

# Camarillo Airport



## ALP Update and Narrative Report

### Chapter 5

## Capital Improvement Program (CIP)

The analyses completed in previous chapters evaluated development needs at Camarillo Airport (CMA) based on forecast activity, operational efficiency, and meeting Federal Aviation Administration (FAA) design standards. The aviation demand forecasts are required to cover a period of 20 years; however, the capital plan for this ALP Update is focused on the first 5- 10 years.

The presentation of the capital improvement program (CIP) has been organized into two sections. First, the airport development schedule and CIP cost estimates are presented in narrative and graphic form. Second, potential capital improvement funding sources on the federal, state, and local levels are identified and discussed.

The CIP is an important list of potential projects for which the airport sponsor may seek grant funding. Some identified projects may not occur in the timeframe identified for a variety of reasons, including a lack of funding or a change in priorities. Nonetheless, the list of projects is a guide for airport management over the next 10+ years of capital projects to consider. Every year, airport management (in consultation with FAA) will revise and prioritize the CIP project list. Some projects may be removed from the list and new projects not previously identified may be added. While the CIP list is fluid, this study documents the list as of January 2024.



**Table 5A** summarizes the aviation demand forecasts and key planning horizon milestones for this study.

**TABLE 5A | Planning Horizon Summary**

	2022	Short Term (Years 1-5)	Intermediate Term (Years 6-10)	Long Term (Years 11-20)
<b>BASED AIRCRAFT</b>	<b>350</b>	<b>371</b>	<b>389</b>	<b>444</b>
<b>ANNUAL OPERATIONS</b>				
<b><i>Itinerant Operations</i></b>				
General Aviation	79,760	84,546	88,648	101,181
Air Taxi	3,220	3,578	4,400	5,225
Military	488	476	476	476
<i>Subtotal Itinerant Operations</i>	<b>83,468</b>	<b>88,599</b>	<b>93,523</b>	<b>106,882</b>
<b><i>Local Operations</i></b>				
General Aviation	103,490	103,849	105,578	109,201
Military	118	89	89	89
<i>Subtotal Local Operations</i>	<b>103,608</b>	<b>103,938</b>	<b>105,667</b>	<b>109,290</b>
<b>TOTAL OPERATIONS</b>	<b>187,076</b>	<b>192,538</b>	<b>199,191</b>	<b>216,172</b>

*Source: Coffman Associates analysis*

## AIRPORT DEVELOPMENT SCHEDULES AND COST SUMMARIES

In the previous chapter a consolidated preferred concept was put forth in Exhibit 4E. This exhibit showed a sequence of approaching pavement maintenance, rehabilitation, and reconstruction projects, as well as other improvements to the airfield system.

Exhibit 4E showed several locations for potential future hangar development intended to address existing demand. This includes several T-hangar structures in the northeast quadrant of the airport. Depiction of the future T-hangars reflects the current thinking of airport management for development of this area. Other areas considered for future development do not show specific hangar layouts because history has shown that actual development and demand may be different than what is shown. For example, while a 50-foot by 50-foot layout may be shown on a plan, rarely do actual developer needs follow this specific footprint. Therefore, the development concept for CMA to be shown on the Airport Layout Plan (ALP) will not include hangar buildings (other than the T-hangars). Instead, the areas where hangars are most appropriate will be shown as future aeronautical development.

The exhibit also showed several areas for potential redevelopment. Redevelopment is common at more mature airports. Hangar facilities often exceed their useful life, show significant signs of deterioration, and no longer meet modern design standards such as those mandated by the American with Disabilities Act.

The next step in the ALP Update process is to determine a realistic schedule (implementation timeline) and associated cost estimates for the plan. Some projects are based on demand materializing as indicated by the forecasts. If the demand does not occur as anticipated, airport management may have to adjust the project implementation timeline to address actual demand. Other projects are regulatory in nature (e.g., pavement maintenance) and can proceed on a more predictable timetable.

While this ALP Update has a shorter time horizon (5-10 years) than a master plan (20 years), the CIP for this study has been extended so that nearly all existing pavement surfaces (runway/taxiway/apron) are identified for a preservation project in the future. There are two pavement projects planned that would represent new aircraft movement surfaces. One is a second taxiway leading to the northeast quadrant of the airport, and the second is a redesign of Taxiway E and the holding apron to meet the most recent FAA design standards.

Because this study is a conceptual planning document, implementation of the capital projects should only be undertaken after further refinement of their design and costs through engineering analyses. Moreover, some projects may require additional infrastructure improvements (e.g., roads, drainage improvements, extension of utilities, etc.) that may take more than one year to complete. In addition, the airport capital improvement plan (ACIP) is updated on an annual basis in coordination with FAA; therefore, project priorities and timelines may change from year to year. As projects are completed, the ACIP is then populated with projects identified in the overall CIP included in this ALP Update.

At this juncture, it is difficult to know precisely what the cost of individual projects will be, but preparing order-of-magnitude cost estimates is an effective way to get an understanding of the current costs. Many federal agencies utilize a system of five classes of estimates, as presented in **Table 5B**.

**TABLE 5B | Cost Estimate Classification**

Estimate Class	Name	Purpose	Project Definition Level
Class 5	Order of Magnitude	Screening or Feasibility	0% to 2%
Class 4	Intermediate	Concept Study or Feasibility	1% to 15%
Class 3	Preliminary	Budget, Authorization, or Control	10% to 40%
Class 2	Substantive	Control or Bid/Tender	30% to 70%
Class 1	Definitive	Check Estimate or Bid/Tender	50% to 100%

*Source: U.S. Department of Energy*

Once the list of necessary projects was identified and refined, project-specific cost estimates were developed. The cost estimates include environmental documentation, design, engineering, construction administration, and contingencies that may arise on the project. Capital costs presented here should be viewed only as estimates subject to further refinement during design. Nevertheless, these estimates are considered sufficient for planning purposes. Order of magnitude cost estimates were developed based on recent airport construction costs in the region, and each of the development projects in the CIP are in current (2023) dollars. **Exhibit 5A** presents the proposed CIP for Camarillo Airport.

These projects are primarily focused on airfield maintenance and preservation that are eligible for FAA grant funding. There are likely other projects the airport may undertake that are either not eligible for FAA funding or FAA funding is not available in the timeframe needed by the airport. Examples may include non-FAA eligible pavements, facility maintenance, third-party development consistent with the guidance in the ALP Update, and non-aviation business park projects.

FAA utilizes a priority ranking system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, standards, and capacity enhancement. FAA will participate in the highest priority projects before considering lower priority projects, even if a lower priority project is considered a more urgent need by the local sponsor. Nonetheless, the project should remain a priority for the airport, and funding support should continue to be requested in subsequent years.

No.	FY	Project Phase	Project	Federal	State	Local	Project Total
1	2024	Final Design	Runway and Taxiway Reconstruction	\$3,660,435	\$150,000	\$256,716	\$4,067,151
2	2025	NA	No CMA Project (NP). Rollover Entitlements/BIL Funding	-	-	-	-
3	2026	Construction	Runway Reconstruction	\$40,161,941	\$150,000	\$4,312,438	\$44,624,379
4	2027	Construction	Taxiway Connectors Reconstruction (Inc. RIM fix at Twy A)	\$28,705,423	\$150,000	\$3,039,492	\$31,894,915
5	2028	Design	Concrete Rehabilitation for Taxiways F, G1	\$324,000	\$18,000	\$18,000	\$360,000
6	2028	Design	Key Area and Main Apron Rehabilitation	\$255,150	\$14,175	\$14,175	\$283,500
7	2029	NA	No CMA Project (NP). Roll Over Entitlements	-	-	-	-
8	2030	Construction	Concrete Rehabilitation for Taxiways F, G1	\$1,836,000	\$102,000	\$102,000	\$2,040,000
9	2030	Construction	Key Area and Main Apron Rehabilitation	\$1,445,850	\$80,325	\$80,325	\$1,606,500
10	2031	Design	Taxiway G4 (Parallel to Taxiway G1)	\$166,050	\$9,225	\$9,225	\$184,500
11	2032	Construction	Taxiway G4 (Parallel to Taxiway G1)	\$940,950	\$52,275	\$52,275	\$1,045,500
12	2032	Design	T-Hangar Taxilanes (Northeast)	\$247,253	\$13,736	\$13,736	\$274,725
13	2033	Construction	T-Hangar Taxilanes (Northeast)	\$1,401,098	\$77,839	\$77,839	\$1,556,775
14	2033	Design	General Aviation Apron Rehabilitation	\$133,650	\$7,425	\$7,425	\$148,500
15	2034	Construction	General Aviation Apron Rehabilitation	\$757,350	\$42,075	\$42,075	\$841,500
16	2034	Planning	Airport Master Plan Update (NP)	\$900,000	\$50,000	\$50,000	\$1,000,000
17	2035	Design	Rehabilitate Taxiway G, G2, G3, NE Taxilane	\$540,000	\$30,000	\$30,000	\$600,000
18	2035	Design	Rehabilitate Key Area Asphalt	\$129,600	\$7,200	\$7,200	\$144,000
19	2036	Construction	Rehabilitate Taxiway G, G2, G3, NE Taxilane	\$3,060,000	\$170,000	\$170,000	\$3,400,000
20	2036	Construction	Rehabilitate Key Area Asphalt	\$734,400	\$40,800	\$40,800	\$816,000
21	2037	Design	Reconstruct Twy H, West Hold Bays, Taxiway E	\$2,268,000	\$126,000	\$126,000	\$2,520,000
22	2037	Construction	Reconstruct Twy H, West Hold Bays, Taxiway E	\$12,852,000	\$714,000	\$714,000	\$14,280,000
23	2039	Design	Taxiway Connectors Reconstruction (Bet. Twy H & F)	\$413,100	\$22,950	\$22,950	\$459,000
24	2040	Construction	Taxiway Connectors Reconstruction (Bet. Twy H & F)	\$2,340,900	\$130,050	\$130,050	\$2,601,000
<b>TOTAL</b>				<b>\$103,273,149</b>	<b>\$2,158,075</b>	<b>\$9,316,721</b>	<b>\$114,747,945</b>



The most important feature of the CIP is that future projects for which the airport may request FAA funding are included on the list. Projects on the CIP will be moved up and down depending on priority and funding availability. Periodically, new projects will arise that can then be added to the annual CIP presented to the FAA.

Hangar and associated infrastructure (apron, parking, etc.) construction is assumed to be undertaken by the private sector and is, therefore, not reflected in the CIP. It is typical for private hangar development to include a portion of the ramp area in front of the hangar. Taxilanes providing access to/from hangar areas are generally eligible for FAA grant funding unless they are exclusive use taxilanes. Many airports will also prepare development sites by extending utility mains, but that is not required. The airport can undertake hangar construction should they choose.

It is important to note that the ALP Update identifies projects that will be eligible for FAA funding and that the Department of Airports expects to seek grant funding assistance within the next 5-10 years. With that in mind, the Department of Airports will be primarily focused on the reconstruction of the runway in the next 5-7 years, which is the highest priority.

Other development or redevelopment projects may be proposed by third parties on land leased from the Airport during this same period. Since such projects are unknown before they are proposed and funded by others, the timing and costs cannot be included in the CIP. However, their locations would be limited to the areas identified on Exhibit 4E, Preferred Concept, for future aeronautical or non-aeronautical development as appropriate.

The following sections will describe in greater detail the projects identified for the airport. **Exhibit 5B** is a map of the airport with the location of each project outlined and color coded.

## CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL

### **Project #1: Runway and Taxiway Reconstruction – Final Design**

**Description:** Final design grant for a project that will fully reconstruct Runway 8-26. The reconstruction project consists of pavement removal, subgrade preparation and treatment, placement of aggregate base, asphalt paving, runway grooving, pavement marking, drainage improvements, and electrical improvements. The runway will be 100 feet wide and 6,000 feet long. The taxiway portion of this design project is the taxiway connectors from the runway to the intersection with parallel Taxiway H. The connecting taxiways are Taxiways A, B, C, D, and E. The connecting taxiways are being designed to meet the current standard to provide for 90-degree intersections, when possible. Taxiway A is being redesigned to include holding bays that meet the current design standards. The redesign of Taxiway A is intended to mitigate potential pilot confusion with the current hold bay design that led to this location being included on the FAA's Runway Incursion Mitigation (RIM) program.

**Cost Estimate:** \$4,067,151

**Fiscal Year:** 2024

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #2: No CMA Project**

**Description:** No project utilizing federal grant funds is planned for fiscal year 2025. Available funds will be carried over and applied to a subsequent project year.

**Cost Estimate:** NA

**Fiscal Year:** 2025

**Funding Eligibility:** NA

**Project #3: Runway Reconstruction - Construction**

**Description:** Runway 8-26 was constructed in several sections, dating back to 1942. Other than periodically seal coats, no rehabilitation has been performed since the runway was overlaid in 1998. A visual condition survey was conducted in 2015 and published in 2016. At that time, the runway was found to be in 'Satisfactory' condition with the pavement sections falling with a Pavement Condition Index (PCI) of 70-85. However, the pavement condition survey was undertaken shortly after a slurry seal project in 2014. Based on geotechnical analysis, non-destructive testing, and PCN evaluation performed in 2017, it was determined that the runway is structurally insufficient, and a reconstruction was recommended. The reconstruction consists of pavement removal, subgrade preparation and treatment, placement of aggregate base, asphalt paving, runway grooving, pavement marking, drainage improvements, and electrical improvements. Reconstruction of the runway includes approximately 112,000 square yards of pavement.

**Cost Estimate:** \$44,624,379

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #4: Taxiway Connectors Reconstruction (Twys A, B, C, D, E) - Construction**

**Description:** The taxiway connectors were constructed in various phases dating back to 1951. Other than seal coats and isolated repairs, no rehabilitation has been performed on the taxiways since the 1990s. The taxiways were also examined as part of the 2015 pavement condition survey and found to be in 'Satisfactory' condition with the pavement sections falling with a Pavement Condition Index (PCI) of 70-85. Like the runway, the survey was performed shortly after a 2014 slurry seal project. The PCN evaluation performed in 2017 indicated that a majority of the taxiways are structurally insufficient, and reconstruction was recommended. The taxiway reconstruction project consists of pavement removal, subgrade preparation and treatment, placement of aggregate base, asphalt paving, runway grooving, pavement marking, drainage improvements, and electrical improvements for Taxiways A, B, C, and D. Taxiway E is planned for a rehabilitation, not full-depth replacement. Taxiways B, C, and D will be reconstructed to meet the 90-degree intersection standard. The taxiway construction is approximately 42,000 square yards of pavement.

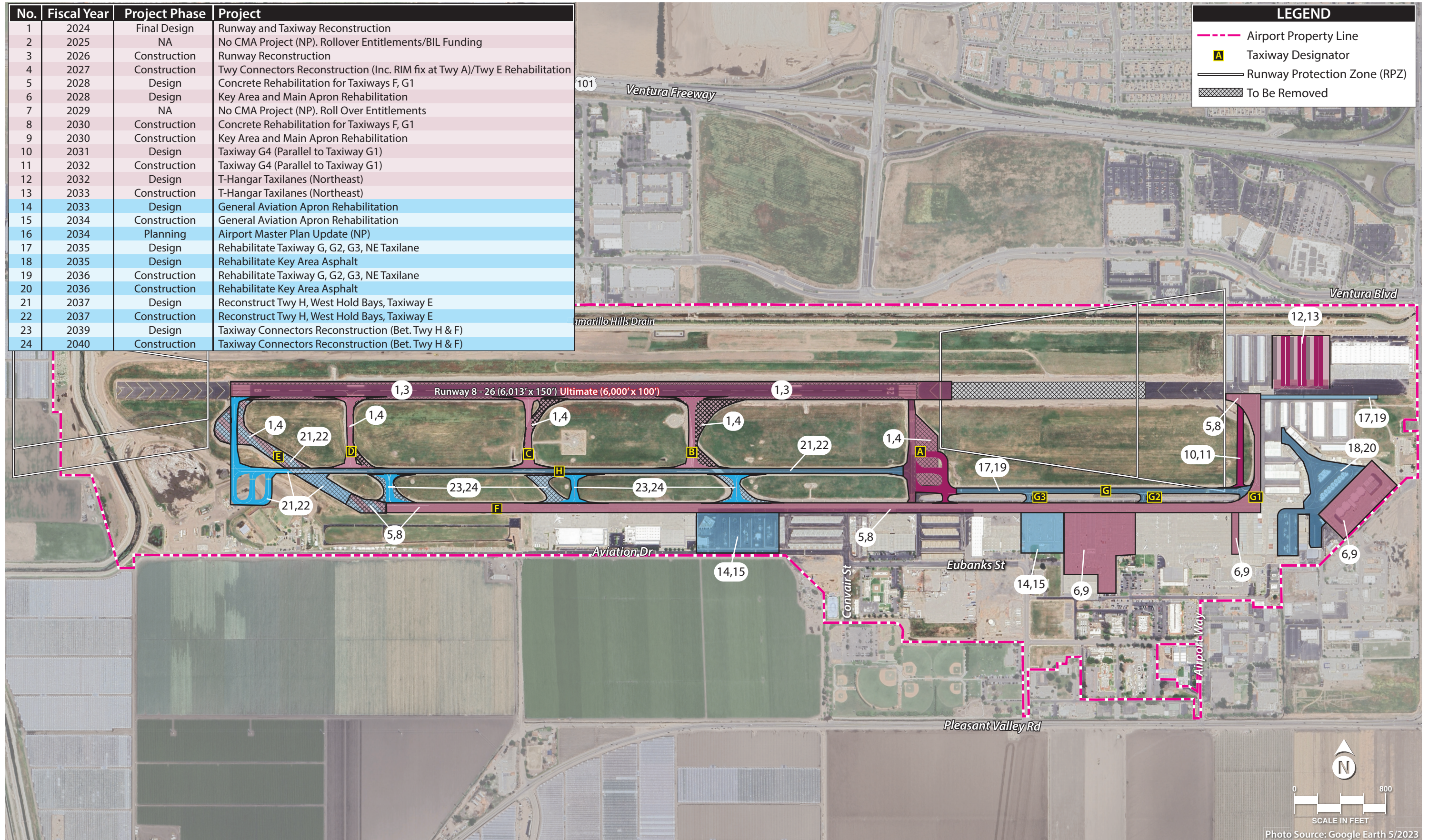
Taxiway A has also been identified by FAA as a runway incursion risk and it is included in the FAA's Runway Incursion Mitigation (RIM) program. Inclusion in the RIM program indicates that a project to improve the geometry is a high priority for FAA. In addition, new hold bay design standards are to be applied.

**Cost Estimate:** \$31,894,915

**Fiscal Year:** 2027

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

No.	Fiscal Year	Project Phase	Project
1	2024	Final Design	Runway and Taxiway Reconstruction
2	2025	NA	No CMA Project (NP). Rollover Entitlements/BIL Funding
3	2026	Construction	Runway Reconstruction
4	2027	Construction	Twy Connectors Reconstruction (Inc. RIM fix at Twy A)/Twy E Rehabilitation
5	2028	Design	Concrete Rehabilitation for Taxiways F, G1
6	2028	Design	Key Area and Main Apron Rehabilitation
7	2029	NA	No CMA Project (NP). Roll Over Entitlements
8	2030	Construction	Concrete Rehabilitation for Taxiways F, G1
9	2030	Construction	Key Area and Main Apron Rehabilitation
10	2031	Design	Taxiway G4 (Parallel to Taxiway G1)
11	2032	Construction	Taxiway G4 (Parallel to Taxiway G1)
12	2032	Design	T-Hangar Taxilanes (Northeast)
13	2033	Construction	T-Hangar Taxilanes (Northeast)
14	2033	Design	General Aviation Apron Rehabilitation
15	2034	Construction	General Aviation Apron Rehabilitation
16	2034	Planning	Airport Master Plan Update (NP)
17	2035	Design	Rehabilitate Taxiway G, G2, G3, NE Taxilane
18	2035	Design	Rehabilitate Key Area Asphalt
19	2036	Construction	Rehabilitate Taxiway G, G2, G3, NE Taxilane
20	2036	Construction	Rehabilitate Key Area Asphalt
21	2037	Design	Reconstruct Twy H, West Hold Bays, Taxiway E
22	2037	Construction	Reconstruct Twy H, West Hold Bays, Taxiway E
23	2039	Design	Taxiway Connectors Reconstruction (Bet. Twy H & F)
24	2040	Construction	Taxiway Connectors Reconstruction (Bet. Twy H & F)



NP: Not Pictured

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**Project #5: Concrete Rehabilitation for Taxiways G1 and F - Design**

**Description:** This project is for necessary repairs on Taxiways F and G1. It encompasses approximately 80,000 s.y. of pavement area.

**Cost Estimate:** \$360,000

**Fiscal Year:** 2028

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #6: Key Area and Main Apron Rehabilitation - Design**

**Description:** This project repairs portions of the concrete pavement in the Key Area as well as portions of the main apron that are not under lease (or will be under lease). The two areas encompass approximately 63,000 s.y. of pavement.

**Cost Estimate:** \$283,500

**Fiscal Year:** 2028

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #7: No CMA Project**

**Description:** No project utilizing federal grant funds is planned for fiscal year 2029. Available funds will be carried over and applied to a subsequent project year.

**Cost Estimate:** NA

**Fiscal Year:** 2029

**Funding Eligibility:** NA

**Project #8: Concrete Rehabilitation for Taxiways G1 and F - Construction**

**Description:** This project is for necessary repairs on Taxiways F and G1. It encompasses approximately 80,000 s.y. of pavement area.

**Cost Estimate:** \$2,040,000

**Fiscal Year:** 2030

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #9: Key Area and Main Apron Rehabilitation - Construction**

**Description:** This project repairs portions of the concrete pavement in the Key Area as well as portions of the main apron that are not under lease (or will be under lease). The two areas encompass approximately 63,000 s.y.

**Cost Estimate:** \$1,606,500

**Fiscal Year:** 2030

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #10: Taxiway G4 (Parallel to Taxiway G1) - Design**

**Description:** As more aircraft need ingress and egress to the northeast quadrant of the airport, there is greater potential for congestion and head-to-head aircraft conflicts. This project will establish a second parallel taxiway. Approximately 4,100 s.y. of new pavement is planned.

**Cost Estimate:** \$184,500

**Fiscal Year:** 2031

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #11: Taxiway G4 (Parallel to Taxiway G1) - Construction**

**Description:** This is a construction element of the parallel taxiway to facilitate aircraft ingress and egress to the northeast quadrant of the airport. Approximately 4,100 s.y. of new pavement is planned.

**Cost Estimate:** \$1,045,500

**Fiscal Year:** 2032

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #12: T-Hangar Taxiways (Northeast) - Design**

**Description:** The airport owns and operates two nested T-hangar structures and a connected box hangar structure in the northeast quadrant of the airport. This project is the design for taxiways to support the construction of three more T-hangar structures and one more connected box hangar structure to the immediate east of the current T-hangars. This type of hangar size is intended for smaller general aviation aircraft. The project encompasses approximately 9,900 s.y.

**Cost Estimate:** \$274,725

**Fiscal Year:** 2032

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #13: T-Hangar Taxiways (Northeast) - Construction**

**Description:** This is the construction element of the taxiways to serve new T-hangar and connected box hangar development in the northeast quadrant of the airport.

**Cost Estimate:** \$1,556,775

**Fiscal Year:** 2033

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #14: General Aviation Apron Rehabilitation - Design**

**Description:** This is for the design of those asphalt portions of the Key Area and the main general aviation apron that are planned for rehabilitation. The combined area is approximately 33,000 s.y.

**Cost Estimate:** \$148,500

**Fiscal Year:** 2033

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #15: General Aviation Apron Rehabilitation - Construction**

**Description:** This is the construction element of the rehabilitation of the asphalt portions of the Key Area and the main general aviation apron. The combined area is approximately 33,000 s.y.

**Cost Estimate:** \$841,500

**Fiscal Year:** 2034

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #16: Airport Master Plan Update**

**Description:** The FAA periodically requires airports to update their local planning documents and the airport layout plan. The current master plan was adopted in 2011. This ALP Update meets the minimum FAA requirements to update the ALP. By 2034, it will be time to revisit all the assumptions of the 2009 master plan and this ALP Update.

**Cost Estimate:** \$1,000,000

**Fiscal Year:** 2034

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #17: Rehabilitate Taxiways G, G2, G3, and NE Taxilane - Design**

**Description:** The design phase for the pavement reconstruction of these taxiways and taxilanes planned for a timeframe, when necessary, based on projected condition. The area is approximately 20,000 s.y.

**Cost Estimate:** \$600,000

**Fiscal Year:** 2035

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #18: Rehabilitate Key Area Asphalt - Design**

**Description:** This project is anticipated to be a mill and overlay project to preserve the asphalt in the Key Area. Additional condition analysis may be required as the timeframe approaches. The area encompasses approximately 32,000 s.y.

**Cost Estimate:** \$144,000

**Fiscal Year:** 2035

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #19: Rehabilitate Taxiways G, G2, G3, and NE Taxilane - Construction**

**Description:** The construction phase for the pavement reconstruction of these taxiways and taxilanes planned for a timeframe, when necessary, based on projected condition. The area is approximately 20,000 s.y.

**Cost Estimate:** \$3,400,000

**Fiscal Year:** 2036

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #20: Rehabilitation Key Area Asphalt - Construction**

**Description:** This is the construction element of planned mill and overlay project to preserve the asphalt in the Key Area. Additional condition analysis may be required as the timeframe approaches. The area encompasses approximately 32,000 s.y.

**Cost Estimate:** \$816,000

**Fiscal Year:** 2036

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #21: Reconstruct Taxiway H, Construct West Hold Bays, and Reorient Taxiway E - Design**

**Description:** This project is the design element for the reconstruction of Taxiway H. The portion west of existing Taxiway E is planned to be extended so that Taxiway E can be reconstructed and reoriented to provide 90-degree access to the runway end. The project also includes a new aircraft holding bay that meets current FAA design standards. The holding bay is sized to accommodate the critical aircraft. The pavement area is approximately 56,000 s.y.

**Cost Estimate:** \$2,520,000

**Fiscal Year:** 2037

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #22: Reconstruct Taxiway H, Construct West Hold Bays, and Reorient Taxiway E - Construction**

**Description:** This is the construction phase of Taxiway H/E/Hold Bay project.

**Cost Estimate:** \$14,280,000

**Fiscal Year:** 2037

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #23: Taxiway Connector Reconstruction (Between Taxiways H & F) - Design**

**Description:** The taxiway connectors between Taxiways F and H are of non-standard geometry in that they are angled and contain wide expanses of pavement. This project would reconstruct these taxiway segments and reorient them to 90-degree intersections, per FAA design guidelines. The three taxiway segments encompass approximately 10,200 s.y. of pavement. The old taxiways will be removed.

**Cost Estimate:** \$459,000

**Fiscal Year:** 2039

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

**Project #24: Taxiway Connector Reconstruction (Between Taxiways H & F) – Construction**

**Description:** This is the construction element of project number 23, the redesign of Taxiways B, C, D between Taxiways F and H.

**Cost Estimate:** \$2,601,000

**Fiscal Year:** 2040

**Funding Eligibility:** This project is eligible for 90 percent FAA AIP funding and Caltrans five percent AIP match.

## CAPITAL IMPROVEMENT SUMMARY

The CIP is intended as a road map of airport pavement preservation and improvement to help guide the airport sponsor, FAA, and state aviation officials on needed projects. The plan as presented will meet the forecast demand outlined in this study. The capital program timeframe presented extends beyond the typical timeframe for an ALP Update, which is five to 10 years. The goal is to show a plan to address maintenance of every surface for which the airport is responsible. The sequence of projects will likely change due to availability of funds or changing priorities in the years to come. In addition, other projects not anticipated during this study may arise and should then be added to the airport ACIP. Nonetheless, this is a comprehensive list of capital pavement maintenance and improvement projects the airport should consider.

The total CIP is estimated at approximately \$114.7 million. The share eligible for FAA funding is estimated at \$103.3 million. State eligibility is estimated at \$2.2 million, and the remaining local share is estimated at \$9.3 million.

## CAPITAL IMPROVEMENT FUNDING SOURCES

There are generally three sources of funds used to finance general aviation airport development:

- Airport cash flows
- Federal/state/local grants
- Revenue and general obligation bonds

Access to these sources of financing varies widely among airports. Some large airports maintain substantial cash reserves, and smaller commercial service and general aviation airports often require subsidies from local governments to fund operating expenses and finance modest improvements. The Camarillo Airport has historically operated in the black with a positive net cash flow and outstanding cash reserves.

Financing capital improvements at CMA will not rely solely on the financial resources of the airport operator, Ventura County. Capital improvement funding is available through various grant-in-aid programs on both the federal and state levels. Historically, the airport has received federal and state grants. While more funds could be available for some years, the CIP was developed with project phasing to remain realistic and within the range of anticipated grant assistance. The following discussion outlines key sources of funding potentially available for capital improvements at the airport.

## FEDERAL GRANTS

Through federal legislation over the years, various grant-in-aid programs have been established to develop and maintain a system of public-use airports across the United States. The purpose of this system and its federally based funding is to maintain national defense and promote interstate commerce. The *FAA Modernization and Reform Act of 2012*, enacted on February 17, 2012, authorized the FAA's AIP at \$3.35 billion for fiscal years 2012 through 2015. The law was then extended through a series of continuing resolutions. In 2016, Congress passed legislation (H.R. 636, *FAA Extension, Safety, and Security Act of*

2016) amending the law to expire on September 30, 2017. Subsequently, Congress passed a bill (H.R. 3823, *Disaster Tax Relief and Airport and Airway Extension Act of 2017*) authorizing appropriations to the FAA through March 31, 2018, and the *Consolidated Appropriations Act, 2018* extended the FAA’s funding and authority through September 30, 2018. In October 2018, Congress passed legislation, the *FAA Reauthorization Act of 2018*, which funded the FAA’s AIP at \$3.35 billion annually until 2023. This bill reauthorized the FAA for five years, at a cost of \$97 billion, and represents the longest funding authorization period for the FAA since 1982. At the time of this writing (January 2024), the bill has not been reauthorized. A reauthorization bill was introduced in June 2023, but has not yet been approved, and the AIP is currently being funded through a three-month extension that was granted in September 2023 and a subsequent extension until March 8, 2024.

The source for AIP funds is the Aviation Trust Fund, which was established in 1970 to provide funding for aviation capital investment programs (aviation development, facilities and equipment, and research and development). The Aviation Trust Fund also finances the operation of the FAA. It is funded by user fees, including fees on airline tickets, aviation fuel, and various aircraft parts.

All projects identified in the CMA CIP are eligible for FAA funding through the AIP. Public use airports that are included in the National Plan of Integrated Airport Systems (NPIAS), like CMA, are eligible for AIP funding. CMA is only eligible for funding under certain programs outlined in AIP and are not eligible for AIP funding based on passenger or cargo volume. **Table 5D** presents the approximate distribution of the AIP funds as described in FAA Order 5100.38D, change 1, *Airport Improvement Program Handbook*, issued February 26, 2019.

**TABLE 5D | Federal AIP Funding Distribution**

Funding Category	Percent of Total	Approximate Funds Available*	Available to CMA
<b>Apportionment/Entitlement</b>			
Passenger Entitlements	27.0%	\$904,835,000	No
Cargo Entitlements	3.5%	\$117,250,000	No
Nonprimary Entitlements	12.0%	\$402,335,000	Yes
State Apportionment	8.0%	\$267,665,000	Yes
Alaska Supplemental	0.7%	\$22,445,000	No
Carryover	22.9%	\$765,475,000	Yes
<b>Small Airport Fund</b>			
Small Hub - Commercial Service	2.3%	\$78,055,000	No
Nonhubs	4.7%	\$156,445,000	No
Nonprimary (GA and Reliever)	9.3%	\$312,555,000	Yes
<b>Discretionary</b>			
Capacity/Safety/Security/Noise (C/S/S/N)	4.4%	\$146,060,000	Yes
Pure Discretionary	1.5%	\$48,575,000	Yes
<b>Set Aside Funds</b>			
Noise and Environmental	3.4%	\$112,895,000	Yes
Military Airports Program	0.4%	\$13,065,000	No
Reliever	0.1%	\$2,010,000	Yes
<b>TOTALS</b>	<b>100.0%</b>	<b>\$3,350,000,000</b>	
*FAA Reauthorization Act of 2018 AIP: Airport Improvement Program			

Source: FAA Order 5100.38D, *Airport Improvement Program Handbook*

Funding for AIP-eligible projects is undertaken through a cost-sharing arrangement in which the FAA share varies by airport size: generally, 75 percent for large- and medium-hub commercial service airports, and 90 percent for all other airports. In exchange for this level of funding, the airport sponsor is required to meet various grant assurances, including maintaining the improvement for its useful life (usually 20 years).

Another source for federal grants is the *Bipartisan Infrastructure Law* (BIL), which was signed into law in 2022 and plans for \$25 billion to be invested into America's airports over the next five years. BIL funds are sourced from the U.S. Treasury General Fund and are split into two funding buckets: \$20 billion for Airport Infrastructure Grants (AIG) and \$4.85 billion for the Airport Terminal Program (ATP). Under the BIL, CMA will receive allocated AIG funding each year for the next five years.<sup>1</sup> In FY2022, this amounted to \$763,000; in FY2023, it amounted to \$844,000; and in FY 2024, it amounts to \$851,000. Funding amounts for 2025 and 2026 have not been announced at the time of this writing (January 2024). BIL funds can be used for repair and maintenance of existing infrastructure or construction of new eligible facilities (e.g., airfield pavement, nav aids, lighting, terminal building, etc.). ATP grants are competitive in nature and can be used for multimodal terminal development, as well as for relocating, reconstructing, repairing, or improving an airport traffic control tower. The federal share for AIG is the same as an AIP grant, while the federal share for ATP grants is 95 percent for non-primary airports. The same grant assurances that apply to AIP grants will also apply to BIL grants. BIL and AIP grants cannot be combined/mingled into a single grant.

**Apportionment (Entitlement) Funds** | The AIP provides funding for eligible projects at airports through an apportionment (entitlement) program. Primary commercial service airports receive a guaranteed minimum level of federal assistance each year, based on their enplaned passenger levels and Congressional appropriation levels. A primary airport is defined as any commercial service airport enplaning at least 10,000 passengers annually. If the threshold is met, the airport receives a minimum of \$1.0 million annually in entitlement funds. Other entitlement funds are distributed to cargo service airports, states and insular areas (state apportionment), and Alaska airports.

General aviation airports included in the *National Plan of Integrated Airport Systems* (NPIAS) can receive up to \$150,000 each year in non-primary entitlement (NPE) funds. These funds can be carried over and combined for up to four years, thereby allowing for the completion of a more expensive project. CMA is eligible for and receives NPE funds.

The FAA also provides a state apportionment based on a federal formula that takes area and population into account. The FAA then distributes these funds for projects at various airports throughout the state.

**Small Airport Fund** | If a large- or medium-hub commercial service airport chooses to institute a passenger facility charge (PFC), which is a fee of up to \$4.50 on each airline ticket for funding of capital improvement projects, then their apportionment is reduced. A portion of the reduced apportionment goes to the small airport fund. The small airport fund is reserved for small-hub primary commercial service airports, non-hub commercial service airports, reliever airports, and general aviation airports. As a general aviation reliever airport, CMA is eligible for funds from this source.

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<sup>1</sup> <https://www.faa.gov/bil/airport-infrastructure>

**Discretionary Funds** | An airport may face major projects that will require funds in excess of the airport's annual entitlements; thus, additional funds from discretionary apportionments under the AIP become desirable. The primary feature of discretionary funds is that they are distributed on a priority basis. The priorities are established by the FAA, utilizing a priority code system, under which projects are ranked by their purpose. Projects ensuring airport safety and security are ranked as the most important priorities, followed by maintaining current infrastructure development, mitigating noise and other environmental impacts, meeting standards, and increasing system capacity.

It is important to note that competition for discretionary funding is not limited to airports in the State of California or those within the FAA's Western-Pacific Region. The funds are distributed to all airports in the country and, as such, are more difficult to obtain. High priority projects will often fare favorably, while lower priority projects may not receive discretionary grants.

**Set-Aside Funds** | Portions of AIP funds are set-asides designed to achieve specific funding minimums for noise compatibility planning and implementation, select former military airfields (Military Airports Program), and select reliever airports. CMA does qualify for noise compatibility and reliever set-aside funding. It does not qualify currently for the MAP program.

**FAA Facilities and Equipment (F&E) Program** | The Airway Facilities Division of the FAA administers the Facilities and Equipment (F&E) Program. This program provides funding for the installation and maintenance of various navigational aids and equipment of the national airspace system. Under the F&E program, funding is provided for FAA airport traffic control towers (ATCTs), enroute navigational aids, on-airport navigational aids, and approach lighting systems.

While F&E still installs and maintains some navigational aids, on-airport facilities at general aviation airports have not been a priority; therefore, airports often request funding assistance for navigational aids through the AIP and then maintain the equipment on their own<sup>2</sup>.

## STATE GRANT FUNDING

The State of California recognizes the valuable contribution of airports to the state's transportation economy. The California Department of Transportation – Division of Aeronautics (Caltrans) administers several funding programs for airports. Airport seeking Caltrans funding must have the project included in the states CIP. Projects not included in the current CIP are ineligible as cited in the California Code of Regulations title 21, Division 2.5, Chapter 4 Article 3 Section 4062.1. In addition, per Section 4059, projects that have started or been completed prior to State allocation are ineligible for funding.

The Capital Improvement Plan (CIP) is a ten-year, fiscally unconstrained listing of capital and planning projects submitted to the California Department of Transportation (Caltrans). These projects are predominantly based on airport master plans or other comparable long-range planning documents (i.e. ALP Update). The CIP is compiled biennially (every two years) in accordance with the California Public Utilities Code (PUC) and is presented to the California Transportation Commission (Commission) for review, comment, and approval.

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<sup>2</sup> Guidance on the eligibility of a project for federal AIP grant funding can be found in FAA Order 5100.38D, *Airport Improvement Program Handbook*.



Inclusion in the CIP is a requirement for grant eligibility for the Aeronautics' Acquisition and Development and Airport Improvement Program Matching Grants Programs. These programs provide financial assistance to local sponsors in order to establish, maintain, and improve the statewide system of airports.

**Airport Improvement Program Matching Grant** | The State AIP Matching Rate is 5.0 percent of the federal grant. Once a Federal Aviation Administration (FAA) AIP Grant has been executed, the sponsoring agency may apply to the State for an AIP matching grant. Grants are processed in the order received and awarded until all funds are fully exhausted. Depending upon the number of grant applications received, processing time can range from two to three weeks. Although amounts shown are eligible by formula, recent policy has been to cap participation at a lower number. Caltrans should be consulted closer to project implementation to update current policy.

**Acquisition and Development Program** | These grants are provided by Caltrans for eligible projects in the CIP that are for General Aviation capital improvement and planning purposes. An A&D grant constitutes 90 percent of a project cost. The remaining 10 percent is matched by the local sponsor.

Every even-numbered year, Caltrans prepares, and the Commission approves, the Aeronautics Program, a two-year list of grant projects from the CIP for which funding is available. Projects are selected for the Aeronautics Program based on eligibility and ranking. The Priority Ranking Matrix is used to rank projects, and the ranking is based on project category and project description. Project categories listed in priority are safety, capacity, and security. Other selection criteria may be used as well, such as input from the Caltrans Office of Airports and the sponsor.

**Airport Land Use Compatibility Plans** | A&D grants are also provided to local sponsors to prepare or update Airport Land Use Compatibility Plans (ALUCP). ALUCPs are prepared by County Airport Land Use Commissions as required by the PUC and contain land use measures that minimize the public's exposure to safety hazards within two-miles around public-use airports. Protecting people and property on the ground from the potential consequences of near-airport aircraft accidents is a fundamental land use compatibility planning objective.

The Division of Aeronautics recommends a comprehensive review and update of an ALUCP at least every five years. Consistent funding for ALUCPs is vital for the protection of the California air transportation system and those communities surrounding the airports. The Commission has historically set 25 percent of the A&D Grant Program to help fund the preparation of ALUCP's.

The Ventura County Transportation Commission (VCTC) is the responsible party for the local ALUCP. The Camarillo Airport can help with an ALUCP update by accessing A & D grants, but the VCTC would have to apply for the grant and oversee the study.

**Local Airport Loan Program** | The Local Airport Loan Program provides discretionary State loans to eligible airports for projects that enhance an airport's ability to provide general aviation services (hangars, General Aviation [GA] terminals, utilities, GA fueling facilities, Acquisition and Development [A&D]-eligible projects, etc.). A loan may also provide the local share for an AIP grant. Such a loan can be used in conjunction with a State-funded AIP Matching grant. The loan program cannot be used for the local match of a state A&D grant or for projects to accommodate scheduled air carriers. The maximum term of a loan is 17 years. The interest rates match the latest California General Obligation Bond sale interest rate.

There are three different types of loans available under this program:

- Revenue Generating
- Matching Funds
- Airport Development

**Annual Credit Grants** | Annual Credit Grants of \$10,000 per year are provided to eligible public-use and publicly owned airports. Airports not classified by the Federal Aviation Administration (FAA) as Commercial or Reliever are eligible as set forth in Section 21682 of the Public Utilities Code. Aeronautics will retain funds for eligible airports for a period not to exceed five fiscal years. Airports can request the \$10,000 each year or request a greater amount from a future year once funds have accumulated. There is no required local match for the annual credit grant. Eligible project types include obstruction removal, radios, land acquisition, lighting, fencing, transient aircraft parking, bond service, nav aids, pavement markings, noise monitoring equipment, runway and taxiway pavements, service roads, airport planning, fuel facilities, restrooms, and wash racks.

### State funding Summary

The Ventura County Department of Airports has actively pursued state funding assistance for airport capital projects. The state CIP as of January includes projects totaling more than \$67.3 million with a potential state share of approximately \$3.7 million in capital projects for CMA. The projects from the state CIP are included in the CIP for this study.

### LOCAL FUNDING

The primary source of local funding for airport capital projects is airport revenues generated from aeronautical activities at the airport. CMA charges fair market value for hangar leases, property leases, aircraft tie-down parking, landing fees, and fuel flowage fees assessed to fuel vendors.

The airport is operated by Ventura County through the collection of various rates and charges. There are restrictions on the use of revenues collected by an airport. All receipts, excluding bond proceeds or related grants and interest, are irrevocably pledged to the punctual payment of operating and maintenance expenses, payment of debt service for as long as bonds remain outstanding, or to additions or improvements to airport facilities. All potential revenue sources should be considered to support future capital expenditures, if necessary.

The operation of the airport generates revenues, which are secured by federal grant assurances, to be utilized only on the airport. While the revenues generated are significant, they are oftentimes not enough to fund both airport operating expenditures and capital improvement requirements. Most general aviation airports in the U.S. do not generate enough revenue to cover operating expenses. However, the two airports in the Ventura County airport system collectively generate enough revenue to be self-sustaining. This means the successful implementation of this plan will not use City or County general funds or taxes.

To ensure the airport maximizes revenue potential in the future, CMA should periodically review aviation rates and charges (i.e., ground lease rates, rental rates, etc.) at other airports to be certain that their rates and charges are competitive. Additionally, all new leases at the airport should have inflation clauses allowing for periodic rate increases in line with inflationary factors.

There are several other local financing options to fund the needs of the airport, including direct funding from Ventura County general funds, bonding, and public/private partnerships. These options are not preferred by the county. In addition, some airports have access to various local grants to support airport development such as local or regional economic development agencies, transportation agencies, or private grants. These strategies could be used to fund the local matching share or complete the project if grant funding cannot be arranged.

## **STUDY IMPLEMENTATION**

To implement the study recommendations, it is key to recognize that planning is a continuous process and does not end with approval of this document. The airport should implement measures that allow them to track various demand indicators, such as based aircraft, hangar demand, and operations. The issues that this study is based on will remain valid for several years. The primary goal is for the airport to best serve the air transportation needs of the region, while striving to be economically self-sufficient and a good neighbor to the community.

The actual need for improvements is best established by airport activity levels rather than a specified date. Actual demand may be slower to develop than expected and the airport should delay projects for which there is not demand. Conversely, high levels of demand may establish the need to accelerate development. Although every effort has been made in this planning process to conservatively estimate when facility development may be needed, aviation demand will dictate the timing of facility improvements.

The value of a planning study such as this is keeping the issues and objectives at the forefront of the minds of managers and decision-makers. In addition to adjustments in aviation demand, when to undertake the improvements recommended in this study will impact how long the plan remains valid. The format of this plan reduces the need for formal and costly updates by simply adjusting the timing of project implementation. Updating can be done by the airport manager, thereby improving the plan's effectiveness.

In summary, the planning process requires airport staff to consistently monitor operations and based aircraft. Analysis of aviation demand is critical to the timing and need for new airport facilities.