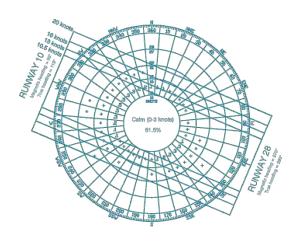
Airport Layout Plan and Narrative Report For Round Valley Airport



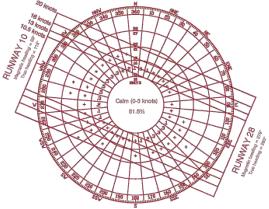


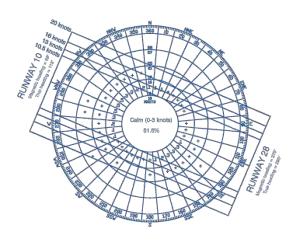
County of Mendocino Department of Transportation 340 Lake Mendocino Drive Ukiah, CA 95482

Prepared by

Prepared for the







Round Valley Airport Layout Plan and Narrative Report

July 2012 Draft

INTRODUCTION

This document details the changes to the Airport Layout Plan (ALP) for Round Valley Airport since the previous ALP was adopted by the Federal Aviation Administration (FAA) in 2003. ALPs are required by the FAA as an element in assisting the administration of the Airport Improvement Programs grants for funding eligible capital improvement programs. ALPs are typically updated every 5 to 10 years to incorporate recent construction, reflect new documentation requirements, and illustrate future projects anticipated to occur over the next 20 years. This ALP was prepared in accordance with the applicable elements specified in FAA Advisory Circulars 150/5070-6A, *Airport Master Plans*, and 150/5300-13, *Airport Design*. The ALP drawing set is located at the end of this report.

Round Valley Airport is located in Covelo, an unincorporated area of northeast Mendocino County in Northern California. The Airport is located approximately 85 miles southeast Eureka and 45 miles north of Ukiah. The location of Round Valley Airport is illustrated in **Exhibit 1**. Round Valley Airport is publicly owned and operated by Mendocino County's Department of Transportation.



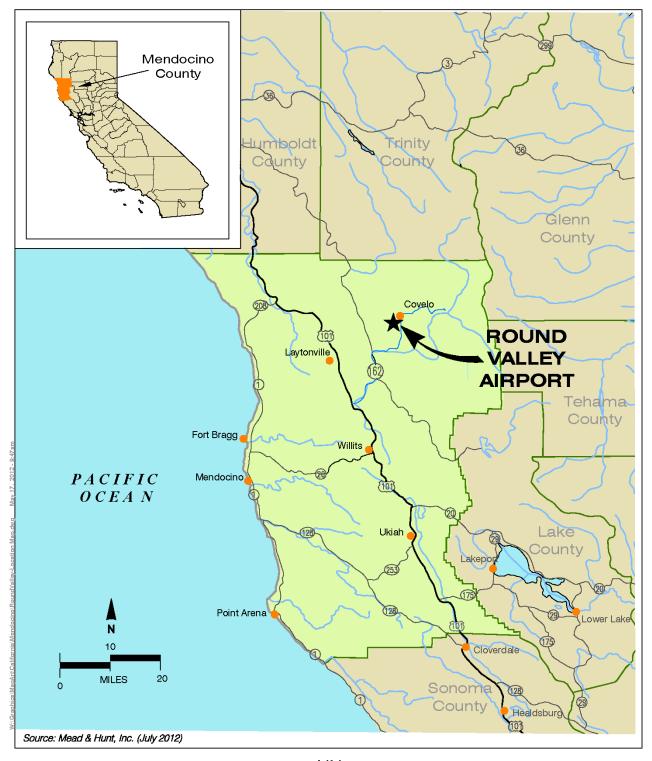


Exhibit 1
LOCATION MAP

AIRPORT ROLE AND EXITING CONDITIONS

Round Valley Airport is a General Aviation (GA) airport serving the communities surrounding the town of Covelo. The Airport is expected to retain this role throughout the 20-year planning period. Although this ALP Update did not include a forecasting element, it is expect that Round Valley Airport will experience slight growth in general aviation activity. The changes proposed on this ALP would allow the Airport to continue to adequately serve the GA population while meeting FAA safety and design standards.

Round Valley Airport has one asphalt runway, Runway 10-28, which is 3,650 feet in length and 60 feet wide. The Airport does not currently have any instrument approach procedures.

The existing Airport Reference Code (ARC) at Round Valley Airport is B-I (Small). The ARC is based on the largest aircraft that operates at least 500 times per year at the airport. For Round Valley Airport that

aircraft is the Cessna 421, a medium-size, twin-engine, propeller airplane. The Airport's existing layout satisfies safety standards for a B-I (Small) airport with the exception of the Runway Safety Areas (RSAs) located off of each runway end. The RSAs are addressed in a subsequent section of this report. This ALP effort did not analyze any proposed change in the ARC.

Airport Reference Code Criteria		
Approach Category	Approach Speed Range	
В	≥91 kts	< 121 kts
Design Group	Wingspan Range	
I		< 49 feet

The last update of the Round Valley Airport's ALP was completed in 2003. Major changes to Round Valley Airport since 2003 include the following:

- Construction of an aircraft apron and parking area
- Construction of a partial parallel taxiway
- Removal of failing pavement

These changes are reflected in this updated ALP. In addition to these changes, technical analysis was conducted on various facilities that airport management believes would need improvements as the Airport experiences growth in operations and based aircraft. Facilities of significance which were added or modified on this updated ALP include the following features:

- Hangar and apron area southeast of runway
- Realignment of South Airport Road at both ends of the runway
- Helicopter parking improvements
- Soil stabilization for helicopter rotor wash
- Pavement rehabilitation
- Security lighting
- Perimeter fencing
- Grading and drainage improvements at the approach end of Runway 28
- Creation of an Airspace Plan
- Data collection and creation of a wind rose.

TECHNICAL JUSTIFICATION

Factors considered when analyzing the need for new facilities, taxiways, and aprons include: Federal Aviation Administration (FAA) design standards in Advisory Circular 150/5300-13, the safety and efficient movement of aircraft, and planned improvements.

HANGAR AND APRON ARFA

The primary reason for the designation of a new hangar area at the Airport stems from the need to relocate several portable hangars currently located on the north side of the runway. These hangars do not have paved vehicle or aircraft access and are not served by a parallel taxiway. The only way for aircraft housed in these portable hangars to access the runway is to taxi into the middle of the runway, a less than ideal scenario. The proposed hangar development presented in **Exhibit 2** contains two phases of development. The first phase would accommodate the relocated aircraft from the portable hangars across the airfield while the second phase would accommodate additional aircraft relocating to the Airport in the future.

The proposed layout was based on accommodating a single-engine aircraft such as a Cessna 172 or Beech Bonanza and as such, the dimensions of the hangars are 40 feet wide and 38 feet deep. The layout incorporates locations which could serve as a pilots lounge or restroom, both of which are facilities the Airport currently lacks.



Also included in Exhibit 2 are lighting improvements and a future Fixed Base Operator building and airport administration building.

REALIGNMENT OF SOUTH AIRPORT ROAD

Currently South Airport Road passes through the Runway Safety Area (RSA) for both Runway 28 and 10. The FAA specifies that RSAs are to meet strict standards which are intended to protect the aircraft and its occupants in the event of a runway overrun. These standards include requirements that the RSAs be clear of objects and strict grading requirements be met. South Airport Road has been shown on previous ALPs as to be relocated, however the design of relocation has been updated through the course of this ALP update. The portion of South Airport Road to be relocated east of the Runway 28 threshold has been designed to

Object Free Area (OFA): A two-dimensional ground area centered on a runway, taxiway, or taxilane centerline which is clear of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground-maneuvering purposes.

Runway Safety Area (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway and provides greater accessibility for fire fighting and rescue equipment during such incidents.

accommodate a 30 mile per hour turn and the relocation of South Airport Road west of Runway 10 was designed to accommodate a 20 mile per hour turn. These relocated portions of South Airport Road are depicted in **Exhibits 3** and **4**.

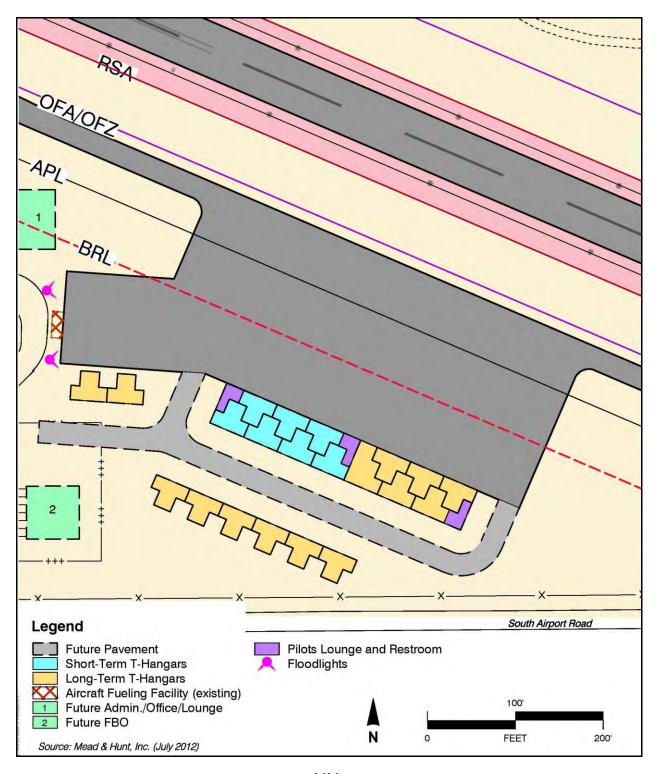


Exhibit 2
APRON AREA IMPROVEMENTS

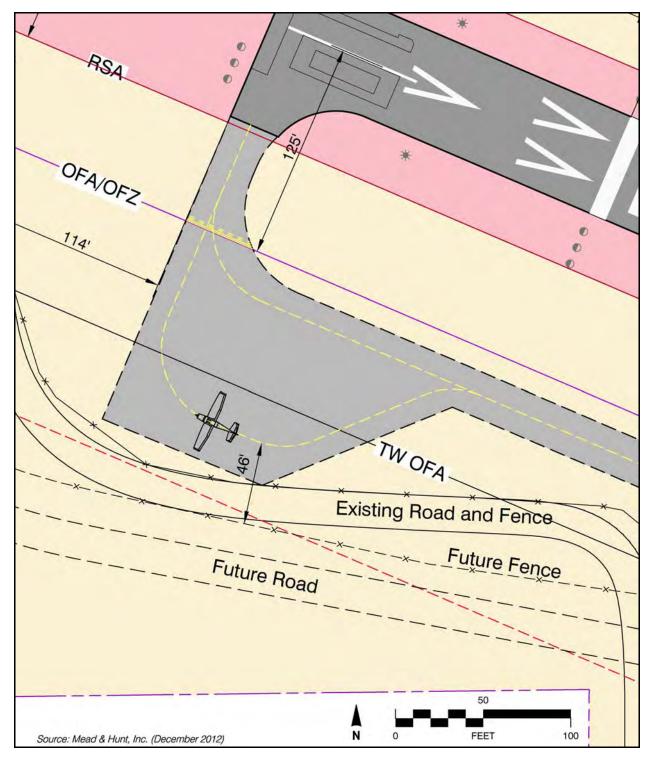


Exhibit 3
NORTHWEST PORTION OF SOUTH AIRPORT ROAD IMPROVEMENTS

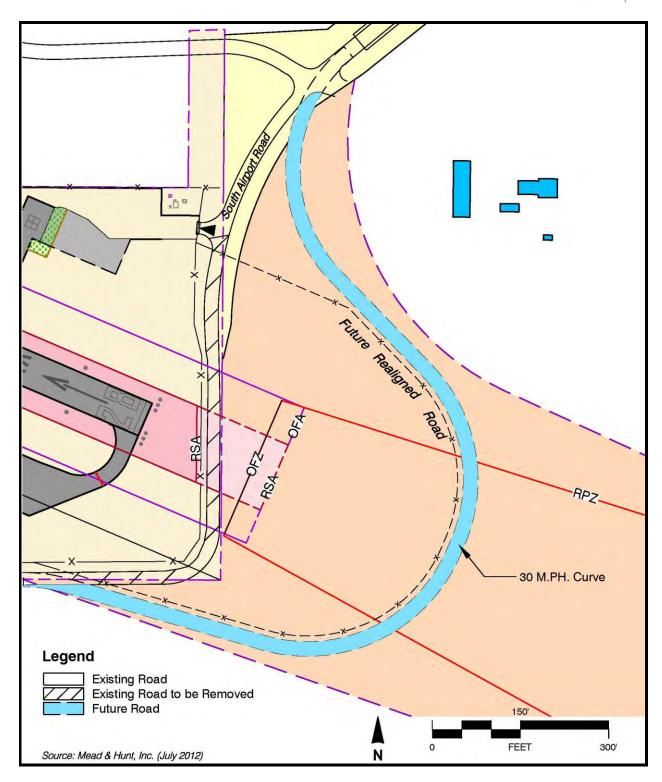


Exhibit 4
SOUTHEAST PORTION OF SOUTH AIRPORT ROAD IMPROVEMENTS

HELICOPTER PARKING AREA IMPROVEMENTS

Round Valley Airport is the principal point of access for local emergency airlift equipment. Emergency flights in this area are most often conducted by helicopters. When helicopters do utilize the Airport they park in an isolated area north of the runway. Several problems exist with the existing facilities: lack of a stabilized surface around the parking position, insufficient number of parking positions, and deteriorating pavement used by emergency ground vehicles to transport the patients to the helicopters. **Exhibit 5** depicts the proposed improvements which will address the inadequacies at the existing helicopter parking position. The short-term solution is to apply a soil stabilization technique to the bare earth immediately surrounding the helicopter parking position. This will alleviate the flying debris which interferes with aircrew and ground crew in emergency situations. In the long term, the Airport will construct an expanded helicopter parking area which can better accommodate multiple emergency helicopters and ground vehicles. The ALP also shows improved lighting for the area surrounding the helicopter parking positions as there are no lights at present, making night-time emergency operations difficult.

PERIMETER FENCING

A fence surrounding the entire airport does not currently exist at Round Valley Airport. A perimeter fence will likely be required by the FAA should Round Valley Airport choose to invest the monetary resources into upgrading facilities as presented in this report. The ALP sheet shows the proposed location of future fencing as well as additional access gates.

GRADING AND DRAINAGE IMPROVEMENTS

Currently, the area immediately east the Runway 28 approach end does not have sufficient drainage to accommodate winter rains. The problem is severe enough to flood the runway end lights on occasion. The ALP contains a note stating that grading and drainage improvements will be completed in this area at the time the southeastern portion of South Airport Road is relocated.

CREATION OF A WIND ROSE

The FAA requires all ALPs to contain a wind rose depicting the direction and speed of wind occurrences at the airport. The wind rose shows what percent of time the winds favor the runway available at an airport. If the airport does not have 95 percent coverage, FAA criteria would suggest construction of a crosswind runway. The lack of available wind data at Round Valley Airport dictated using the next closest source which is Ukiah Municipal Airport. Based on Ukiah Municipal Airport's wind rose data, Round Valley Airport has 99 percent coverage with the current runway configuration.

CREATION OF AN AIRSPACE PLAN

The previous versions of the ALP set for Round Valley Airport did not contain an Airspace Plan sheet, so in order to provide a complete set of airport plans, one was developed from scratch. Although there are currently no instrument approach procedures to either runway end at Round Valley Airport, the Airspace Plan is still of value in depicting where objects penetrate the FAR Part 77 Surfaces. No survey was conducted as part of this ALP update. Objects shown on the Airspace Plan are known obstacles taken from United States Geographic Survey (USGS) topographic quadrangle maps.

UPDATE OF EXHIBIT "A" PROPERTY MAP

Subsequent to the 2003 ALP, the County purchased some of the parcels adjacent to the airport which were designated as "to be acquired". This ALP update reflects those changes in ownership and has also brought forward the remaining parcels to be acquired.



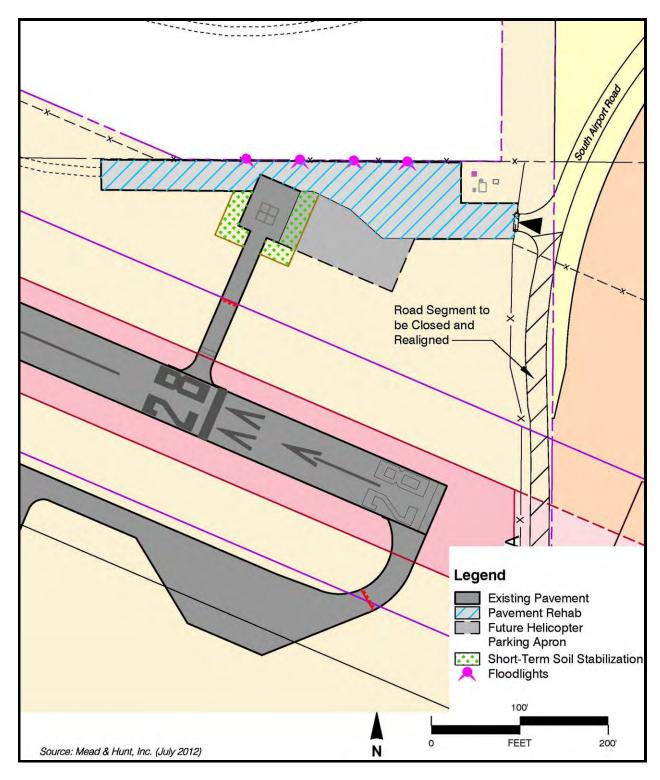
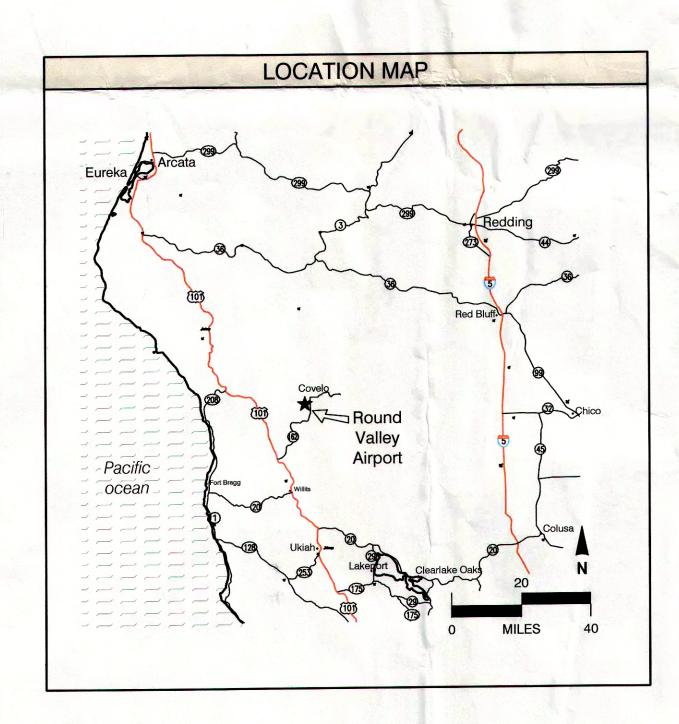


Exhibit 5
HELICOPTER PARKING IMPROVEMENTS

Round Valley Airport Airport Layout Plan

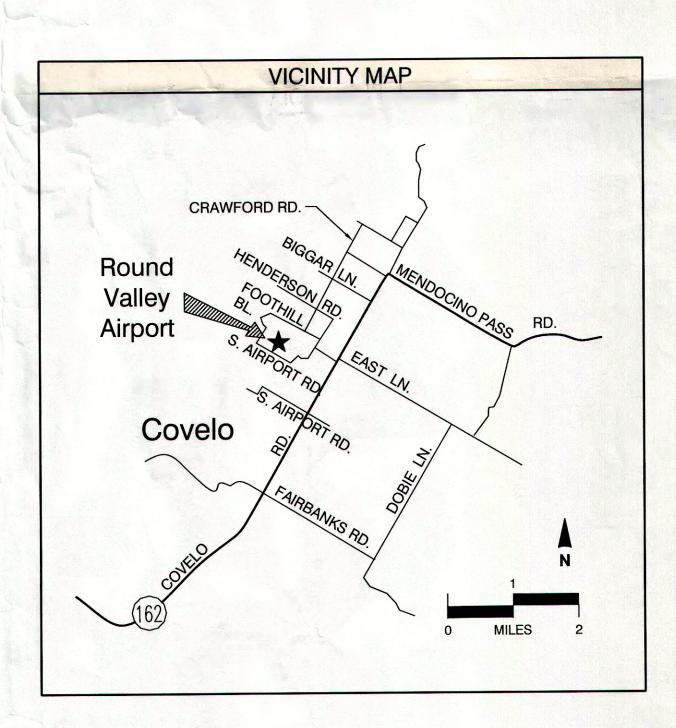
County of Mendocino, California
June 2013
AIP No. 3-06-0056-05

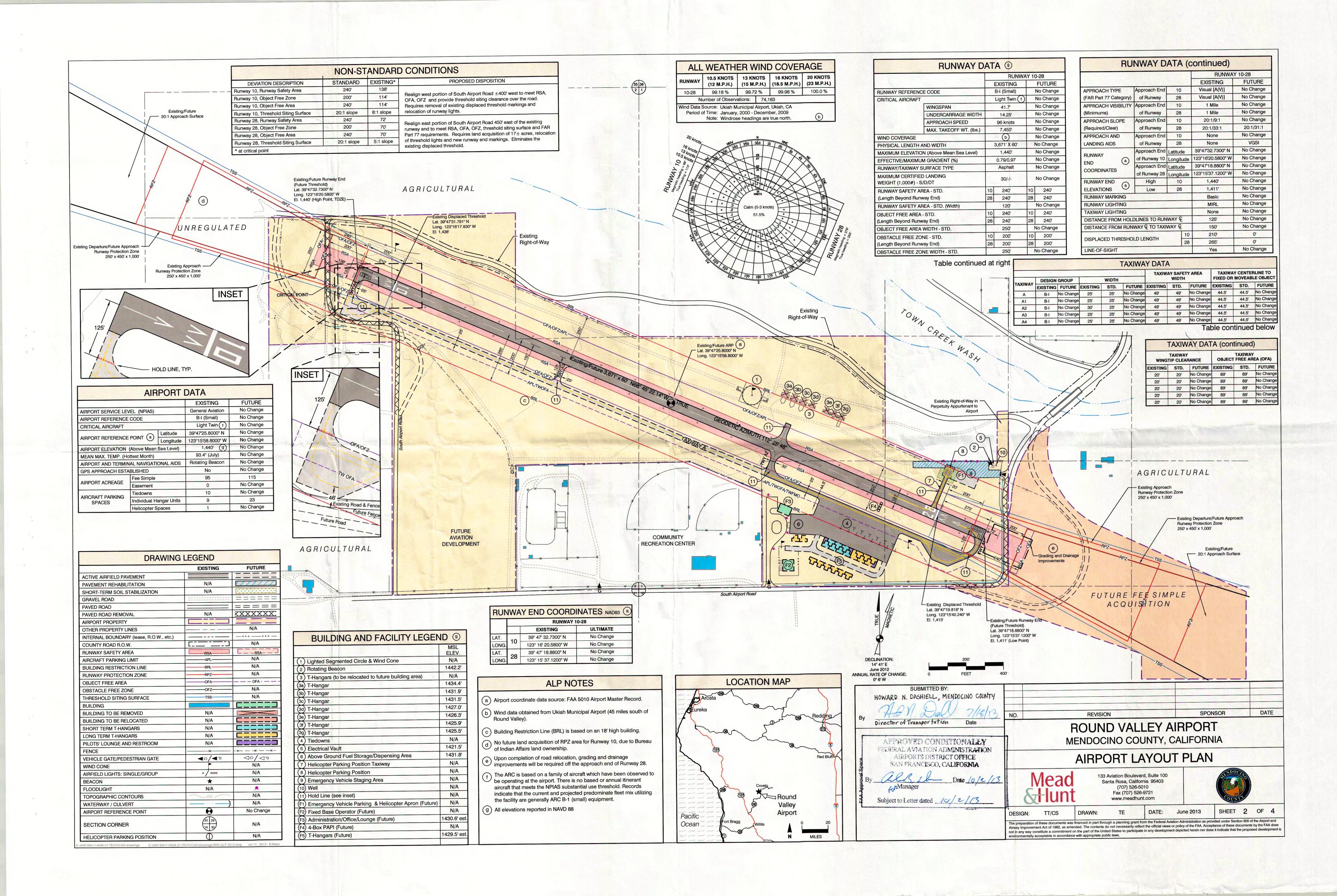


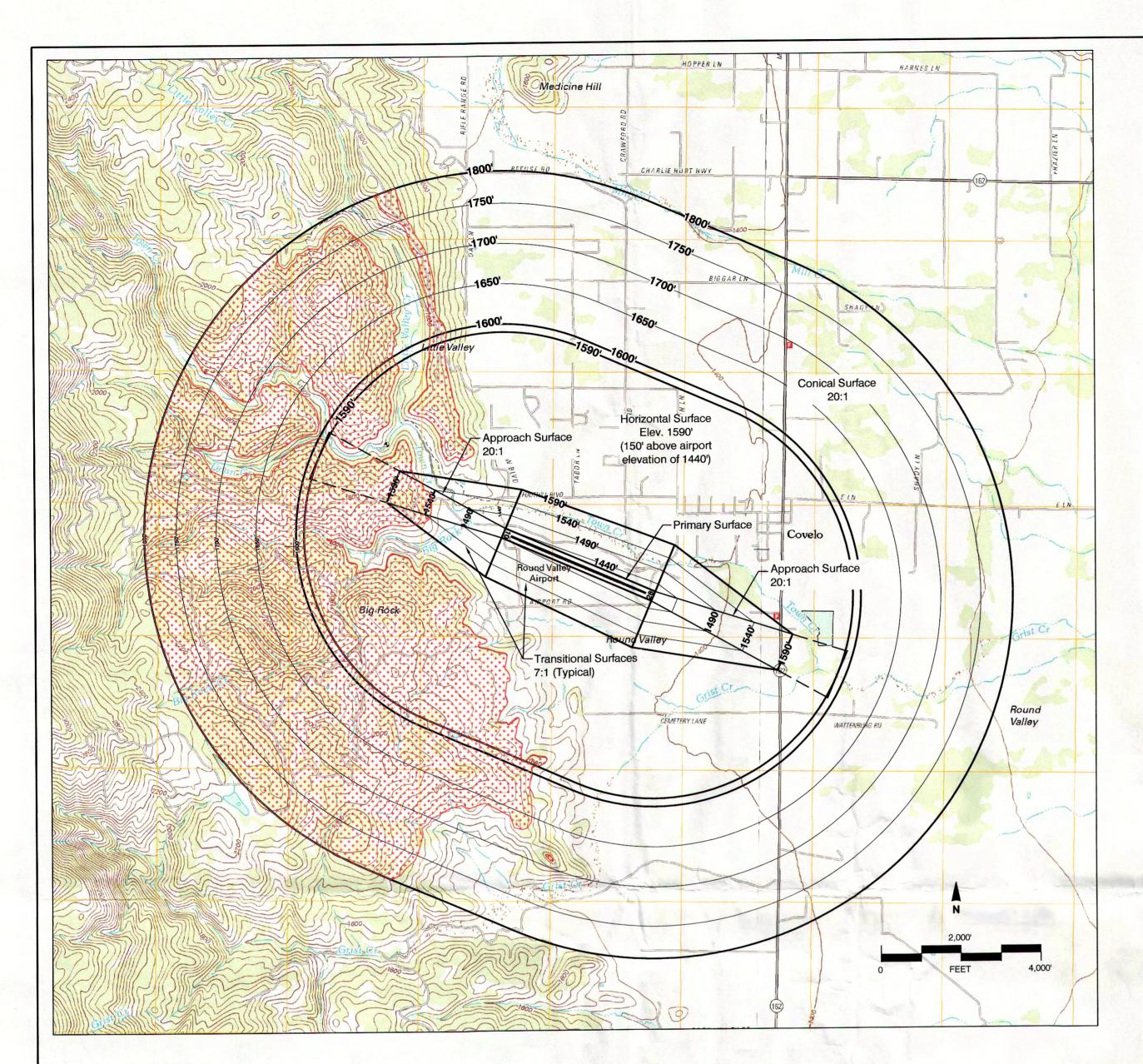
- 1. TITLE SHEET
- 2. AIRPORT LAYOUT PLAN
- 3. AIRSPACE PLAN
- 4. EXHIBIT A PROPERTY MAP

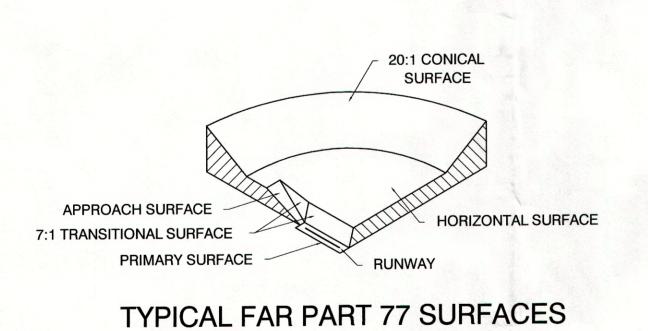












Part 77 Surfaces
Penetrating Terrain
Object is below indicated surface
Object penetrates indicated surface

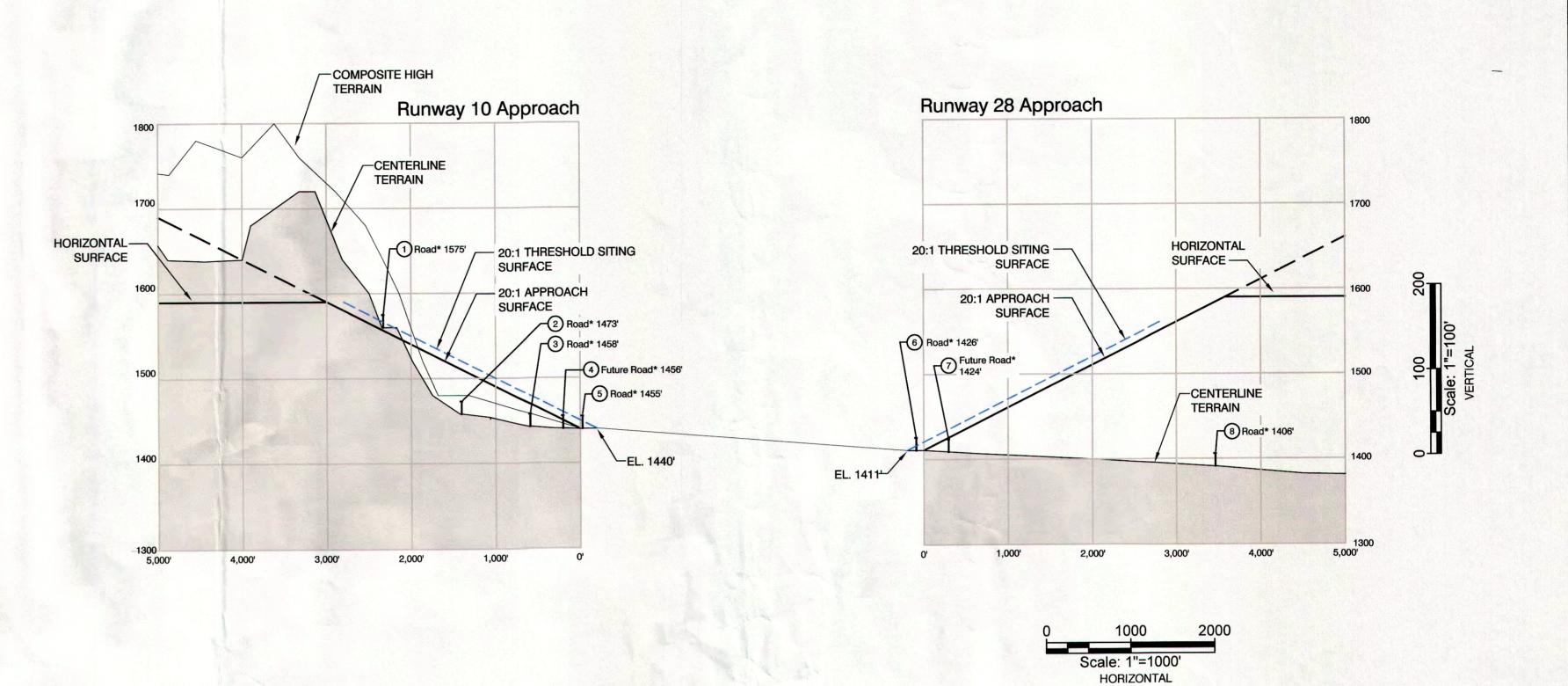
USGS Topographic Survey Map coordinates: NAD27. Terrain contours: NGVD29

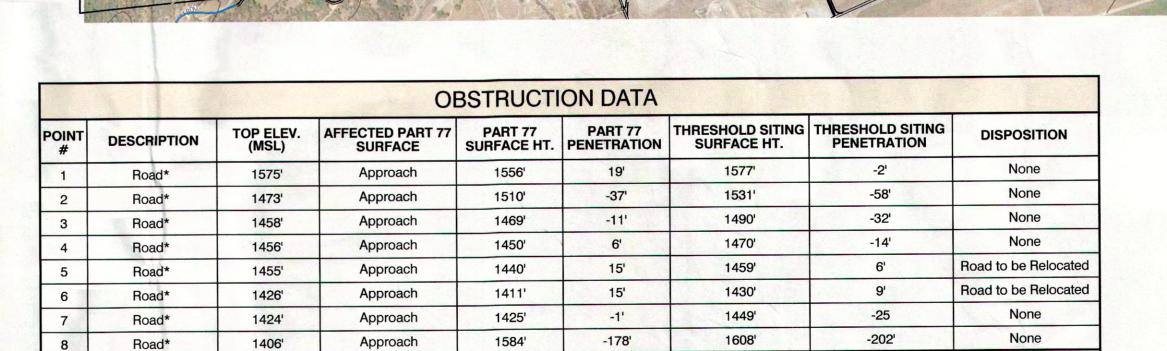
MAP SOURCE:

NOTES:

Part 77 surface contours and obstruction elevations are shown in NAVD88.

* Indicates 15' added to all road elevations





Note: A Negative Penetration Number Indicates Distance Object is Below Surface.

NO.

REVISION

SPONSOR

DATE

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DESIGN: TT/CS

DRAWN: TE

DATE: June 2013

SHEET 3 OF 4

The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1962, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accommitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accompliate public leave.

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