

6.0 Capital Improvement Program

The Capital Improvement Program addresses the phased scheduling of projects identified in this Master Plan and their financial implications on the resources of the Airport and the City of Prescott. The phased Capital Improvement Plan (CIP) presented in this chapter estimates the costs of each project and identifies the potential sources of funding from the Federal Aviation Administration (FAA), the Arizona Department of Transportation (ADOT), and from other sources. The development shown on the Airport Layout Plan (ALP) is demand based and subject to available funding limitations. The CIP will be realistic and essential to airport maintenance and safety, and the longer term developments will be pursued as aviation demand warrants. There is no guarantee of if/when projects will be undertaken.

Final implementation of the recommendations made in this Chapter is subject to appropriate environmental evaluation and final approval by FAA, ADOT, and other regulations.

6.1 Capital Improvement Plan (CIP)

The Capital Improvement Program provides a schedule of development for the proposed projects identified in this master plan. The schedule is based on a twenty year planning period and separated into three phases:

- Phase 1 (2010 – 2015)
- Phase 2 (2016 – 2020)
- Phase 3 (2021 – 2030)

The Phase 1 projects identified in the Master Plan constitutes what is commonly referred to as the Airport Capital Improvement Plan (ACIP) by FAA. The Phase 2 projects are those more appropriately identified for inclusion in the FAA National Plan of Integrated Airport System (NPIAS). The 10-year outlook in the NPIAS report to Congress develops national airport needs on a broader scale. Finally, the last phase of development is a general range of projects for the 10 to 20-year period and obviously much more speculative. Both the Phase 2 and Phase 3 projects provide the Airport and FAA with an outlook of future needs, but as they move into the near term horizon they need to be re-assessed as demand changes or funding sources are better defined.

Order-of-magnitude engineering costs were developed for each of the master plan projects. The FAA will fund eligible projects, as defined under the Airport Improvement Program (AIP). Such

projects include pavements, lighting, utilities, airport roadways, and some types of airport vehicles. Projects that are ineligible can include conventional hangars and t-hangars, and facilities run for profit. The projects are usually completed with either the Sponsor's funding or from funds from a private operator such as a Fixed Base Operator (FBO), Aviation Services Operator or local pilot's association.

There are some exceptions to the above. The FAA will partially participate in the development of terminals and Airport Rescue and Fire Fighting (ARFF) facilities. For terminals, the FAA participates only for public areas. Areas that are revenue producing are borne by the Airport.

It should be noted that the CIP is based on the assumption that the Airport's activity will grow consistent with the forecasts derived in this Master Plan, and that the facilities will be developed when required to meet demand. If actual activity does not meet forecast demand, the implementation of the project schedule should be modified as necessary.

The cost estimates associated with the Master Plan projects reflect allowances for Sponsor administration (2%), engineering/design (8% up to 12%), contingencies (15%), and construction management (12%). In addition, project costs will be required to be escalated to account for future inflation in Phase 2 and Phase 3 projects using the United States Consumer Price Index ratio for any given year. On average the CPI inflation has increased by 4 percent annually.

Airport development projects that meet the FAA's discretionary funds eligibility requirements could receive up to 91.06 percent of the project cost from the AIP. **Table 6.1** through **Table 6.3** provides the 20-year ACIP for Prescott Municipal Airport, organized into the following three phases:

- Phase 1 (0 to 5 years)
- Phase 2 (6 to 10 years)
- Phase 3 (11 to 20 years).

6.1.1 Phase 1 Development (2010 – 2015)

Phase 1 development consists of the following capital projects:

- 1-A: Environmental Assessment (EA)
- 1-B: Acquire land for runway extensions and RPZ protection (145 acres)
- 1-C: Non-standard RSA corrections for Runway 12-30 and Runway 3L-21R
- 1-D: Construct a new Commercial Terminal Building
- 1-E: Relocate and centralize the ARFF facility
- 1-F: Runway 3R-21L extension (Phase 1 extension to 9,300 feet)

- 1-G: Taxiway ‘D’ extension with 15 foot shoulder
- 1-H: Taxiway ‘C’ extension with 15 foot shoulder
- 1-I: Taxiway ‘F’ realignment
- 1-J: General aviation area: 122,000 s.f. apron (bottleneck area)
- 1-K: General aviation area: 60 T-hangars (includes pads and taxilanes)
- 1-L: General aviation area: 1 conventional hangar (bottleneck area)
- 1-M: Install self-service fuel station (bottle neck area)

Table 6.1
Phase 1 (2010 – 2015) Project Cost

Project	Cost	FAA	ADOT	Airport	Other
1-A: EA	\$ 250,000	\$227,650	\$11,175	\$11,175	
1-B: Land Acquisition -145 acres total					
-Runway 21L & 21R RPZs (138 acres)	\$10,350,000	\$9,424,710	\$462,645	\$462,645	
- Runway 30 RPZ (1.4 acres)	\$105,000	\$95,613	\$4,693	\$4,694	
-Runway 12 RPZ (5.6 acres)	\$420,000	\$383,452	\$18,274	\$18,274	
1-C: Non-Standard RSAs					
-Runway 12-30 Shift (150 feet) & Add Shoulders	\$2,795,000	\$2,545,127	\$124,936	\$124,937	
-Runway 3L RSA Grading	\$220,000	\$200,332	\$9,834	\$9,834	
1-D: Commercial Terminal Bldg.	\$13,300,000	\$9,975,000	\$1,189,020	\$2,135,980	
1-E: ARFF Facility	\$3,950,000	\$3,596,870	\$353,130	\$353,130	
1-F: RWY 3R-21L Partial Extension	\$5,595,000	\$5,094,807	\$250,096	\$250,097	
1-G: Taxiway ‘D’ Extension (partial)	\$4,129,000	\$3,759,868	\$184,566	\$184,566	
1-H: Taxiway ‘C’ Extension (partial)	\$3,654,000	\$3,327,332	\$163,334	\$163,334	
1-I: Taxiway ‘F’ Realignment	\$2,647,000	\$2,410,358	\$118,321	\$118,321	
1-J: 122,000 s.f. apron	\$1,650,000	\$1,502,490	\$73,755	\$73,755	
1-K: 60 T-hangars	\$1,800,000				\$1,800,000
1-L: 1 Conventional Hangar	\$7,500,000				\$7,500,000
1-M: Self service fuel station	\$20,000				\$20,000
Total – Phase 1:	\$58,385,000	\$42,543,609	\$2,963,779	\$3,910,742	\$9,320,000

6.1.2 Phase 2 Development (2016 – 2020)

Phase 2 development consists of the following capital projects:

- 2-A: Runway 3R-21L extension (Phase 2 to 10,570 feet)
- 2-B: Taxiway ‘C’ extension
- 2-C: Taxiway ‘D’ extension
- 2-D: Highspeed taxiways of Runway 3L-21R
- 2-E: Acquire land for future east side airport development (138 acres)
- 2-F: Design/construct airport perimeter road (58,470s.y.)
- 2-G: Install/relocate perimeter fence
- 2-H: Construct a new Airport Administration/Maintenance facility
- 2-I: General aviation area: 224,000 s.f. apron (adjacent to Taxiway F extension) rehab
- 2-J: General aviation area: 36 T-hangars (includes taxilanes) construct
- 2-K: General aviation area: 1 conventional hangar (bottleneck area) construct

**Table 6.2
 Phase 2 (2016 – 2020) Project Costs**

Project	Cost	FAA	ADOT	Airport	Other
2-A: Runway 3R-21L extension	\$7,805,000	\$7,107,233	\$348,883	\$348,884	
2-B: Taxiway C extension	\$4,939,000	\$4,497,453	\$220,773	\$220,774	
2-C: Taxiway D extension	\$5,581,000	\$5,082,058	\$249,471	\$249,471	
2-D: Highspeed taxiways	\$4,050,000	\$3,687,930	\$181,035	\$181,035	
2-E: Acquire land (east side)	\$10,350,000	\$9,424,710	\$462,645	\$462,645	
2-F: Airport perimeter road	\$3,320,000	\$3,023,192	\$148,404	\$148,404	
2-G: Perimeter fence	\$300,000	\$273,180	\$13,410	\$13,410	
2-H: Admin./maintenance facility	\$5,570,000	\$5,072,042	\$248,979	\$248,979	
2-I: 224,000 s.f. apron	\$2,447,000	\$2,228,238	\$109,381	\$109,381	
2-J: 36 T-hangars	\$1,080,000				\$1,080,000
2-K: 1 Conventional hangar	\$7,500,000				\$7,500,000
Total – Phase 2:	\$52,942,000	\$40,396,036	\$1,982,981	\$1,982,983	\$8,580,000

6.1.3 Phase 3 Development (2021 – 2030)

Phase 3 development consists of the following capital projects:

- 3-A: Runway 3L-21R extension/widening (1,354’ additional length & 15’ add’l width)
- 3-B: Taxiway ‘A’ extension
- 3-C: Taxiway ‘H’ extension
- 3-D: Relocate and construct a new Air Traffic Control Tower (ATCT)
- 3-E: General aviation area: 147,000 s.f. additional (adjacent to Club House Road) construct
- 3-F: General aviation area: 1 conventional hangar w/apron (adjacent to Embry Riddle) construct
- 3-G: General aviation area: 48 additional T-hangars (bottleneck area) construct

**Table 6.3
 Phase 3 (2021 – 2030) Project Costs**

Project	Cost	FAA	ADOT	Airport	Other
3-A: Runway 3L-21R extension	\$7,260,000	\$6,610,956	\$324,522	\$324,522	
3-B: Taxiway A extension	\$3,727,000	\$3,393,806	\$166,597	\$166,597	
3-C: Taxiway H extension	\$ 4,188,000	\$3,813,592	\$187,204	\$187,204	
3-D: ATCT construction	\$12,332,000	\$11,229,519	\$551,241	\$551,241	
3-E: 247,000 s.f. aprons	\$3,216,000	\$2,928,489	\$143,756	\$143,756	
3-F: 1 conventional hangar w/ apron	\$4,455,000				\$4,455,000
3-G: 48 T-hangars (bottleneck)	\$2,400,000				\$2,400,000
Total – Phase 3:	\$37,578,000	\$27,976,362	\$1,373,320	\$1,373,320	\$6,855,000

6.2 Funding Sources

There are various sources of funding available to airports. Specifically, Prescott Municipal Airport has the following available:

- FAA Airport Improvement Program
 - Entitlement Funds
 - Discretionary Funds
- FAA Facilities and Equipment
- Passenger Facility Charge Program
- Arizona Aviation Fund
- State Airport Loan Program
- Local Funding

FAA Airport Improvement Program – The legislation that currently authorizes the FAA to issue Airport Improvement Program (AIP) grants for airport eligible projects expired September 30, 2007. The FAA has been operating on continuing resolutions since 2007 and the FAA reauthorization legislation is currently being debated in Congress and it is too speculative to determine the outcome of the new legislation that will ultimately be passed by Congress and approved by the President. For the purpose of this Chapter it is assumed that the existing AIP requirements and funding sources will continue.

AIP monies are distributed to airports in two ways: in the form of entitlements (based upon actual levels of passenger enplanements), and through discretionary grants. The City is currently eligible for both discretionary and entitlement grants and it is anticipated that will continue throughout the planning period. In Arizona, airport development projects that meet the FAA's discretionary funds eligibility requirements, could receive up to 91.06 percent of the project cost from the AIP.

- **AIP Entitlement Funds** – The AIP provides entitlement grants for eligible commercial and general aviation airports. Funding for commercial service airports is based on a formula using the airport's passenger enplanements reported two calendar years prior to the current grant year. Specifically, commercial service airports are given entitlement funding based on a graduated method developed by the FAA that equates to a lower per enplanement entitlement for an airport as the total enplanement level increases. This process is used to offset funding disparity, to the extent possible, resulting from the vastly different levels of enplanements that occur at US airports, from less than 10,000 enplanements per year at small airports, such as Prescott, to

tens of millions of enplanements at major hub airports. AIP provides eligible primary commercial service airports (those with at least 10,000 annual enplanements) with a minimum amount of \$1,000,000 per year.

The FAA evaluates airport grant requests using a published priority ranking system that is weighted toward safety, airfield pavement and airfield capacity projects, although other non-airfield projects such as terminal buildings and main access/entrance roads, are also eligible. Within the entitlement amount granted, up to 95% (as opposed to the up to 91.06% associated with the Discretionary program below) of eligible project costs are funded, with the remaining 5% provided from other non-Federal, local airport sources. Prescott Municipal Airport will be eligible to receive AIP commercial service entitlement grants if commercial passenger service is sustained.

- **AIP Discretionary Funds** – Additional funds from the discretionary apportionments under the AIP are desirable. The primary feature of AIP discretionary funds that must be recognized is that these funds are distributed on a priority basis. These priorities are established on a national basis following criteria established by the FAA. Since the AIP program funds up to 91.06 percent of eligible projects, it is essential to most public airport development programs. As a result, the airport will be competing with other airports in Arizona, the FAA Western Pacific Region, as well as the remainder of the country for discretionary funds. Whereas entitlement monies are guaranteed on an annual basis, discretionary funds are not assured.
- **FAA Facilities and Equipment** – Within the FAA's budget appropriation, funding is available in the Facilities and Equipment (F&E) Fund to purchase navigational aids and air safety-related technical equipment for use at commercial service airports in the national airport system. F&E funds are provided on a discretionary basis by the FAA.
- **Passenger Facility Charges** – The Passenger Facility Charge (PFC) Program allows the collection of PFC fees up to \$4.50 for every enplaned passenger at commercial airports controlled by public agencies. Airports use these fees to fund FAA-approved projects that enhance safety, security, or capacity; reduce noise; or increase air carrier competition. If this program is implemented at an Airport, the FAA provides a formula that reduces the AIP entitlement funding.

- **Arizona Aviation Fund** – Another source of funds available for airports in the State of Arizona is the Arizona 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 Aviation Fund. These funds have the dual objective of maximizing the effective use of the Fund's dollars for Arizona airport improvements, while attracting maximum federal AIP funds.

The Transportation Policy Board establishes the policies for distribution of these State dollars. Projects are considered within the priorities established for each of four airport categories: Commercial Service and Reliever Airports, airports in the Primary system, airports in the Secondary system and special projects. Prescott Municipal Airport is currently considered a Commercial Service facility. The City can obtain one half (up to 4.47 percent) of the local share from the aviation fund for eligible federal AIP projects or 90 percent on state-local projects. Given the current state of the economy and the Arizona state budget shortfalls, the future of this program is unknown. Recent state activity swept monies for this program into the general fund.

State Airport Loan Program – The Arizona Department of Transportation - Aeronautics Division (ADOT) has an Airport Loan Program. This program establishes the enhancement and utilization of the State funds. It is designed to be a flexible funding mechanism to assist eligible airport projects. Eligible airport related projects include runways, taxiways, aircraft parking aprons, hangars, fuel storage facilities, terminal buildings, utility services, land acquisition, planning studies, and preparation of plans and specifications for airport construction projects. Some projects, which are not currently eligible for state funding, would be considered under the loan program if the project would enhance the airport's ability to be self-sufficient. Given the current state of the economy and the Arizona state budget shortfalls, the future of this program is also unknown.

There are three ways in which the loan funds can be used: Grant Advance, Matching Funds, or Revenue Generating Projects.

- **Grant Advance:** these funds are provided when the airport can demonstrate the ability to accelerate the development and construction of a multi phase project. The project(s) must be compatible with the Airport Master Plan and included in the ADOT 5-year Airport Development Program.

- **Matching Funds:** these funds are provided to meet the local matching fund requirement for securing federal airport improvement grants or other federal or state grants.
 - **Revenue Generating:** these funds are provided for airport related construction projects that are not eligible for funding under another program. Although the Loan Program is an option for receiving funding, the availability of funds through this program is subject to the aviation revenue generated in the State.
- **Local Funding** – The City will need to consider other sources of funding for obtaining the local share of its capital improvement projects. In addition to the revenues derived from airport operations, several other methods are available for financing the local share of airport development costs. The more common methods involve debt financing which amortize the debt over the useful life of the project or a specified period. Methods of financing available to the City are discussed below.
 - **Third Party Financing:** Many airports use private, third-party financing for planned, revenue producing improvements that will be primarily used by private business or other organizations. Such projects are not ordinarily eligible for federal funding, although limited elements could be (i.e. taxiways, aprons, etc.). Projects of this kind typically include aircraft hangars, FBO facilities, fuel storage, air cargo facilities, exclusive aircraft parking aprons, industrial development areas, non-aviation commercial areas, and various other revenue producing projects.
 - **Revenue Bonds:** Revenue Bonds are retired solely from the revenue of a particular project or from the operating income of the issuing agency, such as the City. Generally, they fall outside statutory limitations on public indebtedness and, in many cases, do not require voter approval. Because of the limitations on other public bonds, airport sponsors are increasingly turning to revenue bonds whenever possible. Revenue Bonds, however, normally carry a higher rate of interest because they lack the security of tax supported General Obligation (GO) bonds issued by other government bodies. Revenue Bonds are more suited to airports that have sufficient cash flow and income to retire the debt in a reasonable time period.

- **Airport Operating Fund:** It is assumed that airport revenues over and above that utilized to cover airport operating and maintenance expenses will be the primary source of the “local” capital improvement dollars. **Table 6.4** presents the summary of the cash flow analysis for the airport through the planning period. The intent of the cash flow analysis is to examine the airport's financial structure and the ability of the Airport Fund to contribute to future airport capital needs.

Table 6.4
Airport Cash Flow Analysis

	Actual Fiscal Year 2009	Budget Fiscal Year 2010	Annual Averages		
			Fiscal Years 2011-2015	Fiscal Years 2016-2020	Fiscal Years 2021-2030
Revenues \$	1,313,240	\$ 1,502,347	\$ 1,580,621	\$ 1,781,724	\$ 2,120,807
Expenses \$	1,487,332	\$ 1,501,898	\$ 1,566,829	\$ 1,766,431	\$ 2,083,026
Income (Loss) \$	(174,092)	\$ 449	\$ 13,792	\$ 15,293	\$ 37,781

Source: Data from the City of Prescott; Projections calculated by the Airport and The Louis Berger Group.

The information presented in Table 6.4 above is not intended to provide a detailed analysis or business plan for the Airport. Information was obtained from the most recent fiscal year as well as the Airport’s projected five year budget to determine expected revenues and expenses of the Airport. There are various items that can change an Airport’s revenue stream like new development/leases, as well as unexpected expenses as buildings age, such as the terminal building. A Master Plan provides a snapshot in time.

This table presents the annual average of expected revenues and expenses considering a conservative approach to both, utilizing average annual growth rates of less than 3 percent.

6.3 Summary and Implementation

A list of capital improvement projects has been assembled from the facility requirements documentation previously presented in Chapter 3. The project list must be coordinated with the Airport Layout Plan (ALP) drawing set and the Capital Improvement Program (CIP) that is continuously updated by PRC Airport Management, ADOT, and the FAA.

The total Capital Improvement Program for Prescott Municipal Airport, as discussed in this Master Plan, is approximately \$146 million. With such a large program, the planning process requires the City of Prescott to consistently monitor the progress of the airport in terms of total enplanements, total aircraft operations, total based aircraft, and overall aviation activity. Analysis of aircraft demand is critical to the exact timing and need for new airport facilities. The information obtained from this continuous monitoring process will provide the data necessary to determine if the development schedule should be accelerated or decelerated.