Operation and maintenance
- Hazard removal and mitigation
- Compatible land use
- Economic nondiscrimination
- Fee and rental structure
- Airport revenues
- Land for state facilities
- Airport layout plan
- Disposal of land
- Engineering and design services
- Foreign market restrictions
- Policies, standards, and specifications
- Disadvantaged business enterprises
- Hangar construction

Appendix K

U.S. Department
of Transportation
Federal Aviation
Administration

Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue S.W., Suite 250
Renton, Washington 98055-4056

May 27, 2015

Ms. Shelley Coleman
Finance Director
City of Auburn
25 W. Main Street
Auburn, WA 98001

Dear Ms. Coleman:

The Auburn Municipal Airport S50 Airport Layout Plan (ALP), prepared by Century West, and bearing your signature, is approved and the master plan is accepted. A signed copy of the approved ALP is enclosed.

An aeronautical study (no. 2014-ANM-1473-NRA) was conducted on the proposed development. This determination does not constitute FAA approval or disapproval of the physical development involved in the proposal. It is a determination with respect to the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground.

In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected area would have on the airport proposal.

The FAA has only limited means to prevent the construction of structures near an airport. The airport sponsor has the primary responsibility to protect the airport environs through such means as local zoning ordinances, property acquisition, avigation easements, letters of agreement or other means.

This ALP approval is conditioned on acknowledgement that any development on airport property requiring Federal environmental approval must receive such written approval from FAA prior to commencement of the subject development. This ALP approval is also conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan.

Approval of the plan does not indicate that the United States will participate in the cost of any development proposed. AIP funding requires evidence of eligibility and justification at the time a funding request is ripe for consideration. When construction of any proposed structure or

development indicated on the plan is undertaken, such construction requires normal 45-day advance notification to FAA for review in accordance with applicable Federal Aviation Regulations (i.e., Parts 77, 157, 152, etc.). More notice is generally beneficial to ensure that all statutory, regulatory, technical and operational issues can be addressed in a timely manner.

Please attach this letter to the Airport Layout Plan and retain it in the airport. We wish you great success in your plans for the development of the airport.

Sincerely,

Carolyn T. Read, P.E.
Manager, FAA Seattle Airports District Office

Enclosure
cc: Jamelle Garcia, Airport Manager
David Miller, Century West

Glossary of Terms

GLOSSARY OF AVIATION TERMS

The following glossary of aviation terms was compiled from a variety of sources and edited by David Miller, AICP for use in aviation planning projects.

Above Ground Level (AGL) – As measured above the ground; used to identify heights of built items (towers, etc.) on aeronautical charts in terms of absolute height above the ground.

Accelerate Stop Distance Available (ASDA) – The length of the takeoff run available plus the length of a stopway, when available.

Agricultural Aviation – The use of fixed-wing or rotor-wing aircraft in the aerial application of agricultural products (i.e., fertilizers, pesticides, etc.).

Air Cargo - All commercial air express and air freight with the exception of airmail and parcel post.

Air Carrier/Airline - All regularly scheduled airline activity performed by airlines certificated in accordance with Federal Aviation Regulations (FAR Part 121).

Air Taxi - Operations of aircraft "for hire" for specific trips, commonly referred to an aircraft available for charter (FAR Part 135).

Aircraft Approach Category - Grouping of aircraft based on the speed they are traveling when configured for landing (typically 1.3 times the aircraft stall speed in landing configuration). As a rule of thumb, slower approach speeds mean smaller airport dimensions and faster approach speeds require larger dimensions. 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 than 166 knots

Category E - Speed 166 knots or more

Aircraft Holding Area – An area typically located adjacent to a taxiway and runway end designed to accommodate aircraft prior to departure (for pre–takeoff engine checks, instrument flight plan clearances, etc.). Per FAA design standards, aircraft holding areas should be located outside the runway safety area (RSA) and obstacle free zone (OFZ) and aircraft located in the holding area should not interfere with normal taxiway use (taxiway object free area). Sometimes referred to as holding bays or "elephant ear." Smaller areas (aircraft turnarounds) are used to facilitate aircraft movement on runways without exit taxiways or where back-taxiing is required.

Aircraft Operation - A landing or takeoff is one operation. An aircraft that takes off and then lands creates two aircraft operations.

Aircraft Owners and Pilots Association (AOPA) – A general aviation organization.

Aircraft Parking Line (APL) – A setback depicted on an ALP or other drawings that defines the minimum separation between aircraft parking areas and an adjacent runway or taxiway. The APL dimension reflects runway and taxiway clearances (object free area, etc.) and FAR Part 77 airspace surface clearance (transitional surface penetrations) for parked aircraft. Typically the tail height of the parked aircraft is used to determine adequate clearance for the transitional surface.

Airplane Design Group - A grouping of airplanes based on wingspan and tail height. As with Approach Category, the wider the wingspan, the bigger the aircraft is, the more room it takes up for operating on an airport. The Airplane Design Groups are:

Group I:	Up to but not including 49 feet or tail height up to but not including 20 feet.
Group II:	49 feet up to but not including 79 feet or tail height from 20 up to but not including 30 feet.
Group III:	79 feet up to but not including 118 feet or tail height from 30 up to but not including 45 feet.
Group IV:	118 feet up to but not including 171 feet or tail height from 45 up to but not including 60 feet.
Group V:	171 feet up to but not including 214 feet or tail height from 60 up to but not including 66 feet.
Group VI:	214 feet up to but not including 262 feet or tail height from 66 up to but not including 80 feet.

Airport - A landing area regularly used by aircraft for receiving or discharging passengers or cargo, including heliports and seaplane bases.

Airport Beacon (also Rotating Beacon) – A visual navigational aid that displays alternating green and white flashes for a lighted land airport and white for an unlighted land airport.

Airports District Office (ADO) - The "local" office of the FAA that coordinates planning and construction projects. The Seattle ADO is responsible for airports located in Washington, Oregon, and Idaho.

Airport Improvement Program (AIP) - The funding program administered by the Federal Aviation Administration (FAA) with user fees which are dedicated to improvement of the national airport system. This program currently provides 95% of funding for eligible airport improvement projects. The local sponsor of the project (i.e., airport owner) provides the remaining 5% known as the "match."

Airport Layout Plan (ALP) - The FAA approved drawing which shows the existing and anticipated layout of an airport for the next 20 years. An ALP is prepared using FAA design standards. Future development projects must be consistent with the ALP to be eligible for FAA funding. ALP drawings are typically updated every 7 to 10 years to reflect significant changes, or as needed.

Airport Reference Code (ARC) - An FAA airport coding system that is defined based on the critical or design aircraft for an airport or individual runway. The ARC is an alpha-numeric code based on aircraft approach speed and airplane wingspan (see definitions in glossary). The ARC is used to determine the appropriate design standards for runways, taxiways, and other associated facilities. An airport designed to accommodate a Piper Cub (an A-I aircraft) requires less room than an airport designed to accommodate a Boeing 747 (a D-V aircraft).

Airport Reference Point (ARP) – The approximate mid-point of an airfield that is designated as the official airport location.

Aircraft Rescue and Fire Fighting (ARFF) - On airport emergency response required for certificated commercial service airports (see FAR Part 139).

Airside – The portion of an airport that includes aircraft movement areas (runways, taxiways, etc.)

Airspace - The area above the ground in which aircraft travel. It is divided into enroute and terminal airspace, with corridors, routes, and restricted zones established for the control and safety of air traffic.

Alternate Airport – An airport that is available for landing when the intended airport becomes unavailable. Required for instrument flight planning in the event that weather conditions at destination airport fall below approach minimums (cloud ceiling or visibility).

Annual Service Volume (ASV) - An estimate of how many aircraft operations an airport can handle based upon the number, type and configuration of runways, aircraft mix (large vs. small, etc), instrumentation, and weather conditions with a "reasonable" amount of delay. ASV is a primary planning standard used to determine when a runway (or an airport) is nearing its capacity, and may require new runways or taxiways. As operations levels approach ASV, the amount of delay per operation increases; once ASV is exceeded, "excessive" delay generally exists.

Approach End of Runway - The end of the runway used for landing. Pilots generally land into the wind and choose a runway end that best aligns with the wind.

Approach Light System (ALS) – Configurations of lights positioned symmetrically beyond the runway threshold and the extended runway centerline. The ALS visually augments the electronic navigational aids for the runway.

Approach Surface (Also FAR Part 77 Approach) - An imaginary (invisible) surface that rises and extends from the ends of a runway to provide an unobstructed path for aircraft to land or take off. The size and slope of the approach surface vary depending upon the size of aircraft that are accommodated and the approach capabilities (visual or instrument).

Apron - An area on an airport designated for the parking, loading, fueling, or servicing of aircraft (also referred to as tarmac and ramp).

Aqueous Film Forming Foam (AFFF) – A primary fire fighting agent that is used to create a blanket that smothers flame or prevents ignition (fuel spills, etc.). AFFF is also used to foam runways during emergency landings.

Asphalt or Asphaltic Concrete (AC) – Flexible oil-based pavement used for airfield facilities (runways, taxiways, aircraft parking apron, etc.); also commonly used for road construction.

Automated Surface Observation System (ASOS) and Automated Weather Observation System (AWOS) – Automated observation systems providing continuous on-site weather data, designed to support aviation activities and weather forecasting.

AVGAS – Highly refined gasoline used in airplanes with piston engines. The current grade of AVGAS available is 100 Octane Low Lead (100LL).

Avigation Easement - A grant of property interest (airspace) over land to ensure unobstructed flight. Typically acquired by airport owners to protect the integrity of runway approaches. Restrictions typically include maximum height limitations for natural (trees, etc.) or built items, but may also address permitted land uses by the owner of the underlying land that are compatible with airport operations.

Back-Taxiing – The practice of aircraft taxiing on a runway before takeoff or after landing, normally, in the opposite direction of the runway's traffic pattern. Back-taxiing is generally required on runways without taxiway access to both runway ends.

Based Aircraft - Aircraft permanently stationed at an airport usually through some form of agreement with the airport owner. Used as a measure of activity at an airport.

Capacity - A measure of the maximum number of aircraft operations that can be accommodated on the runways of an airport in an hour.

Ceiling – The height above the ground or water to base of the lowest cloud layers covering more than 50 percent of the sky.

Charter - Operations of aircraft "for hire" for specific trips, commonly referred to an aircraft available for charter.

Circle to Land or Circling Approach – An instrument approach procedure that allows pilots to "circle" the airfield to land on any authorized runway once visual contact with the runway environment is established and maintained throughout the procedure.

Commercial Service Airport - An airport designed and constructed to serve scheduled or unscheduled commercial airlines. Commercial service airports are certified under FAR Part 139.

Common Traffic Advisory Frequency (CTAF) – A frequency used by pilots to communicate and obtain airport advisories at an uncontrolled airport.

Complimentary Fire Extinguishing Agent – Fire extinguishing agents that provide rapid fire suppression, which may be used in conjunction with principal agents (e.g., foam). Examples include sodium-based and potassium-based dry chemicals, Halocarbons, and Carbon dioxide. Also recommended for electrical and metal fires where water-based foams are not used. Complimentary agents are paired with principal agents based on their compatibility of use.

Conical Surface - One of the "FAR Part 77 "Imaginary" Surfaces. The conical surface extends outward and upward from the edge of the horizontal surface at a slope of 20:1 to a horizontal distance of 4,000 feet.

Controlling Obstruction – The highest obstruction relative to a defined plane of airspace (i.e., approach surface, etc.).

Critical Aircraft - 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 (i.e., runway length, pavement strength, etc.). Also referred to as "design aircraft."

Crosswind - Wind direction that is not parallel to the runway or the path of an aircraft.

Crosswind Runway – An additional runway (secondary, tertiary, etc.) that provides wind coverage not adequately provided by the primary runway. Crosswind runways are generally eligible for FAA funding when a primary runway accommodates less than 95 percent of documented wind conditions (see wind rose).

Decision Height (DH) – For precision instrument approaches, the height (typically in feet or meters above runway end touchdown zone elevation) at which a decision to land or execute a missed approach must be made by the pilot.

Declared Distances – The distances the airport owner declares available for airplane operations (e.g., takeoff run, takeoff distance, accelerate-stop distance, and landing distance). In cases where runways meet all FAA design criteria without modification, declared distances equal the total runway length. In cases where any declared distances are less than full runway length, the dimension should be published in the FAA Airport/Facility Directory (A/FD).

Departure Surface – A surface that extends upward from the departure end of an instrument runway that should be free of any obstacle penetrations. For instrument runways other than air carrier, the slope is 40:1, extending 10,200 feet from the runway end. Air carrier runways have a similar surface designed for one-engine inoperative conditions with a slope of 62.5: 1.

Design Aircraft - Aircraft which controls one or more design items based on wingspan, approach speed and/or maximum certificated takeoff weight. The same aircraft may not represent the design aircraft for all design items (i.e., runway length, pavement strength, etc.). Also referred to as "critical aircraft."

Displaced Threshold – A landing threshold located at a point other than on the runway end, usually provided to mitigate close-in obstructions to runway approaches for landing aircraft. The area between the runway end and the displaced threshold accommodates aircraft taxi and takeoff, but not landing.

Distance Measuring Equipment (DME) – Equipment that provides electronic distance information to enroute or approaching aircraft from a land-based transponder that sends and receives pulses of fixed duration and separation. The ground stations are typically co-located with VORs, but they can also be co-located with an ILS.

Distance Remaining Signs – Airfield signs that indicate to pilots the amount of useable runway remaining in 1,000-foot increments. The signs are located along the side of the runway, visible for each direction of runway operation.

DNL - Day-night sound levels, a mathematical method of measuring noise exposure based on cumulative, rather than single event impacts. Night time operations (10pm to 7AM) are assessed a noise penalty to reflect the increased noise sensitivity that exists during normal hours of rest. Previously referred to as Ldn.

Easement – An agreement that provides use or access of land or airspace (see avigation easement) in exchange for compensation.

Enplanements - Domestic, territorial, and international revenue passengers who board an aircraft in the states in scheduled and non-scheduled service of aircraft in intrastate, interstate, and foreign commerce and includes intransit passengers (passengers on board international flights that transit an airport in the US for non-traffic purposes).

Entitlements - Distribution of Airport Improvement Plan (AIP) funds by FAA from the Airport & Airways Trust Fund to commercial service airport sponsors based on passenger enplanements or cargo volumes and smaller fixed amounts for general aviation airports (Non-Primary Entitlements).

Experimental Aircraft – See homebuilt aircraft.

Federal Aviation Administration (FAA) - The FAA is the branch of the U.S. Department of Transportation that is responsible for the development of airports and air navigation systems.

FAR Part 77 - Federal Air Regulations (FAR) which establish standards for determining obstructions in navigable airspace and defines imaginary (airspace) surfaces for airports and heliports that are designed to prevent hazards to air navigation. FAR Part 77 surfaces include approach, primary, transitional, horizontal, and conical surfaces. The dimensions of surfaces can vary with the runway classification (large or small airplanes) and approach type of each runway end (visual, nonprecision instrument, precision instrument). The slope of an approach surface also varies by approach type and runway classification. FAR Part 77 also applies to helicopter landing areas.

FAR Part 139 - Federal Aviation Regulations which establish standards for airports with scheduled passenger commercial air service. Airports accommodating scheduled passenger service with aircraft more than 9 passenger seats must be certified as a "Part 139" airport. Airports that are not certified under Part 139 may accommodate scheduled commercial passenger service with aircraft having 9 passenger seats or less.

Final Approach Fix (FAF) – The fix (location) from which the final instrument approach to an airport is executed; also identifies beginning of final approach segment.

Final Approach Point (FAP) – For non-precision instrument approaches, the point at which an aircraft is established inbound for the approach and where the final descent may begin.

Fixed Base Operator (FBO) - An individual or company located at an airport providing aviation services. Sometimes further defined as a "full service" FBO or a limited service. Full service FBOs typically provide a broad range of services (flight instruction, aircraft rental, charter, fueling, repair, etc) where a limited service FBO provides only one or two services (such as fueling, flight instruction or repair).

Fixed Wing - A plane with one or more "fixed wings," as opposed to a helicopter that utilizes a rotary wing.

Flexible Pavement – Typically constructed with an asphalt surface course and one or more layers of base and subbase courses that rest on a subgrade layer.

Flight Service Station (**FSS) –** FAA or contracted service for pilots to contact (on the ground or in the air) to get weather and airport information. Flight plans are also filed with the FSS.

General Aviation (GA) - All civil (non-military) aviation operations other than scheduled air services and non-scheduled air transport operations for hire.

Glide Slope (GS) – For precision instrument approaches, such as an instrument landing system (ILS), the component that provides electronic vertical guidance to aircraft.

Global Positioning System (GPS) - GPS is a system of navigating which uses multiple satellites to establish the location and altitude of an aircraft with a high degree of accuracy. GPS supports both enroute flight and instrument approach procedures.

Helicopter Landing Pad (Helipad) – A designated landing area for rotor wing aircraft. Requires protected FAR Part 77 imaginary surfaces, as defined for heliports (FAR Part 77.29).

Helicopter Parking Area – A designated area for rotor wing aircraft parking that is typically accessed via hover-taxi or ground taxiing from a designated landing area (e.g., helipad or runway-taxiway system). If not used as a designated landing area, helicopter parking pads do not require dedicated FAR Part 77 imaginary surfaces.

Heliport – A designated helicopter landing facility (as defined by FAR Part 77).

Height Above Airport (HAA) – The height of the published minimum descent altitude (MDA) above the published airport elevation. This is normally published in conjunction with circling minimums.

High Intensity Runway Lights (HIRL) - High intensity (i.e., very bright) lights are used on instrument runways to help pilots to see the runway when visibility is poor.

High Speed (Taxiway) Exit – An acute-angled exit taxiway extending from a runway to an adjacent parallel taxiway which allows landing aircraft to exit the runway at a higher rate of speed than is possible with standard (90-degree) exit taxiways.

Hold Line (Aircraft Hold Line) – Pavement markings located on taxiways that connect to runways, indicating where aircraft should stop before entering runway environment. At controlled airports, air traffic control clearance is required to proceed beyond a hold line. At uncontrolled airports, pilots are responsible for ensuring that a runway is clear prior to accessing for takeoff.

Hold/Holding Procedure – A defined maneuver in controlled airspace that allows aircraft to circle above a fixed point (often over a navigational aid or GPS waypoint) and altitude while awaiting further clearance from air traffic control.

Home Built Aircraft - An aircraft built by an amateur from a kit or specific design (not an FAA certified factory built aircraft). The aircraft built under the supervision of an FAA-licensed mechanic and are certified by FAA as "Experimental."

Horizontal Surface - One of the FAR Part 77 Imaginary (invisible) Surfaces. The horizontal surface is an imaginary flat surface 150 feet above the established airport elevation (typically the highest point on the airfield). Its perimeter is constructed by swinging arcs (circles) from each runway end and connecting the arcs with straight lines. The oval-shaped horizontal surface connects to other Part 77 surfaces extending upward from the runway and also beyond its perimeter.

Initial Approach Point/Fix (IAP/IAF) – For instrument approaches, a designated point where an aircraft may begin the approach procedure.

Instrument Approach Procedure (IAP) – A series of defined maneuvers designed to enable the safe transition between enroute instrument flight and landing under instrument flight conditions at a particular airport or heliport. IAPs define specific requirements for aircraft altitude, course, and missed approach procedures. See precision or nonprecision instrument approach.

Instrument Flight Rules (IFR) - IFR refers to the set of rules pilots must follow when they are flying in bad weather. Pilots are required to follow these rules when operating in controlled airspace with visibility (ability to see in front of themselves) of less than three miles and/or ceiling (a layer of clouds) lower than 1,000 feet.

Instrument Landing System (ILS) - An ILS is an electronic navigational aid system that guides aircraft for a landing in bad weather. Classified as a precision instrument approach, it is designed to provide a precise approach path for course alignment and vertical descent of aircraft. Generally consists of a localizer, glide slope, outer marker, and middle marker. ILS runways are generally equipped with an approach lighting system (ALS) to maximize approach capabilities. A Category I ILS allows aircraft to descend as low as 200 feet above runway elevation with ½ mile visibility.

Instrument Meteorological Conditions (IMC) - Meteorological conditions expressed in terms of visibility, distance from clouds, and ceiling less than minima specified for visual meteorological conditions.

Instrument Runway - A runway equipped with electronic navigational aids that accommodate straight-in precision or nonprecision instrument approaches.

Itinerant Operation - All aircraft operations at an airport other than local, i.e., flights that come in from another airport.

Jet Fuel – Highly refined grade of kerosene used by turbine engine aircraft. Jet-A is currently the common commercial grade of jet fuel.

Knot (Nautical Mile) – one nautical mile = 1.152 statute miles.

Landing Area - That part of the movement area intended for the landing and takeoff of aircraft.

Landing Distance Available (LDA) – The length of runway which is available and suitable for the ground run of an airplane landing.

Landside – The portion of an airport that includes aircraft parking areas, fueling, hangars, airport terminal area facilities, vehicle parking and other associated facilities.

Larger than Utility Runway – As defined under FAR Part 77, a runway designed and constructed to serve large planes (aircraft with maximum takeoff weights greater than 12,500 pounds).

Ldn – Noise measurement metric (see DNL)

Left Traffic – A term used to describe which side of a runway the airport traffic pattern is located. Left traffic indicates that the runway will be to the pilot's left when in the traffic pattern. Left traffic is standard unless otherwise noted in facility directories at a particular airport.

Large Aircraft - An aircraft with a maximum takeoff weight more than 12,500 lbs.

Light Sport Aircraft (LSA) – A basic aircraft certified by FAA that can be flown by pilots with limited flight training (Sport Pilot certificates), but also provide lower cost access to basic aircraft for all pilot levels. LSA design limits include maximum a gross takeoff weight of 1,320 pounds (land planes) and a maximum of two seats.

Local Area Augmentation System (LAAS) – GPS-based instrument approach that utilizes ground-based systems to augment satellite coverage to provide vertical (glideslope) and horizontal (course) guidance.

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.

Localizer – The component of an instrument landing system (ILS) that provides electronic lateral (course) guidance to aircraft. Also used to support non-precision localizer approaches.

LORAN C - A navigation system using land based radio signals, which indicates position and ground speed, but not elevation. (See GPS)

Localizer Performance with Vertical Guidance (LPV) – Satellite navigation (SATNAV) based GPS approaches providing "near category I" precision approach capabilities with course and vertical guidance. LPV approaches are expected to eventually replace traditional step- down, VOR and NDB procedures by providing a constant, ILS glideslope-like descent path. LPV approaches use high-accuracy WAAS signals, which allow narrower glideslope and approach centerline obstacle clearance areas.

Magnetic Declination – Also called magnetic variation, is the angle between magnetic north and true north. Declination is considered positive east of true north and negative when west. Magnetic declination changes over time and with location. Runway end numbers, which reflect the magnetic heading/alignment (within 5 degrees +/-) occasionally require change due to declination.

MALSR - **M**edium-intensity **A**pproach **L**ighting **S**ystem with **R**unway alignment indicator lights. An approach lighting system (ALS) which provides visual guidance to landing aircraft.

Medevac - Fixed wing or rotor-wing aircraft used to transport critical medical patients. These aircraft are equipped to provide life support during transport.

Medium Intensity Runway Lights (MIRL) - Runway edge lights which are not as intense as HIRLs (high intensity runway lights). Typical at medium and smaller airports which do not have sophisticated instrument landing systems.

Microwave Landing System (MLS) - An instrument landing system operating in the microwave spectrum, which provides lateral and vertical guidance to aircraft with compatible equipment. Originally developed as the "next-generation" replacement for the ILS, the FAA discontinued the MLS program in favor of GPS-based systems.

Minimum Descent Altitude (MDA) – The lowest altitude in a nonprecision instrument approach that an aircraft may descend without establishing visual contact with the runway or airport environment.

Minimums - Weather condition requirements established for a particular operation or type of operation.

Missed Approach Procedure – A prescribed maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. Usually requires aircraft to climb from the airport environment to a specific holding location where another approach can be executed or the aircraft can divert to another airport.

Missed Approach Point (MAP) – The defined location in a nonprecision instrument approach where the procedure must be terminated if the pilot has not visually established the runway or airport environment.

Movement Area - The runways, taxiways and other areas of the airport used for taxiing, takeoff and landing of aircraft, i.e., for aircraft movement.

MSL - Elevation above Mean Sea Level.

National Plan of Integrated Airport Systems (NPIAS). The NPIAS is the federal airport classification system that includes public use airports that meet specific eligibility and activity criteria. A "NPIAS designation" is required for an airport to be eligible to receive FAA funding for airport projects.

Navigational Aid (Navaid) - Any visual or electronic device that helps a pilot navigate. Can be for use to land at an airport or for traveling from point A to point B.

Noise Contours – Continuous lines of equal noise level usually drawn around a noise source, such as runway, highway or railway. The lines are generally plotted in 5-decibel increments, with higher noise levels located nearer the noise source, and lesser exposure levels extending away from the source.

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

Non-Precision Instrument (NPI) Approach - A non-precision instrument approach provides horizontal (course) guidance to pilots for landing. NPI approaches often involve a series of "step down" sequences where aircraft descend in increments (based on terrain clearance), rather than following a continuous glide path. The pilot is responsible for maintaining altitude control between approach segments since no "vertical" guidance is provided.

Obstacle Clearance Surface (OCS) – As defined by FAA, an approach surface that is used in conjunction with alternative threshold siting/clearing criteria to mitigate obstructions within runway approach surfaces. Dimensions, slope and placement depend on runway type and approach capabilities. Also know as Obstacle Clearance Approach (OCA).

Obstruction - An object (tree, house, road, phone pole, etc) that penetrates an imaginary surface described in FAR Part 77.

Obstruction Chart (OC) - A chart that depicts surveyed obstructions that penetrate an FAR Part 77 imaginary surface surrounding an airport. OC charts are developed by the National Ocean Service (NOS) based on a comprehensive survey that provides detailed location (latitude/longitude coordinates) and elevation data in addition to critical airfield data.

Parallel Taxiway – A taxiway that is aligned parallel to a runway, with connecting taxiways to allow efficient movement of aircraft between the runway and taxiway. The parallel taxiway effectively separates taxiing aircraft from arriving and departing aircraft located on the runway. Used to increase runway capacity and improve safety.

Passenger Facility Charge (PFC) – A user fee charged by commercial service airports for enplaning passengers. Airports must apply to the FAA and meet certain requirements in order to impose a PFC.

Pavement Condition Index (PCI) – A scale of 0-100 that is used to rate airfield pavements ranging from failed to excellent based on visual inspection. Future PCIs can be predicted based on pavement type, age, condition and use as part of a pavement maintenance program.

Pavement Strength or Weight Bearing Capacity – The design limits of airfield pavement expressed in maximum aircraft weight for specific and landing gear configurations (i.e., single wheel, dual wheel, etc.) Small general aviation airport pavements are typically designed to accommodate aircraft weighing up to 12,500 pounds with a single-wheel landing gear.

Portland Cement Concrete (PCC) – Rigid pavement used for airfield facilities (runways, taxiways, aircraft parking, helipads, etc.).

Precision Approach Path Indicator (PAPI) - A system of lights located by the approach end of a runway that provides visual approach slope guidance to aircraft during approach to landing. The lights typically show green if a pilot is on the correct flight path, and turn red of a pilot is too low.

Precision Instrument Runway (PIR) - A runway equipped with a "precision" instrument approach (descent and course guidance), which allows aircraft to land in bad weather.

Precision Instrument Approach – An instrument approach that provides electronic lateral (course) and vertical (descent) guidance to a runway end. A nonprecision instrument approach typically provides only course guidance and the pilot is responsible for managing defined altitude assignments at designated points within the approach.

Primary Runway - That runway which provides the best wind coverage, etc., and receives the most usage at the airport.

Primary Surface - One of the FAR Part 77 Imaginary Surfaces, the primary surface is centered on top of the runway and extends 200 feet beyond each end. The width is from 250' to 1,000' wide depending upon the type of airplanes using the runway.

Principal Fire Extinguishing Agent – Fire extinguishing agents that provide permanent control of fire through a fire-smothering foam blanket. Examples include protein foam, aqueous film forming foam and fluoroprotein foam.

Procedure Turn (PT) - A maneuver in which a turn is made away from a designated track followed by a turn in an opposite direction to permit an aircraft to intercept the track in the opposite direction (usually inbound).

Area Navigation (RNAV) - is a method of instrument flight navigation that allows an aircraft to choose a course within a network of navigation beacons rather than navigating directly to and from the beacons. Originally developed in the 1960, RNAV elements are now being integrated into GPS-based navigation.

Relocated Threshold – A runway threshold (takeoff and landing point) that is located at a point other than the (original) runway end. Usually provided to mitigate nonstandard runway safety area (RSA) dimensions beyond a runway end. When a runway threshold is relocated, the published length of the runway is reduced and the pavement between the relocated threshold and to the original end of the runway is not available for aircraft takeoff or landing. This pavement is typically marked as taxiway, marked as unusable, or is removed.

Required Navigation Performance (RNP) – A type of performance-based navigation system that that allows an aircraft to fly a specific path between two 3-dimensionally defined points in space. RNP approaches require on-board performance monitoring and alerting. RNP also refers to the level of performance required for a specific procedure or a specific block of airspace. For example, an RNP of .3 means the aircraft navigation system must be able to calculate its position to within a circle with a radius of 3 tenths of a nautical mile. RNP approaches have been designed with RNP values down to .1, which allow aircraft to follow precise 3 dimensional curved flight paths through congested airspace, around noise sensitive areas, or through difficult terrain.

Rigid Pavement – Typically constructed of Portland cement concrete (PCC), consisting of a slab placed on a prepared layer of imported materials.

Rotorcraft - A helicopter.

Runway – A defined area intended to accommodate aircraft takeoff and landing. Runways may be paved (asphalt or concrete) or unpaved (gravel, turf, dirt, etc.), depending on use. Water runways are defined takeoff and landing areas for use by seaplanes.

Runway Bearing – The angle of a runway centerline expressed in degrees (east or west) relative to true north.

Runway Designation Numbers – Numbers painted on the ends of a runway indicating runway orientation (in degrees) relative to magnetic north. “20” = 200 degrees magnetic, which means that the final approach for Runway 20 is approximately 200 degrees (+/- 5 degrees).

Runway End Identifier Lights (**REILs)** - Two high-intensity sequenced strobe lights that help pilots identify a runway end during landing in darkness or poor visibility.

Runway Object Free Area (OFA) – A defined area surrounding a runway that should be free of any obstructions that could in interfere with aircraft operations. The dimensions for the OFA increase for runways accommodating larger or faster aircraft.

Runway Protection Zone (RPZ) – A trapezoid-shaped area located beyond the end of a runway that is intended to be clear of people or built items. The geometry of the RPZ often coincides with the inner portion of the runway approach surface. However, unlike the approach surface, the RPZ is a defined area on the ground that does not have a vertical slope component for obstruction clearance. The size of the RPZ increases as runway approach capabilities or aircraft approach speeds increase. Previously defined as “clear zone.”

Runway Safety Area (RSA) – A symmetrical ground area extending along the sides and beyond the ends of a runway that is intended to accommodate inadvertent aircraft passage without causing damage. The dimensions for the RSA increase for runways accommodating larger or faster aircraft. FAA standards include surface condition (compaction, etc.) and absence of obstructions. Any items that must be located within an RSA because of their function (runway lights, airfield signage, wind cones, etc.) must be frangible (breakable) to avoid significant aircraft damage.

Segmented Circle - A system of visual indicators designed to show a pilot in the air the direction of the traffic pattern at that airport.

Small Aircraft - An aircraft that weighs 12,500 lbs or less.

Straight-In Approach – An instrument approach that directs aircraft to a specific runway end.

Statute Mile – 5,280 feet (a nautical mile = 6,080 feet)

Stop and Go – An aircraft operation where the aircraft lands and comes to a full stop on the runway before takeoff is initiated.

T-Hangar – A rectangular aircraft storage hangar with several interlocking "T" units that minimizes - building per storage unit. Usually two-sided with either bi-fold or sliding doors.

Takeoff Distance Available (TODA) – the length of the takeoff run available plus the length of clearway, if available.

Takeoff Run Available (TORA) – the length of runway available and suitable for the ground run of aircraft when taking off.

Taxilane – A defined path used by aircraft to move within aircraft parking apron, hangar areas and other landside facilities.

Taxiway – A defined path used by aircraft to move from one point to another on an airport.

Threshold – The beginning of that portion of a runway that is useable for landing.

Threshold Lights – Components of runway edge lighting system located at the ends of runways and at displaced thresholds. Threshold lights typically have split lenses (green/red) that identify the beginning and ends of usable runway.

Through-the-Fence – Term used to describe how off-airport aviation users (private airparks, hangars, etc.) access an airport "through-the-fence," rather than having facilities located on airport property.

Tiedown - A place where an aircraft is parked and "tied down." Surface can be grass, gravel or paved. Tiedown anchors may be permanently installed or temporary.

Touch and Go – An aircraft operation involving a landing followed by a takeoff without the aircraft coming to a full stop or exiting the runway.

Traffic Pattern - The flow of traffic that is prescribed for aircraft landing and taking off from an airport. Traffic patterns are typically rectangular in shape, with upwind, crosswind, base and downwind legs and a final approach surrounding a runway.

Traffic Pattern Altitude - The established altitude for a runway traffic pattern, typically 800 to 1,000 feet above ground level (AGL).

Transitional Surfaces - One of the FAR Part 77 Imaginary Surfaces, the transitional surface extend outward and upward at right angles to the runway centerline and the extended runway centerline at a slope of 7:1 from the sides of the primary surface and from the sides of the approach surfaces.

Universal Communications (UNICOM) is an air-ground communication facility operated by a private agency to provide advisory service at uncontrolled airports.

Utility Runway – As defined under FAR Part 77, a runway designed and constructed to serve small planes (aircraft with maximum takeoff weights of 12,500 pounds or less).

Vertical Navigation (VNAV) – Vertical navigation descent data or descent path, typically associated with published GPS instrument approaches. The use of any VNAV approach technique requires operator approval, certified VNAV-capable avionics, and flight crew training.

VOR - Very High Frequency Omnidirectional Range – A ground based electronic navigational aid that transmits radials in all directions in the VHF frequency spectrum. The VOR provides azimuth guidance to aircraft by reception of radio signals.

VORTAC – VOR collocated with ultra high frequency tactical air navigation (TACAN)

Visual Approach Slope Indicator (VASI) - A system of lights located by the approach end of a runway which provides visual approach slope guidance to aircraft during approach to landing. The lights typically show some combination of green and white if a pilot is on the correct flight path, and turn red of a pilot is too low.

Visual Flight Rules (VFR) - Rules that govern the procedures to conducting flight under visual conditions. The term is also used in the US to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.

Visual Guidance Indicator (VGI) – Equipment designed to provide visual guidance for pilots for landing through the use of different color light beams. Visual Approach Slope Indicators (VASI) and Precision Approach Path Indicators (PAPI) defined above are examples.

Waypoint – A specified geographical location used to define an area navigation route or the flight path of an aircraft ility, employing area navigation.

Wide Area Augmentation System (WAAS) – GPS-based instrument approach that can provide both

vertical (glideslope) and horizontal (course) guidance. WAAS-GPS approaches are able to provide approach minimums nearly comparable to a Category I Instrument Landing System (ILS).

Wind Rose - A diagram that depicts observed wind data direction and speed on a 360-degree compass rose. Existing or planned proposed runway alignments are overlain to determine wind coverage levels based on the crosswind limits of the design aircraft.

Wind Cone – A device located near landing areas used by pilots to verify wind direction and velocity. Usually manufactured with brightly colored fabric and may be lighted for nighttime visibility. Also referred to as "wind sock."

List of Acronyms

AC – Advisory Circular
AC – Asphaltic Concrete
ADG – Airplane Design Group
ALP – Airport Layout Plan
ALS – Approach Lighting System
APL – Aircraft Parking Line
ARC – Airport Reference Code
ARP - Airport Reference Point
ASDA – Accelerate-Stop Distance Available
ASV – Annual Service Volume
ATCT – Air Traffic Control Tower
ASOS – Automated Surface Observation System
AWOS – Automated Weather Observation System
BRL – Building Restriction Line
CTAF – Common Traffic Advisory Frequency
FAA – Federal Aviation Administration
FAR – Federal Air Regulation
FBO – Fixed Base Operator
GPS – Global Positioning System
HIRL – High Intensity Runway Lighting
IFR – Instrument Flight Rules
IMC – Instrument Meteorological Conditions
LDA – Landing Distance Available
LDA - Localizer Directional Aid
LIRL – Low Intensity Runway Lighting
MIRL – Medium Intensity Runway Lighting
MITL - Medium Intensity Taxiway Lighting
NAVAID – Navigational Aid
OCS – Obstacle Clearance Surface
OFA – Object Free Area
OFZ – Obstacle Free Zone
PAPI – Precision Approach Path Indicator
PCC – Portland Cement Concrete
PCI – Pavement Condition Index
REIL – Runway End Identifier Lights
RPZ – Runway Protection Zone
RSA – Runway Safety Area
RVZ – Runway Visibility Zone
TSA- Taxiway Safety Area
TSA – Transportation Security Administration
TODA – Takeoff Distance Available
TORA – Takeoff Run Available
UGA – Urban Growth Area
UGB – Urban Growth Boundary
UNICOM – Universal Communications
VASI – Visual Approach Slope Indicator
VFR – Visual Flight Rules
VGI - Visual Guidance Indicators

CENTURY WEST
ENGINEERING CORPORATION

LEADING THROUGH EFFECTIVE SOLUTIONS

BEND | 1020 SW Emkay Drive #100 | Bend, OR 97702 | 541.322.8962
PORTLAND | 5331 SW Macadam Avenue #207 | Portland, OR 97239 | 503.419.2130
COEUR D'ALENE | 1110 West Park Place, Suite 303 | Coeur D'Alene, ID 83814 | 208.758.0620
SPOKANE | 11707 E. Montgomery Dr. | Spokane Valley, WA 99206 | 509.838.3810
ELLENSBURG | 421 North Pearl Street #206 | Ellensburg, WA 98926 | 509.933.2477
AUBURN | 400 23rd Street NE | Auburn, WA 98002 | 253.939.6275
WWW.CENTURYWEST.COM