



## PhxMesa **Gateway**

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### **Phoenix-Mesa Gateway Airport Authority Board of Directors**

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Hon. Scott Smith, Mayor, City of Mesa (Secretary) Hon. Gail Barney, Mayor, Town of Queen Creek (Treasurer) Councilmember Thelda Williams, City of Phoenix (Past Chair)

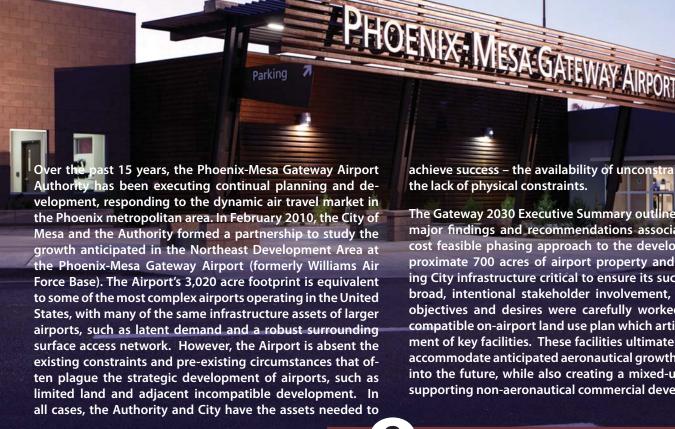
### **Key Stakeholder Representatives**

Phoenix-Mesa Gateway Airport Authority City of Mesa, Engineering City of Mesa, Transportation and Planning City of Mesa, Economic Development City of Phoenix, Department of Aviation Arizona Department of Transportation Maricopa Flood Control Salt River Project Southwest Gas

**Qwest Communications** Allegiant Air **DMB** Associates **Levine Properties** Paragon **Park Properties** Kitchell **Grubb Ellis** Beus Gilbert, PLLC

Salt River Project **AECOM** Aztech Engineering Dibble Engineering

### Introduction



Parking

achieve success - the availability of unconstrained land and the lack of physical constraints.

The Gateway 2030 Executive Summary outlines the process, major findings and recommendations associated with the cost feasible phasing approach to the development of approximate 700 acres of airport property and the supporting City infrastructure critical to ensure its success. Though broad, intentional stakeholder involvement, development objectives and desires were carefully worked into a fully compatible on-airport land use plan which articulates placement of key facilities. These facilities ultimately are sized to accommodate anticipated aeronautical growth over 20 years into the future, while also creating a mixed-use campus of supporting non-aeronautical commercial development.

### **Vision**

Future opportunities for the Mesa Gateway area are directly tied to the success of assets at the Airport. The establishment of Phoenix-Mesa Gateway Airport as the second major airport serving the greater Phoenix metropolitan area, aimed at complementing rather than competing with Sky Harbor International Airport, has set an industry example for regional air

transportation in the U.S. The objective of supporting both operating and ancillary development potential on and off-airport, affords a means for the Airport to become an integral part of future communities occupying the Mesa Gateway area. Better articulated, the vision that drives Gateway 2030 is:



"Mesa Gateway will be an internationally recognized destination for those looking for a sustainable place in which to live, work, learn and recreate. It will provide industries with an economically efficient business climate and its workforce and residents with access to the global resources desired of a knowledge-based economy."

## Goals & Objectives

The Gateway 2030 Plan analyses and recommendations were goal driven, which served to ultimately establish screening criteria for alternative selections and refinement. Further, action-oriented and attainable objectives established policy and planning guidelines from the standpoint of the stakeholder body and aided in alternative evaluation. The specific objectives influencing the Plan are associated with four distinct goals categories:

- High visibility with provisions for branding, special features & markers, corporate amenities;
- Sustainable concepts built into development (energy, e.g. Biofuel, solar);
- Industry leading site design and construction techniques encouraged for new development; and
- Discourages residential development in proximity of the Airport.

### **Surface Infrastructure**

- Provide balanced travel routes focused on primary services for internal trips, through travel, specific trips to the Airport, and amenities;
- Ensure easy access with multiple layers of transportation access and modes;
- Multi-modal system establishment, that is pedestrian and bicycle friendly;
- Penetrate SR-24 corridor (no negative impacts on regional freeway system);
- Provide suitable Ray Road / Ellsworth Road area employment center connections to the Airport;
- Adequately serve surrounding private properties;
- Easy / clear / communicative wayfinding and branding;
- Prioritized plan for infrastructure; and
- Long-range utility planning.

### **Economic Development**

- Proactive economic development efforts to maximize opportunities – both Airport and private;
- Boundary-less growth that is flexible between Airport / community;
- Quality, well-rounded destination development with convention facilities, hotels, multi-story offices, national attractions, and light industry;
- Urban center, airport-oriented employment villages that are pedestrian friendly;
- Premier / diverse job center for east valley with high wage strategy;



### **Aviation / Airport Related**

- Support and advance the vision for the Airport;
- Preserve the ultimate Airport capacity;
- Appropriate non-aeronautical land uses that embrace aviation growth goals;
- Keep diverse travel profile in mind leisure primary and business secondary;
- Integrated parking solutions that maximize revenue and accommodate
- peak periods;
- Fundamental implementation plan supporting staged growth; and
- Pursue myriad funding sources, including Public/Private Partnership (PPP).

### Lifestyle Oriented

- Clear, strong identity a positive Sense of Place & Com-
- Stress free, comfortable, non-intimidating, fun place to
- Livable community that is a vibrant, active hub of activity;
- Development that places value on green space and water features;
- Ensure that collaboration between communities & Airport continues;
- Remain cognizant of aviation noise impacts on community; and
- ASU plans integrated into region and business development plan



## **Key Past Studies**

- Mesa Gateway Strategic Development Plan (December 2008)
- Airport Master Plan (December 2008)
- West Terminal Expansion Study (September 2008)
- Parking Supply and Demand Analysis (April 2008)
- Regional Transit Plan (ongoing)
- State Route 24 Study (ongoing)

# **Aviation Forecasts and Programming**

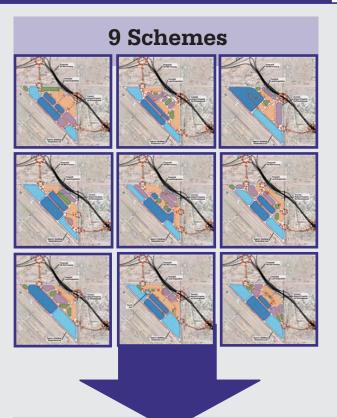
Aviation activity forecasts provide input for the assessment of airport facility program sizing, evaluation of airport development alternatives, and the formulation of information needed to assess the type and timing of new airport facilities. Utilizing short, intermediate, and long range planning horizons, forecasts aid in the evaluation of potential environmental impacts, financial impacts, and other analyses necessary in the preparation of the Plan. The programming requirements associated with the airside, terminal and concourses, landside, and surrounding surface transportation elements were estimated through the year 2030 and in many cases, beyond.). Numerous issues affect how efficiently a certain level of activity is accommodated within a system or facility, namely, acceptable levels of service.

For purposes of the Plan, key activity levels, or "demand triggers", were initially defined, evaluated, and later updated, to establish a framework for phased development. These activity levels are defined by passenger enplanement levels and in their final form are represented as:

- 1.5 million annual enplanements (Phase I)
- 2.2 million annual enplanements (Phase II)
- 5.0 million annual enplanements (Phase III)
- 10.0 million annual enplanements (Phase IV Ultimate)



## **Alternatives Development**



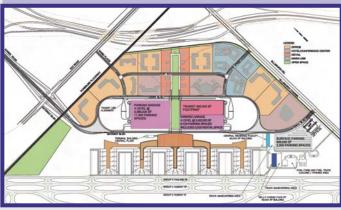
The Alternatives Development process, as illustrated in the adjoining graphics, was iterative in nature, and included extensive evaluation, screening, and refinement of various alternatives to lead to a single recommended development alternative for the Airport and support infrastructure. Initially nine "bubble diagram" schemes were crafted through a collaborative charrette with the broad stakeholder group. These "bubble diagram" schemes were evaluated against the Plan's goals and objectives, resulting in three "illustrative" concepts. The "illustrative" concepts were further detailed, tested and adjusted for more exacting evaluation to arrive at a single preferred alternative, which would later be refined through modeling, right-sizing, and placement for site-specific constraints. The final recommended "refined" alternative is illustrated on the following page.

As background, each "bubble diagram" scheme contained a unique terminal area in various orientations, which were subsequently organized into groups based upon similar characteristics. These schemes developed a range of responses to each future programming requirement including ground transportation, aviation-related support areas, parking, terminal access roadway improvements, regional road access and non-aeronautical related commercial development. The ability of each scheme, concept and final alternative, to achieve the plan objectives, was ultimately the determining factor in the alternative evolution.

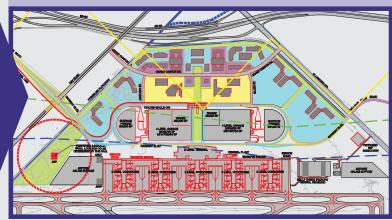
## 3 Concepts

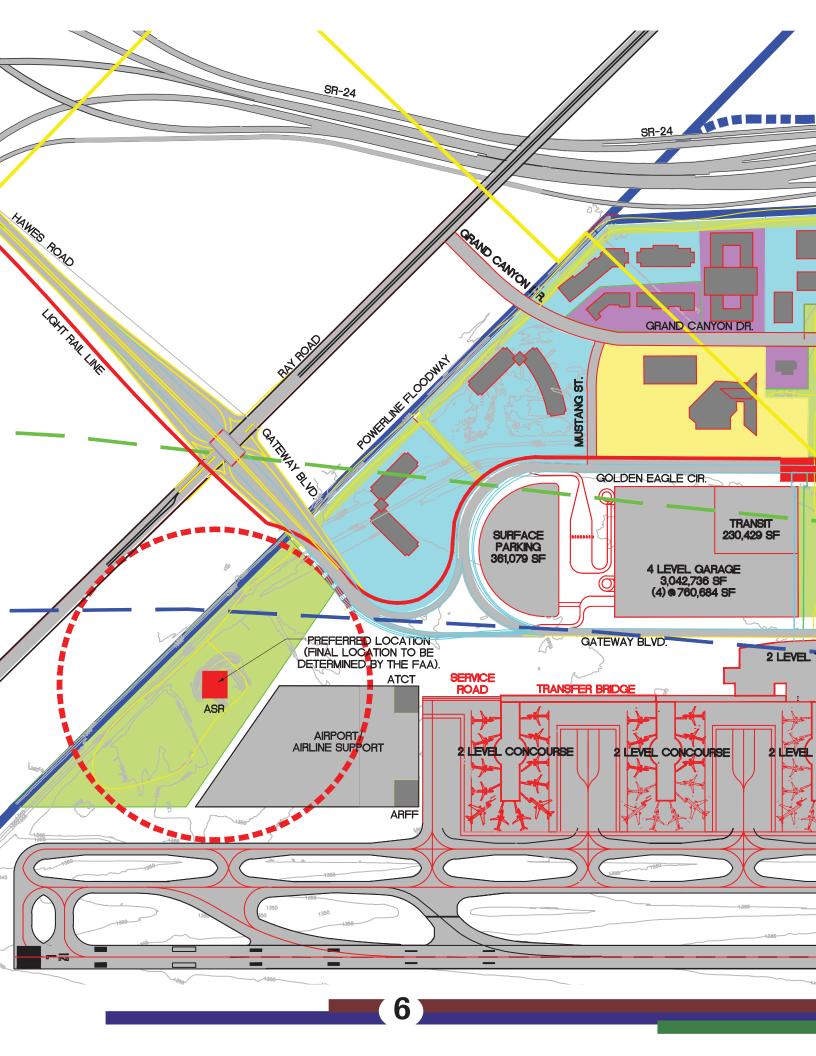


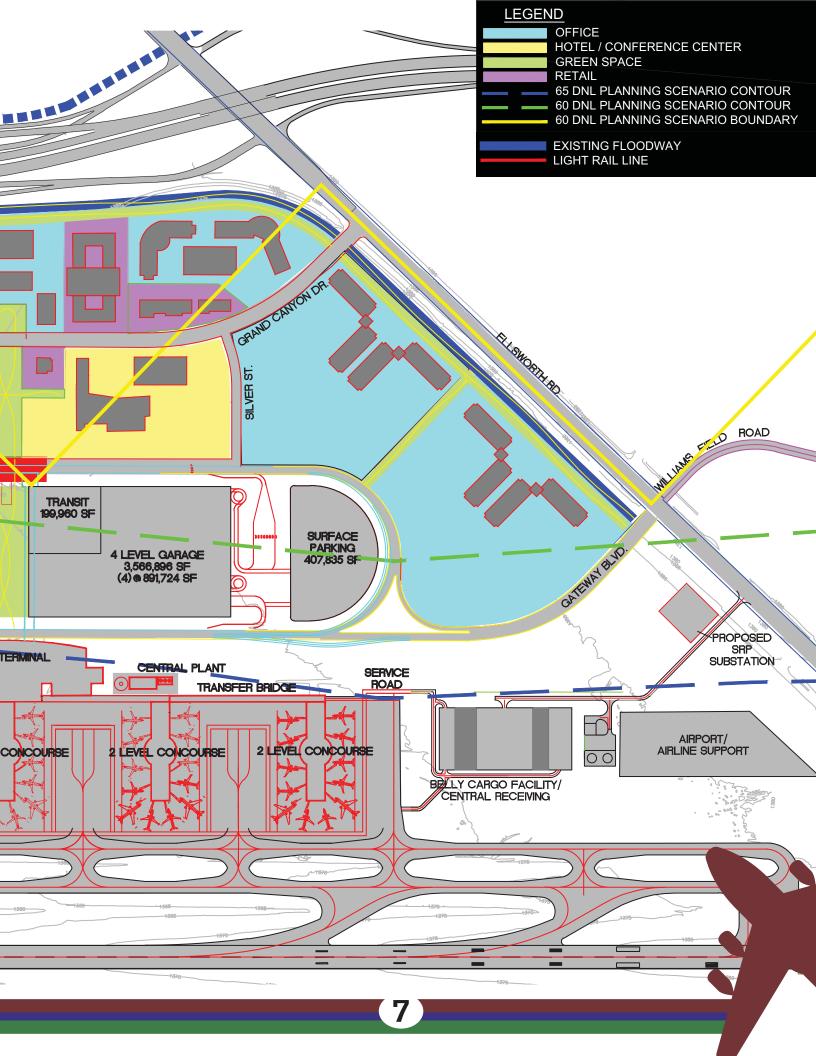
### 1 Preferred Alternative



## **Refined Alternative**







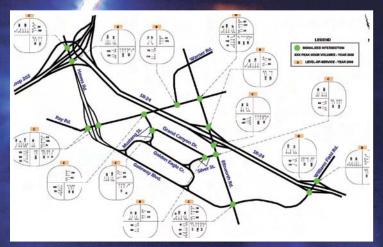
## **Supporting Infrastructure**

Infrastructure needs for the Airport include regional roadway improvements (new roadways, new interchanges and intersections, lane capacity, interchange and intersection improvements, and bridge structures) as well as new bike lanes, pedestrian pathways, and upgraded or new utilities.

Numerous roadway improvements are planned to accommodate the growth in the fast growing region and are included in the MAG Regional Transportation Plan (RTP) and the City of Mesa's Capital Improvement Plan (CIP). The major roadways that border the Northeast Development Area include Ray Road, Hawes Road, Williams Field Road, Ellsworth Road, the L202 Santan Freeway, and the planned SR-24 Gateway Freeway. These roadways will be part of the critical infrastructure needed to feed the Airport, its commercial development areas, and the surrounding development.

The L202 Santan Freeway provides regional access to the Airport with a traffic interchange located at Hawes Road which provides access from the north. The SR-24 Gateway Freeway will provide regional access to the Airport with proposed traffic interchanges located at Ellsworth Road and Williams Field Road (reference the exhibit shown above right).

The new infrastructure that is needed for the success of the Airport and the surrounding development was validated through detailed traffic modeling and analysis, both at a macro level as well as a micro level, utilizing acceptable levels-of-service. The image (right) is representative of the



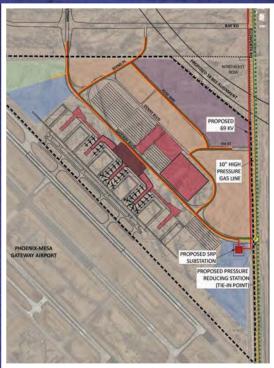
modeling analysis intersection for capacities and performance

A preliminary utility plan was also developed for the Northeast Development Area, which addresses existing and proposed utility improvements in the surrounding area in concert with the recommended "refined" alternative. The Plan includes proposed municipal utility services and features to provide infrastructure systems for: water distribution, wastewater collection, design for drainage collection and conveyance, electric service, gas service, and communications (telephone, cable & fiber optic). A representation of the water distribution plan and the dry utilities plan is illustrated to the right.





Preliminary Water Distribution Plan



Preliminary Dry Utility Plan

## Non-Aeronautical Development

The Northeast Development Area will have frontage along Ellsworth Road and Ray Road, and will likely be adjacent to the planned SR-24 freeway stemming from the Loop 202 Santan Freeway. These attributes, combined with planned surrounding development and the potential high passenger activity volumes in the terminal area, make the site extremely attractive to a number of non-aeronautical commercial land uses in the future. A review of land use patterns on and around airports

throughout the U.S. reveals that the planning, marketing and development of airport property is a function of market demand in the surrounding region. These factors all bode very well for the Gateway 2030 plan as it relates to commercial development. It is recommended that the Airport strategically and sequentially develop the land uses below (examples shown), keeping pace with regional demand.



# Office/ Light Industrial



# Hotel / Conference Center



# Retail / Mixed Use



Open / Green Space

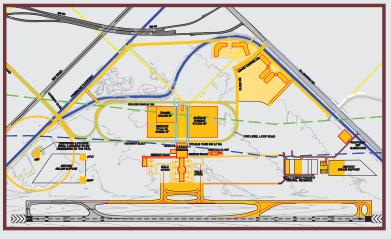
## **Development Phasing**

The implementation associated with the Gateway 2030 plan for the Northeast Development Area involves considerations of phasing, costs and funding of the proposed terminal, associated airfield, support/ancillary facilities, ground access projects, and site development/marketing of commercial prop-



a prudent and implementable plan could be advanced by the Authority and the City.

erties. Preliminary costs were developed for each major project,



0-5 years
1.5 million annual
enplanements

by phase, in 2010 dollars. The

phases of development illus-

trated below, provide a general

overview of the sequencing of

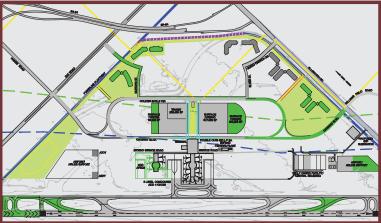
projects by major time period

or associated activity level. The

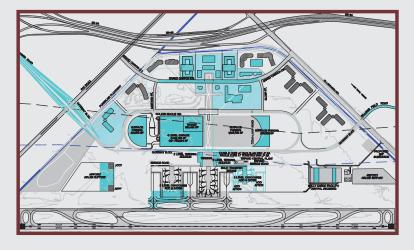
depicted phases were tested

for financial feasibility and re-

fined as needed to ensure that



6 - 10 years
2.2 million annual
enplanements



11 - 20 years5 million annual enplanements

## **Costs and Funding**

Preliminary costs were developed for each major element, by phase, in 2010 dollars. Subsequently, these amounts were escalated for inflation based on the estimated timeframe of construction. The anticipated development costs over the 20-year planning period is approximately \$1.463 billion, as shown in

the both tables below. Not included in the tables are funds required for the full build-out of revenue producing, aviation-related commercial development adjacent to the new terminal area, some of which may be well beyond the 20- year planning horizon.

	AREA		EST. TOTAL IN FUTURE \$		PHASE II 2019-2023		PHASE III 2024-2034	
Airfield Support	\$	190,633,007 4,919,358	\$	84,042,645 2,005,810	\$ 56,738,357 1,007,680	\$	49,852,005 1,905,868	
Parking Roadway Terminal	\$ \$ \$	418,831,317 170,348,875 494,697,632	\$	5,265,417 40,961,269 173,958,072	\$ 2,065,688 19,655,345 29,760,643	\$	411,500,212 109,732,262 290,978,916	
Commercial Other	\$	4,054,615 179,572,622		1,168,305 37,303,696	1,164,235 34,636,090		1,722,076 96,864,701	
	TOTAL ALL PROJECTS \$	1,463,057,426	\$	344,705,213	\$ 145,028,038	\$	962,556,039	

Sources of potential funding considered during the financial feasibility analysis and included in the Plan are as follows:

- Federal Airport Improvement Program (AIP) grants through entitlement and discretionary allocations
- Military Airports Program (MAP) grants
- Other Federal Grants such as the Federal Highway Administration (FHWA) and Federal Transit Administra-

tion (FTA)

- Arizona Department of Transportation (ADOT) grants
- Municipal Sponsors such as the City
- Passenger Facility Charges (PFCs)
- Internal Funds
- Bond Proceeds

				Phase I		Phase II		Phase III	
TOTAL ALL FUNDING		Total		2014-2018		2019-2023		2024-2034	
Federal AIP	\$	\$	348,353,512	\$	111,937,188	\$	86,805,725	\$	139,380,870
Other Federal	\$	\$	76,656,994	\$	18,432,571	\$	8,844,905	\$	49,379,518
State (ADOT)	\$	\$	9,069,483	\$	2,848,001	\$	2,284,361	\$	3,667,918
Municipal Sponsor	\$	\$	86,411,907	\$	20,733,429	\$	11,008,274	\$	54,401,000
PFC Paygo	\$	\$	41,274,957	\$	12,177,065	\$	-	\$	29,097,892
PFC Bonds	\$	\$	100,236,571	\$	47,330,165	\$	23,808,515	\$	29,097,892
Airport Bonds	\$	\$	663,815,036	\$	96,689,442	\$	6,837,799	\$	560,287,796
Paygo	\$	\$	137,238,966	\$	34,557,352	\$	5,438,459	\$	97,243,155
TOTAL ALL FUNDING	Ç	\$1,4	63,057,426	\$	344,705,213	\$	145,028,038	\$	962,556,039

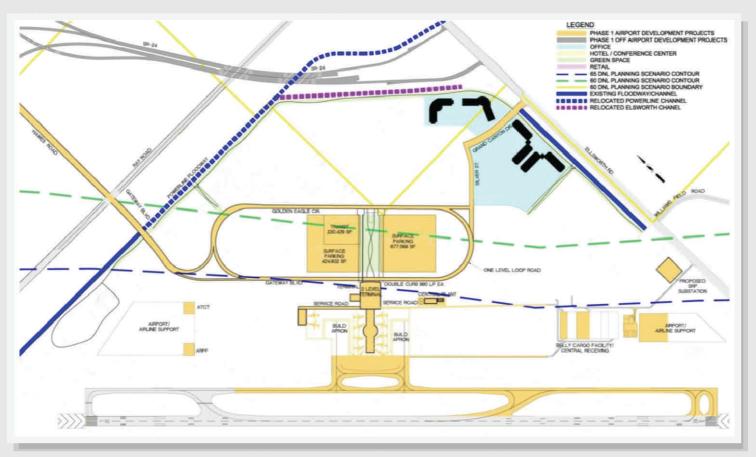
## **Economic and Fiscal Impact**

The commercial component of the Gateway 2030 plan will be comprised of privately-owned retail, office, and hotel buildings that are located on airport property under long term land lease agreements. The economic and fiscal impacts focus on those impacts derived from (a) construction of the projects, and (b) ongoing operations at the property once completed. Regional implications of these activities were considered in terms of three basic measures: output, earnings, and employment.

The total economic and fiscal construction related impacts are estimated at \$730.6 million and \$5.5 million, respectively. Meanwhile the total economic and fiscal impacts associated with ongoing operations is approximately \$1.032 billion and \$5.8 million at full build-out.



# Gateway 2030 - Phase One



Phase One of Gateway 2030 should be programmed to accommodate 3.0 million passengers. This phase will serve to establish operations on a previously undeveloped area of the Airport, therefore requiring some areas to be larger than those programmed in the facility requirements section of the plan, in order to establish basic functions and support facilities. The major components of Phase I include:

### **Airfield**

In order to provide suitable airfield access for the proposed new air carrier terminal, Phase One encompasses the development of a full parallel Group V taxiway northeast of Runway 12L-30R, a Group IV access taxilane and an apron edge taxilane. The development of these airfield assets, along with an apron capable of accommodating Group III and IV aircraft on a regular basis, will support the proposed air carrier operations.

### **Terminal Building**

The development of an approximate 300,000 square foot terminal building will be required in order to accommodate the forecast 3,000,000 annual passengers at a level of service desired by the Airport Authority. The terminal building will be located midfield of Runway 12L-30R and will be constructed as a pier terminal in concept. The building will include a ticketing/check-in area of approximately 8,000 square feet, an approximately 41,000 square foot baggage claim area, and 20,000 square feet of concessions space. In addition, the building will be constructed to support the following functional areas:

- Airline Operations 21,457 square feet
- Gate Facilities 27,622 square feet
- Rental Car Counters 4,379 square feet
- Public Waiting Lobby 16,315 square feet
- TSA Security Areas 15,107 square feet
- Restrooms 6,118 square feet
- Administrative Offices/Conference Rooms -15,010 square feet
- EDS Outbound Baggage Screening 19,320 square feet

### Gates

This phase will include the development of 14 gates that will be oriented in order to accommodate 12 Group III aircraft and two Group IV aircraft.

### **Access Roadways/Terminal Curb**

The proposed terminal building will be served by a departures curb that measures approximately 830 feet in length and an arrivals curb that measures 969 feet in length. The curb fronts will be accessed from the proposed Gateway Boulevard by three through lanes and the development of a loop road northeast of the proposed terminal building. The loop road will be served by new roadway access from Ellsworth Road via Grand Canyon Drive and Ray Road/Hawes Road. This newly developed access will not only be crucial for the development of the proposed terminal building, but also for development of the planned office, retail, and hotel space northeast of the planned terminal building.

### **Auto Parking**

The relocation of the air carrier operations from the west side of the Airport to the east side will require the construction of 3,300 patron auto parking stalls, 550 employee parking stalls and 525 rental car ready/return spaces. These parking requirements will be served by the development of surface parking facilities that have the ability to be expanded vertically, located within the new loop road.

### **Infrastructure Improvements**

In order to provide a self sufficient terminal area, this phase will also require the establishment of relocated and expanded utilities (e.g., storm water collection and conveyance, water lines, electrical, gas, sanitary sewer system, etc.), service road segments, and perimeter fencing.

### **Ancillary/Support Facilities**

In order to provide a self-sufficient area northeast of the existing airfield, the development of support facilities is necessary during Phase One. It is recommended that the belly cargo facility be developed to process, sort, and distribute cargo items in a timely fashion. It should be co-located with the central receiving facility, south of the proposed terminal building and easily accessible to the air carrier apron and terminal concessions. This phase should also accommodate a new Aircraft Rescue and Firefighting facility, and Air Traffic Control Tower north of the proposed airport terminal.

# Major Capital Elements - Phase One (in Millions of future dollars)

Total	\$	344.5
Hawes extension		3.0
Ellsworth connection		5.4
Loop road		31.4
R.O.W. acquisition		1.2
Streets		
Development soft costs		0.9
Parking lots		5.3
Site work and infrastructure		2.0
Other airfield projects		29.9
Taxiway C, apron areas		84.0
East Terminal and concourses		174.0
West Terminal expansion	\$	7.4
(iii wiiiioiis of future dollars)		

### **Contact Information**

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## **Funding Acknowledgement**

The preparation of this document was wholly financed through a joint partnership of the Phoenix-Mesa Gateway Airport Authority and the City of Mesa, Arizona. All funds were locally generated through operational fees associated with both Airport and City transportation facilities, and no local taxes were utilized in the preparation of this study or any of the supporting analyses. The contents do not necessarily reflect the official views or policy of the FAA or the Arizona Department of Transportation, but do take into account their much valued guidance and input. Acceptance of this report by the Authority and the City does not in any way constitute a commitment on their part to further fund and implement any development depicted herein, nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

## **Contact Information**

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