





# Chapter Seven

## Funding Plan

### 7.1 Introduction

The purpose of the funding plan chapter is to identify likely funding requirements and sources for the preferred conceptual alternative at Brookings Regional Airport, the development of a new airport site. See Chapter 6 for a full description of this alternative. The funding plan required for the two preferred on-airport development plan (which would assume that a Site Selection Feasibility Study does not yield a suitable new airport development site) is also addressed in this chapter. The plans identify eligible and available sources for which the airport can receive funding. This chapter also identifies a funding schedule that should be considered preliminary in nature.

### 7.2 Sources of Financing

Three funding sources are available to Brookings Regional Airport.

- Federal Airport Improvement Program
- State of South Dakota Funds
- Local Revenue Sources

#### 7.2.1 Federal Airport Improvement Program

In 1946, the Federal-Aid Airport Program was developed to promote a system of airports to meet the Nation's needs. In 1970, following the Airport and Airway Development Act of 1970, a more comprehensive program was established. These programs were funded with deposited revenues from several aviation user taxes, such as airline fares, air freight, and fuel. Both the Federal-Aid Airport Program and the Airport Development Aid Program expired September 30, 1981.

The Airport Improvement Program (AIP) was established by the Airway Improvement Act of 1982. Similar to the Airport Development Aid Program, the AIP draws funds supported by user fees, fuel taxes, and other similar revenue sources. This system provides grants to public agencies to be used for planning and development of public use airports.

Two types of AIP funds are available: Discretionary and Entitlement funds. AIP funds are distributed according to guidelines established in legislative acts. Brookings Regional Airport, as a non-primary airport as defined in the Airport Improvement Handbook FAA Order 5100.38B, is eligible to receive yearly Entitlement funds based on its level of enplanements, an amount currently at \$150,000/year. These dollars can be pooled across fiscal years, for up to three years after the initial apportionment. These three years of funds can be added to a current year's apportionment, meaning that up to four years of

funds can be stockpiled. Discretionary funds are awarded by the FAA using a project priority rating system.

### **7.2.2 State of South Dakota Funds**

The State of South Dakota provides grants to attract Federal funds and assist the local share of those AIP funded projects. These funds are drawn from the States Aeronautics fund, which receives its revenue from state taxes, aviation gas, and jet fuel.

The state requires that the airport demonstrates the need for the project, and include the project in the State Aviation System Plan, and on the Airport Layout Plan (ALP). These projects require that the local sponsor make necessary local share funds available before the state will award funds.

### **7.2.3 Local Revenue Sources**

Local revenue sources can be financed from city funds (sales tax revenue), airport revenues, and third party sources. Brookings does receive airport revenue each time the airline lands at the airport in the form of landing fees, and nominal terminal rental rates are applied to the commercial air carrier (Mesa Airlines). Very nominal revenue is also received from hangar site lease rentals. However, most of these serve to help offset on-going O&M requirements of the airport.

## **7.3 New Airport (Alternative H) Finance Plan**

A likely sequence of funding for a new airport is outlined in *Table 7.1*. Assuming a new airport site is located in the Site Selection Feasibility Study, and the Brookings City Council approves proceeding with this plan, the first step would be full land appraisal of the existing airport site. The existing airport has been preliminarily divided into proposed development areas. The selling of these development areas, which would ideally be opportunities for entrepreneurs to continue expansion of business and residential growth opportunities in the City of Brookings, would occur after the Environmental Assessment is completed for the new airport site. *Table 7.1* uses a low and high end range for anticipated land resale revenue as a sensitivity for planning purposes. *Figure 7-1* depicts the various development areas.

The first development area contains approximately 122 acres. It is estimated that this area will take three years to sell. This area can be sold without impacting the existing airport operations.

Table 7-1

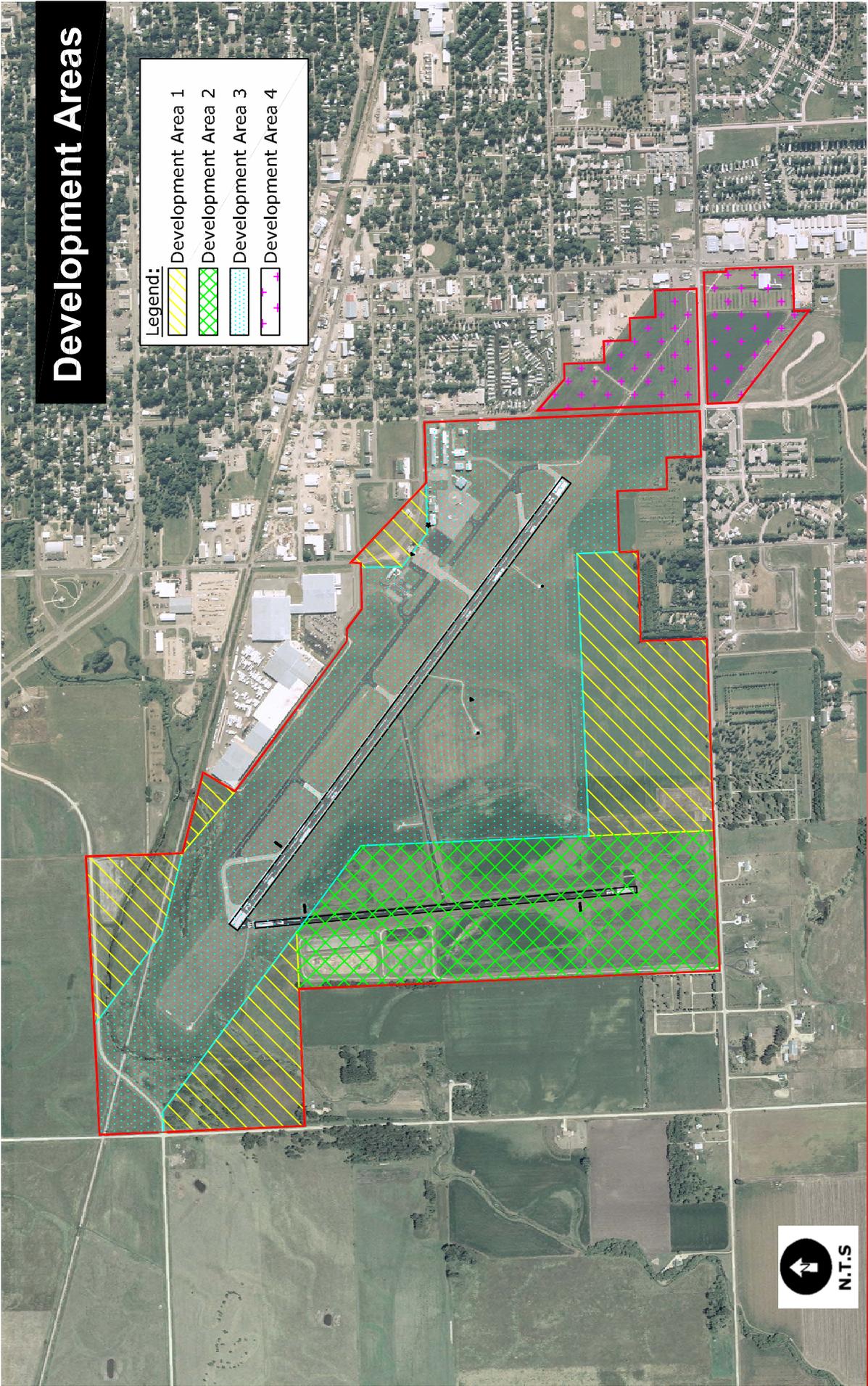
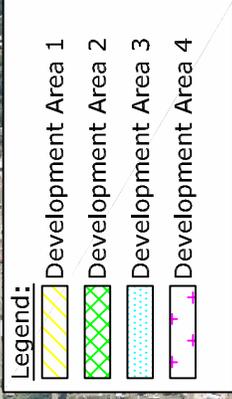
BROOKINGS REGIONAL AIRPORT MASTER PLAN AND ALP UPDATE

Projected Cash Flow (New Airport Location)

Phase	Year	Capital Improvement Plan (CIP)	Airport Improvement Plan			Other	Project Cost	Estimated Land Sale Income Range Low	Estimated Land Sale Income Range High
			Entitlement Funds Available	Entitlement Funds Used	State Appropriation				
1	2007	Feasibility / Site Selection / EA	\$150,000	\$150,000					
	2008	Finish EA / Land Appraisal	\$150,000	\$150,000		\$4,500	\$157,500		
	2009	Land Purchase / New ALP	\$150,000	\$150,000	\$300,000	\$4,500	\$157,500	\$127,500	\$510,000
2	2010	Design Engineering for Phase I	\$150,000	\$150,000	\$300,000	\$2,241,000	\$2,700,000	\$127,500	\$510,000
	2011	Phase I Construction	\$150,000	\$150,000	\$1,000,000	\$13,500	\$472,500	\$255,000	\$1,020,000
	2012	No Project	\$150,000	\$150,000		\$7,027,000	\$18,400,000	\$141,250	\$565,000
3	2013	No Project	\$300,000	\$300,000				\$141,250	\$565,000
	2014	Phase 1 Totals	\$450,000	\$150,000		\$9,290,500	\$21,887,500	\$355,535	\$1,422,143
	2015	Design Engineering for Phase II	\$450,000	\$450,000		\$4,500	\$157,500	\$355,535	\$1,422,143
4	2016	Phase II Construction	\$450,000	\$450,000		\$741,000	\$1,200,000	\$214,285	\$857,143
	2017	No Project	\$300,000	\$300,000				\$214,285	\$857,143
	2018	Phase 2 Totals	\$450,000	\$150,000		\$745,500	\$1,357,500	\$214,285	\$857,143
3	2019	Design Engineering for Phase III	\$450,000	\$150,000		\$4,500	\$157,500	\$214,285	\$857,143
	2020	Phase III Construction	\$450,000	\$450,000		\$2,141,000	\$2,600,000	\$320,535	\$1,282,143
	2021	No Project	\$150,000	\$150,000				\$106,250	\$425,000
4	2022	Phase 3 Totals	\$300,000	\$300,000		\$2,145,500	\$2,757,500	\$106,250	\$425,000
	2023	Design Engineering for Phase IV	\$450,000	\$150,000		\$4,500	\$157,500	\$53,187	\$212,750
	2024	Phase IV Construction	\$450,000	\$450,000		\$1,241,000	\$1,700,000	\$53,075	\$212,300
4	2025	No Project	\$150,000	\$150,000					
	2026	No Project	\$300,000	\$300,000					
	2026	Design Engineering for Rehabilitation	\$450,000	\$150,000		\$4,500	\$157,500		
		Phase 4 Totals	\$5,700,000	\$2,700,000	\$1,600,000	\$13,431,500	\$28,017,500	\$3,000,007	\$12,000,051
		Totals	\$5,700,000	\$2,700,000	\$1,600,000	\$286,000	\$28,017,500	\$3,000,007	\$12,000,051
		Estimated Local Share Totals After Land Sales						\$10,431,493	\$1,431,449

All costs and estimates are based on similar projects and no funds are guaranteed

# Development Areas



**Airport Master Plan**  
Brookings Regional Airport

The second development area will not be available until the near opening of the new airport location. This area will also require the milling of the existing crosswind Runway 17-35. The area contains approximately 114 acres and will sell in an estimated five years.

The new airport location will be open when development area three is for sale. This sale will include the majority of the existing airport site. Development area three contains approximately 300 acres. Due to the extensive amount of land for sale, it is estimated that this area will take seven years to complete. This area will also require the relocation of the facilities, milling of the primary Runway 12-30, and relocation or demolition of all airport related equipment.

The final development area may bring the most revenue for the city. This area is conveniently located near Main Street and 8<sup>th</sup> Street South. These 42 acres are expected to be valuable due to their proximity to downtown.

The sequencing and cash flow anticipated for this alternative is outlined in *Table 7.1*.

### **7.3.1 Phase I**

See *Figure 7-2*, Phase I. The construction of the primary runway (5,500' x 100') and the crosswind runway (3,600' x 75') will be the main objective in Phase I. This phase will also include a full length parallel taxiway along the primary runway. Along with the runways, this phase will include the apron area construction for the ARFF, terminal building, and the FBO. There is also a space designated for general aviation development, which will be the location of new hangars as well as relocated hangars from the existing airport site.

The total estimated cost for this phase is \$21,887,500 including planning, land appraisal and purchase, and design. This phase would require most of the funding due to the extensive workload. The city would be looking for the FAA to provide \$10,000,000 in Discretionary Funds to supplement the City's \$750,000 of Entitlement Funds that it would have available during Phase I (2007-2011). The proposed funding plan would have the State providing a total of \$1,600,000 in State Apportionment and \$247,000 in miscellaneous grant funding, including the 2% State match for AIP funds. The total local share for Phase I will be approximately \$9,290,500.

As indicated previously, the selling of existing airport land during this Phase (122 acres not impacting existing airport operations) would potentially net the City revenue between \$792,500 and \$3,170,000 depending upon land appraisal, purchase negotiations and other economic factors. This would serve to help offset the local sponsor contribution.

### **7.3.2 Phase II**

See *Figure 7-3*, Phase II. Phase II will add a partial parallel taxiway to the crosswind runway. It will also add space for an additional 50' x 50' hangar for the FBO. There is also designated space for general aviation development if applicable.

The costs for this phase will be approximately \$1,357,500. \$600,000 of banked Entitlement Funds (2012-2015) as well as the state share of \$12,000 would be used to fund this phase. The remainder of \$745,500 would be City contribution, with a range of between \$1,139,640 and \$4,558,000 of resale proceeds anticipated to be available during this Phase.

### **7.3.3 Phase III**

See *Figure 7-4*, Phase III. This is a critical phase in the project. This phase proposes an extension of 1,000' to the primary runway and 800' to the crosswind runway. At this primary runway length, Brookings Regional Airport will be able to fully accommodate the target aircraft (ERJ-135) and limited operations by charter Airbus A320/A319s. This phase will also add space for a large hangar to the corporate building area.

The cost for this phase will be approximately \$2,757,500. Like Phase II, this phase would use \$600,000 of banked Entitlement Funds available between 2016 and 2019 along with \$12,000 in State funds. The remaining \$2,145,500 would be the City's responsibility. Land sale revenue during this phase could total between \$961,000 and \$3,846,000.

### **7.3.4 Phase IV**

See *Figure 7-5*, Phase IV. This phase of the project would be relatively small. This phase will concentrate on completing the relocated airport by completing the primary runway parallel taxiway as well as construct one additional building by the FBO. Finally, additional general aviation development will be identified. Engineering for rehabilitation of previously installed pavement surfaces would be included in this phase.

The cost for this phase will be approximately \$2,015,000. \$750,000 would be banked Entitlement Funds (2020 through 2026), \$15,000 would come from the State, and the remaining \$1,250,000 as a contribution from the City. Remaining land sale could total between \$106,262 and \$425,050.

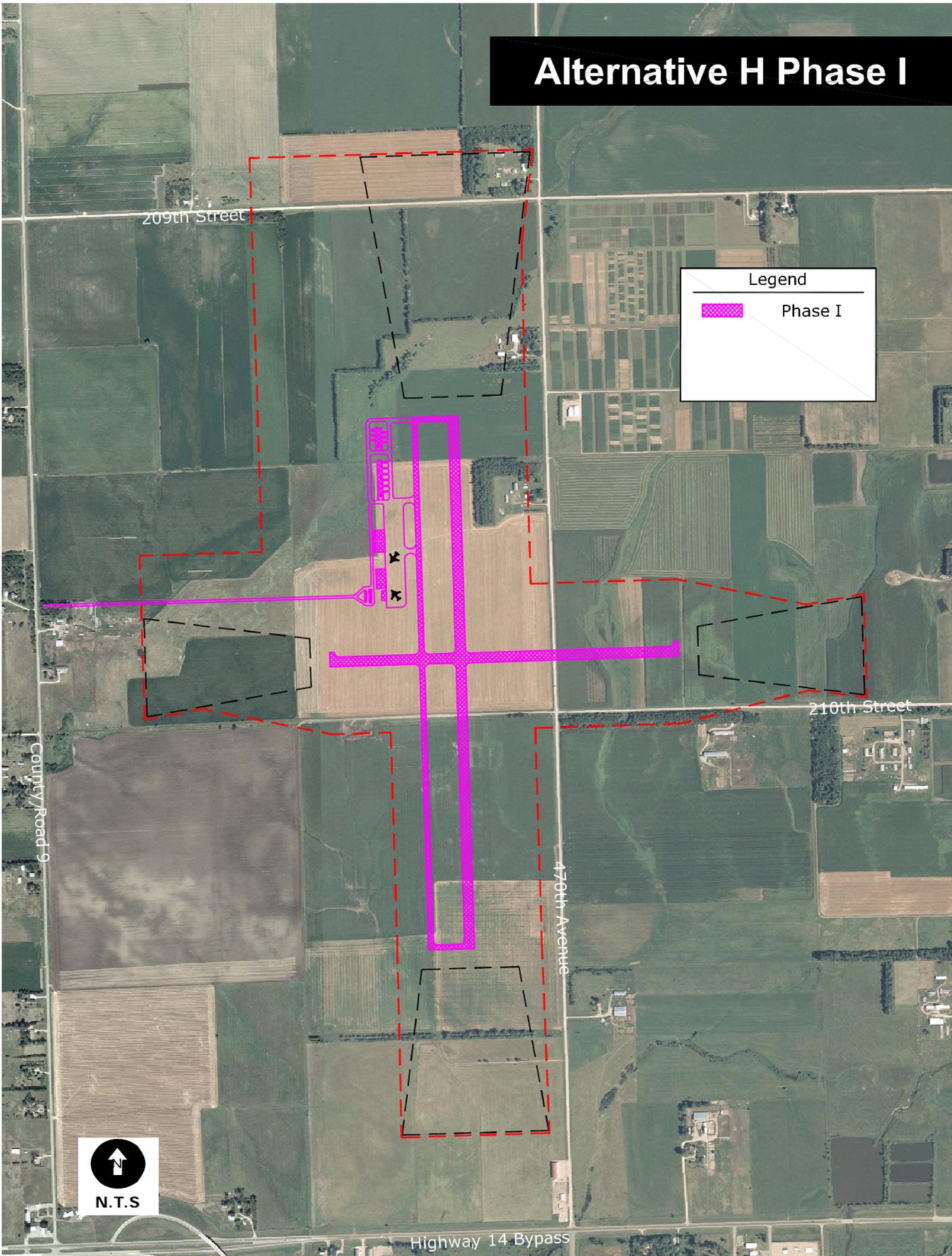
### **7.3.5 Summary**

In summary, the proposed plan of finance would utilize \$10 million in FAA AIP Discretionary dollars, \$1,600,000 in State Apportionment funds, \$286,000 in State aviation funds, \$2,700,000 in AIP Entitlement Funds, and \$13,431,500 in local funds. Possible revenue from land resale between \$3 million and \$12 million would help offset the local share, leaving the net exposure to the City between \$1.4 million and \$10.4 million.

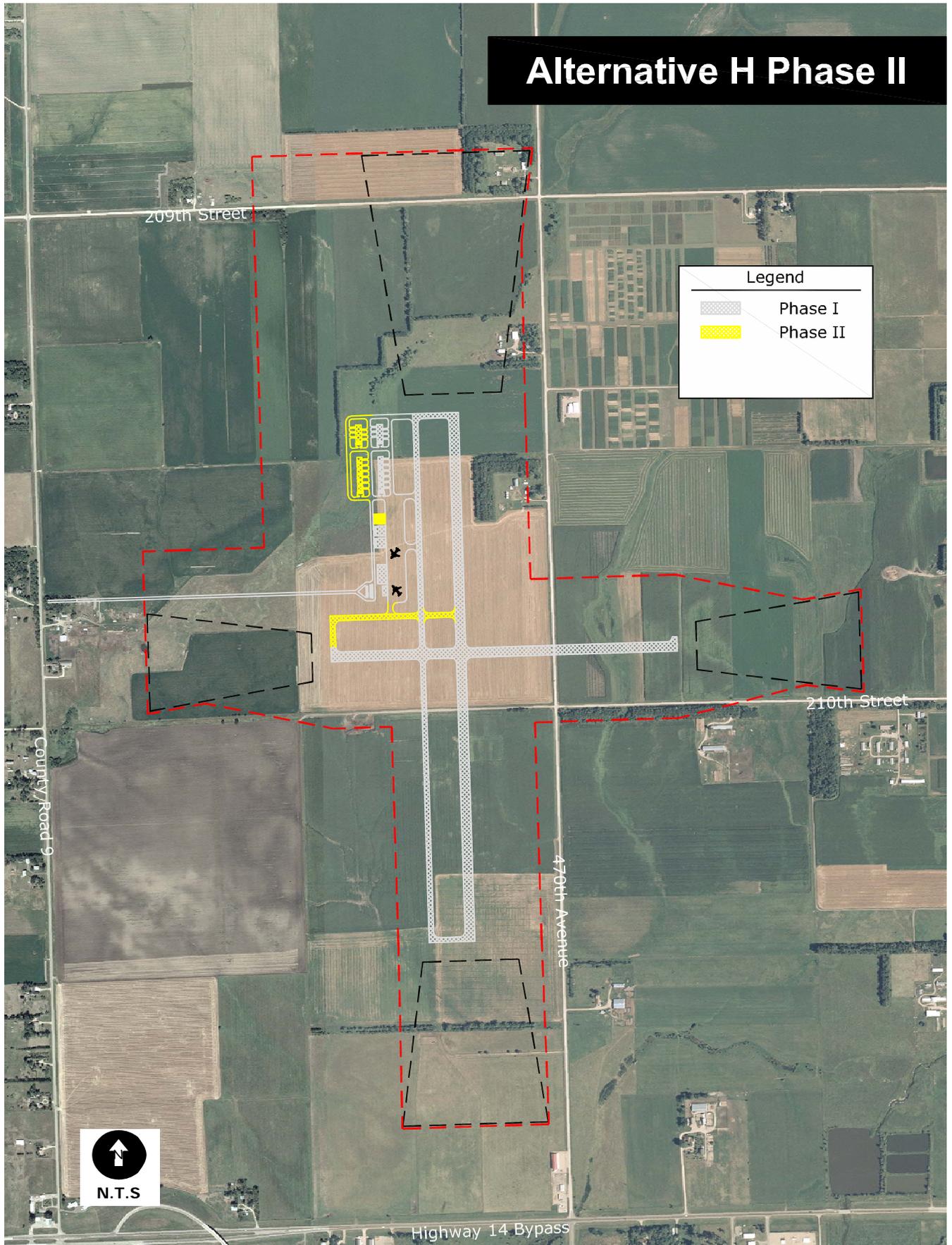
It should be noted that the proposed phasing and sequencing is preliminary. Delays in land sale proceeds or AIP discretionary dollars could alter the proposed phasing. The current proposed phasing plan attempts to recognize that an airport's ultimate development should match projected demand over time and need not be done all at once. The realities of financial programming at the various source agencies also necessitate this approach.

Additionally, there are options within each phase for certain components to be deferred into subsequent phases. For example, it is possible that the cross-wind runway could be constructed as a turf runway for phase 1 and paved in phase 2. This would allow some of the capital cost to be spread out to better match land sale proceeds albeit with some airport user impact. There is precedence for this approach with FAA, and as long as the Airport Layout Plan depicted all aspects of the proposed development the local sponsor would have the flexibility to make these adjustments. Such decisions would have to be made in conjunction with primary airport stakeholders especially given the heavy operations from the SDSU flight program.

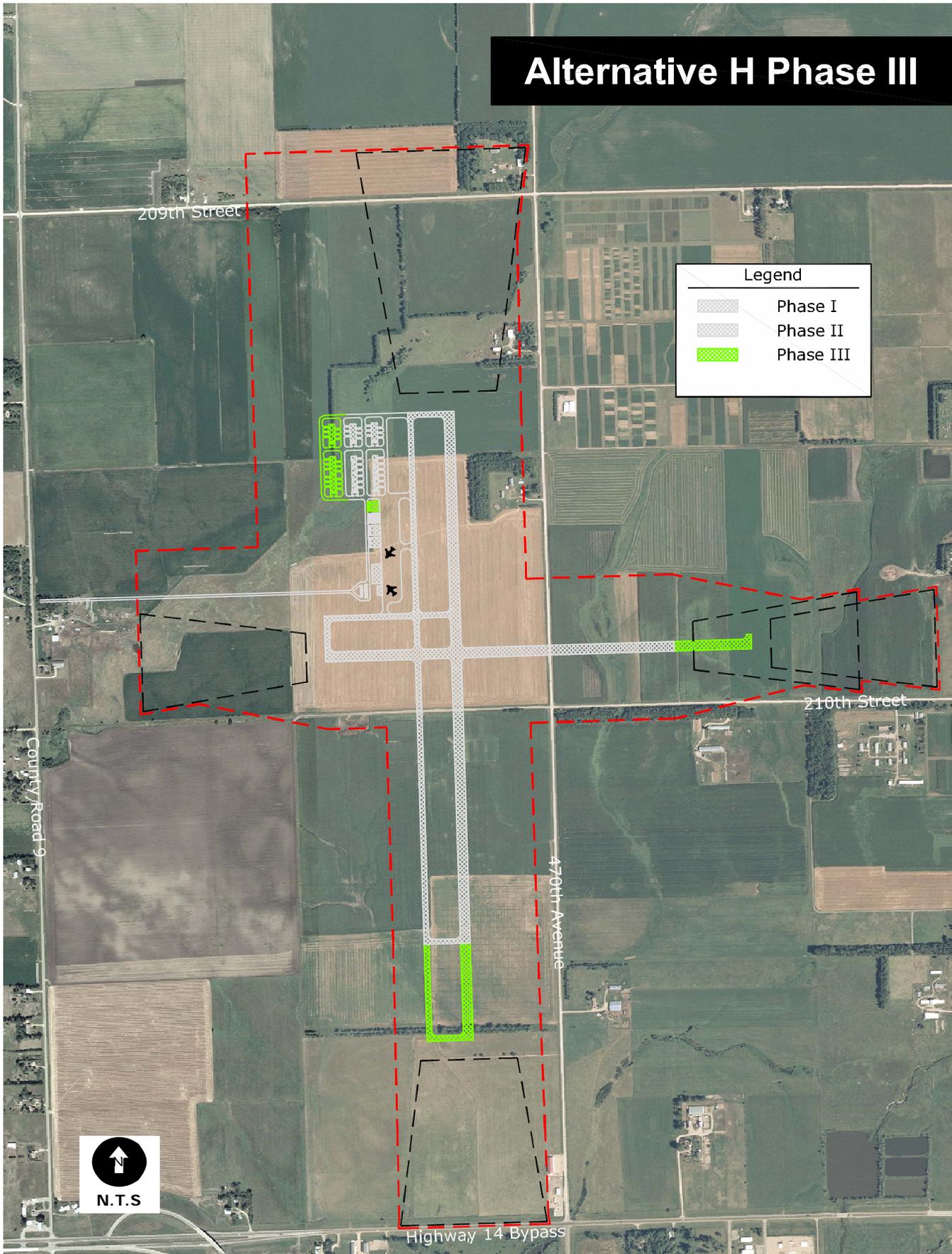
# Alternative H Phase I



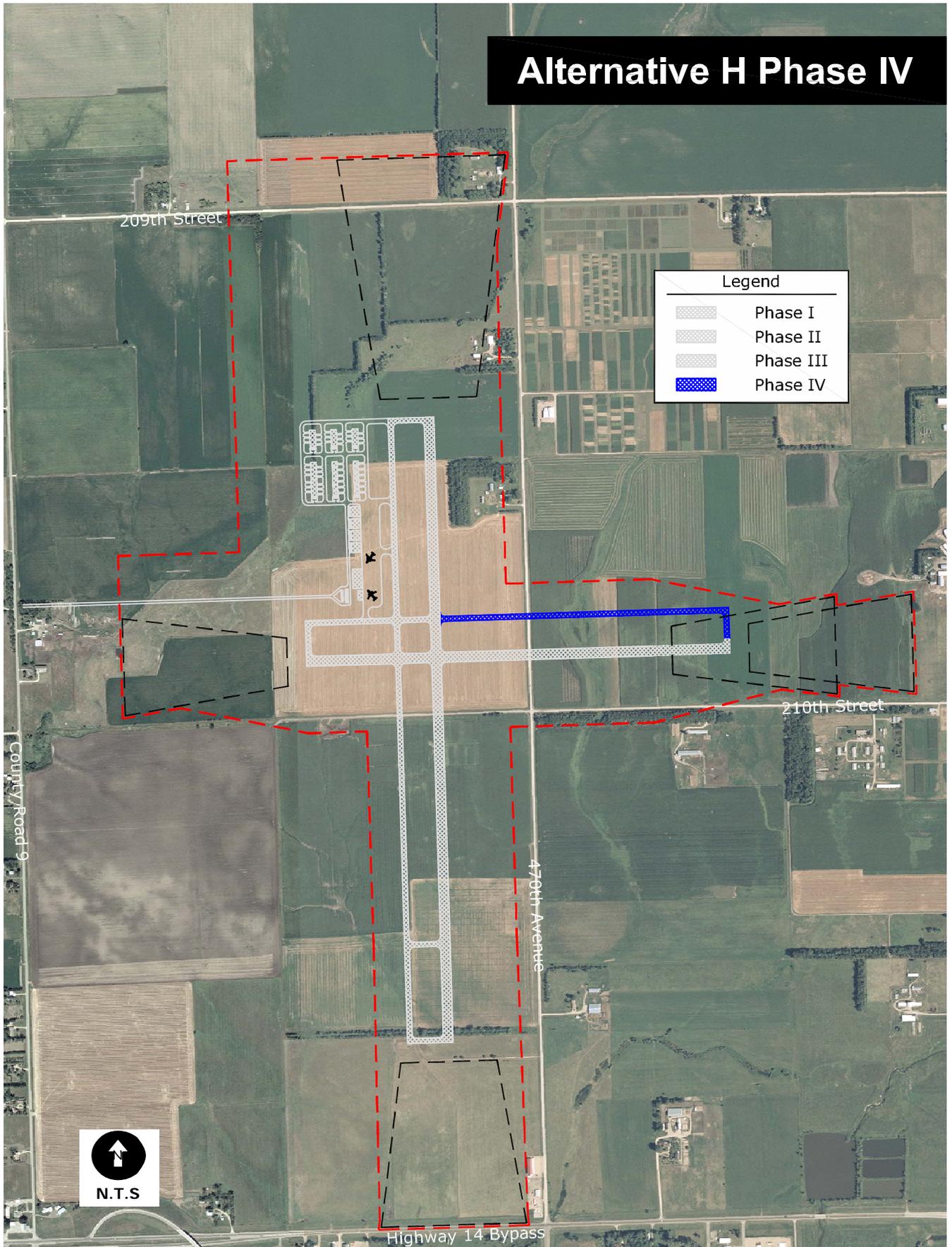
# Alternative H Phase II



# Alternative H Phase III



# Alternative H Phase IV



## **7.4 Funding Plan, Development of Existing Airport**

Should the Dual Track process not yield a suitable location for a new airport, then this Master Plan provides for two preferred alternatives using the existing airport site, both which meet the needs as outlined in the forecast of operations, enplanements and based aircraft; see Chapter 3. These alternatives are described fully in Chapter 6.

The sequencing and cash flow anticipated for this first alternative (“D”) is outlined in *Table 7.2*.

### **7.4.1 Alternative D Phase I**

See *Figure 7-6*, Phase I would comprise the planning, design and construction of a new runway 9-27, 5,500’ in length and 100’ in width. The phase would also include a parallel 50’ wide taxiway on the north side of the runway, a repaved runway 17-35 with partial parallel taxiway, new corporate and general aviation hangar area, a new terminal building (which can be deferred to subsequent phases should demand not warrant the facility as contemplated), and a new access road tying into the existing airport entrance.

Phase I would involve an environmental assessment due to impacts of an ultimate 1,000’ extension that would require a box culvert across Six Mile Creek and some nominal wetland mitigation. Land purchase, environmental work-up, and design would occur over the course of 2006-2009, with construction starting in 2010. The box culvert would be constructed in this Phase I.

Total project cost in escalated dollars is \$19,249,000 including land acquisition and planning and design. Entitlement Funds of \$150,000 per year would be used on an “as-you-go” basis for four years, with other funding coming from the State Apportionment (\$1,300,000), \$9,000,000 in Discretionary dollars (2010 fiscal year), and an additional \$212,000 in State funding. The local share would equate to \$8,137,000. As noted previously, the absence of redevelopment opportunities under this option preclude the City tapping into this potential revenue stream to offset the local share. There is a possibility of fringe property being sold on the existing airport (particularly in the northwest or northeast quadrants), but there will be much sensitivity regarding encouraging additional encroachment on the existing airport site, a contributing factor to the issues being experienced today and a limiter to future development options beyond the planning horizon of this master plan.

### **7.4.2 Alternative D Phase II**

See *Figure 7-7*, Phase II would involve additional corporate area development.

This phase would cost \$178,500 and would be proposed for funding by the following methodology: \$170,000 in Entitlement funds, \$3400 in State funds, and \$5,100 in local share contribution. This anticipates state share in the cost of hangar development according to current eligibility requirements. Federal funding for revenue-generating hangar facilities would not be pursued since the FAA’s maximum likely Discretionary contribution of \$10M would already be allocated under Phases I and III.

### **7.4.3 Alternative D Phase III**

See *Figure 7-8*, Phase III rounds out the airport re-development with a 1000' extension to Runway 9/27, an extension of 301' on the north end of Runway 17-35, a resurfacing of Runway 17-35, additional general aviation hangar area as well as additional corporate hangar development.

This last phase has a total capital requirement (escalated) of \$3,072,500. Of this, \$880,000 would come from Entitlement funds, \$300,000 from State apportionment, \$1M from Discretionary funds, \$43,600 from State funds, and the remainder (\$848,900) from local funds.

### **7.4.4 Alternative D Summary**

In summary, the proposed plan of finance would utilize \$10 million in FAA AIP Discretionary dollars, \$1,600,000 in State Apportionment funds, \$259,000 in State aviation funds, \$1,650,000 in AIP Entitlement Funds, and \$8,991,000 in local funds. Total project cost is estimated at \$22.5 million.

It should again be noted that the proposed phasing and sequencing is preliminary. The current proposed phasing plan recognizes that an airport's ultimate development should match projected demand over time and need not be done all at once. The realities of financial programming at the various source agencies also necessitate this approach. Certain components of a particular phase can also be deferred into follow-on phases if they are determined to not be necessary by airport stakeholders or for compliance with FAA criteria. For example, it is possible that the general aviation area development could be deferred (and the existing area used despite longer taxi distance). As long as the Airport Layout Plan depicted all aspects of the proposed development the local sponsor would have the flexibility to make these adjustments.

Table 7-2

BROOKINGS REGIONAL AIRPORT MASTER PLAN AND ALP UPDATE

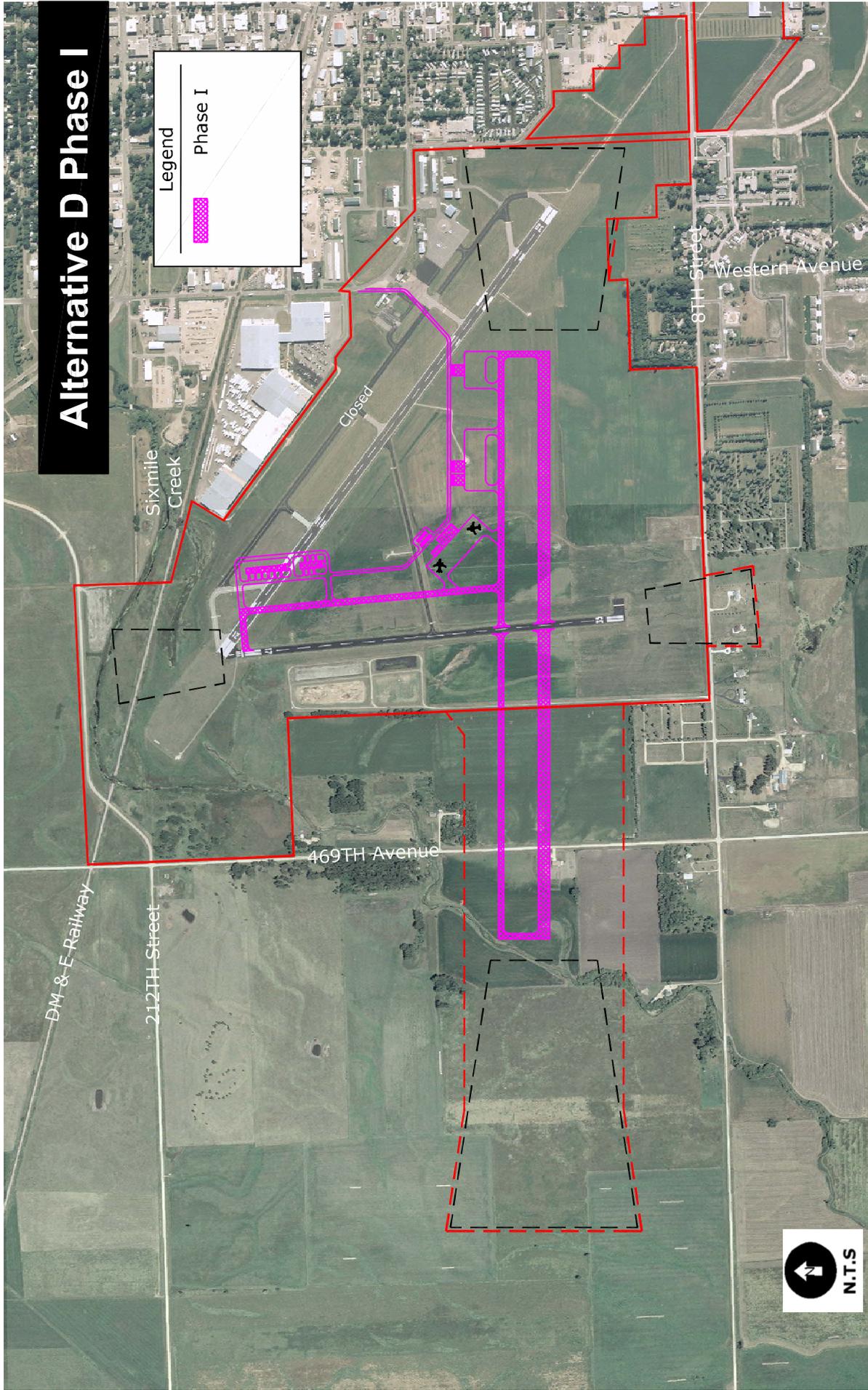
Projected Cash Flow (Alternative D)

Year	Capital Improvement Plan (CIP)	Airport Improvement Plan		State Apportionment	Discretionary Funds	Other	Local Share	Total
		Entitlement Funds Available	Entitlement Funds Used					
2007	Environmental/Land Appraisal	\$150,000	\$150,000			\$3,000	\$4,500	\$157,500
2008	Land Purchase for realignment & Crosswind	\$150,000	\$150,000	\$300,000		\$3,000	\$1,541,000	\$1,994,000
2009	Design Engineering	\$150,000	\$150,000			\$3,000	\$69,200	\$222,200
2010	Construction Phase I	\$150,000	\$150,000	\$1,000,000	\$99,000,000	\$203,000	\$6,522,300	\$16,875,300
2011	No Project	\$150,000						
2012	Design for Phase II	\$300,000	\$20,000			\$400	\$600	\$21,000
2013	Construction Phase II	\$430,000	\$150,000			\$3,000	\$4,500	\$157,500
2014	Design Phase III	\$430,000	\$150,000			\$3,000	\$4,500	\$157,500
2015	Phase III Construction	\$430,000	\$430,000	\$300,000	\$1,000,000	\$34,600	\$835,400	\$2,600,000
2016	No Project	\$150,000						
2017	Overlay 17-35	\$300,000	\$300,000			\$6,000	\$9,000	\$315,000
<b>Totals</b>			<b>\$1,650,000</b>	<b>\$1,600,000</b>	<b>\$10,000,000</b>	<b>\$259,000</b>	<b>\$8,991,000</b>	<b>\$22,500,000</b>

Estimated Local Share Totals After Land Sales

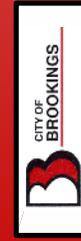
All costs and estimates are based on similar projects and no funds are guaranteed

# Alternative D Phase I



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Brookings Regional Airport

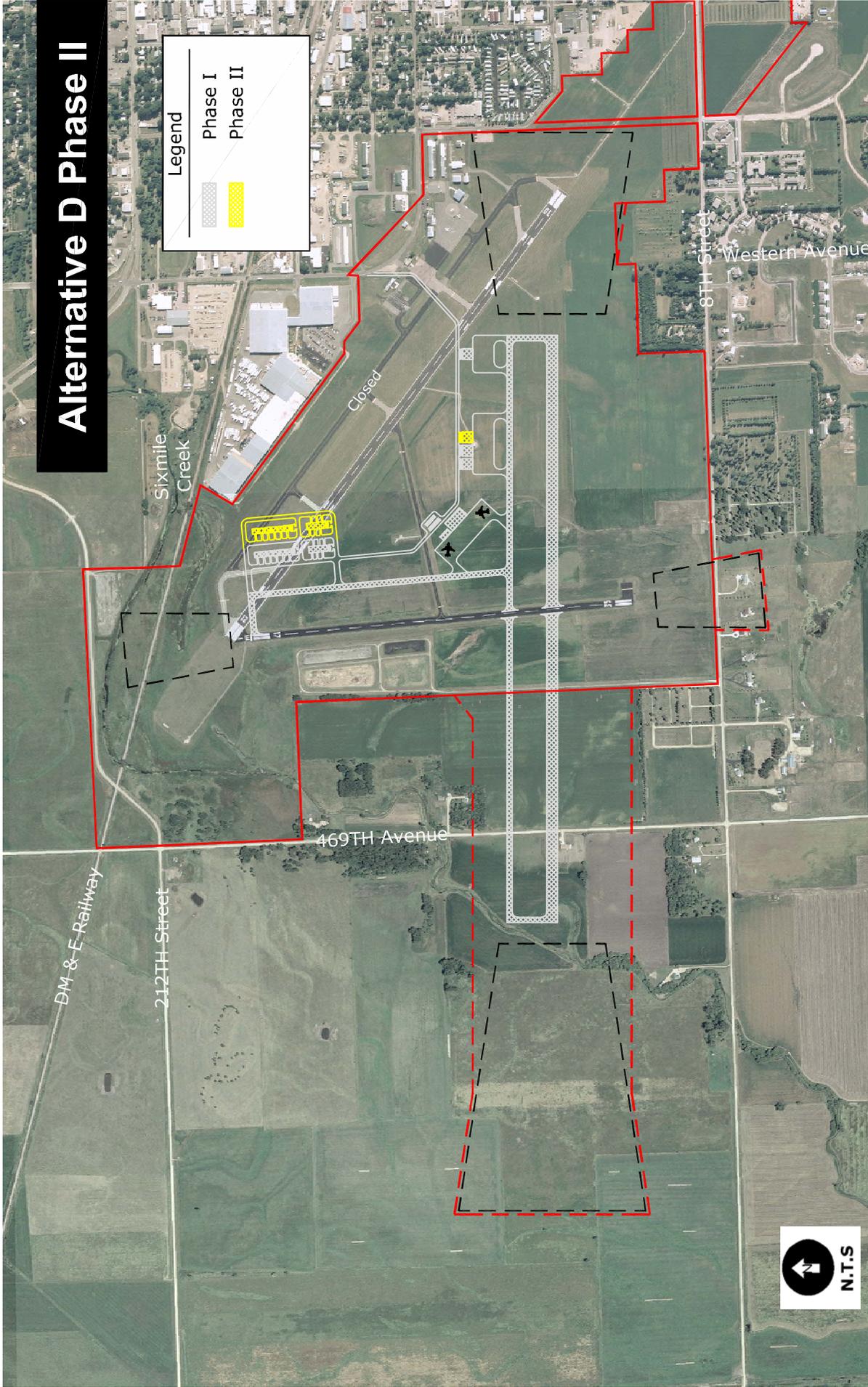
Figure 7-6



# Alternative D Phase II

**Legend**

- Phase I
- Phase II

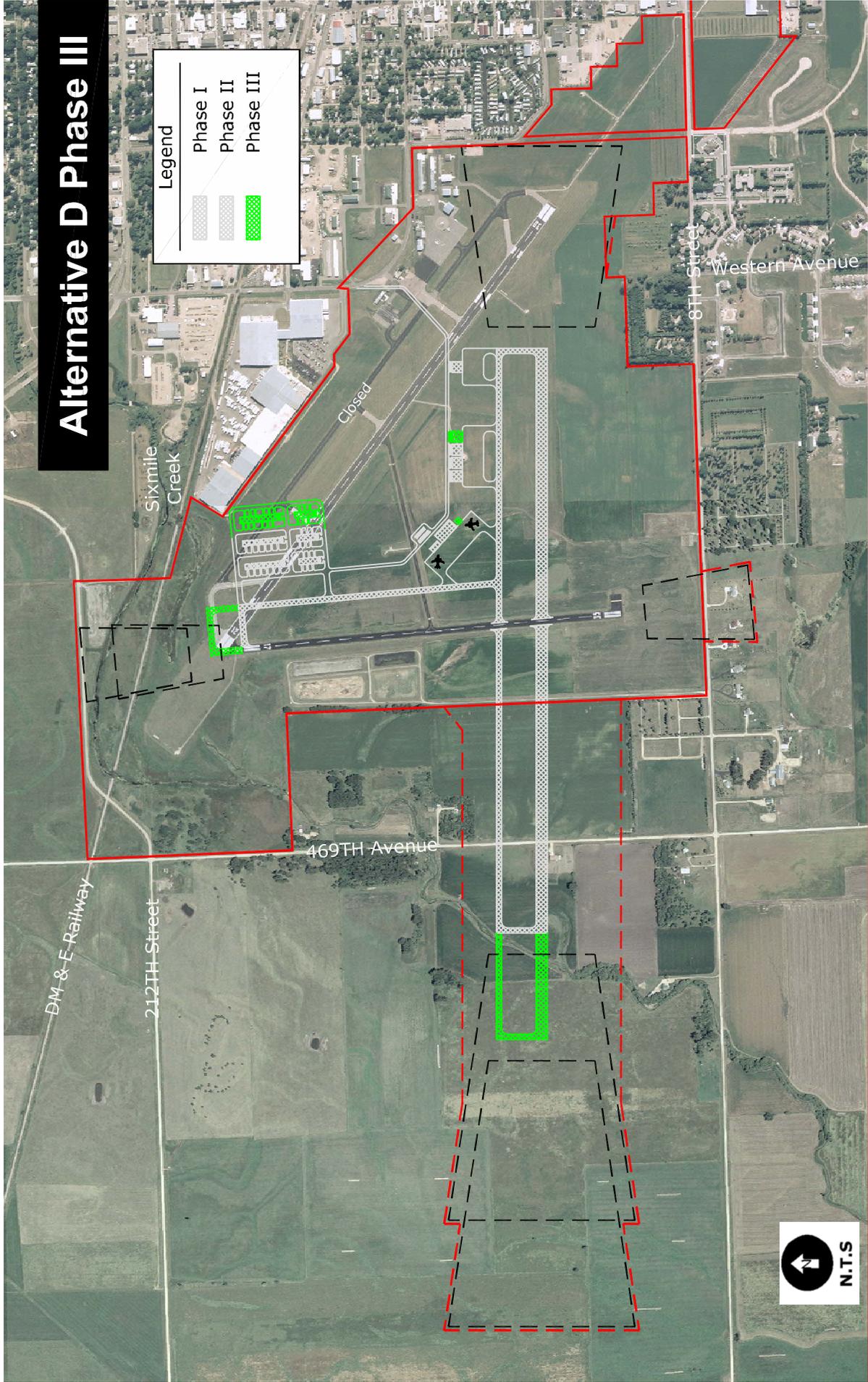


**Airport Master Plan**  
Brookings Regional Airport

Figure 7-7



# Alternative D Phase III



**Airport Master Plan**  
Brookings Regional Airport

Figure 7-8



The sequencing and cash flow anticipated for this next alternative (“G”) is outlined in *Table 7.3*.

#### **7.4.5 Alternative G Phase I**

See *Figure 7-9*, Phase I would comprise the planning, design and construction of a new NW-SE runway, 5,500’ in length and 100’ in width. The phase would also include a parallel 50’ wide taxiway on the north side of the runway, a repaved runway 17-35, new corporate and general aviation hangar area, a new terminal building (which can be deferred to subsequent phases should demand not warrant the facility as contemplated), and a new access road tying into the existing airport entrance. Existing Runway 12-30 would be closed.

Phase I would involve a environmental assessment more than likely due to impacts of an ultimate 1,000’ extension that would require a box culvert across Six Mile Creek and some nominal wetland mitigation. Land purchase, environmental work-up, and design would occur over the course of 2006-2009, with construction starting in 2010.

Total project cost in escalated dollars is \$9,749,000 including land acquisition and planning and design. Entitlement Funds of \$150,000 per year would be used on an “as-you-go” basis for four years, with other funding coming from the State Apportionment (\$300,000), \$6,770,000 in Discretionary dollars (2010 fiscal year), and an additional \$212,000 in State match funding. The local share would equate to \$1,867,000.

As noted previously, the absence of redevelopment opportunities under this option preclude the City tapping into this potential revenue stream to offset the local share.

#### **7.4.6 Alternative G Phase II**

See *Figure 7-10*, Phase II would involve the construction of a box culvert across Six Mile Creek as well as additional corporate area development.

This phase would cost \$178,500 and would be proposed for funding by the following methodology: \$170,000 in Entitlement funds, \$3400 in State funds, and \$5,100 in local share contribution. This anticipates state share in the cost of hangar development according to current eligibility requirements.

#### **7.4.7 Alternative G Phase III**

See *Figure 7-11*, Phase III rounds out the airport re-development with a 1000’ extension to the primary runway, 301’ extension of Runway 17-35 to the north, and a resurfacing of Runway 17-35.

This last phase has a total capital requirement (escalated) of \$3,072,500. Of this, \$880,000 would come from Entitlement funds, \$300,000 from State apportionment, \$1M from Discretionary funds, \$43,600 from State funds, and the remainder (\$848,900) from local funds.

#### **7.4.8 Alternative G Summary**

In summary, the proposed plan of finance would utilize \$7,770,000 million in FAA AIP Discretionary dollars, \$600,000 in State Apportionment funds, \$259,000 in State aviation funds, \$1,650,000 in AIP Entitlement Funds, and \$2,721,000 in local funds.

Once again, it should be noted that the proposed phasing and sequencing is preliminary and that airport development will need to be matched to available funding.

Table 7-3

BROOKINGS REGIONAL AIRPORT MASTER PLAN AND ALP UPDATE

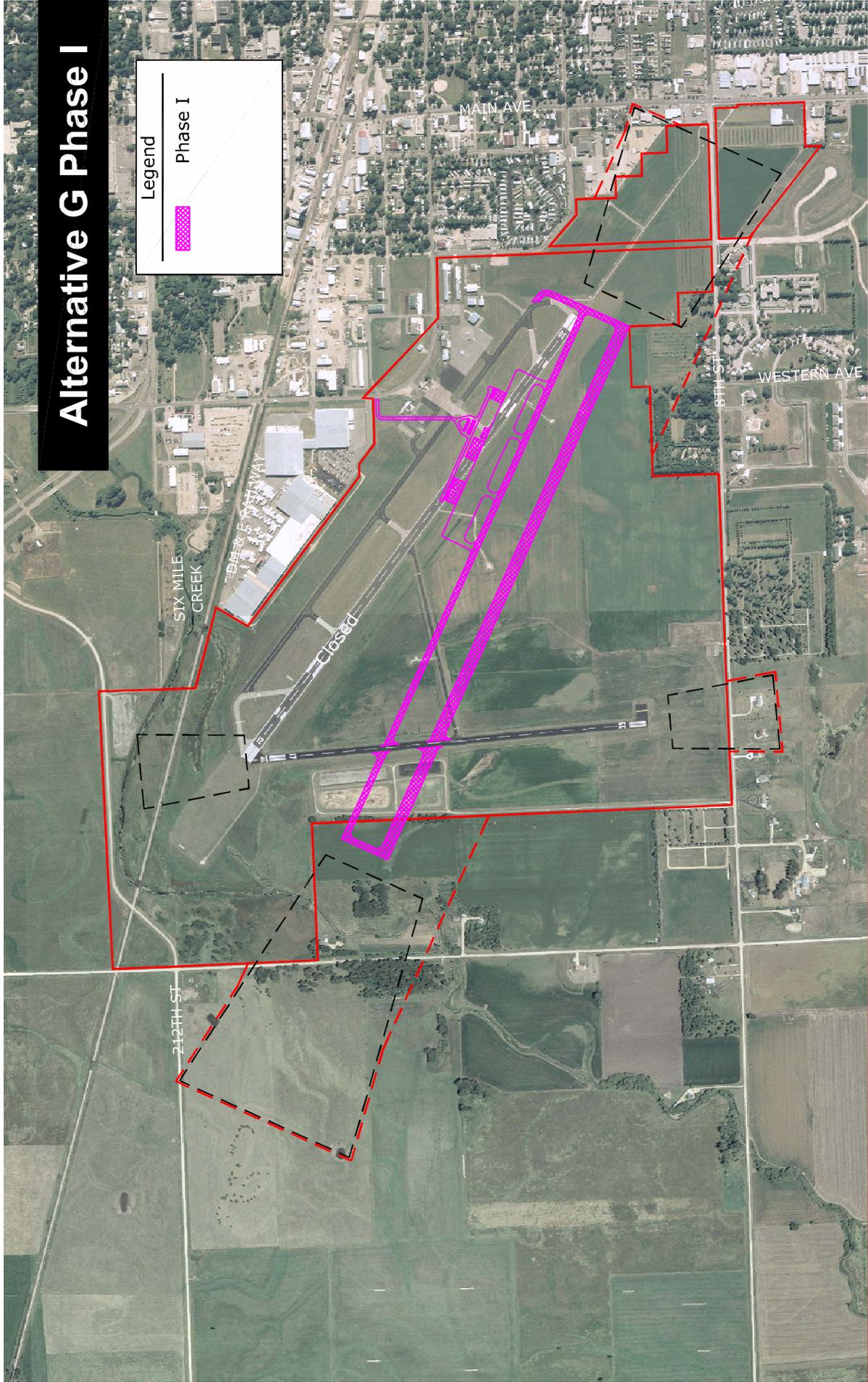
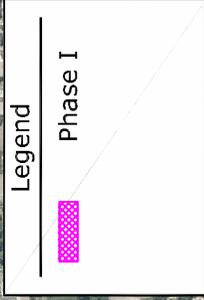
Projected Cash Flow (Alternative G)

Year	Capital Improvement Plan (CIP)	Airport Improvement Plan		State Apportionment	Discretionary Funds	Other	Local Share	Total
		Entitlement Funds Available	Entitlement Funds Used					
2007	Environmental/Land Appraisal	\$150,000	\$150,000			\$3,000	\$4,500	\$157,500
2008	Land Purchase for realignment & Crosswind	\$150,000	\$150,000	\$300,000		\$3,000	\$1,472,500	\$1,925,500
2009	Design Engineering	\$150,000	\$150,000			\$3,000	\$60,000	\$213,000
2010	Construction Phase I	\$150,000	\$150,000		\$6,770,000	\$203,000	\$330,000	\$7,453,000
2011	No Project	\$150,000						
2012	Design for Phase II	\$300,000	\$20,000			\$400	\$600	\$21,000
2013	Construction Phase II	\$430,000	\$150,000			\$3,000	\$4,500	\$157,500
2014	Design Phase III	\$430,000	\$150,000			\$3,000	\$4,500	\$157,500
2015	Phase III Construction	\$430,000	\$430,000	\$300,000	\$1,000,000	\$34,600	\$835,400	\$2,600,000
2016	No Project	\$150,000						
2017	Overlay 17-35	\$300,000	\$300,000			\$6,000	\$9,000	\$315,000
<b>Totals</b>			<b>\$1,650,000</b>	<b>\$600,000</b>	<b>\$7,770,000</b>	<b>\$259,000</b>	<b>\$2,721,000</b>	<b>\$13,000,000</b>

Estimated Local Share Totals After Land Sales

All costs and estimates are based on similar projects and no funds are guaranteed

# Alternative G Phase I



**Airport Master Plan**  
Brookings Regional Airport

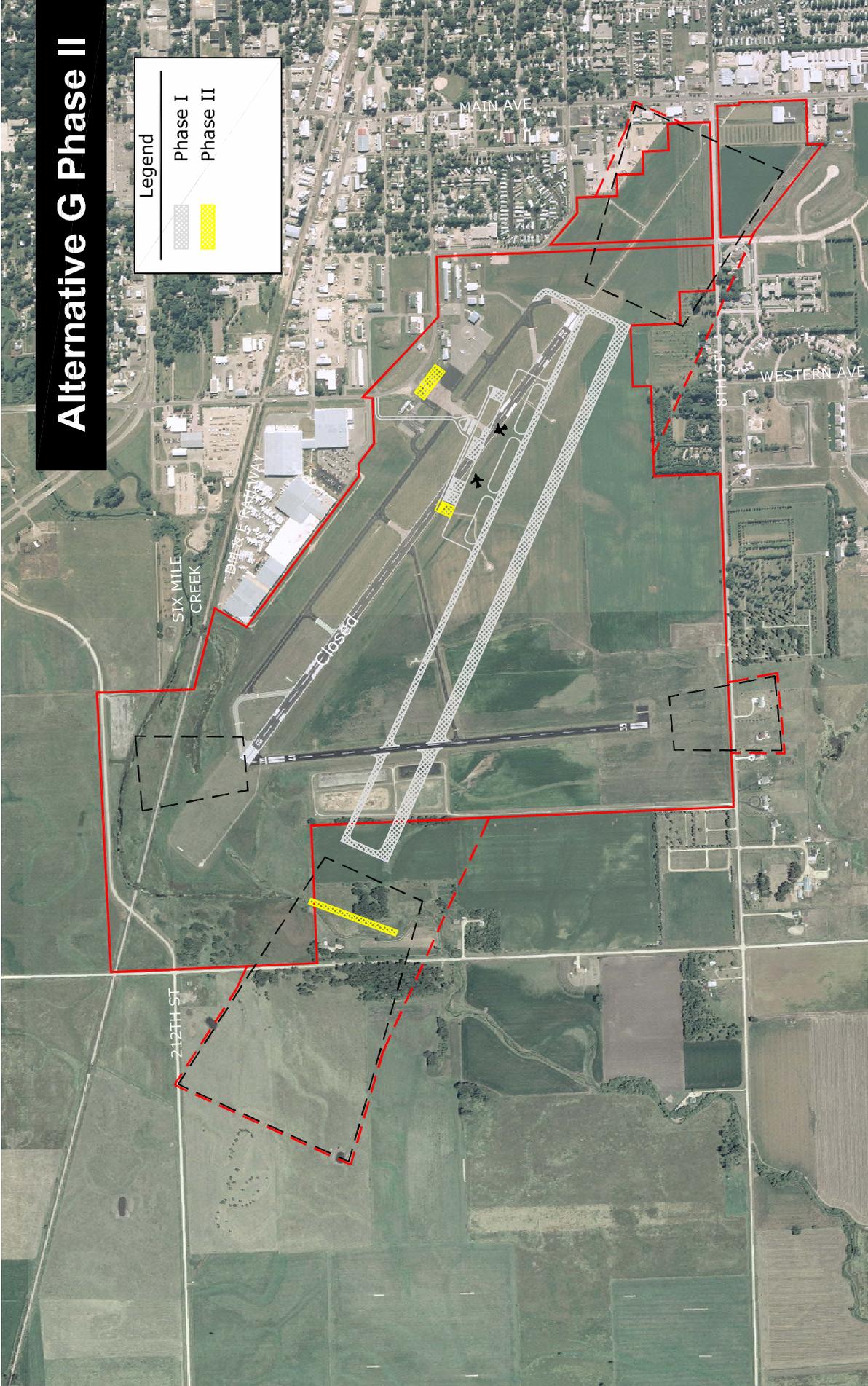


Figure 7-9

# Alternative G Phase II

**Legend**

- Phase I (Grey hatched pattern)
- Phase II (Yellow hatched pattern)



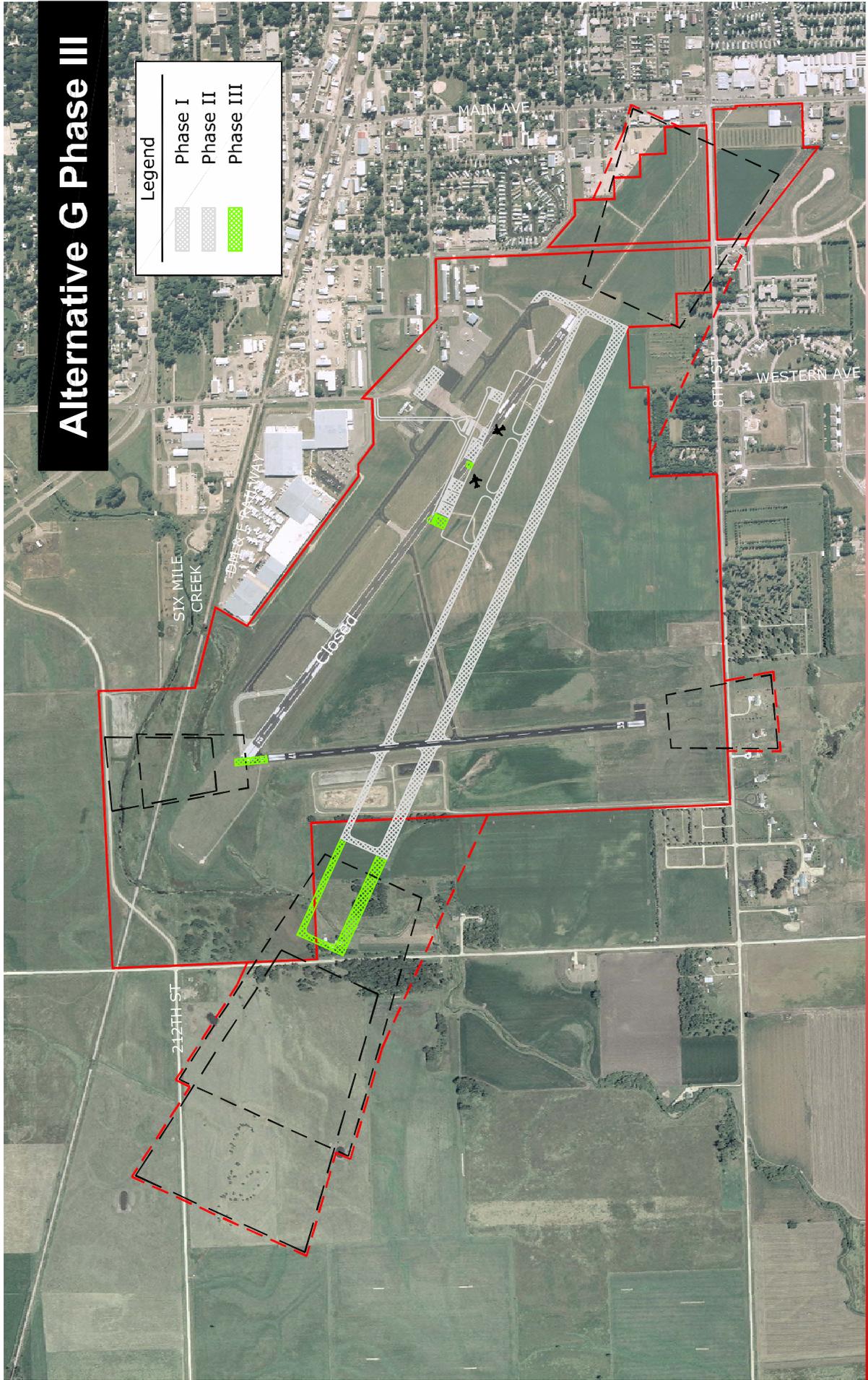
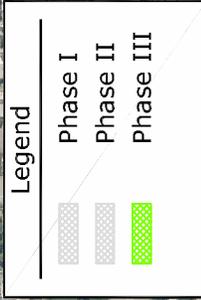
**Airport Master Plan**  
Brookings Regional Airport



Figure 7-10



# Alternative G Phase III



**Airport Master Plan**  
Brookings Regional Airport