8.0 AIRPORT DEVELOPMENT AND FINANCIAL PLANS

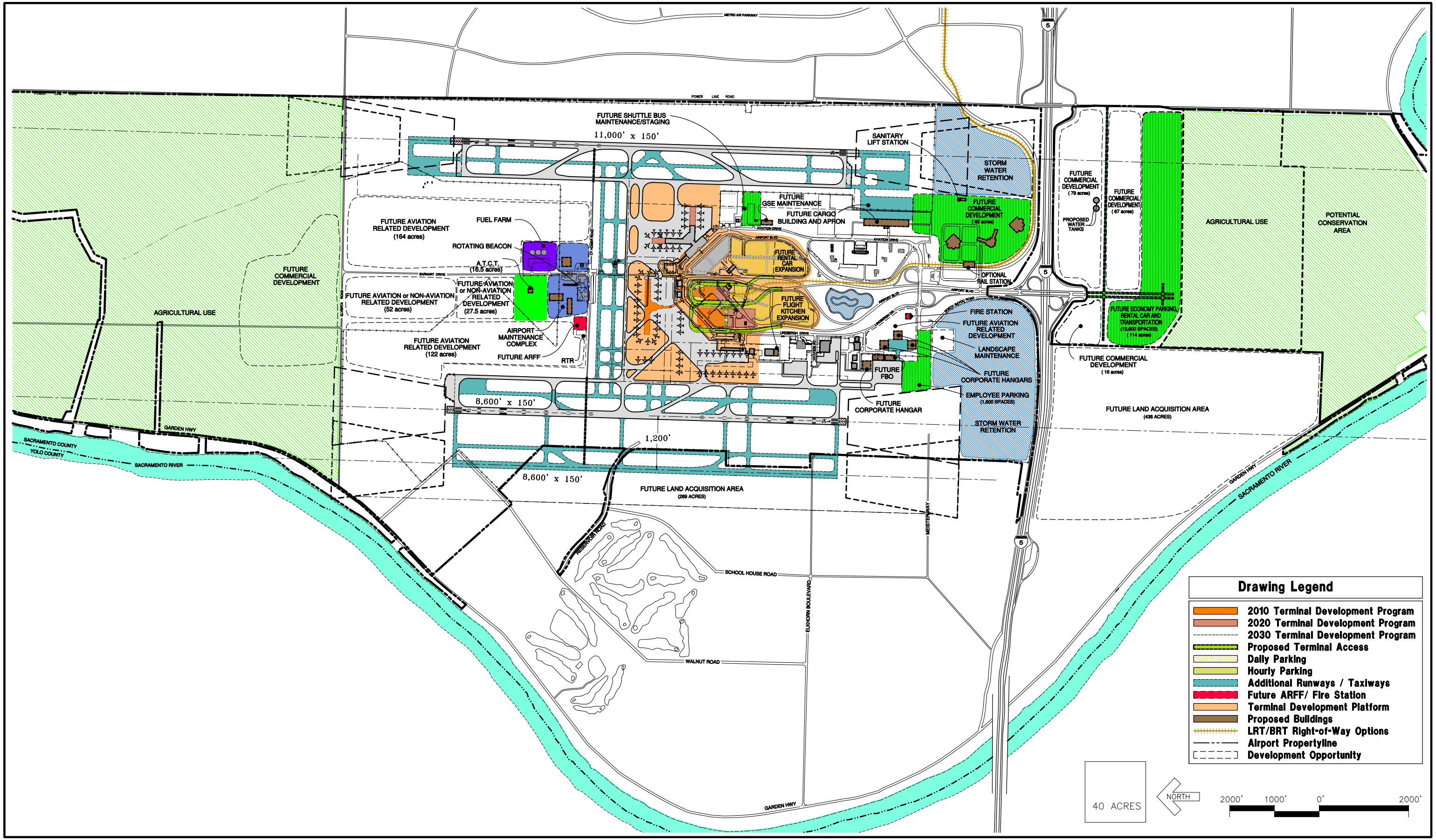
This chapter presents the recommended Airport Plans for Sacramento International Airport, including the Airport Development Plan, Capital Improvement Program and Financial Plan. Included are safety, security and capacity enhancement projects that will enable the Sacramento County Airport System to meet customer service goals given the growing activity in passengers, air cargo, and aircraft operations.

These airport plans provide a program to meet the vision for the Airport as presented in the goals and objectives in Chapter 1. The goals and objectives have been used throughout the project, from the establishment of facility requirements through the formulation and evaluation of development alternatives. A phasing plan for implementation of the Master Plan projects is included that corresponds with the activity forecasts presented in Chapter 3.

8.1 AIRPORT DEVELOPMENT PLAN

The recommended Airport Development Plan, shown in **Exhibit 8.1-1**, shows the major Airport facility improvements that are needed over the 20-year planning period. The plan reserves areas for preservation and development beyond the 20-year time frame to ensure that the airport can continue to fulfill its role as part of the regional transportation system.

In addition to improved passenger terminal facilities, the plan provides for aircraft operational improvements as well as expanded air cargo facilities, corporate and general aviation areas, airline and airport support facilities, future aviation and nonaviation related land uses, open space, and property reserved to maintain airport compatibility. The primary elements of the recommended development plan are described below.



SACRAMENTO COUNTY AIRPORT SYSTEM
6900 AIRPORT BLVD.
SACRAMENTO, CA 95837

Sacramento International Airport Master Plan Study

AIRPORT DEVELOPMENT PLAN

EXHIBIT 8.1-1

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PB AVIATION

8.1.1 Airfield

The existing airfield consists of two parallel, 8,600-foot runways in a north-south orientation with a system of connecting taxiways. The recommended airfield improvements include:

- Extension of Runway 16L/34R to 11,000 feet to accommodate nonstop transcontinental flights
- A new north-south Runway, also 8,600 feet in length, located 1,200 feet and an associated full-length parallel taxiway to the west of existing runway 16R/34L
- New crossfield taxiways connecting the east and west sides of the airfield
- Additional runway exits and taxiway connectors needed to provide efficient aircraft movement on the airfield
- New full-length parallel taxiways for the existing two runways to enhance aircraft movement on the Airport.

8.1.2 Terminal Complex

The Terminal Complex includes the passenger terminal buildings and aircraft parking apron. Given the age and condition of existing Terminal B, it is recommended that the airport meet growing terminal requirements by implementing the preferred terminal alternative as soon as possible.

The recommended near-term passenger terminal building improvements include:

- A new airside concourse, with a capability of 23 contiguous gates
- A new landside terminal (replacement of existing Terminal B) including all passenger processing functions
- Automated people mover between the concourse and the terminal
- Baggage handling system
- Aircraft loading bridges and other service equipment
- Connector between Terminal A and the new landside terminal

The recommended long-term passenger terminal building improvements include:

- Expansion of the concourses of Terminal A and concourse of new Terminal B
- Expansion of the new landside of Terminal B

8.1.3 Airport Access and Intermodal Facilities

With the development of improved passenger terminal facilities, it will be necessary to realign the terminal access roadway system, especially in the area that currently serves Terminal B. Airport Boulevard will be connected into a road system that serves the new terminal. Existing access to Terminal A will remain unchanged.

While not under the jurisdiction of the Airport System, it also is recommended that off-Airport roadway access to the airport be improved. Specifically, Elkhorn Boulevard should be extended onto the Airport from the east and connected with the airport road system. Additionally, South Bayou Road should be improved to provide an alternate Airport access route to I-5.

The proposed terminal and terminal area plans reserve a corridor for future of Light Rail and Bus Rapid Transit service to the Airport. The proposed Downtown-Natomas-Airport line will enter the airport from the east along the extension of Elkhorn Boulevard. The alignment extends into the center of the airport where it meets the proposed new terminal building. Light rail can connect directly to the passenger terminal providing a convenient access link to the regional intermodal transportation system. Bus Rapid Transit also can use this alignment.

8.1.4 Air Cargo Facilities

Air cargo will continue to be an important element of the regional economy. Additional space for cargo development has been reserved to ensure that the Airport

continues to support air cargo needs. This site, located adjacent to the east runway can easily accommodate a flexible and expandable cargo development.

8.1.5 Corporate and General Aviation Facilities

It is anticipated that high-end general aviation activity, such as corporate jets, will continue to grow at Sacramento International Airport. A new corporate terminal is recommended to address the quality of market being served and desired . The existing general aviation area has sufficient space to accommodate an expansion and the development plan shows a typical layout for a new Fixed Base Operator terminal with additional corporate hangars.

8.1.6 Airline Support Facilities

The Airport has initiated development of a new fuel farm to serve the airlines. An underground fuel pipeline was installed in 2003 in anticipation of the new fuel farm. Space also is reserved in the Master Plan for an expansion of the flight kitchen facility. In addition, a new Ground Service Equipment Maintenance (GSEM) facility should be developed adjacent south of Terminal A to provide an all-weather, environmentally controlled facility for service of airline tugs, baggage carts, baggage loaders and other aircraft service equipment.

8.1.7 Airport Support Facilities

Airport maintenance facilities should be expanded in the existing area north of the Crossfield Taxiways. New vehicle maintenance and field maintenance facilities should be developed in a phased manner as personnel and vehicle fleet increases.

A new Aircraft Rescue and Firefighting Station will be needed to meet FAA airfield access requirements and/or adoption of proposed ARFF standards when the proposed new west runway is developed. The new station should be constructed north of

the crossfield taxiways with access to the airfield via an expanded and improved Cy Homer Road.

A new Air Traffic Control Tower should be developed north of the crossfield taxiways and adjacent to Earhart Road. This project should be initiated as soon as possible because the existing tower site is anticipated.

A location for a structural Fire Station has been reserved in the south part of the Airport adjacent to Lindbergh Drive. This station can serve the airport as well as nearby development.

8.1.8 Areas Reserved for Future Development

South of I-5, the Airport owns substantial acreage that can be used for development as activity grows. Directly adjacent to I-5, commercial development can occur, although it is recommended that a view corridor/buffer be established between I-5 and the developed areas. In addition, this area can support future ground transportation needs with space for rental car activities and economy parking.

In the north part of the airport there is substantial property with airside access that should be reserved for aviation related development. The property along Earhart Drive in the north does not have airside access and therefore can be developed more flexibly as demand warrants.

An additional area is available for commercial development in the northeast corner of I-5 at Airport Boulevard. This area could support office/commercial development and an optional Light Rail station.

8.1.9 Land Acquisition

To ensure safe and efficient aircraft operations, the FAA has developed guidelines and regulations that specify uses of land near runways and restrict the height of structures near approaches to runways. The recommended land use plan includes land acquisition to accommodate the airfield expansion and maintain compliance with these guidelines.

A total of 707 acres of land area recommended to be acquired as part of this Master Plan, including:

- 269 acres for development of the new west runway
- 438 acres of property located in the approach/departure corridor south of I-5 to protect the Airport from non-compatible land use encroachment.

8.1.10 Airport Drainage

The North Natomas area has experienced a building boom with hundreds of new residential houses, commercial buildings and a sports arena. Given recent trends it is expected that the area will continue to convert from agricultural land use to urban land use.

The drainage system on the Airport consists of irrigation ditches, drainage ditches, drop inlets, culverts, culvert outfalls, oil/water separation facilities, detention ponds, and open fields. One pump station discharges into the Sacramento River and handles a significant amount of the airport drainage. During periods of heavy runoff surplus, airport drainage is routed into other ditches of the system by means of control gates and flows to the other pump stations.

Given the proposed Airport improvements, it is expected that impervious cover will increase on the Airport. The purchase of additional land south of I-5 will be positive for regional drainage patterns by keeping this area from dense development. The Airport

should continue to improve the quality of stormwater discharges to meet ever increasing environmental expectations.

It is recommended that the Airport prepare a Master Drainage Plan that will establish drainage facility infrastructure needs for the entire 20-year development program. This plan should allow for logical and incremental infrastructure development corresponding to and balanced with the implementation of the Capital Improvement Program.

The Airport Master Drainage Plan should:

- Assess the impact of existing and future airport features on drainage
- Define design storm and hydrology requirements
- Identify alternative means for off-airport and on-airport drainage disposal
- Recommend infrastructure and operating methods to maintain and improve the quality of stormwater discharges
- Provide a plan for drainage facilities corresponding to the 20-year Airport Development Plan that can be implemented in a phased manner.

8.2 CAPITAL IMPROVEMENT PROGRAM

The recommended Capital Improvement Program for Sacramento International Airport is shown in **Table 8.2-1**. The CIP presents the anticipated development costs and time frame for implementation of the projects recommended in the Master Plan. Cost estimates in the table illustrate the timing and relative magnitude of the CIP expenditures. With sufficient accuracy for master planning purposes, these planning estimates may vary from the actual cost of the projects developed in the future. More defined project scopes and detailed cost estimates should be prepared for the CIP projects with specific preliminary engineering and architectural evaluations.

Generally, the Airport should be improved in a way that keeps the operating elements, such as the airfield and terminal facilities, operating in a balanced manner with respect to capacity and operational interfaces. The CIP recommends a development schedule that should be adjusted as needed by the Airport based on changes in future activity and conditions at the Airport. Below, the implementation phasing is presented.

TABLE 8.2-1

Sacramento International Airport

CAPITAL IMPROVEMENT PROGRAM

Implementation Period	Project	Estimated Cost*
PAL 1: Short-term 2005		
	Airfield	
	Runway 34R Extension with new ILS	$ 4,709,000
	Runway 16L Extension with relocated ILS	$ 2,853,000
	Land Acquisition for West Runway	$ 4,304,000
	New North Crossfield Taxiway	$ 6,191,000
	Subtotal - Airfield	$ 18,057,000
	Terminal Complex	
	None	$ -
	Airport Access	
	Access Improvements to Elverta Road	$ 10,855,000
	Expand/improve Cy Homer Road	$ 806,000
	Subtotal – Airport Access	$ 11,661,000
	Miscellaneous and Support Facilities	
	Closure of waste disposal ponds	$ 1,200,000
	Future Fire Station west of Lindbergh Drive	$ 3,265,000
	GSE Maintenance Facility	$ 1,770,000
	Future Airport Traffic Control Tower *	$ 25,000,000
	Airfield Maintenance Building - Phase I	$ 2,932,000
	Equipment Maintenance Building. - Phase I	$ 4,152,000
	General Service Building - Phase I	$ 2,019,000
	Domestic Water Supply	$ 12,500,000
	Land Acquisition south of I-5	$ 7,008,000
	Land Acquisition and Habitat Creation	$ 5,000,000
	Future Fire Station west of Lindbergh Drive	$ 3,265,000
	Subtotal - Miscellaneous and Support Facilities	$ 68,111,000
	Subtotal of PAL 1 Projects	**$ 97,829,000**
PAL 2: Medium term 2010		
	Airfield	
	New South Crossfield Taxiway	$ 7,653,000
	New Parallel Taxiways, Holdpads, Angled Exits Runway 16R/34L	$ 14,048,000
	Subtotal - Airfield	$ 21,701,000
	Terminal Complex	
	Terminal	$ 560,969,000
	Terminal Apron	$ 122,060,000
	Subtotal Terminal Complex	$ 683,029,000
	Airport Access	
	Extend Airport Boulevard south of I-5	$ 350,000

TABLE 8.2-1 (continued)

Sacramento International Airport

CAPITAL IMPROVEMENT PROGRAM

Implementation Period	Project	Estimated Cost*
	Future Employee Parking west of Lindbergh Drive	$ 3,878,000
	Future Rental Car Terminal Expansion	$ 4,860,000
	Parking Structure	$ 86,754,000
	Terminal Landside (road/landscaping)	$ 22,674,000
	Extend Elkhorn Boulevard and Improve and Bayou Road	$ 25,000,000
	Subtotal - Airport Access	$ 143,516,000
	Miscellaneous and Support Facilities	
	New Cargo Building and Apron	$ 22,907,000
	Airfield Maintenance Building - Phase II	$ 3,204,000
	Equipment Maintenance - Building Phase II	$ 4,344,000
	General Service Building - Phase II	$ 2,206,000
	Airport Maintenance Central Receiving	$ 1,442,000
	Hotel	$ 36,058,000
	New ARFF Station	$ 5,200,000
	Subtotal - Miscellaneous and Support Facilities	$ 73,361,000
	Subtotal of PAL 2 Projects	**$ 923,607,000**
PAL 3: Long term 2020	**Airfield**	
	New West Runway/Taxiway system	$ 35,400,000
	Widen East Runway and Taxiways for Group VI Airplanes	$ 13,606,000
	Fillet widening for the east Runway and the Crossfield Taxiways	$ 2,234,000
	New Parallel Taxiways for Runway 16L/34R	$ 17,871,000
	Environmental mitigation	$ 1,729,000
	Subtotal - Airfield	$ 70,840,000
	Terminal Complex	
	Terminal	$ 319,463,000
	Terminal Apron	$ 47,732,000
	Subtotal - Terminal Complex	$ 367,195,000
	Airport Access	
	Parking Structure	$ 53,460,000
	Future Economy Parking south of I-5	$ 71,395,000
	Terminal Landside (road/landscaping)	$ 21,455,000
	Future Light Rail Phase I ($$ be confirmed)	$ 32,700,000
	Extend Cy Homer Road	$ 133,000
	Subtotal - Airport Access	$ 179,143,000
	Miscellaneous and Support Facilities	
	Subtotal of PAL 3 Projects	**$ 617,178,000**
	TOTAL CIP Development Program	**$ 1,648,614 ,000**

* Projects to be funded by Others

Source: PB Aviation, Corgan Associates, Sacramento County Airport System

8.2.1 Planning Activity Levels

Forecasts of enplaned passengers, air cargo tonnage and aircraft operations were developed earlier in the Master Plan and presented in Chapter 3.0 on a year-by-year basis. However, many variables can affect the achievement of forecasts such as regional, national, and international economic conditions and local changes in airline service. During the course of this project, Sacramento International Airport has had robust activity levels compared with the national trends, new international service and additional air carriers are currently entering the market.

For the Master Plan, it is prudent to use a strategic planning approach whereby Planning Activity Levels (PALs) are used to determine the timing for future airport development projects. **Table 8.2-2** depicts the PALs for the following components:

- Enplaned passengers
- Air cargo tonnage
- Aircraft operations

An important goal for the Airport is to maintain effective operational balance between the various airport functional elements. Using the PALs to determine the need for enhancements to various system elements will help the County maintain a good balance.

TABLE 8.2-2

Sacramento International Airport

PLANNING ACTIVITY LEVELS

		Planning Activity Levels		
		1	2	3
Demand Component	**2003**	**2005**	**2010**	**2020**
Enplaned Passengers	4,387,807	5,170,900	6,009,800	7,980,900
Cargo (freight and mail, pounds)	157,067,147	237,071,600	293,495,800	419,039,100
Aircraft Operations	159,221	188,800	209,000	256,800

Source: PB Aviation

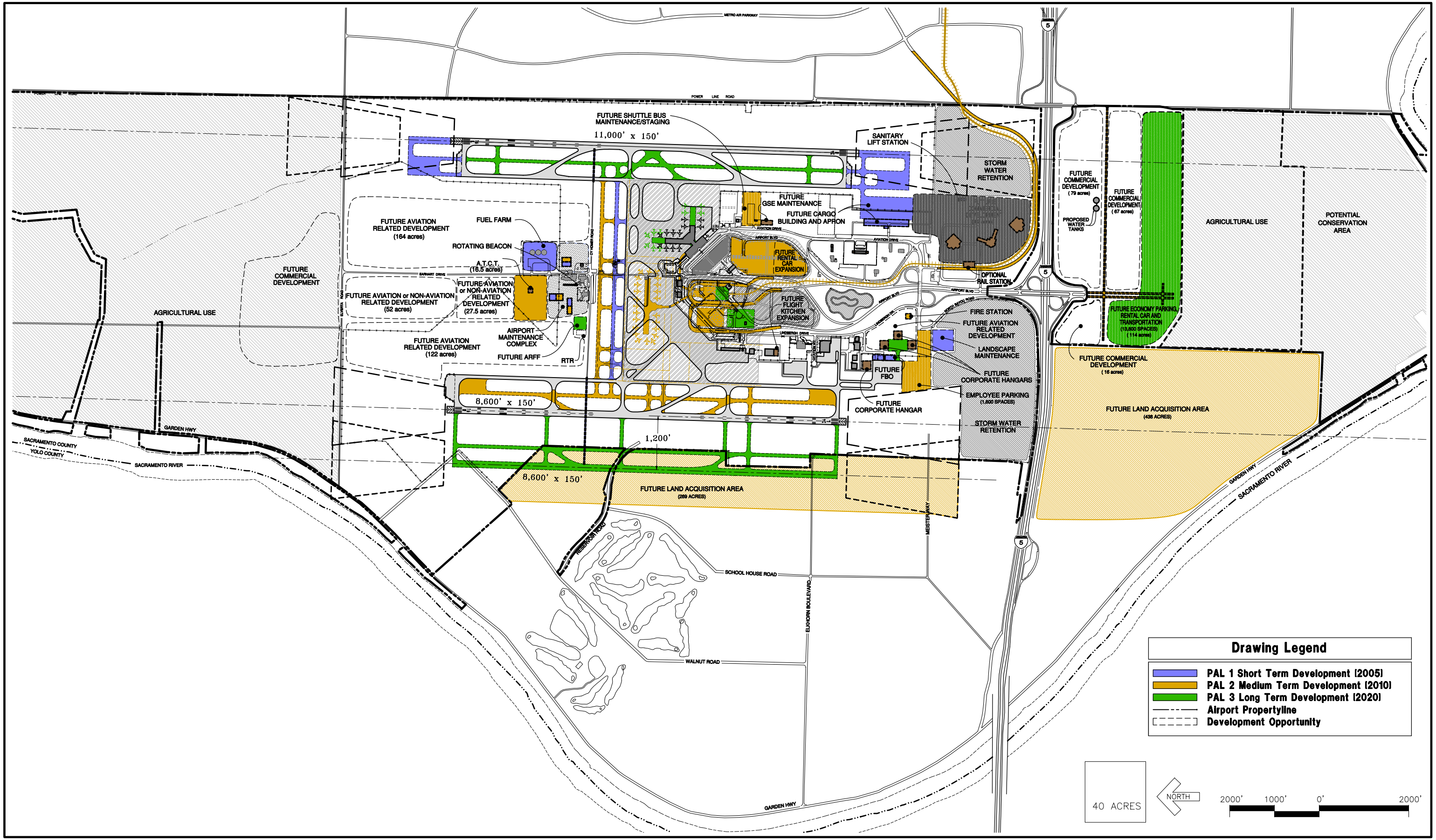
Exhibit 8.2-1 shows the recommended phasing for Airport Development over the 20-year planning period.

8.2.2 Short-term

Short-term improvements should be implemented soon in response to an immediate need for these facilities. Included in this phase are the extension of the East Runway and one new crossfield taxiway. It is anticipated that the proposed new passenger terminal will be in design during this period, after which construction should begin. Elverta Road should be improved for airport service use and Cy Homer Road should be improved for ARFF access to the airfield. A new Air Traffic Control Tower should be constructed along with new air cargo facilities (if commitments can be obtained) and a new maintenance facility for ground service equipment. New facilities for airport maintenance also should be constructed during the short term.

8.2.3 Intermediate Term

Items that are included in the intermediate phase of development (2005-2010) include an additional crossfield taxiway, new parallel taxiways and runway exits. Land should be acquired for the future new West Runway and for airport protection/compatibility in this phase. A new passenger terminal facility, with aircraft parking apron, hotel and public parking garage are the most significant facility improvements during this period. Access improvements include an extension of Elkhorn Boulevard onto the Airport and improvements to Bayou Road. A new structural fire station should be constructed in the terminal area and additional improvement to airport maintenance facilities should be built.



SACRAMENTO COUNTY AIRPORT SYSTEM
6900 AIRPORT BLVD.
SACRAMENTO, CA 95837

Sacramento International Airport Master Plan Study

AIRPORT PHASING PLAN

EXHIBIT 8.2-1

ALTERNATIVES\4-03_REV\LEVEL-3\..\staging.dwg 02/12/04

PB AVIATION

8.2.4 Long-term

The long-term development phase (2010-2020) includes construction of a new West Runway with taxiway system and widening of the East Runway and taxiways to support Group VI airplanes. The passenger terminal should be expanded during this phase along with the aircraft parking apron and parking garage expansions. Economy parking should be developed south of I-5 along with other ground transportation improvements. It is anticipated that Light Rail could be constructed during this phase.

8.3 FINANCIAL PLAN

This section presents a preliminary financial plan for the capital improvement program presented earlier in this chapter, along with an evaluation of the implications of the financial plan on the financial operations of both the Airport and the County Airport System. This section includes: (1) a discussion of the County Airport System's current financial framework, providing a context within which the Airport's capital improvements are financed, (2) a summary of the approach used in developing the plan of finance, (3) a summary of Master Plan project cost estimates and associated funding sources, and (4) a discussion of estimated financial implications.

8.3.1 Airport System Financial Framework

The County Airport System, as a department within the County of Sacramento (the County), is responsible for the management and operation of four County-owned and operated airports—including Sacramento International, Mather Airport, Executive Airport, and Franklin Field—and establishes fees, rentals, rates, and other charges required to meet financial obligations. The County is authorized to issue airport revenue bonds, payable from County Airport System net revenues, for the purpose of acquiring or constructing improvements to the Airport System.

The County Airport System is responsible for certain functions such as the development and execution of airline agreements, tenant negotiations, compliance with grant assurances, marketing and development, and long-range planning.

The County Airport System accounts for financial operations as a single, self-sufficient enterprise. The revenues, expenses, and funding sources for the Airports are commingled. The County Airport System's fiscal year (FY) ends June 30.

Airport System Financial Operations

The financial operations of the County Airport System are governed by, among other things:

- The Airport System Revenue Bond Resolution adopted by the County in 1989, as supplemented and amended--referred to as the "Bond Resolution"
- The Subordinated Bond Resolution adopted by the County in 1996 (for bonds secured by certain passenger facility charge collections with a secondary/back-up pledge of Airport System net revenues), as supplemented and amended
- The Rate Ordinance adopted by the County, which governs the determination of rates, fees, and charges for the use of Airport System facilities
- Operating agreements with passenger and cargo airlines, providing for use of the Airports and the payment of landing fees, ramp fees, terminal rentals, and certain other charges
- Other leases and concession agreements with various tenants at the Airports (including agreements for building and ground rentals, fixed base operator services, and services such as food and beverage, merchandise, car rental, automobile parking, and ground transportation)
- FAA grant approvals and passenger facility charge (PFC) approvals
- Federal statutory and constitutional provisions, including the Aviation and Transportation Security Act, the Anti-Head Tax Act of 1973, the Airport and Airways Improvement Act of 1982, the Interstate Commerce Clause, and the PFC Act of 1990
- U.S. Department of Transportation policies mandated by the FAA Act of 1994 related to airport rates and charges, rules for resolving disputes, and revenue diversion
- Generally accepted accounting principles
- Various policies adopted by the County and the County Airport System

Discussions of various governing documents reflected above (including the Bond Resolution, airline operating agreements, and other tenant leases) are discussed in more detail below, as is the Airport System's PFC program.

Bond Resolution. The issuance of Airport System Revenue Bonds by the County is governed by the provisions of the General Airport System Revenue Bond Resolution (adopted in 1989), as amended. As defined in the Bond Resolution, Airport System Revenue Bonds are payable from a lien on the Net Revenues of the Airport System.

In the Bond Resolution, the County covenants to:

. . . at all times fix, prescribe and collect rents, fees and charges in connection with the services and facilities furnished by the County Airport System which will be sufficient to yield Net Revenues during each Fiscal Year equal to at least one hundred twenty-five percent (125 percent) of the Debt Service for such Fiscal Year and Revenues during each Fiscal Year equal to at least one hundred percent (100 percent) of the aggregate amount of transfers required by Section 5.02 hereof for such Fiscal Year.

This provision is referred to as the Rate Covenant. The Bond Resolution also governs the application of Airport revenues to the various funds and accounts established under the Bond Resolution.

Subordinated Bond Resolution. The County issued Airport System Passenger Facility Charge and Subordinated Revenue Bonds (Subordinated Bonds) in 1996 and 1998 under provisions of the Fourth and Sixth Supplemental Bond Resolutions (adopted in May 1996 and August 1998, respectively), referred to collectively in this appendix as the Subordinated Bond Resolution.

As defined in the Subordinated Bond Resolution, PFC and Subordinated Revenue Bonds are payable from a lien on Subordinated Revenues (equal to all PFC revenues, amounts required to be deposited in the Subordinated Revenue Fund from the Subordinate Securities Fund under the Senior Bond Resolution, and any other authorized deposits to the Subordinated Revenue Fund).

The Subordinated Bond Resolution also governs the application of Subordinated Revenues to various funds and accounts.

Airline Operating Agreement. The County Airport System derives a substantial portion of its revenues from airline rentals, fees, and charges. In FY 2003, airline

revenues paid to the Airport System represented 22 percent of total County Airport System revenues.

In FY 2001, the County entered into an Airline Operating Agreement (the Agreement) with the scheduled major passenger airlines serving International Airport and certain all-cargo airlines at International Airport and Mather Airport. The Agreement, which was substantially similar to a prior airline operating agreement that had been effective since 1989, expired on June 30, 2003. The Airport System is in the process of executing extensions to the Agreement.

The Agreement provides a basis for calculating, charging, and collecting airline Terminal Building rents, Aircraft Parking Fees, Loading Bridge Use Fees, Landing Fees, and other charges so that total County Airport System revenues are sufficient to meet the requirements of the Rate Covenant.

Landing Fees are calculated according to a total County Airport System residual cost methodology, taking into consideration all County Airport System requirements and all nonairline revenues. County Airport System requirements are defined to include, among other things, 125 percent of the annual debt service for outstanding County Airport System Revenue Bonds. The FY 2004 landing fee is $1.79 per 1,000 pound unit of landed weight for airlines operating pursuant to an executed Agreement (and $2.24 for nonsignatory airlines). Cargo airlines that are signatory to the Agreement pay the same landing fee as the signatory passenger airlines.

The Agreement includes provisions regarding airline approval of future capital improvements (and inclusion of associated capital costs in the airline rate base). The provisions include specific procedures and definitions regarding the airline approval process. Capital improvements that are not approved by the signatory airlines can be implemented by the County one year after the County Airport System's initial request for airline approval.

Other Tenant Leases. The County Airport System has entered into numerous agreements with other tenants and concessionaires in connection with building rentals, ground leases, concessions, and other services at the Airports.

At International Airport, the County Airport System receives various privilege fees, space rentals, and ground lease payments from tenants including food and beverage and retail merchandise concessionaires, rental car companies, and air cargo operators. At Mather Airport, the County Airport System receives building rental and ground lease payments from various tenants, including air cargo operators, the fixed base operator (Trajen Flight Support), aircraft maintenance companies (including Mather Aviation), corporate aircraft operators (including Intel), and other tenants, including a flight school, a rental car company, a metal fabrication company, and a law firm.

Passenger Facility Charge Program. The County Airport System's PFC program is administered in accordance with applicable PFC regulations under FAR Part 158, *Passenger Facility Charges*. In January 1993, the County received approval from the FAA to impose a PFC of $3.00 per eligible enplaned passenger at the Airport, and has imposed a PFC since April 1, 1993. The County Airport System received approval to collect a $4.50 PFC in November 2001, and began collecting at the $4.50 PFC level on February 1, 2002. Of the total $4.50 PFC imposed at the Airport, the County receives $4.42 per eligible enplaned passenger for approved projects and collecting airlines receive $0.08 per eligible enplaned passenger for administrative costs. All PFC approvals received to date have been for projects at Sacramento International Airport.

8.3.2 Financial Plan Development

Once the recommended development concept for the Airport was identified, specific projects required for projected future aviation activity were determined and associated costs were estimated (and escalated for future inflation).

Funding Strategy

Aligning the sources of capital funds with the allowable and optimal uses is essential to maximizing financing capacity. Certain sources of funds, such as federal grants and PFCs, have restrictions on how they can be used. Funding sources such as airport revenue bond proceeds, which result in required annual debt service payments, are more effective when targeted to projects having a direct income stream, especially when airline approvals are required. Third-party funding sources were assumed for certain costs associated with a planned new hotel and light rail to the Airport.

In preparing the financial plan, the current County Airport System Capital Improvement Program (CIP) was reviewed to ensure that existing funding commitments were accounted for with the development of Master Plan funding assumptions. Following the completion of the Master Plan, the County expects to update the CIP as appropriate.

Financial Analysis

It was assumed that net project costs remaining after grant, PFC, Airport System, third-party, and other funding would be funded with County Airport System Revenue Bond proceeds. Future County Airport System Revenue Bond debt service is added to the existing base of airline payments for purposes of projecting future airline payments.

Based on the funding assumptions and future bond financings described above, a detailed financial analysis incorporating existing debt service, operating expenses, and nonairline revenues, as well as additional debt service, operating expenses, and nonairline revenues associated with Master Plan projects, was prepared to assess the financial implications of the Master Plan—specifically the impact on airline cost per enplaned passenger.

8.3.3 Financial Plan

Table 8.3-1 presents the preliminary financial plan for capital improvements included in the Master Plan. The financial plan is based on funding strategy and development approach assumptions discussed earlier in this chapter. As reflected, estimated costs and sources of funds are shown by phase and by project. Cost estimates associated with Master Plan projects reflect allowances for cost escalation, engineering, design, program management fees, and contingencies. The description of and basis for the recommended Master Plan capital improvements are presented in the earlier chapters of this Master Plan.

Sources of Funds

The principal sources of funding for Master Plan improvements are expected to include the following:

- Federal grants-in-aid under the AIP (entitlement grants and discretionary grants)
- Airport System funds
- Third party/other funding
- Passenger facility charge (PFC) funding—including PFC revenues on a pay-as-you basis and proceeds from the sale of PFC and Subordinate Revenue Bonds supported by PFC revenues and a subordinate pledge of net revenues of the Airport System
- Proceeds from the sale of Airport System Revenue Bonds supported by a senior of first pledge of the net revenues of the Airport System

The amount of funding available from these sources will depend primarily on future aviation activity at the International Airport and other airports in the System, future economic development in the region, future County decisions regarding the development of the Airport's facilities, potential third-party investment, FAA priorities for the national airport system, and future AIP authorizations. If the assumed funds are not available, certain projects would need to be deferred until funds become available or Airport and/or County Airport System users agree to support funding of the projects from bond proceeds or other sources.

TABLE 8.3-1

Sacramento International Airport Master Plan

CAPITAL PROJECT COSTS AND SOURCES OF FUNDS - FISCAL YEARS ENDING JUNE 30

		Sources of funds							
Project Description	**Total**	**AIP discretionary**	**AIP entitlement**	**Airport System**	**Other/3rd**	**PFC pay-as-you-**	**PFC bond**	**Revenue bond**	
"2010" Projects	**cost (a)**	**grants**	**grants**	**funds**	**party funds**	**go funds**	**proceeds**	**proceeds**	**TOTAL**
Airfield									
Parallel taxiways--West	$14,048,000	$10,536,000						$3,512,000	$14,048,000
Runway 16R/34L and taxiway rehabilitation	9,219,000	3,381,000		4,622,000		1,216,000		0	9,219,000
Crossfield taxiway--South	7,653,000	5,740,000				1,913,000		0	7,653,000
Runway extensions--East	7,562,000	5,672,000						1,890,000	7,562,000
Crossfield taxiway--North	6,191,000	4,643,000				1,548,000		0	6,191,000
Future airfield maintenance facility	6,136,000					3,068,000		3,068,000	6,136,000
Future ARFF facility	5,200,000					5,200,000		0	5,200,000
Land acquisition	4,304,000			4,304,000				0	4,304,000
Other airfield projects	4,348,000	2,526,000		1,822,000				0	4,348,000
	$64,661,000	$32,498,000	$0	$10,748,000	$0	$12,945,000	$0	$8,470,000	$64,661,000
Apron									
Airside (Apron/Utilities)	$122,058,000	$61,029,000	$9,709,000	$20,000,000				$31,320,000	$122,058,000
	$122,058,000	$61,029,000	$9,709,000	$20,000,000	$0	$0	$0	$31,320,000	$122,058,000
Terminal									
Terminal B airside	$123,273,000			$20,000,000		$10,000,000	$73,964,000	$19,309,000	$123,273,000
Terminal B landside	115,128,000			15,000,000		10,000,000	57,564,000	32,564,000	115,128,000
Automated people mover	75,823,000			15,000,000		15,700,000	18,956,000	26,167,000	75,823,000
Bag handling system	69,325,000						10,000,000	59,325,000	69,325,000
Communications system	47,152,000						10,000,000	37,152,000	47,152,000
Landside (utilities)	68,021,000							68,021,000	68,021,000
A-B connector	17,010,000							17,010,000	17,010,000
Airport administration space	11,653,000							11,653,000	11,653,000
Loading bridges	11,484,000							11,484,000	11,484,000
Fixtures, furniture, and equipment	10,891,000							10,891,000	10,891,000
Other terminal improvements (b)	11,209,000							11,209,000	11,209,000
	$560,969,000	$0	$0	$50,000,000	$0	$35,700,000	$170,484,000	$304,785,000	$560,969,000
Parking and Roadways									
Parking structure--main terminal	$86,754,000							$86,754,000	$86,754,000
Landside (roads/landscaping)	22,674,000							22,674,000	22,674,000
Elkhorn Boulevard and Bayou Road improvements	25,000,000			10,000,000	15,000,000			0	25,000,000
Elverta Road improvements	10,855,000			5,428,000		5,427,000		0	10,855,000
Shuttle bus replacement	5,850,000			5,850,000				0	5,850,000
Employee parking lot	3,878,000							3,878,000	3,878,000
Other parking and roadways projects	1,316,000			1,316,000				0	1,316,000
	$156,327,000	$0	$0	$22,594,000	$15,000,000	$5,427,000	$0	$113,306,000	$156,327,000
Other Buildings and Areas									
Hotel	$36,058,000				$36,058,000			$0	$36,058,000
FAA tower	25,000,000				25,000,000			0	25,000,000
Cargo building and apron (East)	22,907,000				22,907,000			0	22,907,000
Domestic water supply	12,500,000			12,500,000				0	12,500,000
Other (c)	30,986,000			12,228,000	3,265,000			15,493,000	30,986,000
	$127,451,000	$0	$0	$24,728,000	$87,230,000	$0	$0	$15,493,000	$127,451,000
TOTAL--"2010" PROJECTS	**$1,031,466,000**	**$93,527,000**	**$9,709,000**	**$128,070,000**	**$102,230,000**	**$54,072,000**	**$170,484,000**	**$473,374,000**	**$1,031,466,000**

(a) Total cost includes soft costs and escalation for inflation.

(b) Includes security, demolition, and pedestrian bridge to parking garage for new terminal.

(c) Includes equipment maintenance building, general services maintenance building, future rental car terminal expansion, and future fire station.

TABLE 8.3-1 (continued)

Sacramento International Airport Master Plan

CAPITAL PROJECT COSTS AND SOURCES OF FUNDS - FISCAL YEARS ENDING JUNE 30

		Sources of funds							
Project Description	**Total**	**AIP discretionary**	**AIP entitlement**	**Airport System**	**Other/3rd**	**PFC pay-as-you-**	**PFC bond**	**Revenue bond**	
"2020" Projects	**cost (a)**	**grants**	**grants**	**funds**	**party funds**	**go funds**	**proceeds**	**proceeds**	**TOTAL**
Airfield									
Third runway construction	$35,400,000	$13,550,000	$13,000,000	$4,425,000				$4,425,000	$35,400,000
New parallel East taxiway	17,871,000	13,403,000						4,468,000	17,871,000
Widening East runway/taxiways	13,606,000	10,205,000						3,401,000	13,606,000
Land acquisition	7,008,000					7,008,000		0	7,008,000
Future ARFF facility	5,200,000					5,200,000		0	5,200,000
Fillet widening East runway/taxiways	2,234,000	1,676,000		558,000				0	2,234,000
Environmental mitigation	1,729,000			1,729,000				0	1,729,000
ARFF access--extend Cy Homer Road	133,000	133,000						0	133,000
	$83,181,000	$38,967,000	$13,000,000	$6,712,000	$0	$12,208,000	$0	$12,294,000	$83,181,000
Apron									
Airside (apron/utilities)	$47,731,000	$23,975,000	$11,823,000				$11,823,000	$110,000	$47,731,000
	$47,731,000	$23,975,000	$11,823,000	$0	$0	$0	$11,823,000	$110,000	$47,731,000
Terminal									
Terminal B airside expansion	$110,592,000			$20,000,000			$55,296,000	$35,296,000	$110,592,000
Terminal A expansion	50,241,000			10,000,000		4,500,000	25,121,000	10,620,000	50,241,000
Terminal B landside expansion	39,005,000			10,000,000		8,950,000		20,055,000	39,005,000
Bag handling system	36,789,000							36,789,000	36,789,000
Comm system	29,101,000							29,101,000	29,101,000
Landside (utilities)	27,892,000							27,892,000	27,892,000
Loading bridges	18,470,000					18,470,000		0	18,470,000
Fixtures, furniture, and equipment	5,283,000							5,283,000	5,283,000
Security	2,090,000		1,568,000					522,000	2,090,000
	$319,463,000		$1,568,000	$40,000,000		$31,920,000	$80,417,000	$165,558,000	$319,463,000
Parking and Roadways									
Future remote parking South of I-5	$71,395,000							$71,395,000	$71,395,000
Parking structure--main terminal	53,460,000							53,460,000	53,460,000
Landside (roads/landscaping)	21,455,000			10,728,000				10,727,000	21,455,000
	$146,310,000			$10,728,000				$135,582,000	$146,310,000
Other Buildings and Areas									
Future light rail	$60,000,000			$30,000,000	$15,000,000			$15,000,000	$60,000,000
	$60,000,000	$0	$0	$30,000,000	$15,000,000	$0	$0	$15,000,000	$60,000,000
TOTAL--"2020" PROJECTS	**$656,685,000**	**$62,942,000**	**$26,391,000**	**$87,440,000**	**$15,000,000**	**$44,128,000**	**$92,240,000**	**$328,544,000**	**$656,685,000**
TOTAL SMF PROJECTS	**$1,688,151,000**	**$156,469,000**	**$36,100,000**	**$215,510,000**	**$117,230,000**	**$98,200,000**	**$262,724,000**	**$801,918,000**	**$1,688,151,000**

(a) Total cost includes soft costs and escalation for inflation.

Source: PB Aviation

Discussion of the individual sources of funds outlined above follows.

Federal Grants. The Airport Improvement Program (AIP) is authorized by the Airport and Airway Improvement Act of 1982 (the Act). The Act authorized funding for the AIP from the Airport and Airway Trust Fund for airport development, airport planning, and noise compatibility planning and programs. The Airport and Airway Trust Fund is funded through several aviation user taxes (including a 10 percent federal tax on airline tickets), air freight, and aviation gasoline.

In general, AIP grants can be used for land acquisition, noise mitigation, airfield improvements, on-airport roadways, public areas of terminal buildings, and safety and security systems and equipment. In allocating its discretionary funds, the FAA gives priority to projects that enhance airport safety, security, and capacity where capacity constraints have been demonstrated. As a result of new legislation since the September 11, 2001, terrorist attacks, priority has also been given to projects that satisfy new federal safety requirements.

AIP funds are distributed by the FAA to airport operators in the form of (1) entitlement grants, based on enplanement levels and cargo activity, and (2) discretionary grants, based on FAA determinations of priority for enhancing the capacity of the national air transportation system. For medium- and large-hub airports, AIP grants cannot fund over 75 percent of project costs.

As shown on Table 8.3-1, it was assumed that entitlement and discretionary AIP grants would fund about $192 million of total project costs (or about 11 percent of the total). To the extent that discretionary amounts are not available to fund Master Plan projects, it is expected that these projects would be deferred until funds become available or Airport and/or County Airport System users agree to support funding of the projects from bond proceeds or other sources.

County Airport System Funds. Under the terms of the County's Bond Resolution and the Airline Agreements, deposits to the County Airport System's Capital Improvement Fund are made each Fiscal Year. The County Airport System can use amounts in the Capital Improvement Fund for any legal Airport System purpose.

County Airport System funding assumed for Master Plan projects (approximately $216 million through FY 2021) amounts to, on average, $13 million per Fiscal Year and represents approximately 13 percent of total Master Plan project funding. The County Airport System expects to use available Capital Improvement Fund monies in combination with future deposits to fund Master Plan projects. Projected annual deposits to the Capital Improvement Fund through FY 2020 range from approximately $11 million to $25 million.

Third-Party/Other Funding. As reflected in Table 8.3-1, third-party or other funding has been assumed for the construction of a new FAA air traffic control tower, construction of a new cargo building and apron, and a new hotel. Third-party/other funding has also been assumed for a portion of costs associated with future light rail to the Airport.

Third-party/other funding assumed for the Master Plan totals approximately $117 million (approximately 7 percent of Master Plan project funding). If it is later determined that such third party/other funding is not available or forthcoming, the County Airport System would need to either (1) use County Airport System funds, or (2) defer or cancel the project.

Passenger Facility Charge Funding. The County Airport System has historically used both PFC funding on a pay-as-you-basis and PFC and Subordinate Revenue Bond proceeds (secured by PFC revenues and a back-up pledge of County Airport System net revenues) for capital projects at the Airport. As reflected on Table 8.3-1, both forms of PFC funding have been assumed for Master Plan projects. As of

January 1, 2004, two series of PFC and Subordinated Revenue Bonds were outstanding, with outstanding principal of approximately $54 million

PFC funding for Master Plan projects totals approximately $360 million (approximately 22 percent of Master Plan project funding).

Airport System Revenue Bonds. The County has previously issued bonds supported by County Airport System net revenues to pay for capital projects. As of January 1, 2004, five series of County Airport System Revenue Bonds were outstanding, with outstanding principal of approximately $228 million. Debt service associated with the County's existing Airport System Revenue Bonds, in addition to 25 percent debt service coverage, is included in the calculation of airline rates and charges.

As shown in Table 8.3-1, the issuance of future County Airport System Revenue Bonds was assumed to fund about $802 million, or about 48 percent of the Master Plan capital costs.

Table 8.3-2 presents, in general terms, the funding strategy assumed for individual projects and the expected financial effects of such projects.

8.3.4 FINANCIAL IMPLICATIONS

Revenue Bond Debt Service Requirements

The assumed issuance of County Airport System Revenue Bonds to finance Master Plan capital improvements, as described earlier, is estimated to result in approximately $81 million in additional annual debt service (by FY 2020) to be paid from Airport System net revenues. Total annual debt service for County Airport System Revenue Bonds was $15 million in FY 2003.

TABLE 8.3-2
Sacramento International Airport
FUNDING STRATEGIES

Projects	PREFERRED FUNDING SOURCES						FINANCIAL IMPACT		
	Federal grants	Airport System funds	Other/3rd party funds	PFC funding: PFC pay-as-you-go	PFC funding: PFC bond proceeds	Revenue bond proceeds	Rate base debt service	Operating expenses	Revenues to Airport System
Projects through FY 2010									
New Terminal B landside building		Secondary		Secondary	**Primary**	**Primary**	ü	ü	ü
New Terminal B airside building		Secondary		Secondary	**Primary**	**Primary**	ü	ü	ü
New Terminal B apron	**Primary**	Secondary				Secondary	ü	ü	ü
New Terminal B parking garage						**Only**	ü	ü	ü
Airfield improvements	**Primary**	Secondary		Secondary		Secondary		ü	ü
New FAA air traffic control tower			**Only**						
Roadway improvements		**Primary**	**Primary**	Secondary				ü	
Future hotel			**Only**						ü
FY 2011 through FY 2020									
New Terminal B landside expansion		Secondary		Secondary	**Primary**	**Primary**	ü	ü	ü
New Terminal B airside expansion		Secondary		Secondary	**Primary**	**Primary**	ü	ü	ü
Third runway construction	**Primary**	Secondary				Secondary	ü	ü	ü
Other airfield improvements	**Primary**	Secondary		Secondary		Secondary	ü	ü	
Roadway improvements		**Primary**				**Primary**	ü	ü	
New parking garage						**Only**	ü	ü	ü
Remote parking lot south of I-5						**Only**	ü	ü	ü
Future light rail		**Primary**	Secondary			Secondary	ü	ü	

Source: PB Aviation

As discussed previously in this chapter, the financial operations of the County Airport System are governed in part by the provisions of the Bond Resolution under which the County is authorized to issue County Airport System Revenue Bonds. Under the Bond Resolution, the County must demonstrate that County Airport System net revenues, i.e., revenues less maintenance and operating expenses, equal at least 125 percent of (or 1.25 times) the annual debt service of County Airport System Revenue Bonds. Based on existing debt service and future bond issues assumed in the financial plan, annual debt service coverage ratios during the planning period are expected to exceed the 1.25 times debt service coverage requirement of the Bond Resolution.

Maintenance and Operation Expenses

As indicated on Table 8.3-2, Master Plan projects expected to produce incremental operating expenses include new terminal facilities, new airfield facilities, and new parking facilities. Additional operating expenses were projected based on historical expenses for similar facilities at the Airport and inflation.

The County Airport System is responsible for maintaining airfield facilities, non-tenant portions of terminal facilities, Airport roadways, parking facilities, and County Airport System-occupied facilities.

Existing operating expenses and additional operating expenses associated with future facilities are included in the airline rate base for purposes of calculating airline rates and charges.

Nonairline Revenues

Projections of nonairline revenues for Master Plan projects include revenues associated with terminal concession areas, parking facilities, and a new hotel. Nonairline

revenues offset the total County Airport System requirement (including expenses and debt service) used in the calculation of airline rates and charges.

Impact on County Airport System

Airline Cost per Enplaned Passenger. Airline rates and charges are calculated to permit cost recovery of capital and maintenance and operation expenses after taking into account nonairline revenues.

An essential test of the County's ability to issue additional debt, i.e., impose additional debt service requirements on the airline rate base, is the "reasonableness" of the amount of required airline payments of rentals and fees. (Another essential test is meeting the required 1.25 times debt service coverage ratio under the Bond Resolution.)

An industry-accepted benchmark for evaluating the reasonableness of such fees is the sum of all such airline payments per enplaned passenger. From the financial results for the Airport System in FY 2003, the average passenger airline cost per enplaned passenger was $4.20.

From the financial plan summarized in Table 8.3-1 and projections of incremental debt service, operating expenses, and nonairline revenues, it is estimated that the financing of Master Plan capital improvements would result in an increase in average airline payments per enplaned passenger. As shown in **Table 8.3-3**, airline payments per enplaned passenger are projected to reach about $12 during the period FY 2010 to FY 2020.

Factors Affecting Financial Implications

The preliminary financial plan and estimated financial implications are based on the assumed timing and cost of Master Plan capital improvements and assumptions

TABLE 8.3-3

Sacramento International Airport Master Plan

PASSENGER AIRLINE COSTS PER ENPLANED PASSENGER

	Historical			Projected		
	2001	**2002**	**2003**	**2005**	**2010**	**2020**
Airline revenues	$21,970,885	$20,778,249	$19,168,159	$31,474,000	$73,547,000	$100,259,000
Less: cargo airline landing fees	2,270,390	1,321,873	1,057,017	3,088,000	8,336,000	10,444,000
Passenger airline rents and fees	$19,700,495	$19,456,376	$18,111,142	$28,386,000	$65,211,000	$89,815,000
Enplaned passengers	4,104,096	4,042,585	4,314,273	4,739,000	5,659,000	7,542,000
Passenger airline payments per enplaned passenger	$4.80	$4.81	$4.20	$5.99	$11.53	$11.92

Source: PB Aviation

regarding the availability of funds as outlined in this chapter. Events or developments that are likely to affect the actual implementation of Master Plan improvements include:

1. ***Facility Requirements***—The requirements for Airport facilities are determined primarily by associated levels of demand, but are also affected by safety and security requirements and the intensity or efficiency with which facilities are used. Changes in facility use as a result of new federal requirements or modification of existing operational policies could result in the acceleration or deferral of construction of certain new facilities.

2. ***Aviation Demand***—Population and economic growth in the Sacramento area could result in higher-than-projected demand for Airport facilities. Conversely, aviation demand for facilities could be lower as a result of economic slowdown, war, terrorist activity, public health concerns, or other factors. In either case, the need for facilities and the availability of certain funding sources would be affected.

3. ***Alternative Funding Sources***—Significant changes in the availability of any of the sources of funds assumed for the preliminary financial plan would require the Airport System to reevaluate the implementation and/or timing of Master Plan projects. A reduction in any funding source would require an offsetting increase in another source of funds or deferral of projects.

The County will continue to develop the International Airport consistent with funding sources available at the time of project implementation. The financial feasibility of future projects will be determined by the provisions of future airline and/or tenant agreements, available funding sources, and participation in federal grant-in-aid and passenger facility charge (PFC) programs (assuming the future availability of such grants and PFC revenues), revenue bond capacity, and the ability to generate discretionary cash flow.

The Master Plan financial projections were prepared on the basis of available information and assumptions set forth in this chapter. It is believed that such information and assumptions provide a reasonable basis for the projections to the level of detail appropriate for an airport master plan. However, as discussed, some of the assumptions used to develop the projections will not be realized and unanticipated events and circumstances may occur. Therefore, the actual results will vary from those projected, and such variations could be material.

The Master Plan financial plan is preliminary in nature and is not intended to be used to support the sale of bonds, to obtain grants, or to obtain other forms of financing. When the Airport System decides to pursue the sale of bonds, apply for grants, or secure other forms of financing, more detailed cost estimates and financial analysis would be required.