

PAGE MUNICIPAL
AIRPORT
**MASTER PLAN
UPDATE**
2000-2020



Alternatives Analysis

CHAPTER 5

ALTERNATIVES ANALYSIS

5.1 INTRODUCTION

Earlier master planning tasks established that future demand at Page Municipal Airport exceeds the capacity of existing airside and landside facilities. Thus, additional facilities necessary to meet the demand were quantitatively identified.

This element, referred to as the “alternatives analysis,” serves to translate the quantified needs and facility deficiencies of the airport into various logical arrangements of physical facilities referred to as development alternatives. Then, these alternatives are evaluated using a set of criteria that includes acceptable design standards so a preferred alternative can be selected. The preferred alternative should represent the development plan which best meets the needs of the airport and the community it serves. For Page, the preferred alternative should also strive to meet the goals and objectives outlined in the Introduction Chapter of the Master Plan.

5.2 OPPORTUNITIES AND CONSTRAINTS

Prior to the identification of alternatives, opportunities and constraints that have the greatest influence on possible future development at Page Municipal Airport should be identified. Airport opportunities offer flexibility in the alternatives identification process by increasing the possibilities for development. Airport constraints are challenges or limitations to future airport development. While some constraints may limit or prohibit development in certain areas, other constraints may be overcome by responding with mitigation and /or engineering solutions.

Opportunities

- Undeveloped property on east side of airfield
- Undeveloped property area northwest of runway intersection
- Undeveloped/ underutilized property with runway frontage in southwest area of airport
- Undeveloped/ underutilized property on west side between new apron area and Runway 7 end
- Existing roadways and utility infrastructure

Constraints

- Residential development immediately adjacent to west side of airport
- Lack of access on east side of airport
- Inadequate utilities on east side of airport (limited to electrical line to VOR)
- Significant terrain slopes surrounding north, south and east boundaries of airport
- Drainage issues across airport
- Non-standard helicopter landing pad design (4 helipads located east of the GA apron)
- Community development inside existing runway protection zone (RPZ) for Runway 7 end

- Long-term lease (Sparks) for hangar development west of new apron/tiedown area
- Runway visibility zone to protect aircraft operator line-of-sight requirements for intersecting runways
- Rim trail, private property and Glen Canyon National Recreation Area to the north

5.3 IDENTIFICATION OF DEVELOPMENT ALTERNATIVES

As described earlier, airport development alternatives represent various logical arrangements of physical facilities to meet future aviation demand. Further, the location and size of these facilities should consider all current applicable FAA design standards and airspace regulations as well as the development opportunities and constraints outlined in Section 5.2. For Page, these factors guided the identification of several development alternatives for the existing airport. However, the City also has the option of relocating the airport to a new site or displacing the aviation demand in Page to one or more other airports in the area. For the purpose of this chapter and master planning work scope, the focus is placed on development alternatives for the existing site.

The development alternatives for the existing airport contain both airside and landside components.

5.3.1 Airside Components

Airside components in the development alternatives primarily include runways, aircraft parking aprons, and helicopter facilities.

Runways

As described in Chapter 4, Facilities Requirements, Primary Runway 15-33 currently serves 75 percent of the small aircraft fleet (12,500 lbs. or less) while aviation demand projections reveal a need to accommodate larger aircraft (greater than 12,500 lbs.) during the planning period. To meet this need, a runway length of 6,620 feet (1,120-foot extension) is required. This length will accommodate C-II aircraft like the Gulfstream III and Sabre 80.

Crosswind Runway 7-25 adequately meets the length requirements of its intended small aircraft users. However, the runway protection zone (RPZ) off Runway 7 end extends onto existing community development. A separate study identified the need to displace the Runway 7 end threshold so the RPZ could be contained on airport property.

Aircraft Parking Aprons

Based on the facility requirements analysis, aviation demand will exceed the capacity of the existing aircraft parking apron area in the latter part of the planning period. This translates to a need for approximately 3,338 square yards of additional apron. Further, separation requirements associated with specific types of development may displace some tiedowns requiring additional apron development in other areas.

Helicopter Facilities

Existing helicopter facilities do not meet FAA design standards. A total of eight helicopter parking pads/staging areas are required during the planning period.

5.3.2 Landside Components

For Page, the primary components of landside development include hangars, auto parking, and surface access.

Hangars

Hangar demand is projected to reach 48 hangars by the end of the planning period. A total of 32 hangars were inventoried at the beginning of the master planning process. Since then, a private company has constructed additional hangars and has plans for more adjacent to the existing hangar area, on the north side where it leases approximately 8 acres (354,175 SF) of airport property. The space is adequate for hangar development to meet the projected demand.

Airport staff have received requests from the public for alternatives to the hangars being offered by the private company, and has accumulated a waiting list of individuals interested in the hangars when they become available. Therefore, this alternatives analysis element considered the requirement of 16 additional hangars to meet the projected demand even though the private lease area is planned for hangar development. The alternatives provide guidelines to the Airport if it were to decide to make additional hangars available to the public.

Auto Parking Space

Auto parking space at Page Municipal Airport supports public, employee, car rental, and long-term parking. Considered with the public and long-term parking is space for recreational vehicles, which is a popular form of transportation with the airport users. Currently, based general aviation tenants park their automobiles inside their hangars. Therefore, the airport does not provide parking facilities specifically to accommodate based general aviation aircraft. However, the alternatives analysis does consider auto parking in the hangar development alternatives as guidelines for when or if parking facilities are considered for general aviation.

Surface Access Roads

The facility requirements analysis found the existing surface access roads adequate to support the airport throughout the planning period. However, there is the possibility of adverse impacts to the neighboring community and airport traffic, as airport activity increases, with the existing airport access layout, which integrates both types of traffic. An alternative is considered to minimize the potential of adverse impacts. Access to general aviation is also considered, as well as any surface access alternative inherited with the different airport development alternatives.

5.3.3 Development Alternatives

Following a review of the airport's opportunities and constraints, alternatives were identified. These alternatives were identified using the following assumptions.

- Runway widths will not change
- Crosswind Runway 7-25 will continue to operate without a parallel taxiway

- Runway 7's threshold will be displaced to accommodate the runway protection zone on airport property (per separate Study conducted concurrently with Master Plan)
- Proposed development alternatives will include consideration for all applicable FAA design standards and airspace regulations

There are four primary development concepts in the alternatives analysis, which are primarily defined by airside development to include:

1. No Airport Development
2. **450-foot runway extension** and one mile visibility minimums to accommodate **small B-II aircraft**
3. **1,120-foot runway extension** with one mile visibility minimums to accommodate **large C-II aircraft**
4. **1,120-foot runway extension** with $\frac{3}{4}$ mile visibility minimums to accommodate **large C-II aircraft with improved ability** to accommodate **instrument traffic** during poor weather conditions

Visibility minimums refer to the visibility required before executing an approach to the designated runway. For Page, a future instrument approach is proposed to Runway 15-33 with visibility minimums as low as $\frac{3}{4}$ -mile. However, it is uncertain whether such visibility minimums are possible for Page without an airspace analysis performed by the FAA. Therefore, Alternatives 3 and 4 address both levels of visibility minimums – one mile and $\frac{3}{4}$ mile. It is important to note that the $\frac{3}{4}$ mile factor does require an increased separation between the runway and any other facilities (buildings, aircraft parking, etc.) which results in a reduction in available land for development.

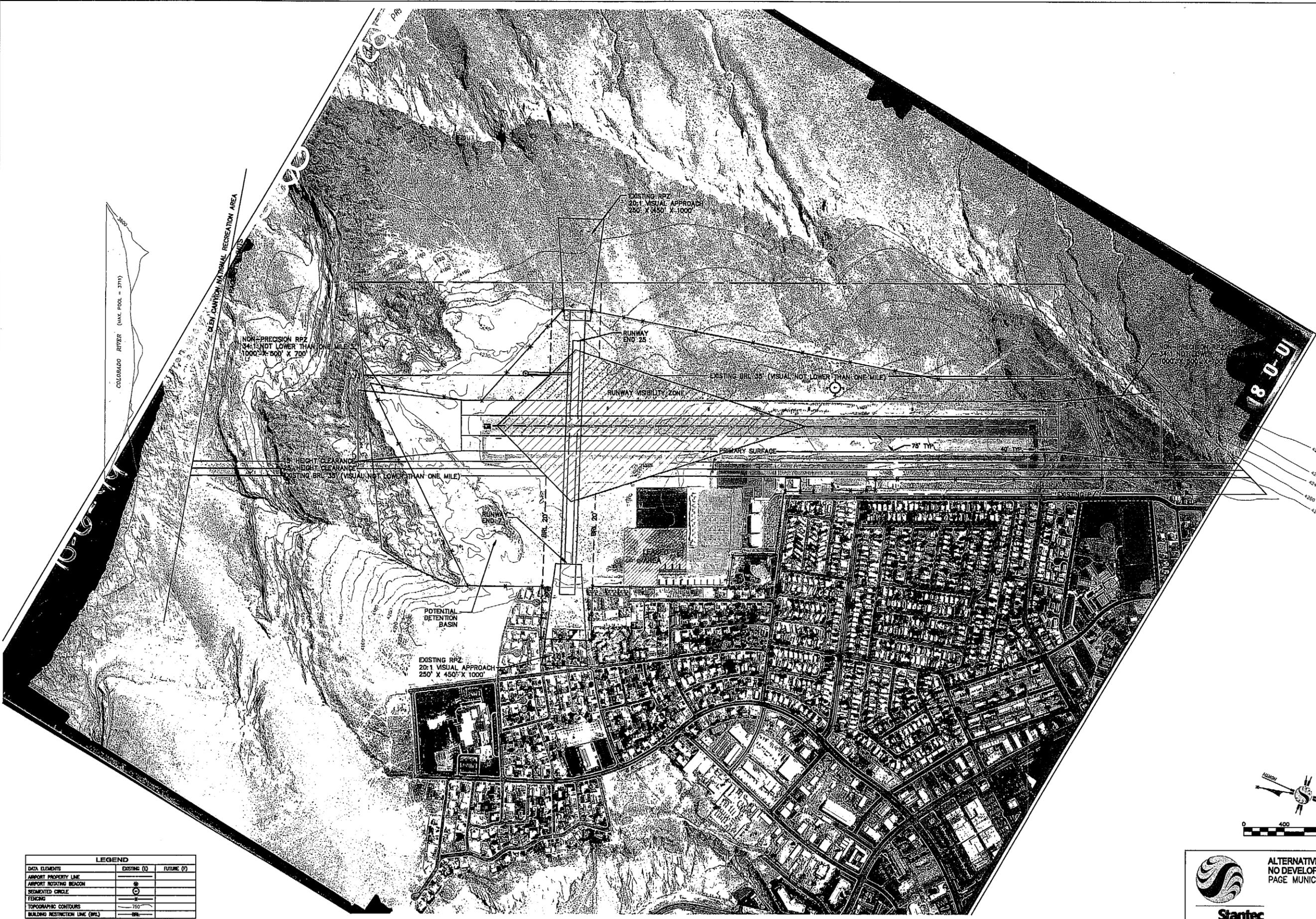
As previously mentioned, the City's two other development options include "*relocating the airport*" to another site or "*displacing Page's aviation demand*" to one or more other airports in the area. *Relocating the airport* involves constructing a completely new airport facility with all of the necessary airside and landside facilities to meet C-II design standards and then closing the existing airport. *Displacing Page's aviation demand* would mean that all based aircraft, FBO's, and other tenants would be served by one or more other airports in the area like the Grand Canyon Airport.

The following discussion and illustrations present the details of the **six** development alternatives identified as **Alternatives 1, 2A, 2B, 3, 4A, and 4B** for the existing airport based on the *four primary concepts* noted above.

Alternative 1- No Development

This alternative is defined as "no development" and is based on the assumption that no additional facilities will be constructed, but the existing airport facilities will continue to be maintained. This alternative is presented for comparison purposes and is primarily based on the premise that additional capital investment is undesirable and that any additional demand will be accommodated up to maximum capacity of the existing facilities.

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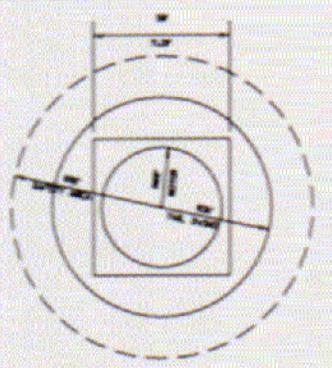
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LEGEND		
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AIRPORT NOTATING BOUNDARY	⊛	⊛
SEGMENTED CIRCLE	⊙	⊙
FENCING	⊕	⊕
TOPOGRAPHIC CONTOURS	---	---
BUILDING RESTRICTION LINE (BRL)	---	---



**ALTERNATIVE 1
NO DEVELOPEMENT
PAGE MUNICIPAL AIRPORT**



TYPICAL HELICOPTER PARKING PAD

10-0-19
18-0-11

GLEN CANYON NATIONAL RECREATION AREA

VISUAL RPT
20:1 VISUAL APPROACH
250' X 400' X 1000'

EXISTING RPT
20:1 VISUAL APPROACH
250' X 400' X 1000'

EXISTING RPT 20' VISUAL HEIGHT LOWER THAN ONE MILE

RUNWAY VISIBILITY ZONE

POTENTIAL
DETENTION
BASIN
FUTURE THRESHOLD RPT
20:1 VISUAL APPROACH
250' X 400' X 1000'

MUNICIPAL USE

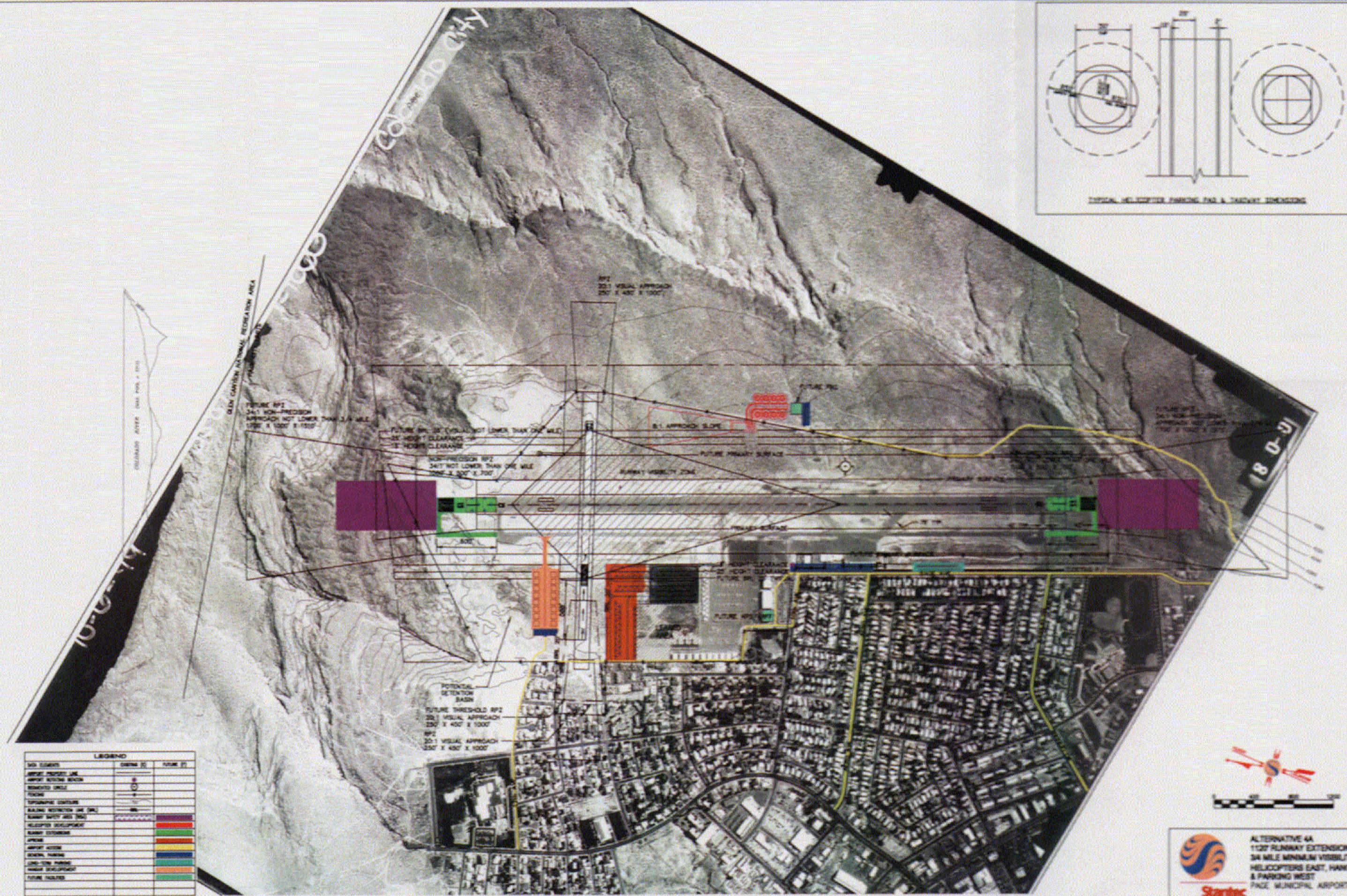
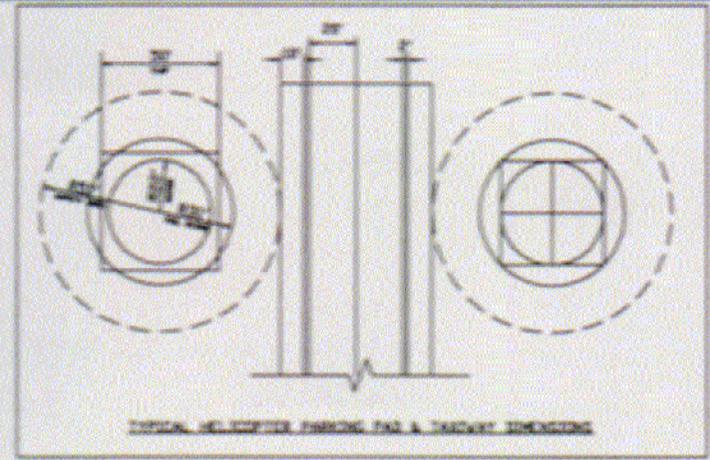
LEGEND

NO. ELEMENTS	SYMBOL	DESCRIPTION
1	(Symbol)	EXISTING RPT
2	(Symbol)	FUTURE THRESHOLD RPT
3	(Symbol)	POTENTIAL DETENTION BASIN
4	(Symbol)	EXISTING RPT 20:1 VISUAL APPROACH 250' X 400' X 1000'
5	(Symbol)	EXISTING RPT 20' VISUAL HEIGHT LOWER THAN ONE MILE
6	(Symbol)	RUNWAY VISIBILITY ZONE
7	(Symbol)	MUNICIPAL USE
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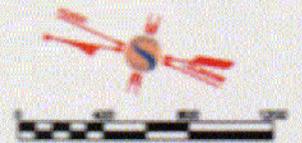
ALTERNATIVE 2A
400' RUNWAY EXTENSION,
ONE MILE MINIMUM VISIBILITY /
HELICOPTERS SOUTH
FACE MUNICIPAL AIRPORT

DATE: 10/15/2010 10:00 AM



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ALTERNATIVE 4A
 1100' RUNWAY EXTENSION,
 5/4 MILE MINIMUM VISIBILITY /
 HELICOPTERS EAST, HANGARS
 & PARKING WEST
 PACE MUNICIPAL AIRPORT

Alternative 2 - 450-foot runway extension with one-mile visibility minimums to accommodate small B-II aircraft

This alternative is presented with two development scenarios:

Alternative 2A - Helicopter facilities development to the *South* and hangar development to the *North*

Alternative 2B - Helicopter facilities development to the *North* and hangar development to the *South*

A more detailed description of each is provided below.

Alternative 2A

This alternative places the eight helicopter pads/staging areas to the south, parallel to Runway 15-33 near the Runway 33 end. This location assumes the use of Runway 15-33 for all helicopter approaches and departures. Further, it assumes that a new FBO facility (for Classic) would be constructed adjacent to the new pads for servicing convenience and passenger processing. Apron tiedown expansion for 10 based aircraft would be constructed just north of the new apron. This alternative also illustrates additional space for tiedowns beyond the 20-year demand to the north of the 10 additional tiedowns as well as in an area south of the helicopters near the extended Runway 33 end.

This alternative also provides for hangar development to continue along the north side of the existing lease area's hangar development. Auto parking expands south along Sage Avenue beginning in the vicinity of the old terminal building. The policy would be to designate the parking lot in front of the terminal facility for public parking only and redirect employee and car rental parking as well as public parking overflow to area along Sage Avenue. Long-term parking is relocated further south along Sage Avenue between the proposed tiedown apron (near Runway 33 end) and the roadway. An effort would be made to channel surface transportation by blocking off roadway intersections leading to the airport. Intersections considered for blockage include 10th Avenue at the southeast corner from the City Park, Cypress and Sage, Calle Hermosa and Sage, and El Mirage and Sage. Access would be provided to the new hangar development by constructing an access road behind the existing hangars alongside the western property line. The existing Classic Aviation facility would be available for a new Aircraft Rescue and Fire Fighting facility (ARFF) or the National Park Service (NPS), which in turn would open up space along Sage for better auto parking configurations.

Alternative 2B

This alternative locates the eight helicopter pads/staging areas to the north with two remaining in front of Classic Aviation's hangar and the other six placed where the existing t-hangars are located along the apron. Like Alternative 2A, this location assumes the use of Runway 15-33 for all helicopter approaches and departures. Further, the apron tiedown expansion for 10 based aircraft (plus expansion beyond the 20-year period) would be constructed just north of the new apron, also similar to Alternative 2A. The displaced t-hangars would be relocated to the south of the fuel storage facilities, parallel to Runway 15-33.

Primary hangar development under this alternative would take place parallel to the Runway 33 extension, south of the new t-hangar area. Automobile parking to support the hangars would be made available along the western edge. The additional area between the hangars and Sage Avenue would be available for long-term parking. The City Park along 10th Avenue, south of the existing conventional hangars would be converted into a parking lot to support the projected

demand for auto spaces. The same effort would be made to channel surface transportation by blocking off roadway intersections leading to the airport. Intersections considered for blockage include 10 Avenue at the southwest corner from the City Park, Rustic Road and 10th, Cypress and Sage, Calle Hermosa and Sage, and El Mirage and Sage. The current practice of auto access to the hangar area across the aircraft apron would remain.

Alternative 3 - 1,120-foot runway extension (with one mile visibility minimums) to accommodate large C-II aircraft

In addition to the 1,120-foot runway extension, this alternative requires that the runway safety areas be widened and expanded to 1,000 feet off each runway end (illustrated in purple on the drawing). Unlike Alternatives 2A and 2B, this alternative proposes a helicopter landing and takeoff pad on the apron north of Classic Aviation's hangar. Helicopter parking would include the two existing helicopter parking spaces in front of Classic as well as six new spaces on the apron just west of the landing and take-off pad. This alternative displaces several fixed wing tiedowns, which are easily accommodated within the proposed apron expansion area north of the existing leased area and tiedown apron.

Hangar development occurs parallel to the Runway 15 extension, with public parking available along the western edge. Long-term parking is also available in the vicinity of the new hangar development. Access is provided through 17th Avenue. Auto parking to support the terminal facility and FBO's would be expanded along Sage beginning south from the National Park Service property. Access to the hangars on the north apron would be provided by the construction of an access running between the hangars and western airport property line.

Alternative 4 - 1,120-foot runway extension (with ¾-mile visibility minimums) to accommodate large C-II aircraft with improved ability to accommodate instrument traffic during poor weather conditions

This alternative is presented with two development scenarios:

Alternative 4A - Helicopter facilities development on the east side of the airport

Alternative 4B - Helicopter facilities, hangars, and large portion of ultimate apron development on the east side of the airport

A more detailed description of each is provided below.

Alternative 4A

The concept behind Alternative 4A is to separate rotorcraft operations from all other airport activity. Therefore, helicopter facilities would be developed east of Runway 15-33, and all other facilities on the west side. However, it would still need the infrastructure and surface access roadway. The roadway would go around Runway 33 end's OFA or through a tunnel under the runway.

Hangar development would take place on the north side of the crosswind runway with auto parking available west of it. Access to the new hangars would be provided from 17th Avenue. Automobile parking supporting the terminal facility would be developed along Sage beginning immediately on the Sage and 10th Avenue intersection. The National Park Service hangar and adjoining facilities would be required to relocate due to the increased separation required from the runway due to the lower visibility minimums. Therefore, the auto parking area could begin from the terminal facility.

Long-term parking would be developed along Sage, south of the fuel farm. NPS and the ARFF station would take over the rotorcraft hangar. The old terminal building would be completely demolished. This alternative includes channeling surface traffic by blocking off roadway intersections. Like Alternative 3, access to the existing hangars is provided by a new roadway (with controlled private access due to its narrow width) behind the hangars along the perimeter of the airport property. The access roadway would continue north until connecting with the access roadway from 17th Avenue.

Alternative 4B

Alternative 4B considers hangar development to take place on the east side of Runway 15-33, south of the new tiedown apron. Automobile parking would be available along the new roadway circulation with a parking lot just south of the new FBO facility. Access to the east side of the runway would be provided from Sage, with the intersection being closer towards Osprey Drive. The NPS hangar and ARFF station would require relocation due to the increased separation required from the runway due to lower visibility minimums. The ARFF station and NPS facility would be relocated to the east side. The old terminal building on the west side would be completely demolished. Surface access would be provided to both the east and west sides of the airport.

5.4 ALTERNATIVES EVALUATION

The guiding principle of airside and landside planning is facility development to meet aviation demand in a financially feasible manner, while at the same time addressing aviation, environmental, and community issues. Development alternatives provide guidelines toward this effort. However, the selection of a preferred development alternative requires that each be carefully evaluated for its merits and faults in order to make an informed decision.

The following discusses the advantages and disadvantages of each alternative presented in Section 5.3. Please see the Appendix for the Alternatives Evaluation Matrix summarizing these advantages, disadvantages, and costs.

Evaluation of Alternative 1- No Development

Advantages: This alternative incurs the least cost in comparison to the other alternatives. Further, "no development" translates to least environmental impact and no disruption to airfield operations for construction.

Disadvantages: This would magnify the facility deficiencies over time as based aircraft and operations demand increased. This would progressively impact both local and transient airport users and, thus, make the airport less desirable to business traffic. While the primary advantage is the low cost, inadequate facilities could negatively impact the airport's long-term economic viability and contribution to the community and regional airport system. Further, this alternative is not consistent with the ultimate goals and objectives of the City of Page.

Evaluation of Alternative 2A - 450-foot Runway Extension w/ one-mile visibility minimums/Helicopter Facilities Development to the South

Advantages: The 450-foot extension meets the runway length requirement for 100 percent of the small aircraft fleet (12,500 lbs. or less) currently operating at the airport. Existing facilities continue to be utilized to maximize the return on investment. All airport facilities have access to the existing surface access layout. The access road to the new hangar development behind the existing hangars would segregate automobiles from airplane traffic on the apron. Aviation

activity is also segregated by user type with general aviation development continuing north of the existing GA hangars and tiedowns; helicopter operations relocated to the south towards Runway 33 end accommodating approach and departure use of Runway 15-33 for all rotorcraft operations; and commercial aviation maintained in the central area of the airport.

Like Alternative 2B, the 450-foot runway extension (including taxiway) cost is approximately \$665,000 which is \$4,640,000 less than a full 1,120-foot extension cost identified in Alternatives 3 and 4. While extensions at both runway ends may provide the total 450-foot length, an extension to only one runway end is more favorable due to minimized disruption to airfield operations. Furthermore, potential environmental impacts are also minimized in terms of ground disturbance in comparison to Alternatives 3 and 4 as well as 2B.

Disadvantages: This alternative does not accommodate the long-term needs of the larger C-II aircraft projected to use the airport during the planning period. New hangar development proposed to the north of the existing hangars would block the scenic view of the northern neighborhood. Aside from the area privately leased, no additional space for hangar development beyond the planning period is available unless the ultimate apron expansion proposed in the same area is reduced or eliminated. Commercial service operations are landlocked in the mid-airport area, with minimal room to support growth. Unless adequate facilities are made available to the south, private rotorcraft owners would be more likely to takeoff and land in front of their hangars because the new location of the helipads would be too far for them to taxi to and from.

Evaluation of Alternative 2B - 450-foot runway extension with one-mile visibility minimums/Helicopters Facilities Development to the North

Advantages: This alternative has advantages similar to Alternative 2A with the runway extension cost at \$665,000. However, this alternative locates the helicopters closer to the main terminal area and where they are currently accustomed to operating. Further, this alternative eliminates the need for a relocated FBO facility to support the helicopters as presented in Alternative 2A. Future apron expansion is proposed to fill the entire vacant area available on the south side of Runway 7 end minimizing the impact to the north neighborhood scenic view. The proposed parking area (where the City Park currently resides) is in close proximity to the airport facilities it supports.

Disadvantages: Removes the City Park which appears to be highly utilized by the community. General aviation is separated into two different areas of the airport. The proposed hangar development near Runway 33 end would impact the scenic view of the south neighborhood area. Automobile and airplane traffic are integrated presenting an undesirable situation on the apron. Rotorcraft and fixed wing aircraft mix issue is not resolved with this alternative.

Evaluation of Alternative 3 - 1,120-foot runway extension with one-mile visibility minimums

Advantages: This alternative accommodates the full runway extension required for the proposed C-II traffic while maintaining the same separation requirements from the runway, unlike Alternative 4 which increases the separation requirement eliminating some facilities and limiting the development of others on the west side. Like Alternative 2B, helicopter facilities are proposed to the north near the terminal area. However, this alternative provides a more centralized parking configuration near Classic Aviation. This alternative does not disturb the scenic view of the southern neighborhood, and because the proposed hangars are closer to the runway, the impact to the northern neighborhood is minimized. Aside from being separated by

the crosswind runway, there is continuation of general aviation to the north and available space for commercial aviation development to the south.

Disadvantages: Unless a connecting road is included between 17th Avenue entrance and terminal access, ground transportation would have to go all the way around through Lake Powell Blvd. to travel between the terminal facility and new hangar development. If a connecting road is constructed, there's the potential for significant automobile traffic off of Runway 7.

The 1,120-foot extension of Runway 15-33 (including taxiways and 1000-foot long safety areas) requires significant earthwork at a cost of approximately \$5.3 million.

Evaluation of Alternative 4A - 1,120-foot runway extension with ¾-mile visibility minimums/ helicopter facilities on the east side of the airport

Advantages: Like Alternative 3, this proposed development accommodates the full runway extension required for the proposed C-II traffic. However, this alternative increases the ability to accommodate instrument operations during poor weather conditions allowing aircraft to takeoff and land when visibility is as low as ¾ mile. Further, all helicopter facilities are proposed for development on the east side – separated from the fixed wing operators with no overflight of aircraft tiedowns. Automobile parking, except for long-term parking, is available within close proximity of the facilities supported. Surface traffic is maintained away from aviation traffic.

Disadvantages: The cost/benefit ratio of establishing infrastructure and access to the east side for a small concentration of facilities may not be practical. The lower visibility minimums force the building restriction line (BRL) out farther from the runway resulting in a loss of existing facilities (i.e. ARFF station, NPS facility) and potential development land on the west side. Facilities are locked in on the west side of the airport with little to no space available for ultimate development. Unless a connecting road is included between 17th Avenue entrance and terminal access, ground transportation will have to go all the way around through Lake Powell Blvd. to travel between the terminal facility and new hangar development. If a connecting road is constructed, there's the potential for significant automobile traffic off of Runway 7. Complaints may be generated from the north side of the crosswind runway due to scenic view impacts. Like Alternative 3, the 1,120-foot runway extension (including taxiway, safety area) costs approximately \$5.3 million.

Evaluation of Alternative 4B - 1,120-foot runway extension with ¾-mile visibility minimums/ helicopters facilities, hangars, and large portion of ultimate apron development on the east side of the airport

Advantages: Higher utilization of the airport property located on the east side of Runway 15-33, which could result in a higher return on investment. Although general aviation traffic would be split between the two sides of Runway 15-33, services would be available from two different FBO's. There is less impact to the scenic views for the residences, and automobile traffic is reduced as it is distributed to both sides of the runway.

Disadvantages: While this alternative offers more flexibility for expansion in the future, costs associated with addressing the topography issues on the east side as well as the significant infrastructure required to support it are higher than the other alternatives. The highest cost associated with this alternative is the \$5.3 million runway extension. General aviation traffic is split between two different locations on the airport.

Evaluation of "Relocating Airport"

In 1992, an Airport Site Selection Study was prepared to determine, through the 2010 planning period, the feasibility of relocating the Page Municipal Airport to a regional facility located within the Navajo Nation, just south of the jurisdictional boundary of the City of Page. While the City of Page has not actively pursued this avenue, the City has not completely eliminated this as an option in the future.

Advantages: A new airport would provide a "clean slate" opportunity to develop the airport in the most land use efficient and effective manner while minimizing community impacts by carefully selecting the site location.

Disadvantages: Today, Page Municipal Airport is a well-established facility. The majority of future facility requirements can be accommodated through the planning period and beyond. While a new airport site could accommodate a longer runway, the capital investment required would be considerable (estimated between \$60 and \$70 million), making a new airport a significant financial constraint and difficult to develop in a reasonable timeframe. However the City is considering an update to the site selection study to address financial feasibility issues in greater detail.

Evaluation of "Displacing Aviation Demand"

The two closest airports with similar airport services to Page are Grand Canyon Airport, located approximately 70 miles south, and Bryce Canyon Airport, located approximately 60 miles northwest in the state of Utah. These airports would experience the majority of the displaced aviation demand for facilities.

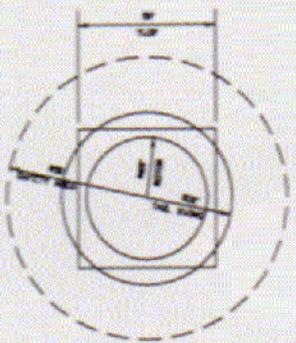
Advantages: This would release the City of Page from the financial and administrative responsibility of owning and maintaining an airport.

Disadvantages: This alternative could significantly impact the airports accommodating the displaced demand since Page Municipal Airport is projected to reach more than 130 based aircraft. Although Grand Canyon and Bryce Canyon Airport may have sufficient land available for expansion, one or both airports could near capacity as their projected growth, and Page's displaced demand and anticipated growth, is realized. Further and more importantly, Page's current location plays an integral part in the regional airport system, serves an essential air service route, accommodates much of the tourist traffic, and positively benefits the City of Page economy.

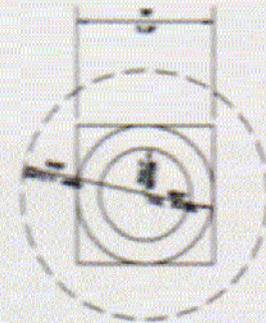
5.5 SELECTION OF PREFERRED DEVELOPMENT ALTERNATIVE

Following the preliminary draft of Sections 5.1 through 5.4, an Alternatives Analysis Working Paper was published for the PAC's review in preparation for a PAC work session. The Working Paper sought to give an overview of the various development alternatives as well as document the advantages and disadvantages of each to cultivate a productive discussion at the PAC's March 27 meeting and ultimately a final vote in the June 26 meeting.

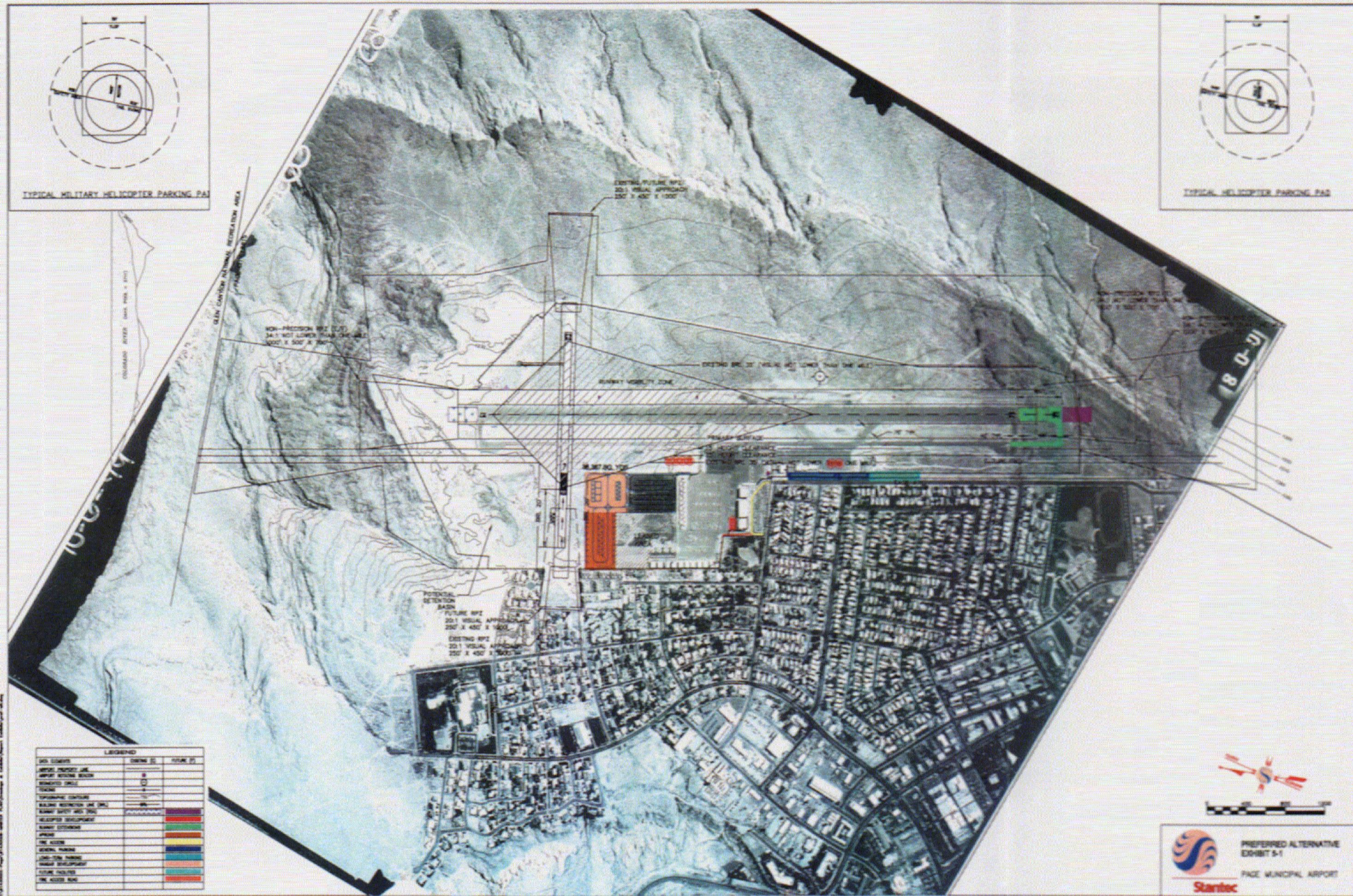
The results of the alternatives evaluation served as a basis for selection of a preferred development plan for the Page Municipal Airport (**Exhibit 5-1**). The PAC selected Alternative 2B with modifications. The selection resulted from discussion during the PAC meeting held March 27, 2000 with a follow-up vote on June 26, 2000 in Page. The selection of the Preferred Alternative was primarily influenced by the PAC's preference to continue seeking a possible airport relocation and on the premise that any additional dollars spent on the existing site would



TYPICAL MILITARY HELICOPTER PARKING PAD



TYPICAL HELICOPTER PARKING PAD



GLENN CANYON NATIONAL RECREATION AREA
 COLORADO RIVER (DASH LINE - 1977)

LEGEND

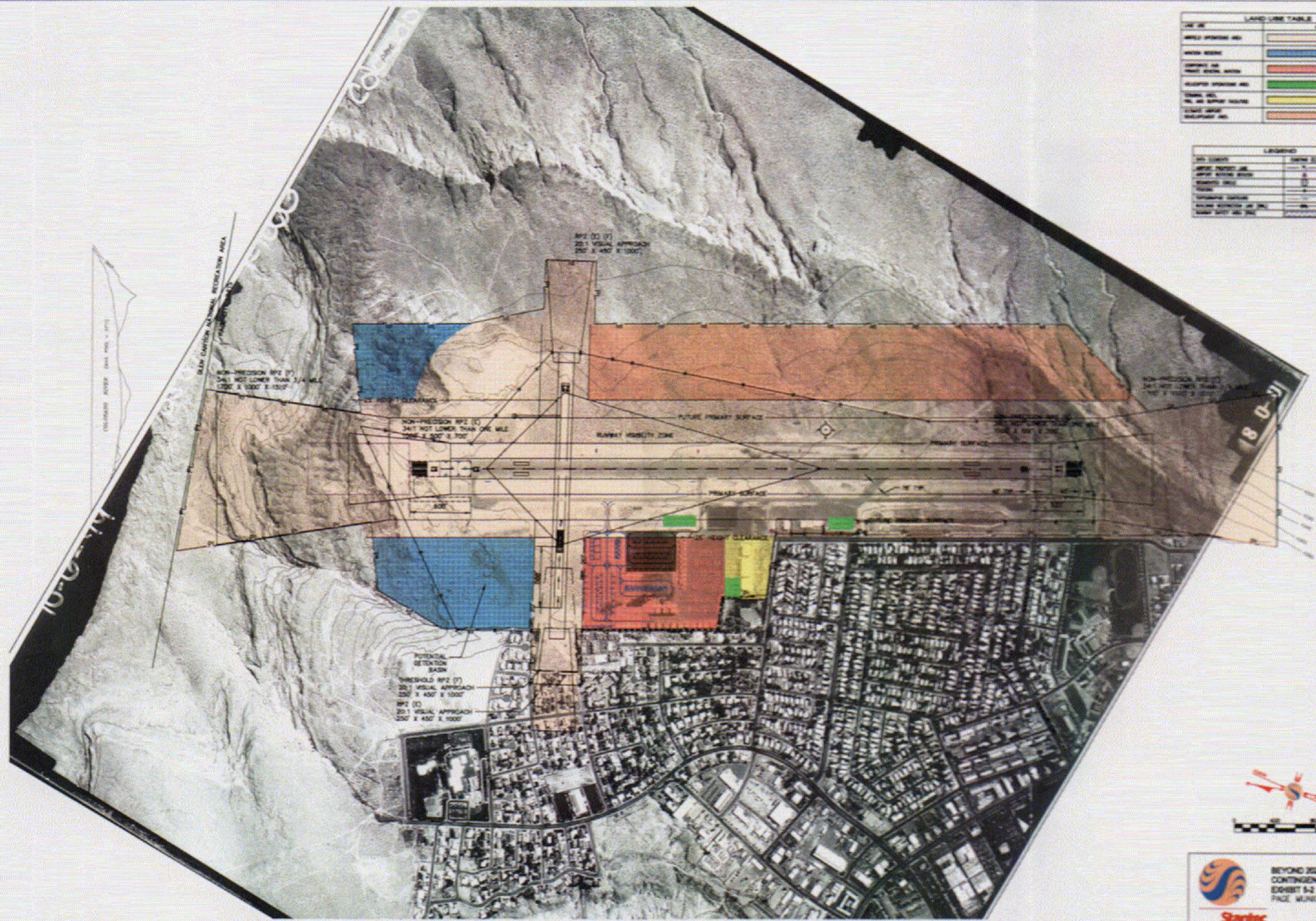
ITEM	SYMBOL	ITEM	SYMBOL
ADJ. ELEVATION	[Symbol]	EXISTING R/PZ	[Symbol]
AIRPORT PROJECTED AIR	[Symbol]	FUTURE R/PZ	[Symbol]
AIRPORT RETENTION BASIN	[Symbol]	EXISTING R/PZ	[Symbol]
BRANCHED DRAIN	[Symbol]	FUTURE R/PZ	[Symbol]
CONCRETE	[Symbol]	EXISTING R/PZ	[Symbol]
TOPOGRAPHIC CONTOUR	[Symbol]	FUTURE R/PZ	[Symbol]
RAILLINE RESTRICTION (IN OR)	[Symbol]	EXISTING R/PZ	[Symbol]
RUNWAY SAFETY AREA (S/A)	[Symbol]	FUTURE R/PZ	[Symbol]
HELICOPTER DEVELOPMENT	[Symbol]	EXISTING R/PZ	[Symbol]
HELICOPTER DEVELOPMENT	[Symbol]	FUTURE R/PZ	[Symbol]
APRON	[Symbol]	EXISTING R/PZ	[Symbol]
APRON	[Symbol]	FUTURE R/PZ	[Symbol]
THE ACES	[Symbol]	EXISTING R/PZ	[Symbol]
GENERAL PARKING	[Symbol]	FUTURE R/PZ	[Symbol]
LONG-TERM PARKING	[Symbol]	EXISTING R/PZ	[Symbol]
WHALE DEVELOPMENT	[Symbol]	FUTURE R/PZ	[Symbol]
FUTURE POLYESTER	[Symbol]	EXISTING R/PZ	[Symbol]
THE ACES RUN	[Symbol]	FUTURE R/PZ	[Symbol]



1:10,000 Scale, Aerial Photograph, 1977, 1980, 1983, 1986, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, 2019, 2022

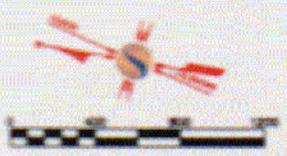
5.7 CONCLUSIONS

The proposed airport development selected in this chapter is the result of the Page Municipal Airport Master Plan PAC's discussion and input. A further refinement of airport development proposed for Page is presented in Chapter 6, Airport Plans, and outlined by phase in Chapter 9, Implementation.



LAIRED LINE TABLE	
LINE NO.	NO.
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

LEGEND		
LINE SYMBOL	TYPE NO.	TYPE NO.
---	1	1
---	2	2
---	3	3
---	4	4
---	5	5
---	6	6
---	7	7
---	8	8
---	9	9
---	10	10



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