SAT

San Antonio International Airport

VISION 2050

A Flight Plan for San Antonio's Future

Briefing for:

Ad Hoc Regional Committee

Meeting #3

May 4, 2010

SAN ANTONIO AIRPORT SYSTEM

AECOM

in association with:

Jacobs Consultancy

Michael Gallis & Associates

Sunland Group

KGB Texas

AECOM

Agenda

- Progress to Date
- Alternatives Development and Evaluation Process
- Airfield Alternatives
- Terminal Alternatives
- Landside Alternatives
- Preliminary Recommendation
- Public Meeting Outreach Coordination
- Project Next Steps

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Progress to Date

Master Plan Workflow

NEEDS

Existing Conditions and Issues

Inventory assembly and review

Aviation Demand Forecasts

Estimate short, medium and long term aeronautical activity that is likely to occur at the Airport

Goal Setting and Visioning

Community leader meetings

Demand/Capacity and Facility Requirements

Identify future facilities needed to accommodate demand

Committee Input
Ad Hoc Regional Committee
Technical Advisory Committee
Community Advisory Committee

May 2009 – December 2009

SOLUTIONS

Alternatives Development and Evaluation

Identify and evaluate all development alternatives to address requirements

Recommended Development Alternative

Prepare a comprehensive and financially feasible implementation plan

Committee Input
Ad Hoc Regional Committee
Technical Advisory Committee
Community Advisory Committee

Public Meeting

January 2010 – July 2010

DOCUMENTATION

Final Documentation

Final report
Executive summary
Airport layout plan
Final presentation

Committee Review
Ad Hoc Regional Committee
Technical Advisory Committee
Community Advisory Committee

City Council

Public Meeting

July 2010 – January 2011

Follow-Up to February Meetings

- **Forecast Assumptions**
  - Committee members requested a technical memorandum on the assumptions used to develop the aviation forecasts

    → Requested information was posted on Airport website on April 14th and distributed on April 26th

Forecast Assumptions

- **Inputs to Traffic Forecasts**
  - National economic outlook
  - Socioeconomic outlook for the San Antonio Region
  - San Antonio Region economic outlook and major Industries
    - Healthcare/bioscience
    - Information technology
    - Aerospace
    - Tourism
    - Military
  - SAT historical traffic and trends
- **Forecast Scenarios**
  - Prepared baseline, low-growth and high-growth forecast to account for inherent uncertainty of aviation demand forecasting
- **International Service**
  - Assumed that demand for nonstop international service would increase as traffic reaches levels that justify the addition of new nonstop international flights

Follow-Up to February Meetings

- **Air Service Trends**
  - Committee members requested information on past and current air service trends and destinations served

    → Requested information was posted on website on March 30th and is presented on the following slides

40 Non–Stop Destinations served from SAT in 2008

30 Non–Stop Destinations served from SAT in 2010

30 Non-Stop Destinations Served in April 2010

- SAT has had non-stop service to approximately 30 destinations in most years since 2000
- 40 non-stop destinations were offered in April 2008 as several new entrant airlines started serving the Airport in 2008 (ExpressJet, Spirit)
- Much of the service lost in 2010 had started in 2007-2008
- Service to several markets, particularly international destinations, may operate only a few times a month

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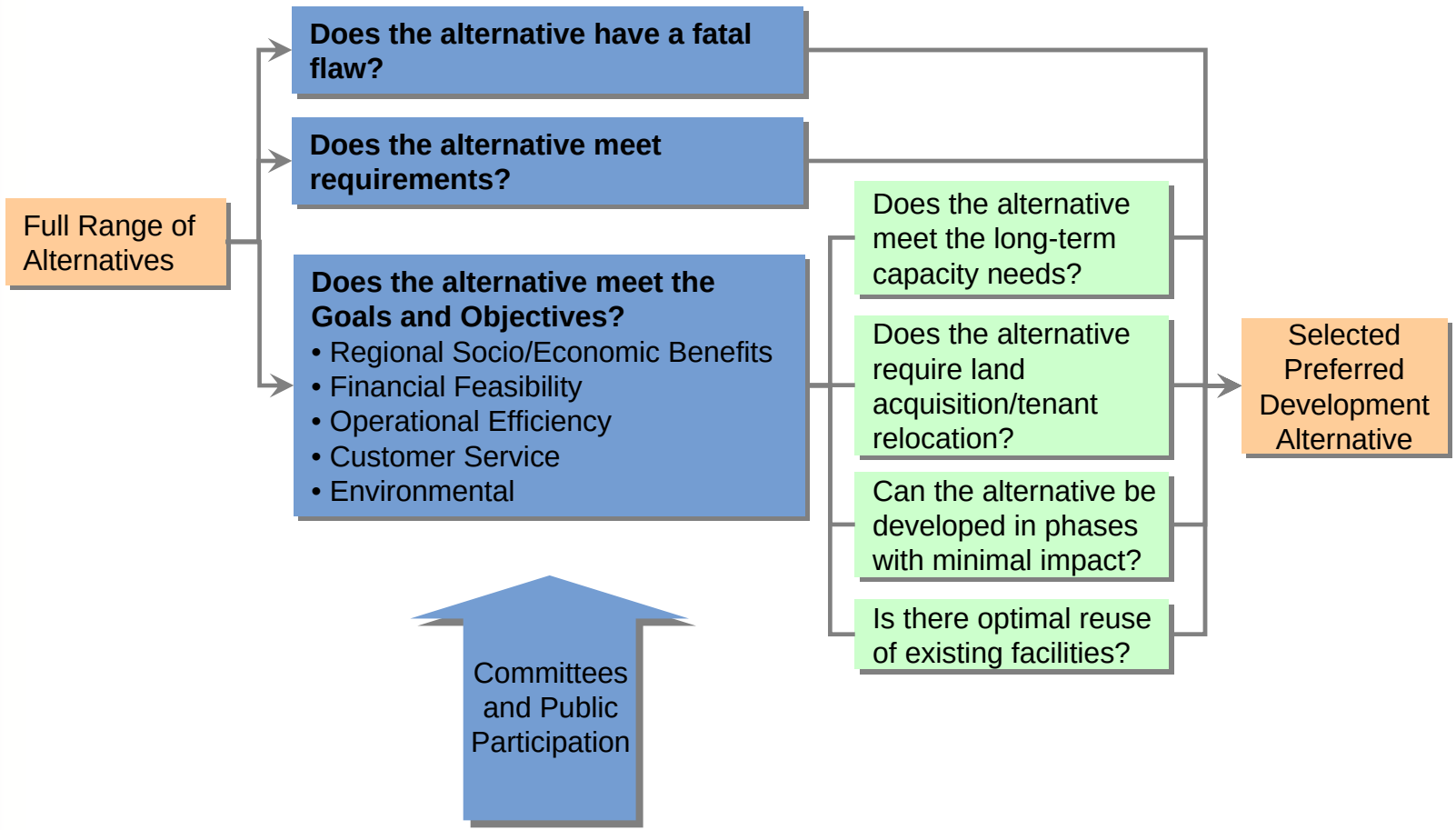
Alternatives Development and Evaluation Process

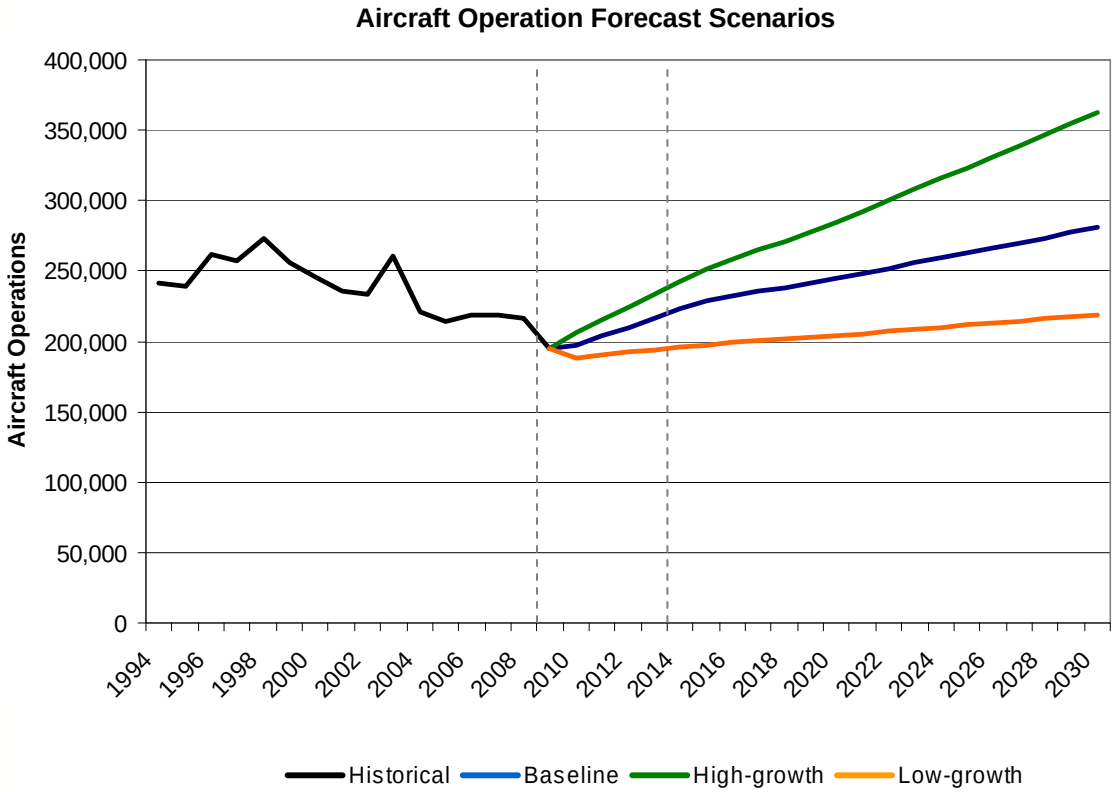
Alternatives Evaluation Methodology



Airfield Alternatives

- Aviation Forecast Results
- Airfield Requirements
- Baseline Airfield Facilities
- Airfield Development Alternatives
- Alternatives Evaluation
- Recommended Alternative

Aircraft Operations Forecasts



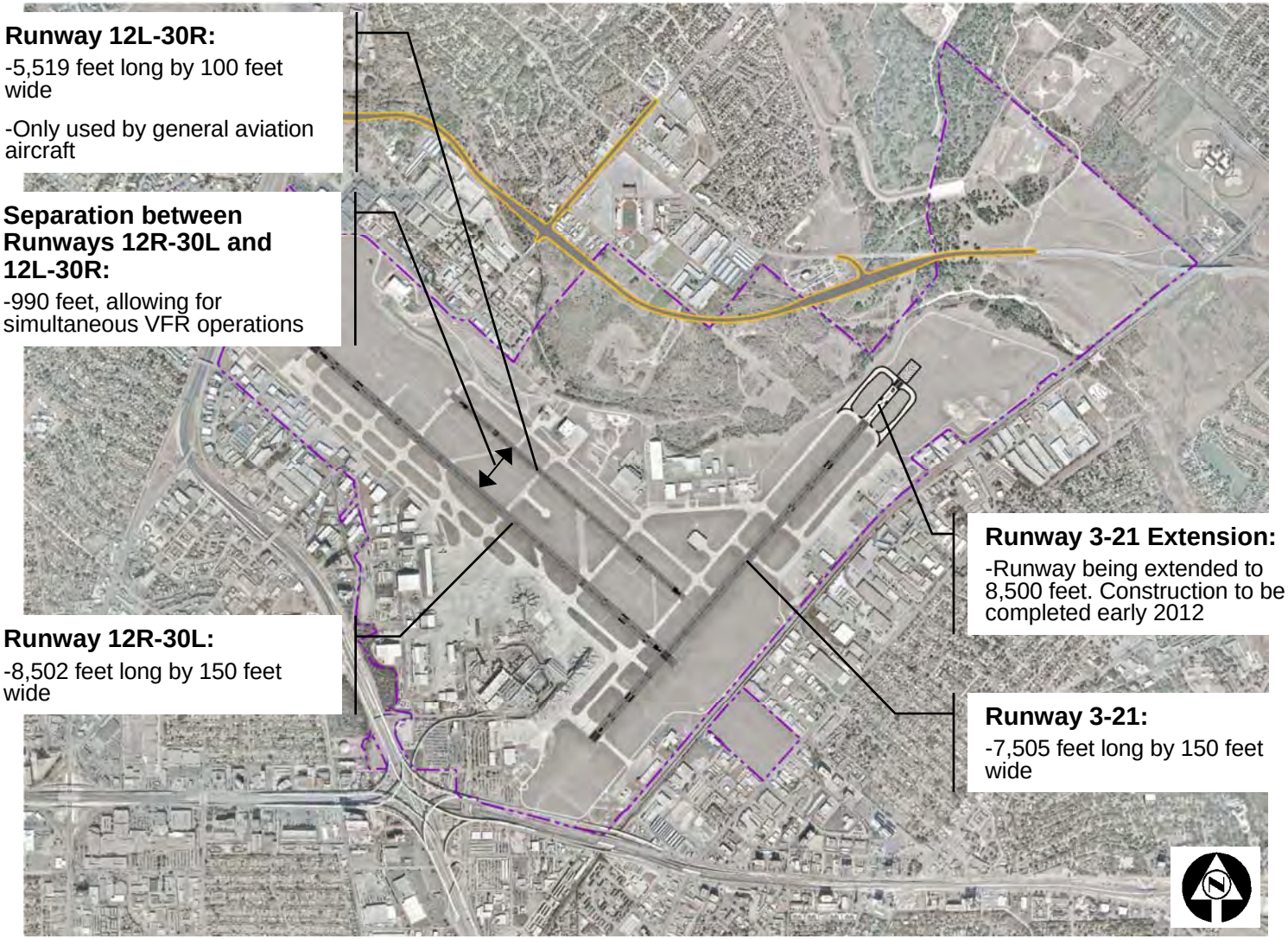
Number of operations declined by 10% in 2009. Baseline forecast projects a recovery to 2008 levels by 2014.

Commercial operations drives long-term growth as general aviation, military and air taxi level off.

Baseline forecast projects total operations long-term growth at 1.8%

OPERATIONS FORECASTS						
		Projections				Annual Growth Rate
Forecast	2009	2010	2015	2020	2030	2009-2030
Baseline	194,657	197,400	229,200	244,700	280,800	1.8%
High-growth	194,657	205,700	252,000	284,000	363,000	3.0%
Low-growth	194,657	188,600	197,700	204,000	219,000	0.6%

Baseline Airfield Facilities



Airfield Requirements

- **Master Plan improvements**
  - **Runway 12L-30R**
    Upgrade to air carrier runway
  - **Taxiway system efficiency**
    Targeted improvements to improve aircraft flows and interface with apron
  - **Navigational aid/visual aid**
    Add CAT I instrumentation to Runway 21
- **Beyond the Master Plan (post-2030 improvements)**
  - **Runway length**
    10,000ft runway needed to accommodate larger aircraft for long-haul flights

Airfield Alternatives Evaluation

	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 8	Alt. 9	Alt. 10	Alt. 11
Regional Socio/Economic Benefits											
Meets 2030 capacity needs	○	●	○	●	●	●	●	●	●	●	●
Allows long term growth for airfield	●	●	●	●	●	●	●	●	●	●	●
Meets runway length requirement	◐	○	◐	○	○	○	○	◐	○	○	○
Optimizes non-terminal land development	●	●	●	○	●	●	●	●	●	●	○
Access/impact to regional rail system	●	●	●	◐	●	●	●	●	◐	◐	◐
Financial Feasibility											
Capital investment requirement	●	◐	○	◐	◐	◐	◐	○	◐	◐	◐
Ability to develop incrementally	●	◐	○	◐	●	○	●	○	●	●	●
Requirement for land acquisition	●	◐	●	◐	○	●	◐	○	◐	◐	◐
Operational Efficiency											
Airfield configuration optimizes aircraft movement	○	○	○	○	○	○	●	○	○	○	●
Ease of maintenance	◐	◐	○	◐	○	○	●	●	●	●	●
Minimize impact of construction phasing	○	◐	◐	◐	○	○	◐	●	○	◐	◐
Environmental											
Impact on local community	●	◐	○	◐	●	●	◐	○	◐	◐	○
Preservation of open space	●	○	○	○	◐	◐	○	○	○	○	○

Alternatives 1, 6 and 8 are the preferred alternatives.

● Meets criteria
○ Neutral
◐ Does not meets criteria

Short-listed Airfield Alternatives

Alternative 1
No Build – FAA Standards

Alternative 6
Extend 21 to 10,000 ft

Alternative 8
Extend 12L to 8,500 ft

Recommended Airfield Alternative

Runway 12L-30R:

-Upgrade to air carrier runway

-8,500 feet long by 150 feet wide

-Build new full-length parallel taxiway

Runway 12R-30L:

-Add runway shoulders

-Remove intersection with Runway 3-21 by relocating Runway 30L threshold 450 feet

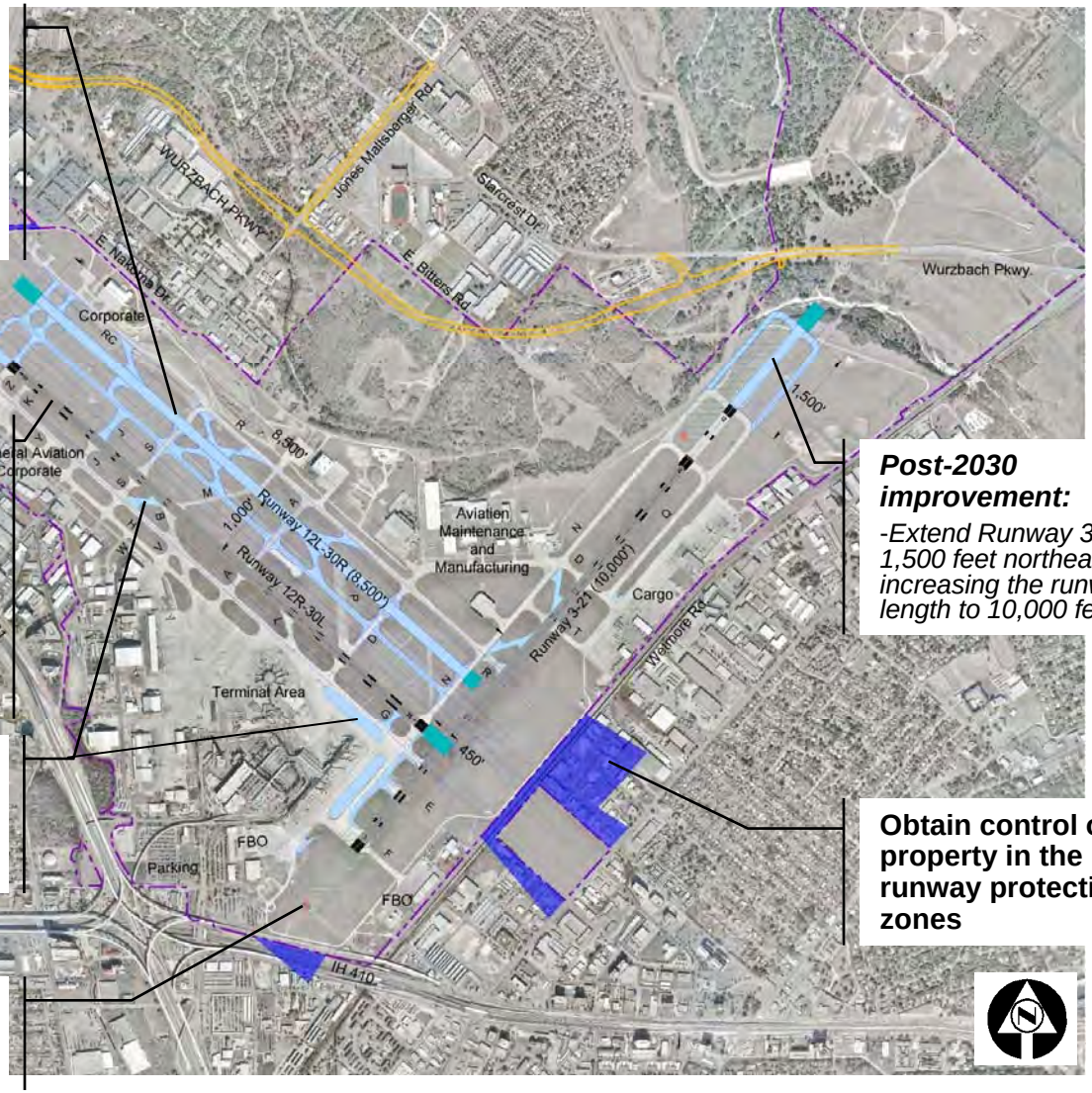
- Extend 450 feet north to provide 8,500 feet of runway length

Taxiway system improvements

Incl. improvements as part of FAA RSAT initiative

Navigational aids:

-Instrument landing system (CAT I) on Runway 21



Post-2030 improvement:

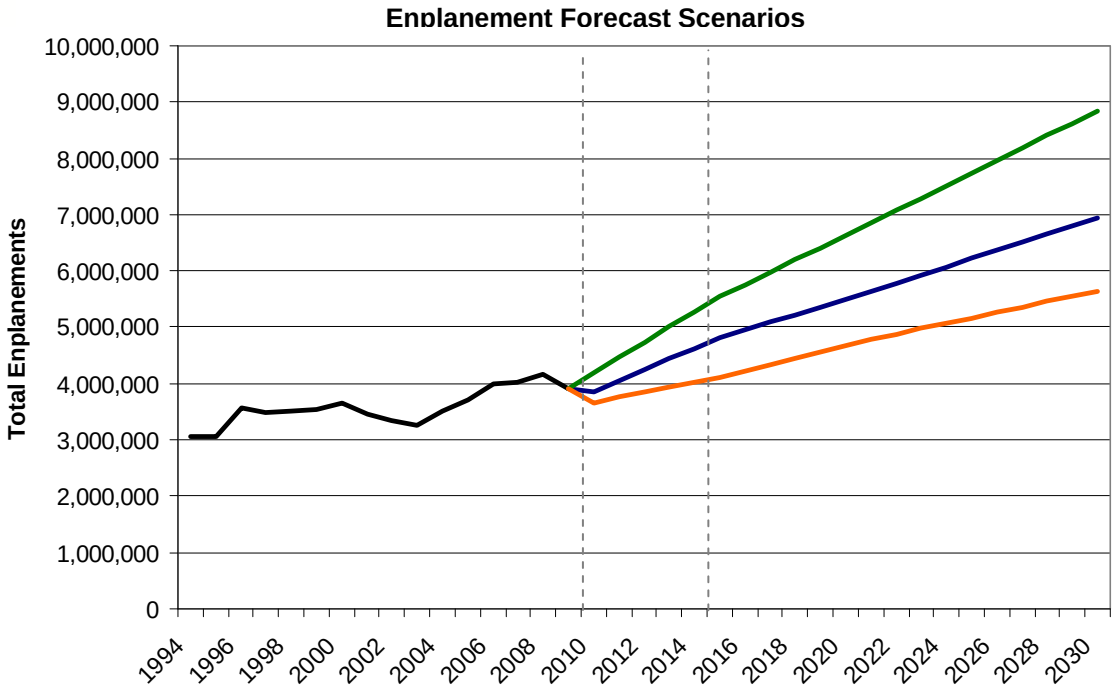
-Extend Runway 3-21 1,500 feet northeast, increasing the runway length to 10,000 feet

Obtain control of property in the runway protection zones

Terminal Alternatives

- Aviation Forecast Results
- Terminal Facility Requirements
- Baseline Terminal Facilities
- Terminal Development Alternatives
- Alternatives Evaluation
- Recommended Alternative
- Short-Term Concourse A Improvements

Enplanement Forecasts



Baseline forecast projects a recovery to 2008 levels by 2012.

4.5% growth from 2010 through 2015.

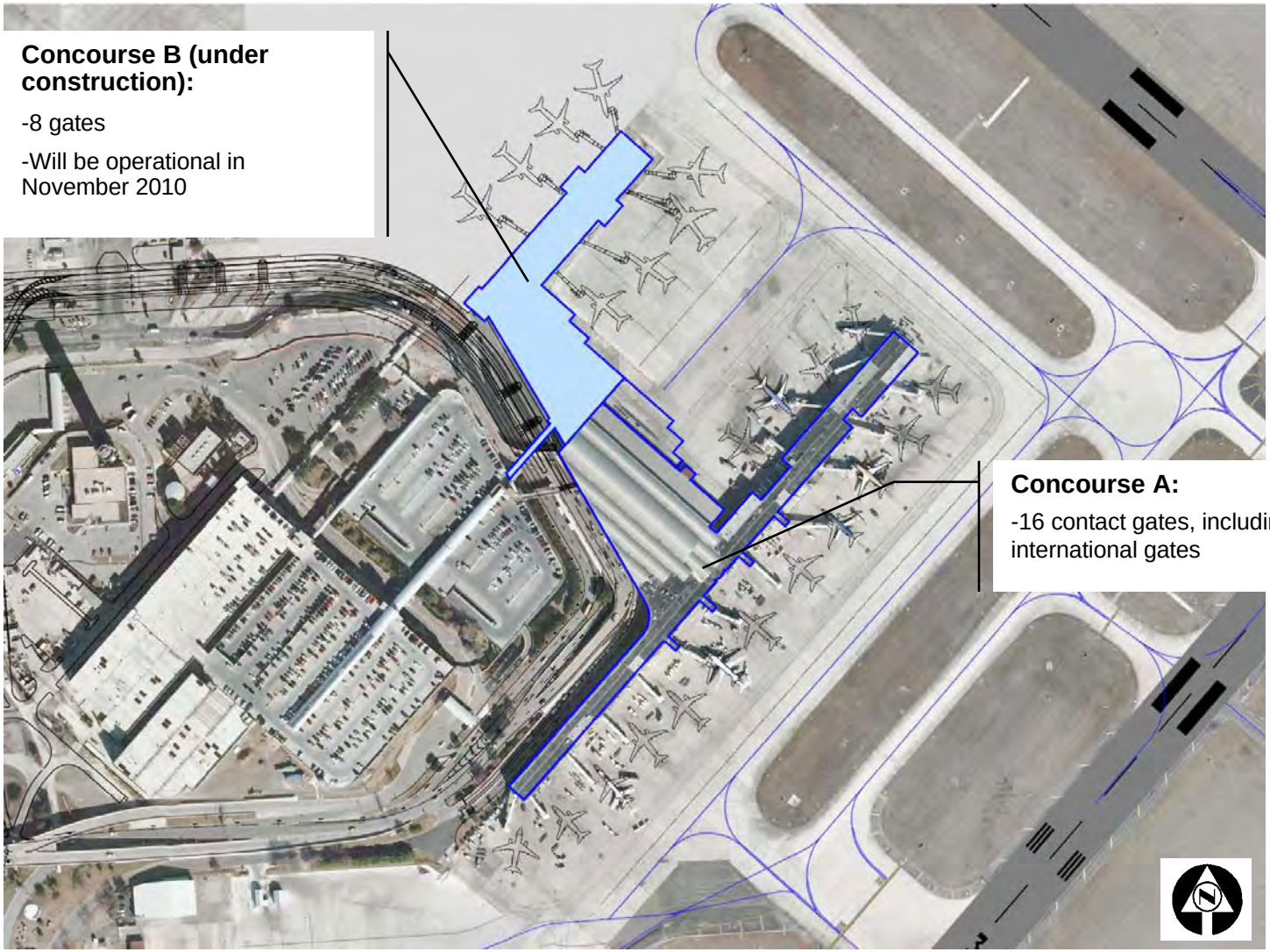
Return to average historical growth rates after 2015

- Historical
- Baseline
- High-growth
- Low-growth

DOMESTIC VS. INTERNATIONAL ENPLANEMENT FORECASTS

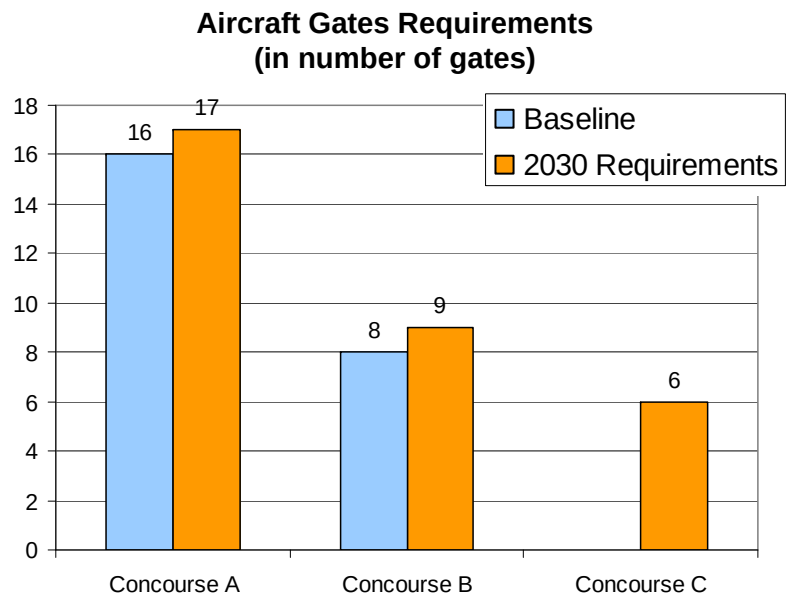
Forecast	2009	Projections				Annual Growth Rate
		2010	2015	2020	2030	2009-2030
Baseline	**3,905,439**	**3,863,000**	**4,814,000**	**5,500,000**	**6,940,000**	**2.8%**
Domestic	3,834,745	3,794,000	4,600,000	5,236,000	6,549,000	2.6%
International	70,694	69,000	214,000	264,000	391,000	8.5%
High-growth	**3,905,439**	**4,197,000**	**5,547,000**	**6,625,000**	**8,848,000**	**4.0%**
Domestic	3,834,745	4,064,000	5,265,000	6,235,000	8,357,000	3.8%
International	70,694	133,000	282,000	390,000	491,000	9.7%
Low-growth	**3,905,439**	**3,668,000**	**4,105,000**	**4,687,000**	**5,647,000**	**1.8%**
Domestic	3,834,745	3,599,000	3,981,000	4,445,000	5,327,000	1.6%
International	70,694	69,000	124,000	242,000	320,000	7.5%

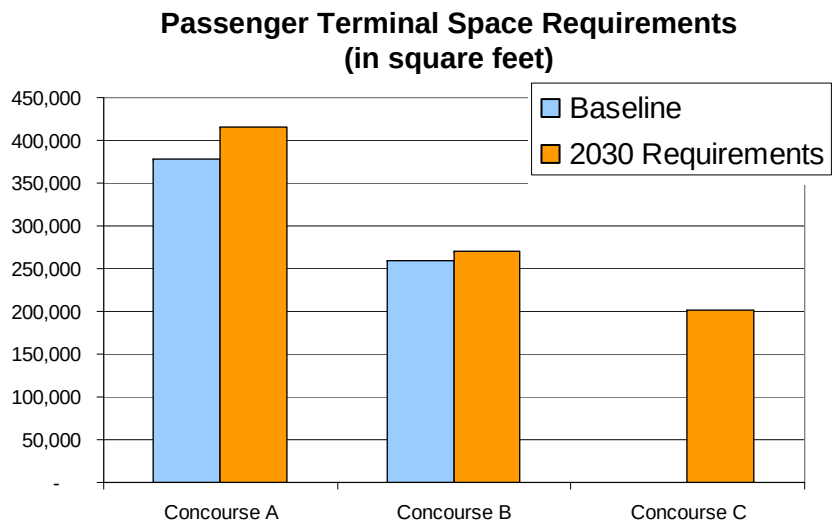
Baseline Terminal Facilities



Terminal Complex Requirements

- **Aircraft gates**
  - Baseline: 24 contact gates (16 in Concourse A and 8 in Concourse B)
  - 2030 requirements: 32 gates total
- **Passenger terminal space**
  - Targeted improvements to Concourse A to accommodate increased demand
  - Concourse B meets 2030 facility requirements as designed
  - New concourse needed after 2020





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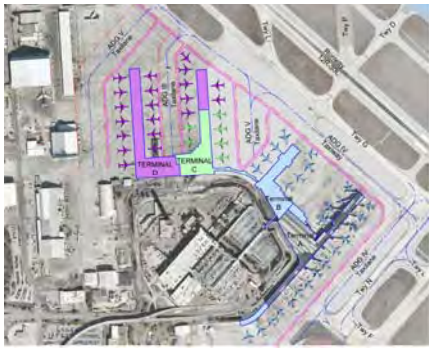
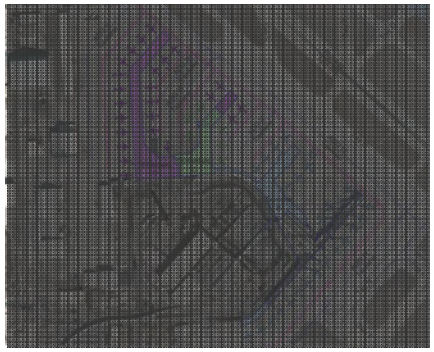
Short-listed Terminal Alternatives

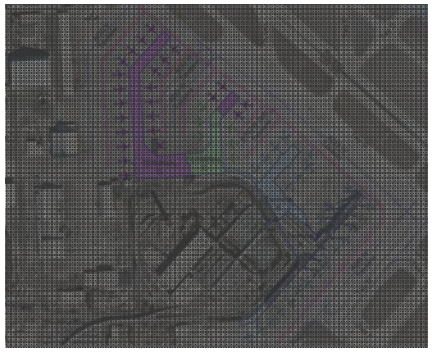
Alternative 1



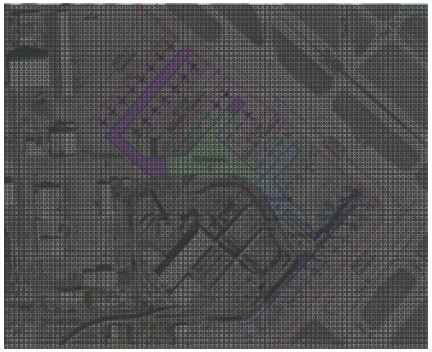
Alternative 2



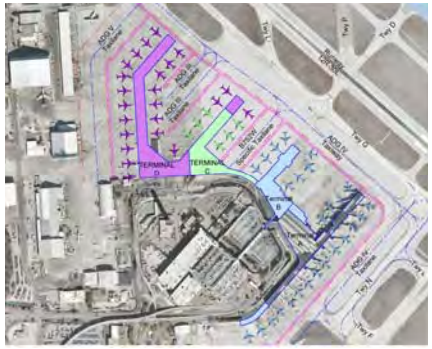
Alternative 3



Alternative 4

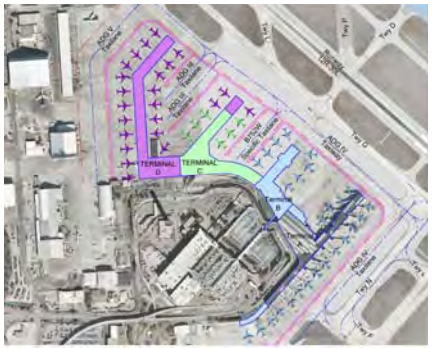


Alternative 5



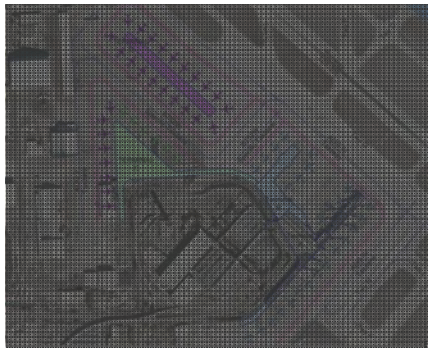
Alternative 6

Alternative 7



Alternative 8

Alternative 9



Meets 2030 Demand | Potential 2050 Expansion

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Terminal Alternatives Evaluation

	Alt.1	Alt.5	Alt.6	Alt. 7	Alt. 8
Regional Socio/Economic Benefits					
Meets 2030 capacity needs	●	●	●	●	●
Allows long term growth for terminal/airfield	○	○	○	○	◐
Optimizes non-terminal land development	○	○	○	○	○
Provides opportunity to serve as regional gateway	○	◐	●	○	○
Access/impact to regional rail system	○	○	○	○	○
Financial Feasibility					
Capital investment requirement	○	○	◐	○	◐
Ability to develop incrementally	●	●	◐	●	◐
Opportunities for non-airline revenues	◐	○	●	○	○
Requirement for land acquisition	○	○	○	○	○
Operational Efficiency					
Airfield configuration optimizes aircraft movement	○	●	○	●	◐
Promotes airline staff efficiency	○	○	◐	●	◐
Roadways, curbside, parking meet capacity needs	○	○	○	○	○
Ease of maintenance	○	○	◐	○	◐
Flexibility of facility for multiple users	○	○	◐	○	◐
Minimize impact of construction phasing	○	●	◐	○	◐
Customer Service					
Minimizes walking distances / vertical movements	○	○	◐	○	◐
Sufficient space for passenger processing	○	○	○	○	○
Allows for intuitive wayfinding	○	○	◐	●	◐
Access to rental car facility(ies)	○	○	○	○	○
Environmental					
Reuse of existing facilities	●	●	○	○	○
Impact on local community	○	○	○	○	○

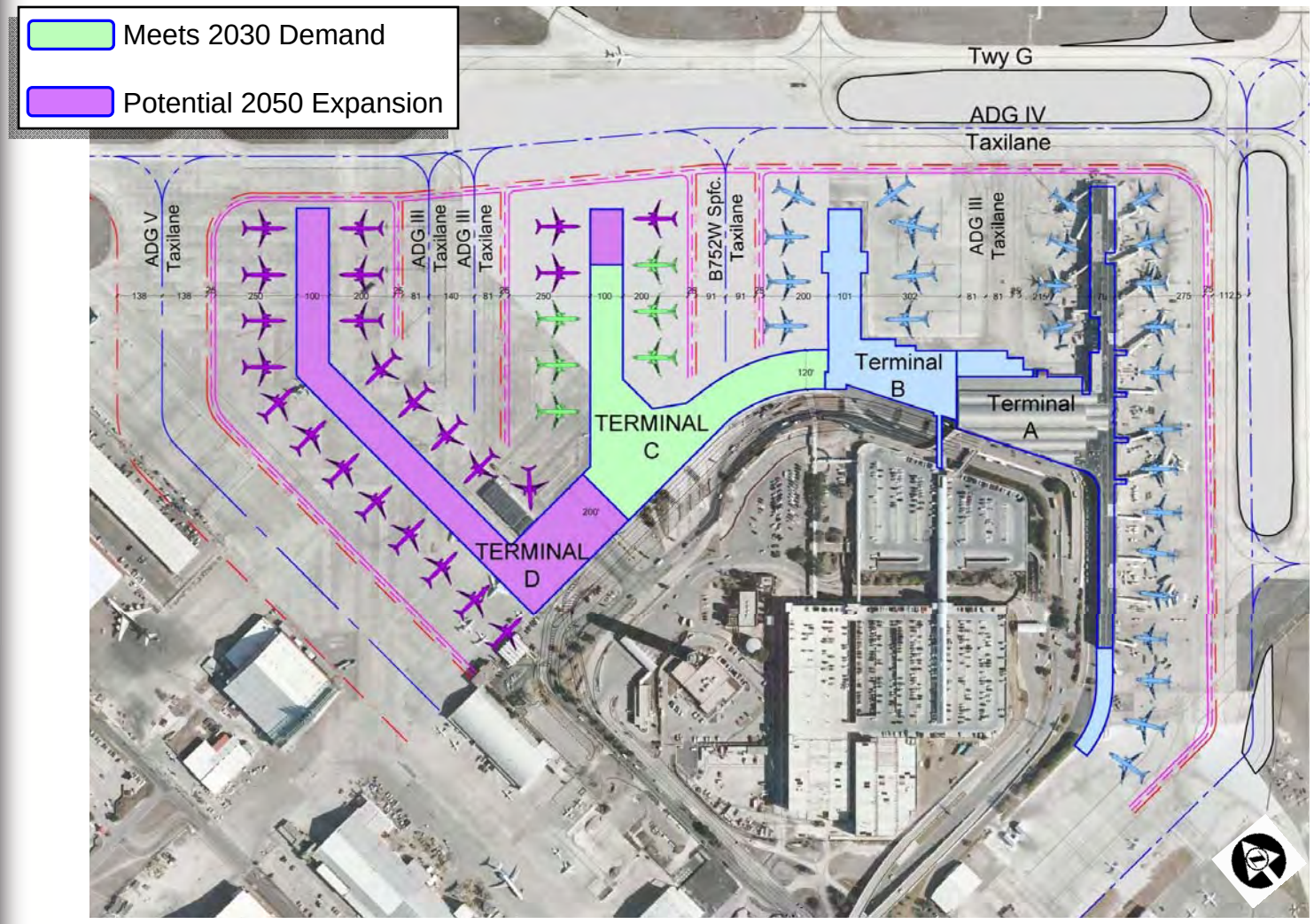
- Alternative 7 was recommended:
  - Creates a sense of one unified terminal
  - Exceeds forecast gate requirement
  - Provides efficient aircraft movement capabilities
  - Cost effective
  - Construction can be implemented in several phases as gate demand increases

● Meets criteria

○ Neutral

◐ Does not meets criteria

Recommended Terminal Alternative



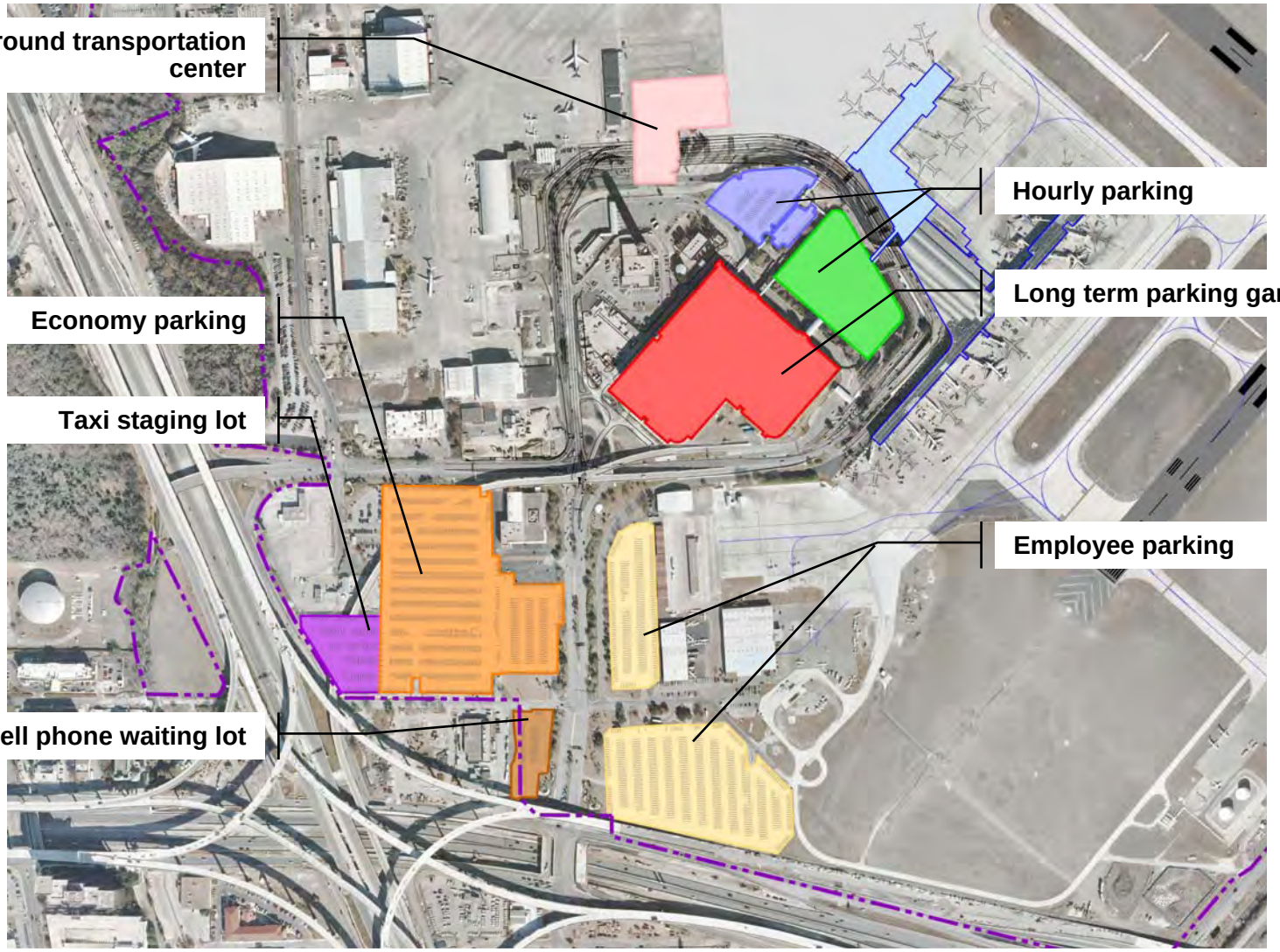
Terminal / Concourse A Recommended Improvements

- **Recommended areas for improvement in Terminal / Concourse A will be addressed in follow-on study**
- **Analysis will focus on:**
  - Security screening checkpoints
  - Passenger circulation
  - Concessions
  - Gates
  - Baggage claim

Landside Alternatives

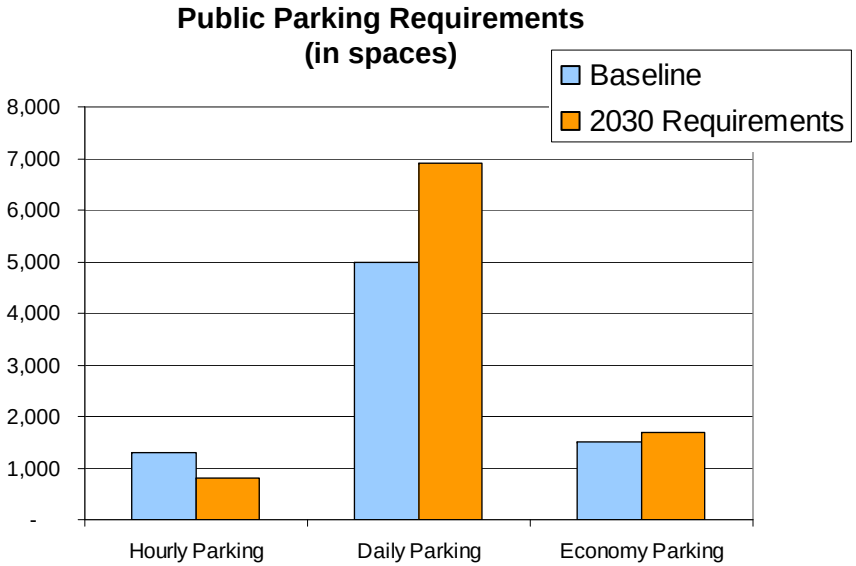
- Landside Facility Requirements
- Baseline Landside Facilities
- Parking Expansion Recommendations

Baseline Landside Facilities

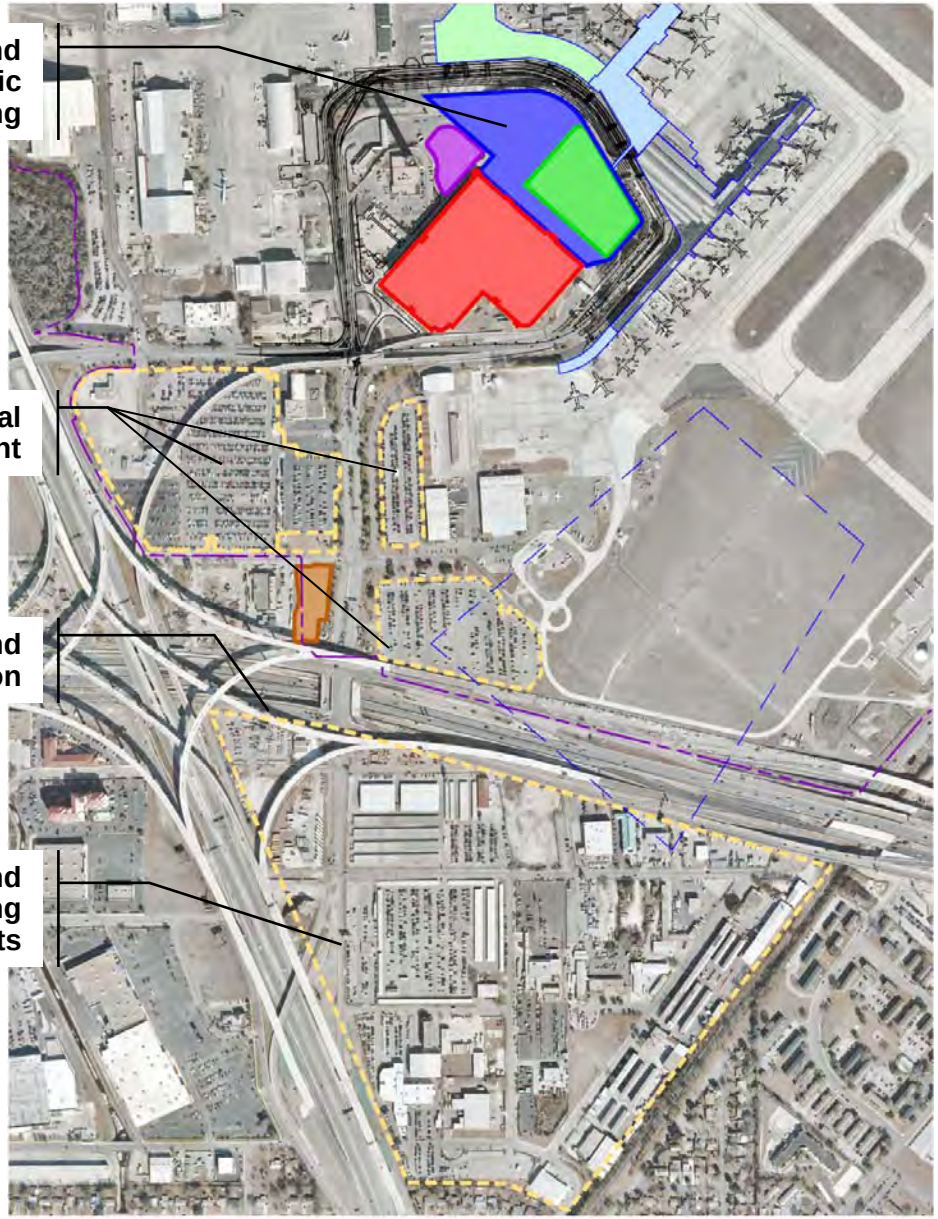


Landside Requirements

- **Rental car facilities**
  - Airport should implement a consolidated rental car facility (CONRAC) to improve passenger level of service.
  - AECOM Team concurs with previous analysis recommending the rental car facility to be located inside the terminal roadway loop
- **Access and perimeter roadways and curbside facilities:**
  - Planned roadway improvements, currently under construction, will be able to accommodate the anticipated 2030 demands
- **Public parking**
  - 2,300 new spaces required in daily and economy lots by 2030
  - Hourly parking is adequate



Parking Expansion Recommendations



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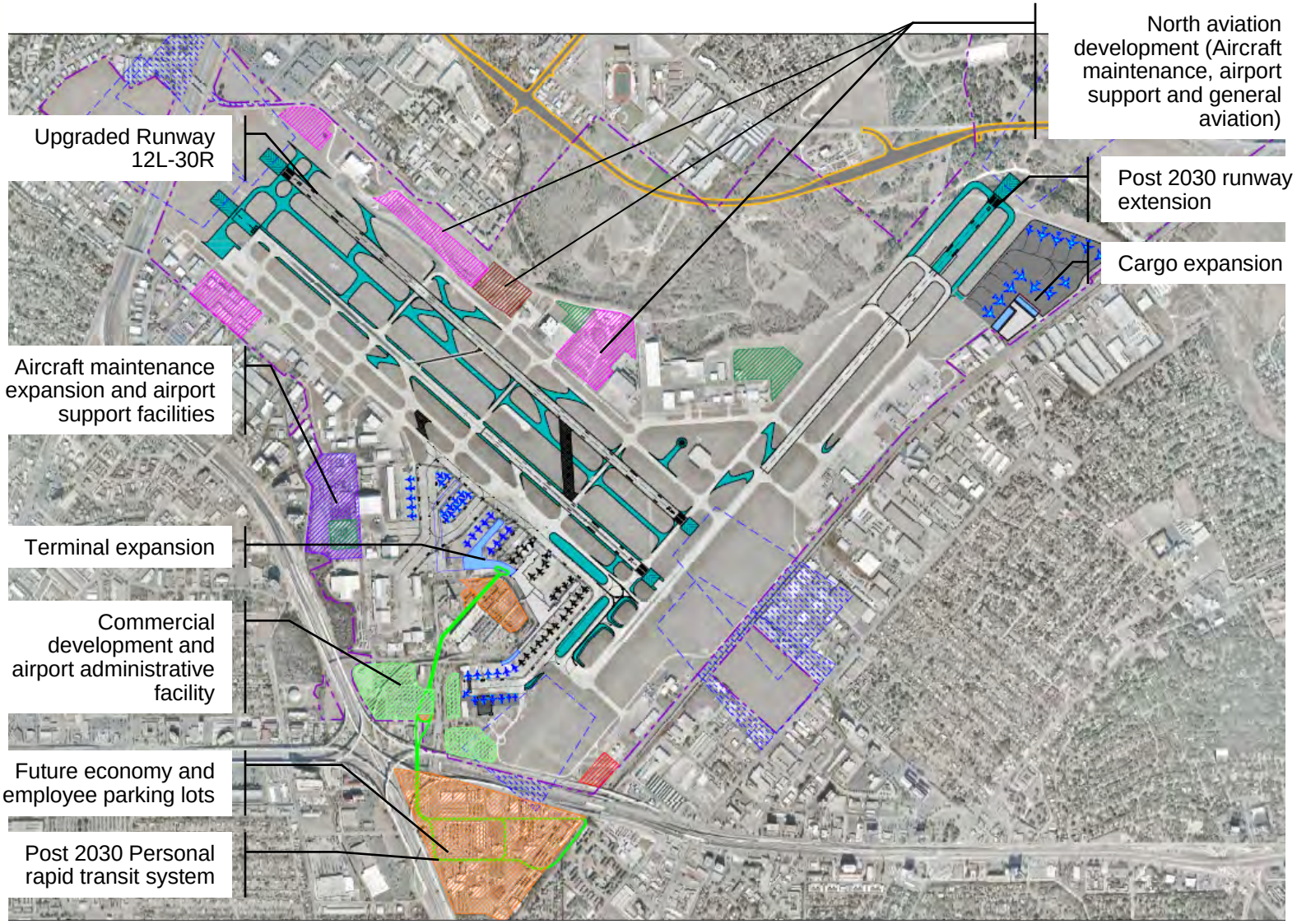
Preliminary Recommendation

Preliminary Recommendation



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Public Meeting Outreach Coordination

Upcoming Meetings

- **Public Outreach**
  - First public meeting to be held on May 27th

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Next Steps

- Implementation Plan
- Environmental Analysis
- Financial Feasibility Analysis
- Upcoming Meetings

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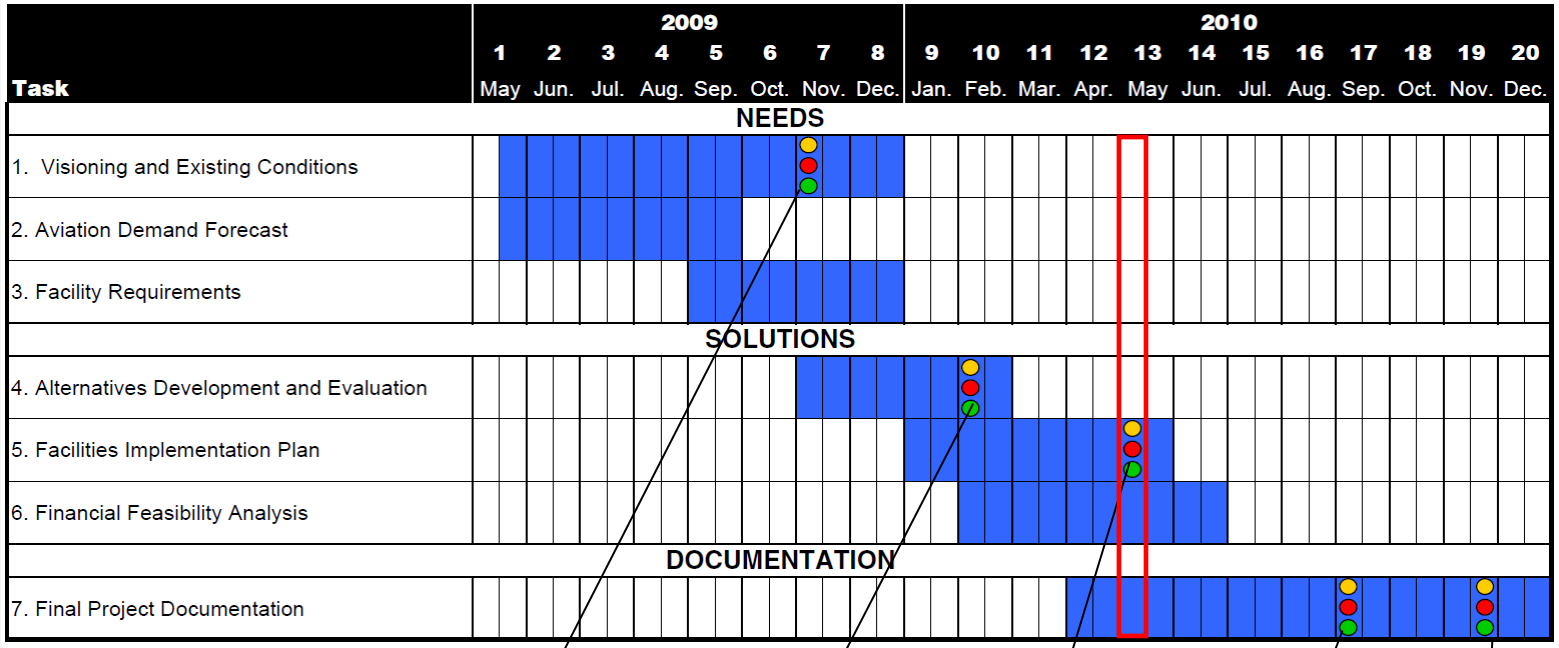
Project Schedule Summary



Legend:

- Project Task Duration
- Ad-Hoc Regional Committee
- Technical Advisory Committee Meeting
- Community Advisory Committee Meeting

Project Introduction, Goals & Objectives

Goals & Objectives, Facility Requirements

Alternatives Analysis, Recommended Concept

Financial Feasibility, Environmental Analysis

Recommended Plan, Final Vision

Next Steps

- **Implementation Plan**
  - Finalize the recommended development plan
  - Determine the phasing of the recommended improvements. Timing of projects will be based upon appropriate activity triggers.
  - Develop cost estimates
- **Environmental Analysis**
- **Financial Feasibility Analysis**
- **Committee Meetings**
  - Next committee meetings to be scheduled in August - September

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Thank You!

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