

Chapter Seven: CAPITAL IMPROVEMENT PLAN

Airport Master Plan Update

Aurora State Airport

Through the evaluation of the facility requirements, identification of the Preferred Alternative, and the development of the Airport Layout Plan, the improvements needed at the Aurora State Airport over the next 20-year period have been determined. The Capital Improvement Plan (CIP) provides the basis for planning the funding of these improvements. The planned phases of development are in the 5-, 10- and 20-year time frames.

Additionally, this chapter presents a financial implementation analysis for Aurora State Airport and examines various facets of the financial operating condition of the Airport.

CAPITAL IMPROVEMENT PROJECTS

The CIP develops the timeline for airport improvements and estimated costs for those improvements. The plan is divided into three phases: Phase I (2012 - 2016), Phase II (2017 - 2021), and Phase III (2022 - 2031).

Below is the anticipated plan for the Airport to meet projected demand. Funding for these projects has not yet been committed and the actual costs may vary depending upon final construction costs. The date of implementation may also vary due to funding availability.

Phase I (2012-2016)

Phase I is the first five years of the planning period, through 2016. Phase I development projects are further broken down into specific years. Projects in this phase include:

Construct Air Traffic Control Tower (2012). The ATCT project has been funded through the *ConnectOregon* III Grant Program. The purpose of the project is to increase safety by providing aircraft separation and sequencing at the Airport. The ATCT will also assist with the Airport's noise abatement

efforts, by directing traffic away from noise sensitive areas during approach, departure, and while in the pattern. The location of the tower is shown on the ALP drawing.

Construct Service Road (2012). In order for ground vehicles to operate safely, a service road will be constructed to separate vehicles from taxiing aircraft. The service road is shown in blue on the ALP.

Pavement Maintenance Program (PMP) Repairs (2013). ODA's share for pavement maintenance through this program is 75% of the total repair cost. Actual work items will be identified in the year prior to maintenance actions.

Construct Helicopter Parking Locations (2014). A safety deficiency identified in the planning process was the lack of helicopter parking locations on state property. As such, two such pads have been included on the ALP for future construction.

Reconstruct State-Leased Ramp (2014). The state-leased apron in front of Aurora Aviation has failed and is in need of reconstruction. This item is programmed for 2014, to be constructed in conjunction with the helicopter parking pad project.

Taxilane Development for Hangar Access (2014). This item includes prep work for hangar development in the following construction season.

Hangar Development (2015). An area for hangar development was identified on the ALP. The CIP breaks the development of the hangar area into three phases, as development will likely occur over a span of many years to react to demand. Each phase represents development of approximately 10 hangars, or 44,000 square feet of hangar space.

Carryover Entitlements (2015). ODA currently receives funding for the Airport through the Non-Primary Entitlement Program, funded by the Federal Aviation Administration (FAA). These funds can be accrued and carried over for up to four years, so that the airport sponsor can bank the funds in anticipation for upcoming projects. It is recommended ODA carryover the entitlement funds in 2015 in preparation for the upcoming runway improvement project (to be further discussed below).

Conduct Environmental Assessment for Runway Improvements (2016). The runway improvement project will require review under the National Environmental Policy Act (NEPA). At this time it is anticipated the appropriate environmental review will be an Environmental Assessment (EA).

PMP Repairs (2016). The PMP operates on a three-year cycle. Specific pavement maintenance items will not be identified until 2015.

Phase II (2017-2021)

Phase II is the second five years of the planning period, 2017-2021. Projects during this phase include:

Aurora Rural Fire Protection District (RFPD) Response Facility (2017). The Aurora RFPD has requested an area on the Airport be reserved for a future response facility, which is reflected on the ALP. It is anticipated the facility will be constructed during Phase II of the CIP.

Carryover Entitlements (2017). It is recommended that ODA complete the EA in 2017 and carryover any entitlement funds for the upcoming runway improvement project.

Displace Runway 17 Threshold (2018-2020). As stated in Chapter Six, the Oregon Aviation Board has requested a modification to standards for application of declared distances at the Airport. If approved, it is anticipated the work associated with displacing the threshold will occur over a multi-year period. Specific items related to the Runway 17 displaced threshold are:

- Property acquisition for the extended runway and taxiway pavements (2018) - approximately 2.2 acres.
- Avigation easement acquisition for the Runway 17 runway protection zone (2018) - approximately 2.6 acres.
- Carryover entitlements (2019).
- Extend runway and taxiway pavement and displace the Runway 17 threshold by 800 feet (2020).
- Install precision approach path indicators to Runway 17 and Runway 35 (2020).
- Construct Runway 17 run-up area (2020).

Extend Runway 35 (2018-2020). If the FAA does not approve the Runway 17 displaced threshold, a 1,000-foot extension to Runway 35 will be pursued. The extension would occur over a multi-year period, which would include:

- Property acquisition for the Runway 35 runway protection zone (2018) - approximately 44.5 acres.
- Relocation of Keil Road, as shown on the ALP (2019).
- Extension of Runway 35 by 1,000 feet (2020).
- Installation of precision approach path indicators (2020).

The runway extension pavement would remain within the current Airport boundary. Additional land acquisition is needed to secure the runway safety area and runway protection zone, to maintain compatible land uses within these areas. Farm use is a compatible land use in these areas, with a few exceptions.

PMP Repairs (2019). Specific pavement maintenance items will not be identified until 2018.

Taxilane Development for Hangar Access (2019). This item includes preparation for hangar development in the 2021 construction season.

Runway 17/35 Strengthening Overlay (2020). In conjunction with one of the above-stated runway improvement projects, the runway would be overlaid to increase the pavement strength to 60,000 lbs dual wheel gear by constructing a ½" grind and 3" overlay along with 2.5" transitions to connector taxiways.

Hangar Development (2021). An area for hangar development was identified on the ALP. The CIP breaks the development of the hangar area into three phases, as development will likely occur over a span of many years to react to demand. This would be the second phase of development.

Update Master Plan (2021). Master Plans are typically updated every eight to ten years. It is recommended this plan be updated after completion of the runway improvement project.

Phase III (2022-2031)

Phase III is the last ten years of the planning period, 2022-2031. Specific years for these projects were not identified, except for PMP, as any projection would be speculative. Projects falling within this timeframe include:

PMP Repairs (2022, 2025, 2028, 2031). Specific pavement maintenance items will not be identified until the year prior to the program cycle.

Apron Development. Additional tiedown apron parking is identified in the ALP and should be constructed when demand necessitates.

Taxilane Development for Hangar Access. This item includes preparation for hangar development in the following construction season.

Hangar Development. An area for hangar development was identified on the ALP. The CIP breaks the development of the hangar area into three phases, as development will likely occur over a span of many years to react to demand. This would be the final phase of development.

Cargo Apron. In accordance with the Oregon Aviation Plan recommendation, an area for cargo loading/unloading has been identified for construction.

Relocate Fuel Tanks. The Aurora Aviation fuel tanks are in an area that could be better used for other purposes. Once the tanks reach their useful life, they should be replaced elsewhere on the Airport (a location is identified on the ALP).

Construct Runway 17 Run-Up Area. Once the fuel tanks have been relocated, the area where they are currently located should be reconfigured to serve as a run-up area for Runway 17. (This assumes the displaced threshold project was not approved, and therefore the run-up area was not constructed as per the work items for the displaced threshold project).

PROJECT COSTS

A list of improvements and costs over the next 20 years are in **Table 7A**. All costs are estimated in 2011 dollars. Total project costs include construction, temporary flagging and signing, construction staking, testing, engineering, administration, and contingency, as applicable. Power utilities are included in all new hangar projects. No water service cost was added for the hangar developments. Project estimates are included in **Appendix L** for more detailed cost information.

Table 7A. Aurora State Airport Proposed Capital Improvement Plan with Costs

Aurora State Airport CIP 2012 – 2031							
#	Year	Description	Total Cost	ODA share	FAA Share	Private Share	Other Funding
Phase I (2012-2016)							
1	2012	Construct ATCT ¹	3,369,000	423,800	250,000	-	2,695,200
2	2012	Service Road	1,017,000	50,850	966,150	-	-
3	2013	PMP (2013) ²	27,000	20,250	6,750	-	-
4	2014	Helicopter Landing Pads	11,000	550	10,450	-	-
5	2014	Ramp Reconstruction - State Leased	988,000	49,400	938,600	-	-
6	2014	Taxilane Development (Hangar Access)	43,000	-	-	43,000	-
7	2015	Hangar Development	2,088,000	-	-	2,088,000	-
8	2015	Carryover Entitlements	-	-	-	-	-
9	2016	Environmental Assessment (Runway Improvements)	350,000	17,500	332,500	-	-
10	2016	PMP (2016)	27,000	20,250	6,750	-	-
<i>Phase I Subtotal</i>			<i>\$7,920,000</i>	<i>\$582,600</i>	<i>\$2,511,200</i>	<i>\$2,131,000</i>	<i>\$2,695,200</i>
Phase II (2017-2021)³							
11	2017	Aurora RFPD Response Facility	570,000	-	-	570,000	-
12	2017	Carryover Entitlements	-	-	-	-	-
Displace Threshold	13	Property Acquisition (R17 Displaced Threshold)	102,000	5,100	96,900	-	-
	14	Avigation Easement Acquisition (R17 RPZ)	44,000	2,200	41,800	-	-
	15	Carryover Entitlements	-	-	-	-	-
	16	Displaced Threshold (R17 - 800')	1,980,000	99,000	1,881,000	-	-
	17	Install Runway 17-35 PAPIs	129,000	6,450	122,550	-	-
	18	R17 Run-Up Area	355,000	17,750	337,250	-	-
1,000' Ext.	19	Property Acquisition (R35 RPZ)	2,561,000	128,050	2,432,950	-	-
	20	Keil Road Relocation	1,427,000	71,350	1,355,650	-	-
	21	Runway Extension (R35 - 1000')	3,035,000	151,750	2,883,250	-	-
	22	Install Runway 17 PAPIs	65,000	3,250	61,750	-	-
	23	PMP (2019)	27,000	20,250	6,750	-	-
	24	Taxilane Development (Hangar Access)	43,000	-	-	43,000	-
	25	R17/35 Strengthening Overlay	2,052,000	102,600	1,949,400	-	-
	26	Hangar Development	2,088,000	-	-	2,088,000	-
	27	Master Plan Update	200,000	10,000	190,000	-	-
<i>Phase II Displaced Threshold Subtotal</i>			<i>\$7,590,000</i>	<i>\$263,350</i>	<i>\$4,625,650</i>	<i>\$2,701,000</i>	<i>\$ -</i>
<i>Phase II Runway Extension Subtotal</i>			<i>\$12,068,000</i>	<i>\$487,250</i>	<i>\$ 8,879,750</i>	<i>\$2,701,000</i>	<i>\$ -</i>

Aurora State Airport CIP 2012 – 2031							
#	Year	Description	Total Cost	ODA share	FAA Share	Private Share	Other Funding
Phase III (2022-2031)							
28	-	PMP (2022, 2025, 2028, 2031)	108,000	81,000	27,000	-	-
29	-	Apron Development	1,638,000	81,900	1,556,100	-	-
30	-	Taxilane Development (Hangar Access)	43,000	-	-	43,000	-
31	-	Hangar Development	2,088,000	-	-	2,088,000	-
32	-	Cargo Apron	198,000	9,900	188,100	-	-
33	-	Relocate Fuel Tanks	89,000	4,450	84,550	-	-
34	-	R17 Run-Up Area ⁴	355,000	17,750	337,250	-	-
<i>Phase III Subtotal</i>			<i>\$ 4,519,000</i>	<i>\$ 195,000</i>	<i>\$ 2,193,000</i>	<i>\$ 2,131,000</i>	<i>\$ -</i>
Total Capital Costs with Displaced Threshold Option			\$20,029,000	\$1,040,950	\$9,329,850	\$6,963,000	\$2,695,200
Total Capital Costs with Runway Extension Option			\$24,507,000	\$1,264,850	\$13,583,950	\$6,963,000	\$2,695,200

¹ Other Funding is Connect Oregon III Grant

² ODA share for PMP is 75% of total cost

³ Items 13-18 or Items 19-22 to be implemented, pending FAA determination

⁴ If no displaced threshold project; construct R17 run-up at same time as fuel tank relocation project.

FINANCIAL PLAN

This section presents the financial implementation analysis for Aurora State Airport and will examine various facets of the financial operating condition of the Airport. In addition, this chapter examines the Airport's historic operating revenues and expenses, and provides projections for future financial results. The projections of Airport revenues and expenses focus on incremental periods similar to the planning periods of this Master Plan's CIP: Phase I (Short Term, 2012-2016), Phase II (Intermediate Term, 2017-2021), and Phase III (Long Term, 2022-2031). These planning periods are used to identify the ability of the Airport to contribute to the local share of anticipated project costs, as required. It should be noted that Aurora State's Master Plan CIP is used as a guideline, and that capital projects should be undertaken when demand warrants and funding becomes available.

Financial Implementation Analysis Approach

The overall approach for the development of the financial implementation analysis included the following elements:

- Gathered and reviewed key airport documents related to historical financial results, capital improvement plans, operating budgets, regulatory requirements, and airport policies
- Evaluated Airport rates/charges and compared them with other airports
- Analyzed the existing operating and financial environment, as well as the overall financial management philosophy

- Reviewed the Master Plan CIP, cost estimates, and development schedule anticipated for the planning period in order to project the overall financial requirements for the program
- Determined and analyzed the sources and timing of capital funding available to meet the financial requirements for funding the CIP
- Analyzed historical operating revenues, developed operating revenue assumptions, and projected future operating revenues for the planning period
- Analyzed historical operating expenses, developed operations and maintenance expense assumptions, and projected future operating costs for the planning period
- Completed results of the analysis and evaluation in a Financial Plan Summary that provides conclusions regarding the financial practicality of the CIP

Airport Rates Comparison

Airport revenues are typically generated through user fees charged for the facilities and services that are provided. These fees are normally based on market conditions in the area and vary airport-to-airport. The airports pricing strategy should be to charge “market” rents for land and improvements (as is mandated by the FAA). Although limited data on existing rates for Aurora and other Oregon airports was provided for this study, a discussion on a broad range of typical airport rates and charges is provided below. Some of the typical rates highlighted within this section were produced by the *AAAE Rates and Charges Survey* conducted by the American Association of Airport Executives. These rates were determined from a small representative sample of airports throughout country and should be considered for comparison purposes only. Rates set by the ODA at Aurora State Airport should be determined through close coordination with airport and ODA management and based on the unique condition, amenities, location and demand for facilities.

Ground (Land) Lease

Nationally, most airport tenants lease land from an airport on which they have constructed hangars and other aviation-related facilities. Generally, the lease rate should be adjusted every three years to keep pace with changes in the general price levels as reflected in the U.S. Department of Labor’s Bureau of Labor Statistics Consumer Price Index (CPI).

Table 7B contains the results of a 2008 ODA ground lease rate survey which compares the lease rates of Aurora State Airport to several other general aviation airports throughout Oregon. Land lease rates range from \$0.08 to \$0.25 per square foot annually. Due to its location and demand, ground lease rates at Aurora are higher than all other airports surveyed throughout the state. The average ground lease rate of those surveyed is \$0.105 per square foot.

Table 7B. Oregon Airport Ground Lease Rates

Airport	Annual Rate (sq. ft.)	Airport	Annual Rate (sq. ft.)
Alkali Lake	\$ 0.08	Nehalem Bay	\$ 0.08
Aurora	\$ 0.25	Oakridge	\$ 0.08
Bandon	\$ 0.18	Owyhee Reservoir	\$ 0.08
Cape Blanco	\$ 0.10	Pacific City	\$ 0.08
Cascade Locks	\$ 0.08	Pinehurst	\$ 0.08
Chiloquin	\$ 0.09	Prospect	\$ 0.08
Condon	\$ 0.08	Rome	\$ 0.08
Cottage Grove	\$ 0.15	Siletz Bay	\$ 0.13
Independence	\$ 0.18	Toketee	\$ 0.08
Joseph	\$ 0.11	Toledo	\$ 0.08
Lebanon	\$ 0.16	Wakonda	\$ 0.08
McDermitt	\$ 0.08	Wasco	\$ 0.08
McKenzie Bridge	\$ 0.08		

Source: Ground lease surveys commissioned by ODA, January 2008

Based on a national survey of 38 similar airports, the average airport receives \$0.24 per square foot for unimproved ground leases. Based on this and the high degree of rate fluctuation between airports, the ground lease rate at Aurora State Airport appears to be consistent with its attributes and industry standards. For ground leases with improved features including smooth/flat grading, utilities nearby, and convenient/established access, on average, airports collect \$0.33 or more per square foot each year.

Landing Fees

Less than 30 percent of airports throughout the country collect landing fees. Of those, less than half are collected by the Fixed Base Operator (FBO) on the airport and the fees are generally waived if fuel is purchased. The methodology used for determining landing fees varies widely and is as different as each airport. The following is a brief list of some of the landing fee methodologies applied at various airports;

- Only Aircraft over 50,000 lbs.
- \$0.60 per 1,000 lbs. of max. gross take-off weight
- \$0.08 per 1,000 lbs. for each aircraft
- \$1.00 per 1,000 lbs. of max. landing weight over 12,500 lbs.
- \$0.35 per 1,000 lbs. max. gross landing weight
- \$1.50 per 1,000 lbs. max. gross take-off weight over 12,500 lbs.
- \$1.00 per 1,000 lbs. max. gross landing weight for non-based aircraft with empty weights over 30,000 lbs.
- \$0.07 per 1,000 lbs. for aircraft over 35,000 lbs.

These rates are provided for informational purposes. To remain competitive, it is not suggested that Aurora State Airport introduce/adjust a landing fee.

Tie Down Fees

A majority of airports charge a monthly tie-down fee for single engine aircraft. Based on a national survey, the average tie down fee is about \$45.00 per month, although this varies greatly between

airports based on location and demand. Some airports collect a separate fee for multi-engine aircraft since they are larger and take up more room. These aircraft, however, typically use hangar storage due to their higher value. The average monthly tie down fee for multi-engine aircraft is \$52.00. Many airports charge a daily tie-down fee. Though, like landing fees, many FBOs may waive this fee with the purchase of fuel.

T-Hangar/Conventional Hangar Rates

T-hangars provide individual hangars within a larger contiguous building. T-hangars are the most basic and affordable form of aircraft hangar infrastructure available to aircraft owners. Generally, they are built to hangar a single engine to a small multi-engine aircraft. Aircraft larger than these will require conventional hangar space. T-Hangar facilities provide an area of approximately 1,300 square feet per individual storage unit.

The AAAE Rates and Charges Survey determined monthly hangar fees at an average of \$306.00 per month. However, the survey did not differentiate if the hangars were large or small. There are numerous factors that influence the price airports set for hangar fees, some of these being airport location, hangar amenities, demand, etc. At those airports which responded to the survey, fees ranged greatly from \$78.00 to \$1,200 per hangar per month.

Many airports throughout the country are choosing to lease land to an FBO or developer to construct T-hangars or conventional hangars and lease the individual units to aircraft owners. This trend is growing in popularity because it frees the airport from the burden of leasing and maintaining the space as well as collecting rent from multiple tenants.

Community Hangar Rates

Normally, community hangars are not owned or operated by the airport and are designed to accommodate numerous aircraft ranging in size from single engine aircraft up to large jets. This allows the aircraft owner the ability to have a larger space than a T-hangar while lowering costs by sharing space with other tenants. The average fee per month for community hangar space to accommodate a small multi-engine aircraft was \$345.00. As with many of the other rates and charges discussed in this section, the rates in community hangars vary greatly based upon location, amenities, demand, etc.

Fuel Flowage Fee

In addition to charging FBOs land and/or facilities rent, some airports charge a fuel flowage fee to allow the service provider the right to sell fuel at the airport. In a national survey of 88 airports, 29 airports charged a fuel flowage fee to anyone selling fuel. The fee averaged \$0.07 per gallon which is typically passed along to the customer purchasing fuel. Fuel flowage fees had a broad range, with the lowest being \$0.03 and the highest being \$0.20 per gallon. ODA charges fuel flowage fees at the Aurora State Airport.

There are many other rates and charges common to airports throughout the country. Those described above are some of the most common.

Capital Funding Sources

The development of the Aurora State Airport's Master Plan CIP is anticipated to be funded from several sources. These sources include federal grants, state grants, net operating revenues/cash reserves, and other unidentified funding sources, including private funding. Each of these sources of funds is described in the following sections.

Federal Aviation Administration (FAA) Funding

To promote the development of airports to meet the nation's needs, the Federal Government embarked on a Grants-In-Aid Program to units of state and local government after the end of World War II. Following multiple earlier versions of federal funding programs, the Airport Improvement Program (AIP) was established through the Airport and Airway Improvement Act of 1982. The initial AIP provided funding legislation through fiscal year 1992, but since then, it has been authorized and appropriated on a yearly or even quarterly basis. Funding for the AIP is generated through taxes on airline tickets, freight way bills, international departure fees, general aviation fuel, and jet fuel.

AIP grants include entitlement grants, which are allocated among airports by a formula that is driven by passenger enplanements, and by discretionary grants that are awarded in accordance with specific guidelines. Generally, primary airports receive entitlements based on the number of enplaning passengers and landed cargo weights, while non-primary airports, which include general aviation airports, likewise receive some entitlements and may also be eligible for federal state apportionment funding. The total amount of state apportionment funding is based on an area/population formula for the state, while the amount of non-primary entitlements is computed from the needs list for the particular airport in the published National Plan of Integrated Airport Systems (NPIAS). Federal Airport Improvement Funds must be spent on FAA-eligible projects as defined in FAA Order 5100.38C "*Airport Improvement Program (AIP) Handbook*." The handbook and the latest authorization state that:

- An airport must be included in the current version of the NPIAS;
- Non-primary entitlement funds of \$150,000 per year can be accumulated for up to four years;
- The federal portion of AIP grants increases to 95% for all general aviation airports; and
- If an airport has no airside improvement needs, entitlement funds can be used for certain landside projects.

General aviation and commercial service airports also compete for federal discretionary funds. These funds are awarded based on priority ratings given to each potential project by the FAA. The prioritization process makes certain that the most important and beneficial projects (as viewed by the FAA) are the first to be completed, given the availability of adequate discretionary funds. Federal funding is limited to development that is justified to meet aviation demand according to FAA guidelines. Each NPIAS airport development project is subject to eligibility and justification requirements as part of the normal AIP funding process.

As of the writing of this document, the AIP program is due for reauthorization and will likely see changes. The future of the AIP program may include changes to federal share amounts, non-primary entitlements, set-asides, and/or passenger facility charges (PFCs).

However, under the current reauthorization legislation and based on its inclusion in the NPIAS, the Aurora State Airport is currently eligible to receive entitlements of \$150,000 per year from 2010 through 2030. Additional funding could be realized through state apportionment funding and AIP discretionary funding, based on the aforementioned project eligibility ranking methodology. For the Aurora State Airport CIP, this financial plan assumes total AIP grant awards (entitlement/discretionary) funding of \$370,000 for the Phase I period, \$11.4 million during Phase II, and \$3.1 million for Phase III.

Oregon Department of Aviation (ODA)

Airports that are owned by local municipalities or governments are typically responsible for capital improvement project costs remaining from funding not eligible through FAA grants mentioned above. As a state owned airport, the CIP for Aurora State Airport is managed by ODA. Improvements at Aurora State, along with the needs of over 30 state airports, are balanced as funds are available. Demand for funding far exceeds the annual funding; the result is that many projects are deferred over extended periods until funding can be obtained. The state also looks to local communities to support the funding of capital improvement projects.

ODA administers several programs for funding airport planning, construction and maintenance projects. As mentioned before, Aurora State Airport must compete with other airports in the state through these funding programs. The following is a description of each funding program:

Pavement Maintenance Program (PMP).

The pavement maintenance program provides a resource for airfield pavement maintenance projects. The program funds pavement maintenance and associated improvements (crack filling, repair, sealcoats, etc.), which have not traditionally been eligible for FAA funding. The PMP may also be expanded to include pavement overlays, which could potentially be used for Runway 17/35, where FAA funding is not available.

Funding for the PMP is generated through collection of aviation fuel taxes. ODA manages the PMP through an annual consultant services contract and work is programmed on a 3-year regional rotation. The program includes a regular schedule of inspection and subsequent field work. Benefits from the PMP include:

- Economy of scale in bidding contracts
- Federal/State/Local partnerships that maximize airport improvement funds
- PMP is not a grant program and local match is on a sliding scale (50% - 5% required)

The PMP includes the following features:

- Review prior year's Pavement Condition Index (PCI) reports
- Only consider PCIs above 70
- Apply budget
- Limit work to patching, crack sealing, fog sealing, slurry sealing
- Add allowance for striping
- Program to include approximately 20 airports per year, depending on funding levels

Financial Assistance to Municipalities (FAM) Grant Program

ODA also provides limited funding assistance through the FAM Grant Program to foster a statewide system of airports by providing the discretionary award of financial assistance for airport planning, development and capital improvement projects. Program funding depends upon the dedicated FAM Grant Program amount in the ODA's biennial budget, as approved by the Oregon Legislature; and ODA policies and priorities.

The FAM details include the following:

- Maximum possible annual grant amount per airport is \$25,000
- The local match requirement parallels the PMP that links the match amount to the airport category as designated in the Oregon Aviation Plan
- The match structure progresses from 5% to 50% based on airport category
- Eligible airport capital improvement projects and planning projects are to be selected on a priority basis
- FAM Grants may also be used as sponsor match for Federal Aviation Administration AIP grants

For the Aurora State Airport CIP, this financial plan assumes state apportionment of \$720,000 in Phase I, \$620,000 in Phase II, and \$270,000 in Phase III.

Other Capital Funding

The traditional funding sources described in previous paragraphs are often insufficient to finance the full range of projects programmed for development during a CIP. Due to the lack of traditional funding, other non-traditional funding sources will be needed to implement non-eligible AIP projects. Alternative sources of funds will require about \$6.8 million in Phase I, \$1.2 million in Phase II, and \$1.2 million in Phase III. The sources of these other funding needs have been identified in broad terms and will likely be needed to supplement the total capital shortfall of almost \$10 million through the 20-year planning period. If these funding sources cannot be ultimately obtained in the time frames needed, the associated projects will have to be delayed until such time as appropriate funding can be identified.

Note that non-traditional funding sources for airport development may include the following sources:

- *ConnectOregon III*
- General Fund Revenues
- Bond Issues
- Private Funding

Of these, general fund revenues and general obligation bonds are by far the most common funding sources. Revenue bonds supported by airport generated revenues are seldom used at general aviation airports because most general aviation airports do not generate enough money to pay operating expenses and the debt service of capital funding requirements.

ConnectOregon III

The 2009 Oregon Legislature approved \$95 million in lottery-backed bonds for the *ConnectOregon III* program and \$5 million for rural airports as part of HB 2001, the Jobs and Transportation Act. Building

on the success of the first two authorizations in 2005 and 2007, ConnectOregon III will continue to improve the connections between the various modes of transportation throughout the state.

General Fund Revenues

Capital development expenditures from general fund revenues have been somewhat difficult to obtain in recent years. One reason for this difficulty is the shortfall in local general fund revenues. Budgetary problems have created an environment where local funding is uncertain. The amount of general fund support for airport improvement projects varies by airport and is generally based upon the local tax base, priority of the development project, historical funding trends, and local attitudes concerning the importance of aviation.

Bond Funds

Airport authorities can issue bonds without approval from the city or county. However, they must use their own revenue to repay the bonds. Airport revenue is typically used to repay these bonds. For an airport operated by a state, like Aurora, bond issues funding the state share of airport development projects would likely compete with bond issues for other types of state improvements. As with the general fund apportionment, bond issues supporting airport development depend greatly on the priority assigned to such projects by the state and local community.

Private Funds

Items such as storage and maintenance hangars, fuel systems, and pay parking lots are not typically eligible for federal or other grant funding assistance at public airports because they generate income for the airport. Airport operators sometimes work with FBOs or other local businesses to fund these types of improvements.

With respect to Aurora State Airport, each of these options would need to be weighed independently to determine the appropriateness of their potential application for eligible projects.

Financial Analysis and Implementation Plan

This section evaluates the financial reasonableness of implementing the Master Plan CIP during the planning period (2012 through 2031).

Estimated Project Costs and Development Schedule

A listing of capital improvement projects has been assembled based on the preferred development alternative for the Aurora State Airport established in earlier sections of this Master Plan. This project list has been coordinated with the Airport Layout Plan (ALP) drawing set and the CIP, both of which should be continuously updated by airport management, as required. Generally, the CIP itself has three primary purposes:

1. Identify improvement projects that will be required at an airport over a specific period of time;
2. Estimate the order of implementation of the projects included in the plan; and
3. Estimate the total costs and funding sources of the projects.

It is important to note that as the CIP progresses from project planning in the current year to projects planned in future years, the plan becomes less detailed and more flexible. Additionally, the CIP is typically modified on an annual basis as new projects are identified, projects change, and financial environments evolve.

For Aurora State Airport, each proposed capital improvement project over the 20-year planning horizon has been assigned to one of three specific planning periods: Phase I, short term (2012-2016); Phase II, intermediate term (2017-2021); and Phase III, long term (2022-2031) as shown in the above Table 7A. This table also includes estimates of the funding source eligibility for each project. Note that the estimates contained in this table were derived from analyzing similar projects, but should be re-evaluated at the time of initiation.

Phase I contains approximately \$7.9 million in capital projects including air traffic control tower construction, service road construction, apron repair, hangar and associated taxiway construction, helipad development and an environmental assessment for runway enhancements to take place later in the planning period. It is estimated that the sponsor (ODA) share of Phase I capital costs will be approximately \$582,600 and the federal share will be about \$2,511,200 with the balance (approximately \$4.8 million) coming from other sources.

Phase II contains approximately \$12.0 million in total capital projects. Most projects in this phase are related to Runway 17/35 improvements and include runway paving, possible road relocation as well as property acquisitions for runway protection zones (RPZ), aviation easements and runway improvements. Other projects in this phase are for hangar and associated taxiway construction and airfield support systems. The ODA share of the proposed development plan in Phase II is approximately \$500,000 while most of the funding is coming from the FAA. The emergency response facility, hangar and taxiway development is funded from private sources.

It is important to note, either project items 13-18 or items 19-22 may be implemented, depending on FAA determination. This being the case, total project costs associated with this phase are listed by the most costly alternative (runway extension) to plan conservatively in the financial analysis.

Phase III contains \$4.5 million in total capital projects, including apron development as well as fuel tank relocation and Runway 17 run-up area development. As with all other phases, this phase also includes hangar and associated taxiway development to keep pace with expected demand. In addition, like all other phases, this phase includes on-going PMP projects to maintain the Airport's runway and taxiway system. About \$200,000 are expected to be funded by ODA in this phase. The FAA share is approximately \$2.1 million, with the remainder coming from private sources.

Airport Revenues and Expenses

For Aurora State Airport, operating revenues are realized from the following primary sources:

- Licenses and Fees
- Rents and Royalties
- Miscellaneous Revenues

Landside facility development and levels of aviation activity are typically the primary factors affecting airport operating revenues. Note that as additional airport development occurs, the number of based aircraft and aircraft operations will normally increase and new/updated leases will be enacted, typically resulting in airport operating revenues increasing in a corresponding fashion.

Airport operating revenues are offset by airport operating expenses, typically referred to as Operation and Maintenance (O&M) costs. Airport operating expenses are comprised of the day-to-day costs incurred by operating the airport. Primary components of O&M costs at Aurora State Airport include Salaries and Wages as well as Services and Supplies and are made up of the following:

- Personnel Services – Includes full-time salaries, overtime pay, accrued personal leave, payroll taxes, health insurance, pension and retirement benefits, unemployment insurance and workers' compensation expense.
- Fixed Costs – Includes building rentals, insurance (building, vehicle, liability, etc.), phones (cell/land), utilities (power, natural gas, trash, etc.), irrigation assessments, etc.
- Administrative Costs – Includes office supplies, postage, printing, computer software, personnel equipment, operations supplies, advertising, marketing, training, dues, small equipment, etc.
- Operations Expenses – Includes repair/maintenance of buildings (hangars, terminal), ground maintenance (asphalt, pests, snow, weeds, lawns), vehicles (repair, maintenance, fuel), repair/maintenance of equipment (fuel island, beacon, windsock, NAVAIDS, taxiway/runway lights), security (fences, gates, cameras), etc.
- Contractual Services – Includes large maintenance projects, background checks, lot surveys, consultant services, merchant fees, etc.

The ODA oversees two funds as a part of the operation at Aurora State Airport: the Public Transportation Fund and Capital Projects Fund.

Public Transportation Fund

Revenues of this fund are generated through the collection of Airport fees, licenses, rents, royalties and other sources. The Public Transportation Fund expenses are used to maintain the day-to-day operations of the Airport as well as to pay for some professional services required by the Airport. A large share of revenue in the Fund is from federal sources, other grants and fund transfers. Similarly, a substantial expense to this fund is through professional service expenses incurred by the Airport for projects. These items are not considered part of the Airport's daily operating budget and will not be included in the analysis of operating income.

Capital Projects Fund

Typically, capital costs associated with infrastructure development comes the Capital Projects Fund budget. The primary source of revenue for the Capital Projects Fund is from the FAA through AIP eligible project grants. Additional funds may come from other sources as well.

The historic revenues and expenses for these two funds, as they are related to Aurora State Airport, over fiscal years 2007 to 2010 are presented in **Table 7C**.

Table 7C. Aurora State Airport Funds

	FY2007	FY2008	FY2009	FY2010
Public Transportation Fund				
Licenses and Fees	\$ 869.94	\$ 116,748.35	\$ 122,970.60	\$ 128,357.96
Rents and Royalties	149,205.80	55,342.11	44,461.20	63,428.09
Other Misc. Revenues	11,833.85	1,807.35	11,649.62	12,309.91
<i>Revenues</i>	\$ 161,909.59	\$ 173,897.81	\$ 179,081.42	\$ 204,095.96
Salaries and Wages	19,288.20	19,234.37	19,263.29	14,426.09
Services, Supplies, Other	65,793.70	56,666.85	38,435.26	81,609.40
<i>Expenses</i>	\$ 85,081.90	\$ 75,901.22	\$ 57,698.55	\$ 96,035.49
Operating Income	\$ 76,827.69	\$ 97,996.59	\$ 121,382.87	\$ 108,060.47
Capital Projects Fund				
Revenues	\$ 207,856.00	\$ 2,905,882.60	\$ 1,857,084.51	\$ 13,198.01
Expenses	155,561.62	3,524,431.15	1,005,192.61	0.01
Capital Projects Fund Total	\$ 52,294.38	\$ (618,548.55)	\$ 851,891.90	\$ 13,198.00

* Public Transportation Fund balances above do not reflect federal or other grant contributions as well as professional service fee expenses (which may be eligible for grant reimbursement)

Projected Airport Operating Revenues and Expenses

The continued growth of Aurora State Airport, in terms of activity, tenants, new leases and facility development, will impact the Airport’s operating revenues and expenses over the planning period. Actual future financial outcomes will be determined by a variety of factors, many of which are impossible to identify at the current time. However, the projections for airport operating revenues and expenses are based on recent financial results, year-to-date revenues and expenses for 2011, and activity and tenant growth trends identified in Chapter Three.

Projections of future airport operating revenues and expenses at Aurora State Airport for the periods 2015 through 2030 are presented in **Table 7D**. The following information for operating revenues was established through close consideration of historical trends, as well as proposed airport development initiatives and how they might impact those future revenues. In most cases, revenue projections resulted from normal growth factors refined to more closely reflect the circumstances of Aurora State Airport. The table below projects the Public Transportation Fund only, since Capital Project funds are determined almost solely on project eligibility and grant availability which fluctuates greatly from year-to-year. Further, it is important to note that federal revenue and contributions from other funds as well as professional service expenses to the Public Transportation Fund are not included in this projection as they have varied significantly from year-to-year and do not reflect true operating income.

Table 7D. Projected Aurora State Airport Operating Revenues and Expenses

	Current FY2011	FY2015	FY2020	FY2025	FY2030
Public Transportation Fund					
Licenses and Fees	\$ 128,357.96	\$ 145,000	\$ 176,000	\$ 224,000	\$ 300,000
Rents and Royalties	63,428.09	71,000	87,000	111,000	148,000
Other Misc. Revenues	12,309.91	14,000	17,000	22,000	29,000
<i>Revenues</i>	<i>\$ 204,095.96</i>	<i>\$ 230,000</i>	<i>\$ 280,000</i>	<i>\$ 357,000</i>	<i>\$ 477,000</i>
Salaries and Wages	14,336.84	16,000	19,000	24,000	33,000
Services, Supplies, Other	96,035.49	108,000	128,000	164,000	219,000
<i>Expenses</i>	<i>\$ 110,372.33</i>	<i>\$ 124,000</i>	<i>\$ 147,000</i>	<i>\$ 188,000</i>	<i>\$ 252,000</i>
<i>Operating Income</i>	<i>\$ 93,723.63</i>	<i>\$ 106,000</i>	<i>\$ 133,000</i>	<i>\$ 169,000</i>	<i>\$ 225,000</i>

**Does not include federal or other grant revenues or professional service expenses*

Revenues were projected to increase at standard rates (starting at 3% annually) that will increase beyond FY2015 to account for increased tenants and the resulting volume of activity. In operating expenses, increases in salaries, as well as overall operational activities are based on accepted inflationary growth rates (primarily a 3% annual growth), with slightly higher growth factors for fuel costs in order to account for some volatility in the supply market, as well as for the overall personnel costs.

Based on anticipated CIP project costs and the projected operating income shown above, annual income from the Airport's operation will be sufficient to cover the ODA share of CIP project related costs in Phase I. The ODA share of CIP Phase I costs amounts to \$582,600. When projected income is interpolated from the table above for each year FY2011 through FY2016, it is estimated that the Airport could expect about \$610,000 in operating income over the 6-year period to go toward CIP projects. Additionally, ODA's projected income during CIP Phases II and III is expected to cover the agency's project share.

Financial Plan Summary

The primary goal is for the Airport to evolve into a facility that will best serve the air transportation needs of the region while simultaneously developing into a self-sustaining economic generator. This Master Plan Update can best be described as being the road map to helping the Airport achieve these goals. But it should be recognized that planning is a continuous process that does not end with the completion of the Master Plan in that the fundamental basic issues that have driven this Master Plan will remain valid for many years. Therefore, the ability to continuously monitor the existing and forecast status of airport activity will be a key ingredient in maintaining the applicability and relevance of this study.

In order to realize those goals through the successful implementation of airport development projects, sound and measured decisions by the ODA must be made. Two of the most important factors in influencing the decision to move forward with a specific improvement are airport activity and funding timing. Both factors must be considered in the implementation of this Master Plan in that while airport

activity levels provide the “what” and the “why” in the establishment of airport improvements, the timing of funding provides the “how.” Through the course of this Master Plan effort, the “what” and the “why” have been discussed in detail in previous sections. This chapter has addressed the “how” by providing an overview of the sources of potential funding and the practical financial realities required to implement this overall airport development program. However, although every effort has been made in this chapter to conservatively estimate when facility development may be required, aviation demand and the availability of financial resources for capital projects will ultimately dictate when facility improvements need to be implemented, accelerated or delayed.

Previous sections of this analysis provided a practical approach for scheduling capital expenditures to match the availability of capital financing. It is important to note, however, that ODA does not allocate any indirect revenues or expenses to any of their 28 airports. All the expenses and revenues on the statements provided are those that are specific to Aurora State Airport. As such, any additional ODA revenues would not be allocated to Aurora State Airport until the project costs are incurred and revenues are transferred. Based on ODA acceptance of CIP projects and the understanding that funding for the state’s obligation will be met at the time of project implementation, the Master Plan CIP is financially possible.

Key assumptions supporting the financial plan relate to the availability and timeliness of the funding sources that have been indicated. Continuation of the AIP entitlement program at authorized funding levels is essential. Receiving state apportionment and AIP grants of approximately \$1.1 million during Phase I, almost \$12 million during Phase II, and \$3.4 million during Phase III as indicated are critical to the financial feasibility of implementing these projects.