



CHAPTER FIVE

AIRPORT PLANS



ERIC MARCUS MUNICIPAL AIRPORT

AJO, ARIZONA

AIRPORT MASTER PLAN

Chapter Five

AIRPORT PLANS

The planning process for the Eric Marcus Municipal Airport Master Plan Update has included several analytic efforts in the previous chapters intended to project potential aviation demand, establish airside and landside facility needs, evaluate options for the future management of the airport, and recommend improvements to enhance airport safety and security. A plan for the use of Eric Marcus Municipal Airport has evolved considering input from County staff as well as the members of a Planning Advisory Committee (PAC). The PAC is made up of local stakeholders as well as members from state and federal government agencies and aviation advocacy groups. The purpose of this chapter is to describe, in narrative and graphic form, the plan for the future use of Eric Marcus Municipal Airport.

AIRPORT MANAGEMENT

Due to the low volume of activity at Eric Marcus Municipal Airport and minimal growth anticipated over the course of the planning period of this master plan, several non-development alternatives were examined in Chapter Four. These non-development alternatives included transferring ownership obligations, a “no action” alternative, and airport closure. The direction of the management of Eric Marcus Municipal Airport weighs heavily on existing obligations to the Federal government as well as future roles the airport may play in the regional airport system.



SPONSOR OBLIGATIONS

What is now Eric Marcus Municipal Airport was acquired by Pima County on August 4th, 1949 through quitclaim deed from the United States government as a part of the Federal Property and Administrative Services Act of 1949 and Surplus Property Act of 1944. This conveyance of property obligated Pima County to maintain the entire airport in a safe and serviceable condition open to public use.

In addition, Pima County has accepted funds from the FAA's Airport Improvement Program (AIP) and the state's Grant Program for the maintenance and improvement of facilities at Eric Marcus Municipal Airport. These AIP and state grant funds come with assurances obligating the airport sponsor to operate and maintain its facilities throughout the useful life of the facility, but no longer than 20 years. Records show that the most recent AIP and state grant accepted by Pima County for use at Eric Marcus Municipal Airport occurred in 2004 for the rehabilitation of airfield surfaces, installation of apron lighting, and access road improvements. Pima County is therefore obligated to maintain the airport and its facilities at least through 2024.

AIRPORT SYSTEM ROLE

The airport sponsor must take into consideration the airport's role in the regional and statewide aviation system prior to taking action that would affect the airport's future public use-

fulness. Pima County currently serves a few based aircraft and experiences low operational activity. Despite the limited activity level, Eric Marcus Municipal Airport is viewed as an important airport in the regional airport system. The 2008 Arizona State Aviation System Plan (SASP) identified Eric Marcus Municipal Airport as a General Aviation – Rural airport. As such, the SASP recommends maintaining the airport's existing facilities to accommodate projected demand which includes primarily smaller business, recreational, and personal flying.

The nearest public-use airport to the local Ajo area is the Gila Bend Municipal Airport, which is located 31 nautical miles north of Ajo. Local airport users would be required to drive approximately 50 minutes to utilize the Gila Bend Municipal Airport. This is longer than the standards established by the FAA and the Arizona Department of Transportation for their systems of airports. In addition, due to its relative isolation, Eric Marcus Municipal Airport is viewed as a valuable resource for law enforcement and emergency medical services for the local and regional area.

AIRPORT MANAGEMENT SUMMARY

Pima County will continue to be obligated to maintain Eric Marcus Municipal Airport through 2024 due to its AIP and state grant obligations. Any costs associated with the regular maintenance of the airport facilities would need to be incurred by Pima

County if the decision was made to close the airport after all grant obligations had been satisfied. If additional grants are received in the future, Pima County's obligation to maintain the airport facilities will be extended.

Pima County does have the option to discontinue regular maintenance of the airport and close it to public-use at any time. If this were to occur, the federal government could reclaim the airport property from the county and the FAA and the State of Arizona could require Pima County to repay any grant monies that have been expended for airport improvements. This option could ultimately be more costly to the county than simply maintaining the airport as-is until the grant obligations have expired. This course of action would also eliminate the airport as a useful resource for emergency medical services and law enforcement agencies.

Upon satisfying the grant obligations, Pima County should reassess the airport's facilities, system role, and the direction it may take with its management. If Pima County is able to identify another entity wishing to take on the responsibility of maintenance and continued operation of the airport as a public-use airport, a transfer of ownership obligations could take place. This entity would be subject to an FAA approval process, which will ensure that the entity would be capable of meeting AIP grant obligations. If this course of action is pursued, Pima County would need to comply with all conditions set forth in FAA Order 5190.6A *Airports Compliance Handbook*, as well as coordinate with the

Arizona Department of Transportation (ADOT) and the FAA.

AIRFIELD PLAN

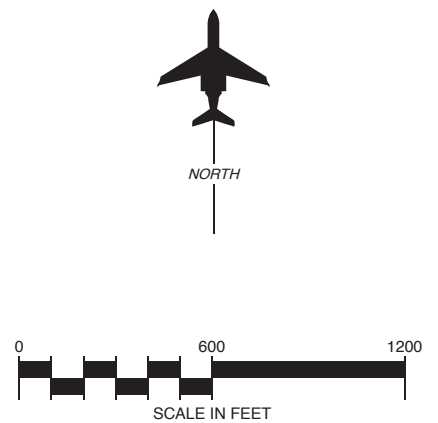
Existing airfield facilities (runway, taxiways) at Eric Marcus Municipal Airport generally meet long range facility requirements as described in Chapter Three. These existing facilities also meet facility recommendations set forth in the Arizona SASP for General Aviation – Rural airports. Therefore, recommended airfield developments are limited to projects designed to maintain and enhance the overall safety and security of the airport. These improvements include the construction of perimeter fencing, a full-length parallel taxiway, and the installation of airfield signage. **Exhibit 5A** graphically depicts the recommended airfield improvements. The following text summarizes the elements of the airfield plan.

AIRFIELD DESIGN STANDARDS

The FAA has established a variety of design criterion to define the physical dimensions of runways and taxiways and the surrounding imaginary surfaces that protect the safe operation of aircraft at the airport. FAA design standards also define the separation criteria for the placement of landside facilities. As discussed previously in Chapter Three, FAA design criteria are a function of the critical design aircraft's (the most demanding aircraft or "family" of aircraft which will conduct 500 or more take-offs and landings per year at the airport) wingspan



- LEGEND**
- Airport Property Line
 - Runway Protection Zone (RPZ)
 - Runway Safety Area (RSA)
 - Object Free Area (OFA)
 - Perimeter Fencing
 - Ultimate Airfield Pavement
 - A130 Airfield Signage



and approach speed, and in some cases, the runway approach visibility minimums. The FAA has established the Airport Reference Code (ARC) to relate these factors to airfield design standards.

Eric Marcus Municipal Airport is currently used by single-engine piston general aviation aircraft weighing less than 12,500 pounds such as a Cessna

172. The existing airfield is designed to ARC B-I small airplane standards, which meets existing aircraft demands. It was determined in Chapter Three that ARC B-I small airplane exclusive design standards will be adequate through the long range planning horizon of this master plan. **Table 5A** summarizes the ARC B-I small airplane exclusive airfield safety and facility dimensions to be maintained at Eric Marcus Municipal Airport.

TABLE 5A Airfield Design Standards Eric Marcus Municipal Airport		
Airport Reference Code (ARC)	Runway 12-30	
	Available (ft.)	B-I Small Airplane Exclusive (ft.)
Runway Width	60	60
Runway Safety Area		
Width	120	120
Length Beyond End	240	240
Runway Object Free Area		
Width	250	250
Length Beyond End	240	240
Runway Centerline to:		
Holding Position	125	125
Parallel Taxiway	N/A	150
Taxiway Width	35	25
Taxiway Centerline to:		
Fixed or Moveable Object	44.5	44.5
Parallel Taxilane	N/A	69
Taxilane Centerline to:		
Fixed or Moveable Object	39.5	39.5
Parallel Taxilane	N/A	64
Runway Protection Zones -		
One mile or Greater Visibility		
Inner Width	250	250
Length	1,000	1,000
Outer Width	450	450
N/A – Not Applicable.		

RECOMMENDED AIRFIELD DEVELOPMENT

The components of the planned airfield development are summarized below. These recommended projects are intended to maintain or enhance the overall safety and security of airport

operations and facilities. Along with the project description, a cost estimate has been prepared for each project. The cost estimates presented in this chapter include an allowance for design, construction inspection, and contingencies related to the project. Capital costs presented here should be

viewed only as estimates subject to further refinement during design. Nevertheless, these estimates are considered sufficiently accurate for planning purposes. Cost estimates for each project are listed in current (2009) dollars.

- **Construct Parallel Taxiway**

Aircraft operating on Runway 12 are currently required to back-taxi on the runway to depart to the southeast. Previously, a taxiway turnaround was considered for the end of Runway 12. However, based on a recommendation by the FAA, a full-length parallel taxiway is planned to eliminate the need to back taxi on the active runway. A parallel taxiway will make operations safer, reducing the potential for runway incursions. The parallel taxiway is planned to a pavement width of 25 feet to meet ARC B-I (small airplane exclusive) design standards. The estimated construction cost of the parallel taxiway is \$850,000.

- **Airfield Signage**

The installation of airfield signage will improve operational safety by providing pilots a better sense of their location on the airfield. Recommended signage includes holding position signs at the intersection of taxiways and runways as shown on **Exhibit 5A**. These signs help identify the hold positions on taxiways, which aircraft can proceed through only after appropriate precautions are taken. Lighted airfield signage should be installed at both runway/taxiway intersections at

Eric Marcus Municipal Airport. The installation of airfield signage has an estimated cost of \$39,062.

- **Perimeter Fencing**

A project to construct six-foot chain-link security fencing with three-strand barbed wire is proposed to provide added security for the airfield and hangar facilities. Perimeter fencing provides a physical barrier as well as a psychological deterrent to prevent airport facilities from being accessed by unauthorized individuals. Secured access gates should be provided near the hangar facilities and at various locations along the perimeter to allow access for emergency service vehicles and maintenance personnel. The alignment for the perimeter fencing is shown on **Exhibit 5A**. The installation of this perimeter fencing is estimated to cost \$862,655.

- **Regular Facility & Pavement Maintenance**

Even if the airport sponsor decides to forgo further development projects at Eric Marcus Municipal Airport, it will still be responsible for the regular maintenance and upkeep of the airport facilities and pavements, including the lighting systems, navigational aids, entrance roadways, and utilities. On an annual basis, Pima County estimates a total budget of \$7,000 for labor costs to maintain the airport. This includes the replacement of airfield lighting bulbs, weed management, and various other maintenance expenditures. This funding level should be

maintained so that regular maintenance can be continued.

Over time, due to weathering and regular use, runway, taxiway, and apron pavement will need to be repaired. Regular pavement maintenance projects could potentially include joint seal repair of the apron and crack seal and seal coating of the runway and taxiways. It was recommended in Chapter Three that at least 1,500 square yards of apron be maintained to provide adequate parking spaces for itinerant aircraft. The cost estimate to provide joint seal repair to 1,500 square yards of apron and taxilane leading to the parking position area is approximately \$25,000. Crack sealing and seal coating the runway and taxiways is estimated to cost \$175,000. However, if projects to maintain and/or repair airport pavements are not undertaken early on, maintenance costs increase dramatically with the potential of needing to reconstruct pavements that have fallen into disrepair. To be eligible for pavement reconstruction grants, Pima County must conduct proper pavement maintenance projects.

CAPITAL IMPROVEMENTS FUNDING

If Pima County chooses to seek funding for the recommended capital improvement projects and pavement maintenance, it can be acquired from varying sources. Capital improvement funding is available through various grants-in-aid programs at both the federal and state levels. If the airport sponsor chooses to receive federal

funding aid for airport improvement projects, Pima County will be required to renew its obligation to maintain the airport and its facilities for a period of 20 years. An alternative to grants-in-aid programs is to fund projects locally, taking on the full cost burden. The following discussion outlines the key sources for capital improvement funding.

FEDERAL GRANTS

The United States Congress has long recognized the need to develop and maintain a system of aviation facilities across the nation for the purpose of national defense and promotion of interstate commerce. Various grants-in-aid programs to public airports have been established over the years for this purpose. The most recent legislation is the *Airport Improvement Program* (AIP) of 1982. The AIP has been reauthorized several times, with the most recent legislation enacted in 2003 and entitled the *Vision 100 – Century of Aviation Reauthorization Act*.

Fiscal year 2007 was the last year of the four-year program. That bill presented similar funding levels to the previous reauthorization – *AIR-21*. Funding was authorized at \$3.7 billion in 2007. *Vision 100* expired in September 2007, and since this time, Congress has not passed reauthorization legislation. However, Congress passed the *FAA Extension Act of 2008, Part II*, which is a continuation of funds through March 6, 2009. Funds available from October 1, 2008 to March 6, 2009 totaled \$1.5 billion. On

March 30th, 2009, the President signed another bill extending the AIP program through the end of September 2009. Funds made available by this bill total \$3.5 billion.

The source for AIP funds is the Aviation Trust Fund. The Aviation Trust Fund was established in 1970 to provide funding for aviation capital investment programs (aviation development, facilities and equipment, and research and development). The Trust Fund also finances the operation of the FAA. It is funded by user fees, taxes on airline tickets, aviation fuel, and various aircraft parts. Funds are distributed each year by the FAA from appropriations by Congress. A portion of the annual distribution is to primary commercial service airports based upon enplanement levels. General aviation airports such as Eric Marcus Municipal Airport, however, also received entitlements under the last reauthorization in the amount of \$150,000 annually. After all specific funding mechanisms are distributed; the remaining AIP funds are disbursed by the FAA, based upon the priority of the project for which they have requested federal assistance through discretionary apportionments. A national priority system is used to evaluate and rank each airport project. Those projects with the highest priority are given preference in funding.

Under the AIP program, examples of eligible development projects include the airfield, aprons, access roads, and occasionally hangars. Improvements such as fueling facilities and utilities (with the exception of water supply for

fire prevention) are not typically eligible for AIP funds.

Under *Vision 100*, Eric Marcus Municipal Airport has been eligible for 95 percent funding assistance from AIP grants, as opposed to the previous *AIR-21* level of 90 percent. While similar programs have been in place for over 50 years, it will be up to Congress to either extend or draft new legislation authorizing and appropriating future federal funding.

STATE AID TO AIRPORTS

In support of the state airport system, the State of Arizona also participates in airport improvement projects. The source for state airport improvement funds is the Arizona Aviation Fund. Taxes levied by the state on aviation fuel, flight property, aircraft registration tax, and registration fees (as well as interest on these funds) are deposited in the Arizona Aviation Fund. The state transportation board (STB) establishes the policies for distribution of these state funds. To ensure proper project planning and eligibility of state funded projects, the STB requires airports to submit a five-year airport capital improvement program (ACIP). The ACIP is reviewed and approved annually by the STB so that funds are allocated appropriately to maintain safe and orderly development of the Arizona airport system. Eric Marcus Municipal Airport's current ACIP plan is shown in **Table 5B**. The projects listed in the ACIP assume state and federal funding will be sought. Grant funds for the listed projects have not yet been acquired by Pima County.

TABLE 5B

Current Arizona Airport Capital Improvement Program
Eric Marcus Municipal Airport

Project Year	Project Description	Total Project	Federal Share	State Share	Local Share
2010	Crack seal repair Taxiway A-3 (approx. 24,000 s.f.)	\$65,000	\$61,750	\$1,625	\$1,625
2011	Crack seal and seal coat Runway (approx. 228,000 s.f.)	\$250,000	\$237,500	\$6,250	\$6,250
2012	Re-paint non-precision Rwy markings, add fixed distance markers.	\$25,000	\$0	\$22,500	\$2,500
2013	Replace eight Rwy threshold lights.	\$20,000	\$0	\$18,000	\$2,000
Total		\$360,000	\$299,250	\$48,375	\$12,375

Under the State of Arizona grant program, an airport can receive funding for one-half (2.5 percent) of the local share of projects receiving federal AIP funding. The state also provides 90 percent funding for projects which are typically not eligible for federal AIP funding or have not received federal funding. Due to the current economic crisis and Arizona State budget issues, the availability of airport capital improvement funds is limited and will likely remain limited over the next few years.

State Airport Loan Program

The Arizona Department of Transportation - Aeronautics Division (ADOT) Airport Loan Program was established to enhance the utilization of state funds and provide a flexible funding mechanism to assist airports in funding improvement projects. Eligible projects include runway, taxiway, and apron improvements; land acquisition; planning studies; and the preparation of plans and specifications for airport construction projects; as well as revenue-generating improvements such as

hangars and fuel storage facilities. Projects which are not currently eligible for the State Airport Loan Program are considered if the project would enhance the airport's ability to be financially self-sufficient.

There are two ways in which the loan funds can be used: Matching Funds or Revenue Generating Projects. The Matching Funds are provided to meet the local matching fund requirement for securing federal airport improvement grants or other federal or state grants. The Revenue Generating Projects' funds are provided for airport-related construction projects that are not eligible for funding under another program.

Pavement Maintenance Program

The airport system in Arizona is a multi-million dollar investment of public and private funds that must be protected and preserved. State aviation fund dollars are limited and the State Transportation Board recognizes the need to protect and extend to the maximum amount the useful life of

the airport system's pavement. This program, the Arizona Pavement Preservation Program (APPP), is established to assist in the preservation of the Arizona airport system infrastructure.

Public Law 103-305 requires that airports requesting federal AIP funding for pavement rehabilitation or reconstruction have an effective pavement maintenance management system. To this end, ADOT-Aeronautics has completed and is maintaining an Airport Pavement Management System (APMS) which, coupled with monthly pavement evaluations by the airport sponsors, fulfills this requirement.

The Arizona Airport Pavement Management System uses the Army Corps of Engineers' "Micropaver" program as a basis for generating a Five-Year Airport Pavement Preservation Program (APPP). The APMS consists of visual inspections of all airport pavements. Evaluations are made of the types and severities observed and entered into a computer program database. Pavement Condition Index (PCI) values are determined through the visual assessment of pavement condition in accordance with the most recent FAA Advisory Circular 150/5380-6, and range from 0 (failed) to 100 (excellent). Every three years, a complete database update with new visual observations is conducted. Individual airport reports from the update are shared with all participating system airports. The Aeronautics Division ensures that the APMS database is kept current, in compliance with FAA requirements.

Every year, the Aeronautics Division, utilizing the APMS, will identify airport pavement maintenance projects eligible for funding for the upcoming five years. These projects will appear in the State's Five-Year Airport Capital Improvement Program. Once a project has been identified and approved for funding by the State Transportation Board, the airport sponsor may elect to accept a state grant for the project and not participate in the Airport Pavement Preservation Program (APPP), or the airport sponsor may sign an Inter-Government Agreement (IGA) with the Aeronautics Division to participate in the APPP.

LOCAL FUNDING

The balance of project costs, after consideration has been given to grants, must be funded through airport sponsor resources. Assuming federal funding, this essentially equates to 2.5 percent of the project costs if all eligible FAA and state funds are available. If only ADOT grants are available, the sponsor share would be 10 percent of the project. If the sponsor chooses to proceed without federal or state funding, Pima County would be responsible for 100 percent of the project cost.

Several alternatives exist for local finance options as well, including direct funding from the County, issuing bonds, and leasehold financing. These strategies could be used to fund the local matching share or complete project if grant funding cannot be arranged or is not pursued.

There are several bonding options available to Pima County, including general obligation bonds, limited obligation bonds, and revenue bonds. General obligation bonds are a common form of municipal bond which is issued by voter approval and is secured by the full faith and credit of the County. County tax revenues are pledged to retire the debt. As instruments of credit, and because the county secures the bonds, general obligation bonds reduce the available debt level of the county. Due to the county pledge to secure and pay general obligation bonds, they are the most secure type of municipal bond and are generally issued at lower interest rates and carry lower costs of issuance. The primary disadvantage of general obligation bonds is that they require voter approval and are subject to statutory debt limits. This requires that they be used for projects that have broad support among the voters, and that they are reserved for projects that have the highest public priorities.

In contrast to general obligation bonds, limited obligation bonds (sometimes referred to as Self-Liquidating Bonds) are secured by revenues from a local source. While neither general fund revenues nor the taxing power of the local community is pledged to pay the debt service, these sources may be required to retire the debt if pledged revenues are insufficient to make interest and principal payments on the bonds. These bonds still carry the full faith and credit pledge of the county and, therefore, are considered as part of the debt burden of the county for the purpose of financial analysis. The overall debt burden of the county is a

factor in determining interest rates on municipal bonds.

There are several types of revenue bonds, but in general, they are a form of municipal bond which is payable solely from the revenue derived from the operation of a facility that was constructed or acquired with the proceeds of the bonds. For example, a Lease Revenue Bond is secured with the income from a lease assigned to the repayment of the bonds. Revenue bonds have become a common form of financing airport improvements. Revenue bonds present the opportunity to provide those improvements without direct burden to the taxpayer. Revenue bonds normally carry a higher interest rate because they lack the guarantees of general and limited obligation bonds.

Leasehold financing refers to a developer or tenant financing improvements under a long term (typically 20+ years with options to extend) ground lease. The obvious advantage of such an arrangement is that it relieves the county of all responsibility for raising the capital funds for improvements. However, the private development of facilities on a ground lease, particularly on property owned by the county, produces a unique set of problems. In particular, it is more difficult to obtain private financing as only the improvements and the right to continue the lease can be claimed in the event of a default. Ground leases normally provide for the reversion of improvements to the lessor at the end of the lease term, which reduces their potential value to a lender taking possession. Also, companies that want to

own their property as a matter of financial policy may not locate where land is only available for lease.

Airport funding will be needed over the course of the planning horizon of this Master Plan for at least the main-

tenance of the existing facilities and pavements. An estimated \$7,000 should be allocated annually for this regular maintenance. The estimated costs associated with the recommended airport improvements are summarized in **Table 5C**.

TABLE 5C	
Recommended Project Cost Summary	
Eric Marcus Municipal Airport	
Project	Estimated Cost
Runway/Taxiway Crack Seal Repair/Seal Coat	\$175,000
Install Perimeter Fencing	\$862,655
Apron Joint Seal Repair	\$25,000
Install Airfield Signage	\$39,062
Construct Parallel Taxiway	\$850,000
Total	\$1,951,717

ENVIRONMENTAL EVALUATION

A review of the potential environmental impacts associated with proposed airport projects is an essential consideration in the Airport Master Plan process. The primary purpose of this section is to review the proposed improvement program at Eric Marcus Municipal Airport to determine whether the proposed actions could, individually or collectively, have the potential to significantly affect the quality of the environment. The information contained in this section was obtained from previous studies, various internet websites, and analysis by the consultant.

Construction of the improvements depicted on the Airport Layout Plan will require compliance with the *National Environmental Policy Act (NEPA) of 1969*, as amended, to receive federal

financial assistance. For projects not “categorically excluded” under FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, compliance with NEPA is generally satisfied through the preparation of an Environmental Assessment (EA). In instances in which significant environmental impacts are expected, an Environmental Impact Statement (EIS) may be required. While this portion of the Master Plan is not designed to satisfy the NEPA requirements for a categorical exclusion, EA, or EIS, it is intended to supply a preliminary review of environmental issues that would need to be analyzed in more detail within the NEPA process. This evaluation considers all environmental categories required for the NEPA process as outlined in FAA Order 1050.1E and Order 5050.4B, *National Environmental Policy Act (NEPA) Implementation Instructions for Airport Actions*.

ENVIRONMENTAL ANALYSIS

FAA Orders 1050.1E and 5050.4B contain a list of the environmental categories to be evaluated for airport projects. Of the 20 plus environmental categories, the following resources are not found within the airport environs, cannot be inventoried, or will not be impacted by proposed airport improvement projects:

- Coastal Resources
- Coastal Zone Management Areas
- Induced Socioeconomic Impacts
- Environmental Justice Areas and Children's Environmental Health Risks
- Farmlands
- Floodplains
- Natural Resources and Energy Supply
- Secondary (Induced) Impacts
- Social Impacts
- Socioeconomic Impacts
- Wild and Scenic Rivers

The following sections describe potential impacts to resources present within the airport environs. These resources were described in detail within Chapter One of this study.

Air Quality

According to the most recent update contained on the Environmental Protection Agency's (EPA's) Greenbook website, Pima County is currently in nonattainment for Particulate Matter (PM₁₀).

To determine the significance of potential air quality impacts of the con-

struction of the parallel taxiway, the installation of perimeter fencing, the installation of airfield signage or the airport pavement maintenance projects, an emissions inventory will be needed to determine if the project meets general conformity as outlined within the *State Implementation Plan* (SIP).

Each recommended project at the airport could have temporary air quality impacts during construction. Emissions from the operation of construction vehicles and fugitive dust from pavement removal are common air pollutants during construction. However, with the use of best management practices (BMPs) during construction, these air quality impacts can be significantly lessened. Local construction permits will need to be acquired prior to the commencing of any construction project.

Compatible Land Use

According to the Planned Land Use Map included within the *Pima County Comprehensive Land Use Plan* (December 2001), the area surrounding the airport is designated for continued use by the US Air Force as a training range. This land use designation is considered to be compatible with airport operations. Due to the nature and proximity of Air Force training operations to Eric Marcus Municipal Airport, it is recommended that Pima County and the Air Force continue to communicate on any future plans impacting Eric Marcus Municipal Airport. Proposed improvement projects in this Master Plan do not involve the

acquisition of property beyond existing airport property boundaries.

Construction Impacts

Construction impacts typically relate to the effects on specific impact categories, such as air quality or noise, during construction. The use of BMPs during construction is typically a requirement of construction-related permits such as a National Pollution Discharge Elimination System (NPDES) (AZDES) permit. Use of these measures typically alleviates potential resource impacts.

Construction-related noise impacts should be minimal as land immediately adjacent to the airport is primarily vacant. Also, these impacts typically do not arise unless construction is being undertaken during early morning, evening, or nighttime hours.

Construction-related air quality impacts should be limited due to the minor nature of the proposed airport improvement projects. Air emissions related to construction of the parallel taxiway, the pavement maintenance projects, and the installation of perimeter fencing and airfield signage will be short-term in nature and will be included in air emissions inventories prepared prior to project implementation as requested by the FAA.

Department Of Transportation Act Section 4(f) Properties

A significant impact would occur when a proposed action involves more than a minimal physical use of a Section 4(f) property (publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land from a historic site of national, state, or local significance) or is deemed a “constructive use” substantially impairing the Section 4(f) property where mitigation measures do not reduce or eliminate the impacts. Substantial impairment would occur when impacts to Section 4(f) lands are sufficiently serious that the value of the site in terms of its prior significance and enjoyment are substantially reduced or lost.

As it was mentioned in Chapter One, the nearest Section 4(f) land is the Cabeza Prieta National Wildlife Refuge, located approximately 3.5 miles west of Eric Marcus Municipal Airport. Airport operations are not anticipated to grow significantly over the course of the master planning period and there are no proposed airport improvement projects that would impact this Section 4(f) property.

Fish, Wildlife, and Plants

Table 5D lists the threatened, endangered, and candidate species with the potential to occur in Pima County.

TABLE 5D**Federally listed Threatened, Endangered, and Candidate Species with Habitat in Pima County**

Common Name	Scientific Name	Habitat	Status
Arizona Hedgehog	<i>Echinocereus triglochidiatus</i> var. <i>arizonicus</i>	Ecotone between interior chaparral and madrean evergreen woodland.	Endangered
Brown Pelican	<i>Pelecanus occidentalis</i>	Coastal land and islands; species found around many Arizona lakes and rivers.	Endangered
Desert Pupfish	<i>Cyprinodon macularius</i>	Shallow springs, small streams, and marshes. Tolerates saline and warm water.	Endangered
Gila Chub	<i>Gila intermedia</i>	Pools, springs, cienegas, and streams.	Endangered
Gila Topminnow	<i>Poeciliopsis occidentalis occidentalis</i>	Small streams, springs, and cienegas, vegetated shallows.	Endangered
Huachuca Water-Umbel	<i>Lilaeopsis schaffneriana</i> var. <i>recurva</i>	Between 4,000 and 6,500 feet in cienegas, springs, and other healthy riverine systems.	Endangered
Jaguar	<i>Panthera onca</i>	Found in thornscrub, desertscrub, and grasslands.	Endangered
Kearney's Blue-Star	<i>Amsonia kearneyana</i>	Partially shaded coarse alluvium along dry washes under deciduous riparian trees and shrubs in Sonoran desertscrub or desertscrub-grassland ecotone.	Endangered
Lesser Long-nosed Bat	<i>Leptonycteris curasoae yerbabuenae</i>	Desert scrub habitat with agave and columnar cacti present as food plants.	Endangered
Masked Bobwhite	<i>Colinus virginianus ridgwayi</i>	Savannah grasslands where grass and shrubs provide sufficient ground cover.	Endangered
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Nests in canyons and dense forests with multi-layered foliage structure.	Threatened
Nichol Turk's Head Cactus	<i>Echinocactus horizontalis</i> var. <i>nicholii</i>	Sonoran desert scrub.	Endangered
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	Source-area wetlands.	Candidate
Southwestern Willow Flycatcher	<i>Empidonax traillii eximius</i>	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	Endangered
Ocelot	<i>Leopardus pardalis</i>	Brushlands.	Endangered
Pima Pineapple Cactus	<i>Coryphantha scheeri</i> var. <i>robustispina</i>	Alluvial basins and hillsides in semi-desert grasslands, desert scrub, and the transition area between the two.	Endangered
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	Found in broad, alluvial valleys separated by granite mountains and mesas.	Endangered
Sonoyta Mud Turtle	<i>Kinosternon sonoriense longifemorale</i>	Springs, creeks, ponds and waterholes of intermittent streams.	Candidate
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).	Candidate

Source: U.S. Fish and Wildlife Service, Pima County Species List, January 2009

As discussed in Chapter One, the Arizona Heritage Data Management System on-line environmental review tool indicates that there are no occurrences of special status species or critical habitats within three miles of the airport. However, prior to the construction of the parallel taxiway and the installation of perimeter fencing, field surveys will likely be needed to confirm a lack of critical habitat for protected species. Survey results should be communicated to the U.S. Fish and Wildlife Service and the Arizona Fish and Game Department.

Hazardous Materials, Pollution Prevention, And Solid Waste

According to the EPA's National Priorities List (NPL), there are no active Superfund sites located in the vicinity of the airport.

The airport will need to continue to comply with a NPDES permit, which will ensure that pollution control measures are in place at the airport. If the airport sponsor decides to construct the parallel taxiway, the permit will need to be modified to reflect the additional impervious surfaces and stormwater retention facilities. The addition and removal of impervious surfaces may require modifications to this permit should drainage patterns be modified.

Solid waste at the airport is not anticipated to increase significantly over the course of the master planning period.

Historical, Architectural, Archaeological, and Cultural Resources

It is currently not known if any cultural or historic resources are located on airport property. Field surveys will be needed for previously undisturbed areas prior to construction of the parallel taxiway and the installation of perimeter fencing. These surveys would typically be undertaken during the NEPA documentation processes and the results coordinated with the State Historic Preservation Office (SHPO).

Light Emissions and Visual Impacts

Recommended airside projects include the construction of a parallel taxiway, installation of lighted airfield signage, and the construction of perimeter fencing. The installation of lighted airfield signage will introduce new light emissions, resulting in an increase of light emissions from the airport. However, the land immediately surrounding the airport is primarily vacant, which provides a buffer between the airport and any surrounding residential development. This buffer should prevent light and visual impacts.

Noise

An airport's compatibility with surrounding land uses is usually associated with the extent of the airport's noise contours. Airport projects such as those needed to accommodate fleet

mix changes, an increase in operations at the airport, or air traffic changes are examples of activities which can alter noise impacts and affect surrounding land uses. The 2008 noise exposure contours for Eric Marcus Municipal Airport are shown on **Exhibit 5B**. As shown on the exhibit, the DNL noise contours remain entirely on airport property.

Exhibit 5B depicts the 2028 noise exposure contours for the airport, which considers slight growth in airport activity and increased use by rotorcraft. Again, the DNL contours do not extend beyond airport property. The limited operational activity anticipated through the planning period of this Master Plan should result in minimal noise impacts on the surrounding area.

Water Quality

The airport will need to continue to comply with an AZPDES operations permit. With regard to the construction of the parallel taxiway, the installation of perimeter fencing, and the pavement maintenance projects, the airport and all applicable contractors will need to obtain and comply with the requirements and procedures of the construction-related AZPDES General Permit number AZG2003-001, including the preparation of a *Notice of Intent* and a *Stormwater Pollution Prevention Plan*, prior to the initiation of product construction activities.

Once the parallel taxiway construction project is completed, the AZPDES permit will need to be modified to re-

flect the additional impervious surfaces and any stormwater retention facilities. The addition and removal of impervious surfaces may require modifications to this permit should drainage patterns be modified.

A review of the United States Geologic Survey (USGS) topographic map and the aerial photography for the airport indicates the presence of a number of washes within the airport property boundary. Additional study will need to be undertaken during the preliminary design phase to determine the impact of the installation of perimeter fencing on the existing washes. Disturbance of these areas may require the issuance of a Section 404 Permit from the U.S. Army Corps of Engineers. Prior to the installation of perimeter fencing, field surveys should be undertaken to delineate potential jurisdictional areas.

Wetlands

Wetlands are defined by Executive Order 11990, *Protection of Wetlands*, as those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

The USGS topographic map indicated there are two waters (washes) that enter airport property from the north. Impacts on these washes by the installation of perimeter fencing are not anticipated.



AIRPORT LAYOUT PLAN DRAWINGS

Per FAA and Arizona Department of Transportation (ADOT) requirements, an official Airport Layout Plan (ALP) has been developed for Eric Marcus Municipal Airport. The ALP drawing set (Sheets 1 through 8) can be found at the end of this chapter. The airport layout plan (**Sheet 1**) graphically presents the existing and ultimate airport layout. The ALP is used, in part by the FAA and ADOT, to determine funding eligibility for future development projects. The ALP was prepared on a computer-aided drafting system for future ease of use. The computerized plan set provides detailed information of existing and future facility layout on multiple layers that permits the user to focus in on any section of the airport at a desirable scale. The plan can be used as base information for design and can be easily updated in the future to reflect new development and more detail concerning existing conditions as made available through design surveys.

A number of related drawings, which depict the ultimate airspace and land-side development, are included with the ALP. The following provides a brief discussion of the additional drawings included with the ALP:

Terminal Area Plan (Sheet 2) – The terminal area drawing provides greater detail concerning landside areas at a larger scale than on the ALP.

Airport Airspace Drawing (Sheet 3) – The Airport Airspace Drawing is a graphic depiction of the Title 14 Code of Federal Regulations (CFR)

Part 77, *Objects Affecting Navigable Airspace*, regulatory criterion. The Airport Airspace Drawing is intended to aid local authorities in determining if proposed development could present a hazard to the airport and obstruct the approach path to a runway end. This plan should be coordinated with local land use planners.

Inner Portion of the Approach Surface Drawings (Sheet 4) – The Inner Portion of the Approach Surface Drawing is a scaled drawing of the runway protection zone (RPZ) for each runway end. A plan and profile view of each RPZ is provided to facilitate identification of obstructions that lie within these safety areas. Detailed obstruction and facility data is provided to identify planned improvements and the disposition of obstructions (as appropriate).

Runway Approach Zone Profiles (Sheet 5) – This drawing provides both plan and profile views of the 14 CFR Part 77 approach surfaces for each runway end. A composite profile of the extended ground line is depicted with obstructions identified where they exist.

Departure Surface Drawing (Sheet 6) – The departure surface drawing depicts the 14 CFR 77 departure surfaces for each runway end. A composite profile of the extended ground line is depicted. Obstructions are shown where appropriate.

On-Airport Land Use Drawing (Sheet 7) – The Airport Land Use Drawing is a graphic depiction of the land use recommendations. When development is proposed, it should be

directed to the appropriate land use area depicted on this plan.

Exhibit “A” Property Map (Sheet 8) – The Airport Property Map provides information on the acquisition and identification of all land tracts under the control of the airport. Both existing and future property holdings are identified on the “Exhibit A” Property Map.

The ALP set has been developed in accordance with accepted FAA and Arizona Department of Transportation (ADOT) – Aeronautics Division standards. The ALP set has not been approved by the FAA and is subject to FAA airspace review. Land use and other changes may result.

PLAN IMPLEMENTATION

The best means to begin implementation of the recommendations in this master plan is to first recognize that

planning is a continuous process that does not end with completion and approval of this document. Rather, the ability to continuously monitor the status of airport activity must be provided and maintained. The issues upon which this master plan is based will remain valid for a number of years. The primary goal is to maintain the existing core airport facilities, while serving regional aviation system needs.

In summary, the real value of a usable master plan is in keeping the issues and objectives in the minds of the managers and decision-makers so that they are better able to recognize change and its effect. Airport management will need to make decisions on which improvement projects to undertake and what funding sources to utilize for ongoing airport maintenance and improvement projects, while making decisions on the future management of the airport.

AIRPORT MASTER PLAN

ERIC MARCUS

MUNICIPAL AIRPORT

AJO, ARIZONA

AIRPORT LAYOUT PLAN SET

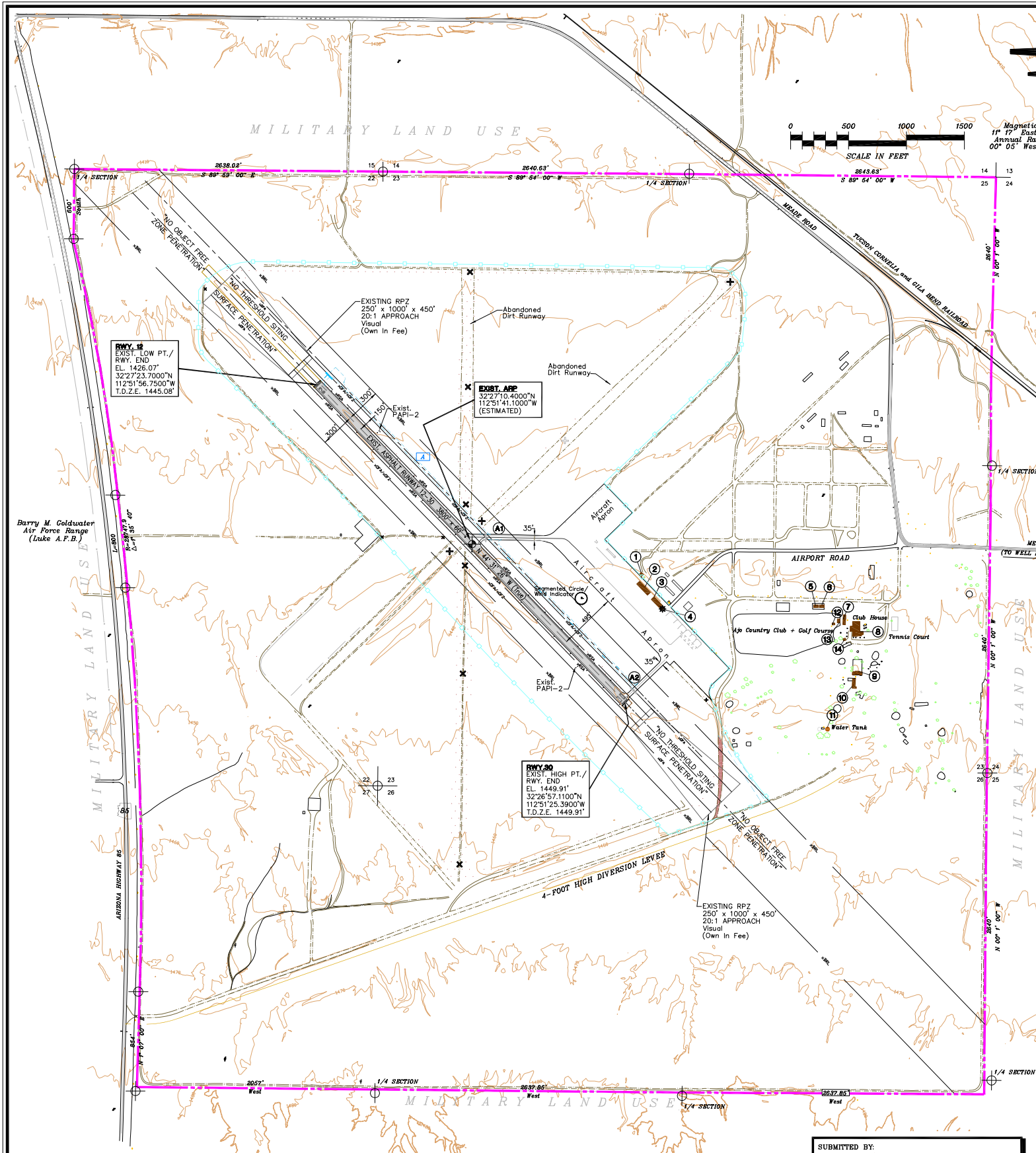
DRAFT

INDEX OF DRAWINGS

- | | |
|--|---|
| 1. AIRPORT LAYOUT PLAN | 5. RUNWAY 12-30 PROFILE & OUTER
APPROACH SURFACE PROFILE DRAWING |
| 2. TERMINAL AREA PLAN | 6. DEPARTURE SURFACE DRAWING |
| 3. AIRPORT AIRSPACE DRAWING | 7. ON-AIRPORT LAND USE DRAWING |
| 4. INNER PORTION OF THE RUNWAY 12-30
APPROACH SURFACE DRAWING | 8. EXHIBIT "A" PROPERTY MAP |

PREPARED FOR
PIMA COUNTY, ARIZONA





RUNWAY END COORDINATES (NAD 83)			
RUNWAY	EXISTING	ULTIMATE	
Runway 12	Latitude 32°27'23.7000"N Longitude 112°51'56.7500"W	SAME SAME	
Runway 30	Latitude 32°26'57.1100"N Longitude 112°51'25.3900"W	SAME SAME	

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
+	+	AIRPORT PROPERTY LINE
+	+	AIRPORT REFERENCE POINT (ARP)
+	+	AIRPORT ROTATING BEACON
+	+	BUILDING AND FACILITIES
+	+	BUILDING RESTRICTION LINE (BRL)
+	+	OBJECT FREE AREA (OFA)
+	+	RUNWAY SAFETY AREA (RSA)
+	+	OBSTACLE FREE ZONE (OFZ)
+	+	FACILITY CONSTRUCTION
+	+	FENCING
+	+	NAVIGATIONAL AID INSTALLATION
+	+	RUNWAY THRESHOLD LIGHTS
+	+	RUNWAY PROTECTION ZONE (RPZ)
+	+	SEGMENTED CIRCLE LIGHTED WINDCONE
+	+	WIND INDICATOR (Lighted)
+	+	TOPOGRAPHIC CONTOURS
+	+	SECTION CORNER
+	+	TAXIWAY DESIGNATION
+	+	HOLD POSITION MARKINGS
+	+	CLOSED OR ABANDONED TAXIWAY/RUNWAY

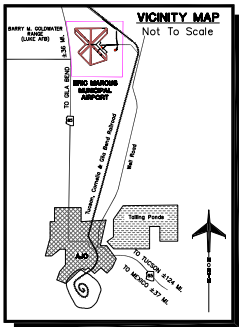
BUILDINGS/FACILITIES		
EXISTING	DESCRIPTION	TOP EL.
1	PORTABLE HANGAR	1442.10'
2	T-HANGAR	1458.09'
3	T-HANGAR	1457.51'
4	AIRPORT BEACON	1451.38'
5	GOLF CART BARN	1456.10'
6	GOLF CART BARN	1456.10'
7	STORAGE	1458.00'
8	CLUBHOUSE	1461.00'
9	POOL BUILDING	1465.00'
10	MAINTENANCE BARN	1467.00'
11	WATER TANK	1468.00'
12	STORAGE	1461.00'
13	STORAGE	1461.00'
14	STORAGE	1461.00'

RUNWAY DATA		RUNWAY 12-30			
		EXISTING		ULTIMATE	
AIRCRAFT APPROACH CATEGORY-DESIGN GROUP	B-1*	12	30	12	30
		12	30	12	30
FAR PART 77 CATEGORY	VISUAL	VISUAL	SAME	SAME	SAME
APPROACH VISIBILITY MINIMUMS	NONE	NONE	NONE	NONE	NONE
DESIGN CRITICAL AIRCRAFT	BEACH BARON 58				
WINGSPAN OF DESIGN AIRCRAFT	37'				
UNDERCARRIAGE WIDTH OF DESIGN AIRCRAFT	9'3"				
APPROACH SPEED (KNOTS) OF DESIGN AIRCRAFT	86				
MAXIMUM CERTIFIED TAKEOFF WEIGHT (LBS) OF DESIGN AIRCRAFT	5,500				
RUNWAY EFFECTIVE GRADIENT	0.62%				
RUNWAY MAXIMUM GRADIENT	0.9%				
PAYMENT DESIGN STRENGTH (in thousand lbs./f)	12,000(S)				
APPROACH SLOPE	20:1	20:1	SAME	SAME	SAME
RUNWAY END ELEVATION (MSL)	1426.07'	1449.91'	SAME	SAME	SAME
RUNWAY TOUCHDOWN ZONE ELEVATION (MSL)	1445.08'	1449.91'	SAME	SAME	SAME
RUNWAY HIGH POINT ELEVATION (MSL)	1449.91'				
RUNWAY LOW POINT ELEVATION (MSL)	1426.07'				
LINE OF SIGHT REQUIREMENT MET	YES				
RUNWAY LENGTH	3800'				
RUNWAY WIDTH	60'				
RUNWAY BEARING (TRUE)	N 44°31'26" W				
RUNWAY SAFETY AREA LENGTH BEYOND STOP END OF RUNWAY	240'	240'	SAME	SAME	SAME
RUNWAY SAFETY AREA WIDTH	120'	120'	SAME	SAME	SAME
RUNWAY OBJECT FREE AREA LENGTH BEYOND STOP END OF RUNWAY	240'	240'	SAME	SAME	SAME
RUNWAY OBJECT FREE AREA WIDTH	250'	250'	SAME	SAME	SAME
RUNWAY OBSTACLE FREE ZONE LENGTH BEYOND RUNWAY END	200'	200'	SAME	SAME	SAME
RUNWAY OBSTACLE FREE ZONE WIDTH	250'	250'	SAME	SAME	SAME
DISTANCE FROM RUNWAY CENTERLINE TO HOLD BARS AND SIGNS	125'	125'	SAME	SAME	SAME
RUNWAY MARKING	BASIC	BASIC	BASIC	BASIC	BASIC
STANDARD SEPARATION - RUNWAY CL TO PARALLEL TAXIWAY CL	150'				
STANDARD SEPARATION - TAXIWAY CL TO FIXED OR MOVABLE OBJECT	45'				
RUNWAY SURFACE/PAYMENT MATERIAL	Asphalt				
RUNWAY LIGHTING	MIRL				
TAXIWAY WIDTH	35'				
TAXIWAY SURFACE MATERIAL	Asphalt				
TAXIWAY OBJECT FREE AREA WIDTH	89'				
TAXIWAY SAFETY AREA WIDTH	49'				
TAXIWAY WINGTIP CLEARANCE	20'				
TAXIWAY MARKING	HOLD/CENTER				
TAXIWAY LIGHTING	MIRL (entry/exit)				
RUNWAY NAVIGATIONAL AIDS	NONE				
RUNWAY VISUAL AIDS	Airport Beacon PAPI-2 Segmented Circle Wind Cone				

* Pavement strengths are expressed in Single(S), Dual(D), and Dual Tandem (DT) wheel loading capacities.
* Small Airplane Exclusive

AIRPORT DATA			
OWNER: PIMA COUNTY ARIZONA		ERIC MARCUS MUNICIPAL AIRPORT (P01)	
CITY: AJO, ARIZONA		AIRPORT NPIAS CODE: GENERAL AVIATION	
RANGE: R 5 W		COUNTY: PIMA COUNTY	
		TOWNSHIP: T 11 S	
		EXISTING	ULTIMATE
		B-1*	B-1*
AIRPORT REFERENCE CODE		1449.91'	SAME
AIRPORT ELEVATION (MSL)		103.2° F (July)	SAME
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		Latitude 32° 27' 10.4000" N	SAME
AIRPORT REFERENCE POINT (ARP)		Longitude 112° 51' 41.1000" W	SAME
COORDINATES (NAD 83)		Airport Beacon	SAME
AIRPORT NAV AIDS		PAPI-2	SAME
		Segmented Circle	SAME
		Wind Cone	SAME

GPS AT AIRPORT
* Small Airplane Exclusive



ALL WEATHER WIND COVERAGE				
Runway	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 12-30	87.40%	92.52%	97.49%	99.30%

FAA APPROVAL STAMP

SUBMITTED BY:
Coffman Associates
FOR APPROVAL BY:

APPROVED BY: ON THE DATE OF:

Airport Manager

GENERAL NOTES:

1. Depiction of features and objects, including related elevations within the runway protection zones are depicted on the INNER APPROACH SURFACE DRAWING.
2. Details concerning terminal improvements are depicted on the TERMINAL AREA PLANS.
3. Recommended land uses within the airport environs are depicted on the AIRPORT LAND USE PLAN.
4. Detail concerning airport property are depicted on the AIRPORT PROPERTY MAP.
5. Building Restriction Line (BRL) is established in accordance with F.A.R. Part 77 criteria. Building Restriction Line location may be reduced in accordance to Part 77 to limits of the Runway Object Free Area, Runway Safety Area, and/or Runway Protection Zone criteria.
6. Base Map and Contours derived from 2/5/09 aerial photography and planimetric mapping, surveyed by Stactec Inc.
7. Source for existing airport reference point coordinates and airport elevations: Airport Master Record at <http://gcr1.com/5010web/airport.cfm?site=P01>.
8. All elevations are in NAVD 88 and all horizontal coordinates are in NAD 83.
9. No threshold siting surface object penetrations.
10. All survey monuments enclosed in concrete casings.
11. Rental proceeds from non-aeronautical uses are reinvested into the airport fund.
12. No survey monuments exist based upon the standards listed in the FAA Advisory Circulars 150/5300-16, 150/5300-17 and 150/5300-18.

ERIC MARCUS MUNICIPAL AIRPORT

AIRPORT LAYOUT PLAN

AJO, ARIZONA

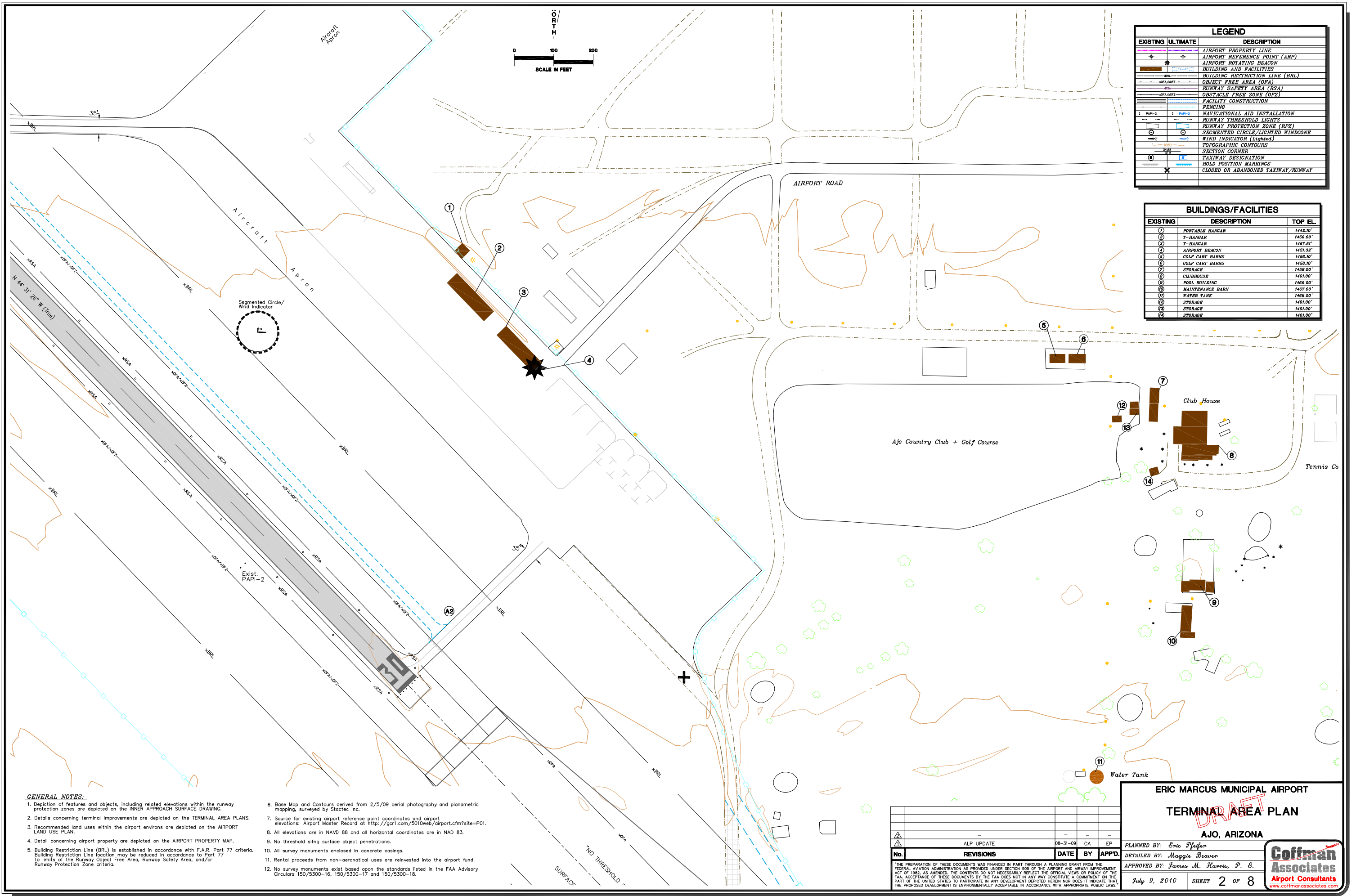
PLANNED BY: Eric Pfeiffer

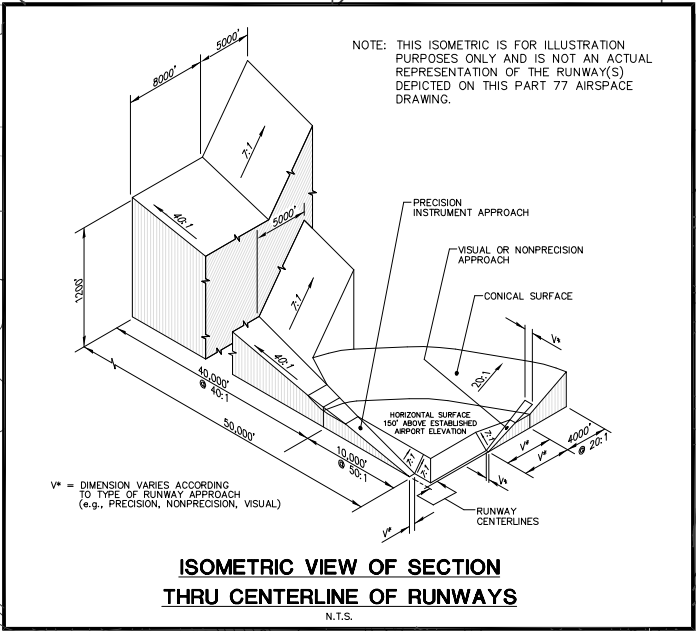
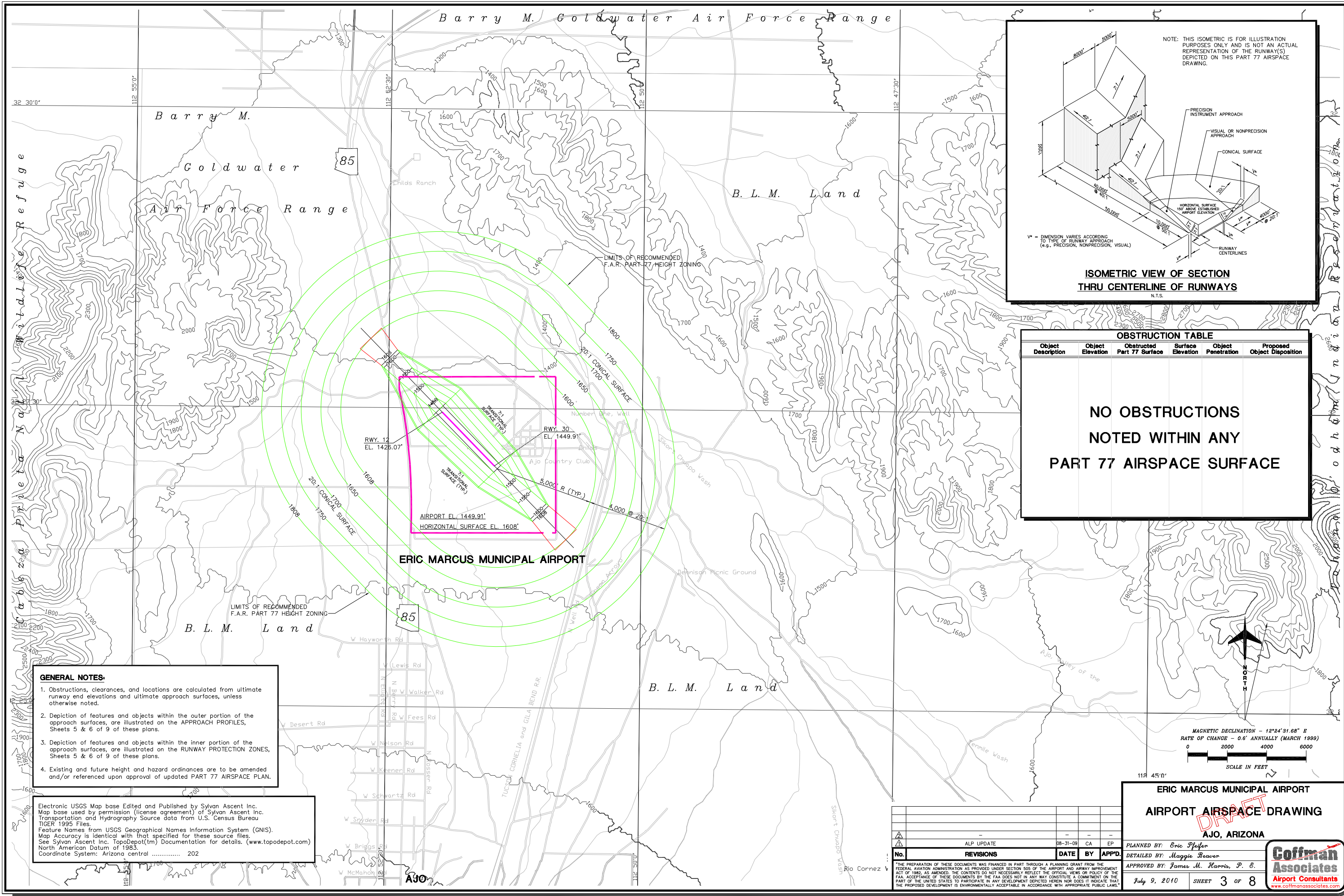
DETAILED BY: Maggie Beaver

APPROVED BY: James M. Harris, P. E.

July 9, 2010 SHEET 1 OF 8

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OBSTRUCTION TABLE				
Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration
NO OBSTRUCTIONS NOTED WITHIN ANY PART 77 AIRSPACE SURFACE				
Proposed Object Disposition				

GENERAL NOTES:

- Obstructions, clearances, and locations are calculated from ultimate runway end elevations and ultimate approach surfaces, unless otherwise noted.
- Depiction of features and objects within the outer portion of the approach surfaces, are illustrated on the APPROACH PROFILES, Sheets 5 & 6 of 9 of these plans.
- Depiction of features and objects within the inner portion of the approach surfaces, are illustrated on the RUNWAY PROTECTION ZONES, Sheets 5 & 6 of 9 of these plans.
- Existing and future height and hazard ordinances are to be amended and/or referenced upon approval of updated PART 77 AIRSPACE PLAN.

Electronic USGS Map base Edited and Published by Sylvan Ascent Inc.
Map base used by permission (license agreement) of Sylvan Ascent Inc.
Transportation and Hydrography Source data from U.S. Census Bureau
TIGER 1995 Files.
Feature Names from USGS Geographical Names Information System (GNIS).
Map Accuracy is identical with that specified for these source files.
See Sylvan Ascent Inc. TopoDepot(tm) Documentation for details. (www.topodepot.com)
North American Datum of 1983.
Coordinate System: Arizona central 202

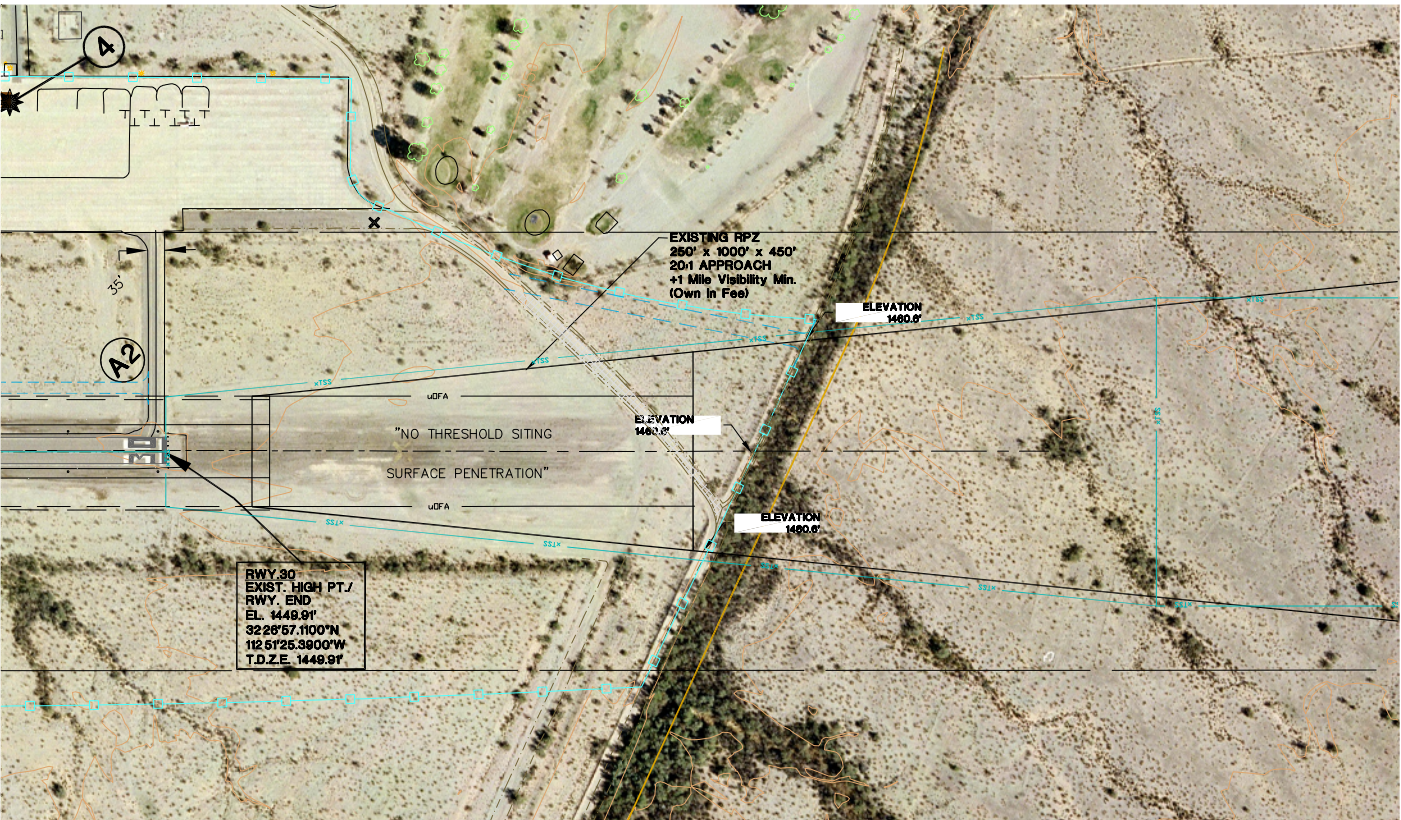
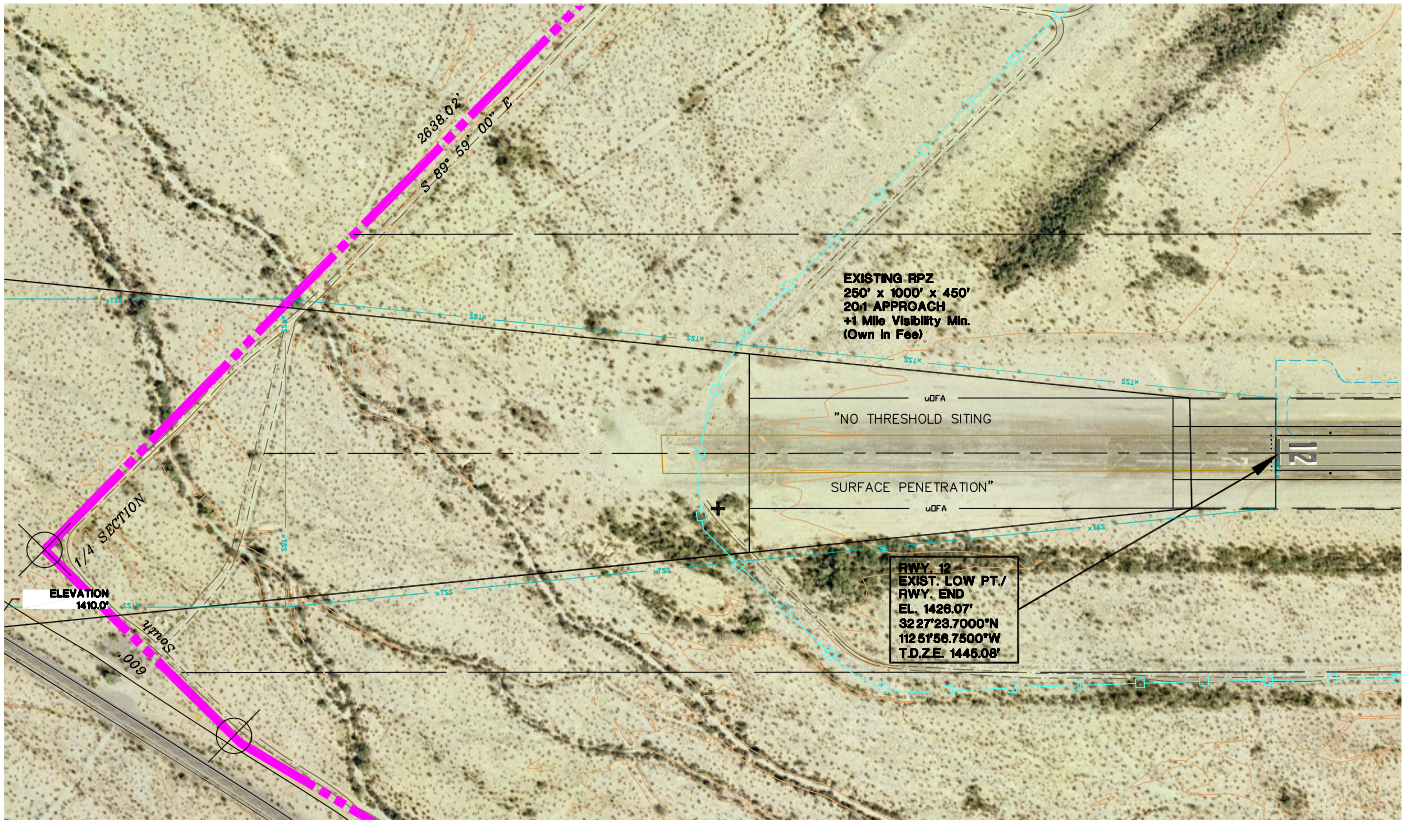
REVISIONS				
No.	REVISIONS	DATE	BY	APP'D.
1	ALP UPDATE	08-31-09	CA	EP

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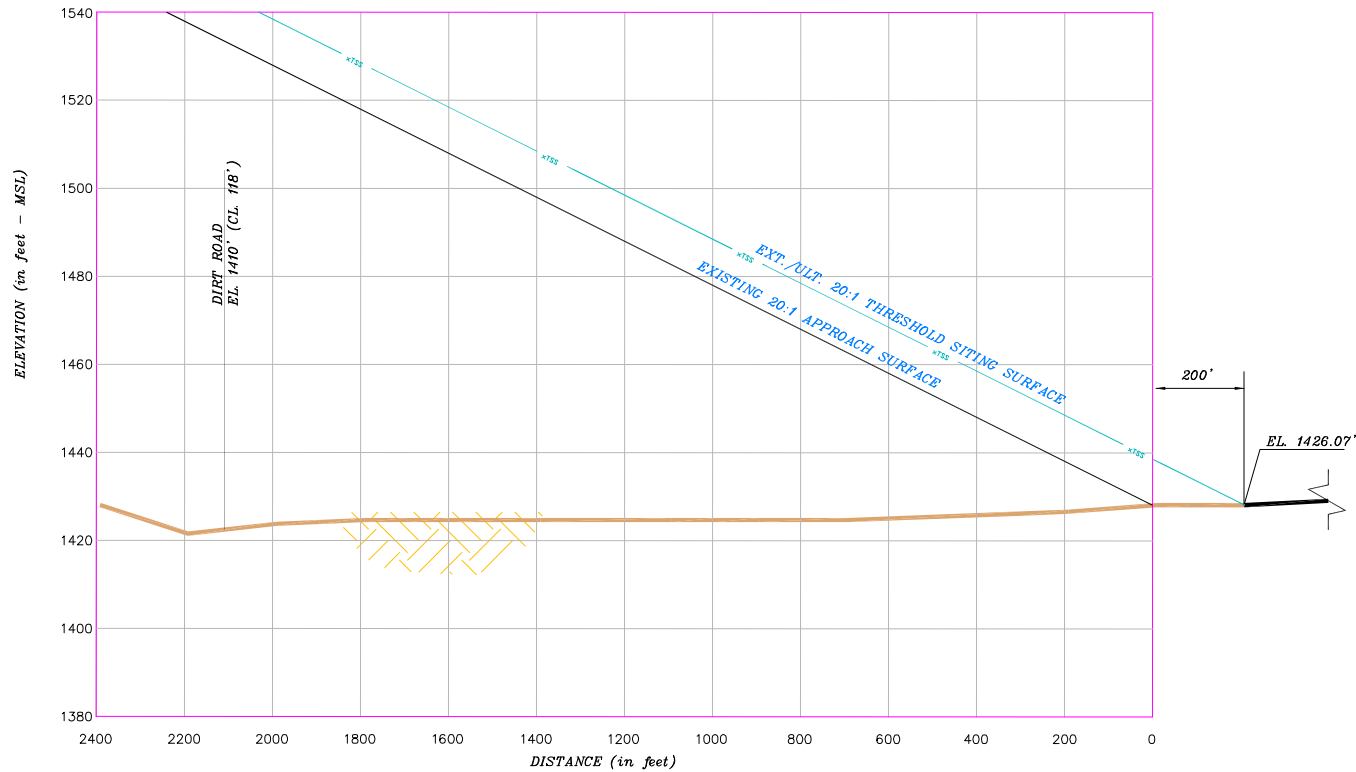
ERIC MARCUS MUNICIPAL AIRPORT
AIRPORT AIRSPACE DRAWING
AJO, ARIZONA

PLANNED BY: Eric Pfeifer
DETAILED BY: Maggie Beaver
APPROVED BY: James M. Harris, P. E.
July 9, 2010 SHEET 3 OF 8

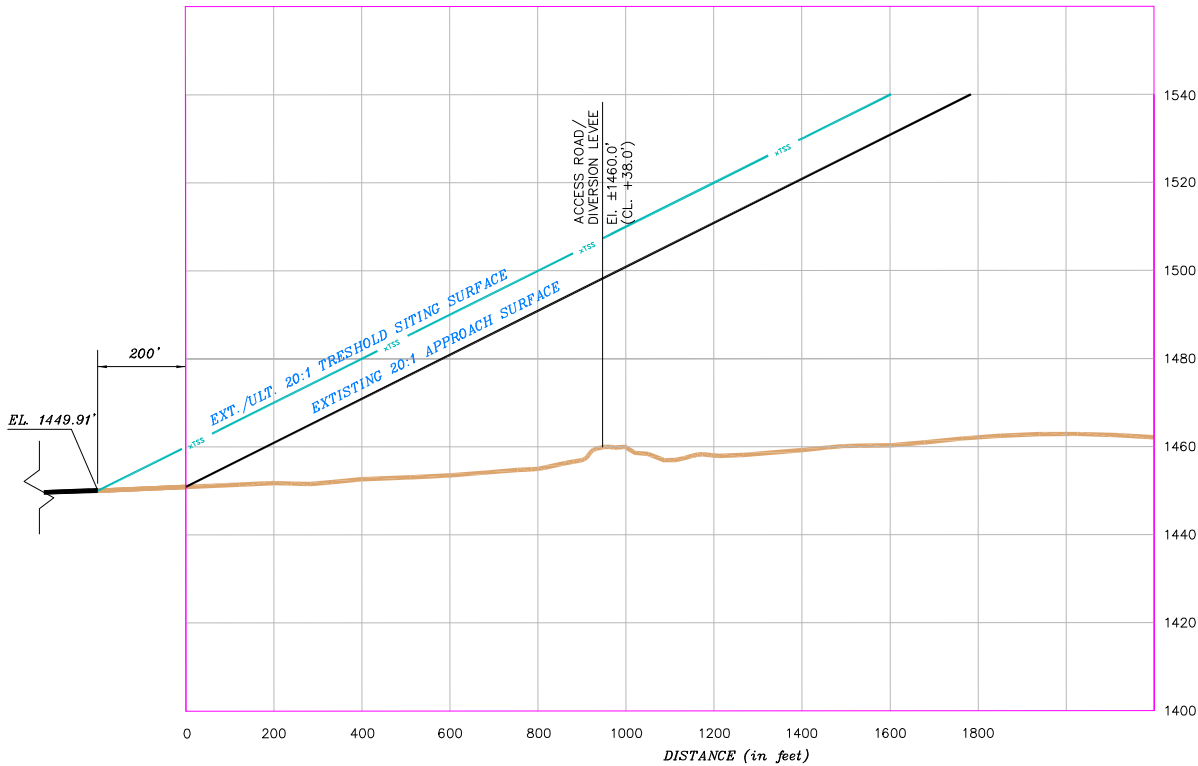
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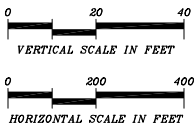
RUNWAY 12



RUNWAY 30



OBSTRUCTION TABLE					
Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. NONE	NONE	NONE	NONE	NONE	--
2. NONE	NONE	NONE	NONE	NONE	--
--	--	--	--	--	--
--	--	--	--	--	--



REVISIONS			
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1	08-31-09	CA	EP
ALP UPDATE			

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ERIC MARCUS MUNICIPAL AIRPORT
INNER PORTION OF THE
RUNWAY 12-30 APPROACH
SURFACE DRAWING
AJO, ARIZONA

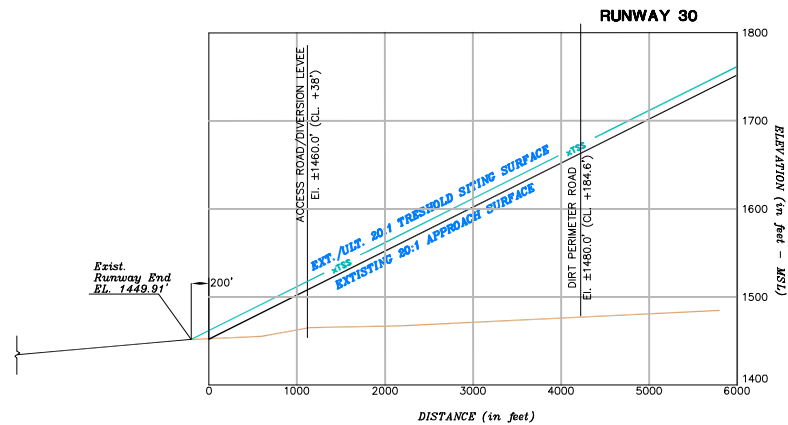
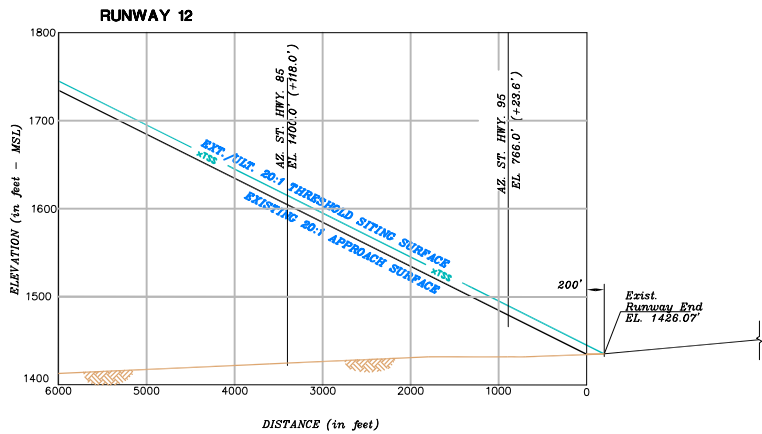
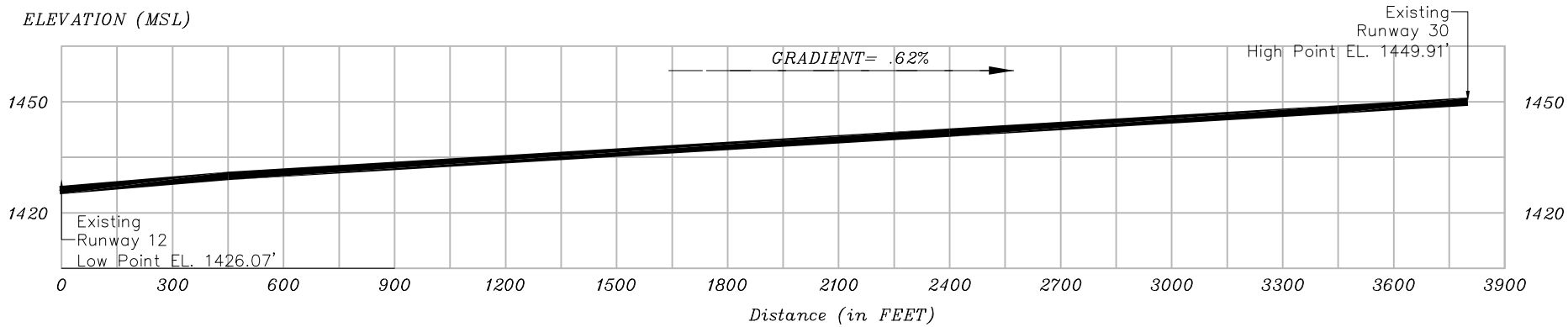
PLANNED BY: Eric Pfeifer
DETAILED BY: Maggie Beaver
APPROVED BY: James M. Harris, P. E.
July 9, 2010

SHEET 4 OF 8

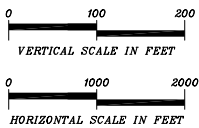
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EXISTING RUNWAY 12-30 PROFILE



OBSTRUCTION TABLE					
Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. NONE	NONE	NONE	NONE	NONE	NONE
2. NONE	NONE	NONE	NONE	NONE	NONE
---	---	---	---	---	---



No.	REVISIONS	DATE	BY	APP'D.
1	ALP UPDATE	08-31-09	CA	EP

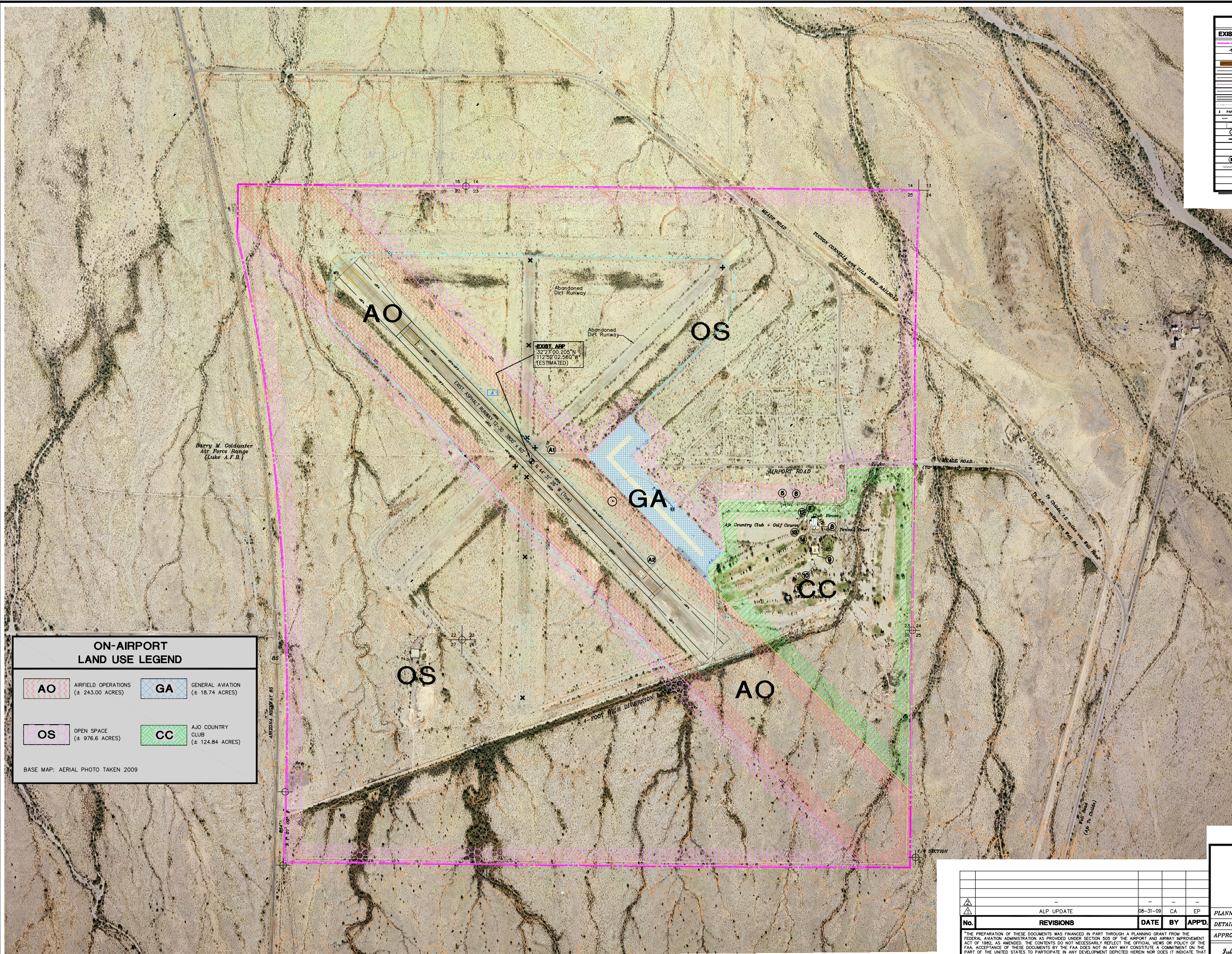
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ERIC MARCUS MUNICIPAL AIRPORT
RUNWAY 12-30 PROFILE &
OUTER APPROACH SURFACE
PROFILE DRAWING
AJO, ARIZONA

PLANNED BY: Eric Pfeifer
DETAILED BY: Maggie Beaver
APPROVED BY: James M. Harris, P. E.

July 9, 2010 SHEET 5 OF 8

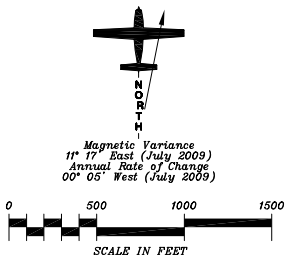
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LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		BUILDING AND FACILITIES
		BUILDING RESTRICTION LINE (BRL)
		OBJECT FREE AREA (OFA)
		RUNWAY SAFETY AREA (RSA)
		OBSTACLE FREE ZONE (OFZ)
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		FENCING
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		RUNWAY PROTECTION ZONE (RPZ)
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		WIND INDICATOR (Lighted)
		TOPOGRAPHIC CONTOURS
		SECTION CORNER
		TAXIWAY DESIGNATION
		HOLD POSITION MARKINGS
		CLOSED OR ABANDONED TAXIWAY/RUNWAY

ON-AIRPORT LAND USE LEGEND					
	AO	AIRFIELD OPERATIONS (± 243.00 ACRES)		GA	GENERAL AVIATION (± 18.74 ACRES)
	OS	OPEN SPACE (± 976.6 ACRES)		CC	AJO COUNTRY CLUB (± 124.84 ACRES)

BASE MAP: AERIAL PHOTO TAKEN 2009



No.	REVISIONS	DATE	BY	APP'D.
1	ALP UPDATE	08-31-09	CA	EP

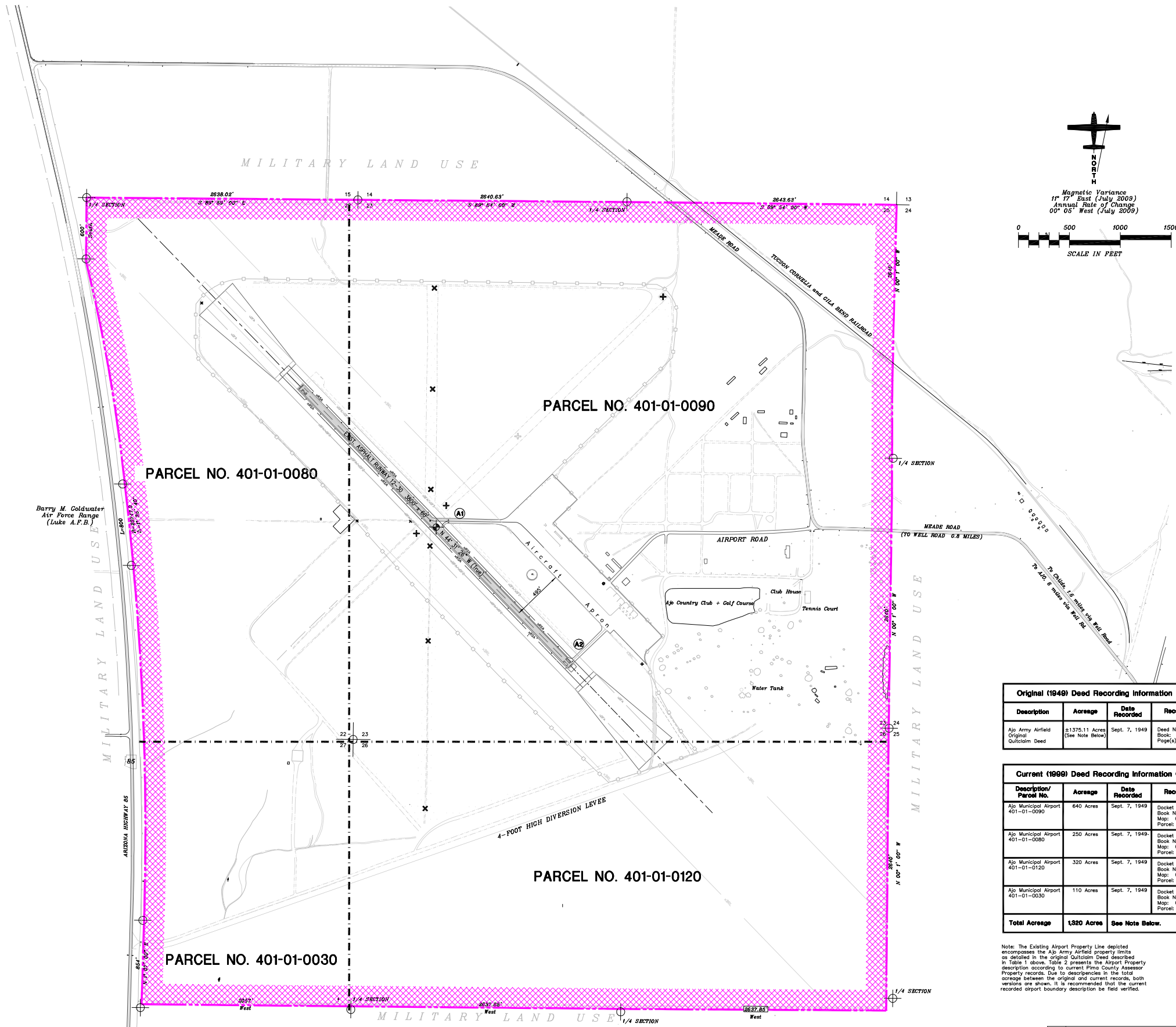
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ERIC MARCUS MUNICIPAL AIRPORT
ON-AIRPORT LAND USE
DRAWING
AJO, ARIZONA

PLANNED BY: Eric Pfeifer
DETAILED BY: Maggie Beaver
APPROVED BY: James M. Harris, P. E.

July 9, 2010 SHEET 7 OF 8

Coffman Associates
Airport Consultants
www.coffmanassociates.com



LEGEND		DESCRIPTION
EXISTING	ULTIMATE	
+	+	AIRPORT PROPERTY LINE
+	+	AIRPORT REFERENCE POINT (ARP)
+	+	AIRPORT ROTATING BEACON
+	+	BUILDING AND FACILITIES
+	+	BUILDING RESTRICTION LINE (BRL)
+	+	OBJECT FREE AREA (OFA)
+	+	RUNWAY SAFETY AREA (RSA)
+	+	OBSTACLE FREE ZONE (OFZ)
+	+	FACILITY CONSTRUCTION
+	+	FENCING
+	+	NAVIGATIONAL AID INSTALLATION
+	+	RUNWAY THRESHOLD LIGHTS
+	+	RUNWAY PROTECTION ZONE (RPZ)
+	+	SEGMENTED CIRCLE/LIGHTED WINDCONE
+	+	WIND INDICATOR (Lighted)
+	+	TOPOGRAPHIC CONTOURS
+	+	SECTION CORNER
+	+	TAXIWAY DESIGNATION
+	+	HOLD POSITION MARKINGS
+	+	CLOSED OR ABANDONED TAXIWAY/RUNWAY

KEY:

EXISTING AIRPORT PROPERTY (ORIGINAL OUTCLAIM DEED)

PARCEL BOUNDARY

Original (1949) Deed Recording Information (County Recorder - Pima County, AZ)				
Description	Acreage	Date Recorded	Recording Information	Grantor
Ajo Army Airfield Original Outclaim Deed	±1375.11 Acres (See Note Below)	Sept. 7, 1949	Deed No. 27482 Book: 194 Page(s): 144 - 152	United States of America General Services Administration War Assets

Current (1999) Deed Recording Information (County Assessor - Pima County, AZ)				
Description/Parcel No.	Acreage	Date Recorded	Recording Information	Grantor
Ajo Municipal Airport 401-01-0090	640 Acres	Sept. 7, 1949	Docket No.: 194 Page: 144 Book No.: 401 Map: 01 Parcel: 0090	United States of America General Services Administration War Assets
Ajo Municipal Airport 401-01-0080	250 Acres	Sept. 7, 1949	Docket No.: 194 Page: 144 Book No.: 401 Map: 01 Parcel: 0080	United States of America General Services Administration War Assets
Ajo Municipal Airport 401-01-0120	320 Acres	Sept. 7, 1949	Docket No.: 194 Page: 144 Book No.: 401 Map: 01 Parcel: 0120	United States of America General Services Administration War Assets
Ajo Municipal Airport 401-01-0030	110 Acres	Sept. 7, 1949	Docket No.: 194 Page: 144 Book No.: 401 Map: 01 Parcel: 0030	United States of America General Services Administration War Assets
Total Acreage	1,320 Acres	See Note Below.		

Note: The Existing Airport Property Line depicted encompasses the Ajo Army Airfield property limits as detailed in the original Outclaim Deed described in Table 1 above. Table 2 presents the Airport Property description according to current Pima County Assessor Property records. Due to discrepancies in the total acreage between the original and current records, both versions are shown. It is recommended that the current recorded airport boundary description be field verified.

No.	REVISIONS	DATE	BY	APP'D.
	ALP UPDATE	08-31-09	CA	EP
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ERIC MARCUS MUNICIPAL AIRPORT
EXHIBIT "A"
AIRPORT PROPERTY MAP
AJO, ARIZONA

PLANNED BY: Eric Pfeifer
DETAILED BY: Maggie Beaver
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