



# Long-Range Facilities and Sustainability Plan

## Palo Alto Airport

September 16, 2024

[www.cityofpaloalto.org](http://www.cityofpaloalto.org)



# INTRODUCTION & PURPOSE

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- March 23, 2023 – Council Study Session
- FAA planning process
  - Looking at the next 20 years for the airport
- Seeking feedback and input on alternatives
  - Preparing for electric aircraft/renewable energy future
  - Runway safety standards
  - Runway length alternatives
- Unleaded fuel status update and draft transition plan





## STEPS COMPLETED TO DATE

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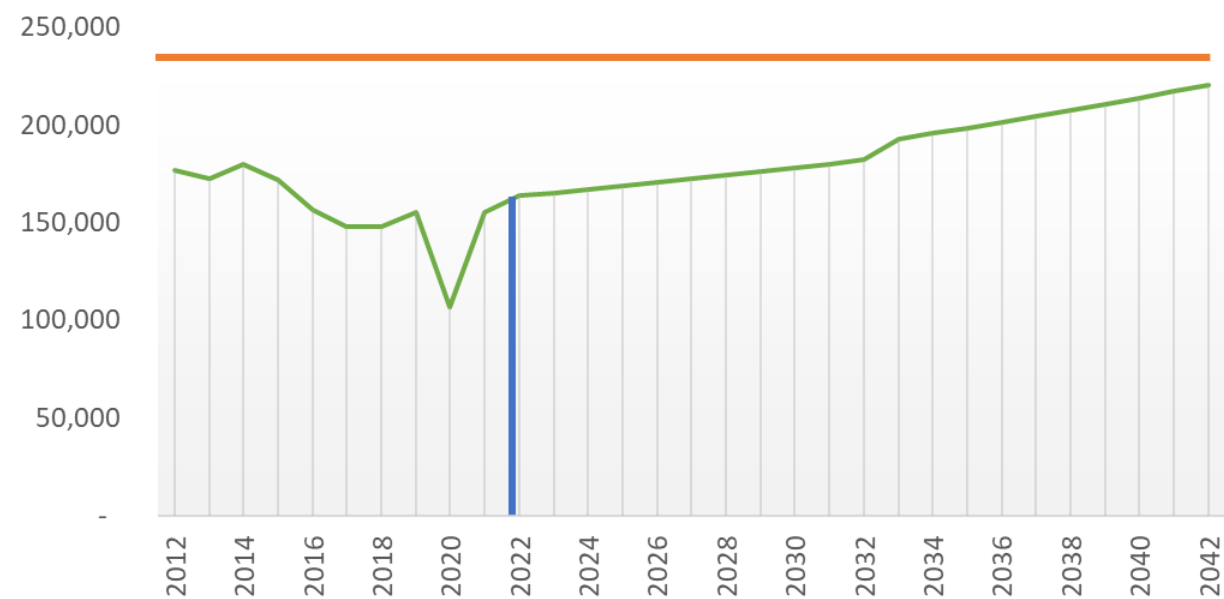
- Organized Sustainability Charrette
- Held five public meetings
- Completed Airport inventory
- Forecasted future operations and based aircraft
- Determined critical aircraft
  - Most demanding aircraft with at least 500 annual operations
- Determined potential improvements based on FAA criteria
- Developed planning alternatives incorporating potential improvements

# FORECAST & CRITICAL AIRCRAFT

2042 Forecasted Operations (takeoffs and landings): 220,372

Historical High in 1992: 232,798

Historical & Future Operations




## Critical Aircraft

BASED ON THE CRITICAL AIRCRAFT, PAO WILL BE DESIGNED TO THE FOLLOWING FAA DESIGN STANDARDS

**PILATUS PC-12**

AIRCRAFT APPROACH CATEGORY/AIRPLANE DESIGN GROUP	A-II SMALL
TAXIWAY DESIGN GROUP	1A

A CRITICAL AIRCRAFT IS DEFINED AS THE MOST DEMANDING AIRCRAFT TYPE OR GROUP WITH SIMILAR CHARACTERISTICS THAT MAKE REGULAR USE OF THE AIRPORT.



134  
SCALE  
CITY OF PALO ALTO

7-9 Passenger Turbo-Prop Aircraft

# POTENTIAL IMPROVEMENTS – RUNWAY SAFETY

Element	Existing	Potential Improvement	Sufficiency?
Runway Width	70 FT	75 FT	No - 5 FT deficient
Runway Safety Area (RSA)	Width = 120 Length Beyond Runway = 240 FT	Width = 150 FT Length Beyond Runway = 300 FT	Width = Yes Length beyond Runway = No - constraints due to grading/water
Runway Object Free Area (ROFA)	Width = 250 Length Beyond Runway = 240 FT	Width = 500 FT Length Beyond Runway = 300 FT	Width = No - would impact TWY Z, taxi-lanes, apron, wind cones, segmented circle, and AWOS Length Beyond Runway = No - Constraints due to grading/water
Runway - Taxiway Separation	140 FT	240 FT	No - Separation from TWY Z is 100 FT deficient
Runway Protection Zone	RPZs based on current runway ends meet standard, but locations may change based on the how other issues are addressed.		
Runway Length	2443 FT	3500 FT	No - 1,057 FT deficient - Constraints due to grading/water



## POTENTIAL IMPROVEMENTS – OTHER ISSUES

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- Relocate Terminal building
- Provide for future eVTOL
- Solar and microgrid locations
- Increase hangar spaces
- Levee alignment



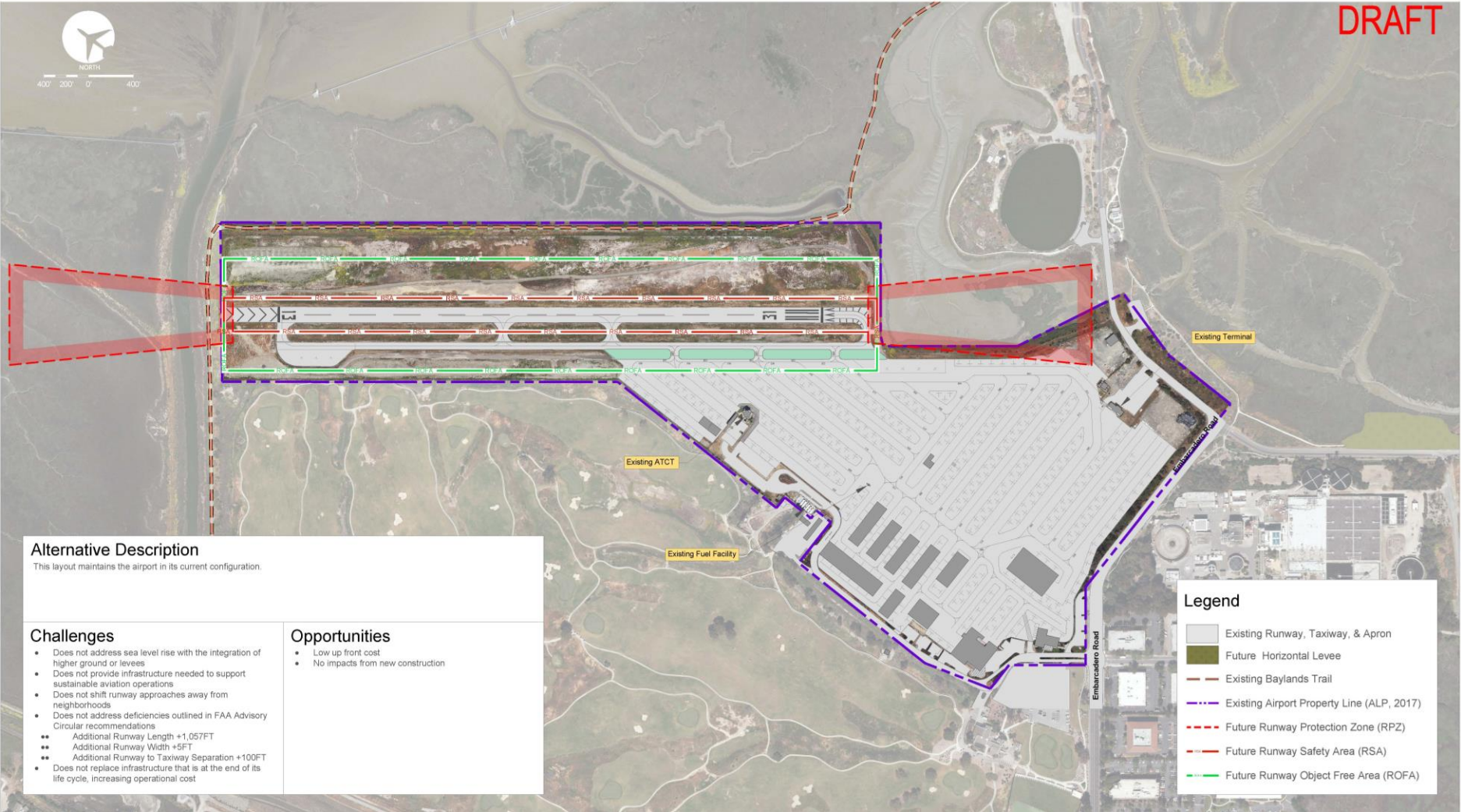
## ALTERNATIVES DEVELOPMENT

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- Mandated by FAA to develop alternatives incorporating potential improvements based on FAA safety criteria
  - Runway configuration and length
- Developed with potential improvements in mind
  - Efficiency, safety, and impact
  - Try to incorporate City plans
- No preferred alternative yet

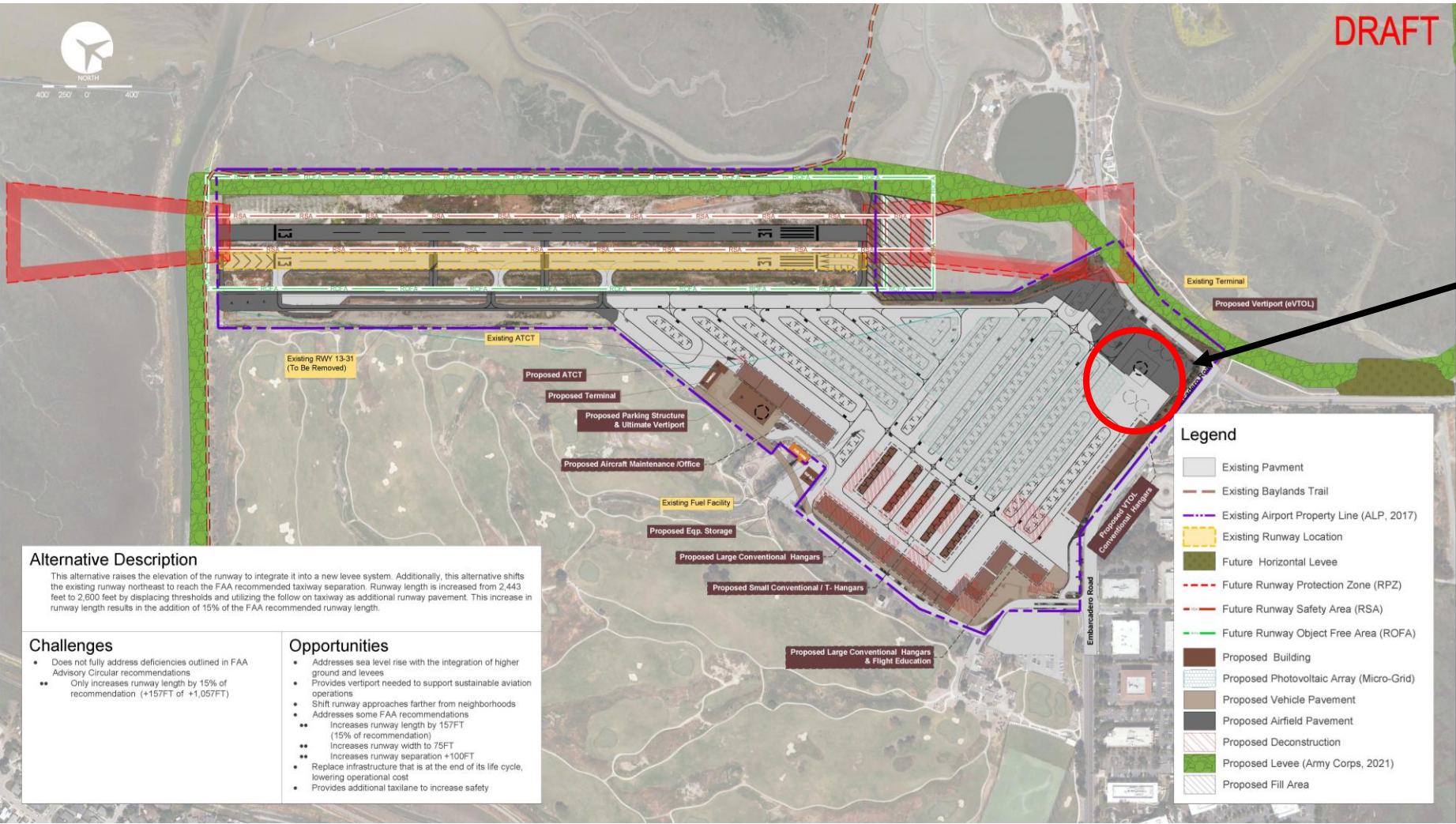


# ALTERNATIVE 1 – NO ACTION





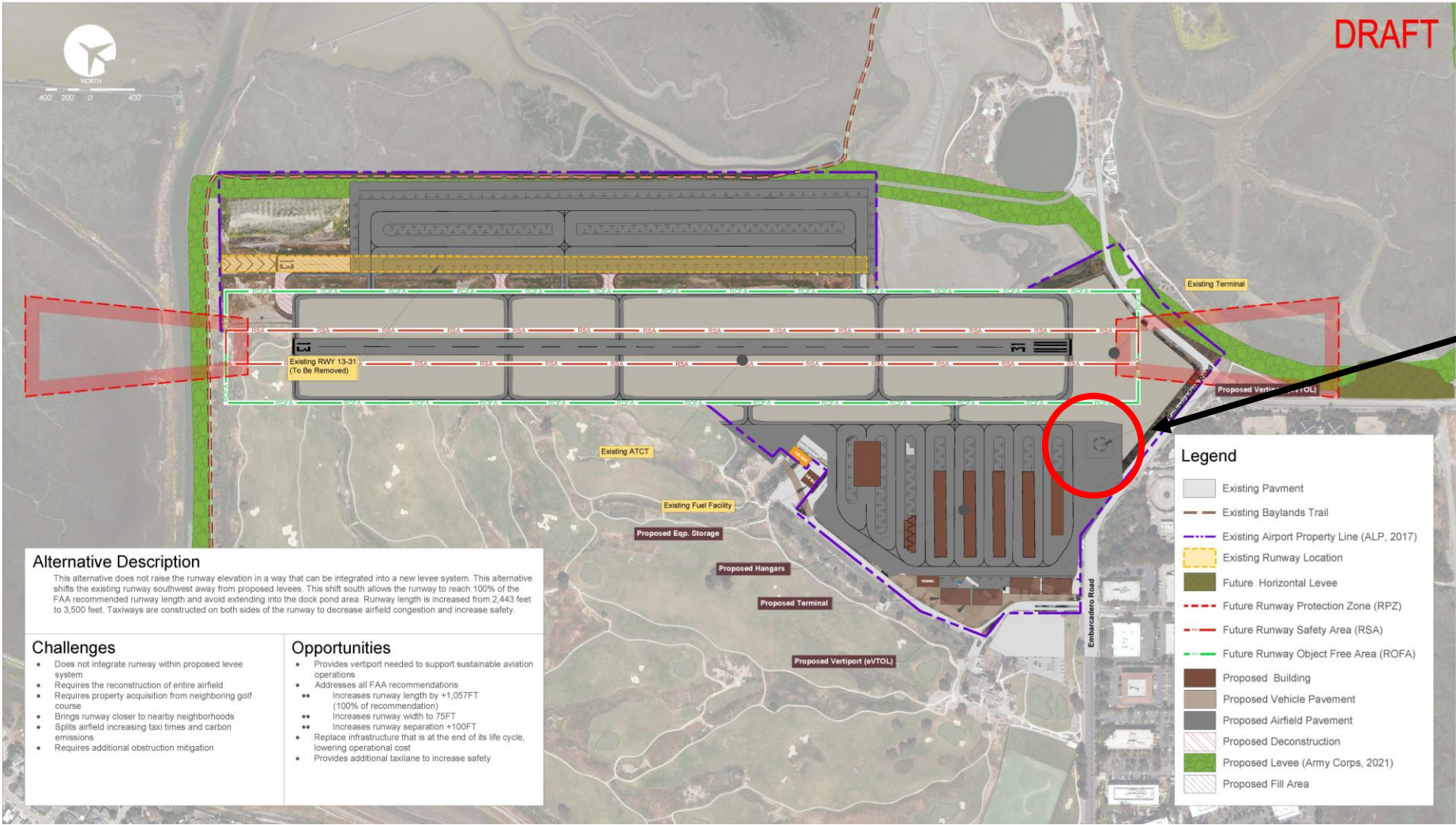
# ALTERNATIVE 2 – 2600 FT RUNWAY



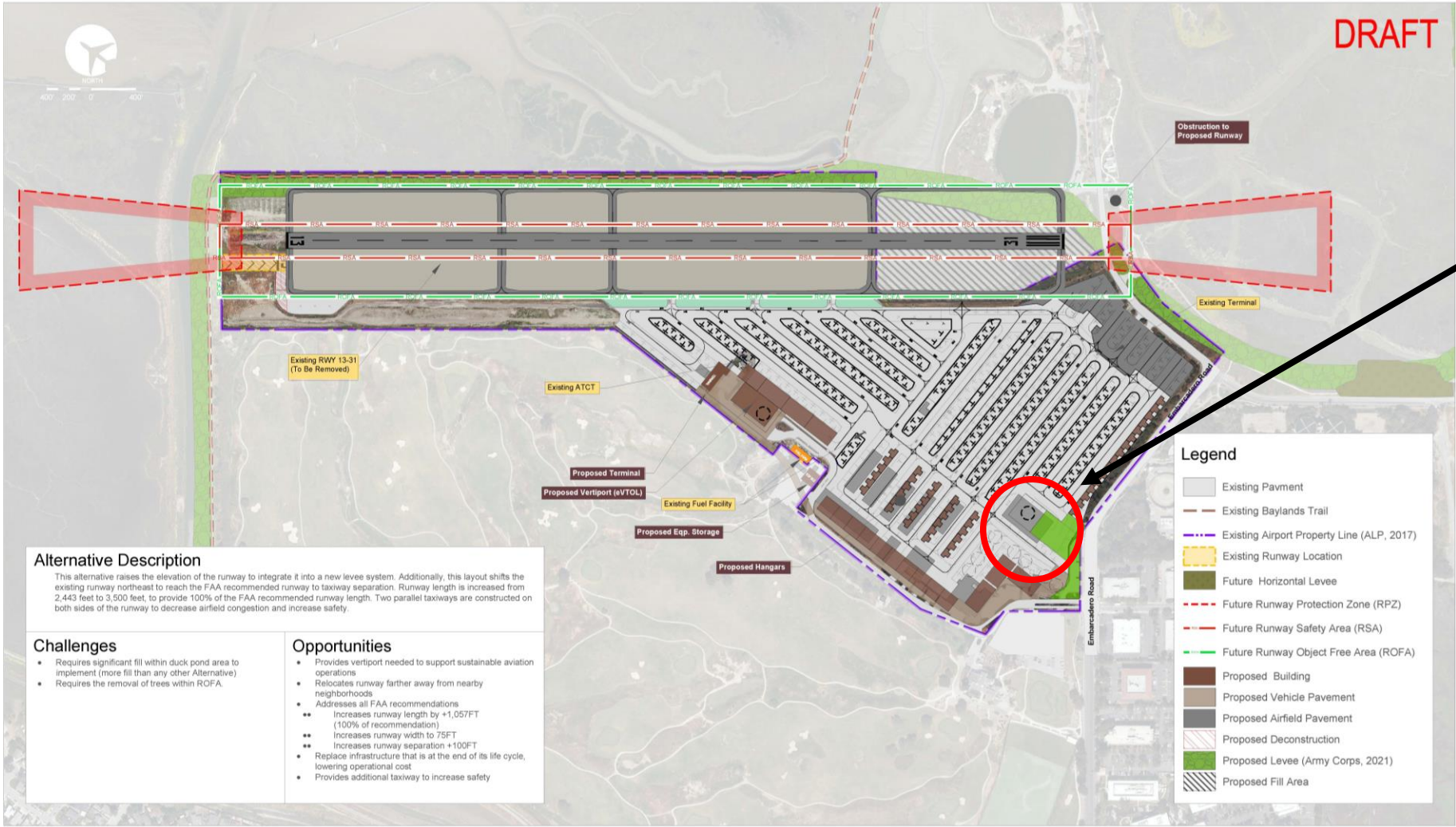
Future Vertiport



# ALTERNATIVE 3 – 3500 FT RUNWAY W/ SW SHIFT



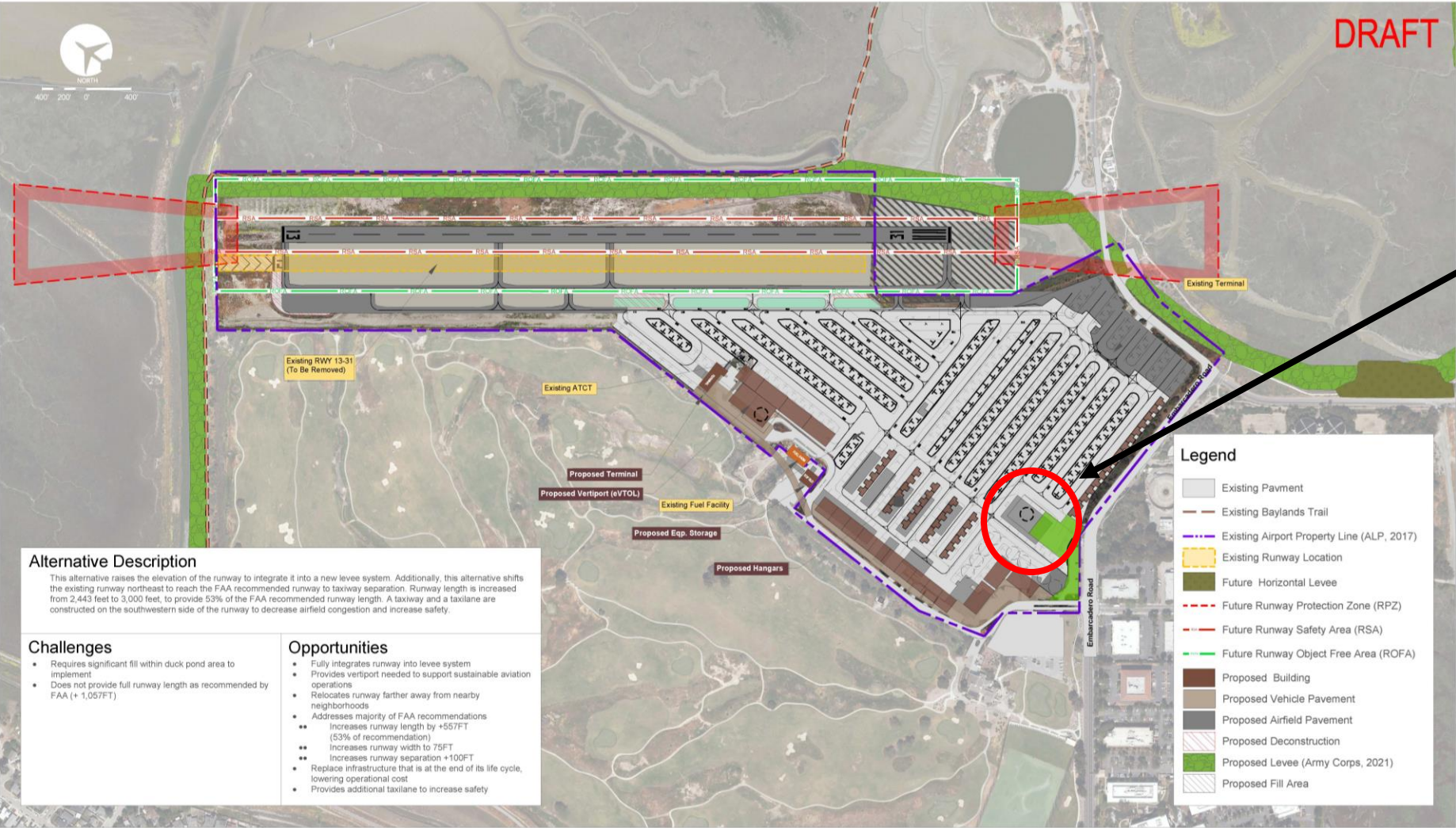
# ALTERNATIVE 4 – 3500 FT RUNWAY W/ NE SHIFT



Future Vertiport



# ALTERNATIVE 5 – 3000 FT RUNWAY W/ NE SHIFT



Future Vertiport



# COMMUNITY INPUT

- Interest from City of East Palo Alto, City of Menlo Park, Midpeninsula Open Space, Save Our Bay, California Pilots Association, Aircraft Owners and Pilots Association.
- Survey
  - 1523 Responses
- Petitions
  - Save the Palo Alto Baylands ([change.org](https://change.org))
  - Preserve the Palo Alto Baylands

Alternative Ranking	
Alternative 1 - No Action	43.3%
Alternative 2 - 2600 FT RWY with NE Shift	11.4%
Alternative 3 - 3500 FT RWY with SW Shift	4.1%
Alternative 4 - 3500 FT RWY with NE Shift	22.1%
Alternative 5 - 3000 FT RWY with NE Shift	6.2%
No answer provided	12.8%





# UNLEADED FUEL TRANSITION PLAN (draft)

## Phase 1 (2021 - Present)

- Surveyed pilots to gauge interest in unleaded avgas
- Retrofitted 10,000 gal tank to hold UL94
- Dedicated UL94 fuel truck
- Promoted use of UL94 with airport users
- Tracked fuel sales of UL94 and 100LL
- Tracked industry developments including unleaded 100-octane fuel
- Begin tracking fuel sales

## Phase 2 (Present - 2026)

- Initiate lead monitoring program
- Hire consultant to track regulatory changes
- Stakeholder/ community engagement
- Intensive educational and promotional campaign
- Track fuel sales of UL94 and 100LL and publicize results
- Continue efforts to bring unleaded 100 octane avgas to PAO
- Evaluate FBO agreements to address use of UL94
- Advocate for regulatory push to move full transition date forward
- Evaluate possibility to subsidize the price of UL94
- Consider applying additional fees to fuel flowage of 100LL to recover airport expenses from continued sale of 100LL.

## Phase 3 (2026-2030)

- Complete transition to unleaded 100 octane avgas
- If a suitable replacement fuel has not yet been developed or is not commercially available by 2026, the Airport will consider the following options:
  - Limit the sale of 100LL
  - Ban the sale of 100LL
  - Increase fees on sale of 100LL



## NEXT STEPS

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- Receive Council feedback to inform preferred alternative development
- Neighboring City Council presentations for consultation and feedback
- Develop a preferred alternative incorporating input received
- Plan additional public outreach, as appropriate
- Review and consider preferred alternative with City Council
- Implement fuel transition plan





## COUNCIL FEEDBACK REQUESTED

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- What should be included in a preferred alternative?
- Areas for feedback:
  - Preparing for electric aircraft/renewable energy future
  - Runway safety standards
  - Runway length alternatives



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