

MASTER
PLAN | VISION
2040



Public Workshop #7 Land Use Planning

June 28, 2016



Raleigh-Durham Airport Authority

#rdu2040

Land Use Planning and Vision 2040

- ▶ What is Land Use Planning in the context of the Vision 2040 process?
- ▶ Vision 2040 Aeronautical Development
- ▶ Land Use Compatibility
- ▶ Federal Obligations
 - History of RDU
 - Property Conveyance
 - FAA Grant Agreements
- ▶ Non-Aeronautical Development

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Land Use Planning & Vision 2040 – Supporting the Master Plan Goals



Encompass improvements that will ensure the Airport's safety, efficiency, and capability to serve the community's aviation needs.



Optimize infrastructure and resources in an operationally, financially and environmentally sustainable manner.



Enhance the passenger and customer experience through long range development actions.



Define development plans that are scalable to respond to variations in demand over the planning horizon.



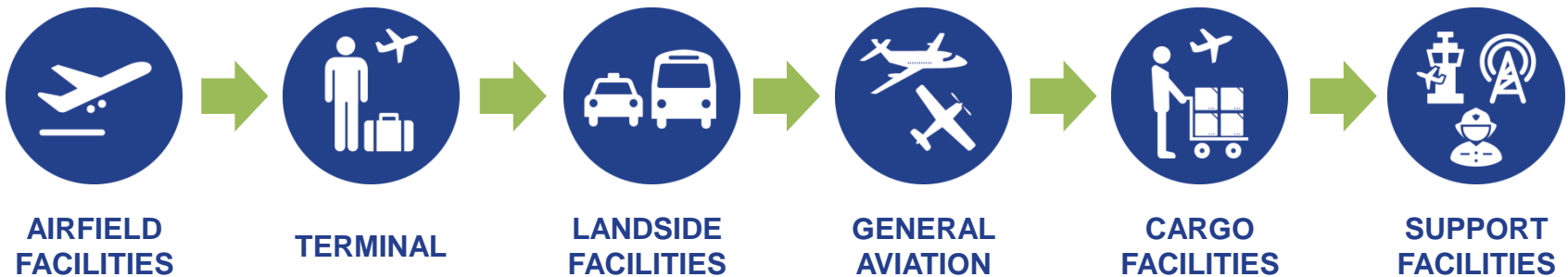
Preserve flexibility to adapt to emerging and future technologies.



Accommodate connectivity to various modes of transportation as components of Airport development plans.

Land Use Planning Must . . .

- ▶ Meet defined aeronautical needs
- ▶ Comply with FAA criteria
- ▶ Consider operational safety and efficiency
- ▶ Recognize hierarchy among facilities



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Facility-Specific Requirements



AIRFIELD

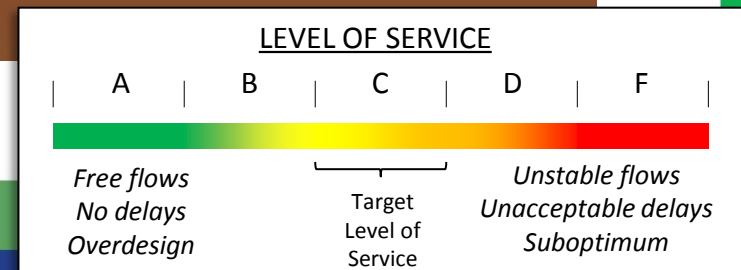
- ADEQUATE ANNUAL CAPACITY THROUGH 2040
- PEAK HOUR CAPACITY REACHED BY 2040 IN POOR WEATHER (HIGH SCENARIO)
- NEED TO PROTECT FOR LONG-TERM GROWTH
- CHANGING AIRCRAFT FLEET
- EVOLUTION IN FAA PLANNING AND DESIGN STANDARDS
- INTERNATIONAL SERVICE MAY INFLUENCE RUNWAY LENGTH REQUIREMENTS
- NEAR TERM RECONSTRUCTION OF RW 5L/23R (10,000 FEET)

Facility-Specific Requirements



TERMINAL

- ADDITIONAL GATES NEEDED (UP TO +23 GATES) BY 2040 (HIGH FORECAST SCENARIO)
- EXPANDED FIS CAPACITY NEEDED IMMEDIATELY
- TERMINAL REQUIREMENTS BASED ON IATA LEVEL OF SERVICE GUIDELINES
- SIGNIFICANT REQUIREMENTS INCLUDE:
 - SECURITY SCREENING
 - HOLDROOMS (EVOLVING FLEET)
 - BAGGAGE HANDLING



Facility-Specific Requirements



LANDSIDE

- ROADWAY AND INTERSECTION IMPROVEMENTS NEEDED
 - 23 OF 35 ON-AIRPORT ROADWAY LINKS REACH LOS D OR WORSE BY 2040
 - 2 NON-TERMINAL AREA INTERSECTIONS REACH LOS F BY 2040
 - TERMINAL 1 AND 2 CURBSIDES CAPACITY REQUIRED
- ADDITIONAL CLOSE-IN PARKING NEEDED – 8,000 (BASELINE) TO 14,000 (HIGH)
- ADDITIONAL RENTAL CAR FACILITIES NEEDED
- COMMERCIAL VEHICLE STAGING CAPACITY REQUIRED

Facility-Specific Requirements



SUPPORT FACILITIES

- BUSINESS ASPECTS INFLUENCE GENERAL AVIATION NEEDS
- CARGO AIRCRAFT APRON REQUIRED
- MISCELLANEOUS SUPPORT FACILITIES REQUIRED
 - GSE MAINTENANCE
 - FLIGHT KITCHENS
 - AIRPORT MAINTENANCE

Vision 2040 Aeronautical Development

- ▶ Screen Facility Components
 - 10 Runway Alternatives
 - 24 Terminal Alternatives
 - 21 Landside Alternatives
 - 9+ Support Facilities Alternatives
- ▶ Integrate components
 - Hybridize and refine
 - Mitigate Deficiencies
- ▶ 9 Composite Alternatives were presented to the Public on June 1 and 2
- ▶ Final 4 Alternatives have been selected and are now being refined

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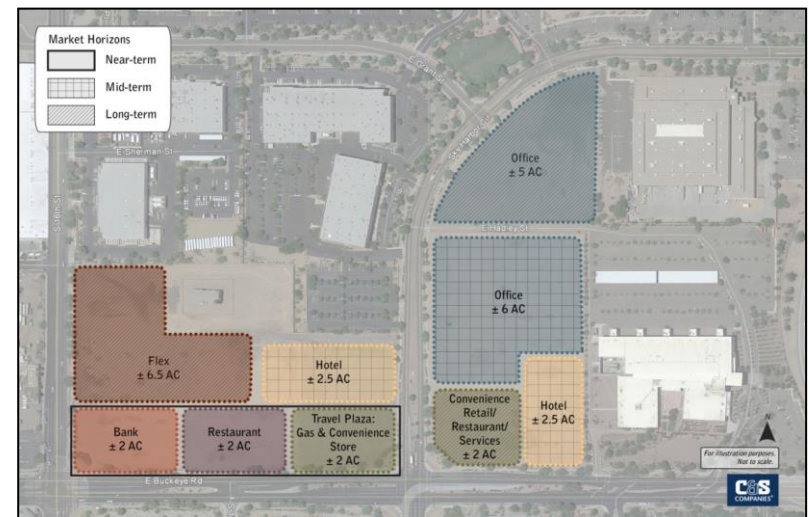
Land Use Compatibility

- ▶ Authority's jurisdiction limited to airport property line, therefore close coordination with local jurisdictions is critical to ensure compatible land use
 - Encourage incompatible (residential, schools, churches) land uses to locate away from airports
 - Encourage compatible (industrial and commercial uses) to locate around airports
 - Preclude noise sensitive land uses from areas exposed to aircraft noise
 - Responsive to local markets and plans

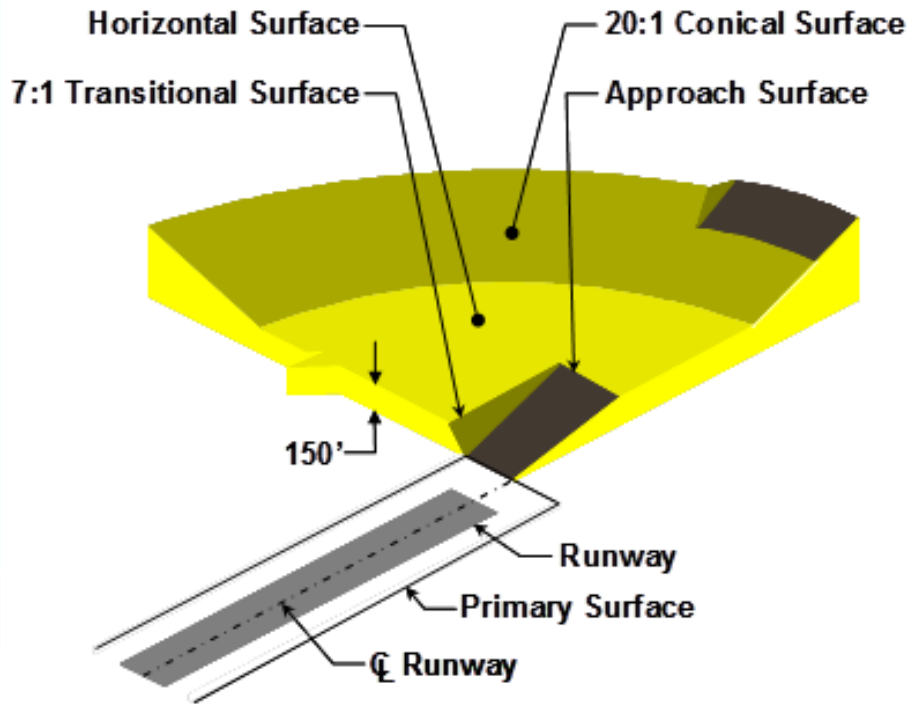
Land Use Compatibility

- ▶ Supports airport operations
- ▶ Produces new revenue source
- ▶ Creates residual airport assets
- ▶ Improves airport land values
- ▶ Enhances property tax base
- ▶ Promotes economic development
- ▶ Manages expectations

PHX Sky Harbor Center Land Use Concept



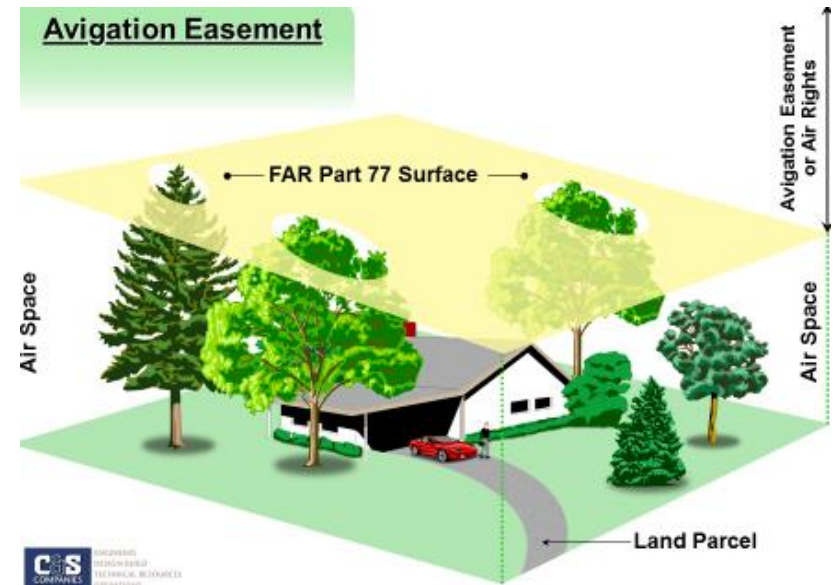
Land Use Compatibility - Protecting Airspace



FAR Part 77 Imaginary Surfaces

Defined to preserve the safe and efficient use of navigable airspace

Nothing can be built that would constitute an obstruction to air navigation



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 - **History of RDU**
 - **Property Conveyance**
 - **FAA Grant Agreements**
- ▶ Non-Aeronautical Development

The History of RDU

- ▶ 1938: Capt. Eddie Rickenbacker, President of Eastern Airlines, became a strong advocate for a new, modern airport.
- ▶ 1939: Raleigh-Durham Aeronautical Authority is created.
- ▶ 1940: The state acquired 891.7 acres on RDU's current site.
- ▶ Soon after ground was broken WWII began.



The History of RDU

- ▶ 1941: Secretary of War and Navy declared that the planned facility was necessary to the national defense.
- ▶ 1943: The U.S. War Department designated the airport the Raleigh-Durham Army Air Field.



The History of RDU

- ▶ 1943: The Raleigh-Durham Aeronautical Authority persuades the federal government to allow commercial airline service to begin.
- ▶ 1943: Eastern Airlines begins service using a U.S. Army barracks as a small terminal.



The History of RDU

- ▶ January 1, 1948: The federal government officially conveyed the air base to the Raleigh-Durham Airport Authority under the terms of the Surplus Property Act.
- ▶ At the time of conveyance in 1948 RDU encompassed 1,283-acres of property valued at \$2.23 million and receives an initial investment of \$65,000 by local governments to establish a commercial airport.
- ▶ Along with the air base conveyance under the Surplus Property Act came a requirement to abide by a variety of “Federal Obligations.”

*Surplus Property Act (Title 49
U.S.C. §§ 47151 – 47153)*

The History of RDU

- ▶ Since 1948, RDUAA has accepted various grants from the federal government for the improvement of the Airport.
- ▶ Significant federal funds will be required in the future to ensure Vision2040 is financially feasible.

Over the course of the last 25 years, the Authority has accepted in excess of \$115 million in grants.

Federal Obligations

- ▶ When RDUAA accepts federal grants, we also agree to abide by a variety of “Federal Obligations.”
- ▶ Failure to abide by these Federal Obligations can result in the loss of federal funding, or in extreme cases, a requirement to reimburse grant funds already received.
- ▶ Some of these Federal Obligations are also contained in the form of Grant Assurances.

A summary of these Federal Obligations can be found in the Airport Compliance Manual, FAA Order 5190.6B.

FAA Airport Grant Assurances

- ▶ Assurance #20: Hazard Removal and Mitigation
 - Protect airspace surrounding airport
 - Removing existing hazards
 - Preventing future hazards to aircraft operations
- ▶ Assurance #21: Compatible Land Use
 - Adoption of zoning laws
 - Restrict land adjacent to, or in the immediate vicinity of, the airport to compatible activities compatible for the normal operation of aircraft.

The FAA incorporates 39 specific grant assurances in grant agreements for airport development, airport planning, and noise compatibility programs.

FAA Airport Grant Assurances

- ▶ Assurance #24: Fee and Rental Structure
 - Maintain fee and rental structure that makes the airport self-sustaining
- ▶ Assurance #25: Airport Revenues
 - Revenues generated by the airport must be expended by it for the capital or operating costs of the airport

FAA Policy and Procedures Concerning the Use of Airport Revenue, 64 Federal Register 7696, February 16, 1999.

FAA Airport Grant Assurances

- ▶ Older deeds and agreements may contain obligations that are different from current standard Grant Assurances and deed restrictions.
- ▶ Some agreements contain special conditions applicable only to that airport.

Federal Obligations

- ▶ Federal Obligations ensure the public interest in civil aviation will be served.
- ▶ Federal law requires an airport accept federal obligations as a condition of the receipt of a federal grant.
- ▶ RDUAA's owning bodies (i.e., Wake County, City of Raleigh, City of Durham, Durham County) have also accepted the federal obligations.

Federal law defining Federal Obligations: Title 49 U.S.C. § 47101 et. seq. – Airport Improvement Program.

Federal Obligations

- ▶ Airport property must be used to support the development, maintenance and operation of the airport.

Airport Compliance Manual, FAA Order 5190.6B, Chapter 3.

Federal Obligations

- ▶ If not needed to directly support an aviation use, such property must be available for use to produce income for the airport.

Airport Compliance Manual, FAA Order 5190.6B, Chapter 3.

Federal Obligations

- ▶ Such property may not be leased or rented at a discount or for nominal consideration to subsidize non-airport objectives (what is typically referred to as “Revenue Diversion”).

Airport Compliance Manual, FAA Order 5190.6B, Chapter 3.

Federal Obligations

- ▶ Examples of revenue diversion (FAA policy):
 - Using airport revenue for general economic development activities
 - Paying in excess of the value of goods or services the airport receives
 - Charging less than fair market value rental rates to nonaeronautical users
 - Using airport revenue to participate in some types of community events
 - Paying for marketing and promotions not related to the airport



Federal Obligations

- ▶ Airport property cannot be used, leased, sold, salvaged, or disposed of for other than for airport purposes without FAA approval.
- ▶ Property must be used for airport purposes; i.e., uses directly related to the actual operation or the foreseeable aeronautical development of the airport.
- ▶ Incidental use of the property must be approved by the FAA.

Airport Compliance Manual, FAA Order 5190.6B, Chapter 3.

Federal Obligations

- ▶ If any such property is no longer needed to support an airport purpose or activity directly (including the generation of revenue for the airport), the property may be released from the Federal Obligations for sale or disposal upon a demonstration that such disposal will produce an equal or greater benefit (to the airport or another public airport) than the continued retention of the land.

Airport Compliance Manual, FAA Order 5190.6B, Chapter 22.

Federal Obligations

- ▶ A release from the Federal Obligations is not granted unless the FAA determines that the land involved can be disposed of without adversely affecting the development, improvement, operation, or maintenance of the airport where the land is located.
- ▶ Any approved disposal must not be in excess of the present and foreseeable needs of the airport.

FAA determination needed for a release from Federal Obligations.

Federal Obligations

- ▶ This objective is not met unless an amount equal to the current fair market value (FMV) of the property is realized as a consequence of the release and such amount is committed to airport purposes.
- ▶ The nonaviation interest of the sponsor or the local community does not constitute an airport benefit that can be considered in justifying a release and disposal.

*Airport Compliance Manual, FAA Order 5190.6B,
Chapter 22, Page 22-18.*

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Non-Aeronautical Development

- ▶ Why develop property that has not been identified for an aeronautical use?
 - Provide opportunities for community-wide economic benefit
 - Property not directly used for aeronautical purposes can be used to generate revenue for the benefit of the Airport
 - Financial sustainability of the Authority

RDU MISSION

To deliver excellent airport services, facilities and unparalleled customer service

Market Realities at RDU

Advantages

- Location – access to major transportation corridors, proximity to RTP & growth areas
- Airport property available to support local market opportunities & community while achieving airport goals & sustainability
- Airport is a willing community partner for on-airport development
- Positive passenger experience & annual growth

Challenges

- Surrounding market – inventory of fee simple land within airport vicinity
- FAA requirements – must receive fair market value; airport land available only on a ground lease & with limited term
- Regulatory process can slow development process
- Ground lease makes financing more challenging for developer

Identified Market Opportunity

RDU Total Estimated Demand Captured On Site by Planning Period							
Land Use	Airport Capture of Demand (SF or rooms)				FAR Range ¹	Developable Acres Req'd	Potential Real Estate Product Form
	2016 - 2020	2021 - 2025	2026 - 2040	Total			
Office (>100,000 sf)	-	-	700,000 - 800,000	700,000 - 800,000	0.25 - 0.30	60 - 70	Master planned corporate/Class A office campus
Industrial & Flex	-	50,000 - 75,000	600,000 - 700,000	650,000 - 775,000	0.23 - 0.28	55 - 75	Planned industrial warehouse cluster, flex buildings in "business park" setting; inventory split of 60/40 industrial/flex
Retail	-	5,000 - 6,000	225,000 - 275,000	230,000 - 281,000	0.18 - 0.23	25 - 35	Convenience retail in mid-term; Large-scale freestanding big box retailer (home improvement warehouse, wholesale club, etc.) in long-term
Hotel (rooms)	-	100 - 125	100 - 125	200 - 250	40 rooms/acre	5 - 8	Select service hotels; one of which could potentially be integrated with office campus in long-term
Total SF (not incl. hotel)	-	55,000 - 81,000	1,525,000 - 1,775,000	1,580,000 - 1,856,000		145 - 188	

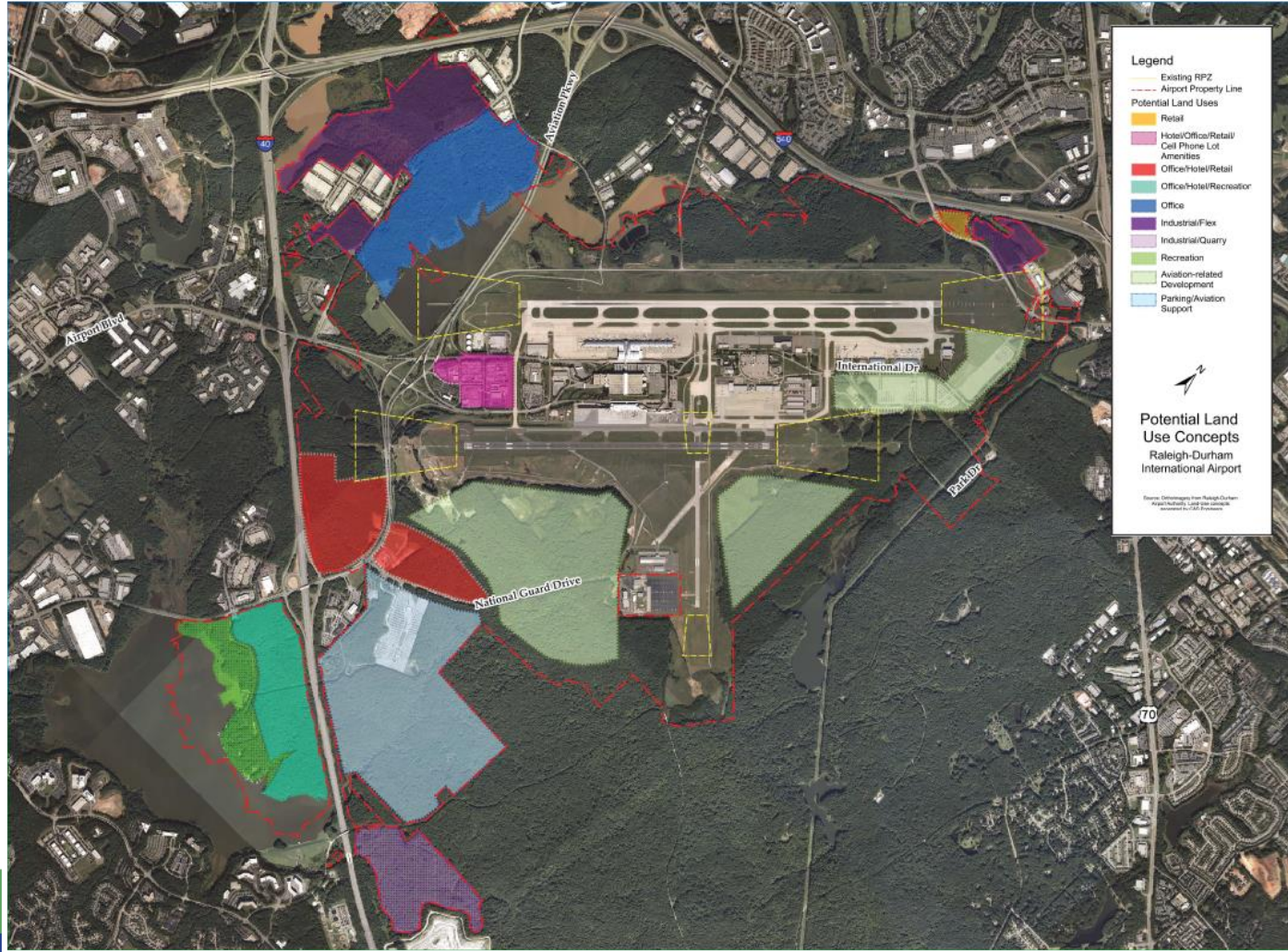
¹ Floor Area Ratio (FAR): Expresses the relationship between the above-ground floor area of a building and the total land area of the parcel it stands on. A higher ratio generally indicates a more dense type of development.

Source: "RDU Commercial Real Estate Strategy," prepared by C&S Companies, Inc., June 2015.

Land Use Location Considerations

- ▶ **Office:** major transportation corridors, accessible to population centers, community amenities, planned business park-style format
- ▶ **Industrial/Flex:** major roadway access, possible airport connectivity needs, lower land cost basis, standalone & business park setting
- ▶ **Retail:** visibility, access, transportation corridors & passerby traffic, intersection proximity, proximity to growth centers
- ▶ **Hotel:** major transportation corridors & interchange locations, near attractions, employment centers, or airports, outparcel co-location

Potential Land Use Concepts



Vision 2040 Next Steps

- ▶ Alternatives evaluation continues
 - 9 Composite Alternatives → Shortlist to 4
 - Select Preferred Alternative
 - Refine Preferred Alternative
- ▶ Public Workshop #8
 - Present the Preferred Alternative to the public for comment
- ▶ Implementation planning, and financial analysis of preferred alternative

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Review of Alternatives (Boards)



Raleigh-Durham Airport Authority

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