

Airport Layout Plans (ALPs)

Why They Matter for Airport Development

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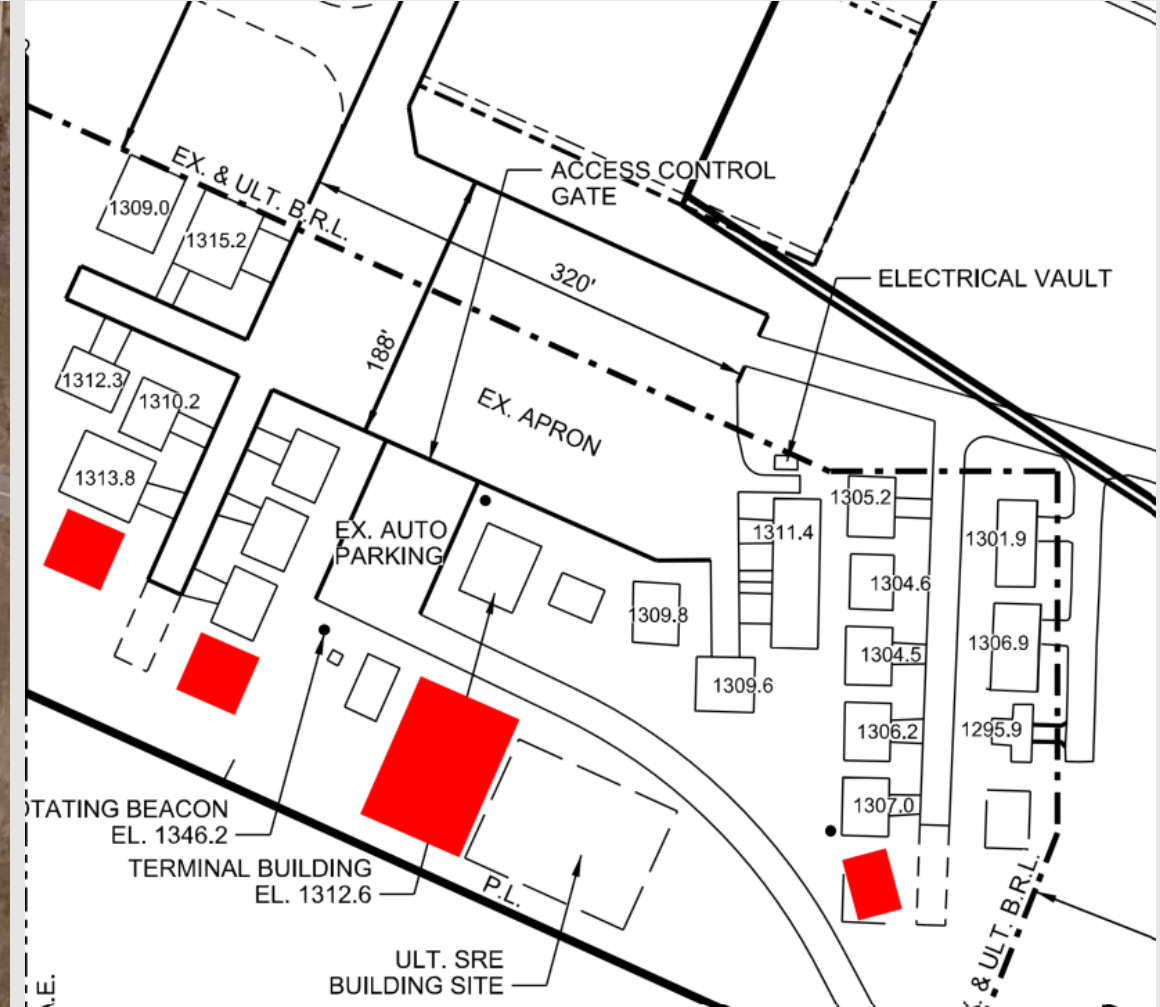
Purpose of Today's Discussion

Today we will discuss:

- Why a current ALP matters.
- What is an ALP Pen & Ink?
- What is an As-built ALP?



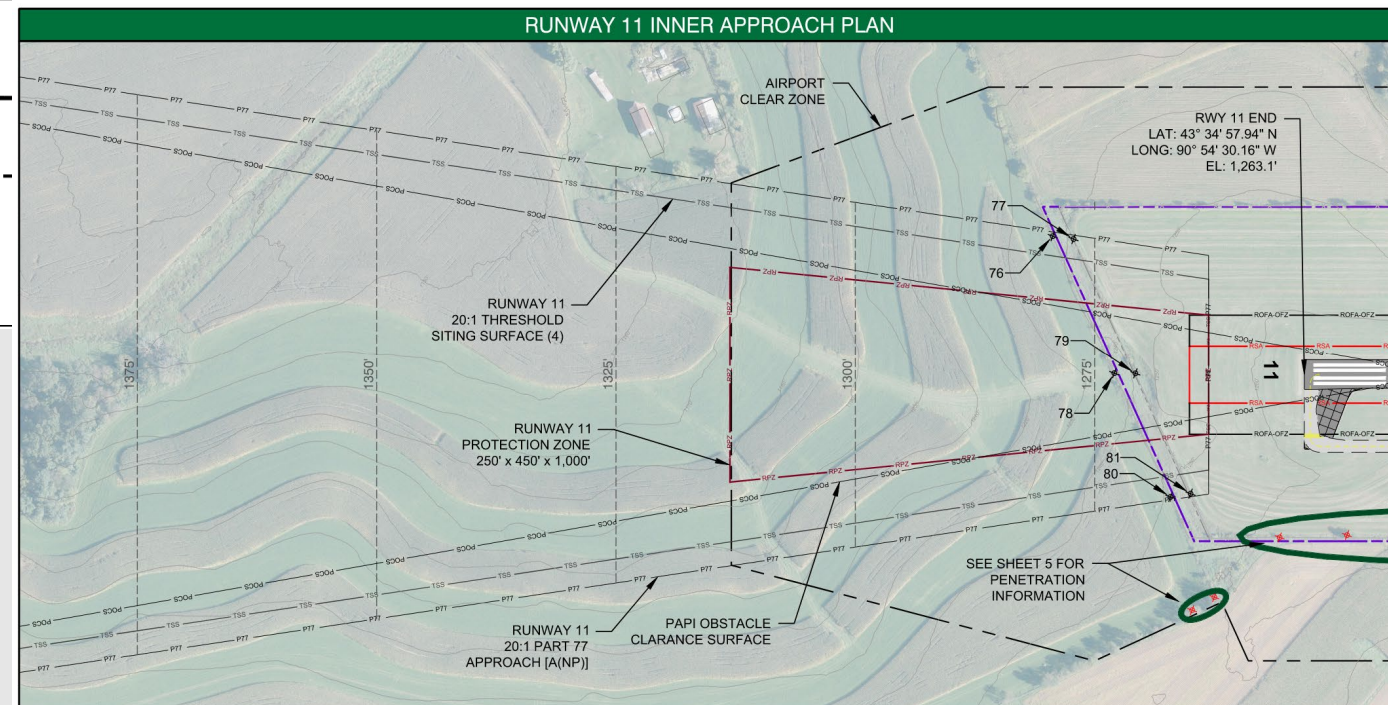
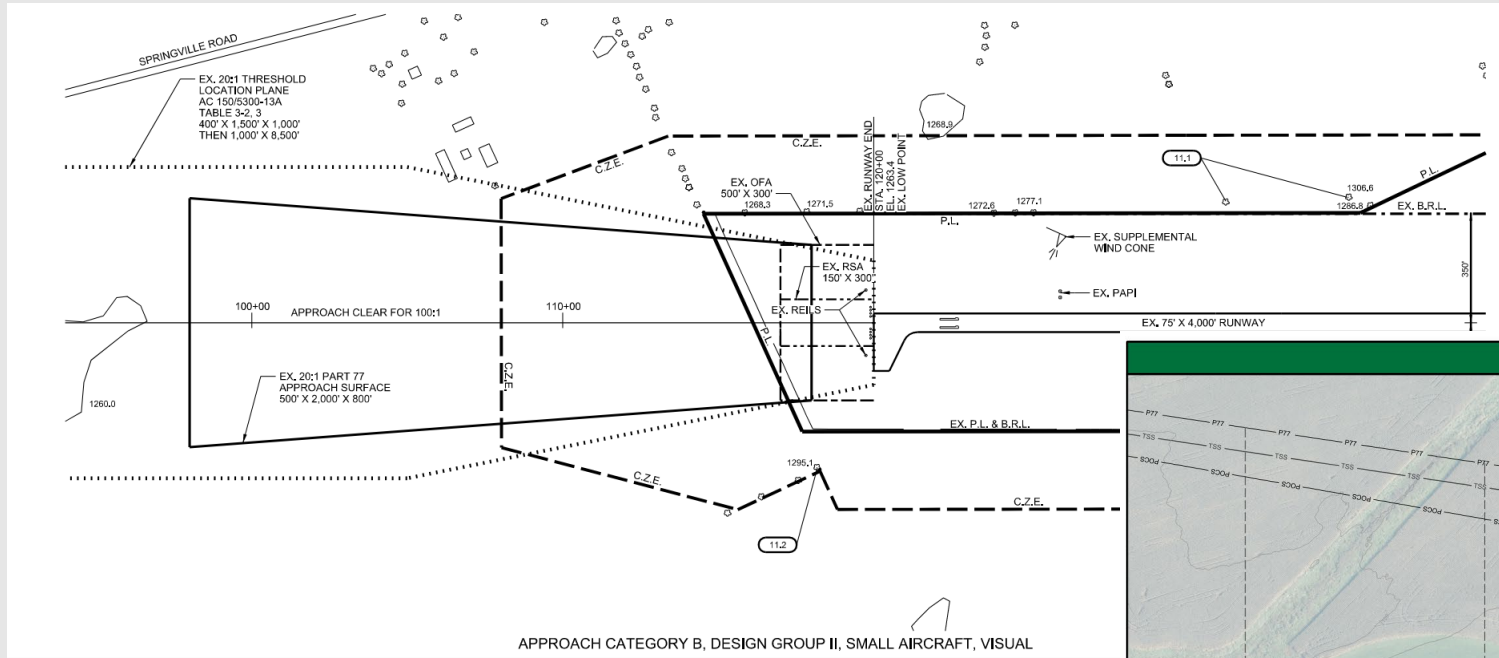
What is a Current ALP?



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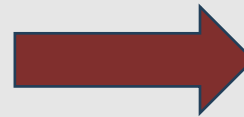
What is a Current ALP?



What is a Current ALP?

RUNWAY DATA			
	RUNWAY 12/30	RUNWAY 18/36	RUNWAY 9/27
	EXISTING	EXISTING	EXISTING
RUNWAY DIMENSIONS	38' x 2966'	150' x 2167'	200' x 2225'
EFFECTIVE GRADIENT (IN %)	0.17%	0.23%	0.08%
% WIND COVERAGE	86.15%	87.08%	84.65%
13 KNOTS			
16 KNOTS			
RUNWAY VISIBILITY MINIMUMS	1 MILE	V	V
RUNWAY CATEGORY	U-NP	U-V	U-V
PAVEMENT STRENGTH	12,500 S	TURF	TURF
APPROACH SLOPE (DESIGN)	20:1	20:1	20:1
APPROACH SLOPE (ACTUAL)	0:1 / 0:1	11.7:1 / 14.5:1	35.7:1 / 19.1:1
RUNWAY LIGHTING	LIRL	NONE	NONE
RUNWAY MARKING	BASIC	NONE	NONE
RUNWAY PAVEMENT TYPE	BITUMINOUS	TURF	TURF
VISUAL & NAVIGATIONAL AIDS	REIL	NONE	NONE

Updated
Data



RUNWAY DATA				
RUNWAY	RUNWAY 10		RUNWAY 28	
	EXISTING	FUTURE	EXISTING	FUTURE
UTILITY/OTHER THAN UTILITY	OTHER THAN UTILITY		OTHER THAN UTILITY	
RUNWAY DESIGN CODE	B-II-5000 (See Note 3)	B-II-5000	B-II-5000 (See Note 3)	B-II-5000
APPROACH REFERENCE CODE	B/III/5000, D/II/5000	SAME	B/III/5000 D/II/5000	SAME
DEPARTURE REFERENCE CODE	B/III, D/II	SAME	B/III, D/II	SAME
STRENGTH BY WHEEL LOADING (IN 1000 LBS.)	30S, 50D	SAME	30S, 50D	SAME
STRENGTH BY PCN	NO DATA AVAILABLE	TO BE DETERMINED	NO DATA AVAILABLE	TO BE DETERMINED
RUNWAY SURFACE TYPE	ASPHALT		ASPHALT	
EFFECTIVE RUNWAY GRADIENT %	0.03%	0.03%	0.03%	0.03%
RUNWAY WIDTH AND LENGTH	4,000' x 100'	4,400' x 100'	4,000' x 100'	4,400' x 100'
RUNWAY SHOULDER WIDTH	10 FEET	SAME	10 FEET	SAME
DISPLACED THRESHOLD COORDINATES	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A
DISPLACED THRESHOLD ELEVATION	N/A	N/A	N/A	N/A
RUNWAY SAFETY AREA LENGTH BEYOND RW END	300 FEET	SAME	300 FEET	SAME
RUNWAY SAFETY AREA WIDTH	150 FEET	SAME	150 FEET	SAME
RUNWAY END COORDINATES	N 43° 06' 53.52"	N 43° 06' 54.18"	N 43° 06' 46.90"	SAME
	W 089° 32' 26.33"	W 089° 32' 31.65"	W 089° 31' 33.17"	SAME
RUNWAY END ELEVATIONS	927.9	928.0	928.0	SAME
RUNWAY LIGHTING TYPE	MIRL	SAME	MIRL	SAME
APPROACH RUNWAY PROTECTION ZONE DIMENSIONS	500' x 700' x 1,000'	SAME	500' x 700' x 1,000'	SAME
DEPARTURE RUNWAY PROTECTION ZONE DIMENSIONS	500' x 700' x 1,000'	SAME	500' x 700' x 1,000'	SAME
RUNWAY MARKING TYPE	NON-PRECISION	SAME	NON-PRECISION	SAME
14 CFR PART 77 APPROACH CATEGORY	NPI-C	SAME	NPI-C	SAME
PART 77 DIMENSIONS	500' x 10,000 x 3,500'	SAME	500' x 10,000 x 3,500'	SAME
14 CFR PART 77 APPROACH SLOPE	34:1	SAME	34:1	SAME
APPROACH VISIBILITY MINIMUMS	1 MILE	SAME	1 MILE	SAME
TYPE OF AERONAUTICAL SURVEY REQUIRED	VERTICALLY GUIDED	SAME	VERTICALLY GUIDED	SAME
RUNWAY DEPARTURE SURFACE	YES	SAME	YES	SAME
RUNWAY OBJECT FREE AREA LENGTH BEYOND RW END	300 FEET	SAME	300 FEET	SAME
RUNWAY OBJECT FREE AREA WIDTH	500 FEET	SAME	500 FEET	SAME
OBSTACLE FREE ZONE LENGTH BEYOND RW END	200 FEET	SAME	200 FEET	SAME
OBSTACLE FREE ZONE WIDTH	400 FEET	SAME	400 FEET	SAME
INNER APPROACH OBSTACLE FREE ZONE LENGTH	N/A	SAME	N/A	SAME
INNER APPROACH OBSTACLE FREE ZONE WIDTH	N/A	SAME	N/A	SAME
INNER-TRANSITIONAL OBSTACLE FREE ZONE	N/A	SAME	N/A	SAME
PRECISION OBSTACLE FREE ZONE DIMENSIONS	N/A	SAME	N/A	SAME
THRESHOLD SITING SURFACE	TYPE 5	SAME	TYPE 5	SAME
TSS DIMENSIONS	400' x 3,400' x 10,000'	SAME	400' x 3,400' x 10,000'	SAME
TSS APPROACH SLOPE	20:1	SAME	20:1	SAME
VISUAL AND INSTRUMENT NAVAIDS	PAPI, REIL, RNAV (GPS), LOC	SAME	PAPI, REIL, RNAV (GPS)	SAME
TOUCHDOWN ZONE ELEVATIONS	927.9	928.0	927.6	927.8
TAXIWAY DESIGN GROUP	TDG 2A	SAME	TDG 2A	SAME
CRITICAL AIRCRAFT	BEECH AIRLINER 99	CESSNA CITATION CJ3	BEECH AIRLINER 99	CESSNA CITATION CJ3
WINGSPAN	45.92 FEET	53.33 FEET	45.92 FEET	53.33 FEET
TAIL HEIGHT	14.33 FEET	15.17 FEET	14.33 FEET	15.17 FEET
APPROACH SPEED	107 KNOTS	108 KNOTS	107 KNOTS	108 KNOTS
MAIN GEAR WIDTH	14.54 FEET	16.00 FEET	14.54 FEET	16.00 FEET
COCKPIT TO MAIN GEAR	11 FEET	17.83 FEET	11 FEET	17.83 FEET
MAXIMUM TAKEOFF WEIGHT	11,300 LBS	13,870 LBS	11,300 LBS	13,870 LBS



Why ALPs Matter

Wisconsin Administrative Code for the DOT

- Conditions of state aid for airport improvement
- Trans 55.06(8)

An airport owner shall maintain a current layout plan



Why ALPs Matter

FAA Airport Improvement Program (AIP) Grant Assurances

Grant Assurance 29

The airport owner or operator will maintain a current
airport layout plan



Why ALPs Matter

Project Formulation

- Project must be shown on an approved ALP:
 - Prior to environmental
 - prior to receiving state or federal funding



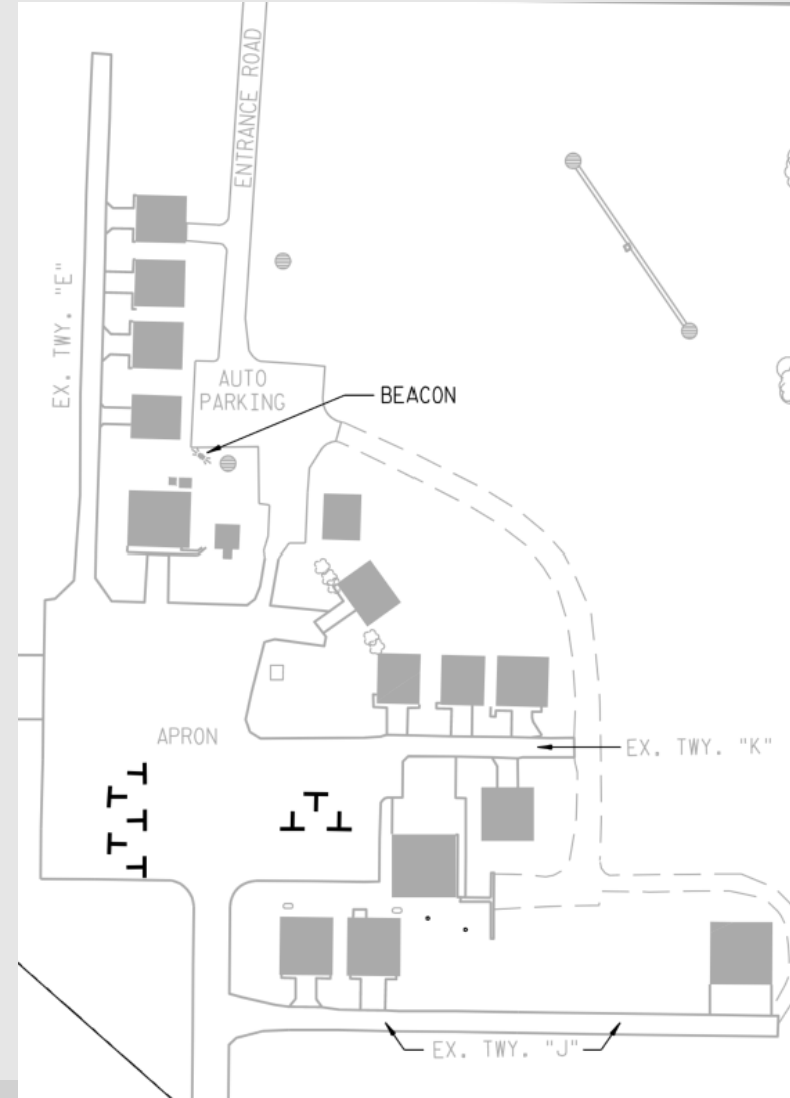
Why ALPs Matter

Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)

- Runway Ends
- Displaced Thresholds
- Declared Distances
- Approach Lights
- Runway Marking Type
- Runway Design Code



Project Formulation

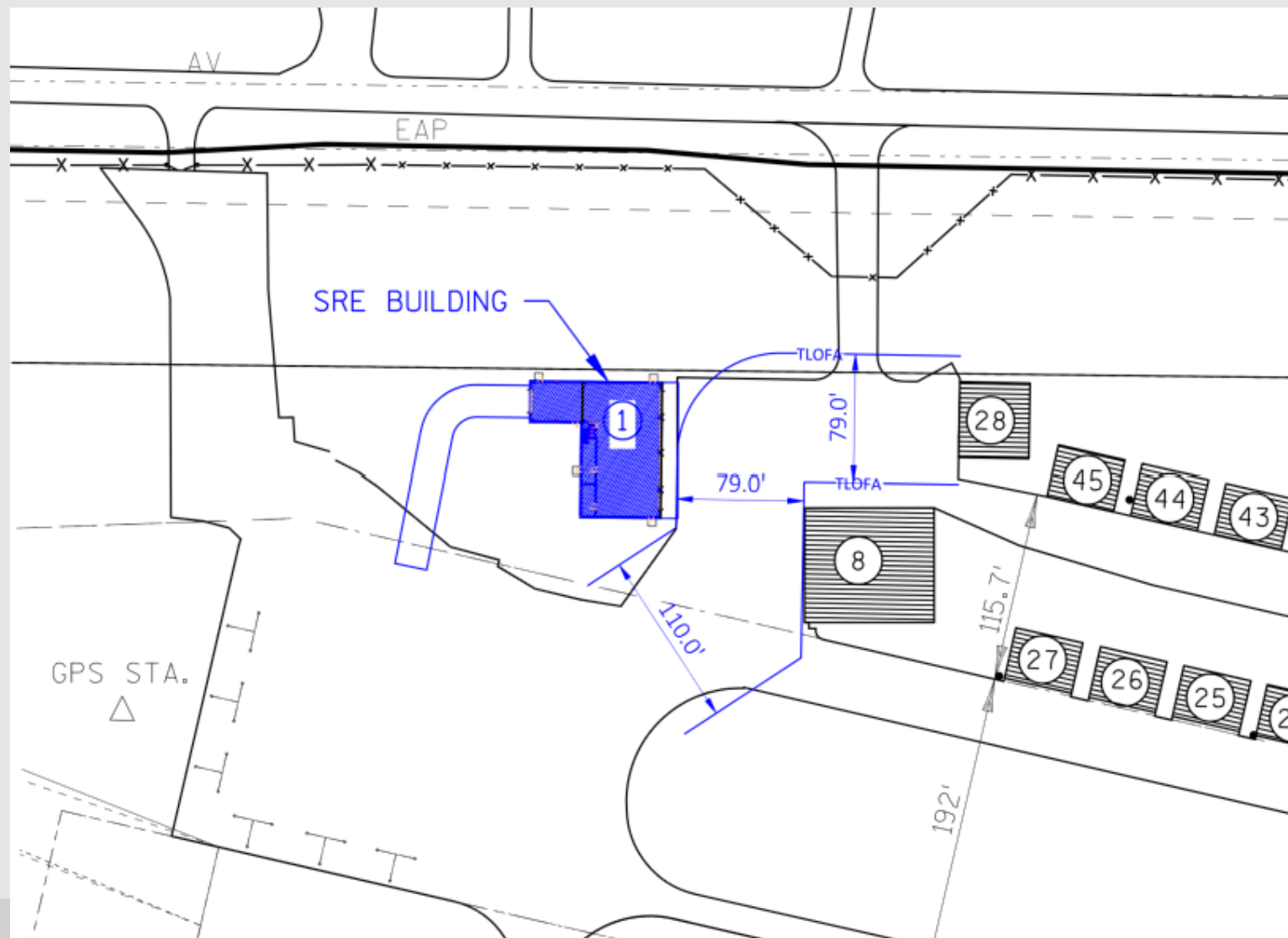


Project Formulation



What is an ALP Pen & Ink?

- Update the project area to meet FAA ALP requirements



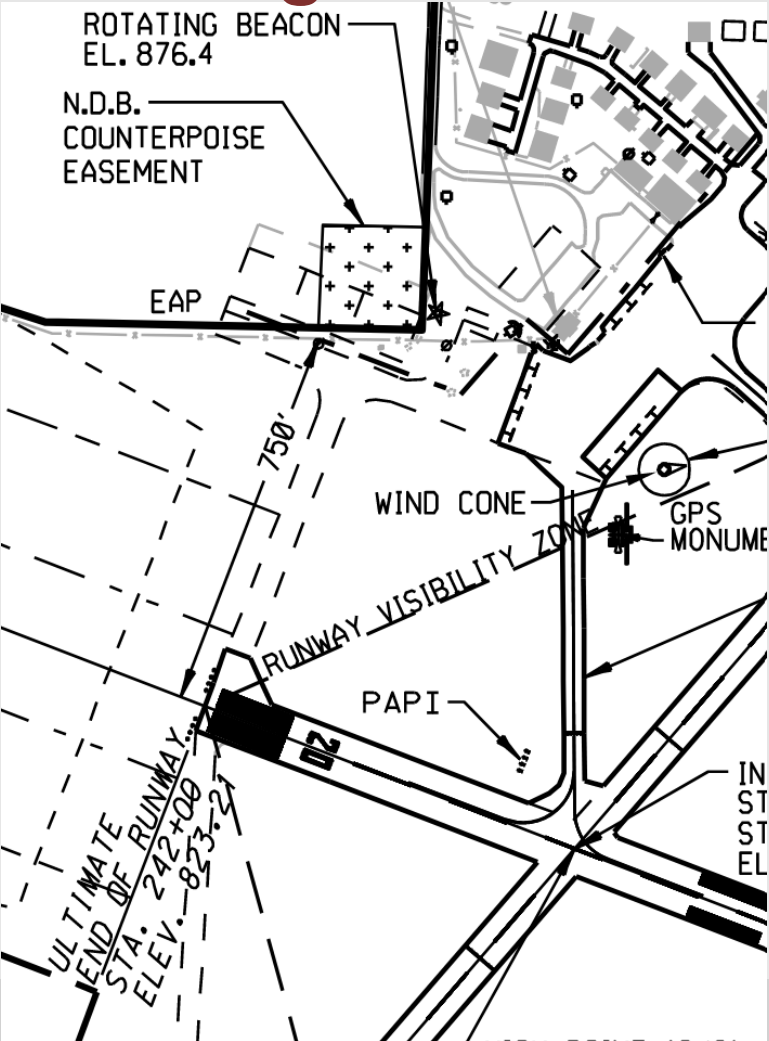
What is an As-built ALP?

- Completed after construction.
- Keep the planning record accurate and current.
- ALP is ready for next project.

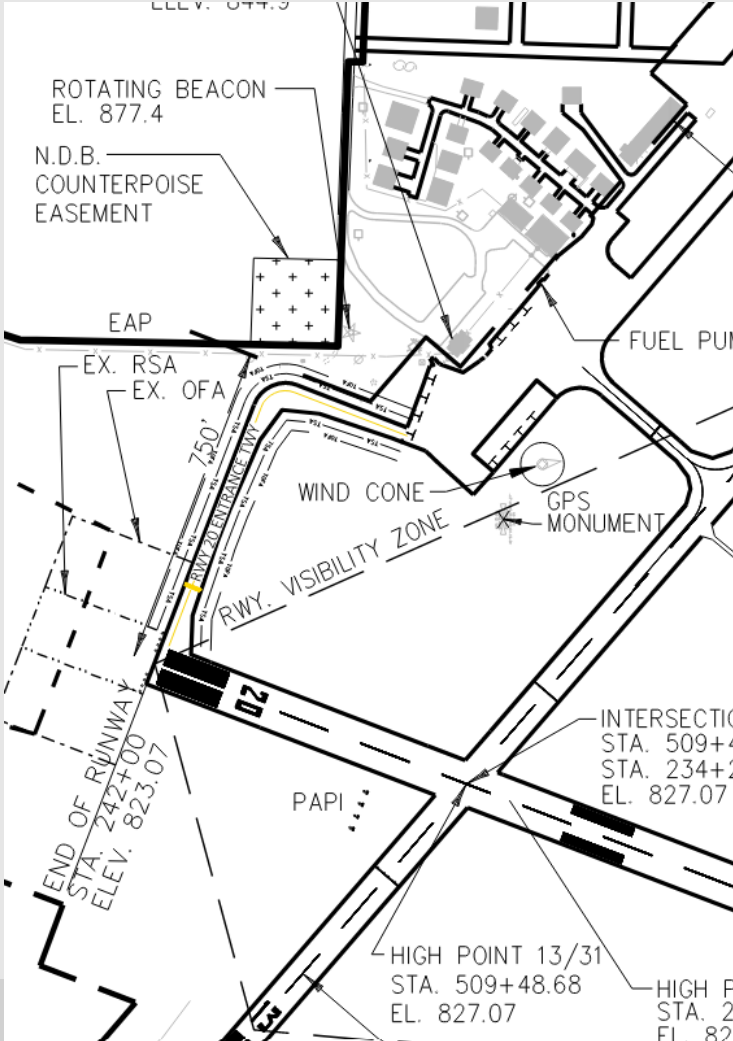


As-built ALP

Original ALP



As-built ALP



As-built ALP

Scope of Work

- 3. Airport Layout Plan (ALP) Package:** Consultant will update the “Existing Airport Layout Plan” and “Ultimate Airport Layout Plan” sheets from the 2008 approved ALP to show as-built plan view layout conditions of the pavements constructed with the project. This ALP is not in compliance with FAA SOP 2.00, and therefore, the as-built ALP will not be in compliance with SOP 2.00. No other revisions to the ALP are included in this scope.

New ALP

Master Plan

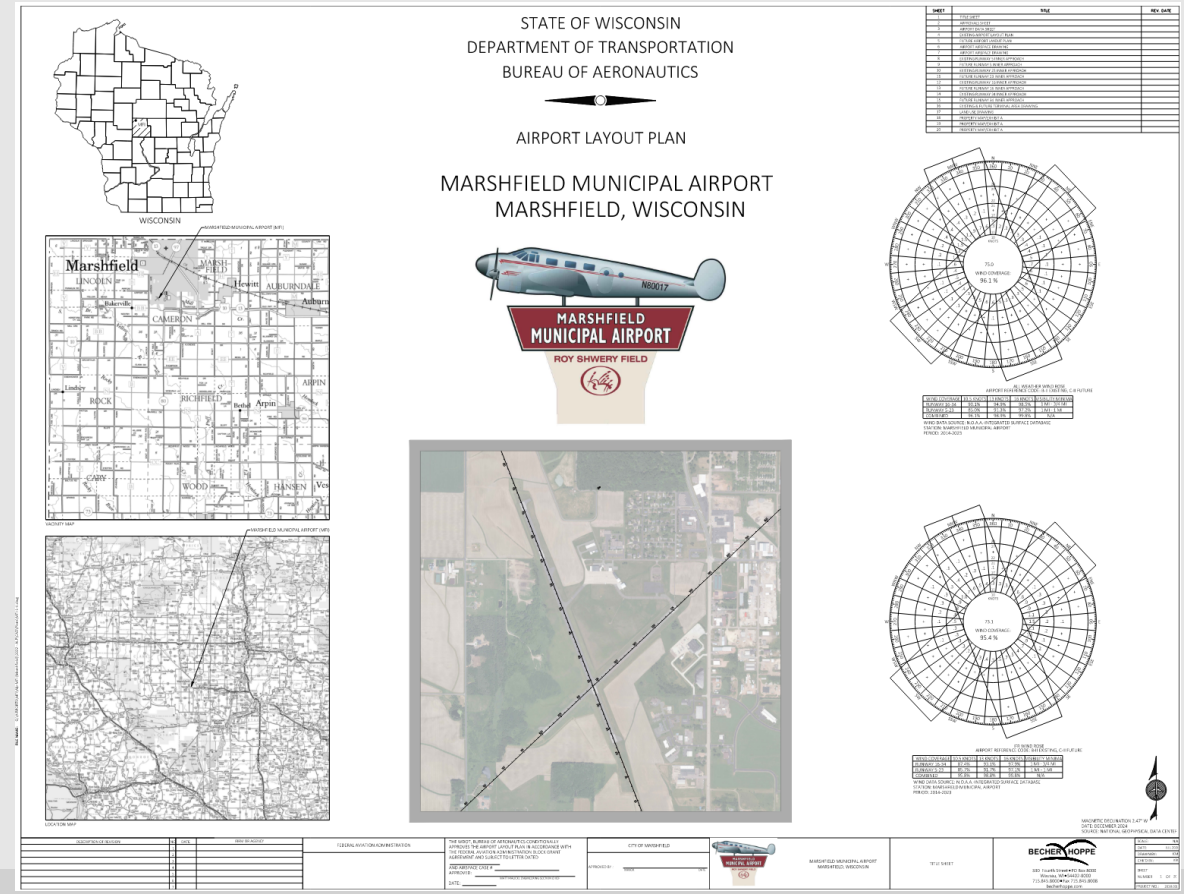
Marshfield Municipal Airport Master Plan

Marshfield, Wisconsin

WIBOA 164312 | SEPTEMBER, 2025



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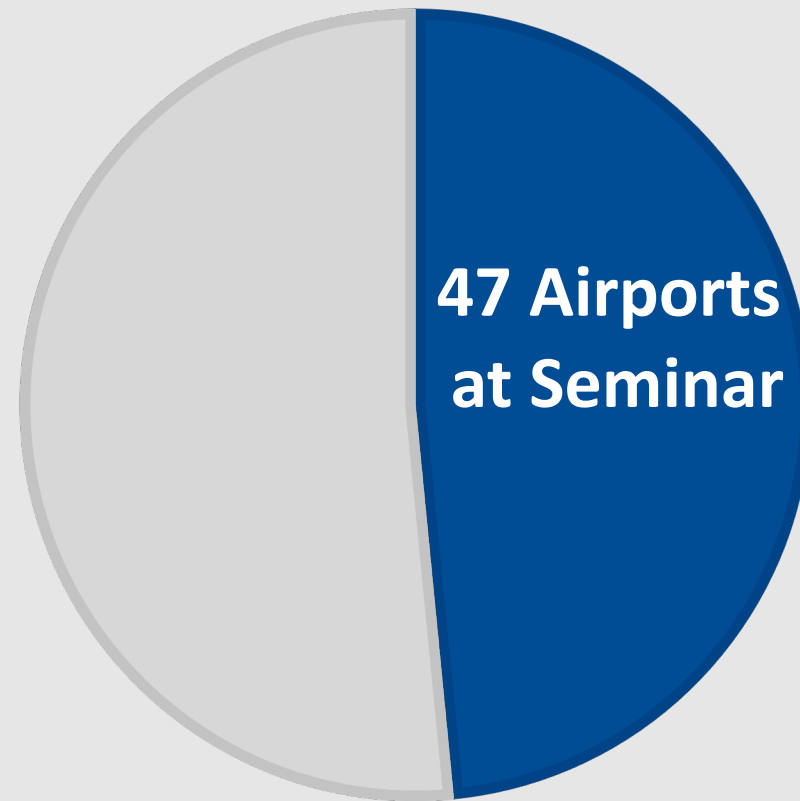


Narrative Report



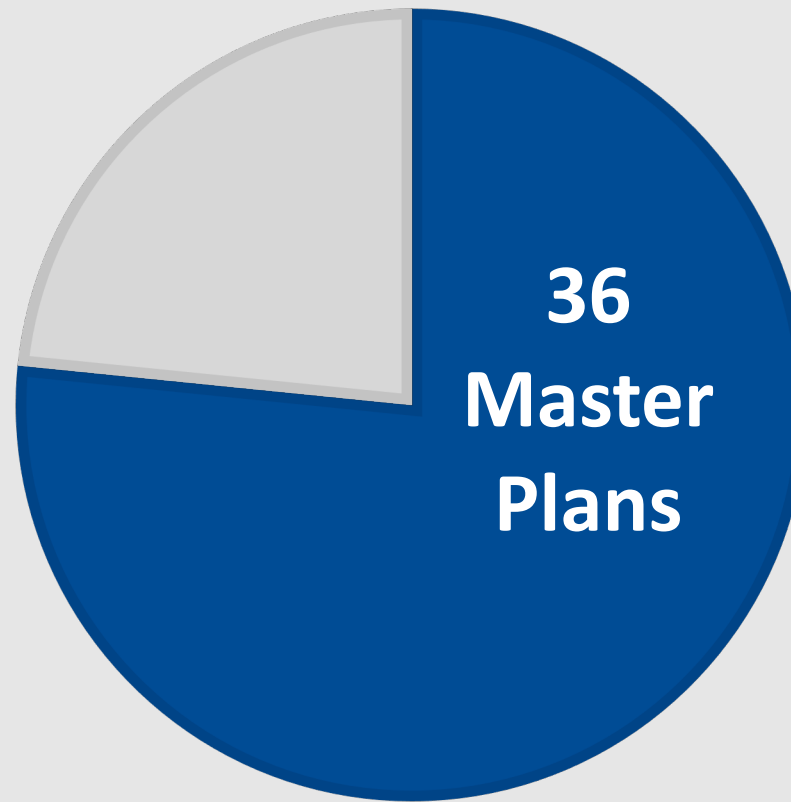
Wisconsin Airports

97 Wisconsin SASP Airports



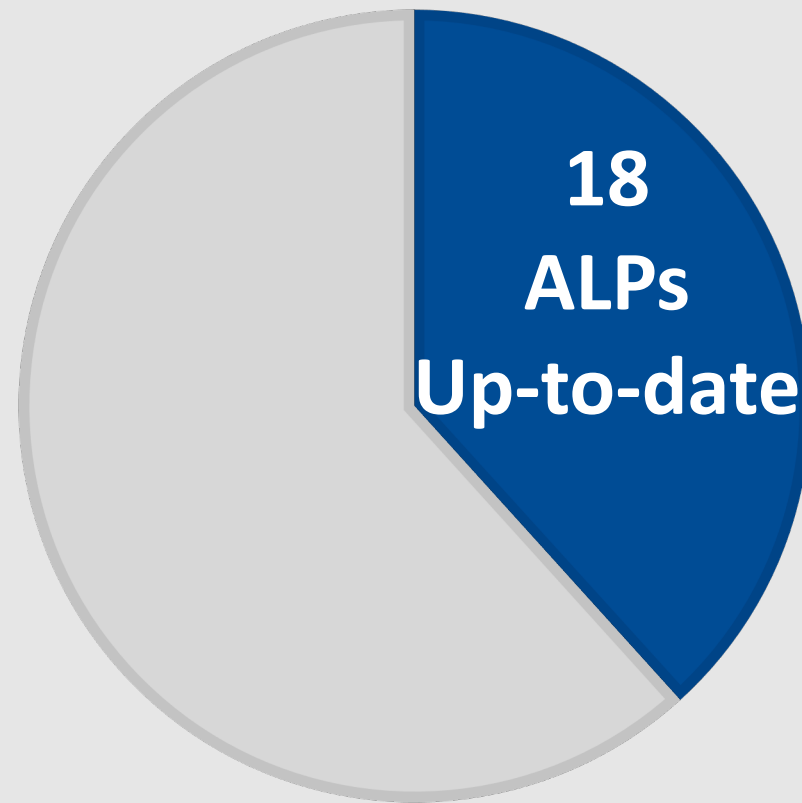
Wisconsin Airports

47 Airports at Seminar



Wisconsin Airports

47 Airports at Seminar



Homework

- Review ALP
- Determine what needs to be updated to show all current conditions
- Buildings, Pavements, Nav aids, Property, Data tables



Questions

Questions or Discussion?

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