CHAPTER SIX

CAPITAL IMPROVEMENT PROGRAM

The recommended master plan concept presented in the previous chapter outlined airside and landside improvements for Payson Municipal Airport (PAN) that provide the Town of Payson with a plan to preserve and develop the airport to meet future aviation demands. Using the concept as a guide, this chapter will provide a description and overall cost for projects identified in the 20-year capital improvement program (CIP) and development schedule. The program has been evaluated from a variety of perspectives and represents a comparative analysis of basic budget factors, demand, and priority assignments.

The presentation of the capital program is organized into two sections. First, the airport's CIP and associated cost estimates are presented in narrative and graphic form. The CIP has been developed following Federal Aviation Administration (FAA) guidelines for master plans and primarily identifies those projects that are likely eligible for FAA and Arizona Department of Transportation – Aeronautics Group (ADOT) grant funding. Second, capital improvement funding sources on the federal, state, and local levels are identified and discussed.

AIRPORT CAPITAL IMPROVEMENT PROGRAM

With the recommended concept and specific needs and improvements for the airport established, the next step is to determine a realistic schedule for project implementation and the associated costs for the plan. The capital program considers the interrelationships among the projects to determine an appropriate sequence of projects while remaining within reasonable fiscal constraints.



The CIP is programmed by planning horizons and has been developed to cover the short- (years 1-5), intermediate- (years 6-10), and long-term (years 11-20+) planning horizons. By using planning horizons instead of specific years, the Town of Payson will have greater flexibility to adjust capital needs as demand dictates. **Table 6A** summarizes the key aviation demand milestones projected at PAN for each of the three planning horizons.

TABLE 6A | Aviation Demand Planning Horizons

	Base Year (2022)	Short Term (1-5 Years)	Intermediate Term (6-10 Years)	Long Term (11-20 Years)
BASED AIRCRAFT				
Single-Engine	59	61	64	70
Multi-Engine	1	1	1	0
Turboprop	0	1	2	4
Jet	0	0	0	1
Helicopter	1	2	2	3
Other	5	5	5	5
On-Airport Based Aircraft	*33*	*37*	*41*	*50*
Off-Airport Based Aircraft	*33*	*33*	*33*	*33*
Total Based Aircraft	**66**	**70**	**74**	**83**
ANNUAL OPERATIONS				
Itinerant				
Air Carrier	0	0	0	0
Air Taxi	1,750	1,800	2,100	2,800
General Aviation	20,000	22,900	24,700	28,500
Military	500	500	500	500
Total Itinerant	*22,250*	*25,200*	*27,300*	*31,800*
Local				
General Aviation	12,000	14,100	15,400	18,100
Military	0	0	0	0
Total Local	*12,000*	*14,000*	*15,400*	*18,100*
Total Operations	**34,250**	**39,300**	**42,700**	**49,900**

Source: Coffman Associates analysis

A key aspect of this planning document is the use of demand-based planning milestones. The short-term planning horizon contains items of highest need and/or priority, some of which have been previously defined by airport management. As short-term horizon activity levels are reached, it will then be time to program for the intermediate term based on the next activity milestones. Similarly, when the intermediate-term milestones are reached, it will be time to program for the long-term activity milestones. A demand-based master plan does not specifically require the implementation of any of the demand-based improvements. Instead, it is envisioned that implementation of any improvements would be examined against the demand levels prior to implementation. As such, the master plan establishes a plan for the use of airport facilities that is consistent with the potential aviation needs and capital needs required to support that use. Individual projects in the plan are not implemented until the need is demonstrated and the project is approved for funding.

Many development items included in the recommended concept will need to follow these demand indicators. For example, the plan includes utility infrastructure expansion and site preparation for constructing new landside facilities to support aircraft activity. Demand for new based aircraft will be

a primary indicator for these projects. If based aircraft growth occurs as projected, additional hangars should be constructed to meet the demand. If growth slows or does not occur as forecast, some projects may be delayed. As a result, capital expenditures are planned to be made on an as-needed basis, leading to more responsible use of capital assets. Some development items do not depend on demand, such as airfield improvements to meet FAA design standards. These projects need to be programmed in a timely manner, regardless of changes in demand indicators, and should be monitored regularly by airport management.

At PAN, some hangars are owned and managed by the airport and leased to individual tenants, while others are privately owned and managed on land leased from the airport. Because of economic realities, many airports rely on private developers to construct new hangars. In some cases, private developers can keep construction costs lower, which lowers the monthly lease rates necessary to amortize a loan. The CIP for PAN assumes site preparation and development for landside facilities will be constructed privately. As such, cost estimates for hangar construction are not included. Ultimately, the Town of Payson will determine whether to self-fund landside facility development or rely on private developers based on demand and the specific needs of a potential developer.

Because a master plan is a conceptual document, implementation of the capital projects should only be undertaken after further refinement of their design and costs through architectural or engineering analyses. Moreover, some projects may require additional infrastructure improvements (i.e., drainage improvements, extension of utilities, etc.) that may increase the estimated cost of the project or increase the timeline for completion.

Once a list of necessary projects was identified and refined, project-specific cost estimates were prepared. These estimates include design, construction administration, and contingency costs that may arise on the project. ***Capital costs presented here should be viewed only as "order-of-magnitude" estimates that are subject to further refinement during engineering/architectural design.*** Nevertheless, they are considered sufficient for planning purposes. Cost estimates for each development project in the CIP are based on present-day construction, design, and administration costs. Adjustments will need to be applied over time to account for inflation and changes in construction and capital equipment costs.

Table 6B presents the proposed 20-year CIP for PAN. It should be stated clearly that the proposed CIP is a point-in-time analysis that will change annually based on actual demand and changing needs. An estimate of grant (FAA and/or ADOT) funding eligibility has been included, although actual funding is not guaranteed. For those projects that would be eligible for federal funding, Airport Improvement Program (AIP) reauthorization provides for 91.06 percent of the total project cost for PAN. The remaining amount (8.94 percent) would be equally shared between ADOT and the Town of Payson (4.47 percent each). This eligibility breakdown is based on the airport's classification, in addition to the amount of public land within the State of Arizona. Other projects, such as the implementation of certain landside facilities (roadways), are typically not eligible for AIP grants (outside of non-primary entitlements) or would rank low on the priority scale. As a result, these projects may need to be planned for airport sponsor funding or funding through specific ADOT programs.

TABLE 6B | Capital Improvement Program

FY	#	Project Description	Total Project Cost Estimate	AIP / Federal	ADOT	Airport Sponsor
Short Term 2024-2028 (Years 1-5)						
2024	1	Drainage Improvements on Echo Ramp	$355,000	$323,236	$15,869	$15,869
2024	2	Replace Automated Weather Observation System (AWOS)	$225,000	$204,885	$10,058	$10,058
2025	3	Construct Access Road for Emergency Vehicle Use	$120,000	$109,272	$5,364	$5,364
2025	4	Rehabilitate Charlie Ramp; Mitigate Direct Access Via Taxiway A3; Drainage Improvements on Charlie Ramp	$1,512,000	$1,376,827	$67,586	$67,586
2026	5	Mitigate Non-Standard Safety Area Conditions	$1,200,000	$1,092,720	$53,640	$53,640
2026	6	Acquire Avigation Easements	$792,000	$721,195	$35,402	$35,402
2027	7	Expand Echo Ramp to Support Future Hangar Development – Phase 1	$3,672,000	$3,343,723	$164,138	$164,138
		Total Short Term	**$7,876,000**	**$7,171,886**	**$352,057**	**$352,057**
Intermediate Term 2029-2033 (Years 6-10)						
–	8	Construct Holding Bay	$1,172,000	$1,067,223	$52,388	$52,388
–	9	Expand Echo Ramp to Support Future Hangar Development – Phase 2	$3,417,000	$3,111,520	$152,740	$152,740
–	10	Expand Echo Ramp and Relocate Helicopter Parking Area	$1,263,000	$1,150,088	$56,456	$56,456
–	11	Construct Taxilane for T-Hangar	$604,000	$550,002	$26,999	$26,999
–	12	Acquire Dump Truck with Snowplow and Sweeper	$300,000	$273,180	$13,410	$13,410
–	13	Construct Snow Removal Equipment (SRE) Building	$875,000	$796,775	$39,113	$39,113
–	14	Replace Rotating Beacon	$200,000	$796,775	$39,113	$39,113
–	15	Routine Pavement Maintenance	$1,000,000	$182,120	$8,940	$8,940
		Total Intermediate Term	**$8,831,000**	**$8,041,509**	**$394,746**	**$394,746**
Long Term 2034-2043 (Years 11-20+)						
–	16	Construct Terminal Building	$2,542,000	$2,314,745	$113,627	$113,627
–	17	Construct Aircraft Parking Apron (West Ramp) to Support Hangar Development	$1,665,000	$1,516,149	$74,426	$74,426
–	18	Construct Aircraft Parking Apron (South Ramp) and Taxilane	$1,941,000	$1,767,475	$86,763	$86,763
–	19	Routine Pavement Maintenance	$2,000,000	$1,821,200	$89,400	$89,400
		Total Long Term	**$8,148,000**	**$7,419,569**	**$364,216**	**$364,216**
		TOTAL CIP	**$24,855,000**	**$22,632,963**	**$1,111,019**	**$1,111,019**

Source: Coffman Associates analysis

As detailed in the CIP, all projects listed may be eligible for federal and state funding, but some may be given a lower priority ranking. Demand and justification for these projects must be provided prior to a grant being issued by either the FAA and/or ADOT. The FAA utilizes a national priority rating system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, meeting design standards, and capacity enhancement. The FAA may 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. Nevertheless, such a project should remain a priority, and funding support should continue to be requested in subsequent years.

Some projects identified in the CIP will require environmental documentation. The level of documentation necessary for each project must be determined in consultation with the FAA and ADOT. There are three major levels of environmental review to be considered under the *National Environmental Policy Act* (NEPA): categorical exclusion (CatEx), environmental assessment (EA), and environmental impact statement (EIS). Each level requires more time to complete and more detailed information than the previous level. Guidance on what level of documentation is required for a

specific project is provided in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The environmental overview presented in Chapter Five addresses NEPA and provides an evaluation of various environmental categories for PAN.

The following sections will describe, in greater detail, the projects identified for the airport over the next 20 years. The projects are grouped based on a detailed evaluation of existing and projected demand, safety, rehabilitation needs, and local priority. While the CIP identifies the priority rankings of the projects, the list should be evaluated and revised on a regular basis. It is also important to note that certain projects, while listed separately for purposes of evaluation in this study, could be combined with other projects during time of construction/implementation.

SHORT-TERM PROGRAM

The short-term projects are those anticipated to be needed during the first five years of the 20-year CIP. The projects listed are subject to change based on federal and state funding priorities. Projects related to safety and maintenance generally have the highest priority. This applies to many of the projects identified in the short-term CIP that are associated with maintaining/rehabilitating existing airfield pavements/infrastructure and improving airfield safety. The short-term program considers seven projects for the planning period, as presented on **Exhibit 6A**. The following provides a detailed breakdown of each project.

Project #1: Drainage Improvements on Echo Ramp

- *Description* | Stormwater runoff coming off the hill to the south of the airport flows across Echo ramp and creates erosion concern and foreign object debris (FOD) issues on the pavement. To mitigate this, a drainage improvement to the Echo ramp is planned.
- *Cost Estimate* | $355,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #2: Replace AWOS

- *Description* | The manufacturer of the automated weather observation system (AWOS) no longer supports the model that is currently installed at PAN and parts are becoming difficult to find. As a result, the AWOS has lost functionality of its weather and thunderstorm sensors. This project plans for a replacement of the current AWOS with a newer model.
- *Cost Estimate* | $225,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #3: Construct Access Road for Emergency Vehicle Use

- *Description* | The Payson area is served by an air ambulance provider, Native Air, which has a base at PAN. Currently, emergency vehicles transporting patients must access the Native Air facilities by driving on an active taxiway (Taxiway A). The FAA prefers that aircraft and vehicle movements be segregated as much as possible to decrease the risk of an incursion. This project plans for the construction of a dedicated access road for emergency vehicle use, planned to extend from the cul-de-sac at the end of W Red Baron Road. A security gate is also included with this project.

- *Cost Estimate* | $120,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #4: Rehabilitate Charlie Ramp; Mitigate Direct Access Via Taxiway A3; Drainage Improvements on Charlie Ramp

- *Description* | This project plans for pavement rehabilitation of Charlie ramp, along with drainage improvement. The culvert and channel crossing Old Airport Road is not sufficient to contain stormwater flows, resulting in flooding between Bravo and Charlie ramps during rain events and stormwater backing up into hangars. Project #4 also mitigates the direct access that exists via Taxiway A3 from Charlie ramp to the runway. This project plans for the removal of the southern portion of Taxiway A3 (between parallel Taxiway A and Charlie ramp) and the construction of a new taxiway approximately 150 feet to the west (connecting parallel Taxiway A and Bravo ramp). This will require pilots to make a turn onto Taxiway A, improving safety and reducing the risk of inadvertent access to the runway.

- *Cost Estimate* | $1,512,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #5: Mitigate Non-Standard Safety Area Conditions

- *Description* | The runway safety area (RSA) and runway object free area (ROFA) off the end of Runway 24 are non-standard. The RSA does not meet FAA tolerance for gradient, and fill is required to bring the RSA into standard. Additionally, a portion of the perimeter fencing passes through the ROFA and the edge of the RSA. This project plans for relocation of the perimeter fencing and fill added to the RSA so these safety areas meet FAA design standards.

- *Cost Estimate* | $1,200,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Short Term Projects 2024-2028 (Years 1-5)

Fiscal Year 2024

1. Drainage Improvements on Echo Ramp
2. Replace Automated Weather Observation System (AWOS)

Fiscal Year 2025

3. Construct Access Road for Emergency Vehicle Use

Fiscal Year 2026

4. Rehabilitate Charlie Ramp; Mitigate Direct Access Via Taxiway A3; Drainage Improvements on Charlie Ramp

Fiscal Year 2027

5. Mitigate Non-Standard Safety Area Conditions
6. Acquire Avigation Easements

Fiscal Year 2028

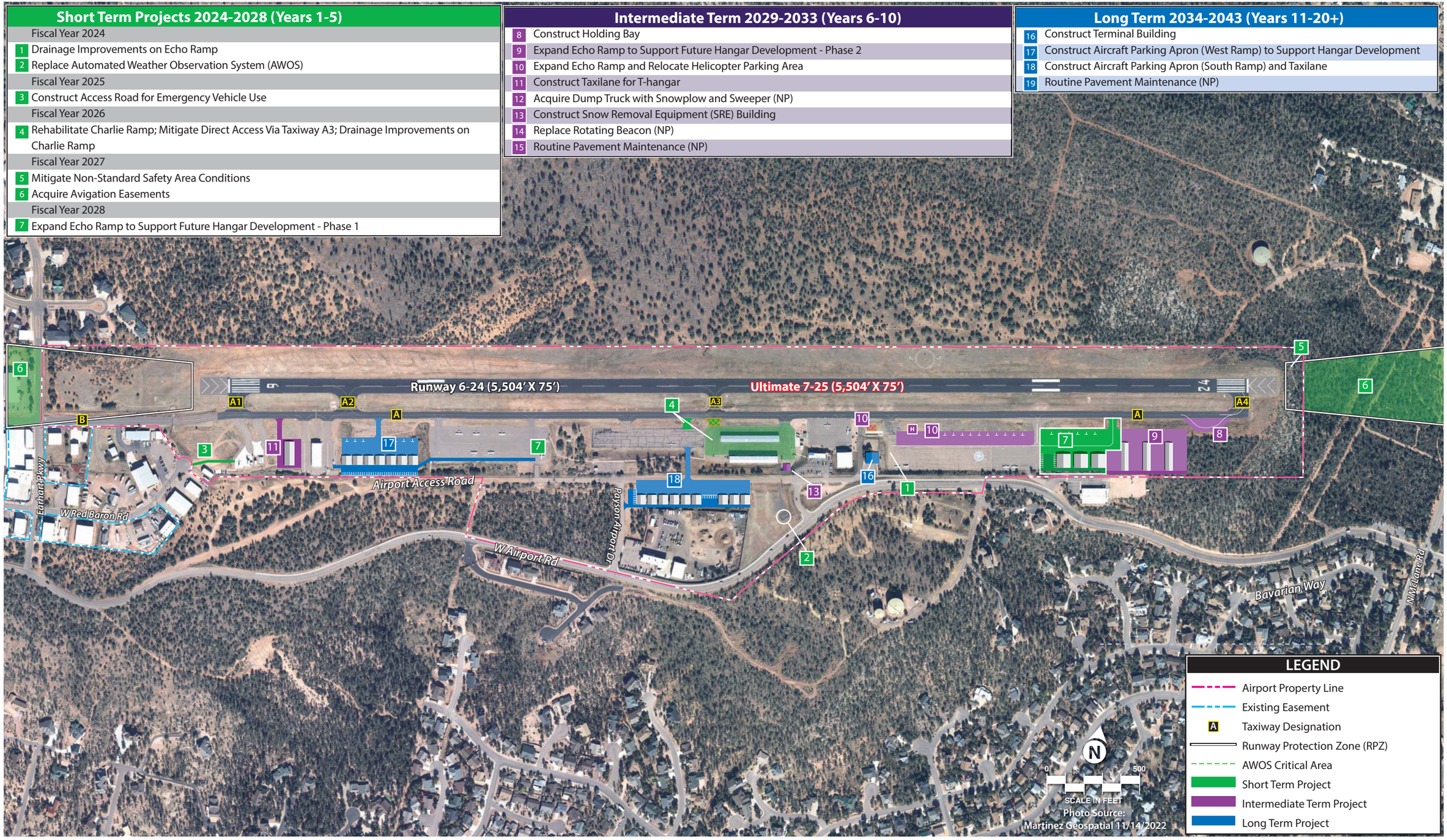
7. Expand Echo Ramp to Support Future Hangar Development - Phase 1

Intermediate Term 2029-2033 (Years 6-10)

8. Construct Holding Bay
9. Expand Echo Ramp to Support Future Hangar Development - Phase 2
10. Expand Echo Ramp and Relocate Helicopter Parking Area
11. Construct Taxilane for T-hangar
12. Acquire Dump Truck with Snowplow and Sweeper (NP)
13. Construct Snow Removal Equipment (SRE) Building
14. Replace Rotating Beacon (NP)
15. Routine Pavement Maintenance (NP)

Long Term 2034-2043 (Years 11-20+)

16. Construct Terminal Building
17. Construct Aircraft Parking Apron (West Ramp) to Support Hangar Development
18. Construct Aircraft Parking Apron (South Ramp) and Taxilane
19. Routine Pavement Maintenance (NP)



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Project #6: Acquire Avigation Easements

- *Description* | Portions of the runway protection zones (RPZ) associated with each runway end extend beyond the airport's current property boundary. While ownership of property within the RPZ is not required, it is recommended that the airport sponsor have airspace control over the property, at a minimum. This project plans for the acquisition of avigation easements over approximately 1.8 acres of property within the Runway 6 RPZ and approximately 7.6 acres of property within the Runway 24 RPZ to ensure land use controls are implemented to prevent development that could pose a threat to air navigation.

- *Cost Estimate* | $792,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #7: Expand Echo Ramp to Support Future Hangar Development – Phase 1

- *Description* | Echo ramp is planned to be expanded to the east to support additional landside development. This project has been divided into two phases. Phase 1 includes the construction of a new taxilane leading to an apron supporting executive box hangars, as depicted on **Exhibit 6A**. The project also includes construction of a vehicle parking lot and access road at the rear of the proposed hangars.

- *Cost Estimate* | $3,672,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Short-Term Program Summary

The short-term CIP includes projects that enhance the overall safety, efficiency, and maintenance of the airfield. The total investment necessary for the short-term CIP is approximately $7.9 million, as detailed in **Table 6B**. Of the overall short-term CIP total, approximately $7.5 million is eligible for federal and state funding assistance. Approximately $350,000 is to be provided through airport sponsor funding outlets if all of these projects are pursued in the short-term.

INTERMEDIATE-TERM PROGRAM

The intermediate-term projects are those that are anticipated to be necessary in years six through 10 of the master plan. These projects are not tied to specific years for implementation; instead, they have been prioritized so airport management has the flexibility to determine when they need to be pursued, based on current conditions. It is not unusual for certain projects to be delayed or advanced based on changing conditions, such as funding availability or changes in the aviation industry. This planning horizon includes eight projects for the five-year timeframe, as listed on **Table 6B** and depicted on **Exhibit 6A**. The following section includes a description of each project.

Project #8: Construct Holding Bay

- *Description* | A standard holding bay is planned at the east end of Taxiway A to provide space for queuing aircraft, enhance capacity, and increase safety. This holding bay reflects the design standards detailed in FAA Advisory Circular (AC) 150/5300-13B, *Airport Design*.
- *Cost Estimate* | $1,172,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #9: Expand Echo Ramp to Support Future Hangar Development – Phase 2

- *Description* | Phase 2 of the Echo ramp expansion project includes additional apron/taxilane pavement intended to support T-hangars. An extension of the vehicle access road is also planned to limit vehicle movements on airfield pavement.
- *Cost Estimate* | $3,417,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #10: Expand Echo Ramp and Relocate Helicopter Parking Area

- *Description* | Echo ramp is planned to be expanded by approximately 6,000 square yards (sy), with new apron pavement constructed on the north side of the apron This expansion would allow for additional space for transient aircraft parking, as well as staging of seasonal firefighting aircraft. Additionally, this project includes the relocation of the existing helicopter parking area. The helicopter parking area is currently adjacent to Delta ramp, which is where much of the transient activity at PAN occurs. A new site approximately 200 feet to the east on Echo ramp would alleviate congestion in this area.
- *Cost Estimate* | $1,263,000
- *Funding Breakdown:*| FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #11: Construct Taxilane for T-Hangar

- *Description* | New airfield pavement is planned in support of the proposed T-hangar project immediately east of the fuel farm. This project includes site preparation and pavement costs, including a new taxilane extending from Taxiway A and taxilane/ramp pavement associated with the T-hangar.
- *Cost Estimate* | $604,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #12: Acquire Dump Truck with Snowplow and Sweeper

- *Description* | This project plans for the acquisition of a dump truck with a plow and truck-mounted sweeper. This SRE is needed to keep the runway operational and safe during winter months.
- *Cost Estimate* | $300,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #13: Construct Snow Removal Equipment (SRE) Building

- *Description* | PAN does not currently have a dedicated SRE building. This project includes the construction of a new 36' by 40' building intended for the storage of airfield snow removal equipment and other materials. The building is proposed to be located on the southeast corner of Charlie ramp, where vehicle parking currently exists.
- *Cost Estimate* | $875,000
- *Funding Breakdown:* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #14: Replace Rotating Beacon

- *Description* | The existing rotating beacon and the tower on which it is mounted are decades old and in need of replacement. The existing tower is a climbing style pole and will be replaced with a tip-down pole. The rotating beacon will be replaced with an LED beacon.
- *Cost Estimate* | $200,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #15: Routine Pavement Maintenance

- *Description* | As airfield pavements deteriorate over time, it is necessary to undergo overlay/ rehabilitation/reconstruction projects. It is anticipated that this project could be split up into multiple projects, based on future pavement maintenance needs.
- *Cost Estimate* | $1,000,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Intermediate-Term Program Summary

The total costs associated with the intermediate-term program are estimated at $8.8 million, as presented in **Table 6A**. Of this total, approximately $8.4 million could be eligible for federal/state funding, and the airport sponsor share is projected at approximately $400,000.

LONG-TERM PROGRAM

The long-term planning horizon considers four projects for the 11-20+ year period that are mainly demand-driven. The projects and their associated costs are listed in **Table 6B** and graphically depicted on **Exhibit 6A**, as appropriate.

Project #16: Construct Terminal Building

- *Description* | PAN does not currently have a dedicated terminal building. This project plans for the construction of a new terminal building located on the current observation area site. The new terminal is planned at 4,300 square feet (sf) and is envisioned to include all the amenities typically offered at a general aviation airport, including a lobby, pilot's lounge, flight planning area, conference room/office, restrooms, and kitchen. Vehicle parking is also planned south of the terminal building. It should be noted that construction of a new terminal building, while eligible for AIP grant funds, would likely be considered a low priority by the FAA.

- *Cost Estimate* | $2,542,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #17: Construct Aircraft Parking Apron (West Ramp) to Support Hangar Development

- *Description* | New apron and taxiway pavement is planned west of Alpha ramp to support hangar development and provide additional tiedowns. Several tiedowns were lost on Alpha ramp after the 2017/2018 reconstruction. This project is planned to recover some of those lost tiedowns and support new executive hangars to provide additional aircraft storage. A vehicle access road and dedicated parking area are also planned with this project.

- *Cost Estimate* | $1,665,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #18: Construct Aircraft Parking Apron (South Ramp) and Taxilane

- *Description* | Project #18 plans for the construction of apron pavement associated with proposed landside facilities south of Airport Access Road. Currently, there is no access to the airfield from this area, so construction of a new taxilane extending south from Bravo ramp is included with this project. A new apron is planned to support new executive box hangars, with an access road extending from Payson Airport Drive.

- *Cost Estimate* | $1,941,000

- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Project #19: Routine Pavement Maintenance

- *Description* | As airfield pavements deteriorate over time, it is necessary to undergo overlay/ rehabilitation/reconstruction projects. Similar to the line item in the intermediate-term program, multiple projects could be anticipated to cover routine pavement maintenance during the 10-year planning period.
- *Cost Estimate* | $2,000,000
- *Funding Breakdown* | FAA – 91.06 percent / ADOT – 4.47 percent / Airport Sponsor – 4.47 percent

Long-Term Program Summary

The total investment necessary for the long-term CIP detailed in **Table 6B** is approximately $8.1 million. Approximately $7.8 million is eligible for federal/state funding assistance. The airport's share of long-term projects is projected at approximately $360,000.

CAPITAL IMPROVEMENT PROGRAM SUMMARY

The CIP is intended as a road map of improvements to help guide the Town of Payson, the FAA, and ADOT. The plan, as presented, will help accommodate increases in forecast demand at PAN over the next 20 years and beyond. The sequence of projects may change due to availability of funds or changing priorities, based on an annual review by airport management, the FAA, and ADOT. Nevertheless, this is a comprehensive list of capital projects the airport should consider in the next 20+ years.

The total CIP proposes approximately $24.9 million in airport development needs. Of this total, approximately $23.7 million could be eligible for federal/state funding assistance. The local funding estimate for the proposed 20-year CIP is $1.1 million.

CAPITAL IMPROVEMENT FUNDING SOURCES

There are generally four sources of funds used to finance airport development, which include:

- Airport cash flow
- Revenue and general obligation bonds
- Federal/state/local grants
- Passenger facility charges (PFCs), which are reserved for commercial service airports

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.

Financing capital improvements at PAN will not rely solely on the financial resources of the Town of Payson. 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 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 will fund the FAA's AIP at $3.35 billion annually until 2023. This bill reauthorizes 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 (November 2023), 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.

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 taxes on airline tickets, aviation fuel, and various aircraft parts.

Several projects identified in the CIP are eligible for FAA funding through the AIP, which provides entitlement funds to airports based, in part, on their annual enplaned passengers and pounds of landed cargo weight. Additional AIP funds that are designated as discretionary may also be used for eligible projects, based on the FAA's national priority system. Although the AIP has been reauthorized several times and the funding formulas have been periodically revised to reflect changing national priorities, the program has remained essentially the same. Public-use airports that serve civil aviation, like PAN, may receive AIP funding for eligible projects, as described in the FAA's *Airport Improvement Program Handbook.* The airport must fund the remaining project costs using a combination of other funding sources, as discussed in the following sections.

Table 6C 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. PAN is eligible to apply for grants that may be funded through state apportionments, the small airport fund, and/or discretionary funds.

TABLE 6C | Federal AIP Funding Distribution

Funding Category	Percent of Total	Funds*
Apportionment/Entitlement		
Passenger Entitlements	27.01%	$904,840,000
Cargo Entitlements	3.50%	$117,250,000
Alaska Supplemental	0.67%	$22,450,000
Nonprimary Entitlements	12.01%	$402,340,000
State Apportionment	7.99%	$267,670,000
Carryover	22.85%	$765,480,000
Small Airport Fund		
Small Hubs	2.33%	$78,060,000
Nonhubs	4.67%	$156,450,000
Nonprimary (GA and Reliever)	9.33%	$312,560,000
Discretionary		
Capacity/Safety/Security/Noise	4.36%	$146,060,000
Pure Discretionary	1.45%	$48,580,000
Set-Asides		
Noise and Environmental	3.37%	$112,900,000
Military Airports Program	0.39%	$13,070,000
Reliever	0.06%	$2,010,000
Totals	**100.00%**	**$3,350,000,000**

**FAA Reauthorization Act of 2018*
AIP: Airport Improvement Program

Source: FAA Order 5100.38D, Change 1, 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 airports, and 90 percent for all other airports. Since the early days of federal participation in airport infrastructure projects, Congress has provided a higher federal share for airports located in states with more than five percent of their geographic acreage comprised of public lands and nontaxable tribal lands. For states that qualify, such as Arizona, the federal share is increased depending on the airport classification. As a general aviation airport, the federal share of eligible capital improvement projects for PAN is 91.06 percent. 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, PAN will receive allocated AIG funding each year for the next five years[1]. In FY2022, this amounted to $159,000; in FY2023, it amounted to $145,000; and in FY 2024, it amounts to $144,000. Funding amounts for 2025 and 2026 have not been announced at the time of this writing (November 2023). BIL funds can be used for repair and maintenance of existing infrastructure or construction of new facilities (i.e., airfield pavement, navaids, lighting, terminal building, etc.). ATP grants are competitive in nature and can be used for multimodal terminal development, as well as for relocating, reconstructing,

[1] https://www.faa.gov/bil/airport-infrastructure

repairing, or improving an airport traffic control tower. The federal share for AIG is the same as an AIP grant (91.06 percent with a local 8.94 percent match), 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 $1 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 completion of a more expensive project. It should be noted that PAN 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 airport, PAN is eligible for funds from this source.

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 Arizona 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. PAN does not qualify for set-aside funding.

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[2].

STATE AID TO AIRPORTS

ADOT recognizes the valuable contribution that airports make to the state's transportation economy and administers several programs to aid in maintaining airports in the state. The source for state airport improvement funds is the Arizona State Aviation Fund. Taxes levied by the state on aviation fuel, flight property, aircraft registration tax, and registration fees (as well as interest on these funds) are deposited in the Arizona State Aviation Fund. The state transportation board establishes the policies for distribution of these state funds.

AIP Grant Match and Stand-Alone State Grants

Under the State of Arizona's grant program, an airport can receive funding for one half of the local share of projects receiving federal AIP funding, amounting to 4.47 percent of the total project cost. The AIP grant match program for an individual airport sponsor is limited to no more than 10 percent of the average revenue in the Arizona State Aviation Fund for a three-year period. PAN is eligible for matching funds from this source.

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

The state also provides 90 percent funding for projects that have not received federal funding. This includes projects related to maintenance; safety and/or capacity enhancement; or environmental studies, planning, or land acquisition. PAN is eligible for this funding source.

The maximum funding available from ADOT for an individual airport sponsor is currently approximately $3.0 million per fiscal year.

Pavement Maintenance Program

The airport system in Arizona is a multimillion-dollar investment of public and private funds that must be protected and preserved. State aviation fund dollars are limited, and the state transportation board recognizes the need to protect and extend the maximum useful life of the airport system's pavement. The Arizona Pavement Management System (APMS) has been established to assist in the preservation of Arizona airports' system infrastructure.

Public Law 103-305 requires that airports requesting federal AIP funding for pavement rehabilitation or reconstruction have an effective pavement maintenance program system. To this end, the ADOT – Aeronautics Group maintains the APMS.

The Arizona APMS uses the U.S. Army Corps of Engineers' MicroPaver program as a basis for generating a five-year Arizona Pavement Preservation Program (APPP). The APPP consists of visual inspections of all airport pavements. Evaluations are made of the pavement types and severities observed, and then entered into a computer program database. Pavement condition index (PCI) values are determined through the visual assessment of pavement conditions in accordance with the most recent FAA AC 150/5380-7, *Pavement Management System*, and range from 0 (failed) to 100 (excellent). Every three years, a complete database update with new visual observations is conducted. Individual airport reports from the update are shared with all participating system airports. ADOT ensures the APMS database is kept current, in compliance with FAA requirements.

Every year, ADOT utilizes the APMS to identify airport pavement maintenance projects that are eligible for funding for the upcoming five years. These projects will appear in the state's five-year airport development program. Once a project has been identified and approved for funding by the state transportation board, the airport sponsor may elect to accept a state grant for the project and not participate in the APPP, or the sponsor may sign an intergovernmental agreement (IGA) with ADOT to participate in the APPP. PAN participates in this program.

LOCAL FUNDING

After consideration has been given to grants, the balance of project costs must be funded through local resources. A goal for any airport is to generate enough revenue to cover all operating and capital expenditures, if possible. There are several local financing options to consider when funding future development at airports, including airport revenues, issuance of a variety of bond types, leasehold financing, implementing a customer facility charge (CFC), pursuing non-aviation development potential,

and collecting from special events. These strategies could be used to fund the local matching share or complete a project if grant funding cannot be arranged. Below is a brief description of the most common local funding options.

Airport Revenues

An airport's daily operations are conducted through the collection of various rates and charges. These airport revenues are generated specifically by airport operations. There are restrictions on the use of revenues collected by the 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 for additions and improvements to airport facilities.

All airports should establish standard basis rates for various leases. All lease rates should be set to adjust to a standard index, such as the consumer price index (CPI), to ensure fair and equitable rates continue to be charged into the future. Many factors will impact what the standard lease rate should be for a particular facility or ground parcel. For example, ground leases for aviation-related facilities should have a different lease rate than for non-aviation leases. When an airport owns a hangar, a separate facility lease rate should be charged. The lease rate for any individual parcel or hangar can vary due to availability of utilities, condition, location, and other factors. Nevertheless, standard lease rates should fall within an acceptable range.

Bonding

Bonding is a common method of financing large capital projects at airports. A bond is an instrument of indebtedness of the bond issuer to the bond holders; thus, a bond is a form of loan or IOU. While bond terms are negotiable, the bond issuer is typically obligated to pay the bond holder interest at regular intervals and/or repay the principal at a later date.

Leasehold Financing

Leasehold financing refers to a private developer or tenant financing improvements under a long-term ground lease. The advantage of this arrangement is that it relieves the airport of the responsibility of having to raise capital funds for the improvement. As an example, a fixed base operator (FBO) might consider constructing hangars and charging fair market lease rates while paying the airport for a ground lease.

Customer Facility Charge (CFC)

A CFC is the imposition of an additional fee charged to customers for the use of certain facilities. The most common example is when an airport constructs a consolidated rental car facility and imposes a fee for each rental car contract. That fee is then used by the airport to pay down the debt incurred from building the facility.

Non-Aviation Development

In addition to generating revenue from traditional aviation sources, airports with excess land can permit compatible non-aviation development. Generally, an airport will extend a long-term lease for land not anticipated to be needed for aviation purposes in the future. The private developer then pays the monthly lease rate and constructs and uses the compatible facility. A 5.3-acre portion of airport property is currently being utilized as the Town Yard, where storage facilities and maintenance equipment used by the Town of Payson are located. This use is considered non-aeronautical, and it is recommended that the town coordinate with the FAA to approve this land use and ultimately secure a release from federal grant obligations for this portion of airport property.

Special Events

Another common revenue-generating option is permitted use of airport property for temporary or single events. For example, some airports host open house or fly-in events that attract thousands of spectators from around the region. Airports can also permit portions of their facilities to be utilized for non-aviation special events, such as car shows or video production of commercials. This type of revenue generation must be approved by the FAA.

MASTER PLAN IMPLEMENTATION

To implement the master plan 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 it to track various demand indicators, such as based aircraft, hangar demand, and operations. The issues on which this master plan is based will remain valid for a number of years. The primary goal is for PAN to best serve the air transportation needs of the region while achieving economic self-sufficiency.

The CIP and the phasing program presented will change over time. An effort has been made to identify and prioritize all major capital projects that would require FAA and ADOT grant funding. Nevertheless, the airport and the FAA review the five-year CIP on an annual basis.

The value of this study is that it keeps the issues and objectives at the forefront of decision-makers' minds. In addition to adjustments in aviation demand, decisions on when to undertake the improvements recommended in this master plan 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. Updates can be done by airport management, thereby improving the plan's effectiveness. Nonetheless, airports are typically encouraged to update their master plans every seven to 10 years, or sooner if significant changes occur in the interim.

In summary, the planning process requires the Town of Payson to consistently monitor the progress of the airport. The information obtained from continually monitoring activity will provide the data necessary to determine if the development schedule should be accelerated or decelerated.