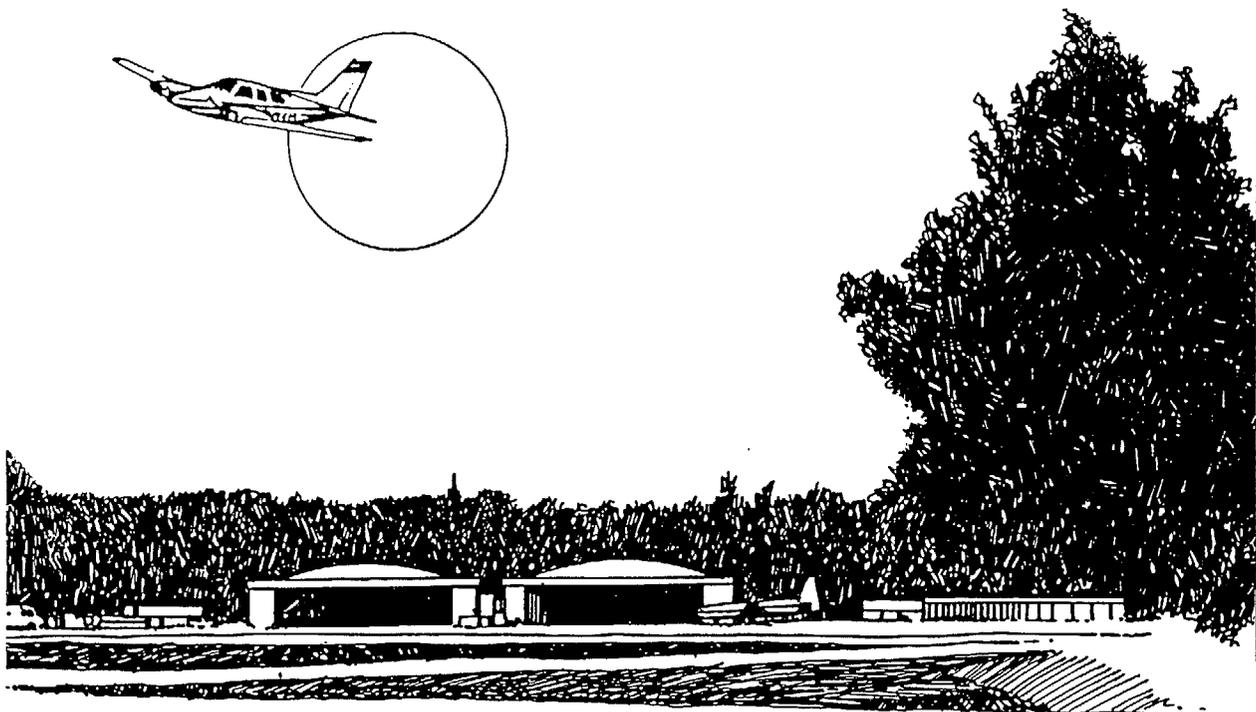


Chapter Eight

FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM



Chapter Eight FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM

Flagstaff Pulliam Airport

The analyses conducted in previous chapters have evaluated airport development needs based upon forecast activity, environmental factors, and operational efficiency. However, one of the most important elements of the master planning process is the application of basic economic, financial, and management rationale so that the feasibility of implementation can be assured. This chapter will concentrate on those factors which will help make the plan successful. Recommendations concerning the development schedule will be essential in maintaining a realistic and cost effective program that provides maximum benefit to the community.

The program outlined on the following pages has been evaluated from a variety of perspectives. The plan is not dependent exclusively upon the City of Flagstaff for funding new facilities. In fact, with proper and timely decision-making on the part of officials, it is quite possible for the City of

Flagstaff to acquire nearly \$31.6 million in improvements over the next twenty years for less than 16 cents on the dollar.

FEDERAL AIRPORT IMPROVEMENT PROGRAM

Airport development and funding in Arizona can be accomplished through a cooperative effort involving three levels of government: local, state and federal. A major funding mechanism that is anticipated to exist throughout the 20-year program, is the federal Airport Improvement Program (AIP), although the present authorization bill passed in December 1987 (and revised on October 27, 1990) will expire in 1992. This program, funded by airport users through user taxes and fees, is authorized to provide \$1.8 billion in 1991 and 1.9 billion in 1992 to airports, although lesser amounts are normally appropriated. For example, in 1988 and 1989

approximately \$1.3 and \$1.4 billion, respectively, were actually appropriated.

AIP monies are distributed to airports in the form of entitlement (based on levels of passenger enplanements) and discretionary grants. Flagstaff Pulliam Airport has been successful in obtaining both types of grants in recent years. Cargo entitlement funds are also available, however, Flagstaff Pulliam Airport does not qualify for this entitlement.

The AIP can provide up to approximately 91 percent of the funds for airport projects in Arizona that meet the eligibility requirements established by FAA. Terminal building projects, however, can only receive a maximum of 75 percent federal funding participation and only for public use areas of the terminal facility.

Grants obtained by the airport from the FAA must always be matched by local funds. It is important for the sponsor to act expeditiously in securing the federal share of these grants. Entitlement grants may be reserved for future projects for as long as a three year period.

ARIZONA AVIATION FUND

Another source of funds available for airport's in the State is the Arizona Aviation Fund. Taxes levied by the State on aviation fuel, flight property, aircraft registration lieu tax and registration fees and interest on these funds are deposited in the Arizona Aviation Fund. These funds have the dual objective of maximizing the effective use of fund dollars for Arizona airport improvements while attracting maximum federal AIP funds. The Transportation Policy Board establishes the policies for distribution of the State dollars. Projects are considered within the priorities established for each of three airport categories: Commercial Service and Reliever Airports, airports in the Primary and Secondary systems and special projects. Currently, local sponsors can obtain one half

(4.47 percent) of the local share from the aviation fund for eligible federal AIP projects or 90 percent on local-state projects.

AIRPORT DEVELOPMENT SCHEDULE AND COST SUMMARY

Once the specific needs of the Airport have been established, the next step is to determine realistic costs for each development item. As with any public facility, however, development costs are not the only consideration. Day to day operating expenses will also be an important factor in determining the amount of funds available for the local share. Development and operating costs are compared to the potential funds available. A schedule is then developed in an attempt to balance the need for each facility and its cost with the projected income sources that can be identified.

This section examines the total cost of each development project and a schedule for the projects. The following sections will examine the revenue sources and expenses of the airport operation. From this evaluation, any shortcomings can be determined and adjustments made to establish a financial program for the airport.

AIRPORT DEVELOPMENT SCHEDULE

In order to better assess the effect of the airport development costs on the overall financial system, the timing or schedule of each development item should be estimated. This evaluation can initially be conducted by dividing the development needs into three stages covering the first five, the second five and the final ten year period, respectively. The first stage of five years includes those items of highest priority to meet safety and short-term activity needs. The second

five-year stage includes those items necessary to tie together related development items and maintain or improve the capacity of the facility. The third long-term phase covering the remaining ten years includes those additional items necessary to improve efficiency and the overall operational effectiveness of the system of facilities on the airport. Of course, each phase should include basic maintenance and revenue-generating components.

Cost estimates were developed from information provided by construction industry sources as well as a review of actual costs on similar airport projects. This information was applied to pavement, earthwork, and building volume requirements for the Flagstaff Pulliam Airport to determine estimated construction costs. A 25 percent contingency for engineering, legal fees, and unforeseen costs was included in each project estimated cost.

Prior to summarizing the staged capital costs, two important points should be emphasized. First, the staging of development projects is based upon projected airport activity levels and should be considered in conjunction with Capital Improvement Projects already being considered and funded by the City of Flagstaff. In the case of Flagstaff Pulliam Airport, all of these previously approved and funded projects are identified in the Stage I development program. Secondly, all of the projects not previously identified are demand based, that is, the actual construction of the project will be determined by the level of airport activity. Actual activity levels may vary from the projected activity level. Implementation of capital improvement projects should only occur after the cost has been re-evaluated and the demand level has been achieved.

Stage I, the first five year period of the development program, has been subdivided into individual fiscal years. Some of the development projects programmed into the

first year of Stage I (Table 8A) are previously approved and funded projects. Stage I is a very significant phase in the development program of this airport. The construction and development of new terminal facilities will be the focal point of the landside development while airside development will feature the installation of a precision instrument landing system which will improve the ability to takeoff and land at the airport during poor weather conditions. These projects will entail a restructuring of the entire terminal area including the commercial aircraft apron, auto parking and ultimately, another access route to the terminal area.

Additional projects included within the initial stage of development are the acquisition of land for the Runway 21 protection zone, relocation of the fuel storage area, and the expansion of water, sewer and natural gas to accommodate terminal area facilities. Also included in Stage I are the expansion of shade/T-hangars in the Westplex area, improved weather data collection and dissemination by relocating and installing new instrumentation and the construction of additional general aviation parking. The relocation of hangars and tiedowns will be required in order to construct the new commercial service terminal building and apron. The total cost of Stage I development is estimated at \$12.5 million. Approximately \$1.2 million of this total is not eligible under the AIP Program.

Stage II development encompasses the five year period from 1996 through 2000 with pavement overlays to enhance the wheel loading capacity of the runway and parallel taxiway due to the increase in B737 aircraft operations. During this stage, the general aviation apron will be expanded in the North Apron and Westplex area to facilitate a long term goal of removing/relocating all hangars presently located within the BRL and tiedowns located within 500 feet of the

runway. The total cost of Stage II, as illustrated in Table 8A, is approximately \$4.6 million.

Stage III contains projects for the longer range needs of the airport that will be accomplished during the period from 2001 to 2010. These projects include additional pavement preservation, new conventional hangars and expansion of the commercial service terminal area, including the building, automobile parking and apron. Also included in this stage of development are additional fuel storage, a 1,300 foot extension of the

runway and parallel taxiway, and additional apron in the Westplex area to accommodate the movement of the remaining tiedowns and hangars.

The Terminal Building access road to the 4th Street arterial will be expanded to four lanes and the automobile access across the dual taxilanes in the Westplex terminated. These and other projects will bring the total cost for Stage III to approximately \$14.4 million. The fiscal year for all projects begins on July 1st and ends on June 30th.

TABLE 8A
Estimated Development Schedule and Cost Summary
Flagstaff Pulliam Airport

STAGE I - FY 1991-1992

	<u>Total Cost</u>
1. ** Construct dual taxilanes, West Taxiway and 2 aprons, 27,988 SY	\$887,200
2. ** Construct 1,050 feet of Access Road in Westplex Area, 2,916 SY	120,700
3. ** Construct 14-Unit Shade Hangar in Westplex, 12,400 SF	154,000
4. ** Construct general aviation parking in Westplex, 3,532 SY	108,100
5. Relocate 12 T-Hangars from North Apron to Westplex	75,000
6. Install Category II Instrument Landing System	2,500,000
7. Install Medium Intensity Approach Lighting System with RAIL (MALS-R)	1,250,000
8. Install two 12,000 gallon above ground fuel storage tanks	93,800
9. Construct access road, fence and grade the new fuel storage area, 2,500 SY	108,100
10. Acquire USFS land for Runway 21 protection zone, 3.3 acres	<u>41,300⁽¹⁾</u>
 Total Stage I (FY 1991-1992)	 \$5,338,200

STAGE I - FY 1992-1993

11. Construct Airline Terminal, 15,500 SF	\$1,875,000
12. Pave airline terminal apron 10,300 SY	579,400 ⁽¹⁾
13. Construct terminal area auto access and parking facilities, 7,900 SY	177,800 ⁽¹⁾
14. Construct Water Reservoir for terminal area, 350,000 gallon capacity	650,000
15. Construct wastewater lagoon and septic system for terminal area	400,000
16. Construct natural gas pipeline to terminal area, 7,400 LF	135,000
17. Install Lightning Detection equipment, Runway 21	20,000

	<u>Total Cost</u>
18. Expand DPS Hangar, 2,500 SF	125,000
19. Construct National Weather Service Facility, 3,000 SF	750,000
20. Construct apron and relocate 20 tiedowns on the North Apron, 2,300	<u>113,600</u>

Total Stage I (FY 1992-1993)	\$4,825,800
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STAGE I - FY 1993-1994

21. Relocate and install wind/weather instruments, Runway 03-21	171,000
22. Construct ARFF Hangar in North Apron, 3,600 SF	370,400
23. Install lighted windcone, Runway 03	12,500
24. Install REIL, Runway 03	12,500
25. Rebuild Shamrell Boulevard and install lighting, 5,000 SY	<u>175,000</u>

Total Stage I (FY 1993-1994)	\$741,400
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STAGE I - FY 1994-1995

26. Install ASOS equipment (NWS)	175,000
27. Construct FBO Hangar, 10,000 SF	750,000
28. Remove trees that are obstructions to Part 77 Imaginary surfaces	<u>12,500</u>

Total Stage I (FY 1994-1995)	\$937,500
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STAGE I - FY 1995-1996

29. Construct general aviation parking, Westplex area, 9,531 SY	375,300
30. Acquire land for Building Restriction Line, 4 acres	50,000 ⁽¹⁾
31. Relocate six Port-A-ports and one 10-unit shade hangar, 5,000 SY	<u>285,600</u>

Total Stage I (FY 1995-1996)	\$711,000
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TOTAL STAGE I (FY 1991-1995)	<u>\$12,553,800</u>
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STAGE II - FY 1996-2000

1. Strengthen Runway 03-21 with 2 inches of asphalt, 116,700 SY	2,188,100
2. Strengthen parallel taxiway and seven connection taxiways, 48,700 SY	608,800
3. Install Medium Intensity Taxiway Lights, Westplex dual taxilanes	129,400
4. Pavement preservation, West Taxiway, 21,700	162,800
5. Expand apron in North apron and relocate 20 tiedowns, 5,000 SY	220,600
6. Expand apron in Westplex area & relocate six T-hangars, 6,000 SY	275,300

7.	Install two 12,000 gallon fuel storage tanks	150,000
8.	Expand terminal area auto parking facilities, 3,000 SY	67,500
9.	Construct two-lane access road from Terminal to 4th Street arterial, 3,000 SY	187,500
10.	Construct additional automobile parking, Westplex area, 1,700 SY	68,000
11.	Acquire land for runway extension and protection zone, 18.3 acres	228,800 ⁽¹⁾
12.	Install High Intensity Runway Lights (HIRL), 7,000 LF	<u>306,200</u>
	TOTAL STAGE II (FY 1996-2000)	\$4,593,000

STAGE III - FY 2001-2010

	<u>Total Cost</u>	
1.	Perform Environmental Assessment of proposed Rwy extension	\$93,800
2.	Construct two Executive Hangars, Westplex area, 12,000 SY	727,600
3.	Relocate Peabody Coal hangar to the Westplex area (8,500SF)	796,900
4.	Relocate FBO hangars (13,486 SF)	1,011,500
5.	Relocate 36 South apron tiedowns, 13,155 SY	561,800
6.	Remove old terminal building (6,800 SF)	127,500
7.	Construct additional terminal area auto parking, 2,900 SY	114,200
8.	Construct four-lane access road from Terminal to 4th Street arterial	525,000
9.	Construct additional exit taxiway, 1,700 SY	95,600
10.	Construct additional apron and 45 tiedowns, 24,000 SY	959,800
11.	Expand Terminal Building, 5,000 SF	781,300
12.	Expand terminal apron, 10,800 SY	607,500
13.	Extend dual taxilanes and widen 10,400 SY	412,100
14.	Construct south taxilanes into Westplex area, 3,500 SY	138,700
15.	Pavement Preservation, 500,000 SY	1,250,000
16.	Construct apron for shade/T-hangars, Westplex Area, 20,600 SY	816,300
17.	Construct additional automobile parking, Westplex area, 6,700 SY	263,800
18.	Construct auto parking access road, Westplex area, 3,055 SY	120,300
19.	Install two 12,000 gallon fuel storage tanks	150,000
20.	Construct Runway 21, 1,300 foot extension, 21,700 SY	1,220,600 ⁽¹⁾
21.	Construct 1,500 foot extension to parallel taxiway, 8,333 SY	468,700
22.	Relocate MALS-R, Runway 21	375,000
23.	Construct four 14-Unit T-Hangars/Shade	896,000
24.	Relocate Glidescope antenna, Runway 21	12,500
25.	Install Runway Visual Range Indicator, Runway 21	15,100
26.	Relocate VASI-4, Runway 21	12,500
27.	Acquire property for Runway 21 approach protection, 151 acres	<u>1,887,600⁽¹⁾</u>
	TOTAL STAGE III (FY 2001-2010)	\$14,441,600
	TOTAL AIRPORT DEVELOPMENT PROGRAM	<u>\$31,550,900</u>

Note: (1) Upon sale or lease of property released by FAA, proceeds from the sale or lease are used as the Federal share for these projects.

As shown in Table 8A, the total cost for developing the Flagstaff Pulliam Airport as planned over the next twenty years would be approximately \$ 31.6 million.

**AIRPORT
DEVELOPMENT COST SUMMARY**

A listing under each stage development program is outlined in Table 8B and represents the culmination of a comparative analysis for the basic budget factors: needs or demands, and priority assignments. Distribution of costs between potential funding sources will be examined in depth in the context of this chapter.

Private funding is indicated for projects such as FBO facilities while FAA or National Weather Service facilities and engineering projects (funded entirely by the federal agency) are listed but not included in the total funding for each Stage. The costs in

Table 8A and 8B are stated in 1990 dollars and are not adjusted for inflation.

In future years, these cost estimates can continue to assist management by adjusting the 1990-based figures for subsequent inflation. This may be accomplished by converting the interim change in the United States Consumer Price Index (USCPI) into a multiplier ratio through the following formula.

$$\frac{X}{Y} = Z \text{ (Change Ratio)}$$

X = USCPI in any given year
Y = USCPI in 1990

Multiplying the change ratio (Z) by any 1990-based cost estimate presented in this study will yield the adjusted dollar amounts appropriate in any future year. The local or state CPI may be used as the national CPI may vary.

**TABLE 8B
Summary of Development Costs
Flagstaff Pulliam Airport**

	<u>Local</u>	<u>Federal</u>	<u>State</u>	<u>Private</u>	<u>Total</u>
STAGE I (FY 1991 -1995)	\$2,808,800 ⁽¹⁾	\$5,536,700	\$2,217,300	\$875,000	\$12,553,800 ⁽²⁾
STAGE II (FY 1996-2000)	365,050	3,775,500	452,450	0	4,593,300
STAGE III (FY 2001-2010)	1,738,650	9,373,400	2,528,400	801,150	14,441,600
TOTAL	\$4,912,500	\$18,685,600	\$5,198,150	\$1,676,150	\$31,588,400 ⁽²⁾

⁽¹⁾ \$1,270,000 previously funded under Arizona Aviation Fund.

⁽²⁾ \$1,116,000 of this total was not funded under AIP.

AIRPORT OPERATING REVENUES AND EXPENDITURES

Operating revenues and expenses at Flagstaff Pulliam Airport were projected by first examining the previous financial records of the airport then relating these to the expected growth and development of the next twenty years. A review of the historical revenue and expense data for the past five years revealed a general upward trend in Airport operating revenues (average annual increase of approximately 32 percent) with a slightly lower (average annual increase during the same period of approximately 28 percent) in expenses. Although revenue production has outpaced the increase in operating expenses, the total operating revenue has yet to meet all the airport's operating expenses.

Non-operating income, revenue from the City's general fund, has kept the airport on the positive side of the ledger and allowed the airport to continue to support capital improvement projects. Non-operating expenses (expenses the City charges the airport for administrative services and liability insurance) have risen during the period as well (average annual increase of 33 percent). Most of this increase is attributed to administrative costs as the cost of liability insurance has risen only an average of 4 percent during the same period.

Under the airport accounting system, the Revenue category has two major breakdowns: Operating and Non-operating Revenues and Expenses. Operating revenues are broken down into four categories Airport Landing Fees, Fuel Flowage Fees, Airport Rental receipts and Miscellaneous. It is recommended that the airport establish additional revenue accounts for Hangar, Tiedown, Terminal, and Land leases. All of these accounts are presently included in the Airport Rental Receipts category making it difficult for Airport management to recognize adverse trends.

Expenses at the airport were recorded under six basic categories: Personnel, Administrative, Supplies, Maintenance, Equipment and Utilities. Debt service is included under non-operating expenses.

AIRPORT OPERATING REVENUES

The airport operating revenue categories are illustrated in Table 8D. A brief description of each category with emphasis on the historical and future growth rates of each revenue category follows.

Airport Landing Fees

Airport Landing Fees were the second largest contributor to airport revenue during the historical period FY 1985 - FY 1988, and will continue to be a significant source of revenue to the airport in the future as well. The current landing fee, \$ 0.60 per 1,000 pounds, is competitive for this size airport at the present time. The landing fee should be gradually increased during the period to keep pace with the pavement maintenance costs. Landing fee income is projected to rise throughout the period as commercial service operations increase and newer, heavier aircraft operate at the airport. A 19 percent average annual increase in landing fee income has been projected in Stage II and a 40 percent average annual increase in Stage III. Landing Fee revenue is illustrated in the cash flow analysis in Table 8D.

Fuel Flowage Fee

Income from fuel flowage fees has risen conservatively during the period. The fuel flowage fee currently being charged the FBO is competitive for airports of this type. The projected fuel flowage income throughout the planning period is based on the current fuel flowage fee of \$.06 per gallon. The airport should continue to monitor this source of

income in order to insure the fee remains competitive throughout the period.

Landside Revenues

The Landside Revenue financial category contains five sub-categories, described in the paragraphs that follow.

- **Land Leases**

Land lease income is derived from the lease of land, buildings/hangars to private individuals, businesses, the FBO and federal agencies. Land lease revenue accounts for approximately 10 percent of the landside income. The revenue from this category is anticipated to decrease as a percentage of total revenue throughout the planning period.

- **Hangar Fees**

The City recently purchased the South Apron T-Hangars, thereby obtaining control of all the airport shade and T-Hangars with the exception of the Port-a-ports. This will provide the City the opportunity to efficiently manage the hangar relocation project during the planning period. T-Hangar fees are currently competitive with airports of the same size and similar facilities, however, shade hangar fees of \$50.00 per month may be somewhat low. In Table 8D, T-Hangar fees are projected to remain relatively constant throughout the planning period, however, Shade hangar fees are projected to rise during Stage II.

- **Tiedown Fees**

The Tiedown fees, which are \$25.00 per month, are presently adequate and projected to remain at this level throughout the planning period. Income from tiedowns will vary somewhat during Stage I and II as tiedowns are relocated from those areas within 500 feet of the runway to other apron areas on the airport.

- **Terminal Leases and Fees**

This sub-category contains revenue obtained from leases of commercial terminal counter and office space within the passenger terminal facility. Historically, this revenue source has accounted for approximately two-thirds of the Landside revenue. Income sources under this category consist of terminal leases, percentage of gross income, terminal parking fees, advertising space, direct phone fees, public address system, and security fees. As a new terminal will be constructed during Stage I, estimated charges for these services are illustrated in Table 8C.

Future revenue from this source has been based upon the revenue stream projected in a separate study conducted for the City of Flagstaff during this master plan update. The projected revenue during the planning period is illustrated in Table 8D.

TABLE 8C
Terminal Fees - Future
Flagstaff Pulliam Airport

<u>Terminal Fee</u>	<u>Feet</u>
Counter Space	\$20.00/SF
Office Space	\$15.00/SF
Advertising Space	\$2.00/SF
Monthly Direct Phone Space	\$20.00/SF
Retail Sales Space	\$20.00/SF
Public Address System	\$20.00/Month

SF = Square Feet

- **Miscellaneous.** This sub-category would contain income derived from the use of anti-icing equipment, after hours runway checks, cleanup of accident debris, gate fees, access cards etc. and has averaged approximately one percent of total

revenue throughout the historical review period. Future income from this sub-category is anticipated to remain approximately at the same level throughout the planning period.

AIRPORT OPERATING EXPENSES

Airport operating expenses were consolidated into six categories:

- Personnel
- Administrative
- Supplies
- Equipment
- Maintenance
- Utilities

Personnel Expenses

Personnel expenses include salaries, benefits, employee travel or education, and other closely related expenses. Salaries and employee benefits account for the majority of the expenses in this category at approximately 58 percent of the total airport operating expense.

In planning for future development at the airport, personnel needs should be addressed in order to insure adequate staff is available to meet the increase in services and activity. Additional personnel expenses (maintenance, clerical and management positions) have been incorporated into the future personnel expense requirements for the airport as indicated in Table 8D.

Administrative Expenses

Administrative expenses include telephone, office equipment, insurance, and other closely related expenses. Administrative expenses have varied slightly during the historical

period, averaging a little more than seven percent of the total airport operating expense.

Although administrative expenses are anticipated to increase throughout the planning period, the percentage of total airport operating expense attributed to this category should remain essentially the same. This is reflected in the projected airport expenses illustrated in Table 8D.

Supply Expenses

The Supply category includes office supplies, terminal supplies and maintenance supplies. This category contributes approximately 13 percent to total airport expenses.

It is anticipated that this category, as a percentage of airport operating expenses, will increase slightly during Stage I and II before declining to about 13 percent of the total airport operating expense by the end of the planning period.

Maintenance Expense

Maintenance costs have consistently been approximately 16 percent of the total operating expense category. The majority of this expense category is attributed to maintenance of the airfield.

The addition of a new terminal building, as well as apron and taxiways in Stage I, will produce some reduction in annual maintenance expense. Some pavement will be abandoned and replaced with new pavement throughout the planning period. It is anticipated that these changes will have little impact on overall maintenance expenses at the airport, which have been projected to remain at approximately 16 percent of total airport expense in Table 8D.

Utility Expense

Utility expenses are primarily associated with the cost of electricity. Water and waste water treatment improvements as well as additional facilities will result in an increase in the percentage utilities are of total operating costs. Although Utility costs contribute roughly 12 percent to total airport operating expenses at this time, utility expense is predicted to rise to approximately 13 percent of total airport expenses during the planning period. This anticipated utility expense increase is projected in Table 8D.

AIRPORT DEVELOPMENT AND FUNDING SOURCES

As previously mentioned, financing for the development and operation of an airport does not typically come completely from one source. Such is the case with Flagstaff Pulliam Airport, where federal, state and private sources for funding will be necessary during the next 20 years. The primary contributor to development and operation of the airport will be the aviation community.

FEDERAL AND STATE AID TO AIRPORTS

Federal aid to airports was discussed in some detail earlier in the chapter. AIP, the federal program for financing airport improvements and development, provides funds through *entitlement* or *discretionary funding*.

Airport Entitlement Funds

Flagstaff Pulliam Airport is classified as a *primary* airport under the Airport Improvement Program (AIP). A primary airport is defined as a commercial service airport that has attained a minimum of .01 percent of the total enplanements annually at

all commercial service airports. A primary airport qualifies for entitlement funds under the AIP program. These entitlement funds are based on the level of enplanements at a primary airport. A primary airport has access to the amount of entitlement funds earned through their enplanement levels, however, the airport must justify the expenditure of those funds to FAA before they can be obtained. Entitlement funds are treated the same as discretionary funding (the major source of funds for non-primary airports) in that the airport must apply to FAA for the funds. The major advantage to entitlement funds versus discretionary funds is that the airport earns or is entitled to a minimum level of federal expenditures on an annual basis.

Table 8B depicted the breakdown of federal, state and private funding for the proposed development program. This table is a summary of the item-by-item breakdown of improvement costs included in the **Continuous Planning** section at the end of this chapter. Under AIP, eligible projects can receive approximately 91 percent funding from the FAA. The majority of improvements will be eligible, however, improvements such as automobile parking, fuel storage facilities, hangars and portions of passenger terminal buildings are not.

The primary feature of AIP funding that must be recognized is that discretionary funds are distributed on a priority basis. These priorities are established by each FAA regional office based upon the number and dollar amount of applications received. Since the program provides over 91 percent of the funding for eligible projects it is essential to most public airport development programs. Flagstaff Pulliam Airport will, therefore, be competing for discretionary fund development grants with other communities in Arizona, and the FAA Western-Pacific Region (California, Nevada, and Hawaii) as well as the remainder of the country. Consequently, the development program for Flagstaff Pulliam

Airport must be closely coordinated with the FAA, both now and in the future.

The Aviation Fund

As indicated earlier in the chapter, assistance in obtaining the local share for development projects can also come from the Arizona Aviation Fund. Projects eligible for federal funding can normally receive half of the local share (4.47 percent) from the Aviation Fund while approved state-local development projects might receive up to 90 percent funding. Again, it must be emphasized that Flagstaff faces problems that are similar to those experienced when applying for federal funding participation... competition with other airports. The development program must be coordinated with the State in order to assure equitable distribution of funds for airport program.

OTHER FUNDING SOURCES

Flagstaff Pulliam Airport will need to consider other sources of funding for obtaining the local share of its capital improvement projects. In addition to the revenues derived from airport operations, the City has several methods available for financing the local share of airport development costs. The most common methods involve debt financing which amortize the debt over the useful life of the project or a specified period. Methods of debt financing commonly available to the City, as well as the alternative of third party support, are discussed below.

General Obligation Bonds

General Obligation (GO) bonds are a common form of municipal bonds whose payment is secured by the full faith, credit, and taxing authority of the issuing agency. GO bonds are instruments of credit and, because of the community guarantee, reduce

the available debt level of the sponsoring community. This type of bond uses tax revenues to retire debt and the key element becomes the approval of the electorate to a tax levy to support airport development. If approved, GO bonds are typically issued at a lower interest rate than other types of bonds. The City has recently received authority to use this method to secure funds for a new airport terminal and improvements in the utilities to support the new structure.

Self Liquidating General Obligation Bonds

As with all GO bonds, *Self Liquidating* Bonds are secured by the issuing government agency. They are retired, however, by the adequate cash flow from the operations of the facility. If the state court determines that the project is self-sustaining, the debt may be legally excluded from the community's debt limit. Since the credit of the local government bears the ultimate risk of default, the bond issue is still considered, for the purpose of financial analysis, as part of the debt burden of the community. Therefore, this method of financing may mean a higher rate of interest on all bonds sold by the community. The amount of increase in the interest rate depends, in part, upon the degree of exposure risk of the bond. Exposure risk occurs when there is sufficient net airport operating income to cover the level of debt service plus coverage requirements, thus forcing the community to absorb the residual.

Revenue Bonds

Revenue Bonds are retired solely from the revenue of a particular project or from the operating income of the issuing agency, such as the City of Flagstaff. Generally, they fall outside statutory limitations on public indebtedness and, in many cases, do not require voter approval. Because of the limitations on other public bonds, airport

sponsors are increasingly turning to revenue bonds whenever possible.

However, Revenue Bonds normally carry a higher rate of interest because they lack the security of tax supported GO bonds issued by government bodies. It should also be noted that the general public would usually be aware of the risk involved with a revenue bond issue for Flagstaff Pulliam Airport. The airport is presently unable to demonstrate an ability to meet its expense obligations. Until the airport becomes profitable and establishes a pattern of consistency, it is doubtful that this method would be a feasible option for financing the development at the airport.

Combined Revenue/General Obligation Bonds

These bonds, also known as *Double-Barrel Bonds*, are secured by a pledge of back-up tax revenues to cover principal and interest payments in cases where airport revenues are insufficient. The combined Revenue/Obligation bond interest rates are usually lower than Revenues Bond rates due to their back-up tax provisions.

Bank Financing

Some airport sponsors (including Flagstaff) have successfully used bank financing as a means of providing airport development capital. Generally, two conditions are required: the airport must demonstrate the ability to repay the loan at current market rates, and the capital improvement must be less than the value of the present facility. These are standard conditions which are applied to almost all bank loan transactions. This method of financing is particularly useful for smaller development items (such as Hangars, etc.) that will produce revenues and a positive cash flow, and where no private financing is available.

Third-Party Support

Several types of funding fall into this category. For example, individuals or interested organizations may contribute portions of the required development funds. Private donations are not a common means of airport financing, however, if obtained, the private financial contributions not only increase the financial support of the project, but also stimulate moral support to airport development.

A slightly more orthodox method of third-party support involves permitting the Fixed Base Operator (FBO) to construct their own hangar and maintenance facilities on property leased from the airport. The advantage to the airport in this type of an arrangement is that it lowers the local share of development costs, a large portion of which is building construction. The advantage to the FBO is that the development may qualify for investment tax credit and would be allowed depreciation on the facilities. However, the disadvantage is that the City will receive a smaller percentage of the revenue generated at the airport. For this reason, it is important to consider all eventualities before entering into a specific lease agreement.

Industrial Airpark Income

In 1988, the City of Flagstaff obtained the permission of FAA to release approximately 125 acres of airport property. This property is to be sold by the City for industrial park use. The appraised value of the land at the time of the release was approximately \$15,000 per acre. Stipulated in the release agreement with the FAA is the requirement that proceeds from the sale of the property will be used on specific airport projects, such as land acquisition for a runway extension, a runway extension, a new terminal building and apron projects in the North and South apron areas.

At this time, the industrial park property has not yet been sold and no proceeds are available for distribution on these projects. However, once the property is sold, approximately \$1,786,000 will be available to offset some of the development expenses anticipated during the planning period.

CASH FLOW ANALYSIS

Airport operating revenues are generated through fees and lease agreements with users of the airport. Several methods are available for an airport to generate income for its use. The Flagstaff Pulliam Airport presently employs land and building leases, landing fees, fuel flowage fees, tiedown fees, hangar fees, advertising space, FBO leases, car rental, and a percentage of gross revenue to generate revenue. These revenue sources have, in the past, not covered operating expenses.

The ideal and ultimate goal of any airport should be to support its own operation and development through self-generated user fees. By establishing reasonable fees, the airport will meet its operating expenses as well as provide for improvement in airport facilities,

ensuring the airport will continue to provide viable service to the citizens of the community.

Table 8D presents a cash flow earnings test of operating revenues, operating expenses, debt service and the capital improvement costs for Flagstaff Pulliam Airport. The table includes a year-by-year breakdown through the entire planning period. From Table 8D, operating revenue generated from the income categories previously outlined should cover operating expenses at the end of Stage II and contribute toward capital improvements over the long term.

The development program contains many projects associated with improving the airport's pavement. This indicates that the airport should continue to monitor landing fees to insure that the rate of income is offsetting the cost of maintaining the airfield. Long term leases should continue to contain automatic cost-of-living adjustments or the lease period should be for only short term periods (5 years). These contract practices will ensure that the airport users are paying an equitable share of the expenses of operating Flagstaff Pulliam Airport.

TABLE 8D
Cash Flow Analysis - Stage I
Flagstaff Pulliam Airport

	<u>FY 1991-92</u>	<u>FY 1992-93</u>	<u>FY 1993-94</u>	<u>FY 1994-95</u>	<u>FY 1995-96</u>
REVENUES					
AIRSIDE					
Landing Fees	\$88,100	\$100,300	\$114,000	\$129,500	\$146,900
Fuel Flowage Fees	29,272	39,916	32,650	34,228	35,848
LANDSIDE					
Land Lease Fees	65,400	65,400	65,400	65,400	65,400
Hangar Fees	66,300	66,300	66,300	66,300	66,300
Tiedown Fees	9,000	9,000	9,000	9,000	9,000
Terminal Leases & Fees	176,600	298,800	315,900	333,400	352,100
Miscellaneous	2,000	2,000	2,000	2,000	2,000
TOTAL REVENUE	\$436,672	572,216	\$605,160	\$639,828	\$677,548
EXPENSES					
Personnel	\$295,400	\$319,100	\$343,300	\$368,200	\$392,600
Administration	40,600	43,800	47,100	50,500	53,900
Supplies	75,300	81,300	87,500	93,800	100,100
Equipment	2,900	3,100	3,400	3,600	3,800
Maintenance	86,900	93,900	101,000	108,300	115,500
Utilities	78,200	84,500	90,900	97,500	103,900
TOTAL EXPENDITURES	\$579,300	\$625,700	\$673,200	\$721,900	\$769,900
OPERATING INCOME (DEFICIT)	(\$142,600)	(\$53,000)	(\$68,000)	(\$82,100)	(\$92,400)
DEBT SERVICE	\$45,279	\$417,771	\$417,771	\$417,771	\$417,771
LOCAL SHARE COSTS	\$112,050 ⁽¹⁾	\$5,100 ⁽¹⁾	\$42,000	\$600	\$55,300

Note: ⁽¹⁾ Share of unfunded projects only.

TABLE 8D (Continued)
Cash Flow Analysis - Stage II
Flagstaff Pulliam Airport

	<u>FY 1996-97</u>	<u>FY 1997-98</u>	<u>FY 1998-99</u>	<u>FY 1999-99</u>	<u>FY 2000-2001</u>
REVENUES					
AIRSIDE					
Landing Fees	\$169,600	\$195,600	\$225,400	\$259,600	\$298,700
Fuel Flowage Fees	39,978	40,108	42,238	44,368	46,504
LANDSIDE					
Land Lease Fees	65,400	65,400	65,400	65,400	70,400
Hangar Fees	66,300	66,300	66,300	66,300	69,820
Tiedown Fees	9,000	9,000	9,000	9,000	9,000
Terminal Leases & Fees	374,700	397,800	421,200	445,000	470,300
Miscellaneous	3,000	3,000	3,000	3,000	3,000
TOTAL REVENUE	\$725,978	\$777,208	\$832,538	\$892,668	\$967,724
EXPENSES					
Personnel	\$420,500	\$449,100	\$478,300	\$508,300	\$539,900
Administration	57,700	61,600	65,700	69,800	74,100
Supplies	107,200	114,500	121,900	129,600	137,600
Equipment	4,100	4,400	4,700	5,000	5,300
Maintenance	123,700	132,100	140,700	149,500	158,800
Utilities	111,300	118,900	126,600	134,500	142,900
TOTAL EXPENDITURES	\$824,600	\$880,600	\$937,900	\$996,600	\$1,058,600
OPERATING INCOME (DEFICIT)	(\$98,600)	(\$103,400)	(\$105,400)	(\$103,900)	(\$90,900)
DEBT SERVICE	\$417,771	\$417,771	\$417,771	\$417,771	\$417,771
LOCAL SHARE COSTS	\$73,000	\$73,000	73,000	73,000	73,000

TABLE 8D (Continued)
Cash Flow Analysis - Stage III
Flagstaff Pulliam Airport

	<u>FY 2001-02</u>	<u>FY 2002-03</u>	<u>FY 2003-04</u>	<u>FY 2004-05</u>	<u>FY 2005-2006</u>
REVENUES					
AIRSIDE					
Landing Fees	\$358,000	\$427,900	\$510,500	\$521,100	\$722,300
Fuel Flowage Fees	48,616	50,728	52,840	54,952	57,088
LANDSIDE					
Land Lease Fees	75,400	80,400	85,400	90,400	95,400
Hangar Fees	76,860	87,420	101,500	119,100	140,220
Tiedown Fees	9,000	9,000	9,000	10,000	11,000
Terminal Leases & Fees	500,800	531,800	563,300	595,400	628,600
Miscellaneous	4,000	4,000	4,000	4,000	4,000
TOTAL REVENUE	\$1,072,676	\$1,191,248	\$1,326,540	\$1,394,952	\$1,658,608
EXPENSES					
Personnel	\$572,200	\$605,400	\$639,300	\$674,000	\$708,500
Administrative	78,500	83,100	87,700	92,500	97,200
Supplies	145,900	154,300	163,000	171,800	180,600
Equipment	5,600	5,900	6,300	6,600	6,900
Maintenance	168,300	178,100	188,000	198,200	208,400
Utilities	151,500	160,200	169,200	178,400	187,500
TOTAL EXPENDITURES	\$1,122,000	\$1,187,000	\$1,253,500	\$1,321,600	\$1,389,200
OPERATING INCOME (DEFICIT)	(\$49,300)	\$4,200	\$73,000	\$73,400	\$269,400
DEBT SERVICE	\$417,771	\$417,771	\$417,771	\$383,132	\$383,132
LOCAL SHARE COSTS	\$173,865	\$173,865	\$173,865	\$173,865	\$173,865

TABLE 8D (Continued)
Cash Flow Analysis - Stage III
Flagstaff Pulliam Airport

	<u>FY 2006-07</u>	<u>FY 2007-08</u>	<u>FY 2008-09</u>	<u>FY 2009-2010</u>	<u>FY 2010-2011</u>
REVENUES					
AIRSIDE					
Landing Fees	\$856,800	\$1,014,900	\$1,200,700	\$1,418,400	\$1,673,600
Fuel Flowage Fees	59,062	61,036	63,010	64,984	66,952
LANDSIDE					
Land Lease Fees	100,400	105,400	110,400	115,400	120,400
Hangar Fees	164,860	193,020	224,700	259,900	298,620
Tiedown Fees	12,000	13,000	14,000	15,000	16,000
Terminal Leases & Fees	669,100	710,200	752,000	794,600	839,000
Miscellaneous	5,000	5,000	5,000	5,000	5,000
TOTAL REVENUE	\$1,867,222	\$2,102,556	\$2,369,810	\$2,673,284	\$3,019,572
EXPENSES					
Personnel	\$742,200	777,800	813,600	850,220	886,500
Administration	101,900	106,800	111,700	116,700	121,700
Supplies	189,300	198,300	207,400	216,700	226,000
Equipment	7,300	7,600	8,000	8,300	8,700
Maintenance	218,400	228,800	239,300	250,100	260,700
Utilities	196,600	205,900	215,400	225,000	234,700
TOTAL EXPENDITURES	\$1,456,300	\$1,525,000	\$1,595,200	\$1,667,000	\$1,738,300
OPERATING INCOME (DEFICIT)	\$410,900	577,600	\$774,600	\$1,006,300	\$1,281,300
DEBT SERVICE	\$372,492	\$372,492	\$372,492	\$372,492	\$372,492
LOCAL SHARE COSTS	\$173,865	\$173,865	\$173,865	\$173,865	\$173,865

CONTINUOUS PLANNING

The successful implementation of the Flagstaff Pulliam Airport Master Plan will require sound judgment by City Officials and airport management. Among the more important factors influencing management decisions to implement a recommendation are timing and airport activity. Both of these factors can be

used as references in plan implementation. While it was necessary for scheduling and budgeting purposes to focus on the timing of airport development, the actual need for facilities is in fact established by levels of activity. Proper master plan implementation suggests the use of airport activity rather than time as a guide toward scheduling airport development.

Experience has indicated that major problems materialize from a standard format for master plans. These problems involve the plan's inflexibility and inherent inability to deal with new issues that develop from unforeseen changes that may occur after it is completed. The format used in the development of this Master Plan has attempted to deal with this issue. This section is titled Continuous Planning for several reasons. The first reason is to emphasize that planning is a continuous process that does not end with the completion of a major project. The second is to recognize this without invalidating the overall Master Plan. The primary issues upon which this Master Plan is based will remain valid for several years. In fact, they are likely to remain valid into the next century.

The real value of a usable master plan is that it keeps the issues and objectives in the mind of the City and airport management. Consequently, the manager is better able to recognize change and its effect. In addition, it can make the decision to undertake this Master Plan much more cost effective by extending the period that this plan remains valid and eliminating the need for costly updates. Guidelines and worksheets are included in the following section for each future year during the initial five-year stage of development from FY 1991 to FY 1995. Summary worksheets are also included for Stage II (FY 1996-2000) and Stage III (FY 2001- 2010). All estimated development costs are based on 1990 dollars. Therefore, costs must be adjusted by the appropriate inflation rate factor in effect at the time of development.

CONTINUOUS PLANNING AIDS

The continuous planning process requires airport management to consistently monitor the progress of the airport in terms of growth in based aircraft and annual operations because this growth is critical to the exact

timing and need for new airport facilities. The information obtained from this monitoring process will provide the data necessary to determine if the development schedule should be accelerated, decelerated, or maintained as scheduled.

On an annual basis, airport management should compile this information and determine the actual number of enplanements, total amount of fuel sales, and total annual aircraft operations. Use of the Continuous Planning Chart, Exhibit 8A, and the Continuous Planning Graph, Exhibit 8B, will enable management to visualize airport activity growth and compare it to the forecast levels. These exhibits are located at the end of this chapter.

Since fuel flowage fees are an important revenue source for the airport, actual fuel sales in gallons should be recorded on a yearly basis and compared to forecast levels. Fuel sales per operation should also be determined and compared with forecast levels. This continuous planning process data should be entered in the space provided on the yearly airport development schedule.

With this information, adjustment in the development schedule can be made to effectively deal with variations in forecast or any unanticipated demand that may rise. By closely monitoring the activity and availability of funds with the work-sheets provided on the following pages, management will be able to carry out its function of implementing the master plan.

SUMMARY AND CONCLUSIONS

As previously indicated, federal funding will be the primary funding source and will be instrumental in carrying out the plan. Airport revenue and private funding will be the other sources for financing the means to airport development. With these funding sources the

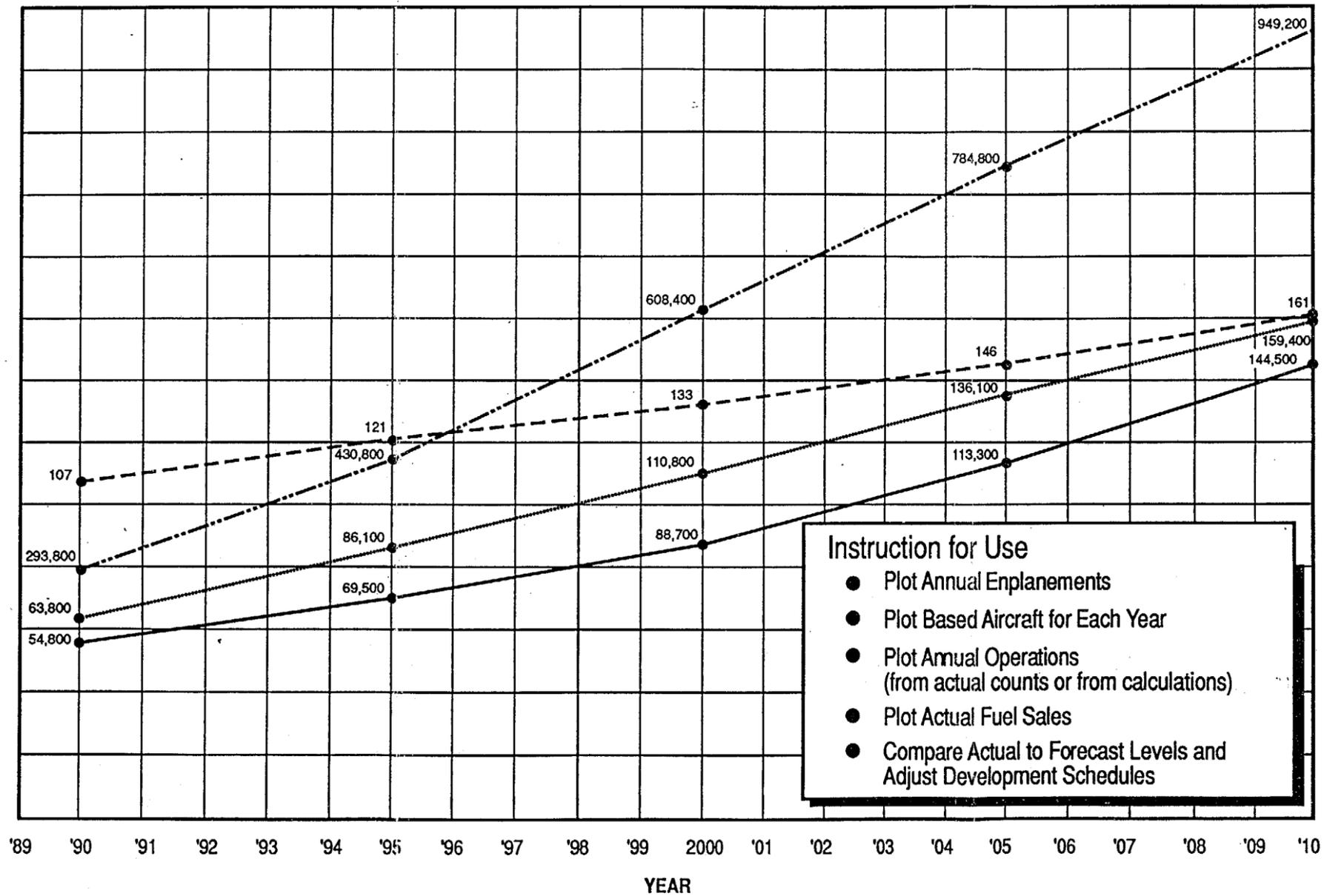
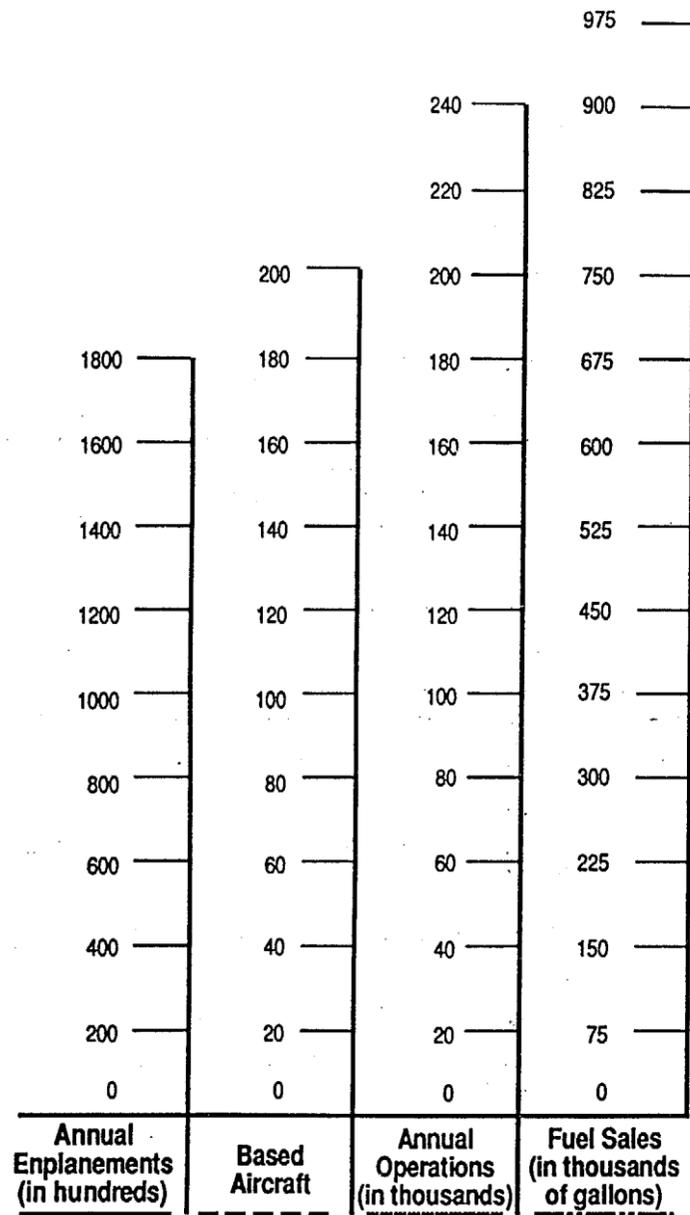
airport can be fully self-sufficient, not requiring any taxpayer money. The airport will need to keep fully abreast of all potential funding sources, and will need to research each source on a continuing basis. By closely

monitoring the activity and availability of funds with the worksheets provided at the end of this chapter, management will be better able to carry out its function of implementing the Master Plan.

FLAGSTAFF PULLIAM AIRPORT

Year	Annual Enplanements		Based Aircraft		Annual Operations		Fuel Sales (Gallons)	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
1989		51,891		107		59,339		266,400
1990	54,800		107		63,800		293,800	
1991	57,700		110		68,300		321,200	
1992	60,600		113		72,800		348,600	
1993	63,500		115		77,300		376,000	
1994	66,400		118		81,800		403,800	
1995	69,500		121		86,100		430,800	
1996	73,300		123		91,000		466,300	
1997	77,100		126		95,900		501,800	
1998	80,900		128		100,800		537,300	
1999	84,700		131		105,700		572,800	
2000	88,700		133		110,800		608,400	
2001	93,600		136		115,900		643,600	
2002	98,500		138		121,000		678,800	
2003	103,400		141		126,100		714,000	
2004	108,300		143		131,200		749,200	
2005	113,300		146		136,100		784,800	
2006	119,500		149		140,800		817,700	
2007	125,700		152		145,500		850,600	
2008	131,900		155		150,200		883,500	
2009	138,100		158		154,900		916,400	
2010	144,500		161		159,400		949,200	





STAGE I

FY 1991-92 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Funds	\$ _____
TOTAL	\$ _____

As a reminder, airport development should be keyed to demand (**actual activity**) rather than to a specific time frame (**forecast activity**). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>1991 Forecasts</u>	<u>1991 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	321,200	_____	_____
Enplanements	57,700	_____	_____
Operations	68,300	_____	_____
Based Aircraft	110	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE I (Continued)
FY 1991-92 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
1. **Construct dual taxilanes, West Taxiway and 2 aprons 27,988 SY	\$88,700	\$798,500	\$0	\$887,200
2. **Construct 1,050 feet of Access Road in Westplex Area, 2,916 SY	12,100	108,100	0	120,700
3. **Construct 14-Unit Shade Hangar in Westplex, 12,400 SF	154,000	0	0	154,000
4. **Construct general aviation parking in Westplex, 3,352	10,800	97,300	0	108,100
5. Relocate 12 T-Hangars from North Apron to Westplex	3,350	3,350	68,300	75,000
6. Install Category II Instrument Landing System	0	0	2,500,000	\$2,500,000 ⁽¹⁾
7. Install Medium Intensity Approach Lighting System with RAIL (MALS-R)	0	0	1,250,000	1,250,000 ⁽¹⁾
8. Install two 12,000 gallon fuel storage tanks	93,800	0	0	93,800
9. Construct access road, fence & grade fuel storage area, 2,500 SY	10,800	97,300	0	108,100
10. Acquire USFS land for Runway 21 protection zone, 3.3 acres	<u>4,100</u>	<u>37,200</u>	<u>0</u>	<u>41,300</u>
Sub Total	\$377,650	\$1,142,250	\$3,818,300	\$5,338,200

Inflation Adjustment: _____ % x \$ 5,338,200 =

** These projects have been previously funded under the Arizona Aviation Trust Fund.

⁽¹⁾ These projects are not funded through the AIP.

Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

STAGE I

FY 1992-93 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Fund	\$ _____
TOTAL	\$ _____

As a reminder, airport development should be keyed to demand (actual activity) rather than to a specific time frame (forecast activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>1992 Forecasts</u>	<u>1992 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	348,600	_____	_____
Enplanements	60,600	_____	_____
Operations	72,800	_____	_____
Based Aircraft	113	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE I (Continued)
FY 1992-93 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
11. Construct Airline Terminal, 15,500 SF	\$1,243,900	\$631,100	\$0	\$1,875,000
12. Pave Airline Apron 10,300 SY	25,900	25,900	527,600	579,400
13. Construct terminal area auto parking facilities and access, 7,900 SY	7,950	7,950	161,900	177,800
14. Construct Water Reservoir for terminal area, 350,000 gallon capacity	576,200	0	73,800	650,000
15. Construct wastewater lagoon and septic system for terminal area	354,600	0	45,400	400,000
16. Construct natural gas pipeline to terminal area, 7,400 LF	119,700	0	15,300	135,000
17. Install Lightning Detection equipment, Runway 21	0	0	0	20,000 ⁽¹⁾
18. Expand DPS Hangar, 2,500 SF	0	0	0	125,000 ⁽²⁾
19. Construct National Weather Service Facility, 3,000 SF	0	0	0	750,000 ⁽²⁾
20. Construct apron and relocate 20 tiedowns on the North Apron 2,300 SY	<u>5,100</u>	<u>5,100</u>	<u>103,400</u>	<u>113,600</u>
Subtotal	\$2,333,350	\$670,050	\$927,400	\$4,825,800

Inflation Adjustment: _____ % x \$ 4,825,800 =

⁽¹⁾ These projects are not funded through the AIP program.

⁽²⁾ This project will be privately funded.

Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding

during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I
FY 1993-94 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Funds	\$ _____
 TOTAL	 \$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>1993 Forecasts</u>	<u>1993 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	376,000	_____	_____
Enplanements	63,500	_____	_____
Operations	77,300	_____	_____
Based Aircraft	115	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE I (Continued)
FY 1993-94 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
21. Relocate and install wind/weather instruments, Runway 03-21	\$0	\$0	\$0	\$171,000 ⁽¹⁾
22. Construct ARFF Hangar in North Apron, 3,600 SF	33,100	0	337,300	370,400
23. Install lighted windcone, Runway 03	550	550	11,400	12,500
24. Install REIL, Runway 03	550	550	11,400	12,500
25. Rebuild Shamrell Boulevard and install lighting, 5,000 SY	<u>7,800</u>	<u>7,800</u>	<u>159,400</u>	<u>175,000</u>
Subtotal	\$42,000	\$8,900	\$519,500	\$741,400

Inflation Adjustment: _____ % x \$ 741,400 =

⁽¹⁾ This item is not funded through the AIP Program.

Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding

during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I

FY 1994-95 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Fund	\$ _____
TOTAL	\$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>1994 Forecasts</u>	<u>1994 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	403,800	_____	_____
Enplanements	66,400	_____	_____
Operations	81,800	_____	_____
Based Aircraft	118	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE I (Continued)
FY 1994-95 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
26. Install ASOS equipment (NWS)	\$0	\$0	\$0	\$175,000 ⁽¹⁾
27. Construct FBO Hangar, 10,000 SF	0	0	0	750,000 ⁽²⁾
28. Remove trees that are obstructions to Part 77 imaginary surfaces	<u>550</u>	<u>550</u>	<u>11,400</u>	<u>12,500</u>
Subtotal	\$550	\$550	\$11,400	\$937,500

Inflation Adjustment: _____ % x \$ 937,500 =

- (1) This project is not funded through the AIP program.
- (2) This project is privately funded.

Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding

during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I
FY 1995-96 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Fund	\$ _____
 TOTAL	 \$ _____

As a reminder, airport development should be keyed to demand (**actual activity**) rather than to a specific time frame (**forecast activity**). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>1995 Forecasts</u>	<u>1995 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	430,800	_____	_____
Enplanements	69,500	_____	_____
Operations	86,100	_____	_____
Based Aircraft	121	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE I (Continued)
FY 1995-96 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
29. Construct general aviation parking, Westplex Area, 9,531	\$37,500	\$337,800	\$0	\$375,300
30. Acquire land for runway extension and Building Restriction Line 4.0 acres	5,000	45,000	0	50,000
31. Relocate six Port-a-ports and one 10-Unit shade hangar	<u>12,750</u>	<u>12,750</u>	<u>260,100</u>	<u>285,600</u>
Subtotal	\$55,300	\$395,600	\$260,100	\$711,000
Total Stage I	\$2,808,800	\$2,217,300	\$5,536,700	\$12,553,800⁽¹⁾

Inflation Adjustment: _____ % x \$ 711,400 =

(1) \$1,116,000 of this total is not funded under AIP. \$875,000 is privately funded.

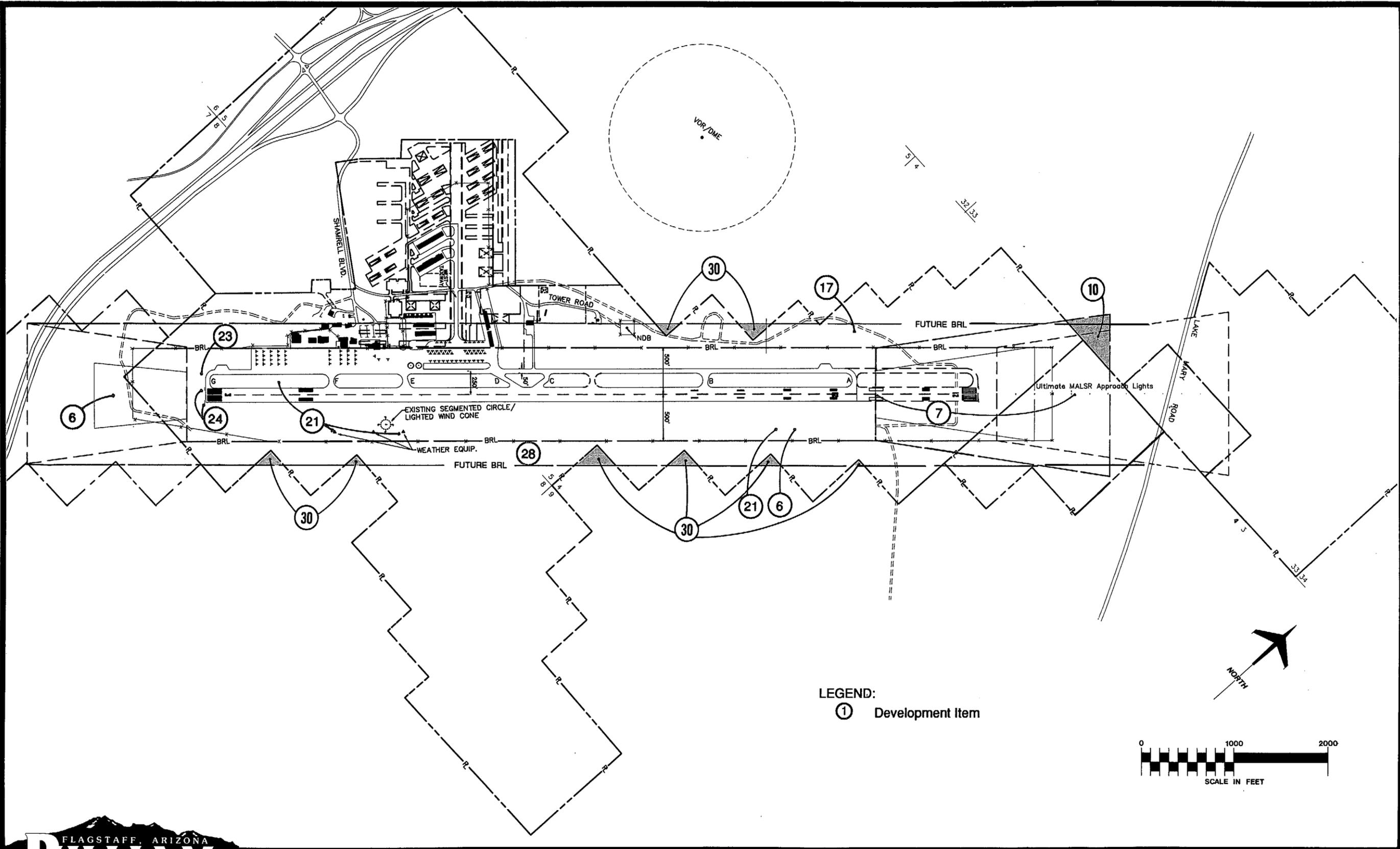
Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

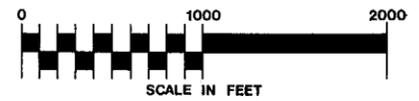
Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding

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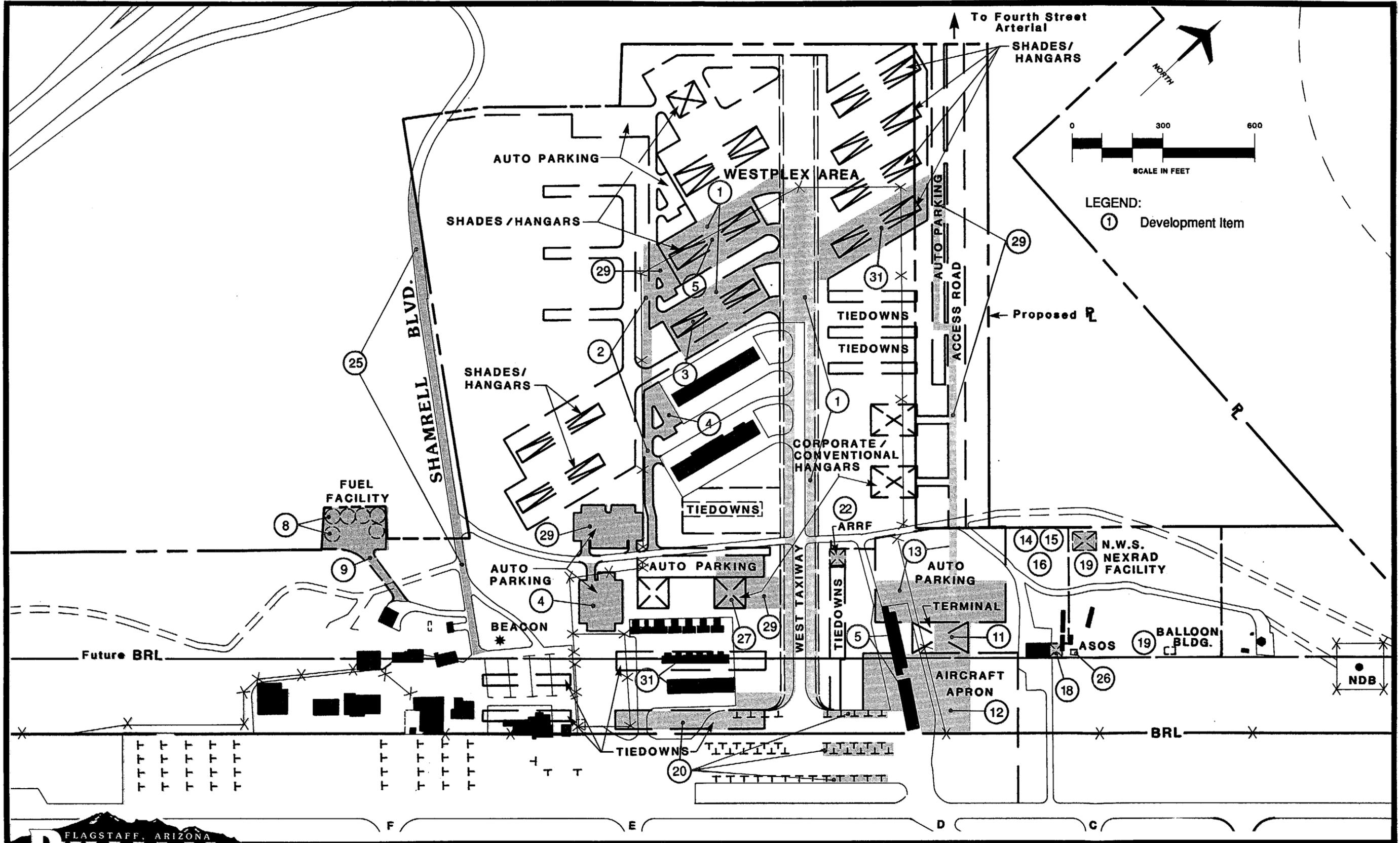
89AP21-8C-11/21/80



LEGEND:
 ① Development Item



06/12/11-08-12-11/21/80



STAGE II

FY 1996-2000 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Fund	\$ _____
TOTAL	\$ _____

As a reminder, airport development should be keyed to demand (**actual activity**) rather than to a specific time frame (**forecast activity**). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>19 Forecasts</u>	<u>19 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	(See Exhibit 8B)	_____	_____
Enplanements	(See Exhibit 8B)	_____	_____
Operations	(See Exhibit 8B)	_____	_____
Based Aircraft	(See Exhibit 8B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE II (Continued)
FY 1996-2000 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
1. Strengthen Runway 03-21 with 2 inches of asphalt, 116,700 SY	\$97,800	\$97,800	\$1,992,500	\$2,188,100
2. Strengthen parallel taxiway and seven connecting taxiways, 48,700 SY	27,200	27,200	554,400	608,800
3. Install Medium Intensity Taxiway Lights, Westplex dual taxilanes	5,800	5,800	117,800	129,400
4. Pavement preservation, West Taxiway, 21,700	7,300	7,300	148,200	162,800
5. Expand apron in North apron and relocate Tiedowns 5,000 SY	9,850	9,850	200,900	220,800
6. Expand apron in Westplex area and relocate south apron T-Hangars	12,300	12,300	250,700	275,300
7. Install two 12,000 gallon fuel storage tanks	150,000	0	0	150,000
8. Expand terminal area auto parking facilities 3,000 SY	3,000	3,000	61,500	67,500
9. Construct new two-lane road from Terminal to 4th Street arterials, 3,000 Sy	8,400	8,400	170,700	187,500
10. Construct additional automobile parking, Westplex Area, 1,700 SY	6,800	61,200	0	68,000
11. Acquire land for Runway 21 extension and RPZ	22,900	205,900	0	228,800
12. Install HIRL, Runway 03-21	<u>13,700</u>	<u>13,700</u>	<u>278,800</u>	<u>306,200</u>
Total Stage II	\$365,050	\$452,450	\$3,775,500	\$4,593,000

Inflation Adjustment: _____ % x \$ 4,593,000 =

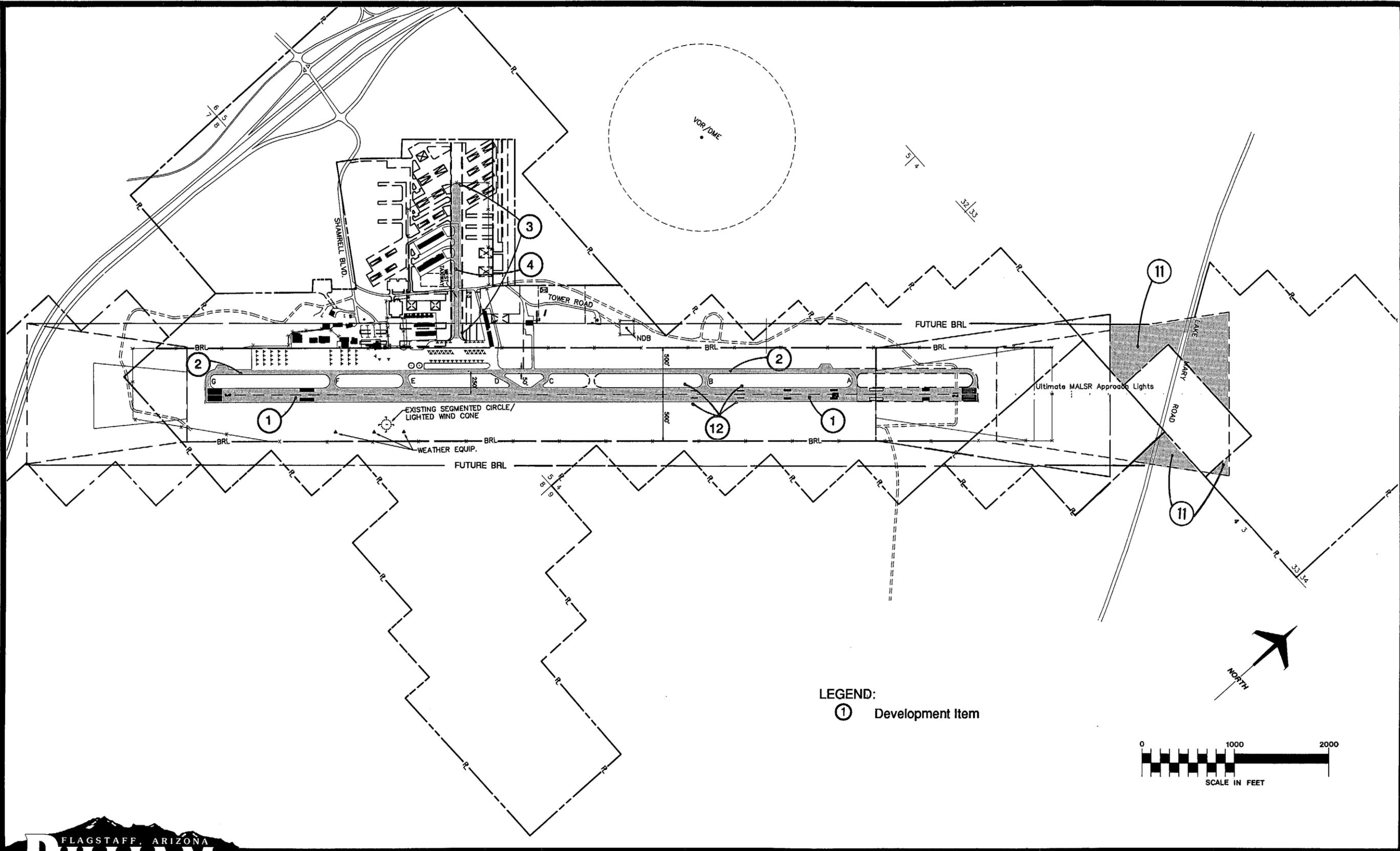
Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding

during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

99AF21-4E-11/21/00

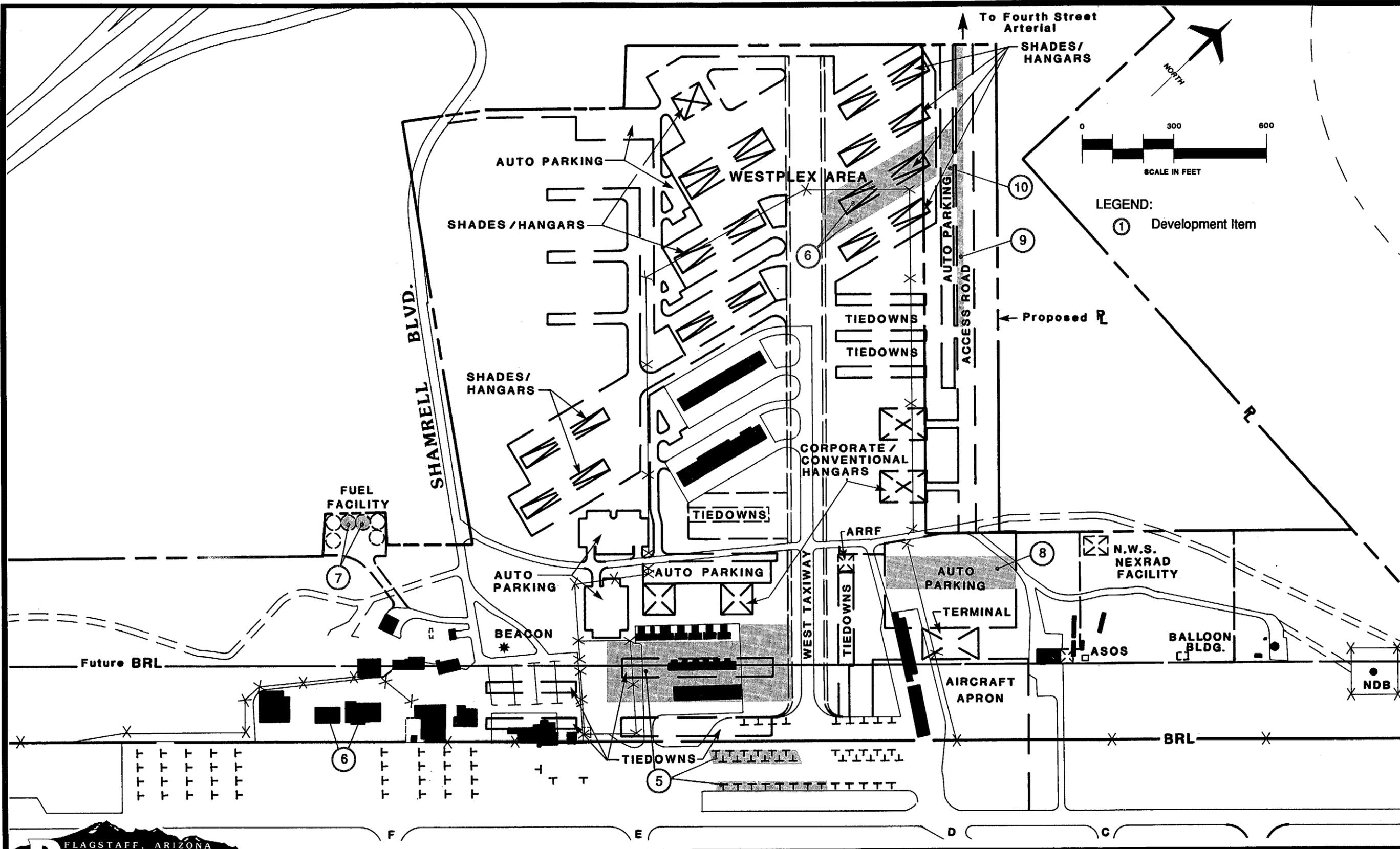


LEGEND:

① Development Item



08/21-8F-11/21/80



STAGE III
FY 2001-2010 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period

on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	\$ _____
Entitlement Funds	\$ _____
Aviation Trust Funds	\$ _____
 TOTAL	 \$ _____

As a reminder, airport development should be keyed to demand (**actual activity**) rather than to a specific time frame (**forecast activity**). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the

first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

<u>Activity</u>	<u>20 Forecasts</u>	<u>20 Levels</u>	<u>Difference</u>
Fuel Sales (Gallons)	(See Exhibit 8B)	_____	_____
Enplanements	(See Exhibit 8B)	_____	_____
Operations	(See Exhibit 8B)	_____	_____
Based Aircraft	(See Exhibit 8B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred

which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

STAGE III (Continued)
FY 2001-2010 Airport Development Program

<u>Development Item</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>	<u>Total</u>
1. Environmental Assessment-Runway 21 Extension	\$4,200	\$4,200	\$85,400	\$93,800
2. Construct two Executive Hangars, Westplex Area, 12,200 SY	21,300	21,300	433,000	727,600 ^Q
3. Relocate Peabody Coal hangar to the Westplex area, (8,500 SF)	35,600	35,600	725,700	796,900 ^Q
4. Relocate FBO hangars (13,486 SF)	0	0	910,350	1,011,500
5. Relocate 36 South apron tiedowns, 13,155 SY	25,100	25,100	511,600	561,800
6. Remove old terminal building (6,800 SF)	5,700	5,700	116,100	127,500
7. Construct additional terminal area auto parking (2,900 SY)	5,100	5,100	104,000	114,200
8. Construct four-lane access road from Terminal to 4th Street arterial	23,450	23,450	478,100	525,000
9. Construct additional exit taxiway, 1,700 SY	4,250	4,250	87,100	95,600
10. Construct additional apron, Westplex area, 24,000 SY	42,900	42,900	874,000	959,800
11. Expand Terminal Building, 5,000 SF	507,800	78,150	195,350	781,300
12. Expand terminal apron, 10,800 SY	27,150	27,150	553,200	607,500
13. Extend dual taxilanes and widen Westplex, 10,400 SY	18,400	18,400	375,300	412,100
14. Construct south taxilanes into Westplex area, 3,500 SY	6,200	6,200	126,300	138,700
15. Pavement Preservation, 500,000 SY	55,850	55,850	1,138,300	1,250,000
16. Construct apron for shade/T-hangars, Westplex, 20,600 SY	36,500	36,500	743,300	816,300
17. Construct additional automobile parking, Westplex area, 6,700 SY	26,400	237,400	0	263,800
18. Construct auto parking access road, Westplex, 3,055 SY	12,000	108,300	0	120,300
19. Install 2, 12,000 gallon fuel storage tanks	150,000	0	0	150,000
20. Construct Runway 21, 1,300 Foot extension, 21,700 SY	54,550	54,550	1,111,500	1,220,600
21. Construct 1,500 foot extension to parallel taxiway 8,333 SY	20,950	20,950	426,800	468,700
22. Relocate MALS-R, Runway 21	16,750	16,750	341,500	375,000
23. Construct four 14-Unit T-Hangars/Shade	448,000	0	448,000	896,000 ^Q
24. Relocate Glidescope antenna, Runway 21	550	550	11,400	12,500
25. Install Runway Visual Range Indicator, Runway 21	700	700	13,700	15,100
26. Relocate VASI-4, Runway 21	550	550	11,400	12,500
27. Acquire land for approach protection, Runway 21, 151 acres	188,700	1,698,000	0	1,887,500
Total Stage III	\$1,738,650	\$2,528,400	\$9,373,400	\$14,441,600^Q
Total Development Program	\$4,912,500	\$5,198,150	\$18,685,600	\$31,588,400^Q

Inflation Adjustment: _____ % x \$ 14,441,600 =

- Notes: (1) These projects partially funded through private investment.
 (2) Total private funding is \$801,150.
 (3) Includes \$1,116,000 not funded under the AIP program.

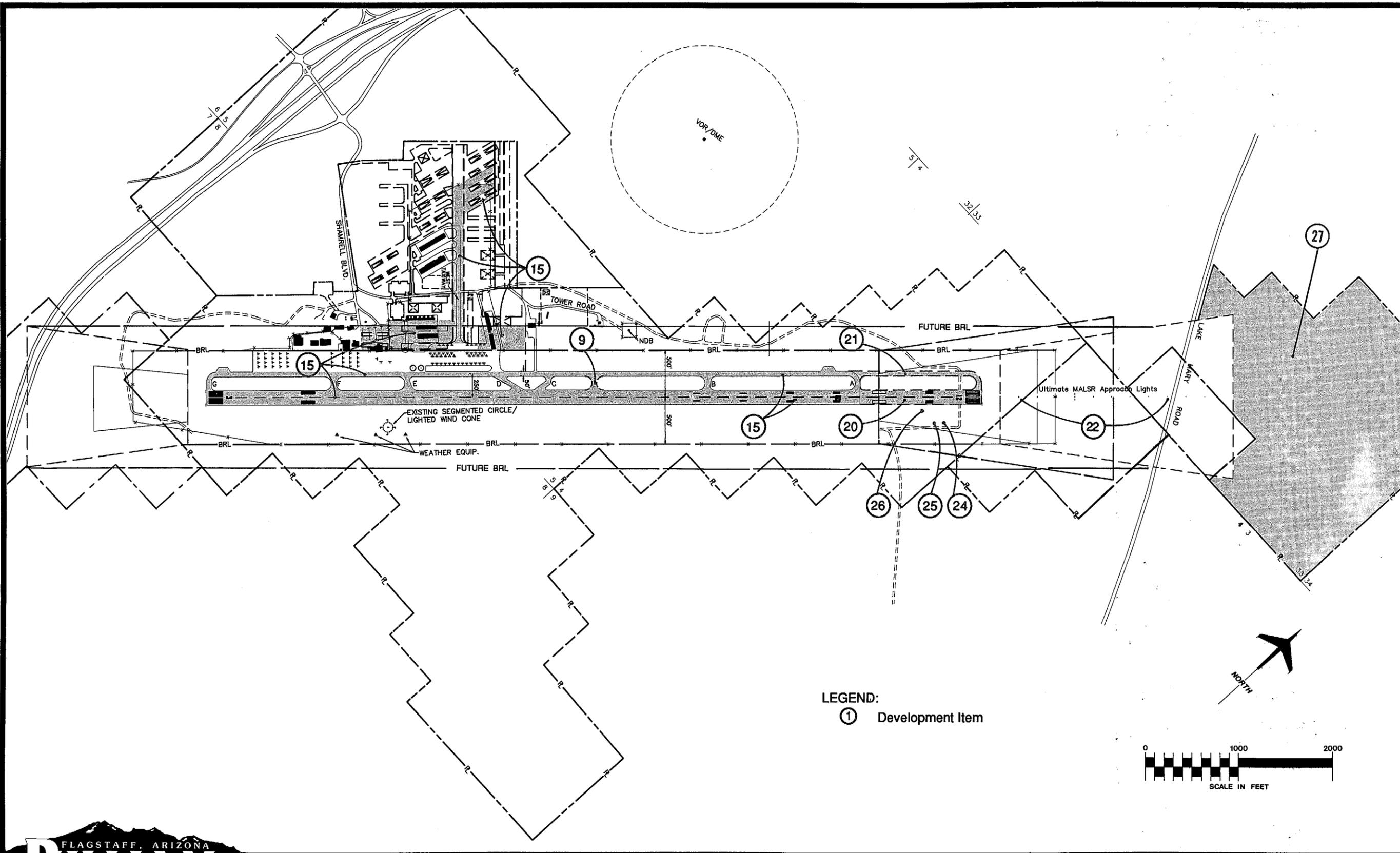
Plus or Minus Other Proposed Development:

1. _____	\$ _____	\$ _____	\$ _____	\$ _____
2. _____	\$ _____	\$ _____	\$ _____	\$ _____
3. _____	\$ _____	\$ _____	\$ _____	\$ _____
4. _____	\$ _____	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____	\$ _____

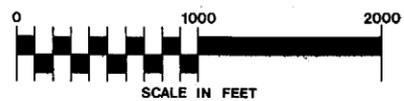
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during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

88MP21-8G-11/21/80



LEGEND:
 ① Development Item



06/12/11-04-11/21/06

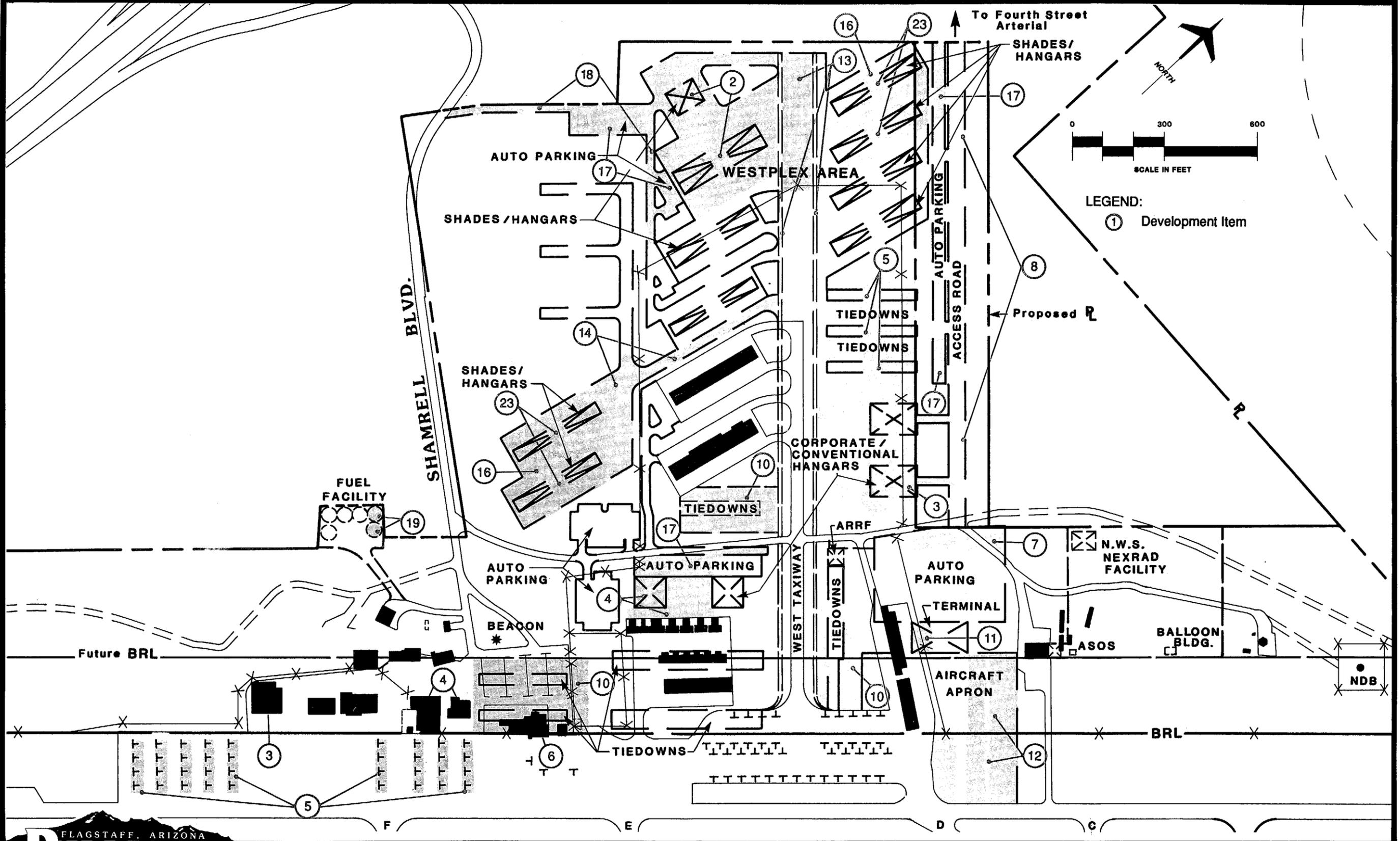


Exhibit 8H
 STAGE III LANDSIDE DEVELOPMENT PROGRAM
 (2001-2010)