

**CITY OF GOODYEAR
COUNCIL ACTION REPORT**

SUBJECT: Recommendation to Phoenix City Council to approve the Phoenix Goodyear Airport Master Plan Update	STAFF PRESENTER: Joe Schmitz, Long Range Planner CASE NUMBER: None OTHER PRESENTER: Randy Payne, Project Manager, Phoenix Aviation Department
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PROPOSED ACTION:

Recommend to the Phoenix City Council approval of the Phoenix Goodyear Airport Master Plan Update presented at the February 12, 2018 City Council meeting.

BACKGROUND AND PREVIOUS ACTIONS:

The FAA recommends that airport owners update their airport master plans periodically (every five to seven years) to document the existing and future operational capabilities of the airport, enhance safety, and identify needed facilities and capital improvements. To be eligible for FAA Airport Improvement Program (AIP) funding, the FAA also recommends that the Airport Layout Plan (ALP) be updated periodically to reflect compliance with FAA airport design criteria and any changes to existing and proposed facilities. The Phoenix Goodyear Airport Master Plan Update was initiated to address these goals and is being prepared for the airport by Kimley-Horn and Associates and additional sub consultants. The current Airport Master Plan was approved in 2008.

STAFF ANALYSIS:

The Phoenix-Goodyear Airport is a general aviation reliever airport as defined by the FAA. As such, the airport does not provide commercial passenger air service. The role of the airport as a general aviation reliever airport is not expected to change during the 20-year planning horizon.

Revised aviation forecasts by the airport's consultant and FAA-approved forecasts of aviation demand for the Phoenix Goodyear Airport, indicate that the airport should be planned to accommodate about 200,000 annual operations (down substantially from the 400,000 that had been projected in the current Airport Master Plan) and around 315 based aircraft (also down from the 600 that had been projected in the current Airport Master Plan).

In 2016, the base year for this master plan, the airport experienced almost 124,000 operations and had approximately 222 based aircraft. The capacity analysis that was prepared for the airport concluded that operational demand would reach 200,360 around the year 2036, which is 73% of the Annual Service Volume of 275,590 operations, i.e., the current capacity of the

airport. The new forecasts (in the table below) suggest that the airport's capacity will not be reached within the 20-year planning horizon.

	Itinerant Operations			Local Operations		Total Operations
Year	Air Carrier	GA	Military	GA	Military	
2016	108	45,941	3,072	73,090	1,183	123,394
2021	336	48,049	3,091	79,767	1,103	132,346
2026	350	50,363	3,091	85,122	1,103	140,030
2031	364	52,356	3,091	113,548	1,103	170,462
2036	379	53,759	3,091	142,028	1,103	200,360
Average Annual Growth 2016-2036	6.47%	0.79%	0.03%	3.38%	-0.35%	2.45%

The FAA recommends planning for additional capacity enhancements when the ratio of aircraft operations to Annual Service Volume reaches 60 percent and implementing capacity enhancements when this ratio reaches 80 percent. While it is projected that a parallel runway will not be required during the 20-year planning horizon of this Master Plan Update, it is recommended that planning for a parallel runway begin and space be preserved for a parallel runway which would increase airfield capacity.

The current Airport Master Plan recommended a 4,300-foot long by 75-foot long parallel runway located 700 feet east of Runway 03-21, as shown on the attached exhibit from the 2008 Airport Master Plan. However, a parallel runway 5,000 feet in length in this location would require:

1. Relocation of existing T-hangars and the airport traffic control tower (ATCT);
2. Land acquisition or easements for portions of the runway protection zone (RPZ) that extend off-Airport property; and,
3. Relocation of MC 85 and adjacent Union Pacific Railroad line.

It would also inhibit potential development near existing facilities and tenants. Based on these potential impacts, development of a parallel runway east of existing Runway 03-21, was re-evaluated, and two additional alternative locations were identified on the west side of the airfield for a runway which would be 5,000 feet in length and 75 feet in width and could accommodate all current training activities and some of the MRO operations. The FAA design standards require parallel runways to be separated by a minimum of 700 feet (runway centerline to runway centerline) to allow for simultaneous Visual Flight Rule operations. These new alternatives

(referred to as “Alternative 1 – West Side – North” and “Alternative 2 – West Side – South”) were then compared to the location on the east side of the runway in the current Airport Master Plan, as well as to a “No Build” Alternative, using the following criteria:

1. Satisfying forecasted demand;
2. Minimizing environmental impacts;
3. Facilitating safety;
4. Enhancing revenue and future development;
5. Improving airspace efficiency;
6. Minimizing impacts to the community; and,
7. Minimizing impacts to existing facilities.

The result of this evaluation identified “Alternative 2 – West Side – South” as the preferred alternative. This analysis was presented to the Planning Advisory Committee and Technical Advisory Committee that were formed to provide structured input to the planning process, and both Committees recommended Alternative 2 as the preferred alternative. It should be noted that while the aviation demand forecast suggests that a second runway will not be needed within the 20-year planning horizon, the timing of design and construction will be driven by the actual volume of aircraft operations. The new Airport Master Plan preserves space for a parallel runway and initially will be developed with a second taxiway that could be converted to a runway when needed.

In addition to identifying the preferred parallel runway alternative, the consultant calculated the facility needs for the planning period and worked with the Planning and Technical Advisory Committees to identify the best development alternative for future landside facilities, which include additional aircraft hangars and other aviation-related facilities. The landside development recommendations include relocating some of the existing T-hangars to the south hangar apron to provide about 21 acres for future apron expansion for the Fixed Base Operator and Maintenance and Repair Operations. It was determined that expansion of the FBO at its current location is more logical since the FBO recently recommitted to this location by adding onto the existing facility. The plan also recommends expanding the apron at the flight school by 3 acres and providing an additional 27,000 square feet of conventional hangars for corporate aircraft. By selecting Alternative 2 for the second runway, there still will be about 47 acres remaining in the northwest corner of the airport for development by aviation businesses or another FBO. Access to this area could be provided at the intersection of Yuma Road and S. 143rd Avenue and/or via a roadway extended westward to Bullard Avenue.

To implement the Master Plan, a listing of capital improvement projects is included in the Airport Master Plan Update and is broken down into three planning horizons of Near Term (0-5 years); Mid-Term (6-10 years), and Long Term (11-20 years). This capital needs plan is based on the demand forecasts and facility needs analysis and will be revisited if significant changes to those forecasts occur or, at a minimum, when the next Airport Master Plan Update is conducted five to seven years from now. The total estimated cost for all of the recommended improvements is about \$145,480,000, which does not include the cost associated with obtaining aviation easements for portions of the north and south Runway Protection Zones that extend off airport property. These costs would be borne by the airport but have not yet been determined. The proposed projects are listed in the tables below by phase and indicate if the project is eligible for federal and state funding. Exhibits are also attached showing the location of the proposed projects.

20-Year Airport CIP

	Project Cost (a)
Near-term (FY 2019-2023)	
Taxiway A rehabilitation and strengthening	\$6,938,000
Drainage improvements (ADOT)	\$3,402,000
Airport perimeter road improvements: Phase I	\$80,000
Airport perimeter road improvements: Phase II	\$160,000
Helicopter landing area designations	\$31,000
Apron construction: Phase I	\$8,581,000
East airfield access road construction and vehicle parking construction	\$2,426,000
Infield area paving	\$484,855
Public access road rehabilitation	\$492,000
Utilities inventory	\$496,000
Subtotal	\$23,090,855
Mid-term (FY 2024-2028)	
Apron construction: Phase II	\$15,252,000
Pavement rehabilitation: Phase I	\$1,537,000
Pavement rehabilitation: Phase II	\$9,795,000
Terminal vehicle parking rehabilitation and construction	\$707,000
South aircraft parking apron construction and wash rack relocation	\$8,125,000
North T-hangar relocation and vehicle parking construction	\$3,512,000
Taxiway B construction: Phase I- NEPA documentation and design	\$392,000
Taxiway B construction: Phase II	\$11,237,000
Airport master plan update	\$822,000
RPZ land use control	\$ TBD
Connector taxiway rehabilitation: Phase I	\$852,000
Subtotal	\$52,231,000
Long-term (FY 2029-2038)	
Connector taxiway rehabilitation: Phase II	\$1,848,000
North T-hangar pavement rehabilitation	\$16,659,000
Pavement rehabilitation Phase I (Private Investment)	\$24,361,000
Pavement rehabilitation Phase II (Private Investment)	\$5,302,000
Pavement rehabilitation Phase III (Private Investment)	\$3,692,000
Pavement rehabilitation Phase IV (Private Investment)	\$317,000
West Airport public access road construction	\$662,000
Runway 3-21 rehabilitation	\$9,473,000
Runway 3-21 runup area rehabilitation	\$268,000
Conventional aircraft storage hangar construction	\$2,018,000
Flight school aircraft parking apron construction	\$2,576,000
West Airport access road construction	\$1,379,000
East airfield access study	\$128,000
User maintenance bay construction	\$1,158,000
NEPA/design for taxiway-runway conversion	\$317,000
Subtotal	\$70,158,000
Grand Total	\$145,479,855

Note: (a) Project costs escalated to year of construction assuming an annual rate of 5.0%.

Sources: City of Phoenix, Kimley-Horn.

Construction of these improvements will be determined by the demand for the use. The actual budgeting and funding decisions for all City of Phoenix projects will be made on a year-by-year basis during the City of Phoenix's annual budget preparation.

FISCAL ANALYSIS:

The City of Goodyear is not responsible for any of the costs associated with the improvements recommended in the Airport Master Plan Update. However, the City of Goodyear would directly benefit from taxes paid on construction contracts and indirectly benefit from increased business activity at the airport.

RECOMMENDATION:

Staff recommends that the City Council recommend to the Phoenix City Council approval of the Phoenix Goodyear Airport Master Plan Update presented at the February 12, 2018 City Council meeting.

ATTACHMENTS:

1. Airport Master Plan Update Exhibits
 - a. 2007 Airport Master Plan Concept – Parallel Runway – East Side
 - b. 2018 Airport Master Plan - Parallel Runway– Alternative 1 – West Side - North
 - c. 2018 Airport Master Plan - Parallel Runway– Alternative 2 – West Side - South
 - d. 2018 Airport Master Plan - Parallel Runway– Preferred Alternative
 - e. 2018 Airport Master Plan – Recommended Development Plan Phase I
 - f. 2018 Airport Master Plan – Recommended Development Plan Phase II
 - g. 2018 Airport Master Plan – Recommended Development Plan Phase III
 - h. 2018 Airport Master Plan – Recommended Land Use Plan