



# **Airport Master Plan Update**

[www.flyRMMA.com](http://www.flyRMMA.com)

**Kenneth Maenpa – Airport Director**

# Goal for the Master Plan Update



- To give Airport management and governing officials guidance in making decisions which are best for the Airport, the community, and the region



# Additional Project Goals



- Optimize the operational efficiency, effectiveness, capability, and airport safety
- Enhance economic and social value of the airport
- Meet long-range aviation and multi-modal transportation needs of community and region
- Optimize the Airport's income to continue to achieve total financial self sufficiency
- Ensure current and future airport plans are environmentally compatible and harmonious with local and regional plans and objectives

# Objectives of the Master Plan Update



- Identify airside, landside, and airspace improvements or options to optimize the economic aspects, while enhancing the safety and operational capability of the Airport
- Establish an implementation schedule for short, intermediate, and long-term improvements including the identification of events which might trigger these developments

# Objectives of the Master Plan Update



- If potential demand justifies, identify short-term requirements and recommended actions in an effort to optimize multi-modal funding opportunities
- Ensure that any short-term actions and recommendations do not preclude any long-term planning options

# Components of a Master Plan Update



- Airport Inventory
- Aviation Demand Forecast
- Facility Requirements
- Identification and Evaluation of Alternatives
- Implementation Plan
- Capital Improvement Plan
- Airport Layout Plan
- Public Involvement Program

# Airport Inventory

## Metro's Existing Conditions



- One of three reliever airports in Denver Metro area
- 430 based aircraft
- Over 62,000 itinerant operations in FY2008
- Over 150,000 total operations in FY2008



# Airport Runway Inventory



- Primary Runway 11L/29R
  - 9,000 feet in length by 100 feet wide
  - Dual main wheel aircraft up to 75,000 pounds
- Parallel Runway 11R/29L
  - 7,000 feet in length by 75 feet wide
  - Dual main wheel aircraft up to 12,500 pounds
- Crosswind Runway 2/20
  - 3,600 feet in length by 75 feet wide
  - Dual wheel gear up to 45,000 pounds

# Airport Facilities



- Two Fixed Based Operators
- Four Charter Services
- Eight Flight Schools
- U.S. Forest Service
- U.S. Customs
- National Center for Atmospheric Research
- Various Aircraft Maintenance, Sales, Cleaning and Detailing Facilities
- Over 250 various size/type aircraft storage hangars
- Over 100 tie-down spaces

# Airport Support Facilities



- FAA Facilities
- Rental Car Facilities
- Aircraft Rescue and Fire Fighting
- Maintenance Buildings
- Airport Fuel Storage
- Airport Deicing



# Aviation Demand Forecast



## ■ Aircraft Operations

- 2008 aircraft operations at 152,983
- Projected growth rate of 1.8% annually
- 2030 annual operations grow to 265,200

## ■ Instrument Operations

- 2008 instrument operations at 25,559
- Projected growth rate of 4.9% annually
- 2030 instrument operations grow to 42,438

# Aviation Demand Forecast



## ■ Based Aircraft

- 430 in base year of 2008
- 1.0% projected growth rate
- Estimated 535 based aircraft in 2030

| <u>Aircraft</u> | <u>2008</u> | <u>2030</u> |
|-----------------|-------------|-------------|
| Single-engine   | 343         | 425         |
| Multi-engine    | 19          | 23          |
| Turbo-prop      | 16          | 19          |
| Jet             | 38          | 50          |
| Helicopter      | 14          | 18          |
| <b>Total</b>    | <b>430</b>  | <b>535</b>  |

# Aviation Demand Forecast



## ■ Critical Aircraft Selection

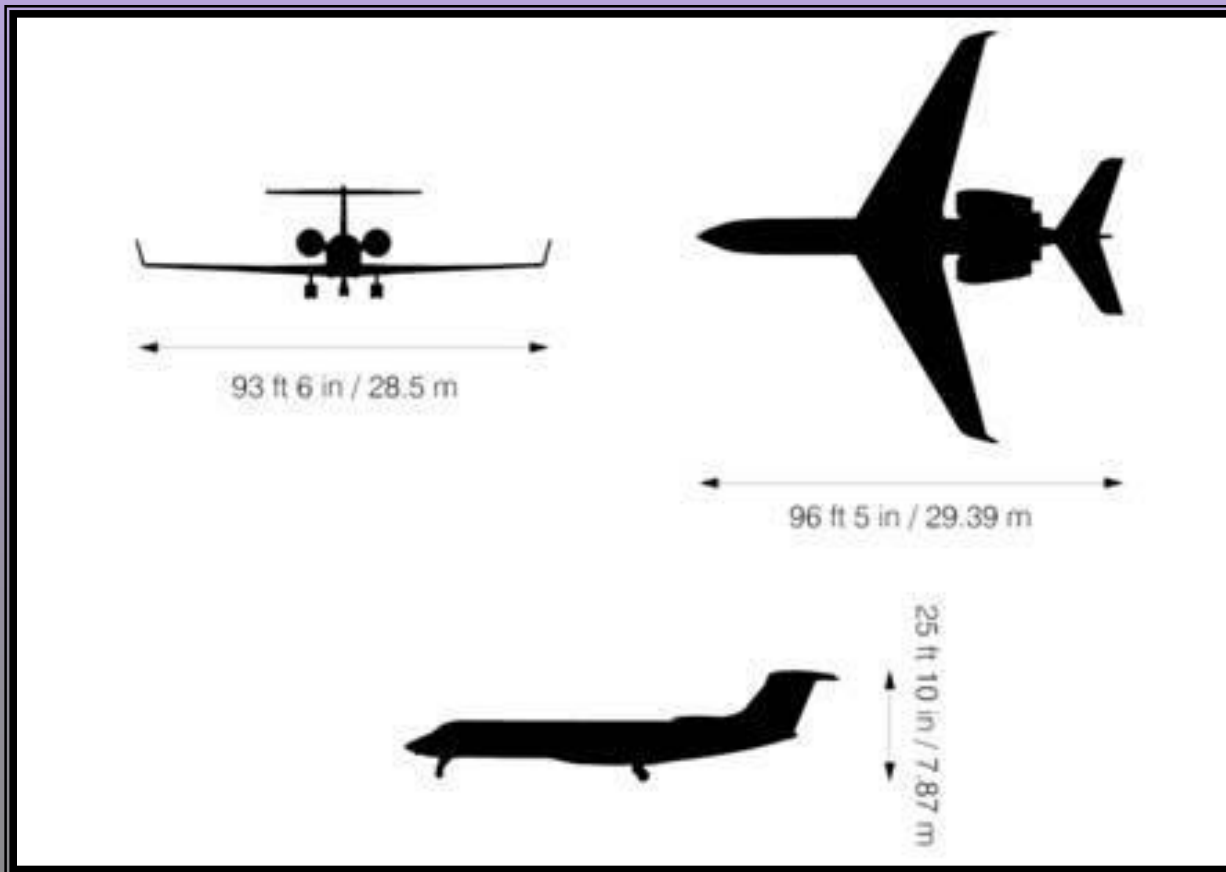
- Aircraft that determines airport design standards (runway and taxiway configurations, lengths, and separation distances, as well as weight bearing capacity)
- Must have at least 500 annual operations to be considered Airport Critical Aircraft
- Existing Critical Aircraft is Gulfstream Business Jet family (G200, G350, G450)

# Airport Demand Forecast

## Future Critical Aircraft Selection



- Gulfstream 550 by 2015



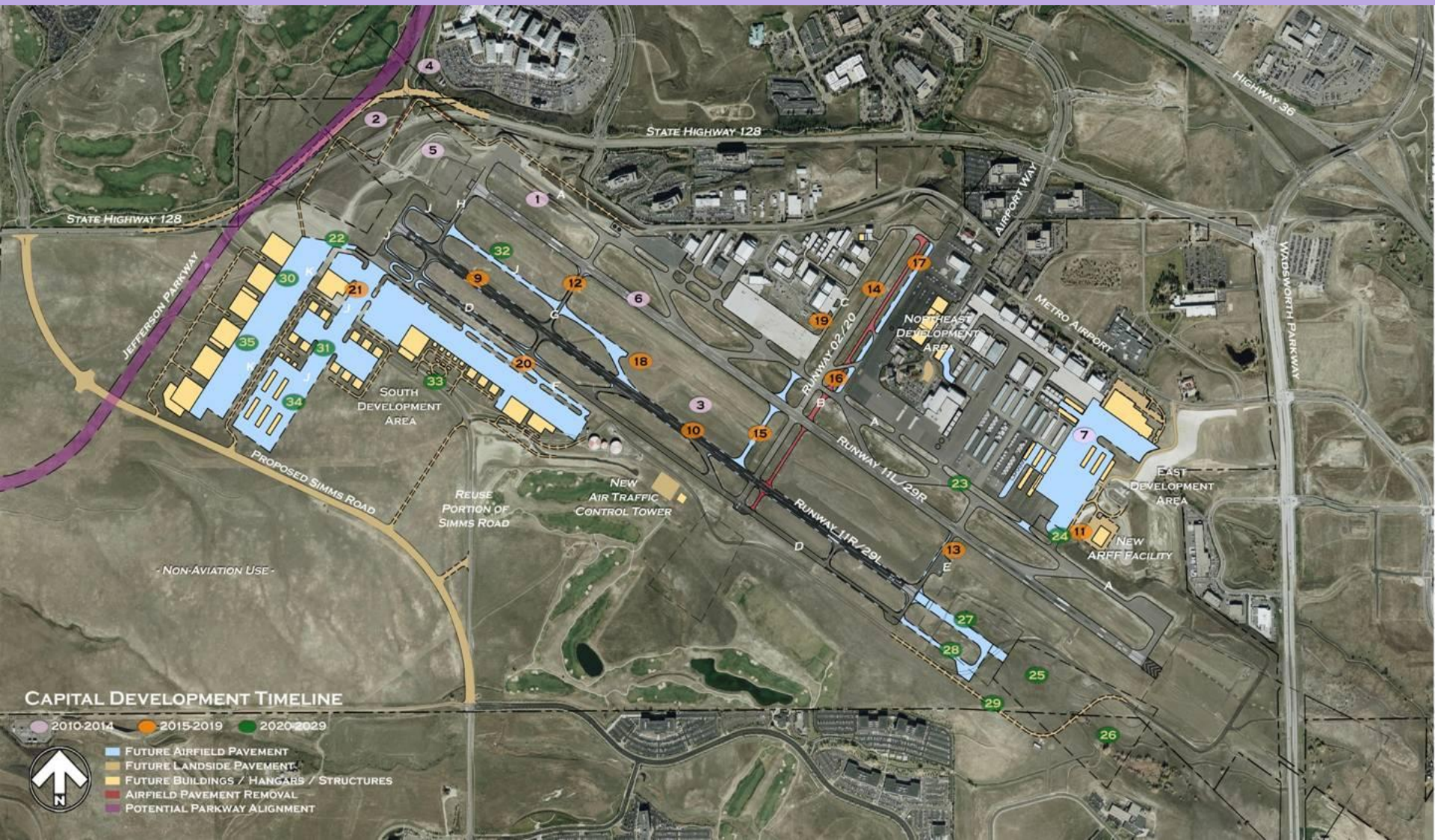
Source: Gulfstream Aerospace Corporation, 2008

# Facility Requirements



- Highlights of facility development needed to accommodate the forecast growth at Metro include:
  - Runway 11L Safety Area Upgrade
  - All Airport Runways in need of Pavement Maintenance
  - Critical Aircraft changes from C/D-II to C/D-III
    - Runway 11L/29R weight bearing capacity increase
  - Runway Magnetic Azimuths to change
    - Runways 12L/30R, 12R/30L, 3/21
  - Southwest Development
  - East Corporate Hangar Development – A3 Taxiway

# Implementation Plan



## CAPITAL DEVELOPMENT TIMELINE

- 2010-2014
  - 2015-2019
  - 2020-2029
- FUTURE AIRFIELD PAVEMENT
  - FUTURE LANDSIDE PAVEMENT
  - FUTURE BUILDINGS / HANGARS / STRUCTURES
  - AIRFIELD PAVEMENT REMOVAL
  - POTENTIAL PARKWAY ALIGNMENT



# Implementation Plan



## ■ Capital Improvement Plan

- Total project costs are estimated at approximately \$83 million (current) dollars over 20 years
- Approximately 95% of the total is eligible for FAA funding
- Approximately 2.0% is eligible for State of Colorado, Division of Aeronautics funding
- The remaining funds are expected to be provided from the Airport Enterprise Fund

# Capital Improvement Plan



| Planning Period                   | Total Project Cost   | Eligible Funding Amounts |                     |                     |
|-----------------------------------|----------------------|--------------------------|---------------------|---------------------|
|                                   |                      | FAA                      | State               | Local               |
| Short-Term 2010-2014              | \$ 17,633,775        | \$ 16,606,000            | \$ 438,888          | \$ 438,887          |
| Intermediate-Term 2015-2019       | \$ 35,532,000        | \$ 33,778,700            | \$ 876,650          | \$ 876,650          |
| Long-term 2020-2030               | \$ 29,616,000        | \$ 27,826,450            | \$ 732,275          | \$ 1,057,275        |
| <b>Total Capital Cost</b>         | <b>\$ 82,781,775</b> | <b>\$ 78,211,150</b>     | <b>\$ 2,047,813</b> | <b>\$ 2,372,812</b> |
| <b>Total Eligible Percentage*</b> | <b>100%</b>          | <b>95%</b>               | <b>2%</b>           | <b>3%</b>           |

\* Total project eligibility may vary depending on federal authorization and project eligibility requirements

Source: Reynolds, Smith and Hills, Inc., 2011

# Airport Specific Initiatives



- Sustainability and Conservation Initiatives
  - Purpose of analysis to identify, review, and select sustainability and conservation strategies, practices, means, methods and apply to Airport-oriented elements
  - Intent to reduce energy consumption and environmental impacts throughout planning, design, construction, operations, and maintenance projects



# Airport Specific Initiatives



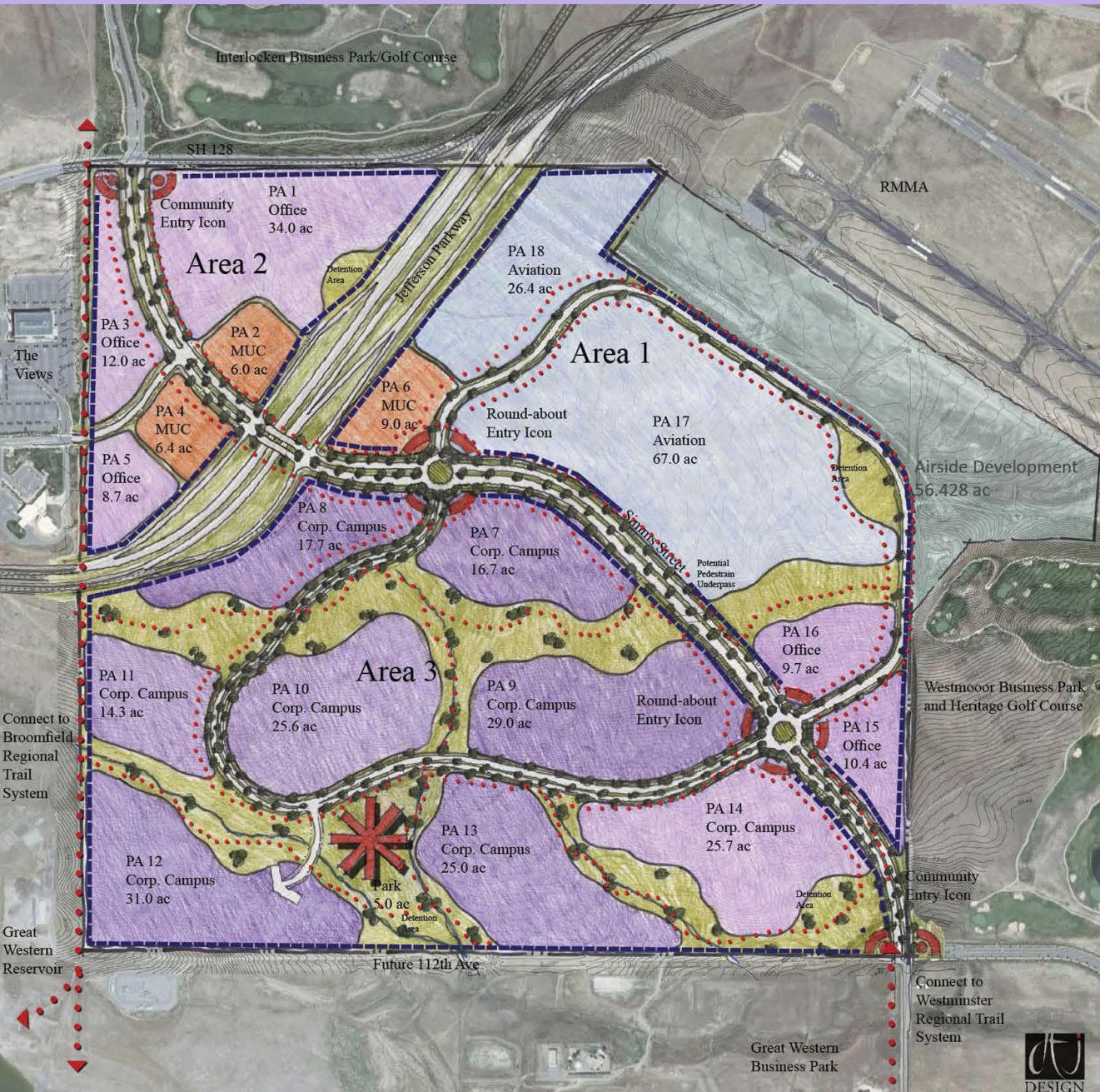
- Environs Land Use Plan 2010
  - Update to Plan from 1988
  - Intent is to recognize the surrounding land uses and activities adjacent to Metro Airport
  - Accounts for RPZ, Approach Zones, Traffic Pattern Areas, Airport 65 DNL Noise Contours
  - Advisory document only
  - Adopted by City of Westminster and referenced by many other surrounding municipalities

# Airport Specific Initiatives



- Airport Compliance Concerns
  - When Metro accepts FAA AIP funds, contractually obligated to comply with Airport Sponsor Grant Assurances
  - Examined existing and potential compliance issues at Metro to meet standards
  - Thorough review of Airport Minimum Standards, FAA Rules and Regulations, leases, easements, budget, permits, etc.
  - Few issues identified and recommendations were made within document





## DESIGN DRIVERS

- Maximize buildable ridge line to increase opportunity for Front Range views
- Utilize steep slopes as open space in Areas 3 as an Amenity for Corporate Campus and Office users
- Shift Simms Street north to maximize developable area south along ridgeline
- Mixed Use Commercial (MUC) on 3 corners of Jefferson Parkway Intersection
- South intersection corner of Simms and Jefferson Parkway provides Corporate Campus identification opportunity
- Aviation Campus north of Simms provides strong connection to RMMA
- Active Park Amenity placed along natural drainage system, connects to regional trail systems

## Developable Area

|              |          |                 |
|--------------|----------|-----------------|
| PA1          | Office   | 34.0 ac         |
| PA2          | MUC      | 6.0 ac          |
| PA3          | Office   | 12.0 ac         |
| PA4          | MUC      | 6.4 ac          |
| PA5          | Office   | 8.7 ac          |
| PA6          | MUC      | 9.0 ac          |
| PA7          | CC       | 16.7 ac         |
| PA8          | CC       | 17.7 ac         |
| PA9          | CC       | 29.0 ac         |
| PA10         | CC       | 25.6 ac         |
| PA11         | CC       | 14.3 ac         |
| PA12         | CC       | 31.0 ac         |
| PA13         | CC       | 25.0 ac         |
| PA14         | CC       | 25.7 ac         |
| PA15         | Office   | 10.4 ac         |
| PA16         | Office   | 9.7 ac          |
| PA17         | Aviation | 67.0 ac         |
| PA18         | Aviation | 26.4 ac         |
| <b>Total</b> |          | <b>374.6 ac</b> |

## Site Tabulation

|                      |                  |
|----------------------|------------------|
| Developable Area     | 374.6 ac         |
| ROW Area             | 90.6 ac          |
| Open Space           | 97.29 ac         |
| Detention Areas      | 10.0 ac          |
| <b>Total</b>         | <b>572.49 ac</b> |
| *Airside Development | 56.428 ac        |

## Legend

- Aviation
- Corporate Campus
- Office
- Mixed Use Commercial
- Pedestrian Trail System
- Entry Icon
- Park Amenity
- Open Space

## PREFERRED CONCEPT PLAN RMMA Southwest Property

January 29, 2010

