

Executive Summary Preferred Alternative

Introduction

The airport master plan's preliminary development alternatives were presented for public review and comment at a September 12, 2024, Planning Advisory Committee (PAC) meeting and public open house. Project-related comments and questions were provided both during the meetings and subsequently as part of the review process.

The preliminary alternatives included proposed improvements that corresponded to the FAA-approved aviation activity forecast (including the current and future design aircraft for each runway) and the associated facility requirements defined for the 20-year planning period at MMV.

Following the public presentations, the consultant team continued to work with airport management to refine the concepts presented. The draft Airport Alternatives Chapter (Chapter 5) was provided to PAC members for review in December 2024. Project materials were also posted on the City of McMinnville's airport master plan project website.

Based on the ongoing evaluation of the preliminary alternatives, elements of the preferred alternative began to emerge and additional refinement was completed. Another round of PAC review/input was provided for the information refined following draft Chapter 5.

The preliminary preferred alternative selected by the City of McMinnville represents a combination of improvements for each of the Airport's primary development areas based on the PAC and public input provided throughout the evaluation process. Public and PAC comments have continued to be accepted until the airport master plan is finalized. The recommended preferred alternative will be reviewed by the FAA Seattle ADO.

As noted in the alternatives chapter, the proposed improvements focused on the following area of the Airport:

- Airside (runway-taxiway system)
- West Development Area (new)
- Central Terminal Area (reconfigured, expanded)
- East Landside Area (new)

A brief summary of the preferred alternative elements is provided below with supporting graphics (**Executive Summary – Figure 1 through Figure 5**).

The alternatives chapter provides a full description of the process used to develop and evaluate preliminary alternatives that led to the preferred alternative. The components of the preferred alternative will be incorporated into the updated Airport Layout Plan (ALP) drawing set, presented in Chapter 7 and the master plan's 20-year Capital Improvement Program (CIP). Further refinement of the development concept is ongoing, as the ALP is updated. Once approved by FAA and the City of McMinnville, the 2025 ALP set, and the accompanying airport master plan, will replace the 2004 ALP and report.

Airside Facilities

RUNWAY-TAXIWAY SYSTEM

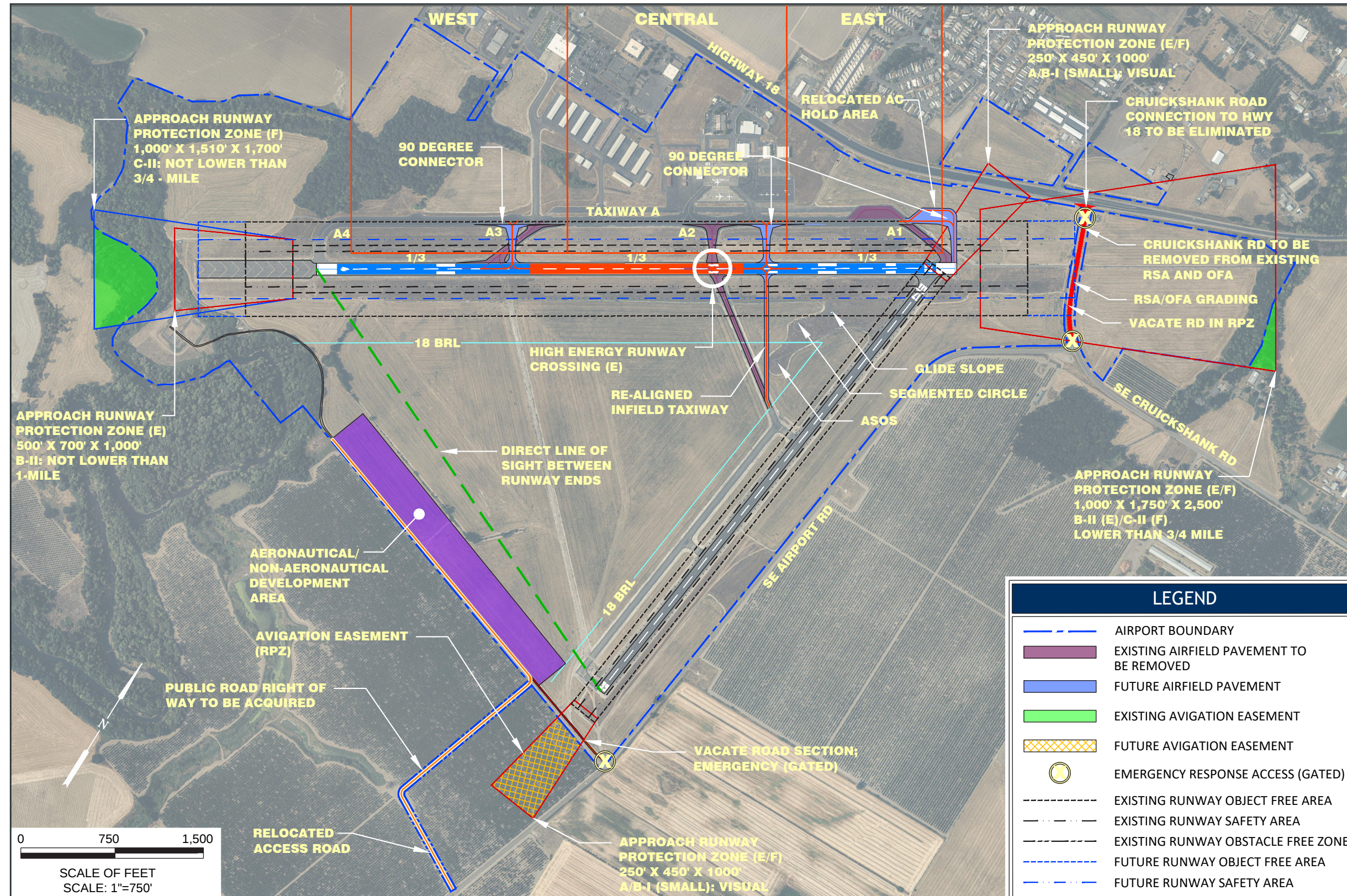
Figure 1 depicts the recommended airside improvements for the current 20-year planning period. No changes are recommended for Runway 4/22 and 17/35. Minor upgrades to Taxiway A and D are recommended for consistency with FAA design guidance. Periodic pavement maintenance and rehabilitations, and replacement/upgrade of aging lighting, signage, and navigational aids are anticipated in the current 20-year planning period. Several existing FAA-owned facilities (ILS localizer, glide slope, Runway 22 MALS-R approach lighting system) are expected to reach the end of their useful lives during the current planning period, and require replacement or decommissioning depending on the FAA funding policy in effect at the time.

Runway 4/22: RSA/OFA clearing and grading (future RDC C-II standard). The section of Cruickshank Road that crosses through the east end of the RSA and OFA and connects to Highway 18 will be closed and the surfaces will be graded and cleared (relocate road and fencing) to meet FAA standards.

Taxiway A Upgrades. Three exit taxiways (A3, A2, A1) are recommended for upgrades. Taxiway A1 and A3 will be reconfigured as 90-degree exit taxiways, and Taxiway A2 will be relocated outside of the middle one-third of Runway 4/22 to eliminate a “high-energy crossing” consistent with current FAA design guidance. The realignment of the north section of Taxiway D to connect with the relocated Taxiway A2 is also recommended.

Runway 22 Aircraft Hold Area. The existing aircraft hold area adjacent to Taxiway A1 is recommended to be relocated as part of the Taxiway A1 90-degree reconfiguration, to position aircraft closer to the new Taxiway A1 aircraft hold line.

Figure 1: Preferred Airside Improvements



Airside

Landside Facilities

WEST LANDSIDE AREA (NEW)

Figure 2 depicts the recommended west landside improvements for the current 20-year planning period.

The west landside area provides a small aeronautical development space near the northwest corner of the Airport that directly abuts the future Innovation Campus. Surface access to the area will be provided via Cumulus Avenue and frontage roads or through the adjacent campus itself (to be determined based on final campus design). Public access to the Airport's Galen McBee Park is maintained through relocation of the trailhead and public parking area to the west side of the park. The section of SE Armory Way south of the armory will be closed and vacated to allow construction of a new access taxiway. New roadway access is proposed on the west side of the development area.

It is noted that the hangar sizes are provided to demonstrate the ability of the site to accommodate aircraft storage while providing aircraft taxilane access that meets FAA standards. The development of the west landside area may be completed in increments or as a full build project defined by tenants.

Access Taxiway Extension. The existing taxiway that provides access to the west T-hangar area and the Precision Air apron is extended west to reach the new development area. This taxiway and an adjacent aircraft pull out are designed to accommodate ADG II aircraft.

Transient Aircraft Parking Apron. An apron with space to accommodate 2 to 3 business class aircraft or a larger number of small aircraft. The new west apron loop taxilane is designed to accommodate ADG II aircraft.

Hangar Sites. Development sites for hangars (ADG II and ADG I aircraft). As depicted, four multi-unit hangars (approximately 100,000 square feet) are located adjacent to the new apron with approximately 6 large aircraft units and 12 small aircraft units. The smaller hangar sites are accessed by an ADG I stub taxilane that extends from the southwest corner of the west apron.

An additional hangar development area is identified near the intersection of the existing west hangar taxiway and the adjacent on- and off-airport hangars. As depicted, a new hangar development (approximately 24,000 square feet) is located south of the Precision apron/north of the proposed aircraft pull out, and on the north end of the T-hangars Hotel, India, Juliet, and Kilo. Four existing hangar stub taxilanes are extended to access the hangar sites. An access road extends from the new south end of SW Armory Way to the hangar areas.

The precise configuration, sizes, and footprints of hangars will be determined by future tenants, but the layout defines the buildable areas and a taxilane system that works with the constrained site. The hangar sites are located adjacent to ADG II/I taxilanes, and minimum development setbacks are determined by the applicable taxilane object free area (TLOFA) boundary.

New Landside and Park Vehicle/Pedestrian Access. As depicted, a new roadway is extended along the western edge of Airport property to provide access to hangar sites, the transient apron, and the public park. Two vehicle parking areas are proposed.

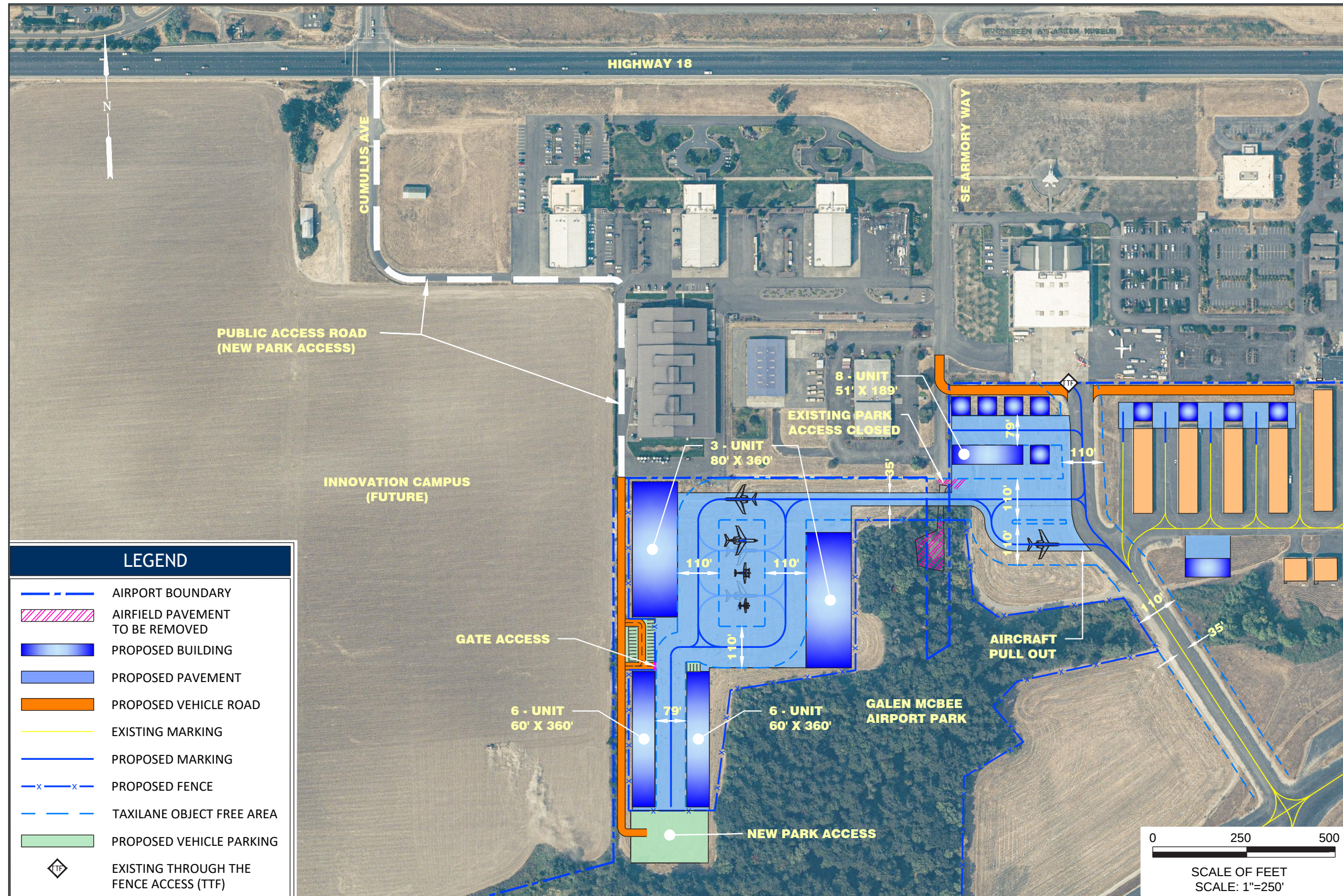
CENTRAL TERMINAL AREA (RECONFIGURED, EXPANDED)

The central terminal area is the primary location at MMV for transient and local aircraft services including parking, fueling and hangar storage. The primary development focus in the central terminal area is to expand parking capacity for transient business aircraft by expanding the main apron and to provide adequate space for future fixed base operator (FBO) or general aviation terminal building, and support facilities expansion. The anticipated development for this area is incremental, and likely to be implemented in phases based on demand and funding availability. The recommended central terminal area improvements are divided into two primary phases to identify significant features, although actual development increments may vary.

Phase 1 concentrates on the area immediately west of the main apron. Phase 2 continues to extend the planned development to the north, from the west end of the expanded (Phase 1) main apron. Several city-owned existing hangars, and the associated apron and taxiway pavements will be removed to accommodate the redevelopment.

It was noted earlier in the master plan that the asphalt apron and taxiway pavements located adjacent to the west side of the main apron are in poor condition, and these pavements would require significant rehabilitation or reconstruction if they were maintained for current use. The timeline for the actual implementation for the main apron area expansion/redevelopment will be determined by project priorities, environmental evaluations, and funding availability. The timing of pavement repair for the existing pavements versus main apron expansion will be determined by airport management. If interim pavement work is completed, it is recommended that it be compatible with the planned main apron expansion to avoid or minimize “throw-away” projects.

Figure 2: West Landside – Preferred Alternative



West Landside Area

CENTRAL TERMINAL AREA - PHASE 1

Figure 3 depicts the Phase 1 improvements recommended for the central terminal area for the current 20-year planning period.

Hangar removal required for this phase includes seven city-owned structures:

- Four open front conventional hangars
- One 6-unit T-hangar (Charlie)
- Two Quonset hangars (west and east)

The hangars are removed to accommodate the expanded and reconfigured apron. Airport management expects displaced aircraft to be accommodated in other available hangar space, on the east tiedown apron, and in new hangars to be constructed in other areas of the Airport. The original concept did not remove the eastern Quonset hangar until Phase 2. PAC input suggested that both Quonset hangars be removed in Phase 1.

An east-west row of drive-through business aircraft (ADG II) parking positions is established in conjunction with the main apron being expanded to the west. As depicted, four large ADG II aircraft parking positions are provided, although the row could accommodate up to 6 to 7 aircraft with a combination of ADG I and II aircraft. The parking row is divided into east and west sections to accommodate access to the aircraft fueling area (additional information provided below). The eastern-most parking positions are located directly opposite the existing FBO building. This configuration provides approximately 500 feet of useable aircraft parking row frontage and a clear 110 feet in the center of the row to accommodate the fuel access taxilane (ADG II Taxilane OFA).

The recommended central terminal area configuration includes a refinement that allows the existing aircraft fuel storage tanks and aircraft fueling positions to be maintained in their current location in Phase 1. Access to the existing aircraft fueling area is provided by a dedicated north-south stub taxilane that extends from the south side of the main apron. Dual loop taxilanes are located on either side of the fuel access taxilane and fueling area. All of the designated transient aircraft parking positions and the fuel access taxilane tie into the apron's loop taxilane system and the reconfigured Taxiway B and C connections.

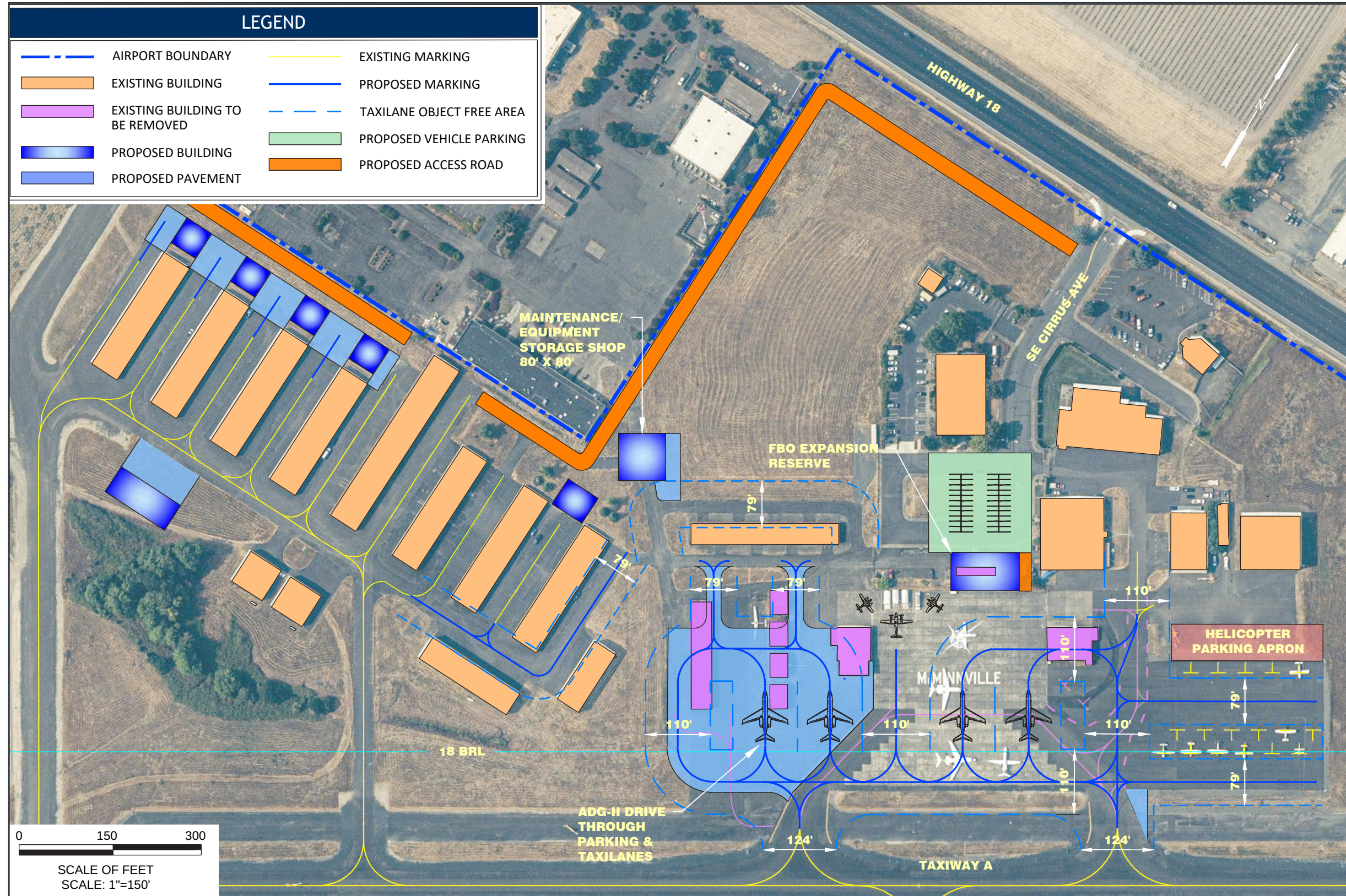
Relocating the fueling facilities is maintained as an option in Phase 2, although the Phase 1 configuration can also be permanent, if desired. This refinement considers the significant cost involved in relocating the fuel tanks and the aircraft fueling positions before the first increment of apron expansion. Fuel system projects of this kind are not typically funded by FAA and would require significant local funding (city or tenant).

The existing FBO building can be expanded or replaced on its existing site. A new vehicle parking area is proposed located inside the existing loop access road the connects to SE Cirrus Avenue.

A new internal roadway has been added to provide access to the west hangar area through the central terminal area. This improvement eliminates the current access route/gate near the fuel area to avoid vehicle traffic through the expanded main apron area. The new road will connect to SE Cirrus Avenue and also provide access to future development areas identified in Phase 2 near the north end of the terminal area.

Other refinements include an additional aircraft storage hangar located at the north end of the taxilane between the Delta and Echo T-hangars and a new airport maintenance shop located adjacent to the west hangar area and expanded main apron. Surface access to the new buildings is provided by the new internal roadway described above. A pavement connection to the main apron is required for equipment access.

Figure 3: Central Landside – Preferred Alternative (Phase 1)



Central Landside

CENTRAL TERMINAL AREA - PHASE 2

Figure 4 depicts the Phase 2 improvements recommended for the central terminal area for the current 20-year planning period.

This phase builds on the Phase 1 apron expansion, by extending the main apron northward. The concept retains most of the east-west parking row, and adds a (reoriented) north-south parking row on the west side of the main apron. As noted earlier, reorienting the transient aircraft parking row north-south is the best fit for the physical space provided by the site to maximize long term aircraft parking capacity in the central terminal area.

As with Phase 1, this phase of redevelopment requires removal of an existing city-owned hangar to accommodate apron expansion:

- 8-unit T-hangar (City Owned – Hangar Alpha)

Airport management expects displaced aircraft to be accommodated in other available hangar space, on the east tiedown apron, and in new hangars to be constructed in other areas of the Airport. The ADG II north-south access taxilane to the fueling area included in Phase 1 may be maintained or eliminated. For illustration purposes, the ultimate configuration is depicted with the fuel tanks and dispensing area relocated 75 feet north, and the dedicated north-south access taxilane eliminated. Development of the depicted future electrical aircraft charging facilities is compatible with both the existing and relocated fuel tank locations.

The north-south row of ADG II drive-through aircraft parking row extends north from the west end of the main apron. Phase 2 provides approximately 1,000 feet of ADG II drive-through aircraft parking frontage in the main apron's north-south and east-west rows (assuming the Phase 1 fueling access stub taxilane is removed). As depicted, eight large ADG II aircraft parking positions are provided, although the rows could accommodate additional aircraft with a combination of ADG I and II aircraft.

If the north-south fueling area access stub taxilane is maintained, approximately 875 feet of ADG II parking frontage is provided. The Phase 2 apron expansion may also be divided into smaller northern expansion increments, depending on funding availability. MMV accommodates a wide range of transient business aircraft included in ADG I (wingspans up to 49') and ADG II (wingspans up to 79').

The reconfigured Taxiway C from Phase 1 is extended northward to form the eastern leg of the ADG II loop taxilane developed to provide access to the north-south aircraft parking row; the western leg of the taxilane loop extends along the west side of the parking row.

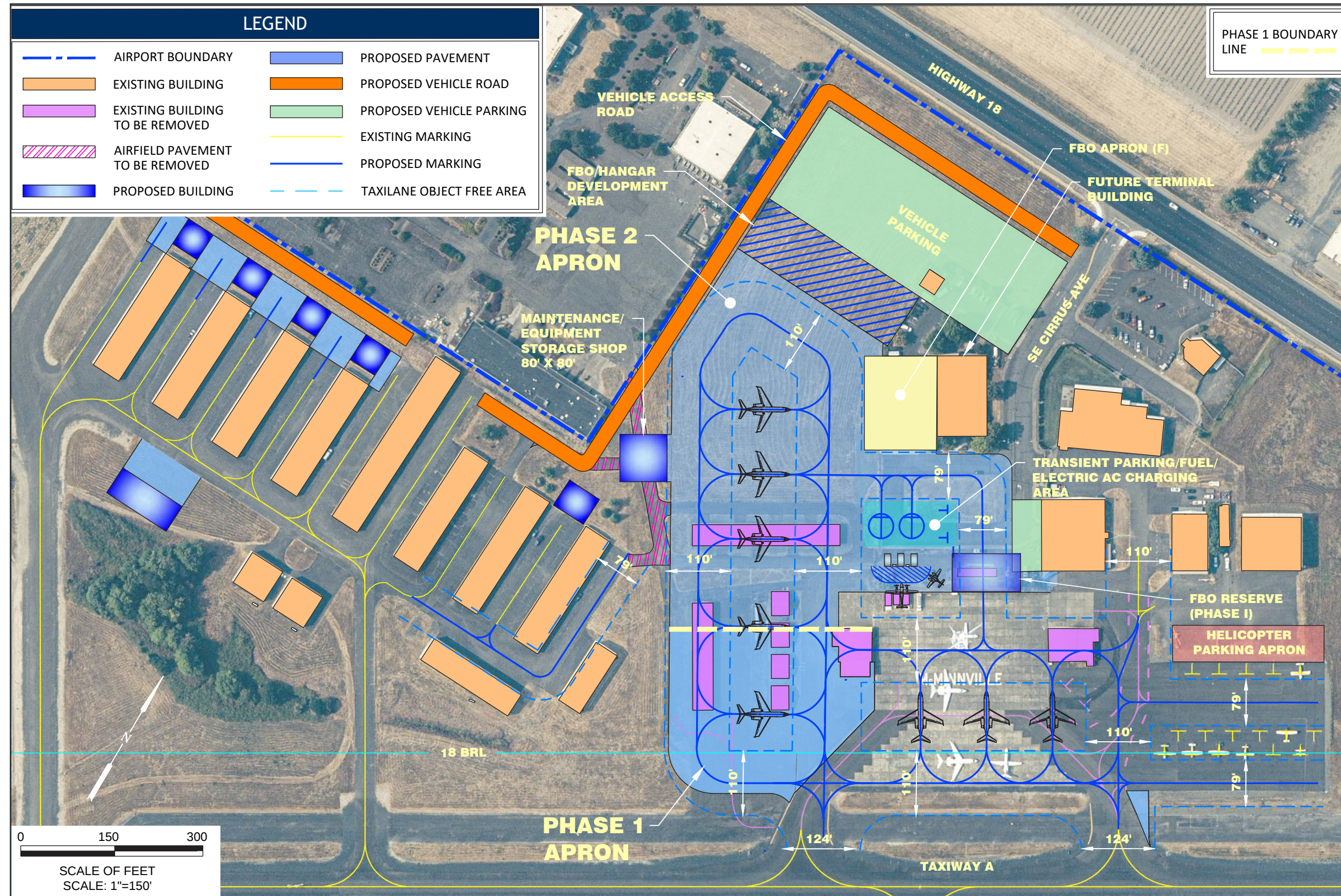
The Phase 2 apron expansion provides opportunities for landside development/redevelopment within the terminal area between Cirrus Avenue and the former Evergreen Aviation complex. Several conceptual elements are identified to support large aircraft use. The city-owned building currently leased to the Oregon State Patrol (OSP), is identified for potential redevelopment into an aviation use facility. A development site for future hangar or fixed base operator (FBO) is located at the north end of Phase 2 apron.

Two new aprons are proposed near the northeast corner of the Phase 2 apron:

- The aircraft fueling/charging area apron is located north of the existing fuel storage tanks. The terminal area vehicle parking lot identified in Phase 1 will be reduced in size to accommodate the new apron and additional vehicle parking is located in the terminal area. This apron would be accessed from the main apron's north-south ADG II taxilane with an ADG I taxilane extending along the north side of the aircraft fueling/charging apron. A long term option is available to extend the ADG I taxilane around the east side of the fueling/charging area and connect to the Phase 2 taxilane on the existing main apron, if the current FBO building site is relocated elsewhere in the central terminal area.
- A new apron area is added to the west side of the OSP-leased building. The apron would connect to the Phase 2 transient aircraft parking apron and ADG II taxilanes. The apron would support a fixed base operator (FBO) building or a general aviation (GA) terminal. This apron would be located immediately north of the future electric charging/aircraft apron and ADG I taxilane.

A new vehicle parking area is located on the north side of the OSP building, with direct access to Cirrus Avenue and Highway 18. This parking area also supports a new west hangar access road and the future term development of large hangars or an FBO building at the north end of the apron.

Figure 4: Central Landside – Preferred Alternative (Phase 2)



Central Landside

EAST LANDSIDE AREA (NEW)

Figure 5 depicts the recommended east landside improvements for the current 20-year planning period.

The future development of the east landside area concentrates on adding aircraft storage hangars and small aircraft parking east of the current terminal area development. The recommended improvements reflect the combination of elements selected by airport management, with PAC and user input, from the preliminary East Landside Area Alternatives 1 through 4. The recommended configuration is most similar to Alternative 4, with additional refinements added to accommodate ADG II aircraft. The development of the east landside area may be completed in increments based on demand and availability of funding.

As noted in the preliminary alternatives, the east landside area is a triangular shaped site, formed by Highway 18, Taxiway A, and the east end of Runway 4/22. New taxilane connections are required to provide aircraft access to, and within the hangar area.

The precise configuration, sizes, and footprints of hangars will be determined by future tenants, but the layout defines the buildable areas and a taxilane system that works with the constrained site. The hangar sites are located adjacent to ADG I/II taxilanes, and minimum development setbacks are determined by the applicable taxilane object free area (TLOFA) boundary.

General site improvements, drainage, surface access, and utility extensions are required to develop buildable hangar sites. Existing stormwater drainage swales will require relocation and expansion for new development.

Access Taxilanes. A new ADG II taxilane connects the east landside area to Taxiway A. The additional taxilane allows aircraft to access new hangar sites and the east tiedown apron without taxiing through the main apron area on Taxiway B or C. The access taxilane extends from Taxiway A to the north end of the east landside area. An ADG II taxilane extends to the northwest and southeast from the north end of the main taxilane to provide access to a row of four (80'x80' or 80'x100') conventional hangars and a multi-unit hangar. The expanded tiedown apron and the eastern three rows of hangars are served by ADG I taxilanes. Additional taxilanes extend east of the main taxilane to hangars and the expanded aircraft tiedown apron.

Transient Aircraft Parking Apron. The existing east tiedown apron is extended to the east, with a configuration that accommodates the new north-south main access taxilane for the east landside area that connects to Taxiway A. The option provides 9 small airplane tiedowns in the dual sided (north-south) parking row. The layout also shows the option of converting 5 existing south-facing tiedowns at the north edge of the existing tiedown apron to helicopter parking that can be accessed from the north or south. As depicted, the reconfigured east apron has 21 small airplane tiedowns east of Taxiway B and the main apron.

Hangar Sites. The site configuration includes a mix of hangar types and sizes for ADG I and II aircraft. Approximately 70,000 square feet of new hangar space is depicted in the east landside area, with individual hangar spaces ranging from approximately 1,300 to 8,000 square feet. The buildings include standard conventional hangars and multi-unit hangars.

As depicted, four medium/large conventional hangars (80'x80'; 80'x100') are located along the north airport property line. The north hangar row is served by a new access road and an ADG II taxilane. Three multi-unit hangar rows are located east of the north hangar row, including two 6-unit T-hangars and one 9-unit carousel hangar. The T-hangars depicted have 44.5' and 47.5' door widths. The carousel hangar is a typical design for small aircraft with three aircraft per unit. Alternatively, the carousel hangar could be developed as a 3-unit conventional hangar with a common roof and divided spaces.

A site for a new aircraft maintenance hangar is located adjacent to existing apron and hangars located north of the east tiedown apron. This hangar site can be developed without new taxilane access with a west-facing door fronted by the existing apron.

Hangar Access Road. The existing vehicle access and parking in this area is upgraded and expanded. A new 840-foot service roadway is extended from SE Nimbus Loop along the northern edge of airport property to provide access to hangar sites. Expanded vehicle parking areas are located adjacent to existing and future hangars.

Figure 5: East Landside – Preferred Alternative



East Landside