



MULINO STATE AIRPORT  
AIRPORT MASTER PLAN



# Mulino State Airport Airport Master Plan

Meeting – January 10, 2019





## MULINO STATE AIRPORT AIRPORT MASTER PLAN



# DRAFT FINAL ALP & ALTERNATIVES

## UPDATE ON ACTIVITIES SINCE THE MARCH 2016 PAC MEETING

- Refined Preliminary Alternatives – ODA Selected Preferred Alternative
- Completed Project Cost Estimates & Capital Improvement Plan (CIP)
- Completed Airport Layout Plan
- Completed the Airport Land Use Chapter & FAA Compliance Chapter
- Submitted Draft Final Report to FAA for Review (November 2016)





# MULINO STATE AIRPORT AIRPORT MASTER PLAN



### BUILDING/FACILITY KEY

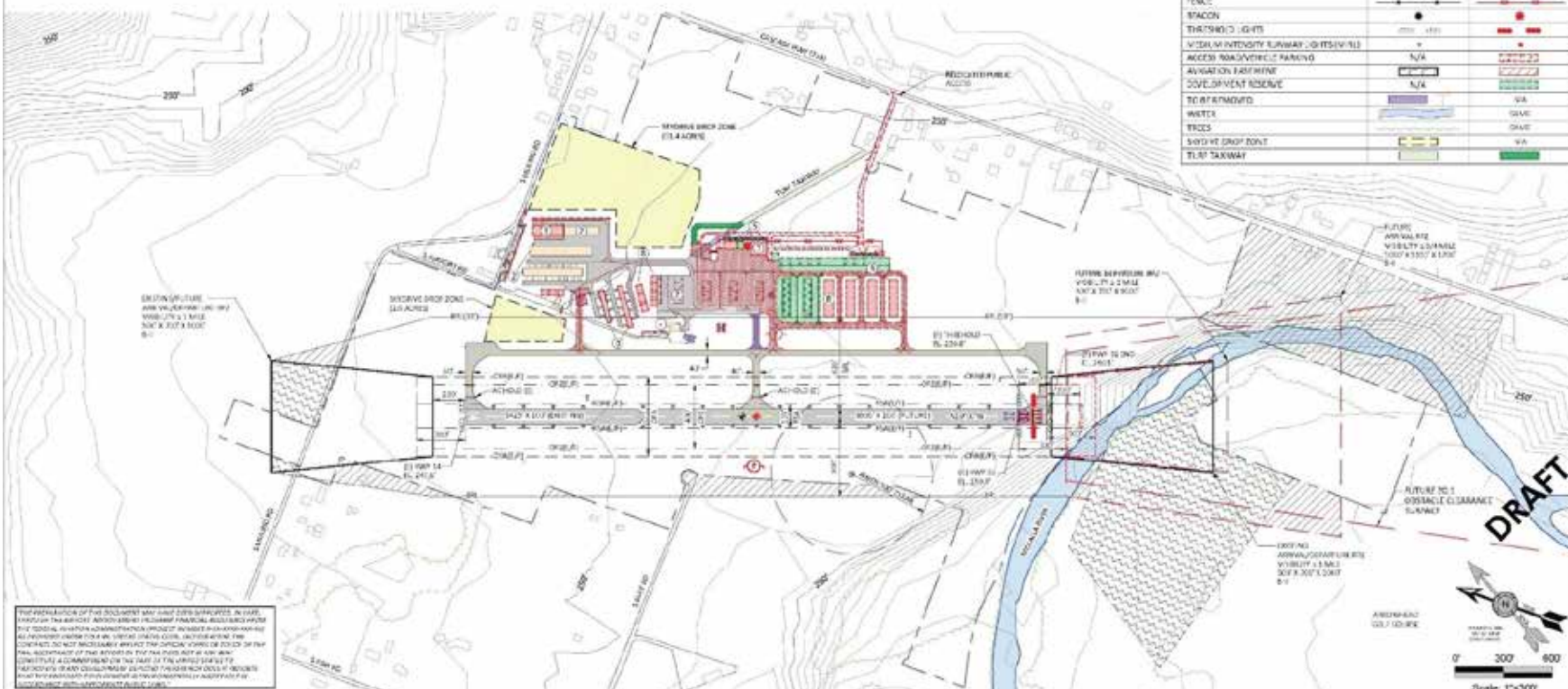
DESCRIPTION
1. AIRPORT ADMINISTRATION (EXISTING)
2. TOWER (EXISTING)
3. TOWER (FUTURE)
4. FBO (EXISTING)
5. FBO (FUTURE)
6. MAINTENANCE HANGAR (EXISTING)
7. MAINTENANCE HANGAR (FUTURE)
8. HANGAR (FUTURE)
9. EXPERIMENTAL AIRCRAFT ASSOCIATION

### NOTES:

1. FUTURE RUNWAY 14 WAS DISPLACED THROUGH BE FROM END OF PAVEMENT.
2. THE SOLUTION OF FUTURE RUNWAY 32 IS BASED ON THE LIMITS OF CONSTRUCTION AVAILABLE FOR TAKEOFF AND LANDING DISTANCE BY DECLARED DISTANCES FOR FAA AC 152/355/334.

### LEGEND

	EXISTING	FUTURE
BUILDINGS	[Symbol]	[Symbol]
AIRFIELD PAVEMENT	[Symbol]	[Symbol]
BUILDING RESTRICTION LINE (BRL)	[Symbol]	[Symbol]
AIRFIELD BOUNDARY LINE (ABL)	[Symbol]	[Symbol]
AIRFIELD PROPERTY LINE	[Symbol]	[Symbol]
AIRWAY SAFETY AREA (ASA)	[Symbol]	[Symbol]
OBJECT FREE AREA (OFA)	[Symbol]	[Symbol]
OBSTACLE FREE ZONE (OFZ)	[Symbol]	[Symbol]
TERRAIN OBJECT FREE AREA (TOFA)	[Symbol]	[Symbol]
AIRWAY PROTECTION ZONE (APZ)	[Symbol]	[Symbol]
TRAILER COURTYARDS	[Symbol]	[Symbol]
AIRPORT SECURITY POST (ASP)	[Symbol]	[Symbol]
VISUAL GLIDESLOPE INDICATORS	[Symbol]	[Symbol]
WIND INDICATOR	[Symbol]	[Symbol]
STANDSTILL WIND INDICATOR	[Symbol]	[Symbol]
FENCE	[Symbol]	[Symbol]
STACON	[Symbol]	[Symbol]
THRESHOLD LIGHTS	[Symbol]	[Symbol]
VISUAL INTENSITY RUNWAY LIGHTS (VIRL)	[Symbol]	[Symbol]
ACCESS MANAGEMENT PARKING	[Symbol]	[Symbol]
AIRPORT PAVEMENT	[Symbol]	[Symbol]
SOFTWEEST RESERVE	[Symbol]	[Symbol]
TURF PAVEMENT	[Symbol]	[Symbol]
WATER	[Symbol]	[Symbol]
TREES	[Symbol]	[Symbol]
SOFTWEEST POINT	[Symbol]	[Symbol]
TURF TAXIWAY	[Symbol]	[Symbol]



THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN IMPAIRED IN PART BY THE LIMITED AVAILABILITY OF RECORDS. THE CLIENT HAS ADVISED THAT THE RECORDS ARE NOT COMPLETELY ACCURATE AND THAT THE CLIENT HAS ADVISED THAT THE RECORDS ARE NOT COMPLETELY ACCURATE AND THAT THE CLIENT HAS ADVISED THAT THE RECORDS ARE NOT COMPLETELY ACCURATE.

**DRAFT**



**NOVEMBER  
2016**

FEDERAL AVIATION ADMINISTRATION APPROVAL APPROVAL DATE: _____ SIGNATURE: _____	OREGON DEPARTMENT OF AVIATION APPROVAL APPROVAL DATE: _____ SIGNATURE: _____	CENTURY WEST ENGINEERING 1000 N. W. 10th Ave., Suite 100 Portland, OR 97227 PHONE: 503.251.1000 FAX: 503.251.1001 WWW: CENTURYWESTENGINEERING.COM	MULINO STATE AIRPORT AIRPORT LAYOUT PLAN FIGURE NO. - SHEET NO. 3 OF 10
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## MULINO STATE AIRPORT AIRPORT MASTER PLAN



# REFINED ALP & TERMINAL AREA PLAN

- Received FAA comments March-May 2017 on Draft Final ALP and Master Plan Report
- July 2017 – FAA comments incorporated and ALP resubmitted for Review
- March 2017 – August 2018 – ongoing discussions with FAA regarding use of declared distances and ultimate runway threshold location



# MULINO STATE AIRPORT AIRPORT MASTER PLAN



### BUILDING/FACILITY KEY

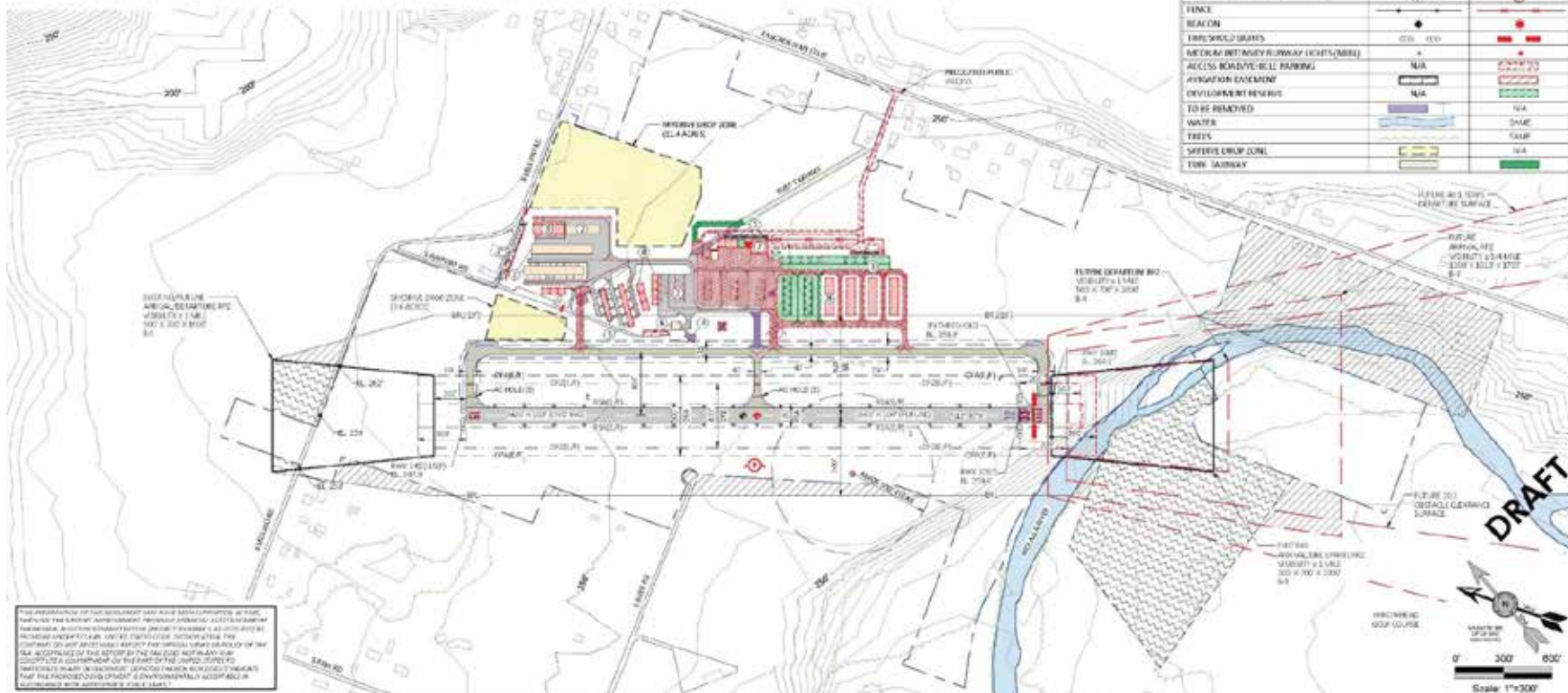
NO.	DESCRIPTION
(1)	AIRPORT OFFICE (EXISTING)
(2)	T-RAINING (EXISTING)
(3)	T-BANGAR (FUTURE)
(4)	TBO (EXISTING)
(5)	TBO (FUTURE)
(6)	MAINTENANCE HANGAR (EXISTING)
(7)	MAINTENANCE HANGAR (FUTURE)
(8)	BARBERS (FUTURE)
(9)	EXPERIMENTAL AIRCRAFT ASSOCIATION

### NOTES:

1. FUTURE RUNWAY 31 HAS REPLACED THRESHOLD BY FRONT END OF PAVEMENT
2. THE SOUTHWEST END OF FUTURE RUNWAY 31 PIA IS BASED ON THE LIMITS OF GRADE. REMAINING LENGTH IS AVAILABLE FOR TAKEOFF AND LANDING DURING BY DECLARED DISTANCES (PER FAA AC 150/5100-13A)
3. RUNWAY 18-13 TO BE REDESIGNATED 15/31 DUE TO CHANGE IN MAGNETIC DECLINATION

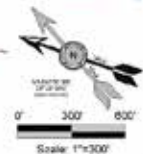
### LEGEND

	EXISTING	FUTURE
AUTODROMS		
APPROXIMATE PAVERLINE		
REFUGING STRIP (RWS) (RWS)	RWS (E)	RWS (F)
AIRFIELD PARKING (RWS) (RWS)	APL (E)	APL (F)
AIRFIELD PROPERTY LINE		
RUNWAY SAFETY AREA (RSA)		
OBSTACLE FREE AREA (OFA)		
TAXIWAY OBJECT FREE AREA (TOFA)		
TAXIWAY SAFETY AREA (TSA)		
OBSTACLE PROTECTION SURFACE (OPS)		
GROUND CONTOURS	100'	500'
AIRPORT REFERENCE POINT MARK	+	+
VISUAL OBSTRUCTION INDICATORS	+	+
WINDY NEW ZONE	+	+
UNOBSTRUCTED WIND INDICATOR	+	+
FENCE	+	+
BEACON	+	+
EMERGENCY LIGHTS	+	+
AIRPORT AUTHORITY RUNWAY (ASPH/GRS)	+	+
ACCESS ROAD/VEHICLE PARKING	N/A	N/A
AVIATION CATERING	N/A	N/A
DEVELOPMENT RESTRICTED TO BE REMOVED	N/A	N/A
WATER	N/A	N/A
TREES	N/A	N/A
SAFETY BUFFER ZONE	N/A	N/A
TOUR AIRWAY	N/A	N/A



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NO. DATE BY  
**APRIL 2017**

FEDERAL AVIATION ADMINISTRATION APPROVAL  
 APPROVAL DATE: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_

OREGON DEPARTMENT OF AVIATION APPROVAL  
 APPROVAL DATE: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_

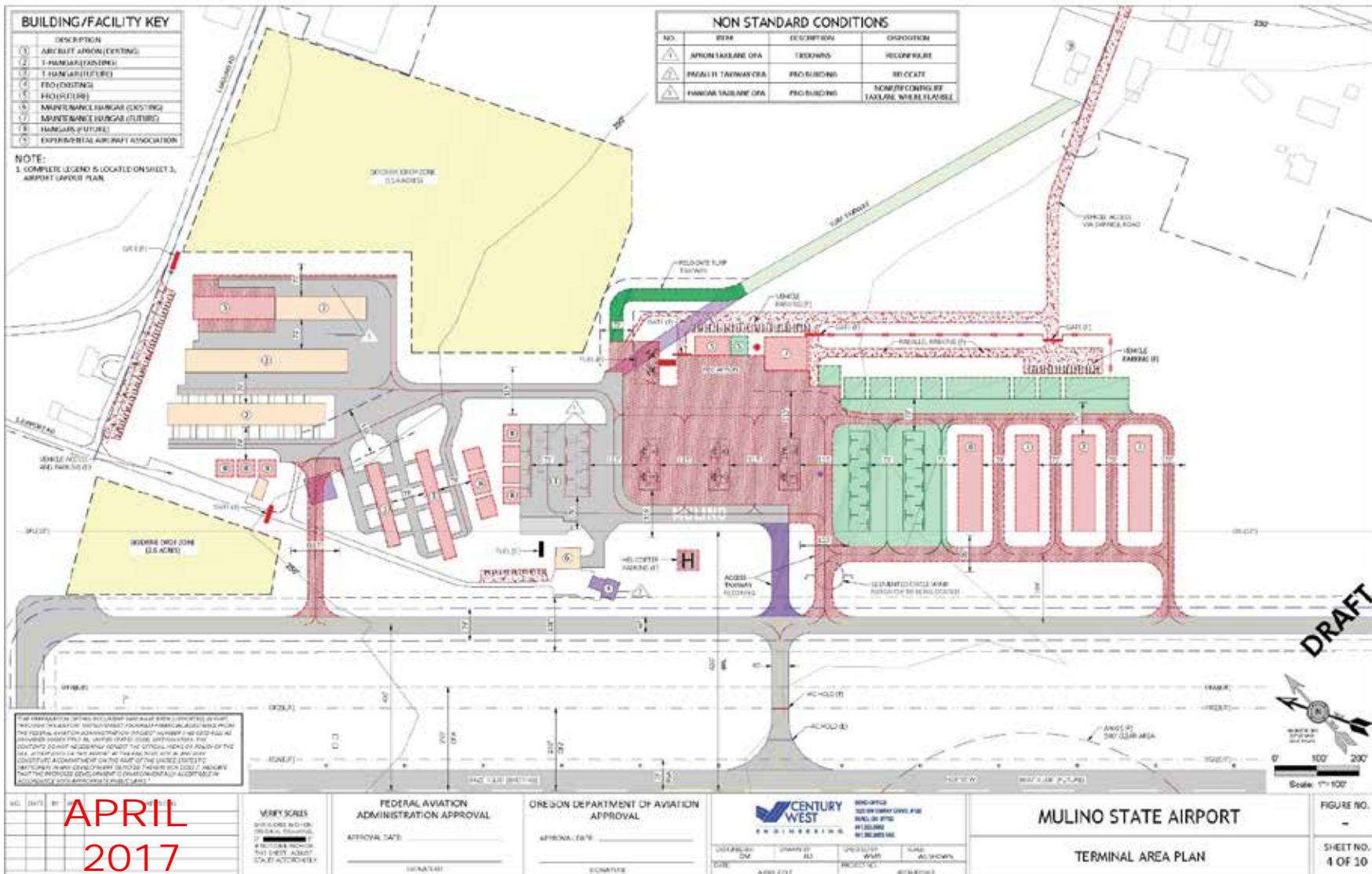
**CENTURY WEST ENGINEERING**  
 PREPARED BY: \_\_\_\_\_  
 DATE: APRIL 2017

**MULINO STATE AIRPORT**  
**AIRPORT LAYOUT PLAN**  
 FIGURE NO. \_\_\_\_\_  
 SHEET NO. 3 OF 10



# MULINO STATE AIRPORT

## AIRPORT MASTER PLAN





## MULINO STATE AIRPORT AIRPORT MASTER PLAN



# UPDATED ALP & ALTERNATIVES

## KEY FACILITY MODIFICATIONS FOLLOWING FAA COMMENTS

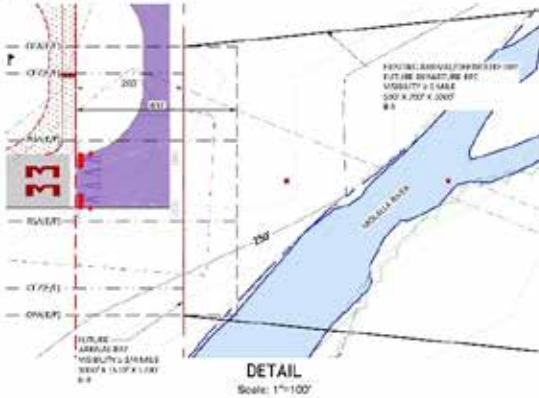
- Runway 32 threshold reconfiguration
- Runway 14/32 shift & extension
  - Property acquisition
  - Realigned S. Mulino Road
- Reconfigured runway end connector taxiways
- Reconfigured aircraft hold areas
- Magnetic variation change – Runway 14/32 (existing) Runway 15/33 (future)







# MULINO STATE AIRPORT AIRPORT MASTER PLAN

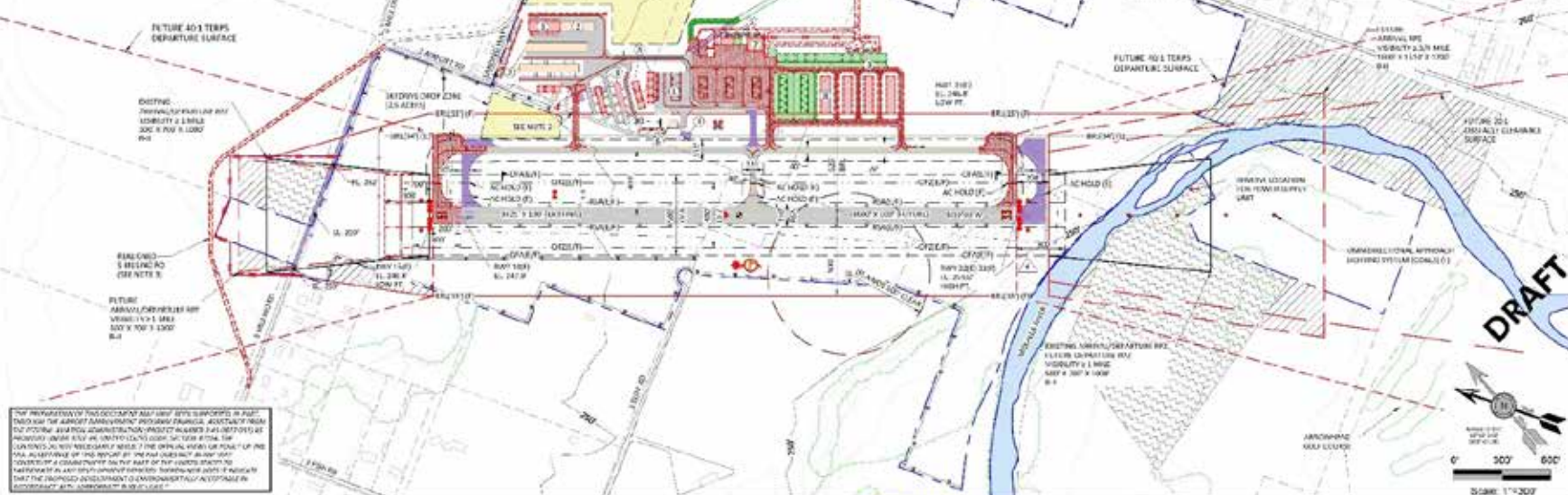


BUILDING/FACILITY KEY	
NO.	DESCRIPTION
1	AIRPORT OFFICE (EXISTING)
2	T-HANGAR (EXISTING)
3	T-HANGAR (FUTURE)
4	FIG (EXISTING)
5	FIG (FUTURE)
6	MAINTENANCE HANGAR (EXISTING)
7	MAINTENANCE HANGAR (FUTURE)
8	HANGAR (FUTURE)
9	EXPERIMENTAL AIRCRAFT ASSOCIATION
10	FUEL (EXISTING)

NON STANDARD CONDITIONS			
NO.	ITEM	DESCRIPTION	DISPOSITION
1	APRON/TAXIWAY CPA	TEDROWS	RECONSTRUCTURE
2	PARALLEL TAXIWAY CPA	FIG BUILDINGS	RELOCATE/REMOVE PORTION OF BUILDING WITHIN TOTAL WIDTH
3	HANGAR TAXIWAY CPA	T-HANGARS	REMOVE/RECONSTRUCT TAXIWAY WHERE FEASIBLE
4	RUNWAY 33	ALIGNED TAXIWAY	REMOVE PAVEMENT

- NOTES:**
- RUNWAY 33 TO BE REDESIGNATED T-33 DUE TO CHANGE IN MAGNETIC DECLINATION.
  - AIRPORT SERVICE ROAD, A VEHICLE DRIVE WILL BE INSTALLED RESTRICTING ACCESS TO TRUCKS AND AIRPORT VEHICLES PRIOR TO THE CONSTRUCTION OF THE NEW TAXIWAY.
  - SOUTH MULINO ROAD REALIGNMENT IS CONCEPTUAL AND MAY POTENTIALLY AFFECT 3 PRIVATELY OWNED PARCELS. THE A.O.W. DEDICATED FOR FUTURE REALIGNMENT IS ALSO CONCEPTUAL AND INDIVIDUAL PROPERTY ASSESSMENTS WILL BE REQUIRED.

LEGEND		
	EXISTING	FUTURE
<b>BUILDINGS</b>		
APPROVED PAVEMENT	ASPH/CON	ASPH/CON
BLDG (EXISTING)	BLDG (E)	BLDG (F)
ADJACENT PROPERTY LINE	---	---
RUNWAY SAFETY AREA (RSA)	---	---
COLLECT FREE AREA (CFA)	---	---
CRITICAL FREE ZONE (CFZ)	---	---
SKYWAY COLLECT FREE AREA (SCFA)	---	---
TAXIWAY SAFETY AREA (TSA)	---	---
RUNWAY PROTECTION ZONE (RPZ)	---	---
OBSTACLE CONTOURS	---	---
AIRPORT REFERENCE POINT (ARP)	---	---
VISUAL OBSTACLE INDICATOR (VOI)	---	---
WIND INDICATOR	---	---
ORIENTED CIRCLE WIND INDICATOR	---	---
BEACON	---	---
THRESHOLD LIGHTS	---	---
MEDIUM INTENSITY RUNWAY LIGHTS (MIRL)	---	---
ACCESS ROAD/VEHICLE PARKING	---	---
AVIGATION CASEMENT	---	---
DEVELOPMENT RESERVE	---	---
TO BE REMOVED	---	---
WATER	---	---
TREES	---	---
OBSTACLE DROP ZONE	---	---
TURF TAXIWAY	---	---
AUTOMATIC AIRPORT WEATHER STATION (AWOS)	---	---
UNIDIRECTIONAL APPROACH LIGHTING SYSTEM (UALS)	---	---



FOR PREPARATION OF THIS DOCUMENT ALL APPLICABLE REGULATIONS AND STANDARDS HAVE BEEN REVIEWED AND INCORPORATED INTO THE DESIGN. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE USER OF THIS DOCUMENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT OR FOR THE PERFORMANCE OF THE PROJECT. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT OR FOR THE PERFORMANCE OF THE PROJECT.

**AUGUST 2018**

FEDERAL AVIATION ADMINISTRATION APPROVAL  
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SIGNATURE: \_\_\_\_\_

OREGON DEPARTMENT OF AVIATION APPROVAL  
APPROVAL DATE: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_

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**MULINO STATE AIRPORT**  
AIRPORT LAYOUT PLAN

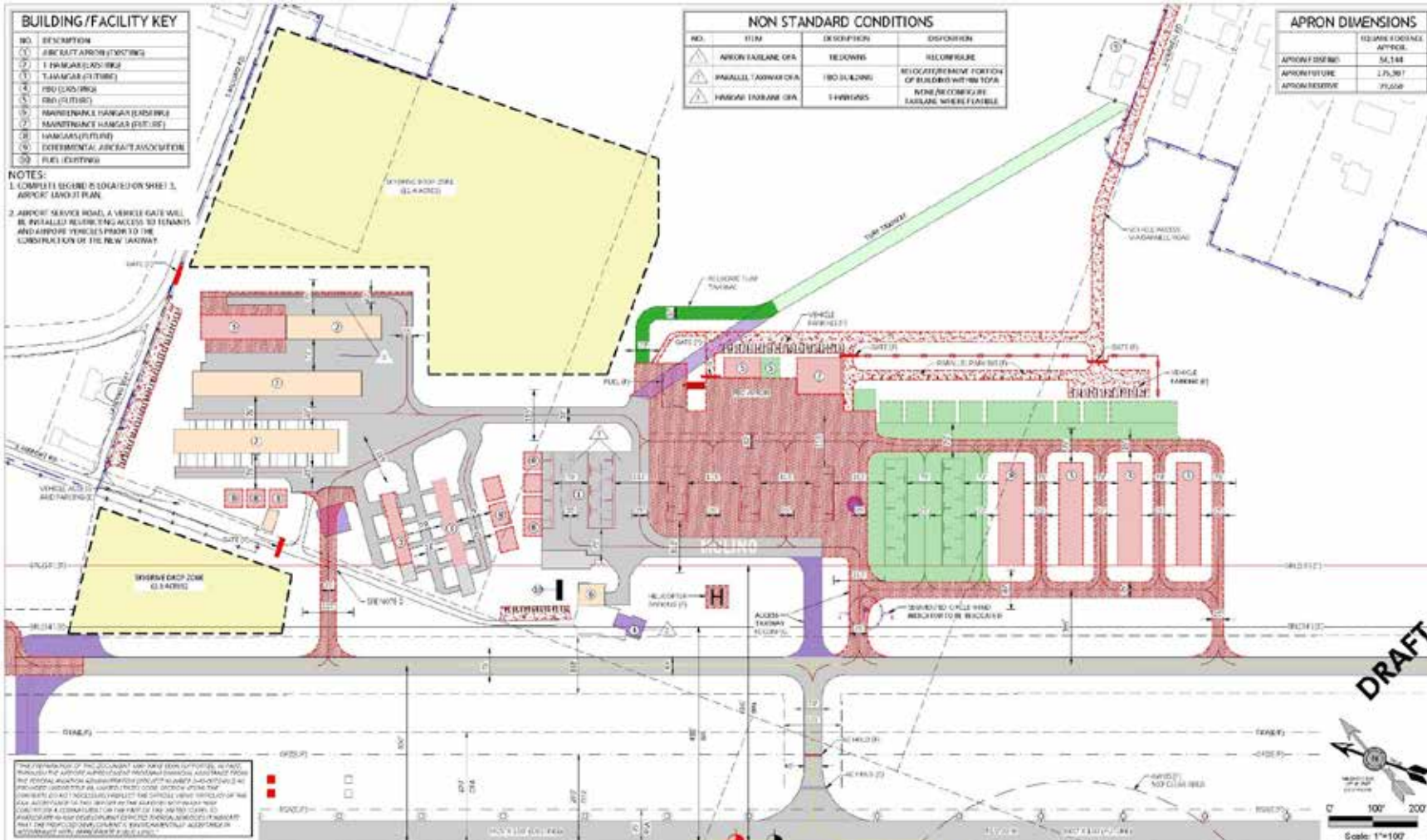
FIGURE NO. \_\_\_\_\_  
SHEET NO. 3 OF 10

SCALE: 1"=200'



# MULINO STATE AIRPORT

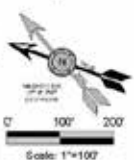
## AIRPORT MASTER PLAN



**AUGUST 2018**

<p><b>SEMP SCALE</b></p> <p>SCALE: 1"=100'</p> <p>DATE: 8/1/18</p>	<p><b>FEDERAL AVIATION ADMINISTRATION APPROVAL</b></p> <p>APPROVAL DATE: _____</p> <p>SIGNATURE: _____</p>	<p><b>OREGON DEPARTMENT OF AVIATION APPROVAL</b></p> <p>APPROVAL DATE: _____</p> <p>SIGNATURE: _____</p>	<p><b>CENTURY WEST ENGINEERING</b></p> <p>1000 10TH AVENUE, SUITE 100 SEASIDE, OREGON 97138 TEL: 503.764.1111 WWW.CENTURYWESTENGINEERING.COM</p> <p>COLLECTOR: DM DESIGNER: AS CHECKER: JG DATE: 8/1/18</p>	<p><b>MULINO STATE AIRPORT</b></p> <p>TERMINAL AREA PLAN</p>	<p>FIGURE NO. _____</p> <p>SHEET NO. 4 OF 10</p>
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**DRAFT**





# MULINO STATE AIRPORT

## A I R P O R T M A S T E R P L A N



# QUESTIONS?