
CHAPTER EIGHT

Implementation and Financial Plan

This chapter outlines a general plan of finance for the Capital Improvement Program (CIP) recommended in the Master Plan. The RIC, which is owned and operated by the Commission, must continue to invest in its infrastructure as well as plan for infrastructure upgrades and future capital improvement needs required by the airport. The financial plan presented in this section demonstrates that the recommended Master Plan improvements can be reasonably paid for by the airport, and explains the sources of revenues that can be used to meet the capital requirements.

The analysis included in this section is based on a number of assumptions both from an operating and a financial perspective. On the operating side, the master planning process prepared long-range passenger and operating forecasts for the airport projecting anticipated traffic over the next twenty years. The aviation forecasts were used as factors in the financial analysis. The assumptions used to develop the aviation forecasts are described in *Chapter Three, Aviation Demand Forecasts* and should be considered as an integral part of the financial plan presented here. The planning team developed the financial model by analyzing a range of assumptions. These assumptions include:

- Operating revenues
- Operating expenses
- Anticipated federal and state entitlement funds and discretionary funds
- Passenger facility charge (PFC) revenue
- Debt servicing on current airport bonds

The financial plan matches the Master Plan's twenty-year timeline. However, as with any long-term projection, conditions may change over time and may have a material effect on the conclusions of this report. The current capital improvements have been identified and ranked in order of importance. The airport may change the timing or add projects as necessary, which could alter the financial plan. Also, project costs are estimated in 2008 dollars and adjusted for the Consumer Price Index (CPI) in the future. The actual dollar amounts may change if raw materials, labor, or other inputs increase or decrease in the future. The financial plan examines CIP expenditures in detail for the next five years. For years five to twenty, a higher level analysis was performed.

For presentation purposes, this chapter is organized as follows:

- Trigger Point Analysis – Establishes trigger points for projects recommended in the Preferred Development Plan.
- Preferred Development Plan Project Description – Lists capital projects anticipated to occur over the 20-year planning horizon, including both CIP and Master Plan elements, and provides a general description and order-of-magnitude cost estimate for each project.
- Implementation Schedule – Discusses the implementation of planned capital improvements based on the needs of the airport given current infrastructure conditions and estimated future growth, including the financial capabilities of the airport.
- Capital Development Program Spending - Presents details of yearly planned capital improvement projects between FY 2009 and 2028.
- Financing Feasibility – Describes a strategy for the funding of capital improvement projects, including a description of various sources of funds and the anticipated use of those funding sources.

8.1 TRIGGER POINT ANALYSIS

The planning team conducted an analysis to establish trigger points for the projects recommended in the Preferred Development Plan. Implementation of the Master Plan is typically demand driven; therefore, capacity-enhancing and delay-reducing projects are initiated when demand dictates the need for additional or expanded facilities. Exceptions may occur when existing facilities exceed their useful life and need to be replaced, when customer service initiatives dictate new, expanded, or relocated facilities, or when facilities are needed to enhance the operational efficiency of the airport. Based upon these various trigger points, the projects were divided into two groups - those to be implemented within the 20-year planning horizon and those that will be implemented during the post-planning period. Accurately predicting the exact timeframe for these milestones is often difficult, which is why implementation and funding decisions are typically made incrementally throughout the planning horizon based on the needs at a given point in time. **Exhibit 8.1** illustrates the trigger points for each of the master plan projects.

**Richmond International Airport
Master Plan
Demand Capacity Analysis and Facility Requirements
Trigger Points**

	Base Year 1,647,700 120,500	2011 2,093,900 139,100	2016 2,402,700 157,100	2021 2,709,400 173,600	2026 3,031,000 191,400
Forecast Year					
Annual Enplanements					
Annual Operations					
Facility Requirements					
Airfield:					
Runways - Existing & Future	55% Capacity at 120,600 Operations Runway 16/34 at 10,200 feet; Runway 2/20 at 6,600 feet; Runway 7/25 at 5,330 feet	62% Capacity with a projected 136,300 operations. Planning for adding additional capacity to the Airfield commences	70% Capacity with a projected 154,600 operations.	78% Capacity with a projected 172,300 operations. Provide length requirements for future runway of 9,000 feet for all departure runways; 8,000 feet for all arrival runways.	87% Capacity with a projected 191,200 operations.
Runway Length Requirements	Adequate	None Required	None Required	None Required	None Required
Taxiways		improvements to enhance the operational efficiency of the taxiway system as necessary	improvements to enhance the operational efficiency of the taxiway system as necessary	Provide full length parallel taxiways for all new runway extensions and runways. Provide additional high speed exit taxiways	improvements to enhance the operational efficiency of the taxiway system as necessary
Approach Lighting	Adequate	Any improvements to the airfield will require all affected approach lighting systems to be improved as necessary	Any improvements to the airfield will require all affected approach lighting systems to be improved as necessary	Any improvements to the airfield will require all affected approach lighting systems to be improved as necessary	Any improvements to the airfield will require all affected approach lighting systems to be improved as necessary
Navigational Aids	Adequate	Any improvements to the airfield will require all affected navigational aids to be improved as necessary	Any improvements to the airfield will require all affected navigational aids to be improved as necessary	Any improvements to the airfield will require all affected navigational aids to be improved as necessary	Any improvements to the airfield will require all affected navigational aids to be improved as necessary
Runway Design Standards	Adequate	Any improvements to the airfield will require all design standards to be met	Any improvements to the airfield will require all design standards to be met	Any improvements to the airfield will require all design standards to be met	Any improvements to the airfield will require all design standards to be met
Aprons	Airfield pavement is rated as good to poor condition depending on the location	Rehabilitate and bring non-compliant apron pavement strengths up to standard	Rehabilitate and bring non-compliant apron pavement strengths up to standard	Rehabilitate and bring non-compliant apron pavement strengths up to standard	Rehabilitate and bring non-compliant apron pavement strengths up to standard
Terminal:					
Aircraft Gates	22 actual gates	28 actual Gates	32 actual Gates	36 actual Gates	41 actual Gates
Apron Frontage	3,300' Linear Feet	4,350 Linear Feet	4,950 Linear Feet	5,550 Linear Feet based on 37 NBEG Gates	6,300 Linear Feet based on 42 NBEG Gates
Terminal Building Area	510,000 Square Feet	560,000 Square Feet (Square Feet Per Gate Method)	640,000 Square Feet (Square Feet Per Gate Method)	720,000 Square Feet (Square Feet Per Gate Method)	820,000 Square Feet (Square Feet Per Gate Method)
Tricketing Positions	12 Ticket Counter Positions with a processing rate of 2,031 peak hour passengers	Adequate throughout planning period	Adequate throughout planning period	Adequate throughout planning period	Adequate throughout planning period
Security Checkpoints	6 Security Checkpoint lanes processing 200 passengers per lane per hour for a total of 1,200 peak hour passenger departures	None Required	1 additional lane per concourse for a total of 8 lanes	None Required	1 additional lane per concourse for a total of 10 lanes
In-Line Baggage Processing	4 baggage processing machines at a processing rate of 400 bags per machine per hour for a total of 1,600 bags per hour	1 Additional Explosive Detection System Machine per concourse for a total of 6 machines	None required, Airport keeps existing EDS Machines (total of 6 machines)	1 Additional EDS Machine per concourse for a total of 8 machines	None required, Airport keeps existing EDS Machines (total of 8 machines)
Baggage Claim Carousels	6 baggage claim units which can process approximately 4,680 bags in an hour	Adequate throughout planning period	Adequate throughout planning period	Adequate throughout planning period	Adequate throughout planning period
Airport Concession Space	16,600 feet	21,086 Square Feet	24,196 Square Feet	27,284 Square Feet	30,523 Square Feet
Support/Ancillary:					
Airport Traffic Control Tower	Commissioned in 2005 with a 20-year life span	None Required	None Required	Planning is necessary if a future runway is being planned and the existing ATCT has line of sight issues with the placement of a new runway	End of projected useful life. Additional analysis may be needed pursuant to condition of facility
Air Cargo	103,000 square feet	106,605 S.F. of space (3,605 S.F. more than Base Year)	110,336 S.F. of Building space (3,731 S.F. more than required in 2011)	114,197 S.F. of Building space (3,861 S.F. more than required in 2016)	118,194 S.F. of Building space (3,997 S.F. more than required in 2021)
Airline Aircraft Maintenance	Trans States Airlines and Continental Express are the airline tenants with dedicated maintenance facilities. Facilities exist within lease space of existing Food and Beverage Concessionaire	Preserve space as needed	Preserve space as needed	Preserve space as needed	Preserve space as needed
Flight Kitchen		None required	None Required	None Required	None Required
Airport Maintenance	Four buildings dedicated to Airport Maintenance	Preserve space as needed	Preserve space as needed	Preserve space as needed	Preserve space as needed
General Aviation/Fixed Base Operator	94 based aircraft and 23,000 GA operations	Relocation of FBOs for needed terminal support expansion	Relocation of FBOs for needed terminal support expansion	Relocation of FBOs for needed terminal support expansion	Relocation of FBOs for needed terminal support expansion
Fuel Storage	120,000 gallons of fuel or approximately 7,400 usable barrels of fuel	9,000 Barrels are needed which is a deficit of 1,619 barrels from the Base Year	An additional 450 barrels for a total of 9,450 barrels	An additional 472.50 barrels for a total of 9,922.50 barrels	An additional 496.08 barrels for a total of 10,418.58 barrels
Airfield Rescue Fire Fighting	The existing ARFF facility is located in the center of the airfield between Runways 16-34 and 2-20.	Relocate ARFF Station from airside to landside to eliminate crossing active runways when being accessed by vehicles	None required	None required	None Required
Utilities	Upgrade as needed based upon improvements to the airside and landside facilities	Upgrade as needed based upon improvements to the airside and landside facilities	Upgrade as needed based upon improvements to the airside and landside facilities	Upgrade as needed based upon improvements to the airside and landside facilities	Upgrade as needed based upon improvements to the airside and landside facilities
Ground Access:					
Roadways	The airport roadways at RIC have been recently redesigned and redeveloped in conjunction with the new Terminal Building.	Improvements/Renovations are made as new facilities are added to airport property	Improvements/Renovations are made as new facilities are added to airport property	Improvements/Renovations are made as new facilities are added to airport property	Improvements/Renovations are made as new facilities are added to airport property
Public Parking ²	7,900 Total spaces - Daily Spaces - 4,740; Economy Spaces - 3,160 ³	8,473 Total Spaces - Daily Spaces - 5,084; Economy Spaces - 3,389	9,367 Total Spaces - Daily Spaces - 5,620; Economy Spaces - 3,747	10,520 Total Spaces - Daily Spaces - 6,312; Economy Spaces - 4,208	13,260 Total Spaces - Daily Spaces - 7,956; Economy Spaces - 5,304
Employee Parking	650 Total spaces	An additional 175 spaces for a total of 825 spaces	An additional 122 spaces for a total of 947 spaces	An additional 121 spaces for a total of 1,068 spaces	An additional 127 spaces for a total of 1,195 spaces
Rental Car	4,452 square feet located in the terminal and 485 Ready Return Spaces	5,055 square feet of terminal space (Ticket Counter, Back Office, Queuing Areas); 616 Ready Return Spaces; 24.1 Acres for Service Sites	5,428 square feet of terminal space (Ticket Counter, Back Office, Queuing Areas); 707 Ready Return Spaces; 27.7 Acres for Service Sites	5,774 square feet of terminal space (Ticket Counter, Back Office, Queuing Areas); 798 Ready Return Spaces; 31.2 Acres for Service Sites	6,117 square feet of terminal space (Ticket Counter, Back Office, Queuing Areas); 892 Ready Return Spaces; 35.0 Acres for Service Sites

*NOTE 1/ Existing Apron Frontage at RIC based upon 22 gates and the B-757 as the representative aircraft utilizing a narrow-body equivalent gate (125 feet wingspan plus 25 feet wingtip clearance between aircraft for a total width of 150 feet).

*NOTE 2/ The relationship between the peak month enplanements of the Base Year and available parking stalls during the Base Year yielded a planning factor of 31.1 stalls per one thousand peak month enplanements. This factor is consistent with FAA guidelines established in Advisory Circular 150/5360-13, Planning and Design Guidelines for Airport Terminal Facilities.

* NOTE 3/ Existing number of spaces at Richmond International Airport (Construction of new garage and expansion of Lot B, total number of existing stalls will be 11,900 when completed in 2009)



8.2 PREFERRED DEVELOPMENT PLAN PROJECT DESCRIPTION

The Preferred Development Plan represents a comprehensive list of capital projects that are anticipated to occur at the airport. Prudent planning begins with examining and documenting all potential development that may occur at the airport regardless of when the projects are anticipated to occur. The airport master planning process then organizes these projects based on demand and justification, which serves as the basis for a 20-year capital improvement program. Those projects that are not anticipated to occur within that 20-year horizon are deemed to be post-planning horizon projects. Consequently, some of the projects shown on the Preferred Development Plan will not occur during the planning horizon; however, they are included for planning purposes to preserve space for their ultimate development when demand dictates. The following is a brief description and rationale for each of the projects in the Preferred Development Plan. They are divided into two groups - those to be implemented within the 20-year planning horizon and those that are post-planning period projects. Detailed cost estimates for each of the projects are provided in the **Appendix H**.

8.2.1 Projects to be Implemented Within the Planning Horizon

8.2.1.1 Parallel Runway 16R-34L and Taxiway

Construction of a new, 9,000 foot long by 200 foot wide runway (16R-34L) with 35 foot wide shoulders and a new parallel 75 foot wide taxiway.

8.2.1.2 Runway 34R Extension

Construction of a 1,200 foot runway and taxiway extension.

8.2.1.3 Taxiway M Realignment

Reconstruction-realignment of Taxiway M to a full-length parallel taxiway including the construction of all associated high-speed exit taxiways.

8.2.1.4 Taxiway L Realignment

Reconstruction-realignment of Taxiway L to a full-length parallel taxiway including the construction of all associated high-speed exit taxiways.

8.2.1.5 Relocated GA and Commercial Aviation Maintenance

Relocation of existing General Aviation/Commercial Aviation Maintenance facilities to the East Airside Development location.

8.2.1.6 Corporate Aviation Hangar Facilities

Construction of approximately 520,000 square feet of building space dedicated to corporate aviation hangars located in the East Airside Development area.

8.2.1.7 Relocated FBO Facilities (Phase I)

Relocation of existing FBO facilities to the East Airside Development area.

8.2.1.8 East Airside Access Road and Beulah Road Realignment

Construction of the new East Airside Development Access Road for circulation of vehicles to access new facilities. Construction includes realignment of Beulah Road.

8.2.1.9 Relocated ARFF Station

Relocation of the existing ARFF facility due to construction of Runway 16R-34L and to meet required response times to airfield facilities.

8.2.1.10 Apron and Concourse A Expansion (Phase I and Phase II)

The expansion of approximately 47,200 square feet of building space at Concourse A adding additional gates and holdrooms, as well as the construction of approximately 900,000 square feet of new apron in Phase I. The expansion of approximately 36,100 square feet of building space at Concourse A adding additional gates and holdrooms during Phase II.

8.2.1.11 Apron and Concourse B Expansion (Phase I and Phase II)

Construction of approximately 835,000 square feet of additional apron to support the future Concourse B expansion in Phase I. The expansion of approximately 56,400 square feet of building space at Concourse B adding 11 gates and associated holdrooms.

8.2.1.12 Surface Parking and New Terminal/Concourse C Expansion (Phase I and Phase II)

Construction of approximately 1,833,000 square feet of new apron for the new Terminal C building in Phase I. Construction of approximately 253,300 square feet of building space dedicated for Terminal facilities and Concourse C adding ticket counters, 18 gates, and passenger handling facilities in Phase II.

8.2.1.13 Deicing and Diversion Apron

Construction of approximately 600,000 square feet of a Deicing and Diversion Apron.

8.2.1.14 Relocated Belly Cargo and Ground Support Equipment Building

Relocation of existing belly cargo facilities south of the terminal area.

8.2.1.15 Remote Parking Garage

Construction of an approximately 510,000 square foot, four-level parking garage south of the existing public parking garages.

8.2.1.16 Consolidated Rental Car Facility (CONRAC)

Construction of approximately 49,100 square feet Consolidated Rental Car Facility (CONRAC) along South Airport Drive.

8.2.1.17 Relocated Fuel Farm

Relocation of the fuel farm to the southwest of the terminal area due to the construction of the Airport Business Park.

8.2.1.18 Conversion of Runway 7-25 into Taxiway

Decommission existing Runway 7-25 and convert to a taxiway.

8.2.1.19 Electrical System Upgrades to Airfield

Rehabilitation/replacement of existing airfield electrical systems.

8.2.1.20 Completion and Rehabilitation of Airfield Roadways

Completion and rehabilitation of the airfield roadways.

8.2.1.21 Pavement Rehabilitation

Rehabilitation of airside and landside pavement to appropriate standards for safe and efficient aircraft operations.

8.2.1.22 Relocated Air Cargo Facilities

Relocation of air cargo facility operators to the East Airside Development location.

8.2.1.23 Federal Bureau of Investigation (FBI) Complex

Construction of Federal Bureau of Investigation (FBI) Complex at the East Airside Development location.

8.2.1.24 Relocated FBO Facilities (Phase II)

Relocation of existing FBO facilities to the East Airside Development area.

8.2.1.25 Air Carrier Support Facilities

Construction of air carrier support facilities.

8.2.1.26 Interstate 895 Connector

Regional authorities shall construct a connector to Interstate 895 Connector (this is not an airport specific project).

8.2.2 *Projects to be Implemented After the Planning Horizon*

8.2.2.1 Runway 16L Extension

Construction of a 500 foot runway and taxiway extension.

8.2.2.2 Future Heavy Aircraft Maintenance and Modifications

Construction of a future heavy aircraft maintenance and modification facility.

8.2.2.3 Air Cargo Support Facilities

Construction of air cargo support facilities.

8.2.2.4 Conference Center

The construction of approximately 594,000 square feet of conference facilities located between the parking garages.

8.2.2.5 Surface Parking and Parking Garage

Expansion and conversion of approximately 10 acres of land into surface parking and parking garage. Construction of an approximately 250,000 square foot, two-level parking garage connected to the new Terminal and Concourse C (structure mirrors the existing Rental Car Garage next to the terminal building).

8.2.2.6 Regional Rail Connection

Regional authorities shall construct a regional rail connection to the existing rail lines. (This is not an airport-specific project).

8.2.2.7 Airport Business Park

Development of future office, industrial, and warehouse space for prospective aerospace/aviation-related firms as well as non-aviation related firms.

8.2.2.8 Airport Maintenance Facility Expansion

Expansion of facilities dedicated to the storage of airfield equipment and vehicles.

8.3 IMPLEMENTATION SCHEDULE

The timing of the various capital improvement projects has been developed and reviewed by airport officials, its engineers, architects, and financial consultants. The planned capital improvements are based on the needs of the airport given current infrastructure conditions and estimated future growth. A significant amount of advanced planning should occur to document the purpose, need and justification as well as examine other capacity enhancing alternatives prior to the implementation of capital improvement projects. Also, the financial capabilities of the airport have been taken into account. The capital program could change at any point in the future for several reasons:

- Enplanement growth could deviate from the current forecast.
- More immediate capital projects could take precedence due to security, safety, or other reasons, which could push planned projects to a later date.
- Changes in future funding from the Federal Aviation Administration (FAA) or the Virginia Department of Aviation (DOAV) could alter the airport's financial plan and require a shifting of funds or projects.

The following capital program is the best estimate by the airport and its consultants given the current environment and goals of the airport. Because actual activity levels are likely to vary from the projected forecast, the implementation schedule should be closely monitored and adjusted based on the actual activity levels.

8.4 CAPITAL DEVELOPMENT PROGRAM SPENDING

The following tables present the detail of yearly planned capital improvement projects between FY 2009 and 2013 and in summary form for the subsequent 15 years. Each identified project has an individual budget as well as a description of funding sources. There are five major funding sources the airport can draw upon to complete its CIP program: FAA AIP funds (both entitlement and discretionary), DOAV funds, local funds (the airport's operating surplus), incremental PFC revenue, and third-party sources. The local funds, which are referred to as Operating Surplus, are a combination of the airport's operating surplus and financing that is supported from additional revenue generated by the project

For each of the next five years, the project budget is shown using the best estimates of the airport's planning team. The project budgets were originally developed in 2008 dollars. For the purposes of this analysis, each budget item has been adjusted for inflation of 2.5% annually.

As shown in **Table 8.1**, the Commission plans to spend \$18.5 million on capital improvement projects in 2009. The funding is anticipated to come from FAA funds, which include entitlement funds based on expected enplanements at the airport, as well as from discretionary funds for the upgrade of the airfield electrical system. Although discretionary money is not a guaranteed source of funding, there is a high degree of confidence that this

will occur based on the importance of the project. Other funding will come from the state DOAV, which is expected to contribute \$2 million, local or airport funds of \$3.5 million, and incremental revenue collected by the airport. Incremental PFC revenue of \$2.2 million will cover the balance of project costs that the airport has planned in 2009.

Table 8.1 - Richmond International Airport's Capital Improvement Program - FY 2009

Project	Budget	FY 2009					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Upgrade Airfield Electrical System	\$9,510,998	\$5,565,544	\$3,372,167	\$226,688	\$346,599	\$0	\$0
General Aviation Expansion - Road	\$2,000,000	\$0	\$0	\$600,000	\$0	\$1,400,000	\$0
General Aviation Expansion - Apron	\$4,000,000	\$0	\$0	\$600,000	\$2,556,234	\$843,766	\$0
Taxiway 'M' Interim Improvements (Lighting, Marking)	\$250,000	\$0	\$0	\$200,000	\$50,000	\$0	\$0
Obstruction Removal	\$2,000,000	\$0	\$1,900,000	\$60,000	\$40,000	\$0	\$0
Concourse 'A' Apron Expansion (Design)	\$800,000	\$0	\$0	\$275,000	\$525,000	\$0	\$0
Total CIP	\$18,560,998	\$5,565,544	\$5,272,167	\$1,961,688	\$3,517,834	\$2,243,766	\$0

In 2010, the largest planned project involves the expansion of Concourse "A" apron at \$11.5 million as illustrated in **Table 8.2**. This project is anticipated to be funded from several sources including FAA entitlement funds, DOAV, local funds, and incremental PFC revenue. As shown below, the total budget for capital projects at the airport for the year is \$19.7 million.

Table 8.2 - Richmond International Airport's Capital Improvement Program - FY 2010

Project	Budget	FY 2010					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Concourse 'A' Apron Expansion (Construction - Ph. I)	\$11,543,462	\$2,763,094	\$0	\$1,800,000	\$4,597,430	\$2,382,937	\$0
Airfield Drainage Improvements - Airfield Infield	\$4,100,000	\$2,895,000	\$1,000,000	\$123,000	\$82,000	\$0	\$0
Rehabilitate Runway 16-34 (Design)	\$1,025,000	\$0	\$973,750	\$30,750	\$20,500	\$0	\$0
Land Acquisition	\$3,075,000	\$0	\$0	\$0	\$3,075,000	\$0	\$0
Total CIP	\$19,743,462	\$5,658,094	\$1,973,750	\$1,953,750	\$7,774,930	\$2,382,937	\$0

Table 8.3 shows the 2011 planned improvements to include the continuation of Concourse "A" apron expansion, which is estimated to cost an additional \$8.4 million. The majority of these project costs will be paid through local funds, but the DOAV and PFC revenue will also be contributed. Concourse "A" building expansion is anticipated to begin during 2011. Other projects expected to begin construction during this year will include further rehabilitation of Runway 16-34 and airfield drainage improvements, both of which are anticipated to be funded through FAA discretionary funds. There are two substantial projects anticipated to be paid for through third-party funding. The FBI Complex is estimated at \$35 million, and the Interstate 895 Connector will cost an estimated \$18.9 million. Because neither of these projects will be funded with airport funds, there is no financial impact to the airport.

Table 8.3 - Richmond International Airport's Capital Improvement Program - FY 2011

Project	Budget	FY 2011					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Concourse 'A' Apron Expansion (Construction - Ph. II)	\$8,387,856	\$1,000,000	\$0	\$1,000,000	\$5,273,327	\$1,114,528	\$0
Concourse 'A' Building Expansion - Design (10 New Gates)	\$2,101,250	\$0	\$0	\$680,000	\$0	\$1,421,250	\$0
FBI Complex	\$35,342,824	\$0	\$0	\$0	\$0	\$0	\$35,342,824
Interstate 895 Connector	\$18,860,856	\$0	\$0	\$0	\$0	\$0	\$18,860,856
Rehabilitate Runway 16/34 (Construction)	\$7,354,375	\$4,754,162	\$2,000,000	\$220,631	\$379,582	\$0	\$0
Airfield Drainage Improvements - North & East	\$2,101,250	\$0	\$2,000,000	\$94,556	\$6,694	\$0	\$0
Total CIP	\$74,148,411	\$5,754,162	\$4,000,000	\$1,995,188	\$5,659,603	\$2,535,778	\$54,203,680

Actual expansion of Concourse “A” is planned for 2012, with the bulk of the capital improvement spent during this year as shown in **Table 8.4**. The concourse expansion will be paid for through local funds generated from the airport’s net revenue. Surplus from the previous two years will be used to provide a portion of the local fund contribution. The taxiway “M” realignment program is also expected to be initiated during this year and funded largely through FAA entitlement funds and DOAV funds.

Table 8.4 - Richmond International Airport's Capital Improvement Program - FY 2012

Project	Budget	FY 2012					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Taxiway 'M' Realignment (Phase I)	\$6,717,315	\$5,853,880	\$0	\$794,762	\$68,673	\$0	\$0
Concourse 'A' Building Expansion (Construction)	\$18,439,598	\$0	\$0	\$1,205,237	\$14,544,611	\$2,689,750	\$0
Employee Parking Expansion/Conversion	\$2,153,781	\$0	\$0	\$0	\$2,153,781	\$0	\$0
Total CIP	\$27,310,695	\$5,853,880	\$0	\$2,000,000	\$16,767,065	\$2,689,750	\$0

Table 8.5 depicts the relocation of the belly cargo/GSE facilities, which is estimated to cost \$21.9 million. The airport anticipates that this project will be funded by a third party thereby eliminating the need for the airport to use its own funds to support the project. During this year the airport will focus its funding resources on the RON apron expansion, airfield drainage improvements, and land acquisition using a combination of FAA entitlement money, DOAV funds, local funds, and PFC revenue to pay for these projects.

Table 8.5 - Richmond International Airport's Capital Improvement Program - FY 2013

Project	Budget	FY 2013					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
RON Apron Expansion	\$11,379,168	\$2,978,694	\$0	\$1,000,000	\$4,550,240	\$2,850,235	\$0
Airfield Drainage Improvements (Terminal & West of Termi	\$4,415,252	\$2,978,694	\$0	\$1,000,000	\$436,558	\$0	\$0
Relocated Belly Cargo/GSE	\$21,875,696	\$0	\$0	\$0	\$0	\$0	\$21,875,696
Land Acquisition	\$2,207,626	\$0	\$0	\$0	\$2,207,626	\$0	\$0
Total CIP	\$39,877,742	\$5,957,388	\$0	\$2,000,000	\$7,194,424	\$2,850,235	\$21,875,696

From 2014 to 2018, there are a number of important capital improvement projects that are planned, totaling a cost of \$381 million, as depicted in **Table 8.6**. The majority of these costs will be undertaken by third-party developers anticipated to fund the relocation of the GA/commercial aviation maintenance site, relocated FBO facilities, the corporate aviation

hangar facilities, air carrier support facilities, and the relocation of the air cargo facility. These five projects make up over sixty-five percent of capital improvement spending planned between 2014 and 2018. Other large projects during this period include deicing and diversion apron and the east side access road construction. These projects are anticipated to be funded from a combination of sources.

Table 8.6 - Richmond International Airport's Capital Improvement Program - FY 2014 - FY 2018

Project	Budget	FY 2014 - 2018					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Obstruction Removal	\$3,394,225	\$1,816,207	\$0	\$1,578,018	\$0	\$0	\$0
Relocated GA/Commercial Aviation Maintenance	\$51,422,167	\$0	\$0	\$0	\$0	\$0	\$51,422,167
Taxiway 'M' Realignment (Phase II)	\$7,233,814	\$1,844,088	\$1,089,520	\$2,000,000	\$0	\$2,300,206	\$0
Deicing and Diversion Apron	\$11,104,528	\$1,873,028	\$4,000,000	\$1,450,000	\$415,597	\$3,365,902	\$0
Pavement Rehabilitation Program	\$3,655,209	\$0	\$2,741,407	\$548,281	\$365,521	\$0	\$0
Relocated FBO Facilities (Phase II)	\$26,441,240	\$0	\$0	\$0	\$0	\$0	\$26,441,240
Corporate Aviation Hangar Facilities	\$21,879,715	\$0	\$0	\$0	\$0	\$0	\$21,879,715
Construct & Rehab Airfield Perimeter Road	\$4,562,179	\$1,892,001	\$0	\$684,327	\$1,985,851	\$0	\$0
East Side Access Road - Phase II	\$30,066,915	\$0	\$0	\$1,315,000	\$25,271,668	\$3,480,247	\$0
Air Carrier Support	\$100,736,968	\$0	\$0	\$0	\$0	\$0	\$100,736,968
Consolidated Rental Car Facility	\$53,270,104	\$0	\$0	\$0	\$53,270,104	\$0	\$0
Relocated ARFF Station	\$3,796,927	\$0	\$2,847,695	\$569,539	\$379,693	\$0	\$0
Runway 7/25 Conversion to Taxiway	\$6,425,988	\$1,911,429	\$0	\$963,898	\$0	\$3,550,661	\$0
Relocated Air Cargo Facility	\$54,062,303	\$0	\$0	\$0	\$0	\$0	\$54,062,303
Rehabilitation/Overlay Airport Drive	\$2,809,942	\$0	\$0	\$467,000	\$2,290,219	\$52,723	\$0
Total CIP	\$380,862,222	\$9,336,753	\$10,678,622	\$9,576,063	\$83,978,652	\$12,749,739	\$254,542,393

As shown in **Table 8.7**, the Commission has several capital improvement programs planned. The largest projects include the parallel runway construction of Runway 16L-34R, the surface parking and parking garage construction, and the Concourse "C" apron expansion. The project costs are estimated in today's dollars and then adjusted for inflation based on the year they will occur.

Table 8.7 - Richmond International Airport's Capital Improvement Program - FY 2019 - FY 2026

Project	Budget	FY 2019 - 2026					
		Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
Taxiway 'M' Realignment (Phase III)	\$8,960,592	\$1,931,323	\$4,000,000	\$2,000,000	\$0	\$1,029,269	\$0
East Side FBO Expansion	\$27,199,559	\$0	\$0	\$0	\$0	\$0	\$27,199,559
Public Parking Garage	\$38,078,276	\$0	\$0	\$0	\$35,382,324	\$2,695,952	\$0
Concourse 'C' Apron Expansion (Construction)	\$31,476,783	\$1,951,695	\$4,000,000	\$2,000,000	\$19,671,598	\$3,853,490	\$0
Concourse 'B' Building Expansion (Design)	\$1,312,087	\$0	\$0	\$0	\$1,312,087	\$0	\$0
Taxiway 'L' Realignment (Design)	\$2,689,778	\$1,972,556	\$0	\$403,467	\$313,755	\$0	\$0
Parallel Runway 16R/34L (Environmental)	\$1,344,889	\$0	\$1,008,667	\$201,733	\$134,489	\$0	\$0
Concourse 'B' Building Expansion (Construction)	\$16,284,589	\$0	\$0	\$1,395,000	\$10,906,406	\$3,983,183	\$0
Taxiway 'L' Realignment (Construction)	\$17,302,923	\$1,993,917	\$4,000,000	\$2,000,000	\$5,192,048	\$4,116,958	\$0
Parallel Runway 16L/34R (Design)	\$2,825,948	\$2,015,791	\$0	\$423,892	\$0	\$386,264	\$0
Surface Parking & Parking Garage (Design)	\$3,401,614	\$0	\$0	\$0	\$3,401,614	\$0	\$0
Parallel Runway 16L/34R (Construction)	\$54,916,028	\$2,038,190	\$6,113,179	\$2,000,000	\$40,372,503	\$4,392,156	\$0
Surface Parking & Parking Garage (Construction)	\$66,827,534	\$947,747	\$0	\$1,780,000	\$59,565,960	\$4,533,826	\$0
Runway 34R & Taxiway Extension (Design)	\$1,484,506	\$1,113,379	\$0	\$222,676	\$148,451	\$0	\$0
Runway 34R & Taxiway Extension (Construction)	\$20,436,514	\$2,084,614	\$5,972,137	\$2,000,000	\$5,694,709	\$4,685,054	\$0
Total CIP	\$294,541,618	\$16,049,213	\$25,093,983	\$14,426,768	\$182,095,944	\$29,676,151	\$27,199,559

Table 8.8 outlines by year the total cost of the capital improvement program and the expected sources of funds.

Table 8.8 - Richmond International Airport's Capital Improvement Program - FY 2009 - FY 2026

Fiscal Year	Budget	Funding Sources					
		Federal		DOAV	Local Funds	PFC	Third Party
Entitlements	Discretionary						
2009	\$18,560,998	\$5,565,544	\$5,272,167	\$1,961,688	\$3,517,834	\$2,243,766	\$0
2010	\$19,743,462	\$5,658,094	\$1,973,750	\$1,953,750	\$7,774,930	\$2,382,937	\$0
2011	\$74,148,411	\$5,754,162	\$4,000,000	\$1,995,188	\$5,659,603	\$2,535,778	\$54,203,680
2012	\$27,310,695	\$5,853,880	\$0	\$2,000,000	\$16,767,065	\$2,689,750	\$0
2013	\$39,877,742	\$5,957,388	\$0	\$2,000,000	\$7,194,424	\$2,850,235	\$21,875,696
2014	\$54,816,392	\$1,816,207	\$0	\$1,578,018	\$0	\$0	\$51,422,167
2015	\$7,233,814	\$1,844,088	\$1,089,520	\$2,000,000	\$0	\$2,300,206	\$0
2016	\$63,080,692	\$1,873,028	\$6,741,407	\$1,998,281	\$781,118	\$3,365,902	\$48,320,955
2017	\$188,636,166	\$1,892,001	\$0	\$1,999,327	\$80,527,623	\$3,480,247	\$100,736,968
2018	\$67,095,159	\$1,911,429	\$2,847,695	\$2,000,437	\$2,669,911	\$3,603,384	\$54,062,303
2019	\$74,238,426	\$1,931,323	\$4,000,000	\$2,000,000	\$35,382,324	\$3,725,220	\$27,199,559
2020	\$32,788,870	\$1,951,695	\$4,000,000	\$2,000,000	\$20,983,685	\$3,853,490	\$0
2021	\$20,319,255	\$1,972,556	\$1,008,667	\$2,000,200	\$11,354,650	\$3,983,183	\$0
2022	\$17,302,923	\$1,993,917	\$4,000,000	\$2,000,000	\$5,192,048	\$4,116,958	\$0
2023	\$2,825,948	\$2,015,791	\$0	\$423,892	\$0	\$386,264	\$0
2024	\$58,317,642	\$2,038,190	\$6,113,179	\$2,000,000	\$43,774,117	\$4,392,156	\$0
2025	\$68,312,039	\$2,061,127	\$0	\$2,002,676	\$59,714,411	\$4,533,826	\$0
2026	\$20,436,514	\$2,084,614	\$5,972,137	\$2,000,000	\$5,694,709	\$4,685,054	\$0
Total	\$855,045,147	\$54,175,034	\$47,018,521	\$33,913,456	\$306,988,452	\$55,128,356	\$357,821,328

The total capital improvement projects for the next eighteen years equal approximately \$855 million. The majority of the funding will come from third-party funding, which will provide 42% of the funds. The next largest contributor is the airport's local funds or operating surplus, with the surplus providing 36% of the CIP costs. FAA funds will contribute 12% of funding made up of both entitlement and discretionary funds. Incremental PFC revenue is estimated to provide 7% of funding, given the extra funds generated by the difference between the PFC collections and the bonds associated with the PFC. The DOAV is expected to provide almost 4% of the total necessary funding. Each source of funding is essential for the success of the capital improvement program established by the airport. Any substantial change in the funding sources could alter the airport's improvement program detailed in this report.

8.5 FINANCIAL FEASIBILITY

8.5.1 *Airport Financial Structures*

Understanding the airport's financial structure is an important component in determining the sources of revenue the airport receives and how the airport manages its operating budget.

The Commission was established in 1975 by an Act of the Virginia General Assembly. This act allows the Commission to own and operate more than one airport serving the Richmond metro area. The Commission is currently composed of the City of Richmond and the Counties of Henrico, Chesterfield, and Hanover. These bodies have the right to appoint commissioners (four each from the City and the Counties of Henrico and Chesterfield, and two from the County of Hanover).

The Commission assumed operation of the RIC on January 1, 1976. The City of Richmond and the County of Henrico were the first participants in the Commission, followed by County of Chesterfield and the County of Hanover. The Commission is responsible for setting the rates and charges at the airport and may appoint commissioners. The commissioners are appointed to four-year terms but may be removed, if necessary, by the Commission and appointing jurisdictions.

Figure 1 illustrates the Commission's financial structure.

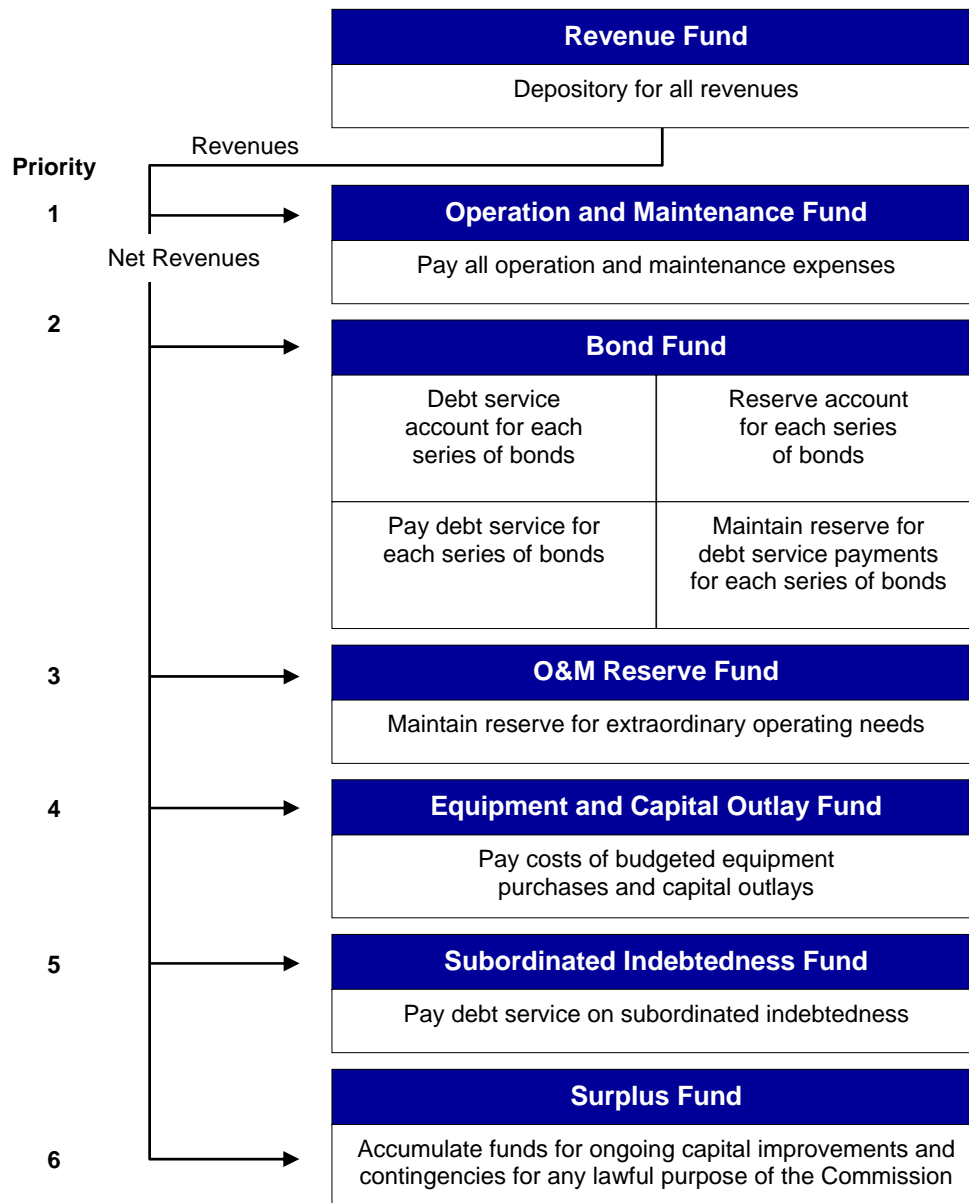


FIGURE 8.1 – Airport Financial Structure
Source – Capital Region Airport Commission

The airport's historical operating revenues are presented in **Table 8.9** below, showing strong growth over the past five years. Airport revenues have increased on average 8.1% annually over the past five years and 7.9% on average over the past three years.

Table 8.9 - Historical Operating Revenue for Richmond International Airport (2003 - 2008)

	2003	2004	2005	2006	2007	2008	CAGR '03 - '08	CAGR '05 - '08
Operating Revenue								
Parking								
Terminal	\$8,428,279	\$8,942,714	\$10,094,309	\$11,729,209	\$13,054,241	\$15,536,039	13.0%	15.5%
Economy and Shuttle	\$2,127,846	\$2,054,783	\$2,092,189	\$2,606,678	\$3,118,025	\$3,658,456	11.4%	20.5%
Valet	\$437,182	\$488,905	\$563,733	\$691,069	\$776,112	\$688,252	9.5%	6.9%
Parking Meter and Violations	\$17,890	\$19,805	\$9,547	\$7,837	\$8,114	\$8,408	-14.0%	-4.1%
Subtotal	\$11,011,197	\$11,506,207	\$12,759,778	\$15,034,793	\$16,956,492	\$19,891,155	12.6%	16.0%
Rental								
Airline Terminal	\$5,925,159	\$6,363,932	\$6,515,753	\$6,304,222	\$6,713,031	\$7,082,985	3.6%	2.8%
Land	\$1,001,668	\$872,609	\$933,008	\$1,009,169	\$1,052,170	\$1,609,983	10.0%	19.9%
Other Buildings	\$667,725	\$872,373	\$928,349	\$946,857	\$1,032,412	\$1,086,770	10.2%	5.4%
Subtotal	\$7,594,552	\$8,108,914	\$8,377,110	\$8,260,248	\$8,797,613	\$9,779,738	5.2%	5.3%
Concession								
Rental Car	\$3,802,157	\$4,315,509	\$4,786,051	\$4,541,526	\$4,780,097	\$4,947,362	5.4%	1.1%
Food & Beverage	\$687,240	\$694,691	\$862,489	\$877,046	\$935,302	\$976,025	7.3%	4.2%
Ground Transportation	\$325,042	\$353,098	\$364,183	\$374,378	\$394,535	\$358,164	2.0%	-0.6%
In-Flight Catering	\$104,518	\$30,223	\$43,236	\$19,676	\$12,750	\$10,136	-37.3%	-38.3%
Retail	\$5,323	\$409,298	\$493,124	\$533,738	\$845,215	\$821,890	NA	18.6%
Off-airport concession fees	\$391,290	\$0	\$0	\$26,507	\$41,426	\$52,516	-33.1%	NA
Advertising	\$313,736	\$253,229	\$319,939	\$484,779	\$624,296	\$785,580	20.2%	34.9%
Fuel Flowage Fees	\$180,700	\$185,122	\$176,110	\$167,722	\$167,728	\$190,477	1.1%	2.6%
Other	\$10,848	\$7,559	\$8,250	\$11,911	\$10,254	\$6,733	-9.1%	-6.5%
Subtotal	\$5,820,854	\$6,248,729	\$7,053,382	\$7,037,283	\$7,811,603	\$8,148,883	7.0%	4.9%
Landing Fees								
Major	\$2,005,830	\$1,836,407	\$1,744,932	\$1,724,022	\$1,775,705	\$1,960,220	-0.5%	4.0%
Regional	\$596,688	\$636,386	\$828,580	\$1,053,416	\$936,171	\$899,173	8.5%	2.8%
Scheduled Freighter	\$556,201	\$531,262	\$515,682	\$455,330	\$472,603	\$482,487	-2.8%	-2.2%
Other	\$115,545	\$103,129	\$122,831	\$167,206	\$148,923	\$154,421	6.0%	7.9%
Subtotal	\$3,274,264	\$3,107,184	\$3,212,025	\$3,399,974	\$3,333,402	\$3,496,301	1.3%	2.9%
Apron Fees	\$704,066	\$696,560	\$678,636	\$609,060	\$584,797	\$674,357	-0.9%	-0.2%
Miscellaneous								
Utilities	\$158,237	\$176,098	\$88,214	\$81,888	\$141,697	\$131,651	-3.6%	14.3%
Other	\$76,987	\$157,630	\$69,094	\$89,913	\$108,069	\$119,312	9.2%	20.0%
Subtotal	\$235,224	\$333,728	\$157,308	\$171,801	\$249,766	\$250,963	1.3%	16.8%
Total Revenues	\$28,640,157	\$30,001,322	\$32,238,239	\$34,513,159	\$37,733,673	\$42,241,397	8.1%	7.9%

Source: Capital Region Airport Commission

The operating expenses for the airport have also been increasing over the past five years at an average of 6.6% each year and 8.1% annually for the past three years, as shown in **Table 8.10**.

Table 8.10 - Historical Operating Expenses for Richmond International Airport (2002 - 2008)

	2002	2003	2004	2005	2006	2007	2008	CAGR '03 - '08	CAGR '05 - '08
Operating Expenses									
Personnel									
Regular Salaries	\$5,292,647	\$5,095,004	\$5,215,826	\$5,986,803	\$6,680,613	\$6,481,879	\$7,356,497	7.6%	7.1%
Overtime	\$186,237	\$179,014	\$132,735	\$175,766	\$191,574	\$382,078	\$345,991	14.1%	25.3%
Payroll Taxes	\$440,410	\$442,051	\$456,105	\$504,033	\$513,426	\$578,060	\$604,464	6.5%	6.2%
Insurance	\$520,274	\$577,045	\$591,327	\$606,111	\$642,982	\$909,570	\$1,037,235	12.4%	19.6%
Retirement	\$288,830	\$295,033	\$389,720	\$405,958	\$424,850	\$770,489	\$865,618	24.0%	28.7%
Other	\$416,063	\$341,669	\$250,338	\$2,740	\$36,267	\$296,922	\$89,901	-23.4%	220.1%
Subtotal	\$7,144,461	\$6,929,816	\$7,036,051	\$7,681,411	\$8,489,712	\$9,418,998	\$10,299,706	8.2%	10.3%
Utilities									
Electricity	\$945,140	\$1,047,418	\$1,217,887	\$1,183,596	\$1,380,683	\$1,591,783	\$1,770,856	11.1%	14.4%
Heating	\$140,412	\$245,816	\$218,718	\$229,217	\$259,418	\$240,294	\$211,047	-3.0%	-2.7%
Telephone	\$123,547	\$134,795	\$116,535	\$82,412	\$53,265	\$57,997	\$34,931	-23.7%	-24.9%
Water and Sewer	\$239,233	\$249,485	\$221,203	\$223,813	\$280,248	\$300,591	\$344,338	6.7%	15.4%
Subtotal	\$1,448,332	\$1,677,514	\$1,774,343	\$1,719,038	\$1,973,614	\$2,190,665	\$2,361,172	7.1%	11.2%
Professional Services									
Legal and Accounting	\$343,791	\$418,613	\$322,087	\$374,486	\$486,829	\$473,290	\$390,300	-1.4%	1.4%
Consulting	\$605,964	\$611,751	\$794,014	\$630,618	\$353,571	\$359,692	\$574,357	-1.3%	-3.1%
Marketing	\$406,213	\$498,502	\$462,040	\$577,411	\$540,741	\$574,362	\$484,566	-0.6%	-5.7%
Subtotal	\$1,355,968	\$1,528,866	\$1,578,141	\$1,582,515	\$1,381,141	\$1,407,344	\$1,449,223	-1.1%	-2.9%
Parking									
Terminal	\$1,163,254	\$1,201,386	\$1,296,387	\$1,453,931	\$1,547,613	\$1,511,860	\$1,810,979	8.6%	7.6%
Economy & Shuttle	\$827,434	\$710,920	\$625,486	\$694,730	\$796,109	\$854,578	\$1,084,727	8.8%	16.0%
Subtotal	\$1,990,688	\$1,912,306	\$1,921,873	\$2,148,661	\$2,343,722	\$2,366,438	\$2,895,706	8.7%	10.5%
Maintenance									
Building	\$226,105	\$367,488	\$303,585	\$390,172	\$231,892	\$543,584	\$697,379	13.7%	21.4%
Equipment	\$199,279	\$309,891	\$463,179	\$315,165	\$599,543	\$412,802	\$582,179	13.4%	22.7%
Other	\$413,757	\$557,663	\$582,908	\$667,391	\$568,511	\$716,075	\$610,553	1.8%	-2.9%
Subtotal	\$839,141	\$1,235,042	\$1,349,672	\$1,372,728	\$1,399,946	\$1,672,461	\$1,890,111	8.9%	11.3%
Insurance	\$394,899	\$503,791	\$606,008	\$604,440	\$678,391	\$738,446	\$624,645	4.4%	1.1%
Supplies	\$380,733	\$478,727	\$414,960	\$618,421	\$678,551	\$729,888	\$704,217	8.0%	4.4%
Other	\$1,388,204	\$703,868	\$575,269	\$613,476	\$637,012	\$466,152	\$426,148	-9.5%	-11.4%
Total Operating Expenses	\$14,942,426	\$14,969,930	\$15,256,317	\$16,340,690	\$17,582,089	\$18,990,392	\$20,650,928	6.6%	8.1%

Source: Capital Region Airport Commission

8.5.1.1 Airport Accounting

The Commission's financial statements are prepared in accordance with generally accepted accounting principles in the United States. The financial statements recognize earnings when they are earned and expenses when they occur. The Commission is responsible for capital and operating budgets, overseeing and obtaining financing for projects, and managing and directing the airport's activities.

8.5.1.2 Bond Ordinance and Indentures

The Master Bond Resolution governs the issuance of general airport revenue bonds (GARBs) by the Commission. The master bond establishes several funds including:

- *Revenue Fund* – holds all revenue funds the Commission receives until the Commission distributes to the several funds referenced below. The Commission withdraws from the fund on or before the last business day of each month and allocates to each of the following funds.
- *Operations and Maintenance Fund* – funds all the operational and maintenance expenses incurred by the airport.
- *Bond Fund* – includes funds used to pay the principal on each series of bonds outstanding. One-twelfth of the required amount to pay the principal on each bond is allocated to the fund, as is one-sixth of the amount due on the interest for each bond series coming due in the next six months.
- *Operations and Maintenance Reserve Fund* – this includes one-twelfth of the necessary annual operations and maintenance budget.
- *Equipment and Capital Outlay Fund* – includes one-twelfth of the annual equipment and capital outlay budget.
- *Subordinated Indebtedness Fund* – funds one-twelfth of the debt service requirement on the subordinated debt held by the airport.
- *Surplus Fund* – this fund holds the remaining monies generated by the airport after each of the above fund requirements have been met. According to the Airline Agreement, 50% of the funds in this account are allocated to the Commission Discretionary Account, while the remaining 50% are transferred to the Airline Discretionary Account.

8.5.1.3 Airport Use Agreements

Current airline use agreements are held with the eight major carriers serving the airport. The signatory airlines include AirTran, American, Continental, Delta, JetBlue, Northwest, United, and USAirways. The current agreements with the signatory airlines will expire on June 30, 2009. This report assumes that the current terms will be held constant in the future.

The Airline Use Agreement also describes the rates and charges calculations and applications to the airlines. The Airline Agreement is compensatory in structure, meaning the airlines participate in any risks or upside of revenue generation at the airport.

Costs are allocated to five direct cost centers:

- Terminal building
- Airfield
- Apron
- Parking, roads, other buildings, and grounds
- FTZ, cargo apron, and administration building

There are also three indirect cost centers including administration, general maintenance, and access roads.

Airline rates and charges are determined based on allocations to each cost center. At the end of each fiscal year, the actual amount of money due from each airline is established and compared to the actual amount paid by each airline throughout the year. Underpayments or overpayments are reconciled at this point between the airport and airlines.

8.5.2 *Financing Plan*

The CIP includes improvements currently underway as well as future works. Sources of funds for each project are also detailed in this chapter. Overall, the airport is financially healthy, generating significantly more revenue than operating expenses. Principal sources of funds to pay for the Master Plan improvements include:

- Federal Grants (Entitlement and Discretionary Funds)
- State Grants from the Virginia Department of Aviation
- Passenger Facility Charge Funds
- Customer Facility Charge Funds
- General Airport Revenue Bonds
- Third-Party Funding
- Operating Surplus

Several conclusions have been drawn by analyzing the airport's cash flow. First, the strong net operating revenues of the airport more than adequately service the outstanding debt held by the airport. Further, the incremental income generated from the PFC charge also helps build the airport's existing and future funding capabilities. The airport remains dependent on entitlement and discretionary funds from the FAA and the DOAV; however,

both of these sources have provided consistent aid to the airport in the past and are anticipated to provide similar levels of support in the future. Given the various flows of monies presented in this analysis, the Commission has sufficient revenue to fund the capital improvement program presented in this analysis. A more detailed analysis of each funding source follows in this report.

Over the next five years, there is only one year of significant funding required from the Commission, which is the expansion of Concourse "A" in 2012. Surplus revenue generated in the previous three years should be more than sufficient to cover the shortfall in 2012. The next year, significant airport outlay falls in 2019 with the construction of the public parking garage. At this point, the 2005 PFC bonds should be completely paid off and be available for other projects. Under the CIP, the airport is anticipated to issue new PFC bonds to raise sufficient funds to pay for the concourse expansion. Given the issuance of the 1995 and 2005 PFC bonds, it is reasonable to assume that the airport will be able to issue a new PFC bond for this purpose.

2024 – 2025 is the next major period of capital outlay from the construction of the parallel runway 16L-34R in 2024 and the construction of a surface parking lot and a new parking garage in 2025. Given the significant costs of each project, the airport would most likely need to issue new GARBS to fund these initiatives. The cost for each project has been estimated in today's dollars and then adjusted for inflation, so it is possible that the actual project costs may change over time. However, as of the date of this report it is estimated that a bond issue of approximately \$45 million would be necessary. Based on the financial modeling utilized in this planning process, the airport should have sufficient borrowing capacity to issue new financing. The airport's ability to issue new financing is dependent on the outstanding 2004A series bonds extinguishing and other outstanding airport obligations, including the 1995 B&C series, 2001 A&B series, and 2005A series bonds, terminating in FY2026.

8.5.2.1 Federal Aviation Administration Airport Improvement Program

The Federal Airport Improvement Program (AIP) is the FAA's mechanism for funding improvements at commercial service airports in the United States. The AIP includes multiple funding categories, such as entitlement and discretionary funding. Under the existing program, entitlement funds are given to an airport each year based on enplanements and landed cargo weight. An airport receives a per enplanement entitlement, which decreases on a sliding scale based on airport size as enplanements increase. For example, currently the first 50,000 passengers yield a \$7.80 per enplanement entitlement, but for the next 50,000 passengers an airport receives \$5.20. The airport entitlements continue to decrease on a sliding scale as enplanements grow.

The other variable for federal grants depends on the classification of the airport. Airports are defined as large, medium, small, and non-hub airports. Richmond is currently classified as a small hub airport and receives grants under this classification. However, based on the enplanements forecast included in this Master Plan, it appears that RIC will be reclassified as a medium hub during this planning period. This will impact the amount of entitlement funds received from the federal government. A medium hub airport that collects PFCs

receives a lower level of entitlement funding. Therefore, for the purposes of financial modeling, it is assumed that Richmond will become a medium hub in 2012, and AIP funding is adjusted in 2014 to reflect this change. This is a projection of when the airport might reach the enplanement level that will trigger the funding change. Actual modifications to the entitlement funding levels will be dictated when the airport's passenger enplanement levels reach .0025% of the total enplanements across the nation. The actual passenger enplanement number changes each year; however, the percentage threshold remains constant. For Federal Fiscal Year 2008, the threshold (which is determined by Calendar Year 2006 enplanements) was 1,845,911 passenger enplanements.

Discretionary funds are disbursed by the FAA based on the agency's approval of specific airport projects. The program does not guarantee funding for a project, but rather allocates the annual FAA discretionary budget based on a prioritization. Projects that address capacity, safety, security, and noise are considered as a priority for discretionary funds. The estimated entitlement and discretionary funds from the FAA are shown in **Table 8.11** below. From 2009 to 2013, \$28.7 million in entitlements are expected based on Richmond's forecasted enplanements and small hub status. Discretionary funds of \$11.2 million are anticipated over the next five years, resulting in total FAA AIP funding of \$40 million from 2009 to 2013.

Table 8.11 - Forecasted FAA AIP Entitlement and Discretionary Funding (2009 - 2026)

Years	FAA		Total
	Entitlement	Discretionary	
2009 - 2013	\$28,789,068	\$11,245,917	\$40,034,985
2014 - 2018	\$9,336,753	\$10,678,622	\$20,015,375
2019 - 2023	\$9,865,282	\$13,008,667	\$22,873,949
2024 - 2026	\$6,183,930	\$12,085,316	\$18,269,246

Based on Richmond's current projected enplanements, the airport can expect to receive an estimated \$5 million a year in entitlement funding for the next five years. We expect at this point, Richmond will become a medium hub, which will reduce the AIP entitlement funds to an estimated \$1.5 million annually. This is due to the fact that the airport has implemented a PFC at the rate of \$4.50 per passenger, and consequently, its entitlement funding level is statutorily reduced to 25% of the amount calculated by formula.

Although discretionary funds are not guaranteed, we believe it is reasonable to assume some level of discretionary funding based on the type of projects the airport has planned and past experience. Discretionary funding in FY2009 has been assumed to pay for the upgrade of the airfield electrical system and obstruction removal. In the next five years, discretionary funds are assumed to pay for part of the rehabilitation of runway 16-34 and airfield drainage improvements.

Table 8.12 below shows the expected federal entitlement money minus the reduction, assuming RIC becomes a medium hub airport in 2012. As a result of the classification change, discretionary funding remains constant, but the overall federal funding is lowered

from 2014 and thereafter. If Richmond does not become a medium hub in 2012, then the entitlement funding will remain the same as in column one of the table below.

Table 8.12 - Forecasted FAA AIP Entitlement and Discretionary Funding – Medium Hub (2009 – 2029)

Year	Entitlement	PFC Reduced Entitlement	Discretionary	Total Federal Funding
2009 - 2013	\$28,789,068	\$0	\$11,245,917	\$40,034,985
2014 - 2018	\$29,347,013	\$9,336,753	\$10,678,622	\$20,015,375
2019 - 2023	\$31,461,129	\$9,865,282	\$13,008,667	\$22,873,949
2024 - 2026	\$19,935,721	\$6,183,930	\$12,085,316	\$18,269,246

8.5.2.2 State Funding

The airport also receives funding from the State of Virginia. DOAV distributes grants to assist airports throughout the state. The Commission coordinates closely with the DOAV to plan potential grant money for airport projects. The DOAV typically funds between 8 and 20 percent of projects eligible for FAA funding. The state also often provides a significant portion of funds for projects it deems as necessary for airport development that are not FAA eligible. Historically, the airport receives approximately \$2 million annually from the DOAV in state entitlement grants. Based on the Planning Team’s analysis and historical state funding patterns, this planning effort assumes that the DOAV will continue to provide approximately \$2 million annually to the airport through the planning period. **Table 8.13** presents the level of entitlement funding anticipated from the DOAV from 2009 to 2028.

Table 8.13 - Forecasted DOAV State Entitlement and Discretionary Funding (2009 - 2026)

Years	State (DOAV)		Total
	Entitlement	Discretionary	
2009 - 2013	\$9,910,625	\$0	\$9,910,625
2014 - 2018	\$9,576,063	\$0	\$9,576,063
2019 - 2023	\$8,424,092	\$0	\$8,424,092
2024 - 2026	\$6,002,676	\$0	\$6,002,676

The DOAV also grants discretionary funds for specific projects. The DOAV reviews and decides on airport discretionary funding on a quarterly basis, so these funds cannot be guaranteed from one year to the next. No state discretionary funds have been assumed in our analysis.

Contributions from the DOAV and the FAA are clearly essential to the airport’s CIP. Projections in this report are based on the assumption that federal and state entitlement grant levels will continue largely unchanged from present levels. We recognize that discretionary funding is more at risk than entitlement grants; however, based on historical practices it is reasonable to assume that these projects will obtain discretionary funding.

8.5.2.3 Passenger Facility Charges

Under 14 CFR Part 158, issued by the FAA in May 1991, public agencies that control commercial service airports are allowed to charge a PFC to fund eligible airport projects. Since this regulation was enacted, the airport has applied and received FAA approval for two PFC applications. The first PFC application approved by the FAA granted the airport the authority to collect a \$3.00 PFC per enplaned passenger between May 1, 1994, and January 1, 2005, to be used towards taxiway and drainage improvements. The second PFC application sought to raise the amount collected per enplaned passenger to \$4.50, the current maximum allowed under federal law. This \$4.50 PFC level has been authorized by the FAA to be collected from January 1, 2005, until October 1, 2019. Between the two applications, the FAA has granted the airport the ability to collect up to \$137,014,261.

Based on 2008 enplanement levels, the \$4.50 PFC will generate approximately \$7.1 million per year. This compares to \$7.6 million in PFC revenue collected by the airport in 2007. PFC-eligible enplanements are estimated to be 90 percent of total forecasted enplanements for the airport. Of the \$4.50 collected, \$0.11 is distributed to the airlines, while \$4.39 flows to the airport. Based on future enplanements and the assumption that PFC charges remain at \$4.50 for the duration of the planning period, the anticipated level of PFC revenue is estimated in **Table 8.14** below. Over the next eleven years, the airport is projected to collect \$105 million in revenues.

Table 8.14 - Forecasted PFC Revenue to the Airport (2008 - 2019)

<u>Year</u>	<u>Enplanements</u>	<u>PFC Eligible</u>	<u>Airline Collection</u>	<u>Net PFC Revenue</u>
2008	1,804,909	1,624,418	\$178,686	\$7,131,194
2009	1,873,495	1,686,146	\$185,476	\$7,402,179
2010	1,944,688	1,750,219	\$192,524	\$7,683,462
2011	2,018,586	1,816,728	\$199,840	\$7,975,434
2012	2,095,292	1,885,763	\$207,434	\$8,278,500
2013	2,174,914	1,957,422	\$215,316	\$8,593,083
2014	2,257,560	2,031,804	\$223,498	\$8,919,621
2015	2,343,348	2,109,013	\$231,991	\$9,258,566
2016	2,432,395	2,189,155	\$240,807	\$9,610,392
2017	2,490,772	2,241,695	\$246,586	\$9,841,041
2018	2,550,551	2,295,496	\$252,505	\$10,077,226
2019	2,611,764	2,350,588	\$258,565	\$10,319,079
Total	26,598,273	23,938,446	\$2,633,229	\$105,089,778

The airport issued two series of PFC Bonds in 2005 to support approved projects. The total principal outstanding on PFC Bonds was approximately \$49 million as of June 30, 2007. **Table 8.15** depicts the balance of PFC Bonds issued by RIC from 2008 through 2028.

Table 8.15 - Balance of PFC Bonds issued by Richmond International Airport (2008 – 2028)

Year	Series 2005A	Series 2005B	Total
2008	\$26,175,000	\$21,705,000	\$47,880,000
2009	\$25,570,000	\$21,200,000	\$46,770,000
2010	\$24,940,000	\$20,675,000	\$45,615,000
2011	\$24,295,000	\$20,135,000	\$44,430,000
2012	\$23,625,000	\$19,580,000	\$43,205,000
2013	\$22,935,000	\$19,005,000	\$41,940,000
2014	\$22,220,000	\$18,410,000	\$40,630,000
2015	\$21,475,000	\$17,795,000	\$39,270,000
2016	\$20,710,000	\$17,160,000	\$37,870,000
2017	\$19,915,000	\$16,500,000	\$36,415,000
2018	\$19,095,000	\$15,820,000	\$34,915,000
2019	\$18,245,000	\$15,115,000	\$33,360,000
2020	\$17,365,000	\$14,390,000	\$31,755,000
2021	\$16,455,000	\$13,640,000	\$30,095,000
2022	\$15,520,000	\$12,860,000	\$28,380,000
2023	\$14,550,000	\$12,055,000	\$26,605,000
2024	\$13,545,000	\$11,225,000	\$24,770,000
2025	\$12,505,000	\$10,365,000	\$22,870,000
2026	\$11,435,000	\$9,480,000	\$20,915,000
2027	\$10,330,000	\$8,560,000	\$18,890,000
2028	\$9,185,000	\$7,610,000	\$16,795,000

Source: Capital Region Airport Commission

The Commission uses a portion of the PFC revenue to service the PFC bonds, applying \$3 million in 2007 to the PFC bonds in principal and interest payments. **Table 8.16** presents the PFC bond amortization schedule and the balances of each bond over the next twenty years.

In accordance with the terms of the PFC Bonds, starting in 2009 the airport is applying one-half of the incremental PFC revenue, an additional \$2 to \$3 million per year, towards the prepayment of principal on the outstanding PFC Bonds. If the airport collects approximately \$7.5 million annually, it will generate an additional \$4.5 million available for use on PFC-eligible projects. The airport intends to use \$2.25 million of the incremental revenue to service principal on the PFC bonds in order to accelerate the debt repayment. The table below shows the reduction in PFC bond principal if half of the incremental revenue was used for bond repayment. Under this scenario, the PFC bonds series would be paid off in 2019.

Table 8.16 - Balance of PFC Bonds issued by Richmond International Airport when Incremental PFC Revenues Applied to the Principal of the Bonds (2008 – 2028)

<u>Year</u>	<u>Series 2005A</u>	<u>Series 2005B</u>	<u>Total</u>
2008	\$26,175,000	\$21,705,000	\$47,880,000
2009	\$24,448,117	\$20,078,117	\$44,526,234
2010	\$22,626,649	\$18,361,649	\$40,988,297
2011	\$20,713,759	\$16,553,759	\$37,267,519
2012	\$18,698,885	\$14,653,885	\$33,352,769
2013	\$16,583,767	\$16,583,767	\$33,167,534
2014	\$14,361,288	\$10,551,288	\$24,912,575
2015	\$12,024,165	\$8,344,165	\$20,368,329
2016	\$9,576,214	\$6,026,214	\$15,602,427
2017	\$7,041,090	\$3,626,090	\$10,667,180
2018	\$4,419,398	\$1,144,398	\$5,563,796
2019	\$1,706,788	\$0	\$1,706,788

Source: Capital Region Airport Commission

The airport is required to use PFC funds towards PFC-eligible projects; however, they can seek approval from the FAA to use PFC funds towards other projects. For the purpose of this analysis, PFC funds are assumed to be used for the general aviation road and apron expansion, Concourse “A” expansion, and the RON apron expansion over the next five years. These projects will use \$12.7 million of funding from PFC revenue.

8.5.2.4 Customer Facility Charges

RIC established a Rental Car Customer Facility Charge (CFC) Agreement with the on-site airport rental car companies in December 2000. The agreement was established to raise funds for the rental car garage facility. The Commission determined the amount to be charged on a daily basis for renting a vehicle from the airport. The CFC was set at \$2.00 per day in February 2001, increased to \$2.10 in September 2002, and decreased to \$1.80 in July 2006. The CFC is currently set at \$1.70. The CFC fluctuates based on the amount the airport deems necessary to pay for the rental car garage. The airport does not use this charge to raise money for any other project.

A new consolidated rental car facility (CONRAC) is currently planned for 2017 in the Master Plan. The cost is estimated at \$43 million in 2008 dollars. Given the expense of this project, the airport would need to issue another CFC bond at this point to pay for the facility. The bond issue would be backed by the CFC collection, and the funds could only be used to support the consolidated rental car facility.

8.5.2.5 General Airport Revenue Bonds

The Commission previously issued GARBS, supported by airport revenues, to pay for certain capital projects. As of December 31, 2007, six series of GARBS were outstanding, with total principal outstanding of approximately \$100 million. The outstanding GARBS include Series 1995 B, Series 1995 C, Series 2001 A, Series 2001 B, Series 2004 A, and Series 2005 A. In 2008 new Series 2008 A bonds were issued by the airport in the amount of \$51,310,000. The purpose of these bonds was to fund the North Parking Garage Expansion and the expansion of the Economy Lot B surface parking lot. When completed, the new parking garage will contain an estimated 2,600 additional parking spaces for the airport and will connect to the existing North garage. The expansion of Economy Lot B will add 1,700 surface parking spaces, increasing the total available in this lot to 3,400 spaces. With the issuance of the Series 2008 A bond, the airport now has approximately \$148 million in debt outstanding (as of June 30, 2008). **Table 8.17** illustrates each of the GARBS and the balance of each bond by year.

Table 8.17 - GARBs Issued by Richmond International Airport (2008 - 2028)

Year	Series 1995 B & C	Series 2001 A & B	Series 2004 A	Series 2005 A	Series 2008 A	Total
2008	\$15,880,000	\$39,874,169	\$12,935,000	\$27,910,000	\$51,310,000	\$147,909,169
2009	\$15,880,000	\$38,307,852	\$11,335,000	\$27,485,000	\$51,310,000	\$144,317,852
2010	\$15,880,000	\$36,670,637	\$9,670,000	\$27,045,000	\$50,395,000	\$139,660,637
2011	\$15,880,000	\$34,959,316	\$7,920,000	\$26,595,000	\$49,450,000	\$134,804,316
2012	\$15,880,000	\$33,170,531	\$6,085,000	\$26,130,000	\$48,470,000	\$129,735,531
2013	\$15,880,000	\$31,300,776	\$4,155,000	\$25,650,000	\$47,455,000	\$124,440,776
2014	\$15,880,000	\$29,336,384	\$2,130,000	\$25,150,000	\$46,405,000	\$118,901,384
2015	\$15,880,000	\$27,293,521	\$0	\$24,635,000	\$45,300,000	\$113,108,521
2016	\$14,415,000	\$25,158,183	\$0	\$22,955,000	\$44,155,000	\$106,683,183
2017	\$12,915,000	\$22,926,181	\$0	\$21,150,000	\$42,955,000	\$99,946,181
2018	\$11,415,000	\$20,593,138	\$0	\$19,175,000	\$41,710,000	\$92,893,138
2019	\$9,815,000	\$18,154,477	\$0	\$17,125,000	\$40,415,000	\$85,509,477
2020	\$8,115,000	\$15,605,416	\$0	\$14,995,000	\$39,065,000	\$77,780,416
2021	\$6,333,000	\$12,940,955	\$0	\$12,795,000	\$37,660,000	\$69,728,955
2022	\$4,415,000	\$10,155,867	\$0	\$10,490,000	\$36,195,000	\$61,255,867
2023	\$4,335,000	\$7,244,690	\$0	\$8,180,000	\$34,660,000	\$54,419,690
2024	\$3,700,000	\$4,201,713	\$0	\$5,480,000	\$33,045,000	\$46,426,713
2025	\$1,500,000	\$1,020,966	\$0	\$2,815,000	\$31,350,000	\$36,685,966
2026	\$0	\$0	\$0	\$0	\$29,580,000	\$29,580,000
2027	\$0	\$0	\$0	\$0	\$27,720,000	\$27,720,000
2028	\$0	\$0	\$0	\$0	\$25,770,000	\$25,770,000

Source: Capital Region Airport Commission

8.5.2.6 Third-Party Financing

Third-party financing can provide additional sources of funding for capital improvement projects. Typical airport projects that feature third-party financing include general aviation hangar development, corporate hangars, and cargo facilities. Although third-party financing may take many different shapes, a typical scenario occurs when a third-party developer finances a construction project with expected strong positive cash flows. Under such an arrangement, the third-party pays ground rent to the airport while leasing the structure or facility to one or more tenants. Depending on the terms of the agreement, the airport typically receives ownership of the structure or facility after a fixed amount of time has passed.

As depicted in **Table 8.18**, the airport has identified nine major projects over the planning horizon that are anticipated to be financed through third parties. These include the relocation and construction of cargo facilities, general aviation maintenance, corporate aviation hangars, and FBO expansion. The proposed third-party projects are depicted in the exhibit below.

Table 8.18 - Capital Improvement Projects Funded by Third-Party Sources (2009-2026)

Year	Project Description	Total Project Cost
2011	FBI Complex	\$35,342,824
2011	Interstate 895 Connector	\$18,860,856
2013	Relocated Belly Cargo/GSE	\$21,875,696
2014	Relocated GA/Commercial Aviation Maintenance	\$51,422,167
2016	Corporate Aviation Hangar Facilities	\$21,879,715
2016	Relocated FBO Facilities (Phase II)	\$26,441,240
2017	Air Carrier Support	\$100,736,968
2018	Relocated Air Cargo Facility	\$54,062,303
2019	East Side FBO Expansion	\$27,199,559

8.5.3 Debt Service

The airport has several series and types of revenue bonds outstanding that require annual debt service. The airport has \$148 million in GARBS outstanding. The airport also has an additional \$48 million in PFC bonds, \$8 million in CFC bonds, and \$3 million in Line of Credit and Notes outstanding.

The debt service for the Passenger Facility bonds is fully funded through PFC revenues, and the Rental Car Facility bonds are entirely funded by the CFC collection. Furthermore, these bond issues do not fall under the Bond Resolution because they were issued under a separate master indenture. This structure excludes the PFC and CFC bonds from the debt service coverage calculation. Also, because the Line of Credit and Notes are subordinate to the GARBS, they are also excluded from the debt service coverage calculations.

Table 8.19 presents the debt service amounts the airport is responsible for funding each year. The airport must fund \$9.6 million in 2009, \$11 million in 2013, and \$11.6 million in 2019. The amount of annual principal and interest payments is based on the specific terms of each bond. For example, Series 1995 B&C bonds have a variable rate of interest, while the other bonds have a fixed interest rate.

Table 8.19 - Forecasted Debt Service Requirements (2008 – 2028)

Year	Series 1995	Series 2001	Series 2004 A	Series 2005 A	Series 2008 A	Total
	B & C	A & B				
2008	\$582,036	\$3,304,238	\$2,170,750	\$1,737,044	\$1,843,925	\$9,637,992
2009	\$597,293	\$3,304,236	\$2,166,750	\$1,734,444	\$3,337,675	\$11,140,398
2010	\$560,418	\$3,304,236	\$2,148,500	\$1,736,469	\$3,351,663	\$11,101,286
2011	\$560,418	\$3,304,237	\$2,146,000	\$1,732,556	\$3,354,113	\$11,097,323
2012	\$560,418	\$3,304,237	\$2,139,250	\$1,732,106	\$3,355,425	\$11,091,436
2013	\$560,418	\$3,304,237	\$2,137,750	\$1,730,568	\$3,355,513	\$11,088,486
2014	\$560,418	\$3,304,237	\$2,131,500	\$1,732,168	\$3,366,500	\$11,094,823
2015	\$560,418	\$3,304,237	\$2,130,000	\$1,726,868	\$3,358,150	\$11,079,673
2016	\$1,999,488	\$3,304,236	\$0	\$2,837,468	\$3,365,288	\$11,506,479
2017	\$1,982,007	\$3,304,237	\$0	\$2,870,987	\$3,360,525	\$11,517,756
2018	\$1,955,457	\$3,304,237	\$0	\$2,944,231	\$3,361,625	\$11,565,550
2019	\$2,002,357	\$3,304,237	\$0	\$2,918,606	\$3,365,825	\$11,591,025
2020	\$2,045,717	\$3,304,237	\$0	\$2,904,756	\$3,367,081	\$11,621,791
2021	\$2,067,537	\$3,304,237	\$0	\$2,877,156	\$3,369,381	\$11,618,311
2022	\$2,139,817	\$3,304,237	\$0	\$2,869,531	\$3,372,900	\$11,686,485
2023	\$234,557	\$3,304,237	\$0	\$2,759,156	\$3,377,900	\$9,675,850
2024	\$775,613	\$3,304,237	\$0	\$3,023,906	\$3,379,150	\$10,482,906
2025	\$2,291,000	\$3,304,237	\$0	\$2,854,781	\$3,375,638	\$11,825,655
2026	\$1,526,250	\$1,035,029	\$0	\$2,876,578	\$3,383,250	\$8,821,107
2027	\$0	\$0	\$0	\$0	\$3,382,500	\$3,382,500
2028	\$0	\$0	\$0	\$0	\$0	\$0

Source: Capital Region Airport Commission

8.5.4 Operation and Maintenance Expenses

The operating and maintenance expenses at the airport are related to the ongoing operations to ensure the continuity of service for passengers. Operating expenses include personnel, utilities, parking, maintenance of the buildings and equipment, professional services, insurance, and supplies. A number of the new projects proposed in this Master Plan, including the planned runway extension and improvements, terminal apron rehabilitation, building and parking garage improvements, water distribution system improvements, and the terminal access road improvements, are expected to increase airport operating expenses and are reflected in the Master Plan financial projections in this report.

The historical operating expenses are shown in **Table 8.20**. The compounded annual growth rate for 2003 to 2008 was 6.6%, while over the past three years the compounded annual growth rate was 8.1%. Given the more recent jump in expenses, it is believed that a 5% increase in operating expenses and inflation properly reflects the airport's future operating and maintenance expenses.

The expenses projected in this report have been based on the historical growth in expenses at the airport, plus a further adjustment for inflation. This planning effort used an average of a 5% increase in operating expenses and a 2.5% inflation increase, for a total projected 7.5% increase in operating expenses each year. An additional increase of 15% in parking expenses was assumed in 2010 given the completion of the North Parking Garage.

Table 8.20 - Historical Operating and Maintenance Expenses (2003 – 2008)

	2003	2004	2005	2006	2007	2008	CAGR '03 - '08	CAGR '05 - '08
Operating Expenses								
Personnel	\$6,929,816	\$7,036,051	\$7,681,411	\$8,489,712	\$9,418,998	\$10,299,706	8.2%	10.3%
Utilities	\$1,677,514	\$1,774,343	\$1,719,038	\$1,973,614	\$2,190,665	\$2,361,172	7.1%	11.2%
Professional Services	\$1,528,866	\$1,578,141	\$1,582,515	\$1,381,141	\$1,407,344	\$1,449,223	-1.1%	-2.9%
Parking	\$1,912,306	\$1,921,873	\$2,148,661	\$2,343,722	\$2,366,438	\$2,895,706	8.7%	10.5%
Maintenance	\$1,235,042	\$1,349,672	\$1,372,728	\$1,399,946	\$1,672,461	\$1,890,111	8.9%	11.3%
Insurance and Other	\$1,686,386	\$1,596,237	\$1,836,337	\$1,993,954	\$1,934,486	\$1,755,010	2.9%	-5.9%
Total Operating Expenses	\$14,969,930	\$15,256,317	\$16,340,690	\$17,582,089	\$18,990,392	\$20,650,928	6.6%	8.1%

Source: Capital Region Airport Commission

The projected operating and maintenance expenses from 2009 to 2013 are presented in **Table 8.21** and assume a compounded annual growth rate of 7.9% over the next five years. The increase is driven by the 7.5% increase described above and the 11.3% expense increase in expenses related to the terminal parking because of the completion of the North Parking Garage expansion.

Table 8.21 - Forecasted Operating and Maintenance Expenses (2009 - 2013)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<u>Operating Expenses</u>					
Personnel					
Regular Salaries	\$7,908,234	\$8,501,352	\$9,138,953	\$9,824,375	\$10,561,203
Overtime	\$371,940	\$399,836	\$429,824	\$462,060	\$496,715
Payroll Taxes	\$649,799	\$698,534	\$750,924	\$807,243	\$867,786
Insurance	\$1,115,028	\$1,198,655	\$1,288,554	\$1,385,195	\$1,489,085
Retirement	\$930,539	\$1,000,330	\$1,075,355	\$1,156,006	\$1,242,707
Other	\$96,644	\$103,892	\$111,684	\$120,060	\$129,065
<i>Subtotal</i>	<u>\$11,072,184</u>	<u>\$11,902,598</u>	<u>\$12,795,293</u>	<u>\$13,754,940</u>	<u>\$14,786,560</u>
Utilities					
Electricity	\$1,903,670	\$2,046,445	\$2,199,929	\$2,364,924	\$2,542,293
Heating	\$226,876	\$243,891	\$262,183	\$281,847	\$302,985
Telephone	\$37,551	\$40,367	\$43,395	\$46,649	\$50,148
Water and Sewer	\$370,163	\$397,926	\$427,770	\$459,853	\$494,342
<i>Subtotal</i>	<u>\$2,538,260</u>	<u>\$2,728,629</u>	<u>\$2,933,277</u>	<u>\$3,153,272</u>	<u>\$3,389,768</u>
Professional Services					
Legal and Accounting	\$419,573	\$451,040	\$484,868	\$521,234	\$560,326
Consulting	\$617,434	\$663,741	\$713,522	\$767,036	\$824,564
Marketing	\$520,908	\$559,977	\$601,975	\$647,123	\$695,657
<i>Subtotal</i>	<u>\$1,557,915</u>	<u>\$1,674,758</u>	<u>\$1,800,365</u>	<u>\$1,935,393</u>	<u>\$2,080,547</u>
Parking					
Terminal	\$1,946,802	\$2,406,734	\$2,587,240	\$2,781,283	\$2,989,879
Economy & Shuttle	\$1,166,082	\$1,253,538	\$1,347,553	\$1,448,619	\$1,557,266
<i>Subtotal</i>	<u>\$3,112,884</u>	<u>\$3,660,272</u>	<u>\$3,934,793</u>	<u>\$4,229,902</u>	<u>\$4,547,145</u>
Maintenance					
Building	\$749,682	\$805,909	\$866,352	\$931,328	\$1,001,178
Equipment	\$625,842	\$672,781	\$723,239	\$777,482	\$835,793
Other	\$656,344	\$705,570	\$758,488	\$815,375	\$876,528
<i>Subtotal</i>	<u>\$2,031,869</u>	<u>\$2,184,260</u>	<u>\$2,348,079</u>	<u>\$2,524,185</u>	<u>\$2,713,499</u>
Insurance	\$671,493	\$721,855	\$775,995	\$834,194	\$896,759
Supplies	\$757,033	\$813,811	\$874,847	\$940,460	\$1,010,995
Other	\$458,109	\$492,467	\$529,402	\$569,108	\$611,791
Total Operating Expenses	<u>\$22,199,748</u>	<u>\$24,178,651</u>	<u>\$25,992,049</u>	<u>\$27,941,453</u>	<u>\$30,037,062</u>

8.5.5 Non-Airline Revenues

Non-airline revenue projections for the Master Plan projects include revenue expected from parking including terminal, economy, valet, and third-party concessions such as rental cars, food and beverages, ground transportation, retail, advertising, and catering. Total non-airline revenues currently represent 73% of total revenues for the airport, and this mix is assumed to remain constant going forward in the forecasted revenues.

To project non-airline revenues, the planning team calculated a per enplanement revenue contribution for each category and then made further adjustment for inflation. Enplanements are forecasted to increase 3.8% annually between 2006 and 2016, and then

slow to a rate of 2.4% in 2017 and thereafter. The inflation adjustment is assumed at 2.5% annually, consistent with the assumption used for the operating expenses.

An additional adjustment was made to the terminal parking revenues in 2010 due to the completion of the north parking garage expansion. Parking revenues were assumed to increase by 25% based on an anticipated increased use of the additional parking spaces. This assumption does not assume any increase in the parking fees.

Using all of the assumptions described in this section, the non-airline revenue at the airport is projected to increase on average by 8.8% each year from 2009 to 2013; however, a one-time increase of 16.2% will occur in 2010 due to the north parking garage expansion.

8.5.6 *Airline Revenues*

Airline revenues consist of any revenues the airport receives directly from airlines. These include airline terminal rents, fuel flowage fees, landing fees, and apron fees and currently comprise up to 23% of the airport's total revenues.

The airline revenues are generated based on rates and charges established in the Airline Agreements for the Signatory Airlines, which expire June 30, 2009. For the purpose of this analysis, the planning team assumed that the current rate provisions will remain in place past 2009. The terminal building rental rate, landing fee rate, and apron fee rate in this model have been projected based on the current compensatory rate-making methodology. This methodology allows for the airport to recover the costs of operating the terminal building, airfield, and apron. On an annual basis, the combined payments made by signatory and non-signatory airlines are compared to the estimated payments as calculated on the Airline Agreement. If an airline has overpaid, the extra amount will be applied as a credit to that airline in the coming year. If an airline has underpaid, the airline will be responsible for settling any payments at that time.

Any remaining balance of net revenues at the end of each fiscal year is split evenly between the Commission and the Airlines Discretionary Account. The 50% of net revenues put in the Airline Discretionary Account is used to make equal monthly contributions to the Revenue Fund for the rest of the current fiscal year. These funds can be used to reduce terminal rent, landing fees, and apron fees. If a signatory airline owes the airport money, the contribution will be used to pay down any outstanding payments first.

The projections of airline revenues are calculated using the same methodology as the non-airline revenues. Enplanement growth is the main driver of future airport revenues with an adjustment for inflation.

Given these assumptions, the airline revenues are projected to increase, on average, at 6.4% annually from 2009 to 2013, and overall, the average annual revenue growth for the next twenty years is 6.0%.

Table 8.22 below shows forecasted airline and non-airline revenues for the next five years.

Table 8.22 - Forecasted Revenues for Richmond International Airport (2009 - 2013)

	2009	2010	2011	2012	2013
Operating Revenue					
Parking					
Terminal	\$16,529,569	\$21,983,293	\$23,389,125	\$24,884,859	\$26,476,246
Economy and Shuttle	\$3,892,414	\$4,141,334	\$4,406,172	\$4,687,947	\$4,987,741
Valet	\$732,266	\$779,094	\$828,917	\$881,926	\$938,326
Parking Meter and Violations	\$8,946	\$9,518	\$10,126	\$10,774	\$11,463
<i>Subtotal</i>	\$21,163,194	\$26,913,239	\$28,634,341	\$30,465,507	\$32,413,776
Rental					
Airline Terminal	\$7,535,942	\$8,017,865	\$8,530,608	\$9,076,140	\$9,656,559
Land	\$1,712,941	\$1,822,484	\$1,939,032	\$2,063,033	\$2,194,964
Other Buildings	\$1,156,269	\$1,230,212	\$1,308,884	\$1,392,588	\$1,481,644
<i>Subtotal</i>	\$10,405,152	\$11,070,562	\$11,778,524	\$12,531,761	\$13,333,167
Concession					
Rental Car	\$5,263,746	\$5,600,362	\$5,958,506	\$6,339,552	\$6,744,966
Food & Beverage	\$1,038,442	\$1,104,850	\$1,175,505	\$1,250,679	\$1,330,660
Ground Transportation	\$381,069	\$405,438	\$431,366	\$458,952	\$488,301
In-Flight Catering	\$10,784	\$11,474	\$12,208	\$12,988	\$13,819
Retail	\$874,450	\$930,371	\$989,868	\$1,053,170	\$1,120,520
Off-airport concession fees	\$55,874	\$59,448	\$63,249	\$67,294	\$71,597
Advertising	\$835,818	\$889,268	\$946,137	\$1,006,643	\$1,071,017
Fuel Flowage Fees	\$202,658	\$215,618	\$229,407	\$244,077	\$259,686
Other	\$7,164	\$7,622	\$8,109	\$8,628	\$9,179
<i>Subtotal</i>	\$8,670,004	\$9,224,451	\$9,814,354	\$10,441,982	\$11,109,747
Landing Fees					
Major	\$2,085,576	\$2,218,949	\$2,360,850	\$2,511,827	\$2,672,458
Regional	\$956,675	\$1,017,854	\$1,082,946	\$1,152,201	\$1,225,884
Scheduled Freighter	\$513,342	\$546,170	\$581,098	\$618,259	\$657,797
Other	\$164,296	\$174,803	\$185,982	\$197,875	\$210,529
<i>Subtotal</i>	\$3,719,889	\$3,957,776	\$4,210,876	\$4,480,162	\$4,766,668
Apron Fees	\$717,482	\$763,365	\$812,182	\$864,121	\$919,382
Miscellaneous					
Utilities	\$140,070	\$149,028	\$158,558	\$168,698	\$179,486
Other	\$126,942	\$135,060	\$143,697	\$152,886	\$162,664
<i>Subtotal</i>	\$267,012	\$284,088	\$302,255	\$321,584	\$342,149
Total Revenues	\$44,942,734	\$52,213,481	\$55,552,533	\$59,105,117	\$62,884,890

8.5.7 Airline Cost per Enplaned Passenger

Airport rates and charges are generally established to offset the costs of operating and maintaining aeronautical services at the airport, including the recovery of capital expenditures incurred towards this end.

Although an airport is entitled under Federal law to set its rates and charges at a level that covers all of these expenses, one measure of the Commission's ability to issue additional debt is whether or not the level of rates and charges required to cover such debt is reasonable.

A widely accepted method to evaluate whether or not such rates and charges are reasonable is to calculate the total of all airline payments per enplaned passenger. In 2007, the average airline payment per enplaned passenger across all airlines at the airport was \$5.76.

Based on the airport's financial plan and expected expenses, including debt servicing, total airline payments per enplaned passenger should not change in any significant manner. The projected cost per enplaned passenger in FY2009 is estimated to be \$6.03 (2.3% annual growth since 2007) and forecasted to increase approximately 2.5% each year.

8.6 Summary

After reviewing the current finances of the airport, various potential funding sources, and overall financial structure, the planning effort has documented that the airport has the ability to obtain the funding necessary to carry out the proposed capital improvement program as presented in this Master Plan. The aviation industry has proven to be volatile in the past and will most likely continue to experience volatility in the future.

The Master Plan CIP has been prepared based on available information and assumptions set forth. Prior to any project implementation, the financial feasibility of such projects should be determined using updated specific project costs as well as funding sources available at the time. In addition, although every effort has been made to make reasonable assumptions from the information available, some of the assumptions used to develop the Master Plan CIP may not be realized, and other unanticipated circumstances may arise. Therefore, actual results may be materially different from those projected. As such, the Master Plan CIP is not intended to be used to support the sale of bonds or to obtain other forms of financing.