

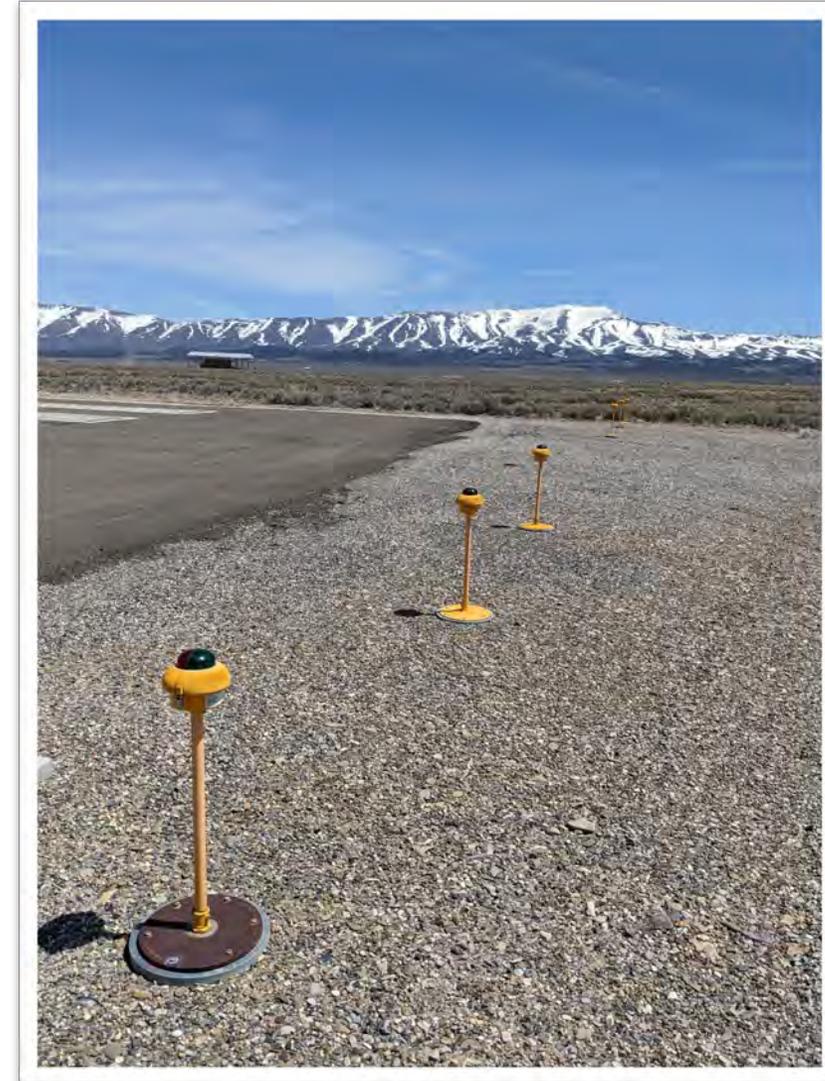


EUREKA AIRPORT BOOTH BAILEY FIELD AIRPORT LAYOUT PLAN UPDATE

*Planning Advisory Committee Meeting #2
January 23, 2024*

AGENDA

- Introductions
- Background & Review
- Development Alternatives
- Discussion
- Questions?



PROJECT TEAM



Jonathan Lesperance

Engineering Group Manager
Lumos & Associates
jlesperance@lumosinc.com



Mike Dane

Senior Planner
Century West Engineering
mdane@centurywest.com



Mark Steele

Senior Planner
Century West Engineering
msteele@centurywest.com



Elliott Szoke

Aviation Planning Intern
Century West Engineering
eszoke@centurywest.com



**Federal Aviation
Administration**

**Kenneth Hall
Community Planner
FAA**

kenneth.p.hall@faa.gov



PLANNING ADVISORY COMMITTEE (PAC)

- Jeb Rowley
 - Airport Manager
- Craig Benson
 - Diamond Valley Rancher, Airport User
- Kurt Haukohl
 - NDOT State Aviation Manager
- Marty Plasket
 - Diamond Valley Rancher, County Commissioner
- Kenny Sanders
 - Eureka County EMS
- Ken Hall
 - FAA Community Planner

PAC Responsibilities Include:

1. Attending PAC meetings
2. Reviewing and commenting on draft work products
3. Providing input during the planning process
4. Providing local expertise to reflect community interests or concerns

WHY ARE WE UPDATING THE 2015 AIRPORT LAYOUT PLAN?

Airport plans are typically updated every 10 years, or sooner if conditions require:

- *Changes in FAA airport design standards or areas of FAA emphasis*
- *Changes in Airport activity*
- *When previous planning recommendations have been implemented*
- *Provide updated cultural and environmental analysis necessary for future development*

FAA Airport Grant Assurances require airport sponsors to *“keep up to date at all times an airport layout plan of the airport...”*

CRITICAL AIRCRAFT

- Existing Design Aircraft

- Beechcraft Baron 58

- ARC B-I(small)



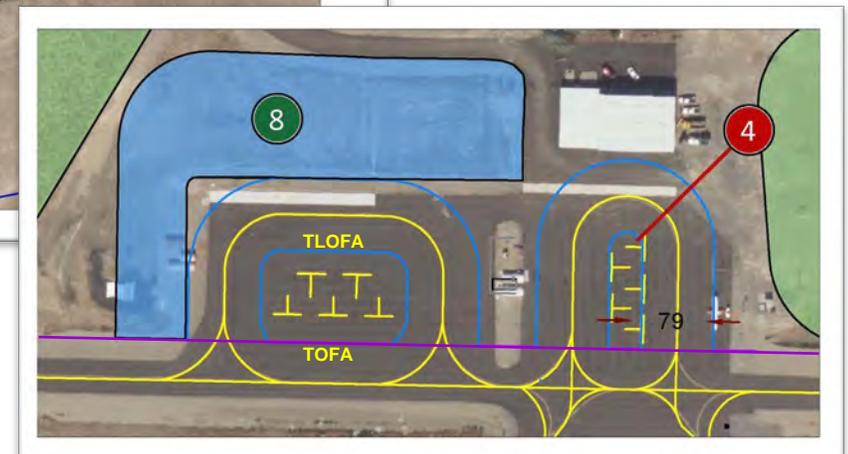
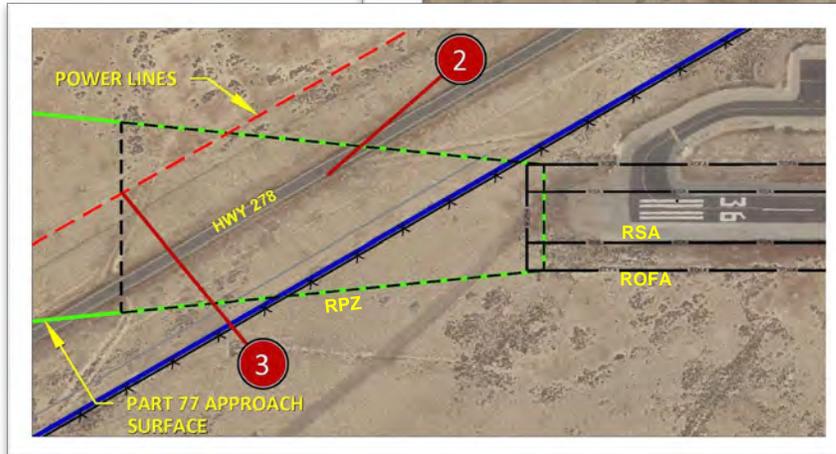
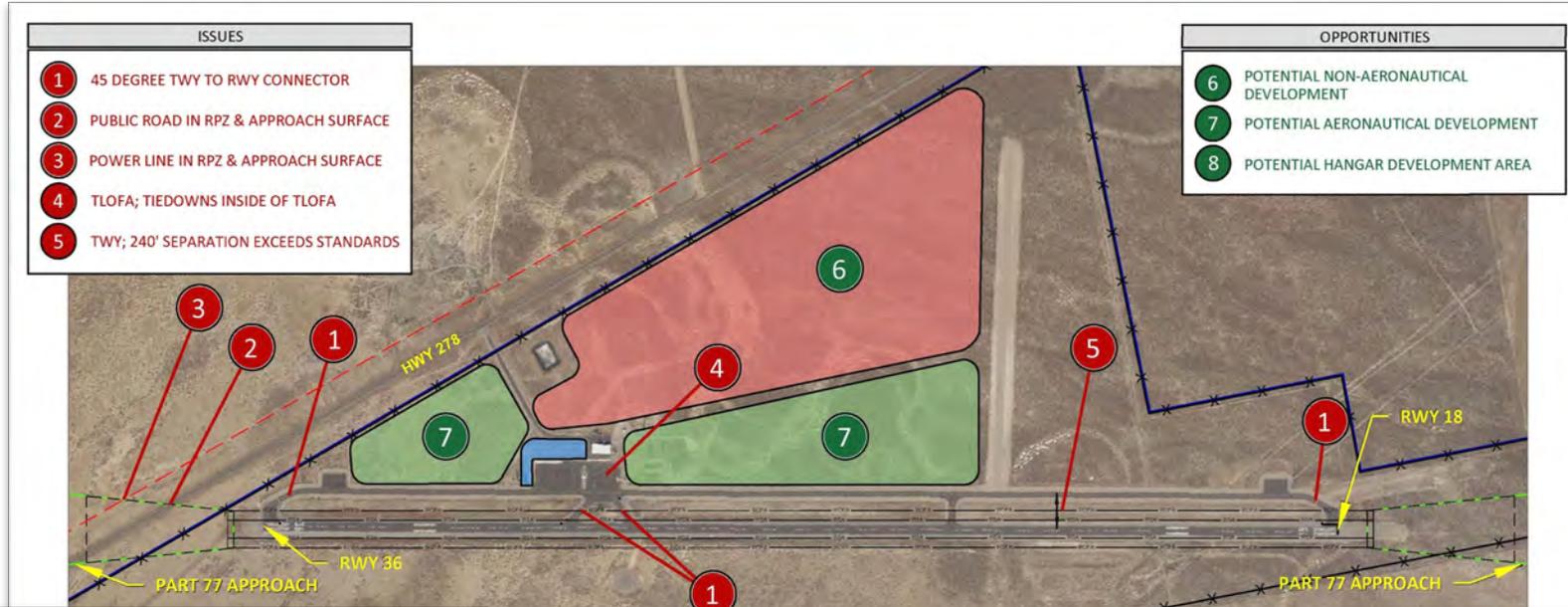
- Future Design Aircraft

- Beechcraft King Air 200

- ARC B-II(small)



KNOWN ISSUES & OPPORTUNITIES



DEVELOPMENT ALTERNATIVES

- The following concepts focus on specific operational areas of the airport
 - Primary Runway
 - Crosswind Runway/Alternate Landing Area
 - Landside Facilities/Terminal Apron
- Pros and Cons lists are provided to facilitate discussion
- The concepts are not limited to how they are presented
 - Mix and Match
 - Suggest other configurations



RUNWAY 18/36 AND PARALLEL TAXIWAY ALTERNATIVES



FACILITY GOALS AND REQUIREMENTS RUNWAY 18/36 AND PARALLEL TAXIWAY

Facility Requirements:

- Maintain current runway length and orientation
- Widen runway to 75' if B-II(small) status reached
- Maintain and update existing lighting, signage, and NAVAID systems
- Maintain current taxiway width and separation
- Reconfigure 45° connector taxiways to 90°
- Protect FAA design and airspace surfaces
- Monitor and maintain airfield pavements
- Mitigate incompatible land uses present in RPZs



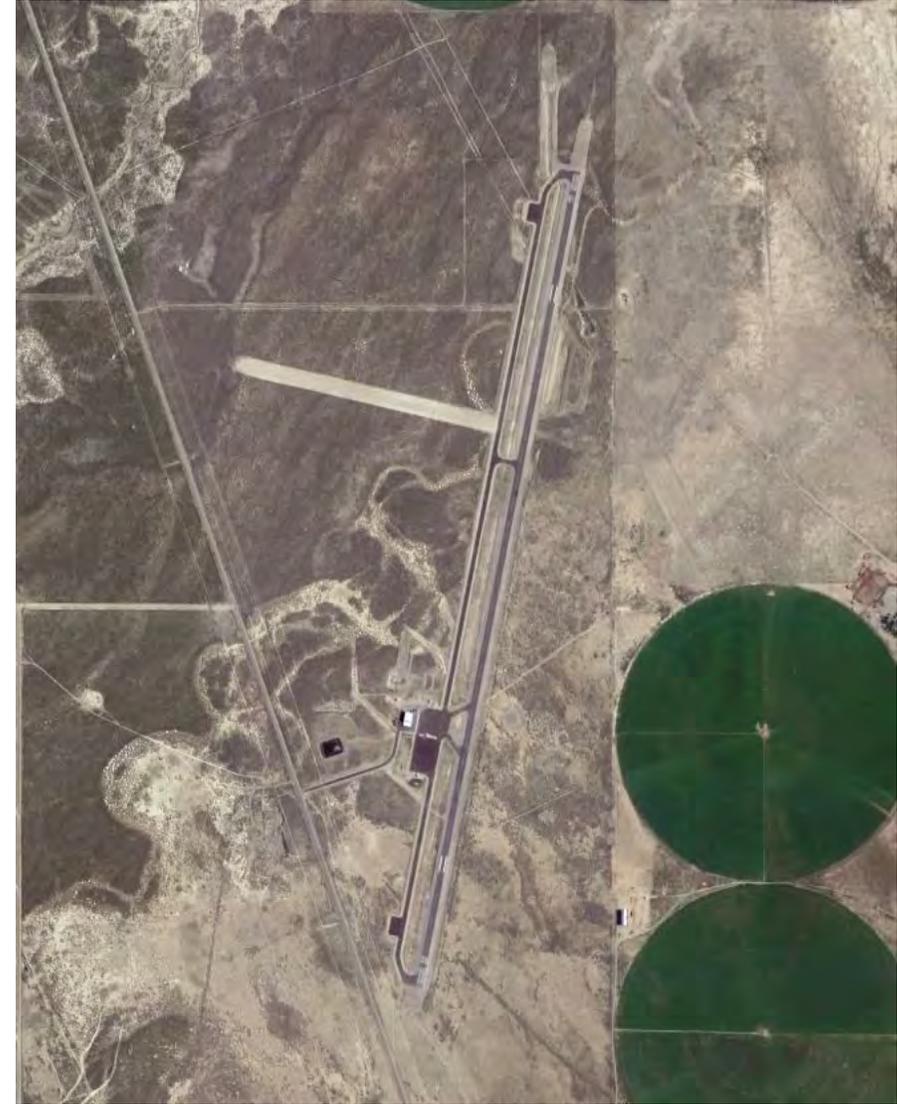
NO-BUILD ALTERNATIVE

PROS:

- Minimal financial investment required
- The runway and taxiway system will continue to operate as they do currently

CONS:

- Non-standard 45° taxiway connectors limit pilot visibility as they enter the runway
- Incompatible land uses remain in Runway 36 RPZ
- Runway 36 RPZ extends off-property and is unprotected from further encroachment of incompatible land uses
- Road and powerline obstruction remain as obstructions to the Runway 36 20:1 approach
- Failure to address non-standard conditions may jeopardize FAA grant assurances



RUNWAY 18/36 AND PARALLEL TAXIWAY ALTERNATIVES

- Build Alternatives Common Elements
 - Maintain existing 7,300' runway length
 - Widen runway to 75' at the time of runway construction to accommodate future critical aircraft (ADG II)
 - Replace 45° connector taxiways with 90° connectors to improve pilot sight lines and enhance operational safety
 - Reposition hold lines to 125' from (and parallel to) the runway centerline
 - Obstacle lights and markers are installed on overhead power lines in the Runway 36 approach

ALT IA – 334’ RUNWAY SHIFT AND REALIGN HWY 278

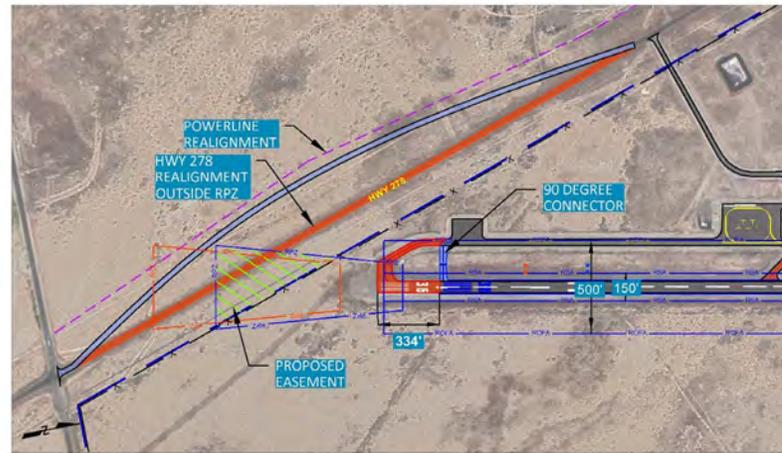
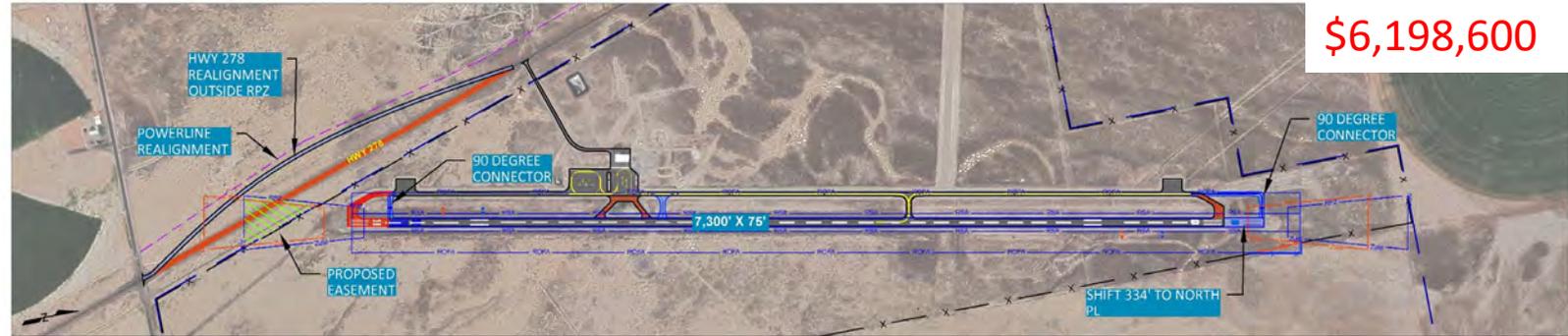
PROS:

- Maintains current runway length
- Removes the incompatible land uses from RWY 36 RPZ (Highway 278 and powerline)
- Clears Highway 278 and powerline from RWY 36 Part 77 approach surface
- Maintains a clear ROFA

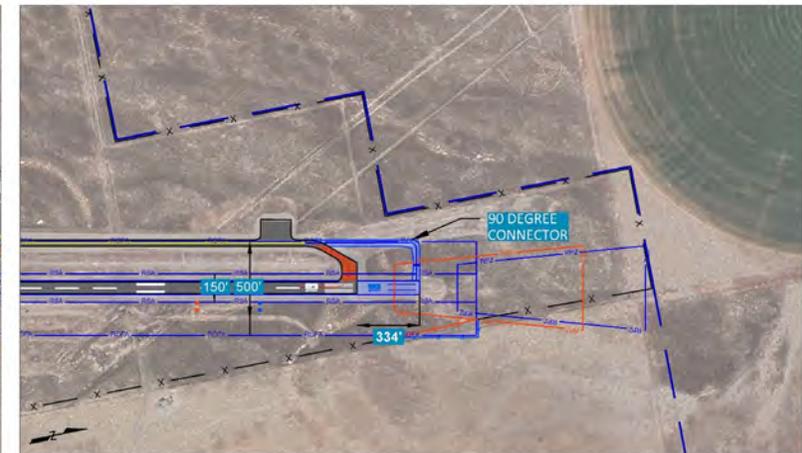
CONS:

- Requires realignment of Highway 278 and adjacent powerline
- Requires property acquisition for Highway 278 ROW
 - Requires close coordination with NDOT
- Extending parallel taxiway over drainage way may be challenging.

ALTERNATIVE 1A, 334’ RUNWAY SHIFT AND REALIGN HIGHWAY



RWY 36 END



RWY 18 END



ALT 1B – 334’ RUNWAY SHIFT NO REALIGNMENT

ALTERNATIVE 1B, 334' RUNWAY SHIFT WITH NO REALIGNMENT OF HIGHWAY

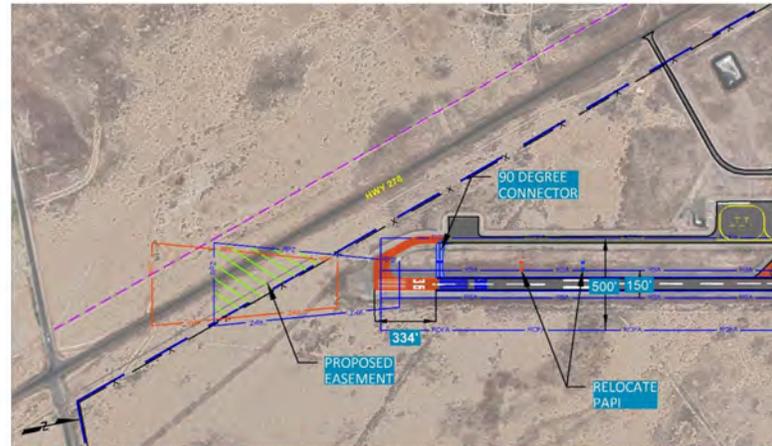
\$4,574,020

PROS:

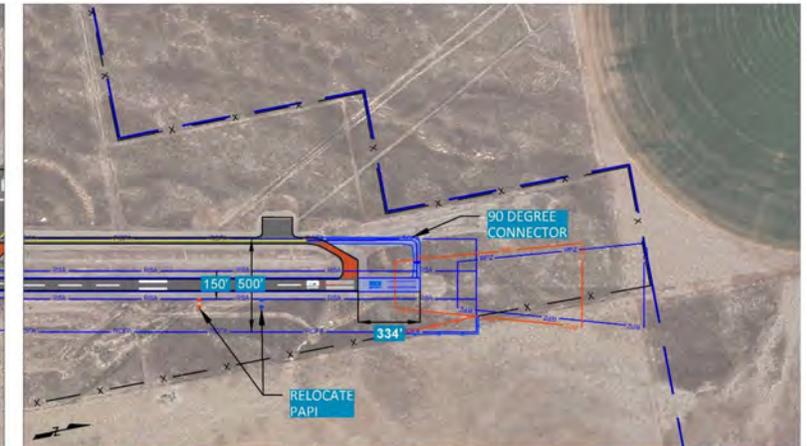
- Less expensive than Alternative 1A due to no property or ROW acquisition
- Incompatible land uses are moved farther out in RWY 36 RPZ (Highway 278 and powerline), lessening their impact.
- Clears Highway 278 and powerline from RWY 36 Part 77 approach surface
- Corrects angled connector taxiway geometry, improving pilots' visibility
- RPZ is protected via aviation easement

CONS:

- Incompatible land uses (Highway 278 and powerline) remain in RWY 36 RPZ
- Extending parallel taxiway over drainage way may be challenging.



RWY 36 END



RWY 18 END



ALT 2 – 1,086’ RUNWAY SHIFT WITH EASEMENT

ALTERNATIVE 2, 1,086’ RUNWAY SHIFT WITH AVIGATION EASEMENT

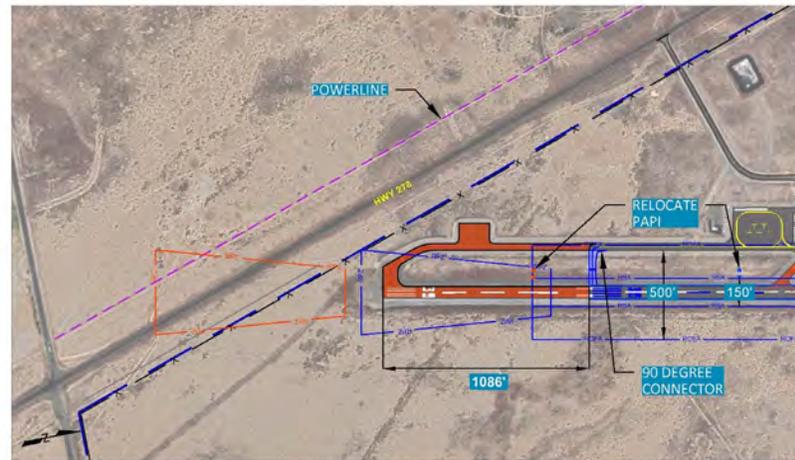
\$6,907,360

PROS:

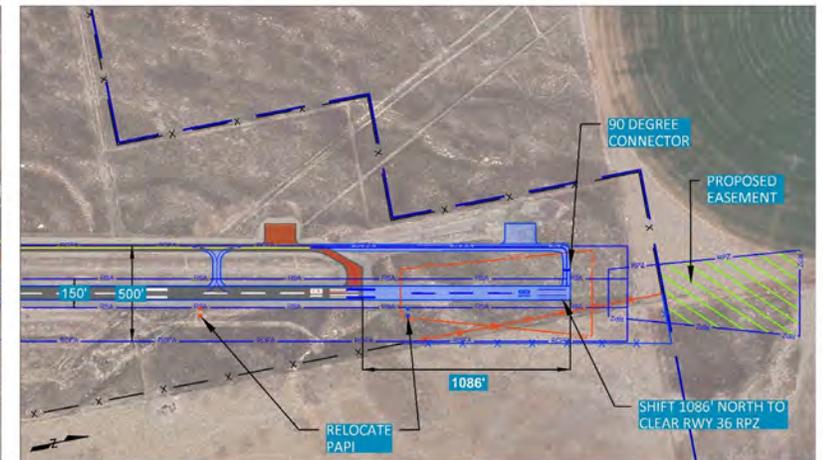
- Removes the incompatible land uses from RWY 36 RPZ (Highway 278 and powerline)
- Clears Highway 278 and powerline from RWY 36 Part 77 approach surface
- Maintains a clear ROFA
- Corrects angled connector taxiway geometry, improving pilots’ visibility when entering the runway.
- RPZ is protected via avigation easement

CONS:

- More expensive than Alternative 1B due to longer runway shift and acquisition of avigation easement.
- Extending parallel taxiway over drainage way may be challenging.



RWY 36 END



RWY 18 END



ALT 3 – 140' DISPLACED THRESHOLD ON RWY 36

ALTERNATIVE 3, 140' DISPLACED THRESHOLD ON RUNWAY 36

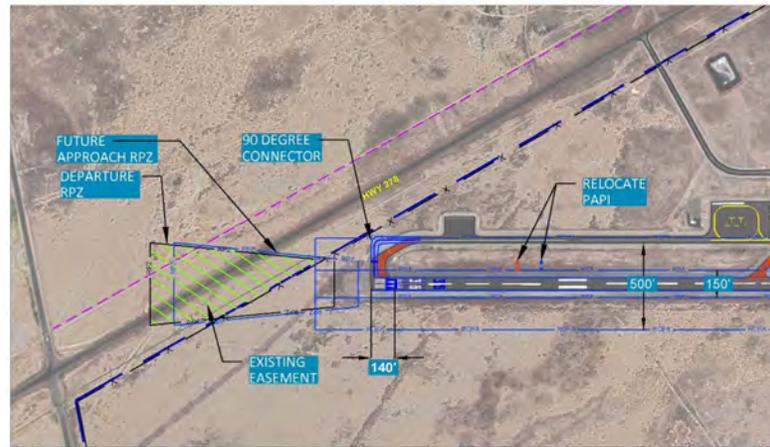
\$3,852,300

PROS:

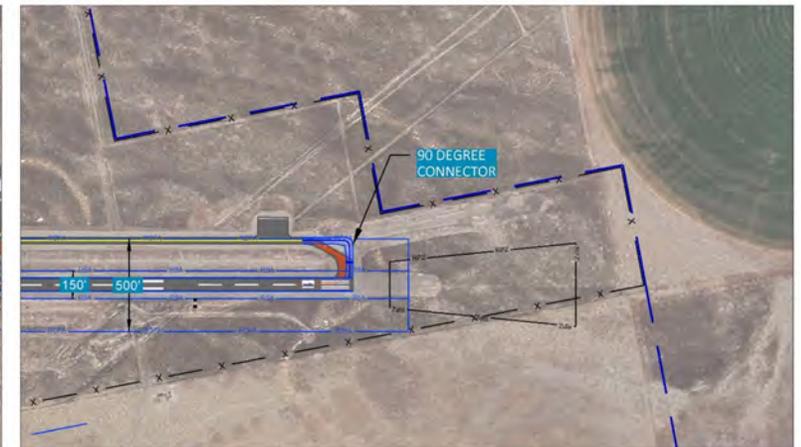
- Least expensive build option
- Clears RWY 36 Part 77 approach surface
- Corrects angled connector taxiway geometry, improving pilots' visibility when entering the runway.
- RPZ is protected via avigation easement

CONS:

- RPZ incompatible land uses remain
- Shortens runway available to landing/departing aircraft



RWY 36 END



RWY 18 END



CROSSWIND RUNWAY/ALA 9/27 ALTERNATIVES



FACILITY GOALS AND REQUIREMENTS

CROSSWIND RUNWAY/LANDING AREA

Facility Goals:

- Preserve crosswind operations capabilities
- Register crosswind landing area as runway
- Mitigate FOD issues from gravel runway/landing area



CROSSWIND NO-BUILD ALTERNATIVE

PROS:

- Minimal financial investment required
- The current crosswind landing area will continue to operate as it currently does

CONS:

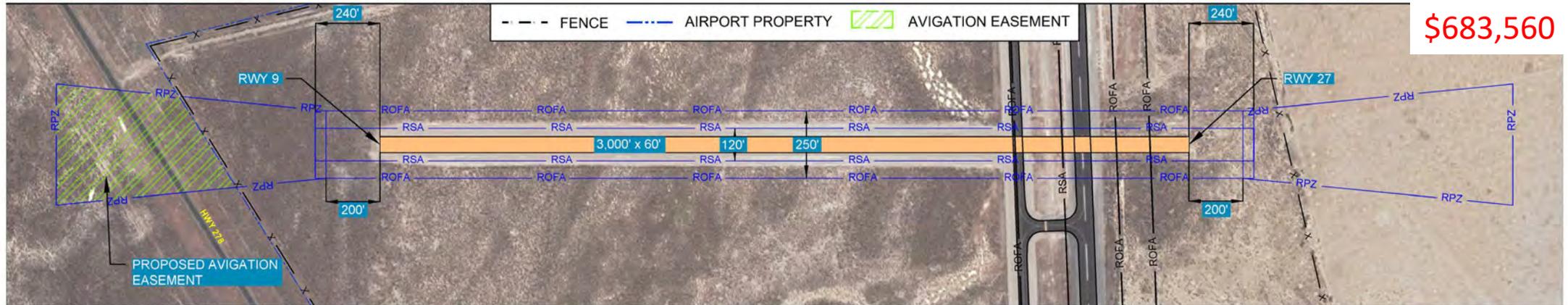
- Absence of end markings make it challenging for approaching aircraft to identify runway thresholds
- Landing area is not registered and not shown on chart supplement



CROSSWIND

- Build Alternatives Common Elements
 - Positioned on the same centerline alignment of the current alternate landing area
 - Non-lighted runway end markers are installed to mark runway thresholds
 - Obstacle lights and markers are installed on overhead power lines in the Runway 9 approach
 - Formal registration of the runway (via 7480 process) is optional, but it is the preference of County to complete the process to ensure that the crosswind runway appears on the chart supplement
 - Runway registration is optional for all concepts
 - **Not eligible for FAA funding**

ALT I – 3,000’ GRAVEL RUNWAY PER 2015 ALP



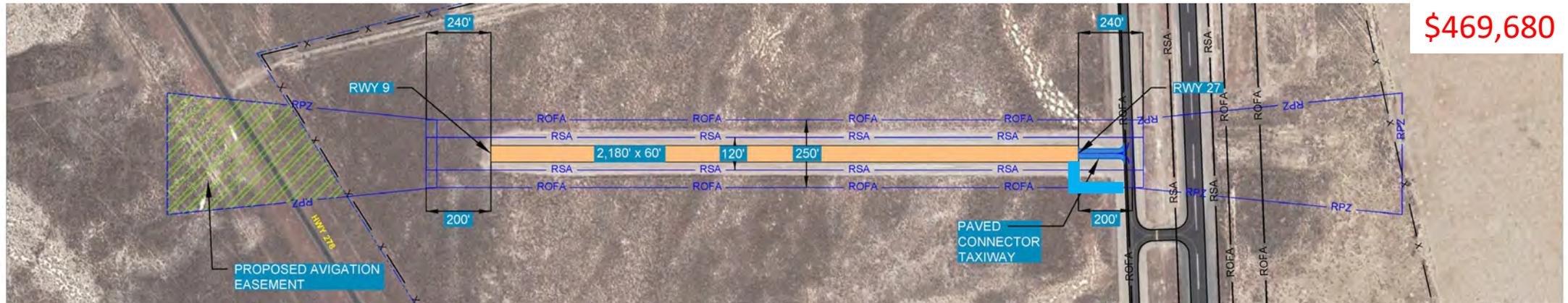
PROS:

- Provides maximum length for take-off and landing
- Deconflicts Runway Safety Area

CONS:

- Expensive option due to length, grading requirements, and drainage ditch crossing (culvert)
- Runway 9 RPZ includes incompatible land uses (Highway 278 and powerline)
- RSA grading requirement will be challenging to meet at the drainage ditch crossing
- Crossing Runway 18/36 and Taxiway A presents operational challenges

ALT 2 – 2,180’ GRAVEL RUNWAY



\$469,680

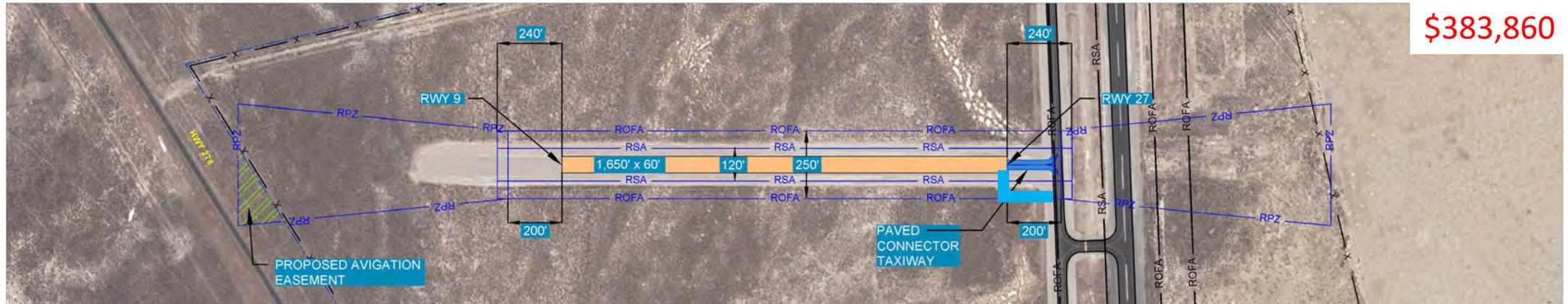
PROS:

- Does not cross Runway 18/36 or Taxiway A
- Paved connector will help mitigate potential FOD issues on Taxiway A
- RSA remains outside of drainage ditch eliminating the need for expensive grading and culvert construction

CONS:

- Incompatible land uses (Highway 278 and powerline) present in Runway 9 RPZ
- Avigation easement may be needed to protect Runway 9 RPZ from further incompatible uses.
- FOD will likely still be an issue at the Taxiway A access point.

ALT 3 – 1,650’ GRAVEL RUNWAY



PROS:

- Does not cross Runway 18/36 or Taxiway A
- Paved connector will help mitigate potential FOD issues on Taxiway A
- RSA remains outside of drainage ditch eliminating the need for expensive grading and culvert construction
- RPZs are clear of incompatible land uses

CONS:

- Short runway length will likely prevent use by most aircraft on hot days
- FOD will remain an issue at the Taxiway A access point

LANDSIDE/TERMINAL AREA ALTERNATIVES



FACILITY GOALS AND REQUIREMENTS

LANDSIDE/TERMINAL AREA

Facility Requirement:

- Address TLOFA penetrations by parked aircraft
- Provide a total of at least 9 tiedown parking locations
- Preserve existing fueling capabilities

Facility Goals

- Establish 1 dedicated helicopter parking position
- Identify hangar development lease areas
- Install security fence around terminal area
- Maintain existing vehicle access from HWY 278
- Provide additional vehicle parking as needed
- Establish municipal water service at the Airport



LANDSIDE/TERMINAL AREA NO-BUILD ALTERNATIVE

PROS:

- Minimal financial investment required
- The facility will continue to operate as it does currently

CONS:

- Inadequate taxiway clearances remain around aircraft tiedown areas
- Overhead powerlines remain as transitional surface obstacles
- Does not provide additional hangar storage
- Does not provide opportunities to generate additional revenue
- Failure to address non-standard conditions may jeopardize FAA grant assurances



LANDSIDE/TERMINAL AREA

- Build Alternatives Common Elements
 - Overhead powerlines on the apron are relocated underground and poles removed
 - Municipal water system is extended to Airport property
 - Previously planned and designed SRE building and apron area are included on the northwest corner of the main apron
 - Chain-link security fence and vehicle gates are proposed south and west of the terminal area and access drive

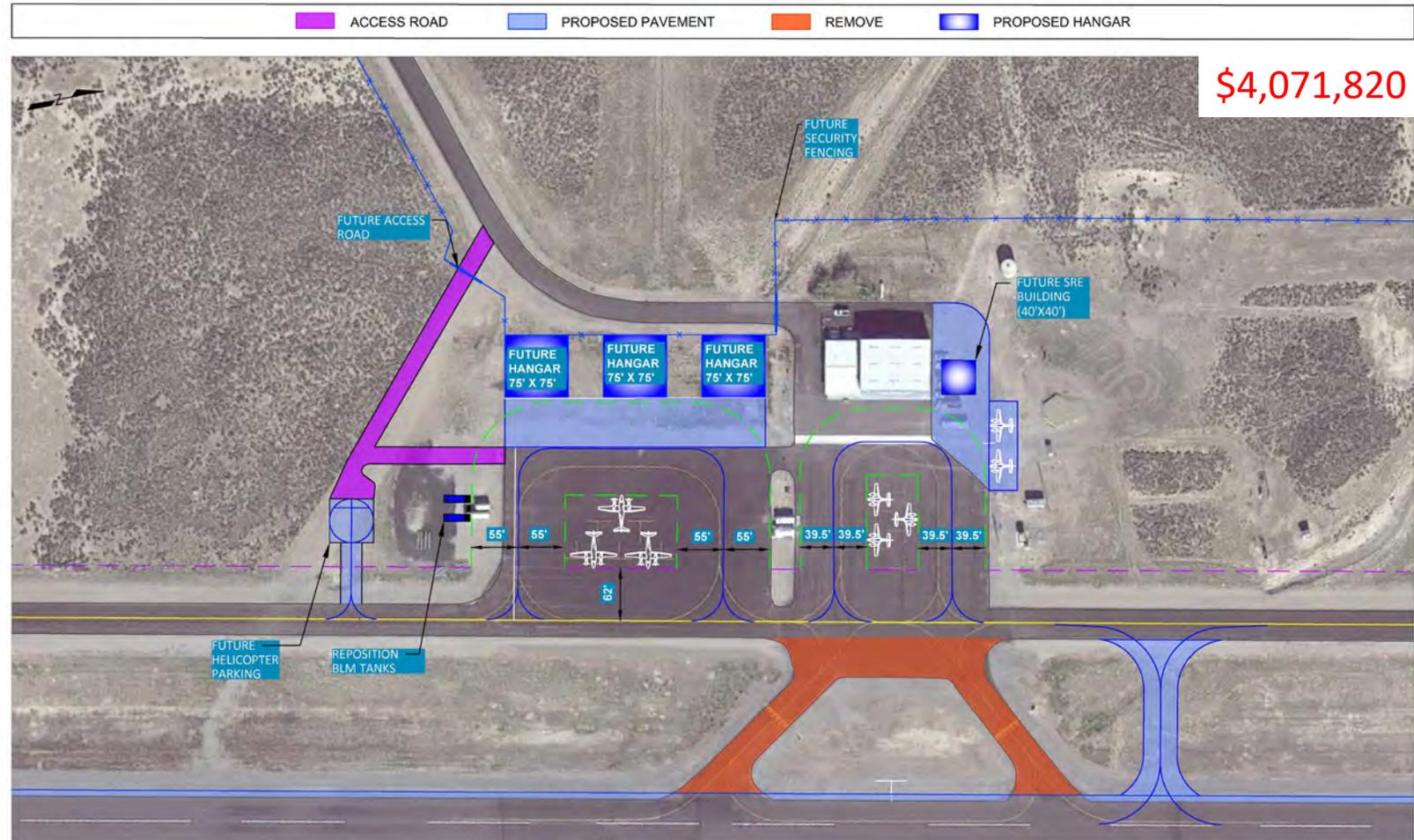
ALT I – RECONFIGURE EXISTING APRON WITH REMOTE HELICOPTER PARKING

PROS:

- Reconfigures aircraft parking and moves retardant tanks to address TLOFA clearance issues
- Separates helicopter and fixed wing parking areas
- Provides additional access to apron and helicopter parking area
- Proposed hangars provide revenue generating opportunity

CONS:

- Aircraft parked at retardant tanks would block access to the south taxiway
- Mid apron fuel areas is an inefficient use of apron space



ALT 2 – EXPAND EXISTING APRON WITH MULTI-USE FUEL AND HELICOPTER PARKING AREA

PROS:

- Reconfigures aircraft parking areas and moves retardant and fuel tanks to address TLOFA clearance issues
- Pull through ADG parking are convenient option for commercial/corporate operators
- Nested ADG I tiedowns can be used for ADG II aircraft
- Separates helicopter and fixed wing parking
- Proposed hangars and mixed use development reserve provide revenue generating opportunities
- Large south hangar's proximity to helicopter parking and vehicle access drive create a prime location for a future based medevac services provider

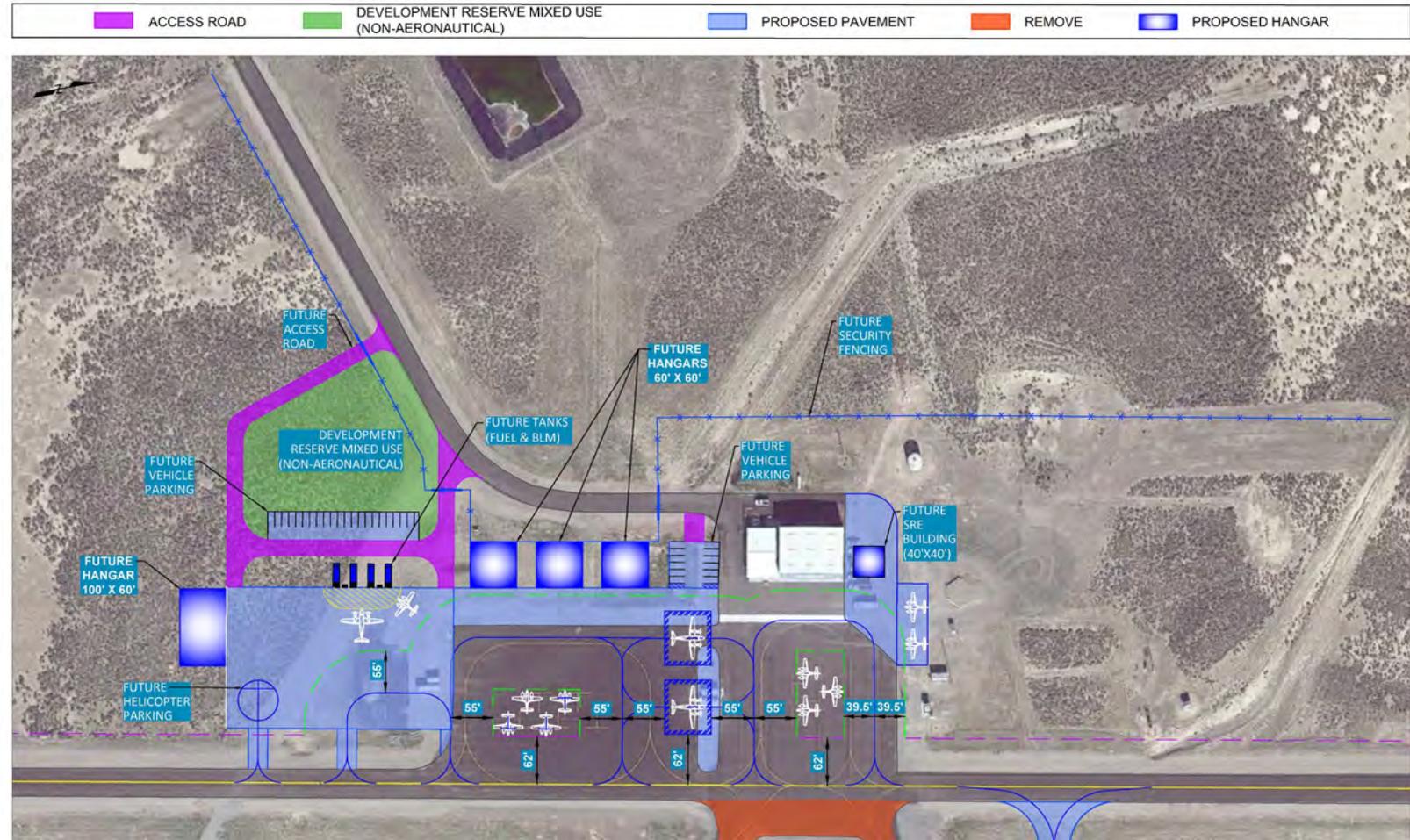


\$5,413,260

ALT 2 – EXPAND EXISTING APRON WITH MULTI-USE FUEL AND HELICOPTER PARKING AREA

CONS:

- Proposed pavement expansion would be expensive to construct
- Existing spill containment infrastructure would have to be extended to include relocated fuel and retardant tanks
- North taxilane limited to ADG I aircraft.



DISCUSSION

- What do you like?
- What do you not like?
- Other suggestions?

NEXT STEPS

- County will select and refine Preferred Alternative
- Update ALP Drawing Set
 - Followed by FAA Review
- Update CIP



QUESTIONS?

Jeb Rowley – jrowley@eurekacountynv.gov

Jonathan Lesperance – jlesperance@lumosinc.com

Mark Steele – msteele@centurywest.com

Mike Dane – mdane@centurywest.com

<https://www.eurekacountynv.gov/departments/public-works/eureka-county-airport/>