

AIRPORT PLANS



Chapter Six

AIRPORT PLANS

A set of plans, referred to as **Airport Layout Plans** has been prepared to graphically depict the recommendations for airfield layouts, disposition of obstructions and future use of land in the vicinity of the airport. This set includes the following.

- ◆ Airport Layout Plan
- ◆ Terminal Area Plan
- ◆ Part 77 Airspace Plan
- ◆ Approach Zones Plan
- ◆ Runway Protection Zones Plan
- ◆ Land Use Plan

DESIGN STANDARDS

The design standards used to plan the development of Benson Municipal Airport are prescribed in FAA Advisory Circular 150/5300-13, Airport Design Guide. The design standards are based upon several

factors which include the approach speed of the aircraft, the operating weights and the wingspan of the aircraft.

Benson will ultimately be designed to accommodate aircraft in *Approach Category C* (approach speeds between 120 and 141 nautical miles per hour). The majority of the aircraft anticipated to operate at the airport would be in *Airplane Design Group II* (ADG II), aircraft with wingspans less than 79 feet in length. The initial runway should be designed to accommodate aircraft in *Approach Category B* (aircraft with approach speeds between 91 and 121 knots) and ADG II. The design load bearing strength of the runway, taxiways and taxilanes should be designed to support 12,500 pound single wheel loading, increasing to 30,000 pounds single wheel loading and 60,000 dual wheel loading by the end of the planning period. The design standards used in planning the facilities and airport layout are described in **Table 6A**.

Table 6A
Airport Design Standards
Benson Municipal Airport

<u>Descriptor</u>	<u>Initial</u>	<u>Mid-Term</u>	<u>Ultimate</u>
Runway Length (ft)	4,000	5,600	7,000
Runway Width (ft)	75	75	100
Runway Strength (lbs)	12,500	12,500	30,000
Runway Safety Area Length (ft)	4,600	6,200	9,000
Runway Safety Area Width (ft)	150	150	400
Runway 10 RPZ	Visual	Visual	Visual
Runway 28 RPZ	Visual	Non-Precision	Non-Precision
Parallel Taxiway Length (ft)	None	5,600	7,000
Parallel Taxiway Width (ft)	35	35	35
Parallel Taxiway Strength (lbs)	12,500	12,500	30,000
<u>Runway Centerline to:</u>			
Parallel Taxiway (ft)	240	240	300
Aircraft Parking (ft)	250	250	400
Building Restriction Line (ft)	495	495	495
<u>Taxiway Centerline to:</u>			
Parallel Taxiway (ft)	105	105	105
Fixed or Moveable Object	65.5	65.5	65.5
<u>Taxilane Centerline to:</u>			
Fixed or Moveable object	57.5	57.5	57.5

Source: FAA AC 150/5300-13

Note: RPZ - Runway Protection Zone

AIRPORT LAYOUT PLAN

The Airport Layout Plan (ALP) (Drawing No. 1) graphically presents the initial and ultimate airport layout and depicts the recommended improvements needed to meet forecast aviation demand. Detailed airport and runway data are provided on the ALP to

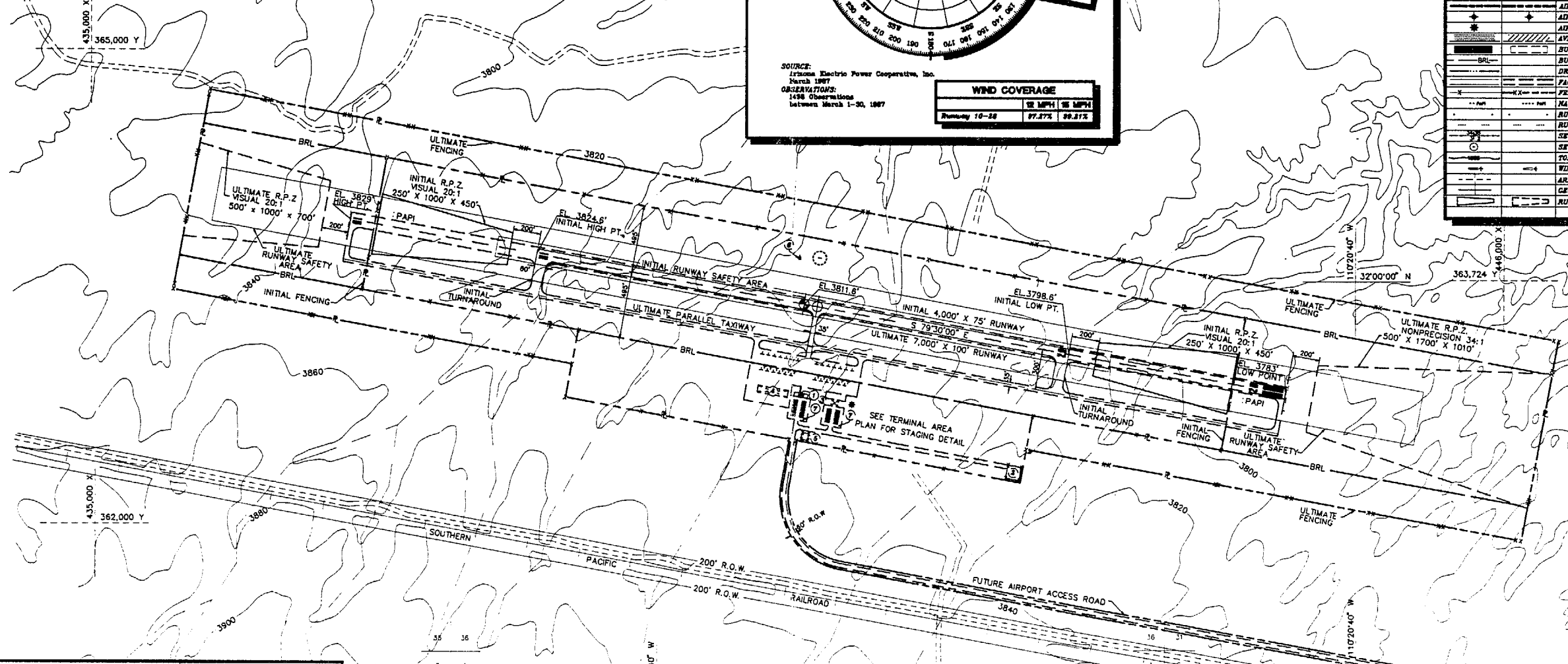
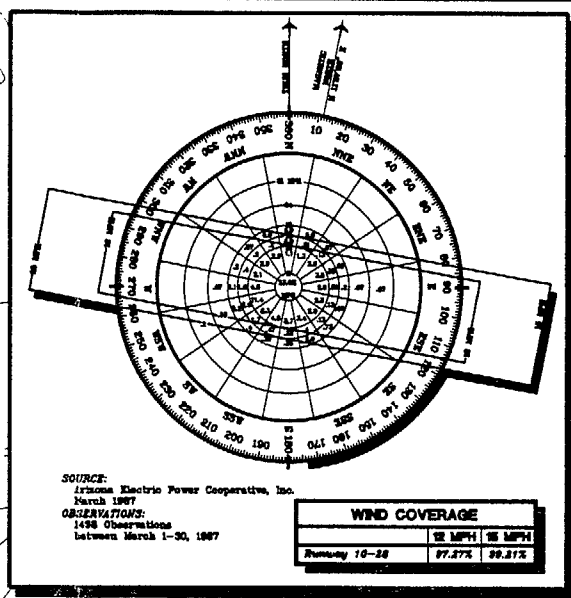
facilitate the interpretation of the master planning recommendations.

The ALP is an overview of the proposed development of the airport through the year 2010. The ALP constitutes the basis for the complete set of drawings included in the Airport Layout Plans. Although it does not

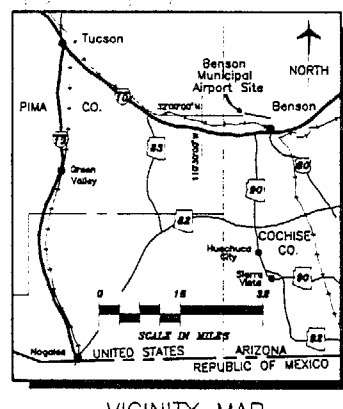
BUILDINGS/FACILITIES		
INITIAL	ULTIMATE	DESCRIPTION
	①	ADMINISTRATION/TERMINAL BUILDING
	②	NONDIRECTIONAL BEACON
	③	FIXED BASE OPERATION HANGAR
	④	T-HANGAR
	⑤	FUEL FACILITY
	⑥	AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)
	⑦	AUTOMOBILE PARKING

AIRPORT DATA		
	INITIAL	ULTIMATE
AIRPORT TYPE	UTILITY	TRANSPORT
AIRCRAFT DESIGN GROUP/APPROACH SPEED CATEGORY	I/B	I/C
AIRPORT ELEVATION	2824.6' MSL	2823' MSL
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH	96.6° F	
AIRPORT REFERENCE POINT (ARP) COORDINATES	Latitude 31°52'58" N Longitude 110°21'21" W	Latitude 31°52'58" N Longitude 110°21'26" W
AIRPORT and TERMINAL NAVIGATIONAL AIDS		NDB
RUNWAY END COORDINATES		
RUNWAY 28	Latitude 31°50'08" N Longitude 110°21'05" W	Latitude 31°50'05" N Longitude 110°20'47" W
RUNWAY 100	Latitude 31°50'05" N Longitude 110°21'50" W	Latitude 31°50'05" N Longitude 110°22'07" W
AIRPORT AREA	705 AC	387 AC

LEGEND		
INITIAL	ULTIMATE	DESCRIPTION
---	---	AIRPORT PROPERTY LINE
+	+	AIRPORT REFERENCE POINT (ARP)
*	*	AIRPORT ROTATING BEACON
////	////	AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
-BRL-	-BRL-	BUILDING RESTRICTION LINE (BRL)
DRAINAGE		DRAINAGE
---	---	FACILITY CONSTRUCTION
---	---	FENCING
---	---	NAVIGATIONAL AID INSTALLATION
---	---	RUNWAY END IDENTIFICATION LIGHTS (REIL)
---	---	RUNWAY THRESHOLD LIGHTS
---	---	SECTION CORNER
---	---	SEGMENTED CIRCLE/WIND INDICATOR
---	---	TOPOGRAPHIC CONTOURS
---	---	WIND INDICATOR (Eggshead)
---	---	ARIZONA STATE GRID COORDINATES - EAST ZONE
---	---	GEOGRAPHIC COORDINATES
---	---	RUNWAY PROTECTION ZONE (R.P.Z.)



RUNWAY DATA		
	RUNWAY 10-28	
	INITIAL	ULTIMATE
RUNWAY TYPE	UTILITY	TRANSPORT
AIRCRAFT DESIGN GROUP/APPROACH SPEED CATEGORY	I/B	I/C
RUNWAY DIMENSIONS	4,000' X 75'	7,000' X 100'
RUNWAY BEARING	S 78°30'00" E	S 78°30'00" E
RUNWAY INSTRUMENTATION	VISUAL NONPRECISION	
RUNWAY SAFETY AREA	4,600' X 160'	8,000' X 400'
OBSTACLE FREE ZONE	4,400' X 250'	7,400' X 400'
RUNWAY APPROACH SURFACES	20:1/20:1	20:1/24:1
RUNWAY LIGHTING	MRL	MRL
RUNWAY MARKING	VISUAL NONPRECISION	
TAXIWAY LIGHTING	DELIMITATORS	MTL
TAXIWAY MARKING	CENTERLINE/EDGE	CENTERLINE/EDGE
EFFECTIVE RUNWAY GRADIENT (%)	0.66	0.66
PAVEMENT MATERIAL	ASPHALT	ASPHALT
PAVEMENT STRENGTH (in thousand lbs.)	12,500 LBS	30,000 lbs C 80,000 lbs D
NAVIGATIONAL AIDS	SEGMENTED CIRCLE	NON DIRECTIONAL
	WIND CONE	BEACON
		AWOS
		PAPI
		REIL



NO.	REVISIONS	DATE	BY	APP'D.

THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION/AVIATION DIVISION. THE CONTENTS DO NOT NECESSARILY REFLECT THE OPINION, VIEW OR POLICY OF ADOT.

SUBMITTED BY: **Coffman Associates** ON THE DATE OF:
 FOR APPROVAL BY:

 APPROVED BY: _____ ON THE DATE OF: _____

Coffman Associates
City of **Benson**
BENSON MUNICIPAL AIRPORT
AIRPORT LAYOUT PLAN
BENSON, ARIZONA

PLANNED BY: **Fernando S. Hernandez** DETAILED BY: **John R. Wagner** DATE: 5/22/90
DRAWING NUMBER 1 SHEET 1 OF 5

MAGNETIC VARIANCE 11°37' E (MARCH 1990)
ANNUAL RATE OF CHANGE 2.4 WEST



- GENERAL NOTES:
1. Depiction of features and objects, including related elevations within the runway protection zones, are depicted on the RUNWAY PROTECTION ZONES PLAN.
 2. Details concerning airport landscape improvements are depicted on the TERMINAL AREA PLAN.
 3. Recommended land uses within the airport environs are depicted on the AIRPORT LAND USE/NOISE PLAN.
 4. Contours were derived from U.S.G.S. topo maps.
 5. Topographic information is subject to verification.

depict the various stages of development leading up to this 20 year plan, additional exhibits and plans in this report show the development stages in detail. The improvements indicated on the ALP and following plans are expected to be financed in part by the City of Benson, the Arizona Department of Transportation/Aeronautics Division and the Federal Airport Improvement Program.

Prior to beginning construction of the airport, land will have to be acquired and utilities installed to the property. Both airside (runways, taxiways, etc.) and landside (apron, terminal, hangars, etc.) facilities will be developed in stages in order to meet existing demand levels. The ultimate airfield and runway facility will be capable of supporting the anticipated needs of Benson Municipal Airport throughout the planning period.

Initially, the runway will be constructed to a length of 4,000 feet and a width of 75 feet. The runway orientation, 10-28, will provide greater than a 95 percent coverage of crosswinds in excess of 12 and 15 miles per hour. During Stage II, the Runway will be extended to a length of 5,600 feet and ultimately reach a final length of 7,000 feet in Stage III. The initial 4,000 foot runway length was centered with the terminal area; future extensions of the runway will ultimately occur in both directions, thereby, retaining the juxtaposition of the terminal to the runway.

Initially the runway will be equipped with turnarounds at both runway ends, rather than a parallel taxiway. A taxiway constructed from the approximate center of the initial 4,000 foot runway to the apron will provide access to the terminal area. A parallel taxiway for the airport will be constructed during Stage II, in conjunction with the first

runway extension. In Stage III, the final runway extension will be constructed, the parallel taxiway completed and the runway widened to 100 feet.

The airport's navigational aids and lighting will also be installed in different stages. A segmented circle, lighted wind cones, rotating beacon, and medium intensity runway lighting (MIRL) will be installed in the initial stage of development. The runway will be marked for visual operations. During Stage II, a Non-Direction Beacon (NDB), AWOS system and Precision Approach Path Indicator (PAPI) for Runway 28 will be installed. The parallel taxiway will be constructed in conjunction with a 1,600 foot runway extension during this period. In Stage III, the runway will receive nonprecision markings on Runway 28, runway end identification lights (REIL) for both runway ends, a PAPI installed on Runway 10, and the final runway and parallel taxiway extensions of 1,400 feet constructed. The remaining projects assigned to this stage of development include runway strengthening to 30,000 pounds single wheel loading and medium intensity taxiway lighting (MITL).

The airport entrance road will be constructed during installation of the initial 4,000 feet of runway, but will not be paved until the second phase of development. The aircraft apron will be constructed in stages, providing both hangar and tiedown areas. These improvements are indicated in more detail and a larger scale on the *Terminal Area Plan* drawing which is discussed later in this chapter.

In addition to the future terminal area, other airfield development items include: airport security fencing and installation of fuel storage facilities.

TERMINAL AREA PLAN

The *Terminal Area Plan*, Drawing No. 2, represents a refinement of the selected development configuration and provides a detailed staging plan for construction of the general aviation terminal facilities to meet the forecast demand. The overall concept is to plan the initial terminal area so as to minimize the impact future construction of terminal facilities will have on the day to day operation of the airport. The initial facilities will become the "hub" for future expansion east or west of the existing terminal facilities. The small number of general aviation facilities required during the planning period provides very flexible options for future development.

The location of the FBO hangar and the terminal building reduces the taxi time for aircraft from either end of the runway. Auto parking for the terminal area is shown to the south of the building, directly off the airport entrance road.

The *Terminal Area Plan* outlines the staging of the terminal area development over the 20-year planning period and the levels of accommodation. These staged developments depict an orderly progression for the overall development program and limit the construction of any temporary or short term use facilities to a minimum.

AIRSPACE PLAN

The Airspace Plan for Benson Municipal Airport (Drawing No. 3) is based on Federal Aviation Regulations (F.A.R.) Part 77, *Objects Affecting Navigable Airspace*. In order to protect the airspace and approaches to each runway from hazards that could affect the safe and efficient operation of the airport, federal criteria has been established (F.A.R. Part 77) for use by local planning and

land use jurisdictions to control the height of objects in the vicinity of the airport.

Imaginary surfaces are described for various airport geometric planes, such as the runway (*primary and transition surfaces*), approach (approach surface) and the airport (horizontal and conical surfaces). The Part 77 Airspace Plan is a graphic depiction of these surfaces. Design criteria for surface heights, angles and radii on this plan are determined by airport category and runway approach instrumentation. The Airspace Plan for Benson Municipal Airport is based on a *transport airport with a nonprecision instrument approach* to Runway 28 and *visual approach* to Runway 10. These drawings will permit the City of Benson to readily determine if construction of a proposed structure in the vicinity of the airport will penetrate any of the protected airspace surfaces.

All of the obstructions recorded at Benson Municipal Airport are indicated on Drawing No. 3. Those obstructions that pertain to the runway protection zones and approach zones are explained in greater detail on the appropriate drawings that follow. Obstructions to the other airspace surfaces are described briefly below.

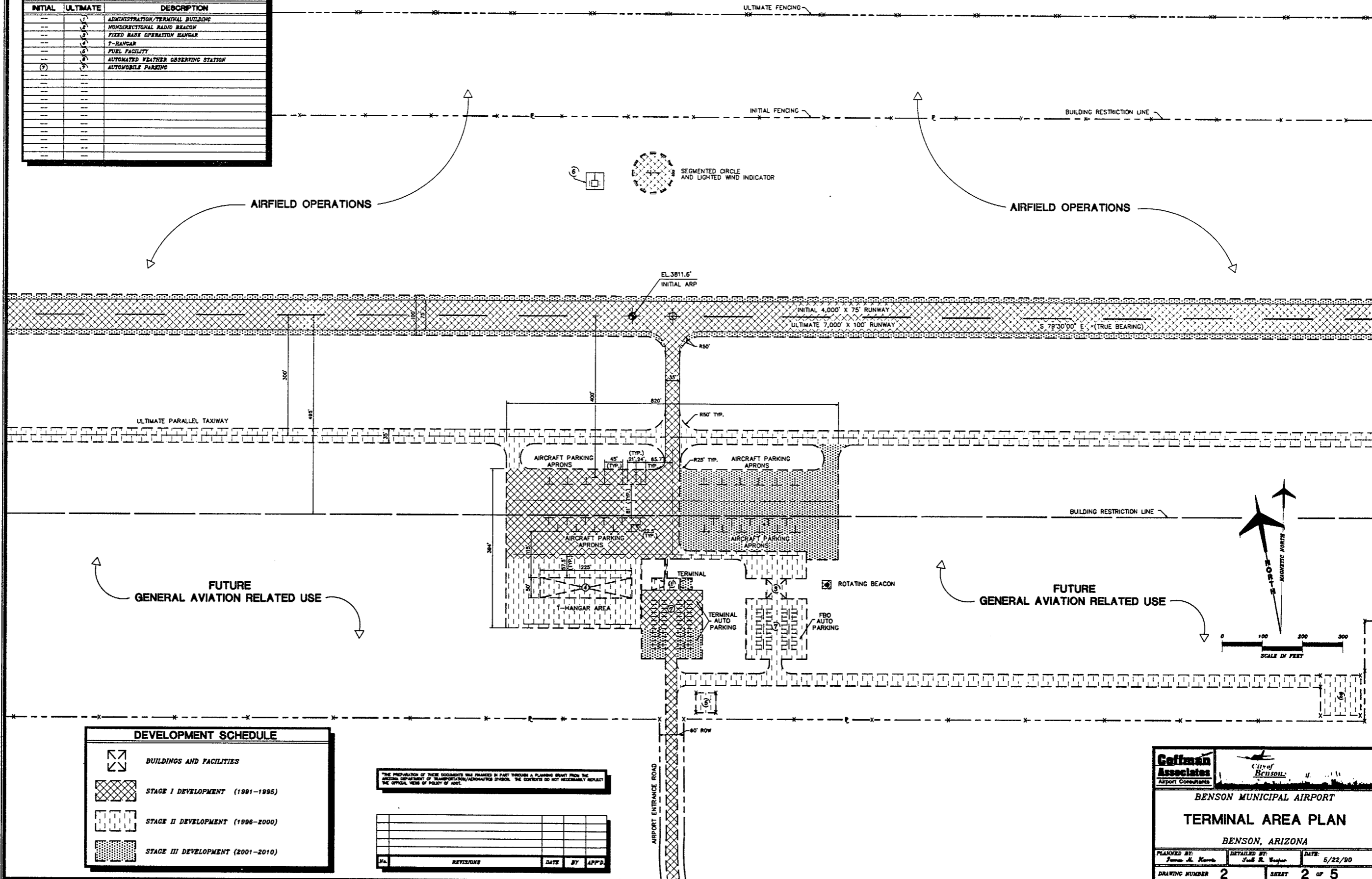
PRIMARY SURFACE OBSTRUCTIONS

The *primary* surface for the runway at Benson Municipal Airport is 500 feet in width, extends 200 feet beyond each runway end and is centered on the runway. All obstructions in the primary surface for Runway 10-28 will be removed during runway construction.

TRANSITION SURFACE OBSTRUCTIONS

The *transition* imaginary surface is an imaginary surface used to join two surfaces

BUILDINGS/FACILITIES		
INITIAL	ULTIMATE	DESCRIPTION
---	(1)	ADMINISTRATION/TERMINAL BUILDING
---	(2)	NONDIRECTIONAL RADIO BEACON
---	(3)	FIXED BASE OPERATION HANGAR
---	(4)	T-HANGAR
---	(5)	FUEL FACILITY
---	(6)	AUTOMATED WEATHER OBSERVING STATION
(7)	(7)	AUTOMOBILE PARKING
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---



DEVELOPMENT SCHEDULE	
	BUILDINGS AND FACILITIES
	STAGE I DEVELOPMENT (1991-1995)
	STAGE II DEVELOPMENT (1996-2000)
	STAGE III DEVELOPMENT (2001-2010)

THE PREPARATION OF THESE DOCUMENTS HAS BEEN MADE IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL DEPARTMENT OF TRANSPORTATION/AIRPORTS DISTRICT. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEW OF POLICY OF ADOT.

NO.	REVISIONS	DATE	BY	APP'D.

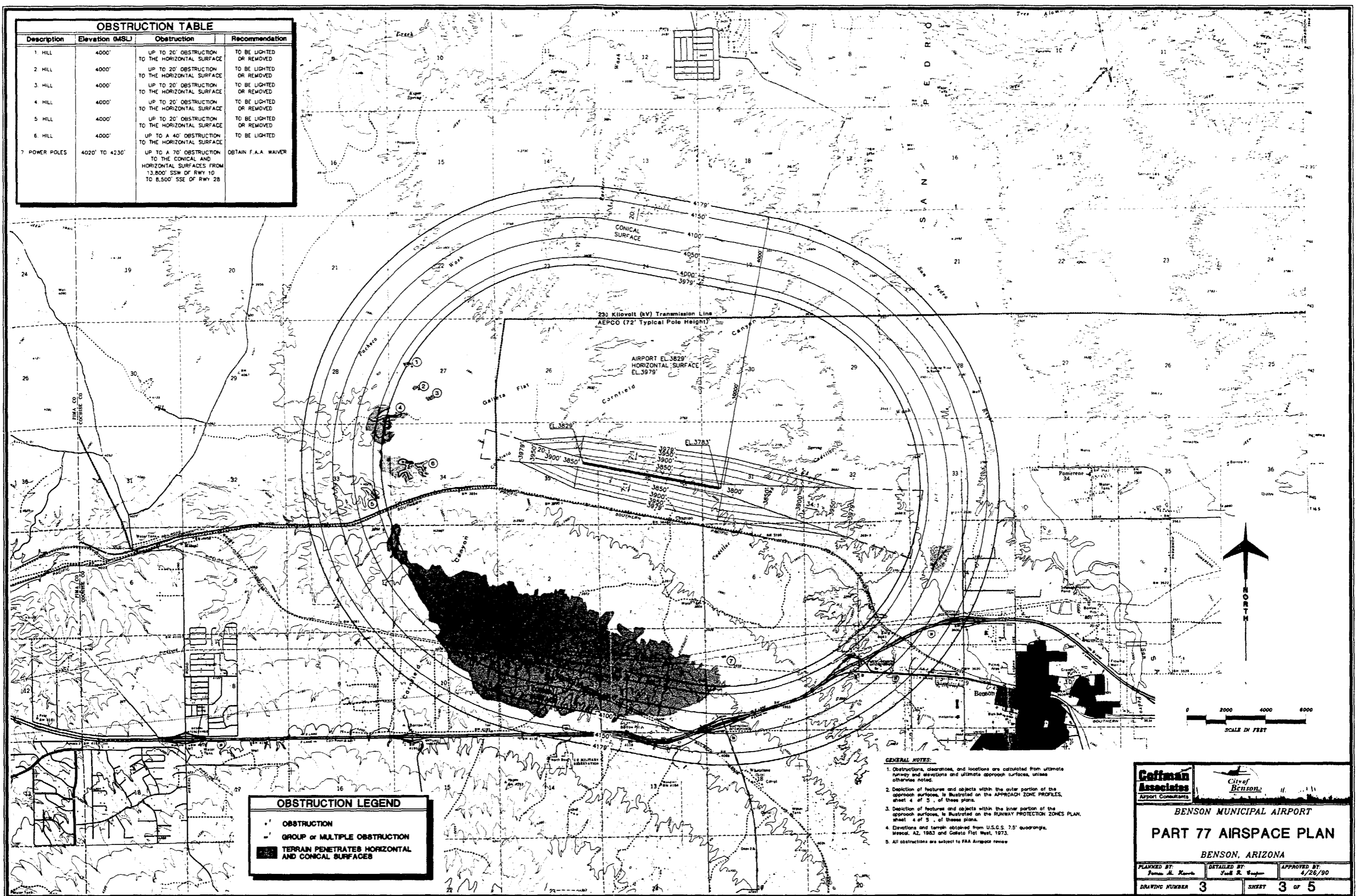
Coffman Associates

City of
BENSON
Airport Consultants

BENSON MUNICIPAL AIRPORT
TERMINAL AREA PLAN
BENSON, ARIZONA

PLANNED BY: James A. Kover	DETAILED BY: John R. Wagner	DATE: 5/22/90
DRAWING NUMBER 2		SHEET 2 OF 5

OBSTRUCTION TABLE			
Description	Elevation (MSL)	Obstruction	Recommendation
1. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
2. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
3. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
4. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
5. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
6. HILL	4000'	UP TO 20' OBSTRUCTION TO THE HORIZONTAL SURFACE	TO BE LIGHTED OR REMOVED
7. POWER POLES	4020' TO 4230'	UP TO A 40' OBSTRUCTION TO THE HORIZONTAL SURFACE	OBTAIN F.A.A. WAIVER
		UP TO A 70' OBSTRUCTION TO THE CONICAL AND HORIZONTAL SURFACES FROM 13,800' SSW OF RWY 10 TO 8,500' SSE OF RWY 28	



OBSTRUCTION LEGEND	
•	OBSTRUCTION
—	GROUP or MULTIPLE OBSTRUCTION
■	TERRAIN PENETRATES HORIZONTAL AND CONICAL SURFACES

- GENERAL NOTES:**
- Obstructions, clearances, and locations are calculated from ultimate runway and elevations and ultimate approach surfaces, unless otherwise noted.
 - Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the APPROACH ZONE PROFILES, sheet 4 of 5, of these plans.
 - Depiction of features and objects within the inner portion of the approach surfaces, is illustrated on the RUNWAY PROTECTION ZONES PLAN, sheet 4 of 5, of these plans.
 - Elevations and terrain obtained from U.S.G.S. 7.5' quadrangle, Mescal, AZ, 1963 and Cochet Flat West, 1973.
 - All obstructions are subject to FAA Airspace review.

BENSON MUNICIPAL AIRPORT			
PART 77 AIRSPACE PLAN			
BENSON, ARIZONA			
PLANNED BY:	DETAILED BY:	APPROVED BY:	
James H. Kunk	Jack R. Wagoner	4/26/90	
DRAWING NUMBER	3	SHEET	3 of 5

together. The transition surface has a slope of 7 to 1 and joins the primary surface to the approach or horizontal imaginary surfaces. There are no obstructions to the transition surface.

HORIZONTAL SURFACE OBSTRUCTIONS

The *horizontal* surface is established at 150 feet above the highest airport elevation. The horizontal surface has a radius of 10,000 feet from the ends of the runways. A tangent line connects both arcs, ultimately describing the surface exhibited in Drawing No. 3.

Based on the ultimate runway design, the only obstructions to the horizontal surface are associated with rising terrain south of the airport. There are several obstructions indicated on Drawing No. 3. Rising terrain, trees and several power line poles are the predominant obstructions to the horizontal surface in this area. It is recommended that the obstructions be indicated in all aviation publications pertaining to the airport and lighted wherever practical.

CONICAL SURFACE OBSTRUCTIONS

The *conical* surface for Benson Municipal Airport is 4,000 feet in length and slopes away from the horizontal surface at a 20 to 1 slope to a height of 350 feet above the established airport elevation.

Based on the ultimate runway design, the only obstructions to the conical imaginary surface are associated with rising terrain south of the airport. Several of these obstructions are indicated on Drawing No. 3. Rising terrain, trees and power poles penetrate the conical

surface in this area. There are no other areas where the conical surface of the airfield is penetrated.

APPROACH ZONES PLAN

The Approach Zones Plan, Drawing No. 4, is a profile representation of the approach surfaces off each end of the runway. The plans depict the physical features near each runway's extended centerline, including significant topographic changes, roadways, levees and railroads. The dimensions and angles of the approach surfaces are prescribed in Part 77 and depend upon the runway instrumentation and aircraft served. The approach slope for the visual runway, Runway 10, is 20 to 1 while the approach slope for the nonprecision runway, Runway 28, is 34 to 1. There are no obstructions indicated in either of these approach surfaces.

RUNWAY PROTECTION ZONES

The Runway Protection Zones Plan, Drawing No. 4, consists of a large scale plan and profile view of the inner portions of the approach surfaces. This plan is designed to facilitate identification of roadways, levees, utility lines, structures and other possible obstructions that may lie within the confines of these safety areas at the ends of each runway.

The runway protection zone dimensions are a function of the size of the aircraft and the runway instrumentation. The runway protection zone for Runway 10 is sized for large aircraft under visual flight conditions while the runway protection zone for Runway 28 is sized for large aircraft under nonprecision instrument conditions. There

are no obstructions recorded in either of the airport's runway protection zones.

LAND USE/NOISE PLAN

The objective of the Land Use/Noise Plan (Drawing No. 5), is to coordinate land uses both on the airport property and in surrounding areas, so that land uses are compatible and able to function without major constraints or annoyance. The Land Use/Noise Plan depicts the recommended land use proposed in the vicinity of Benson Municipal Airport, both on and off airport property. The major objective of this plan is to protect and secure this valuable community asset, and the investment of community, state, and federal dollars.

The boundaries of the Land Use/Noise Plan are defined by a somewhat subjective area illustrated on Drawing No. 5 as the *Airport Influence Area*. This area is normally adjusted to follow natural landscape features, survey features and/or political boundaries. In the case of Benson Municipal Airport, the boundaries have been aligned with section lines of the range and township survey system. *The Airport Influence Area* illustrates the land that is likely to be affected by airport operations and includes the noise impact area anticipated by the year 2010 and the airport property.

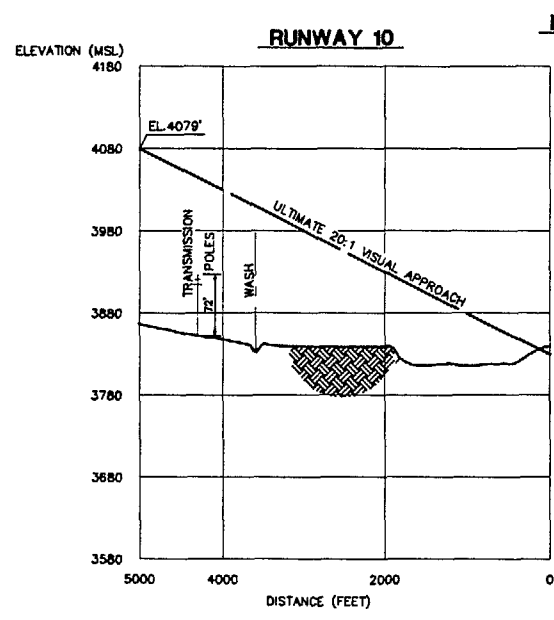
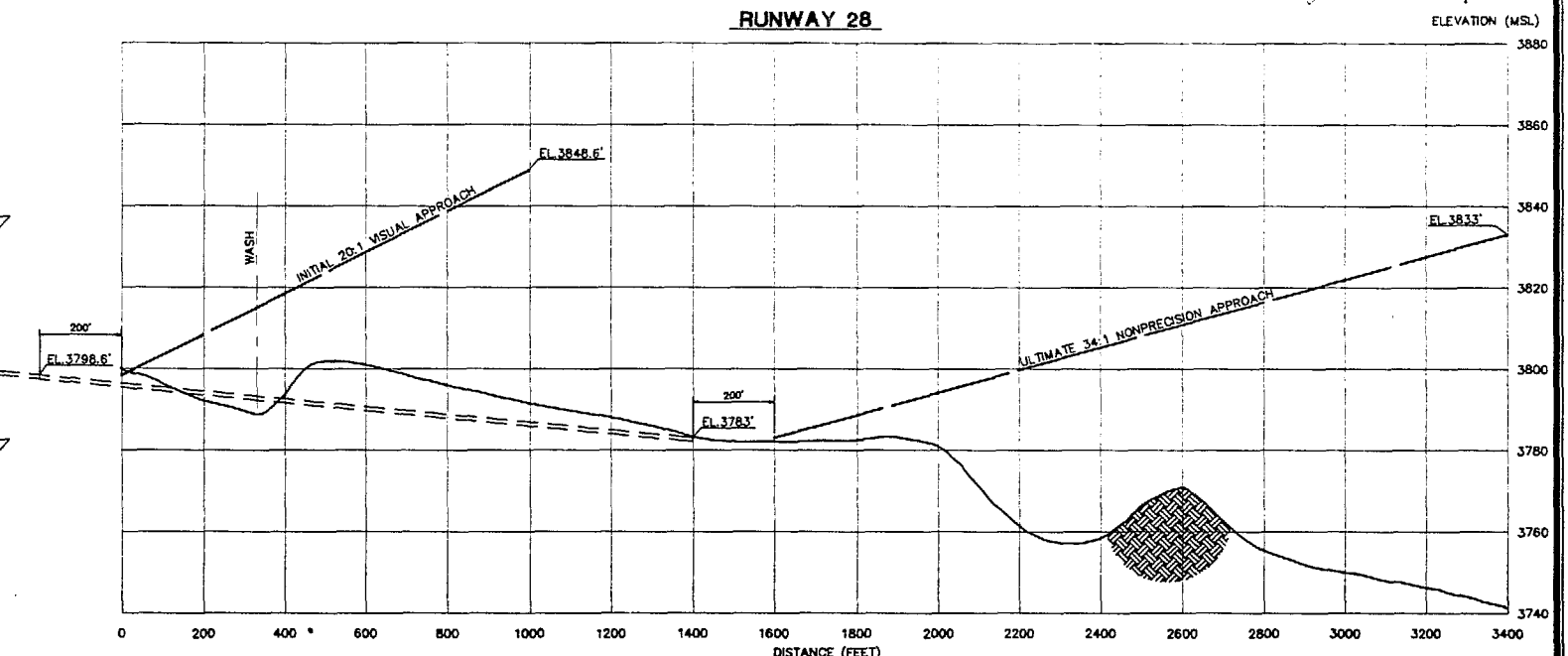
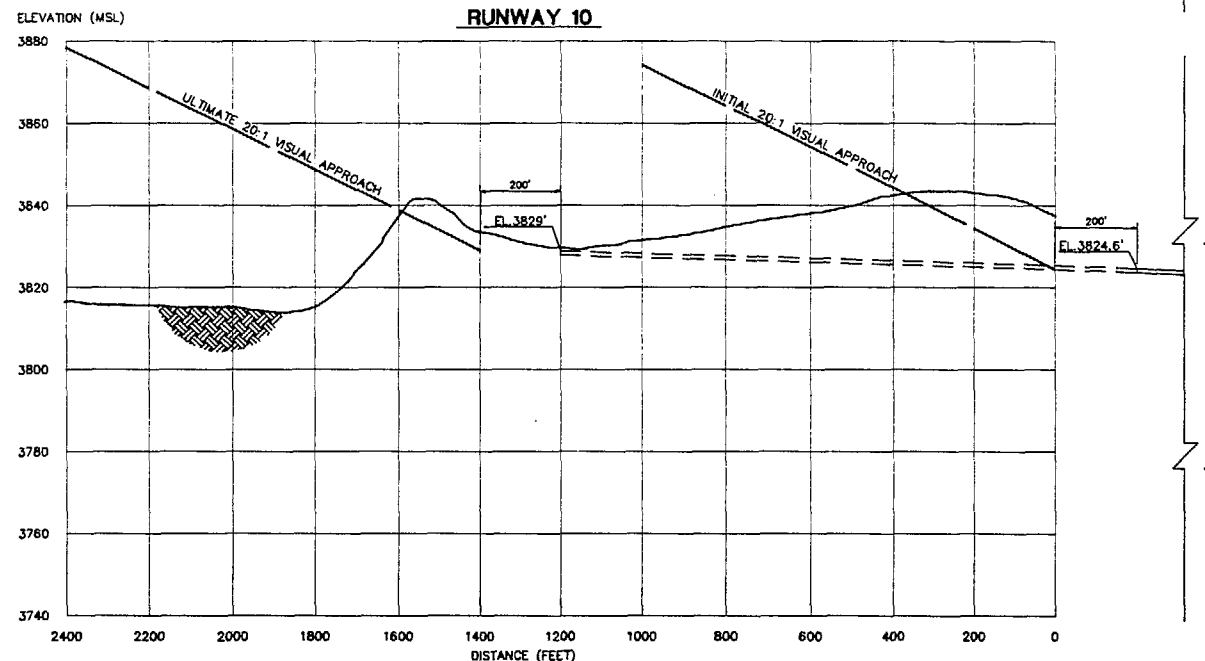
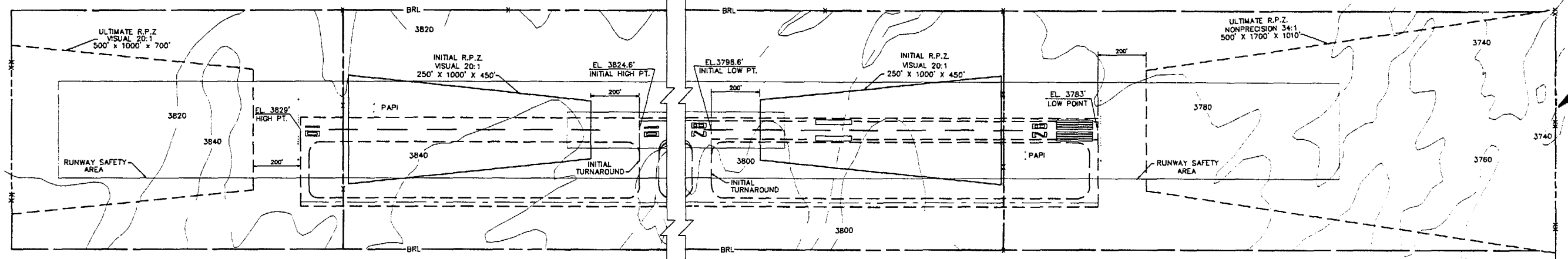
In developing the land use plan, three primary compatibility factors were analyzed and related to the Benson Municipal Airport environs. Airport hazards are the first factor. Airport hazards can interfere with the landing, takeoff, and flight of aircraft. The criteria for airport hazards were defined and illustrated in the Part 77 Airspace Plan and the Approach Zones and Runway Protection Zones Plan.

The second major compatibility factor is aircraft noise and its potential impact on

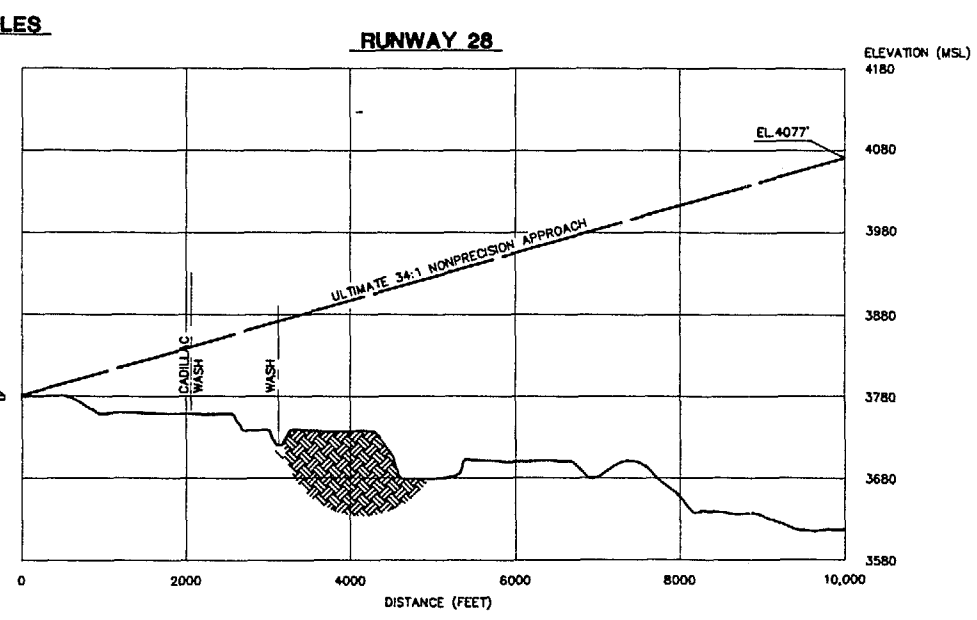
off-airport land use. Noise levels anticipated by future aircraft operations for the year 2010 have been determined through the use of the Integrated Noise Model, see (Chapter 5), a computer model which predicts noise exposure levels generated by aircraft operations over a 24 hour period. The 65 Ldn contour is considered the contour where aircraft noise levels are not suitable for residential land use. The noise contours generated for Benson Municipal Airport are depicted on the Land Use/Noise Plan, Drawing No. 5. Based on the level and type of aviation activity anticipated throughout the 20 year planning period and the INM methodology, the 65 Ldn noise contour generated does not extend beyond the airport property. Land use categories considered compatible with aviation operations are recommended for these areas (Drawing No. 5).

The third factor relates to other land use sensitivities outside of the 65 Ldn noise contour. Experience has shown, however, that residential land uses in the proximity of airports and particularly within the approaches to an airport, often produce negative reactions from people located in these areas, no matter what the Ldn value. Residential land uses, for example, are sensitive to noise since those activities associated with residential uses (relaxation, sleep, and speech) can be adversely impacted by high levels of noise. Similarly, schools, libraries, and other public buildings normally require an interior noise environment suitable for uninterrupted speech communication and are also considered noise-sensitive. When circumstances permit, as they do in this instance, these land uses should not be planned in areas of airport traffic patterns and approaches to runways.

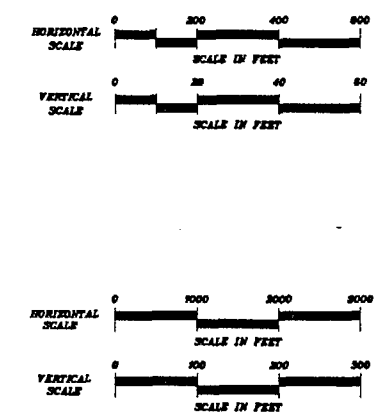
In contrast, land uses such as agricultural, industrial, and commercial uses can adequately function under higher noise exposure levels



RUNWAY 10-28 PROTECTION ZONES PLAN AND PROFILES



RUNWAY 10-28 APPROACH ZONE PROFILES



NOTE: TOPOGRAPHIC INFORMATION IS SUBJECT TO VARIATION

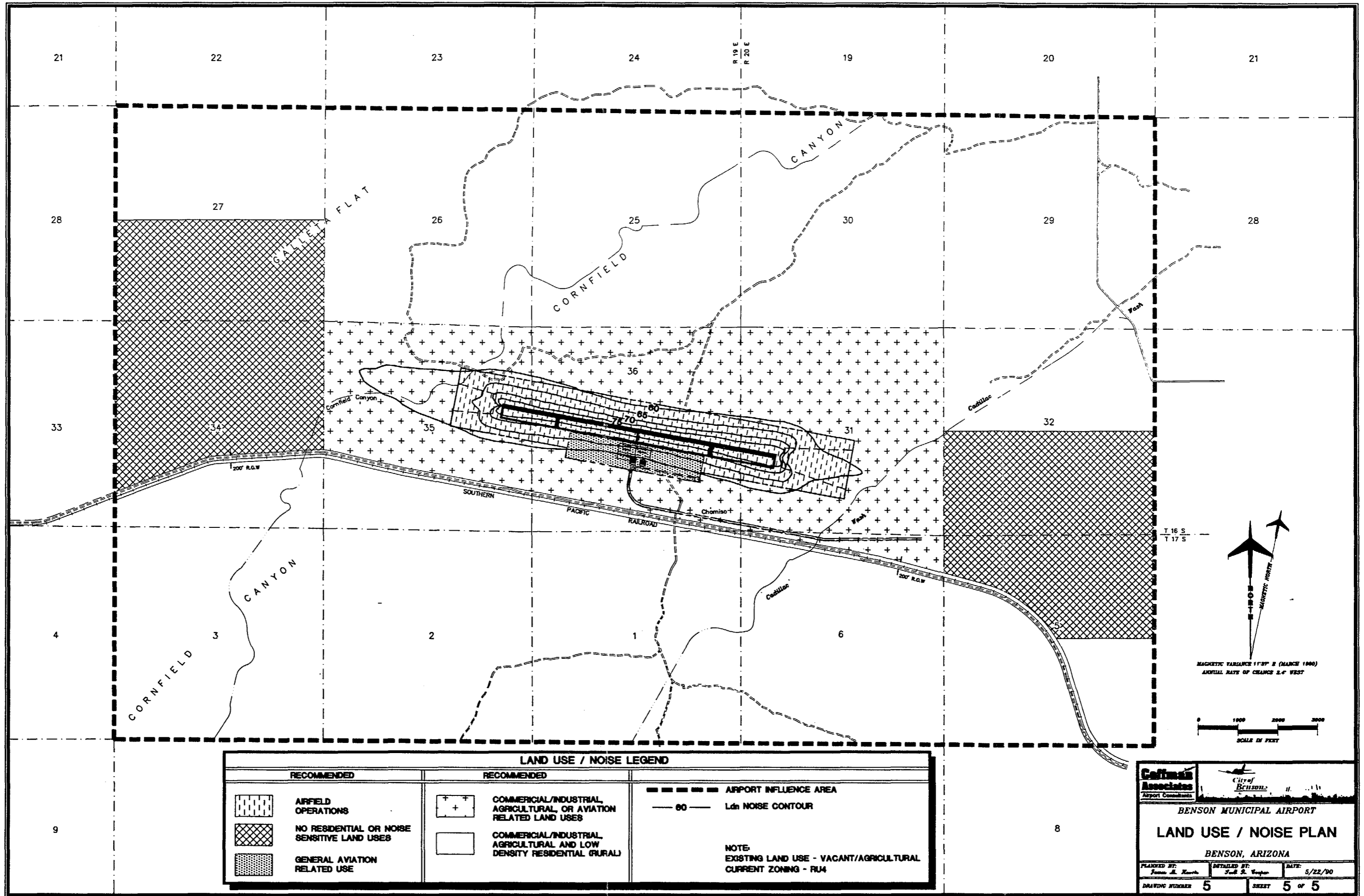
Goffman Associates
Airport Consultants

City of **BENSON**, ARIZONA

BENSON MUNICIPAL AIRPORT
APPROACH ZONES / PROTECTION ZONES PLAN
BENSON, ARIZONA

PLANNED BY: *James M. Korte* DETAILED BY: *Scott R. Neuman* APPROVED BY: *5/22/90*

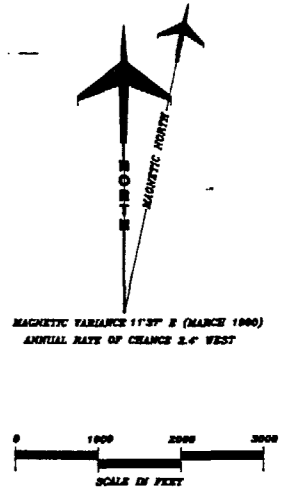
DRAWING NUMBER **4** SHEET **4** OF **5**



LAND USE / NOISE LEGEND

RECOMMENDED	RECOMMENDED	RECOMMENDED

NOTE:
EXISTING LAND USE - VACANT/AGRICULTURAL
CURRENT ZONING - RU4



Coffman Associates
City of Benson
Airport Consultants

BENSON MUNICIPAL AIRPORT

LAND USE / NOISE PLAN

BENSON, ARIZONA

PLANNED BY: *Frank R. Kovich* DETAILED BY: *Paul R. Wagner* DATE: 5/22/90

DRAWING NUMBER: **5** SHEET: **5 of 5**

and, thus, are considered more compatible types of development for these areas.

Existing Land Use

The predominant land use existing in the area of the proposed airport site is currently agricultural. The airport property is presently owned by the State and leased for grazing. The closest existing residential land use is located about two miles directly east of the proposed airport property clustered around Ocotillo Road.

Planned Land Use

Jurisdiction on the proposed airport site and the vicinity is presently the responsibility of Cochise County. The Cochise County Comprehensive Land Use Plan describes four categories of land use (Category's A, B, C and D) which are based upon growth potential, with several designations based upon the anticipated character of that growth. The existing land use planning of Cochise County for the Airport Influence Area indicates the majority of the area as a Category D Growth Area. Category D is land that serves as primarily rural residential or an agricultural area. The County expects these areas to experience the least amount of change during the planning period, although the area is suitable for development.

In the area southeast of the airport property, an additional land use category, a Category B Growth Area, has been designated. One section of land in the Airport Influence Area has been placed in Category B, which is described as an area experiencing urban growth and desirous of a higher level of improvement standards. Growth in this area is expected to be non-rural in nature, but the pattern of growth has not been determined.

In both of these cases, Category B and D, the existing land use and planned land use appear to be compatible with the development of an airport for the City of Benson.

On-Airport Land Use

The purpose of the on-airport land use plan is to establish uses of the airport property in a way consistent with the distinct operations of the airport facility. On-airport land use planning is important to orderly development and efficient use of available space. On-airport land use planning is also necessary to minimize the potential for future incompatible land uses.

The on-airport land use is depicted on the ALP and Terminal Area Plan (Drawings 1 and 2). These land uses are airfield operations, general aviation hangar area, and general aviation expansion areas and industrial/commercial.

The airfield operations area is the most critical category of land use since it includes all the space necessary for safe operations on the airport. This includes runway and taxiway safety areas, runway approaches, where clearance is not adequate to permit other uses, and areas where nav aids will be located.

The general aviation/aviation related use area is concerned with aircraft apron, fixed base operator (FBO) hangars, the large/medium corporate hangars and tiedowns. This area is designed to store and service general aviation aircraft.

The industrial/commercial land use category preserves land for the development of businesses that are compatible with the operation of the airport. This land use designation is normally applied at airports with a considerable amount of property,

property in excess of that needed for aviation related development. As the minimum amount of land required to meet the demand during the planning period has been recommended for acquisition, it is not anticipated that this category of land use will apply at Benson Municipal Airport. As this is a new airport, this land use has not been indicated on the Land Use/Noise Plan.

The on-airport land use plan is designed to provide basic guidance for the City in making decisions related to development on Benson Municipal Airport. Following the general recommendations of the plan, the airport can maintain an excellent relationship between the users and the community.

Off-Airport Land Use

The off-airport land use depicted in Drawing No. 5, incorporates the general land use guidelines contained in FAA publications and other expert documents predicated on

preventing noise use impacts. The existing land use that dominates the airport environs is agriculture, vacant or undeveloped. It would be in the best interests of the City to preserve this land use as much as possible to protect this valuable asset.

Compatible land use guidelines, used in determining land uses compatible with an airport, are based upon protection of airport approach and runway protection zone surfaces and the noise impact caused by airport operations. The future noise contours overlay for Benson Municipal Airport was compatible with development in the surrounding area.

It is important to emphasize that noise contours produced by an airport are guides to proper land use planning. While it is sometimes impractical to change preexisting land uses that are considered incompatible with airport operations, it is desirable to protect those lands within the influence area from incompatible land use.