



Chapter 7

Capital Improvement Plan



Implementation of the recommended alternatives is guided by a Capital Improvement Plan (CIP) that establishes a timeline and cost estimate for each planned improvement. CIPs help identify the level of financial, staffing, and scheduling resources needed for each improvement while organizing the timing of necessary preliminary projects such as design plans, land acquisitions, and environmental reviews. CIPs also help illustrate the capital needs of an airport, assisting the funding allocation decisions of federal, state, and local officials.

The CIP prepared for the Asheville Regional Airport (Airport) outlining projects identified in this Master Plan is contained in the Fiscal Year 2013-2032 Capital Improvement Plan and is presented in this Chapter in the following sections:

- 7.1 Capital Improvement Plans
- 7.2 Estimated Costs for Future Development
- 7.3 Funding Resources
- 7.4 Summary

7.1 Capital Improvement Plans

CIPs summarize the short-, medium-, and long-term development plans of an airport, outlining infrastructure improvement projects such as runway and taxiway extensions, operational needs such as pavement rehabilitations, and equipment purchases such as Aircraft Rescue and Fire Fighting (ARFF) and snow removal equipment (SRE) vehicles. Typically covering a 20-year planning period, CIPs include the capital needs associated with each proposed project and are updated regularly based on changing conditions and priorities. CIPs must also be coordinated with projects identified in master plans and Airport Layout Plans (ALPs) and include projects both eligible and ineligible to receive federal funding. Projects eligible to receive federal funding from the Airport Improvement Program (AIP) must be identified on an airport's CIP as this source of information updates the Federal Aviation Administration (FAA) database used in awarding funds. In addition to projecting the level of financial resources needed for

each proposed project, CIPs also help balance scheduling conflicts, identify timelines for environmental review requirements, and address property needs such as leases, easements, and land acquisitions.

7.2 Estimated Costs for Future Development

As summarized in **Table 7-1**, nearly \$200 million in improvement projects, equipment purchases, and planning initiatives are listed on the Airport's CIP over the next 20 years with a breakdown of the funding share for each project also included. There are also a number of privately-funded and FAA-funded projects included in the summary. Projects are listed chronologically based upon priority and grouped by short-term (2013-2017), mid-term (2018-2022), and long-term (2023-2032) needs.

It should be noted that AIP funds typically account for 90 percent of eligible projects while the remaining 10 percent of costs are the responsibility of an airport sponsor. North Carolina provides a fixed amount of dollars each year to commercial service airports which can be used to help meet this local share of AIP-eligible projects. North Carolina's "State Aid to Airports" program may also offer funding support for a variety of non-AIP-eligible projects. It is assumed for some cost estimates in the table that five percent of the local share will come from state aid, while the remaining five percent will come from local funding sources. It is also assumed in the short term (2013-2017) that state aid totaling \$600,000 per year will be available from NCDOT Division of Aviation funds to complete the ARFF station project and the airfield improvement program.

Significant investment (\$71.1 million) is planned during the short-term to address Airport needs through 2017. The most significant use of funds will go toward airfield improvements to relocate the runway so that increased separation can be obtained between its parallel taxiway to meet current FAA design standards. Other improvements during this period include the new ARFF facility and a few equipment purchases to update and maintain the Airport's vehicle fleet.

Mid- and long-term projects planned after 2017 are more susceptible to changing priorities and needs and could see the time frame of their implementation adjusted based on varying factors. Significant projects within these periods include a parking expansion, the rehabilitation of Taxiway A, site development of the north general aviation (GA) area, and terminal building and apron expansions.

Table 7-1: Capital Improvement Plan Summary

Year Project	Total Cost	AIP Eligible	Potential Funding Sources					
			FAA Entitlement	FAA Discretionary	NC DOT	PFC	Airport Authority	Other
Short-term Improvements (2013-2017)								
2013 ARFF Facility	\$ 4,534,750	Yes	\$ 2,933,979	\$ -	\$ 1,300,000	\$ 300,771	\$ -	\$ -
Airfield Improvements Program - Phase I (Design)	\$ 2,340,195	Yes	\$ 560,000	\$ 1,260,000	\$ -	\$ 520,195	\$ -	\$ -
	Total 2013	\$ 6,874,945	\$ 3,493,979	\$ 1,260,000	\$ 1,300,000	\$ 820,966	\$ -	\$ -
2014 Airfield Improvements Program - Phase II Taxiway (Sitework/Utilities)	\$ 10,485,000	Yes	\$ 2,725,339	\$ 5,774,661	\$ 600,000	\$ 1,385,000	\$ -	\$ -
Terminal Rood Replacement (Phase I)	\$ 244,300	No	\$ -	\$ -	\$ -	\$ 244,300	\$ -	\$ -
Aviation Way/Terminal Drive Airport Entrance Redesign	\$ 0*	No	<i>NC DOT project as a part of the NC-280/I-26 Interchange Redesign</i>					
	Total 2014	\$ 10,729,300	\$ 2,725,339	\$ 5,774,661	\$ 600,000	\$ 1,629,300	\$ -	\$ -
2015 Airfield Improvements Program - Phase III Taxiawy (Paving/Electrical)	\$ 13,397,284	Yes	\$ 2,000,000	\$ 6,500,000	\$ 600,000	\$ 4,297,284	\$ -	\$ -
	Total 2015	\$ 13,397,284	\$ 2,000,000	\$ 6,500,000	\$ 600,000	\$ 4,297,284	\$ -	\$ -
2016 Airfield Improvements Program - Phase IV Runway (Sitework/Utilities)	\$ 20,047,250	Yes	\$ 2,000,000	\$ 13,000,000	\$ 600,000	\$ 4,447,250	\$ -	\$ -
ARFF Truck	\$ 1,000,000	Yes	\$ -	\$ 574,750	\$ -	\$ -	\$ 425,250	\$ -
Snow Removal Equipment - Broom and Blower	\$ 1,300,000	Yes	\$ 900,000	\$ -	\$ -	\$ -	\$ 400,000	\$ -
	Total 2016	\$ 22,347,250	\$ 2,900,000	\$ 13,574,750	\$ 600,000	\$ 4,447,250	\$ 825,250	\$ -
2017 Airfield Improvements Program - Phase V Runway (Paving/Electrical)	\$ 17,405,216	Yes	\$ 2,000,000	\$ 13,000,000	\$ 600,000	\$ 1,805,216		
Snow Removal Equipment - Plow Trucks	\$ 333,333	Yes	\$ 300,000	\$ -	\$ -	\$ -	\$ 33,333	
	Total 2017	\$ 17,738,549	\$ 2,300,000	\$ 13,000,000	\$ 600,000	\$ 1,805,216	\$ 33,333	\$ -
	Total Short-term Improvements	\$ 71,087,328	\$ 13,419,318	\$ 40,109,411	\$ 3,700,000	\$ 13,000,016	\$ 858,583	\$ -
	Projected Available Funding		\$ 14,485,578				\$ 8,128,248	
Mid-Term Improvements (2018-2022)								
Commercial Vehicle Curbfront Improvements w/ Ped. Canopies	\$ 3,500,000	Yes	\$ 1,200,000	\$ -	\$ -	\$ 1,500,000	\$ 800,000	\$ -
Wright Brothers Way Road Extension	\$ 3,000,000	Yes	\$ 1,000,000	\$ -	\$ 300,000	\$ 1,374,750	\$ 325,250	\$ -
Ready/Return Lot Expansion & Improvements	\$ 1,000,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000 ¹
Parking Expansion & Improvements (Garage or Remote Lot)	\$ 13,800,000	No	\$ -	\$ -	\$ -	\$ -	\$ 13,800,000	\$ -
Taxiway A Rehabilitation & Improvements/Shoulders	\$ 12,300,000	Yes	\$ 5,000,000	\$ 6,070,000	\$ 615,000	\$ 615,000	\$ -	\$ -
Parking Lot Rehabilitation (Lower public and lower employee lots)	\$ 1,000,000	No	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -
ASOS Relocation (FAA funded or part of Airfield Improvements Program)	\$ 400,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000 ²
Terminal Drive/NC280 Intersection Improvements (Right Turn Lane)	\$ 150,000	Yes	\$ 135,000	\$ -	\$ 7,500	\$ 7,500	\$ -	\$ -
North General Aviation Site Development	\$ 9,900,000	Yes	\$ 4,255,000	\$ 3,150,000	\$ 495,000	\$ 2,000,000	\$ -	\$ -
Box Hangars (20,000 Square Feet)	\$ 2,200,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,200,000 ³
9-Unit T-Hangar	\$ 400,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000 ³
Roadway Improvements and Rehabilitation	\$ 5,000,000	Yes	\$ 4,500,000	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -
Security System Improvements	\$ 3,000,000	Yes	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -
ARFF Truck	\$ 1,200,000	Yes	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -	\$ -
Terminal Apron Rehabilitation/Repairs	\$ 950,000	Yes	\$ -	\$ -	\$ -	\$ 950,000	\$ -	\$ -
	Total Mid-term Improvements	\$ 57,800,000	\$ 16,090,000	\$ 9,220,000	\$ 1,667,500	\$ 10,897,250	\$ 15,925,250	\$ 4,000,000
	Projected Available Funding		\$ 15,139,283				\$ 8,824,377	
Long-term Improvements (2023-2032)								
Terminal Expansion (Boarding Gates & Terminal Building)	\$ 14,720,000	Yes	\$ 6,000,000	\$ -	\$ 736,000	\$ 7,984,000	\$ -	\$ -
Terminal Apron Expansion - North	\$ 2,180,000	Yes	\$ 1,962,000	\$ -	\$ 109,000	\$ 109,000	\$ -	\$ -
Master Plan Update	\$ 1,000,000	Yes	\$ 900,000	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -
Parking Lot Rehabilitation (Upper public and rental lots)	\$ 1,100,000	No	\$ -	\$ -	\$ -	\$ -	\$ 1,100,000	\$ -
Fleet Vehicle Replacement	\$ 200,000	Yes	\$ 180,000	\$ -	\$ 10,000	\$ 10,000	\$ -	\$ -
ARFF Apron Rehabilitation	\$ 600,000	Yes	\$ 540,000	\$ -	\$ 30,000	\$ 30,000	\$ -	\$ -
GA Apron and Taxilanes Pavement Rehabilitation	\$ 6,700,000	Yes	\$ 6,030,000	\$ -	\$ 335,000	\$ 335,000	\$ -	\$ -
Maintenance Facility Improvements	\$ 4,000,000	Yes	\$ 3,600,000	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ -
Heavy Equipment Replacement	\$ 1,000,000	Yes	\$ 900,000	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -
Air Traffic Control Tower Relocation	\$ 8,000,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000,000 ²
Fuel Farm	\$ 1,500,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000 ³
Terminal Apron Expansion - South	\$ 7,000,000	Yes	\$ 6,300,000	\$ -	\$ 350,000	\$ 350,000	\$ -	\$ -
Box Hangars (32,000 Square Feet)	\$ 3,520,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,520,000 ³
9-Unit T-Hangar	\$ 400,000	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000 ³
Parking Expansion & Improvements (Garage or Remote Lot)	\$ 13,800,000	No	\$ -	\$ -	\$ -	\$ -	\$ 13,800,000	\$ -
	Total Long-term Improvements	\$ 65,720,000	\$ 26,412,000	\$ -	\$ 1,870,000	\$ 9,118,000	\$ 14,900,000	\$ 13,420,000
	Projected Available Funding		\$ 33,269,616				\$ 19,996,497	

Notes ¹Customer Facility Charge (CFC)²FAA funded project³Privately funded project

This CIP is subject to revision and is to be updated regularly by the Airport

Source: Asheville Regional Airport, Mead & Hunt, Delta Airport Consultants

7.3 Funding Resources

Several funding resources are available to accommodate the capital demands of the Airport to implement projects listed in their CIP plan. These funding sources range from federal and state programs to local mechanisms based on Airport revenue and number of transactions conducted by tenants. The following section reviews these resources and identifies projects included in the CIP plan that are eligible to receive funding from each.

7.3.a Airport Improvement Program

AIP was created by the Airport and Airway Improvement Act of 1982 and is administered by the FAA. Federal funding set aside for this program is distributed for eligible non-revenue producing projects at an airport, including planning, airfield construction and navigational equipment, navigational aids (NAVAIDs), and environmental mitigation. AIP funds are distributed to different categories of public-use airports owned by public entities that are included in the National Plan of Integrated Airport Systems (NPIAS), with some exceptions made for public use airports under private ownership identified in the NPIAS.

Airports supporting commercial airline service are classified as Primary (over 10,000 enplanements) or Non-Primary (from 2,500 up to 10,000 enplanements) based on the number of annual enplanements. Primary commercial service airports are further classified based on the percentage of annual passenger enplanements in comparison with all passenger enplanements that occur annually at airports in the U.S. Since the Airport boards more than 10,000 passengers annually but accounts for less than 0.05 percent of all annual enplanements in the United States it is categorized as a non-hub primary airport. Both entitlement and discretionary AIP funds are available to Primary non-hub airports with entitlement amounts awarded based on the level of annual enplanements and discretionary amounts awarded on a project-by-project basis.

Utilization of this funding source can be applied to most of the projects identified on the CIP plan, most notably those that require a significant amount of capital such as the ARFF facility and airfield improvements program. Longer-term capital needs requiring a significant amount of funds will also benefit from this program such as taxiway rehabilitation, general aviation site development, terminal facilities expansions and others.

7.3.b State of North Carolina Funding Assistance

“State Aid to Airports” is the basic airport aid program of the North Carolina Department of Transportation (NCDOT). Under the terms of North Carolina General Statutes Chapter 63, the Department of Transportation is authorized to provide State aid in the forms of loans and grants to cities, counties, and public airport authorities for the purpose of planning, acquiring, constructing, or improving municipal, county and other publicly owned or controlled airport facilities, and to authorize related programs of aviation safety, promotions, and long-range planning.

The “State Aid to Airports” program provides state funds on a local matching formula basis. All North Carolina airports meeting the eligibility standards are eligible for state funds ranging from 50 percent of

the non-federal share of eligible project costs to 100 percent of the non-federal share of eligible project costs. The final share is stipulated by the NCDOT and depends upon the size of the airport, the location of the airport and the category of project.

In addition to utilizing State funding to meet the required local share on Federal AIP grants, funds available from State program could also help finance pavement preservation and airfield safety projects identified on the CIP.

7.3.c Passenger Facility Charges

Passenger Facility Charges (PFCs) allow an airport to collect a fee from each enplaned passenger to help fund projects that preserve or enhance safety, security, and capacity; reduce the impacts of aircraft noise; or provide enhanced competition between air carriers. This funding mechanism helps an airport raise local funds for improvement projects that can be used in conjunction with other federal and state resources. Currently, federal regulations allow an airport to collect a PFC fee up to \$4.50 per enplaned passenger.

Fees collected from PFCs for each enplaned passenger at the Airport could be applied to safety and security improvement projects included on the CIP. In addition to helping the Airport meet the local share necessary to receive federal funding for the Airfield Improvements Program, PFCs could help finance most projects listed on the CIP including the acquisition of a new ARFF vehicle and de-icing area modifications to accommodate additional aircraft. An increase in the \$4.50 limit per enplaned passenger (which is being discussed by industry and government officials) would benefit the Airport as additional local funds could be generated for improvement projects.

7.3.d Customer Facility Charges

Customer Facility Charges (CFCs) are a local source of revenue set forth by an agreement with an airport and rental car concessionaires to collect a fee from rental car transactions to help finance the construction of car rental infrastructure such as service facilities and parking facilities. The level of these fees vary based upon an agreed level between the Airport and rental car concessionaires with method of collection ranging from a per transaction basis or a per transaction day basis. CFCs are not subject to federal or state requirements limiting the application of their use, or the fee amount that can be placed on a rental car transaction.

CFCs were used to fund the construction of the rental car service facilities located to the south of the terminal building, and are a likely source of funding for other rental related facilities such as ready/return lot expansion and other improvements for the rental car concessionaires

7.3.e Additional Airport Financing Sources

Revenue earned from other Airport funding sources that help finance the day-to-day operations of the Airport could also be utilized for improvement projects listed on the CIP. These sources of revenue include rents from commercial air carriers, concessionaires, Fixed Based Operators (FBOs), and hangar tenants; landing fees collected from aircraft operations; and automobile parking charges. Funds raised

from these sources are not subject to federal or State requirements limiting their applicability and can be utilized to fund all improvement projects at the Airport.

Revenue available from these sources is most beneficial for projects that are not eligible to receive federal or state funding or are only able to take advantage of a limited portion of federal or state funds that are available. Funding gaps experienced in other improvement projects, such as the ability of PFCs and CFCs to meet the required local match, could also benefit from revenue earned through these additional resources. Projects on the Airport's CIP most likely to benefit from these additional funding sources, either because of ineligibility for federal or state funding or limited available funds, include the expansion and improvements of the Airport's revenue parking lots.

7.4 Summary

Development of a CIP allows an Airport to create an implementation schedule addressing the timing of future capital needs for proposed infrastructure improvements. In addition to identifying the level of financial, staffing, and scheduling resources needed for each improvement project, CIPs help demonstrate the short-, mid-, and long-term financial needs of an airport to federal, state, and local officials. Several funding resources made available through federal and State of North Carolina programs or local mechanisms such as PFCs and CFCs are available to assist the Airport in raising the necessary capital for each improvement project. Periodic updates of the CIP to reflect changing demands and priorities throughout the planning period will position the Airport well to continually meet the aviation demands of western North Carolina.