

Chapter Seven
***Airport Development
and Financial Plan***



Colorado City Municipal Airport
Airport Master Plan

Chapter Seven

Airport Development and Financial Plan



INTRODUCTION

A program of recommended airport development for the Colorado City Municipal Airport has been formulated to guide the sponsor in the systematic development of the airport and to aid the Federal Aviation Administration, Arizona Department of Transportation Aeronautics Division and the Town in allocating funding over the planning period. In Arizona, projects eligible for Airport Improvement Program (AIP) participation are normally funded at 95 percent by the FAA, 2.5 percent by the State and 2.5 percent by the Sponsor. The grant eligible items typically include airfield and aeronautical related facilities such as runways, taxiways, aprons, lighting and visual aids as well as land acquisition and environmental tasks needed to accomplish the improvements. The public use (non-revenue generating) portions of passenger terminals are also grant eligible. In addition, recent AIP legislation has made fuel systems and hangars eligible, however, these items are considered a low priority for FAA funding.

AIRPORT DEVELOPMENT PLAN

Future airport development at the Colorado City Municipal Airport, as included in this study, covers a twenty-year period. Development items are grouped into three phases. Phase I is short-term (1-5 years), Phase II is medium-term (6-10 years) and Phase III is long-term (11-20 years). Estimated development costs are based on the proposed improvements (as shown on the airport layout plan) and are included for each item in the financial development plan. Proposed improvements are based on the recommended facility requirements discussed in Chapter 3. The phasing of projects assists the airport sponsor in budgetary planning for construction projects. A drawing showing the phasing of each project is included at the end of this Chapter. The sequence in which the projects are completed is important as the ultimate configuration of the airport will require numerous projects.

Phase I (1-5 Years)

- Land Acquisition for Approach Protection
- Upgrade AWOS
- Conduct 405 Survey
- Wildlife Fencing
- Reconstruct Runway 11/29
- Construct Apron
- Install Utilities to Future Apron Area
- Remove Terminal Building
- Construct Replacement Terminal Building
- Parallel Taxiway Runway 11/29
- Upgrade Septic System

- Install Taxiway Lighting
- Apron Expansion

Phase III (11-20 Years)

- Replace Runway Lighting
- Extend Runway 11/29
- Construct Taxilanes
- PAPIs and REILs for Runway 2/20
- Connect to Town Sewer System
- Partial Parallel Taxiway Runway 2

Phase II (6-10 Years)

- Snow Removal Equipment and Storage Building
- Runway Strengthening

TABLE 7-1 20-YEAR FINANCIAL DEVELOPMENT PLAN

Phase I, Short-Term Development Items	TOTAL	FAA	STATE	LOCAL
A1 Land Acquisition for Approach Protection ±143 acres	\$360,000	\$342,000	\$9,000	\$9,000
A2 Upgrade AWOS	\$240,000	\$228,000	\$6,000	\$6,000
A3 Conduct 405 Survey	\$100,000	\$95,000	\$2,500	\$2,500
A4 Wildlife Fencing	\$600,000	\$570,000	\$15,000	\$15,000
A5 Reconstruct RW 11/29	\$2,300,000	\$2,185,000	\$57,500	\$57,500
A6 Construct Apron	\$1,000,000	\$950,000	\$25,000	\$25,000
A7 Install Utilities to Apron Area	\$360,000	\$342,000	\$9,000	\$9,000
A8 Remove Terminal Building	\$40,000	\$38,000	\$1,000	\$1,000
A9 Construct Replacement Terminal Building	\$450,000	\$427,500	\$11,250	\$11,250
A10 Construct Full Length Parallel Taxiway RW 11/29	\$1,200,000	\$1,140,000	\$30,000	\$30,000
A11 Construct Taxilanes	\$350,000	\$332,500	\$8,750	\$8,750
A12 Pavement Maintenance	\$100,000	\$95,000	\$2,500	\$2,500
A13 Upgrade Septic System	\$40,000	\$38,000	\$1,000	\$1,000
A14 Update Airport Layout Plan	\$100,000	\$95,000	\$2,500	\$2,500
Total Short Term Cost	\$7,240,000	\$6,878,000	\$181,000	\$181,000
Phase II, Medium-Term Development Items	TOTAL	FAA	STATE	LOCAL
B1 Snow Removal Equipment and Storage Building	\$600,000	\$570,000	\$15,000	\$15,000
B2 Runway Strengthening	\$1,200,000	\$1,140,000	\$30,000	\$30,000
B3 Install Taxiway Lighting	\$450,000	\$427,500	\$11,250	\$11,250
B4 Apron Expansion	\$1,000,000	\$950,000	\$25,000	\$25,000
Total Medium-Term Cost	\$3,250,000	\$3,087,500	\$81,250	\$81,250
Phase III, Long-Term Development Items	TOTAL	FAA	STATE	LOCAL
C1 Replace RW Lighting	\$300,000	\$285,000	\$7,500	\$7,500
C2 Environmental Assessment for RW Extension	\$125,000	\$118,750	\$3,125	\$3,125
C3 Extend RW 11/29	\$500,000	\$475,000	\$12,500	\$12,500
C4 Construct Taxilanes	\$300,000	\$285,000	\$7,500	\$7,500
C5 PAPIs and REILs RW 2/20	\$150,000	\$142,500	\$3,750	\$3,750
C6 Connect to Town Sewer System	\$300,000	-	-	\$300,000
C7 Construct Full Length Parallel Taxiway RW 2	\$400,000	\$380,000	\$10,000	\$10,000
Total Long-Term Cost	\$2,075,000	\$1,686,250	\$44,375	\$344,375
TOTAL	\$12,565,000	\$11,651,750	\$306,625	\$606,625

Cost estimates in 2007 dollars

CAPITAL DEVELOPMENT

Federal Grant Assistance: The phasing of projects assists the airport sponsor in budgetary planning for construction improvements that are needed to provide safe and functional facilities for aviation demands. Phased development schedules also assist the airport sponsor in contingencies and construction. Table 7-1 assumes that the Federal Aviation Administration will participate with funding from the Airport Improvement Program (AIP) of 95 percent of eligible items and the Arizona Department of Transportation Aeronautics Division will contribute 2.5 percent towards capital improvements. The Town of Colorado City would then be responsible for providing 2.5 percent matching funds for grant eligible projects. The Town may meet its local share requirements through cash, in-kind service, force-account, donations or private/third party participation.

The Airport and Airways Act of 1982 created and authorized the Airport Improvement Program (AIP) to assist in the development of a nationwide system of public-use airports adequate to meet the current projected growth of civil aviation. The Act provides funding for airport planning and development projects at airports included in the National Plan of Integrated Airport Systems (NPIAS).

State Assistance: The Arizona Department of Transportation's (ADOT) Aeronautics Division participates in funding airport development and maintenance projects in the State of Arizona. ADOT normally contributes 90 percent to projects without Federal participation and contributes 2.5 percent matching funds to the FAA's 95 percent funding of Federally eligible capital improvement projects. The resulting local share is generally 2.5 percent for FAA and State funded projects and 10 percent for State only funded projects.

Funding The Local Share: The airport sponsor has several methods available for funding the capital required to meet the local share of airport development costs. The most common methods involve cash, debt financing which amortize the debt over the useful life of the project, force accounts, in-kind service, third-party support and donations.

Bank Financing: Some airport sponsors use bank financing as a means of funding airport development. Generally, two conditions are required. First, the sponsor must show the ability to repay the loan plus interest and second, capital improvements must be less than the value of the present facility or some other collateral used to secure the loan. These are standard conditions which are applied to almost all bank loan transactions.

General Obligation Bonds: General Obligation bonds (GO) are a common form of municipal bonds whose payment is secured by the full faith credit and taxing authority of the issuing agency. GO bonds are instruments of credit and because of the community guarantee, reduce the available debt level of the sponsoring community. This type of bond uses tax revenues to retire debt and the key element becomes the approval of the voters to a tax levy to support airport development. If approved, GO bonds are typically issued at a lower interest rate than other types of bonds.

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

Revenue Bonds: Revenue Bonds are payable solely from the revenues of a particular project or from operating income of the borrowing agency, such as an airport commission which lacks taxing power. Generally, they fall outside of constitutional and statutory limitations and in many cases do not require voter approval. Because of the limitations on the other public bonds, airport sponsors are increasingly turning to revenue bonds whenever possible. However, revenue bonds normally carry a higher rate of interest because they lack the guarantees of municipal bonds. It should also be noted that the general public would usually be wary of the

risk involved with a revenue bond issue for a general aviation airport. Therefore, the sale of such bonds could be more difficult than other types of bonds.

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

Force Accounts, In-kind Service, Donations: Depending on the capabilities of the Sponsor, the use of force accounts, in-kind service, or donations may be approved by the FAA and the State for the Sponsor to provide their share of the eligible project costs. An example of force accounts would be the use of heavy machinery and operators for earthmoving and site preparation of runways or taxiways; the installation of fencing; or the construction of improvements to access roads. In-kind service may include surveying, engineering or other services. Donations may include land or materials such as gravel or water needed for the project. The values of these items must be verified and approved by the FAA prior to initiation of the project.

Third-Party Support: Several types of funding fall into this category. For example, individuals or interested organizations may contribute portions of the required development funds (Pilot Associations, Economic Development Associations, Chambers of Commerce, etc.). Although not a common means of airport financing, the role of private financial contributions not only increases the financial support of the project, but also stimulates moral support to airport development from local communities. Because of the potential for hangar development, private developers may be persuaded to invest in hangar development. A suggestion would be that the Town authorize long-term leases to individuals interested in constructing a hangar on airport property. This arrangement generates revenue from the airport, stimulates airport activity, and minimizes the sponsor's capital investment requirements. Another method of third-party support involves permitting the fixed base operator (FBO) to construct and monitor facilities on property leased from the airport. Terms of the lease generally include a fixed amount plus a percentage of revenues and a fuel flowage fee. The advantage to this arrangement is that it lowers the sponsor's development costs, a large portion of which is building construction and maintenance.

FINANCIAL PLAN

The ultimate goal of any airport should be the capability to support its own operation and development through airport generated revenues. Unfortunately, few airports similar in size to the Colorado City Municipal Airport are able to do this. For example, it is difficult to break even when the fees received from hangar rentals and fuel sales will not adequately amortize the cost of construction projects. Yet the effort to become self-sufficient will generate a more positive perception of the airport by the community.

However, while most airports the size of Colorado City are not able to become self-sustaining, the intrinsic value of such a well-maintained airport for the community or region exceeds the day-to-day operational and maintenance costs of the airport. In other words, the dollars spent in the community or the region by individuals or businesses that use the airport exceeds the expenses that are incurred as a result of operation of the airport. Furthermore, the Colorado City Municipal Airport provides access for valuable services to the Towns of Colorado City and Hildale.

PROJECTED REVENUES AND EXPENDITURES

Expenditures: Airport operating expenditures typically include insurance, utilities, maintenance and management costs. Insurance costs include liability insurance for the airport and property insurance for any real property on the airport owned by the Town of Colorado City. Utility expenses primarily consist of power costs to operate airfield lighting and visual aids and water for public use areas. Pavement maintenance consists of crack sealing on an annual basis and seal coating and remarking the pavements every five years. Facility maintenance consists of mowing, snow removal and repair and replacement of parts and equipment such as light bulbs, light fixtures, fences, etc. Management costs may include an airport manager or contract services provided by a third party or an FBO. Currently at the Colorado City Municipal Airport, the airport manager oversees and administers the day-to-day details for the airport.

Revenues: Airport revenues generally consist of land leases, user fees and property taxes generated from on-airport improvements. Table 7-2 also shows the current rates and charges at the Colorado City Municipal Airport.

TABLE 7-2 EXISTING AIRPORT RATES CHARGES

	Current Rates
Land Leases	\$.18/sq.ft/year
Hangar Leases Monthly	\$.11/sq.ft/month
Hangar Rental Fee Overnight	\$10/night
Tie-Down Fees Monthly	-
Transient Overnight Tie-Down Fees	-
Through-the-Fence Fees	-
Fuel Flowage Fees	-
Airport Usage Fee (Charter Aircraft)	-
Call Out Fee	-
Vehicle Storage Fee Monthly	-
Commercial Activity Fees	-

Land Leases: Property on the airport that is not devoted to airfield use, vehicle parking or contained within areas required to be cleared of structures may be leased to individual airport users or aviation related businesses. Typically, the individual is provided a long-term lease on which to construct a hangar, business or others facility. At the termination of the lease, the lessee has the option to renew the lease, sell or lease the buildings or to remove the buildings.

Hangar Leases: Hangars on the airport owned by the airport sponsor can be leased to private aircraft operators or businesses. Typically, as with land leases, the individual or business is provided a long-term lease of the hangar. At the termination of the lease, the lessee has the option to renew the lease or cease use of the hangar.

Hangar Rental: The FBO Hangar is available for monthly or nightly rental. The fees are usually established on a nightly rate for transient aircraft or monthly rate for based aircraft.

Tie-Down Fees: A fee is typically established for the use of fixed ramp tiedowns on paved apron areas. The fees are usually established on a monthly or annual basis for based aircraft and on an overnight basis for transient aircraft. There are no existing tiedown fees for the airport.

Through-the-Fence Fees: A fee is typically charged to adjacent landowners who are provided access directly from their private parcel to the public use airport facilities. This fee ensures that the level of rates and charges assessed to on-airport users is equitable to off-airport users and that there is not an unfair economic advantage to operating “through-the-fence”. Additionally, through-the-fence operators are required to maintain a secure airport perimeter with fencing and/or gates and to construct paved access taxiways to the airport operating areas. However, the FAA generally discourages through-the-fence operations. Therefore, it is anticipated that all aircraft operations will be conducted from on airport and therefore will not generate through-the-fence fees. In lieu of through-the-fence fees, these aircraft would generate tie-down fees or land lease revenue from hangars. The airport has no existing through the fence operations.

Fuel Flowage Fee: This fee is typically imposed on all aircraft fuels delivered to the airport and would include all fuels used by aircraft including AvGas, Jet-A, and MoGas. The fee would apply to fixed base operators, self-fueling (if authorized) and through-the-fence operators who conduct self-fueling. There are currently no fuel flowage fees at the Colorado City Municipal Airport.

Airport Usage Fee: This fee is imposed on all charter aircraft and can be waived if the operator purchases a minimum of 50 gallons of fuel. The airport has no usage fee.

Commercial Activity Fee: This fee is imposed on commercial activities operating “for profit” at the airport. Typical commercial activities may include fixed base operators, maintenance services, air taxi or charter services, automobile rental, restaurants, retail or other goods and services which may be provided at the airport. The Colorado City Municipal Airport has no existing commercial activity fee.

TABLE 7-3 ANNUAL AIRPORT REVENUES AND EXPENSES	PROJECTED ¹			
	2005-2006	Phase I	Phase II	Phase III
Operating Revenues				
Hangar Rental	\$9,850	\$10,000	\$10,000	\$10,000
Land and apron Lease	\$1,193	\$2,500	\$4,500	\$6,500
Total Operating Revenues	\$11,043	\$12,500	\$14,500	\$16,500
Electricity	\$9,000	\$9,000	\$9,000	\$9,000
Telephone	\$440	\$440	\$440	\$440
Maintenance/Management	\$60,000	\$60,000	\$60,000	\$60,000
Payment for T-Hangar	\$17,600	17,600	-	-
Total Operating Expenses	\$87,040	\$87,040	\$69,440	\$69,440
Net Operating Revenue and Expenses	-\$75,997	-\$74,540	-\$54,940	-\$52,940

¹ Projections based on last year of each time period (in 2007 dollars)

RECOMMENDATIONS

A review of airport revenues indicates that the level of rates and charges at the Colorado City Municipal Airport are adequate compared with other similar sized airports. The most effective means of increasing revenue at the Colorado City Municipal Airport is to accommodate existing unmet demand and to continue to attract new and additional users.

Increasing aircraft storage hangars at the airport would result in not only increased direct revenues generated through property leases, but would also produce indirect revenue through increased use of airport services and facilities, such as increased fuel purchases. Locations for additional nested T-hangars and individual box hangars have been identified on the Terminal Area Drawing (TAD) included in Chapter 5. Business/corporate tenants are typically flight departments for local businesses and provide employment in the local community. They generally operate multi-engine turboprop or business jet aircraft. Their land lease parcels are usually large, the aircraft are typically operated two to three times per week and fuel purchases are typically larger than other general aviation user (several hundred gallons per fueling).

Whether the improved Colorado City Municipal Airport operates at an annual surplus or subsidy depends greatly on the amount of activity and facilities that are constructed at the airport. Existing demand is currently constrained by the lack of aircraft storage facilities. The most efficient way for the Town to accommodate this demand is to construct taxilanes and provide land leases for hangars (a sample Land Lease for hangars has been provided in the Airport Standards Manual). If demand for basing aircraft at the Colorado City Municipal Airport continues in the long-term, the Town should consider constructing multi-unit T-hangars and/or box hangars. If federal funding is approved to construct these hangars and vacancy rates are low, the Town could potentially increase revenues to the point where they meet or exceed expenditures.

COMMUNITY SUPPORT

While it would certainly be advantageous for an airport to support itself, the indirect and intangible benefits of the airport to the community's economy and growth must be considered. People are directly or indirectly employed on the airport by the Town, the FBO and individual businesses. As airport activity increases, it is probable that employment on the airport will also grow throughout the planning period. The local construction industry will also benefit directly from implementation of the development programs. Other community benefits involve business growth and development that is enhanced by the availability of air transportation including corporate and private aviation. Clients and suppliers of area businesses will also benefit from the future improvement to the airfield.

The use of corporate and business aircraft is an increasing trend across the United States. The movement of American industry from large metropolitan areas to smaller communities that offer lower taxes and labor costs and a better working environment has influenced this trend. Time is money in the business environment and corporate aircraft are answering the need for quick and convenient access to and from these new locations for both executives and management personnel. The ability of a community to provide convenient access to corporate aircraft will be reflected not only in benefits to existing businesses and industries but will be a strong factor in attracting new industry. The events of September 11, 2001, have also resulted in increased corporate and business aviation activity as companies are looking to avoid delays inconveniences associated with commercial airline travel.

These factors place the Colorado City Municipal Airport in a prime position to capitalize on the trends in the general aviation industry and to maximize the benefits the airport provides to the community. According to the Economic Impact of Airports in Arizona conducted by the Arizona Department of Transportation in 2003 it is estimated that 1.3 million dollars in economic activity and 18 jobs were attributable to the Colorado City Municipal Airport.

CONTINUOUS PLANNING PROCESS

Airport planning is a continuous process that does not end with the completion of a major project. The fundamental issues upon which this master plan are based are expected to remain valid for several years; however, several variables, such as based aircraft, annual aircraft operations, and socioeconomic conditions are likely to change over time. The continuous planning process necessitates that the Town of Colorado City consistently monitor the progress of the airport in terms of growth in based aircraft and annual operations, as this growth is critical to the exact timing and need for new airport facilities. The information obtained from this monitoring process will provide the data necessary to determine if the development schedule should be accelerated, decelerated or maintained as scheduled.

Periodic updates of the Airport Layout Plan, Capital Improvement Plan, and Airport Master Plan are recommended to document physical changes to the airport, review changes in aviation activity and to update improvement plans for the airport. The primary goal of this Airport Master Planning effort is to develop a safe and efficient airport that will meet the demands of its aviation users and stimulate economic development for the Town of Colorado City. The continuous airport planning process is a valuable tool in achieving that goal.



PHASE I (1-5 YEARS)

- A1 LAND ACQUISITION FOR APPROACH PROTECTION
- A2 UPGRADE AWOS
- A3 CONDUCT 405 SURVEY
- A4 WILDLIFE FENCING
- A5 RECONSTRUCT RW 11/29
- A6 CONSTRUCT APRON
- A7 INSTALL UTILITIES TO APRON
- A8 REMOVE TERMINAL BUILDING
- A9 CONSTRUCT REPLACEMENT TERMINAL BUILDING
- A10 CONSTRUCT FULL LENGTH PARALLEL TAXIWAY RW 11/29
- A11 CONSTRUCT TAXILANES
- A12 PAVEMENT MAINTENANCE
- A13 UPGRADE SEPTIC SYSTEM
- A14 UPDATE AIRPORT LAYOUT PLAN



PHASE II (6-10 YEARS)

- B1 SNOW REMOVAL EQUIPMENT AND STORAGE BUILDING
- B2 RUNWAY STRENGTHENING
- B3 INSTALL TAXIWAY LIGHTING
- B4 APRON EXPANSION (PHASE II)



PHASE III (11-20 YEARS)

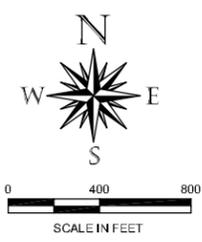
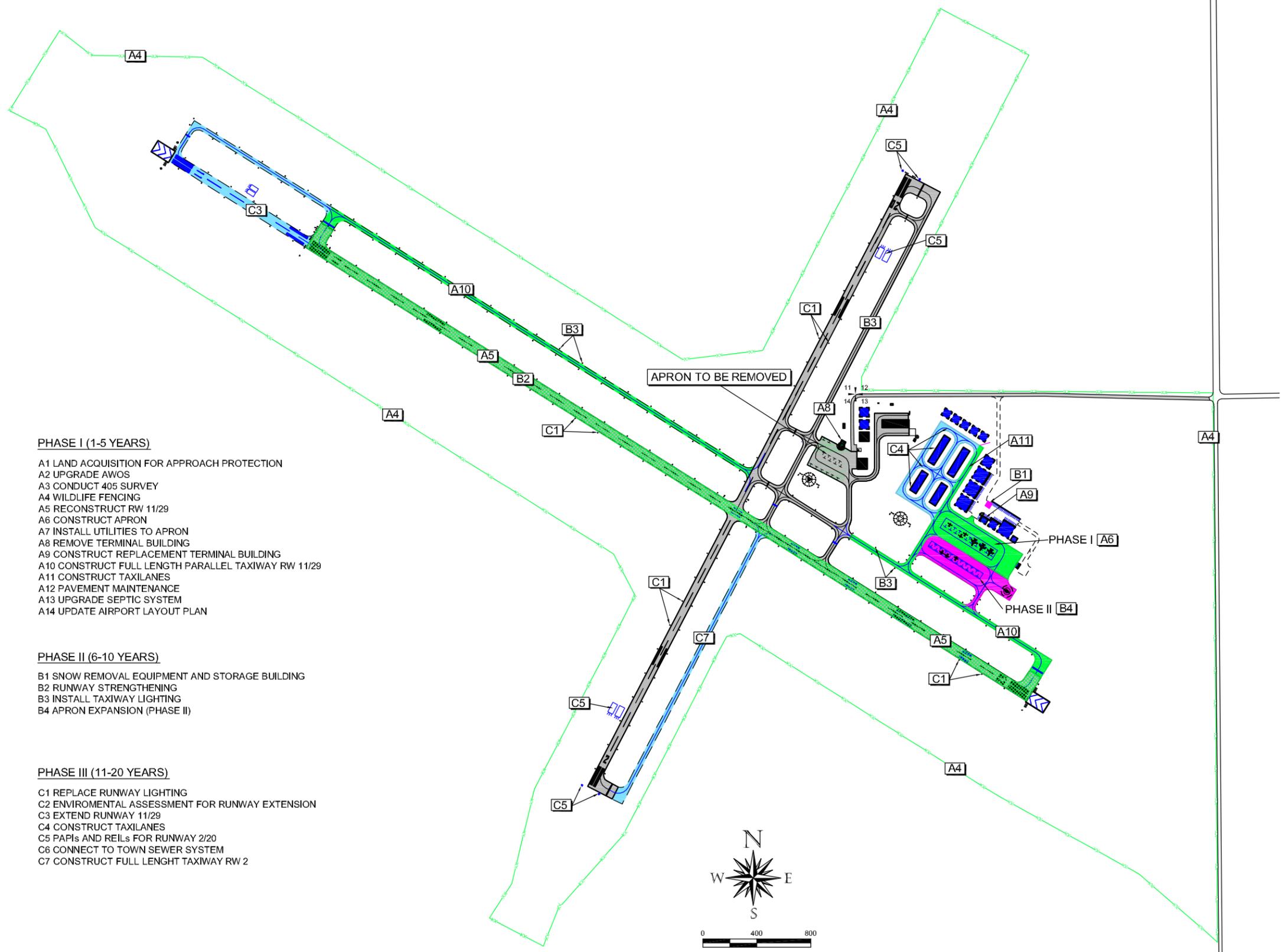
- C1 REPLACE RUNWAY LIGHTING
- C2 ENVIROMENTAL ASSESSMENT FOR RUNWAY EXTENSION
- C3 EXTEND RUNWAY 11/29
- C4 CONSTRUCT TAXILANES
- C5 PAPIs AND REILs FOR RUNWAY 2/20
- C6 CONNECT TO TOWN SEWER SYSTEM
- C7 CONSTRUCT FULL LENGHT TAXIWAY RW 2



EXISTING APRON TO BE REMOVED



RUNWAY RECONSTRUCTION



No.	Revision	Date	By

Project No: 075831
Date: DEC, 2007
File Name: 5831-CIP

Drawn: GWK
Checked: JZP
Approved: DAC

**FINANCIAL
PLAN
DRAWING**

FIG. 7-1