





Agenda

Who We Are

1 State of RDU

Vision 2040 Projects

04 Business Community Engagement

Who We Are:

Vision, Mission & Core Values





VISION

To deliver a world-class airport experience

MISSION

To deliver excellent airport services, facilities and unparalleled customer service

CORE VALUES

Learning, Integrity, Team, Excellence and Respect Authority employees are hired and assessed according to RDU's Core Values

We hold our business partners to the same standards

Core Values Propel Our Performance



TEAM – We help each other succeed and are proactive collaborators.

INTEGRITY – We do the right thing for our customers and each other. Every time.

RESPECT – We value what each person brings to the team and appreciate differences in opinions, backgrounds and ideas.

EXCELLENCE – We strive for excellence in everything we do. Our team and our customers deserve nothing less.

LEARNING – We look for and take advantage of every opportunity to become better at what we do, both individually and as a team.



State of RDU

- Since 2011
 - Added 5 new airlines
 - 29 new non-stop

BOTTOM LINE

RDU MUST KEEP PACE WITH ROBUST REGIONAL GROWTH.

- Record 12.8 million passengers
- Projected growth of at least 10% this year



Economic Impact on the Region



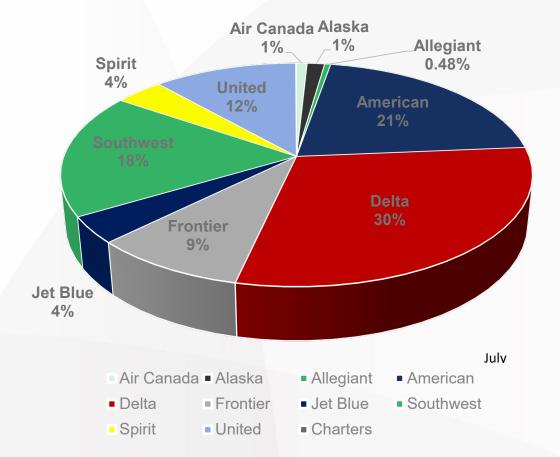
\$12.5 Billion in Economic Output



\$450 Million in State and Local Taxes

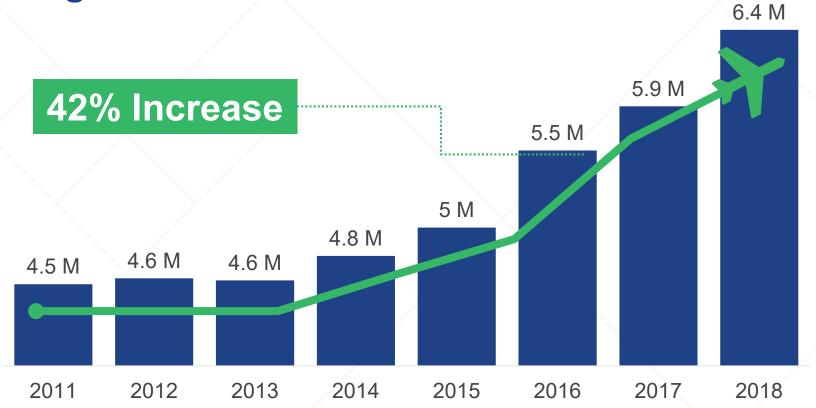


Diversified Airline Mix





Passengers Boarded 2011- 2018





Raleigh-Durham Airport Authority

Keeping Pace With Growth

Annual enplanements at RDU, compared to original projections

2016

2017

2018

2019

5.2M

5.9M

6.5M 7.1M

2017 levels 2023

levels

2027

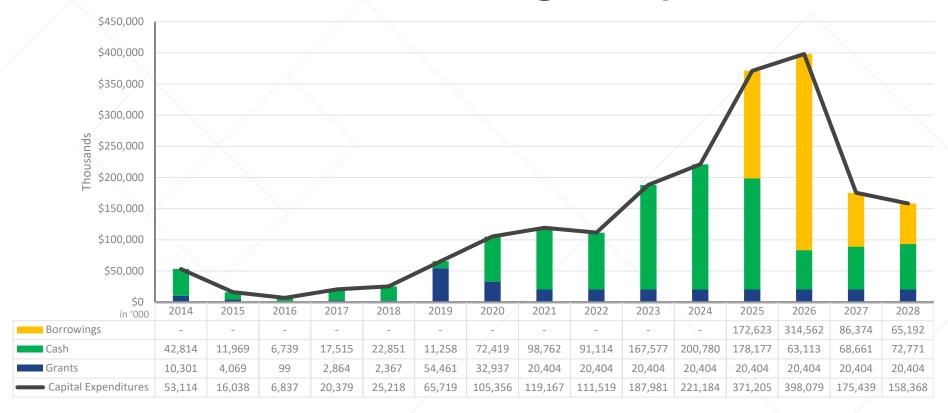
levels

2031

levels



Actual/Forecast Funding of Capital Plan



Vision 2040 Projects





O1 Airfield Improvements

02 Terminal Development

03 Ground Transportation

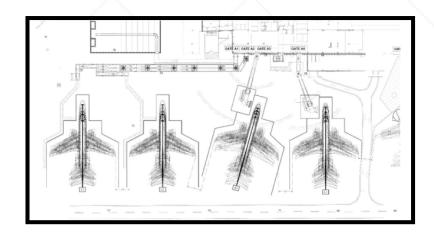
04 General Aviation

Airfield Improvements

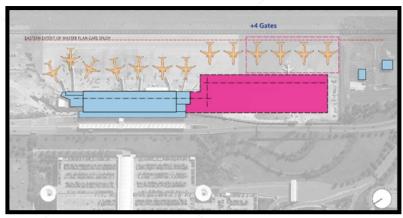




Terminal Development



Terminal 1- Gate Activation



Terminal 1- Gate Expansion

Consolidated Rental Car Facility and Ground Transportation Center





Urgency to Accelerate RDU's Vision 2040 Airport Master Plan

- Vision 2040 is eight years ahead of schedule.
- Nearly \$1 billion in deferred projects now fall within the 25-year plan.
- The Vision 2040 master plan has grown to nearly \$4 billion.
- With a significant financial gap, RDU is trying to create solutions to fund Vision 2040 acceleration.

Business Community Engagement



Business Community Engagement

Good cultural and business fit with RDU

RDU's core values

Provide expertise and value to help build world class facilities

- ► Encourage business community engagement on key RDU funding issues
 - Support the Authority's ongoing efforts to advance a self-sustaining business model
 - Promote the continued growth and viability of the airport
- Support an increase to the Federal Passenger Facility Charge (PFC)
 - The federal cap has not increased since 2000
 - Modernizing the federal cap would allow RDU to address its infrastructure needs



Mary Griffith Director of Community Affairs Mary.Griffith@rdu.com (919) 840-7703

Connect With Us:









Raleigh-Durham Airport Authority **Business Opportunity Workshop** William C. Sandifer, Senior Vice President & COO September 10, 2019



Topics

- RDU Staff Introductions
- Workshop Format
- Schedule



Agenda

- Background Information
- Current Projects
- Current Consultants
- Questions

Architects/
Building
Consultants

Civil Engineering
Consultants

Sign Consultant





Capital Program Statistics

\$724M over last 12 yrs. (\$60M/Yr)

Current Contracts

- \$32M Consulting Contracts
- \$201M Construction Contracts



Capital Program Statistics

Current Contracts

- 11 Prime Consultants
- 5 Prime Contractors
- 2 Construction Managers At-Risk (Building & Civil Work)



Architect/ Building Consultant

- Building & Building Systems
 Condition Assessments
- New Construction Planning & Design
- Retrofits
- Demolition

Buildings & Building Systems



- Architectural planning and design services
- Structural engineering (buildings, foundations, roofs, hangars, etc.)
- Mechanical, electrical and plumbing (MEP) engineering
- Heating, ventilation and air conditioning (HVAC) engineering
- > Fire protection engineering
- Interior and exterior lighting consulting
- Building management systems consulting
- Horizontal and vertical circulation and passenger load modeling
- Horizontal and vertical conveyance systems consulting

- Baggage handling systems consulting
- Airport/Emergency Operations center planning and design
- Aircraft circulation modeling and layout consulting
- National and local code compliance consulting (building, hangar, fire, electric, etc.)
- Information technology / communication systems (IT/IS) consulting (Paging, AOIS, FIDS, BIDS, premises network systems, etc.)
- Cost estimating services
- Passenger Boarding Bridge systems
- SAACS and CCTV



Building Condition Assessments





Raleigh-Durham International Airport

> Building 7: South Cargo 2 1035 Airside Drive

> > Volume I

Feasibility Study June 17, 2013

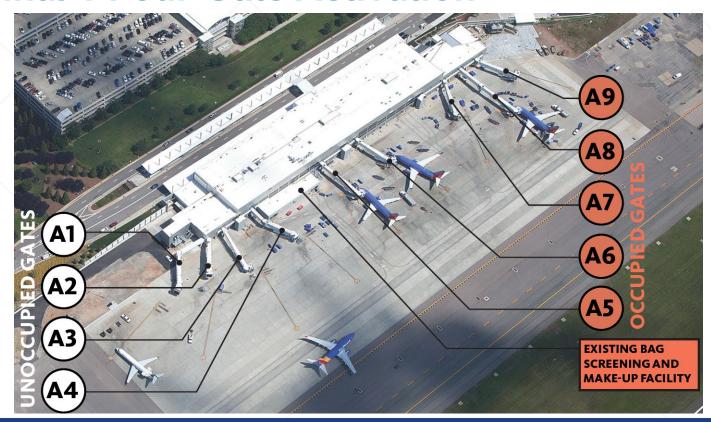
Building Retrofits – Conference Room



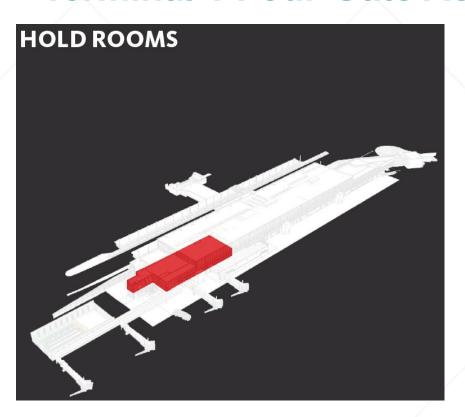
Building Retrofits – Checkpoint Expansion

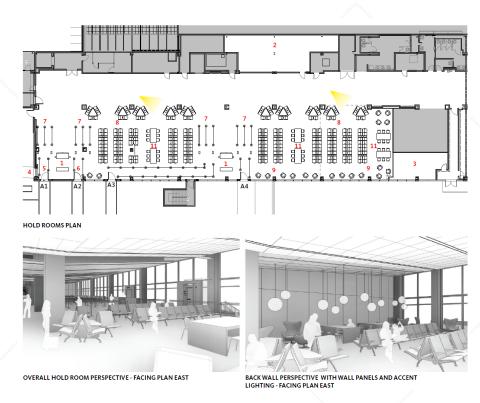


Terminal 1 Four-Gate Activation

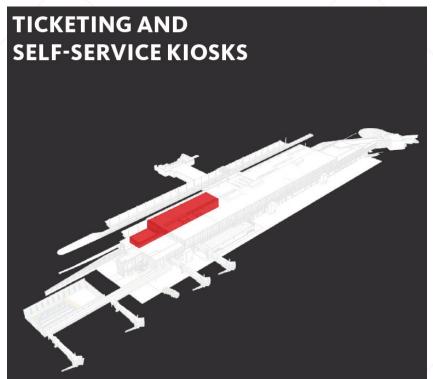


Terminal 1 Four-Gate Activation





Terminal 1 Four-Gate Activation



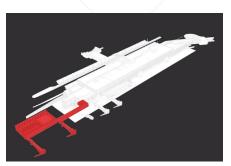
TICKETING

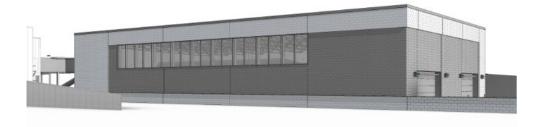
SELF- SERVICE KIOSKS - OPTION 1



Terminal 1 Baggage Handling Facility









Civil Engineering

- Taxiway Reconstruction
- Runway Re-paving
- Roadway Re-paving
- Security Gates & Fence
- Utilities
- Parking Garages
- Project Specific Planning

Airside/Landside Civil Engineering

AECOM

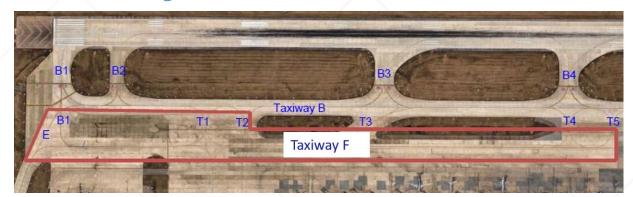
- Civil engineering including structural, bridges, drainage, pavement, roadway, and traffic control design.
- Landscape architecture and irrigation design.
- Land surveying.
- Geotechnical engineering
- Pavement conditions assessment and pavement management.
- Airfield lighting and guidance systems engineering.
- Roadway lighting and electrical engineering.

- Structural engineering (including concrete and metal structures).
- ➤ Utility engineering (including water distribution, sewer collection, and communications/information technology infrastructure).
- Mechanical engineering (including fuel storage/distribution facility and hydrant piping system).
- Cost estimating.
- Construction inspection



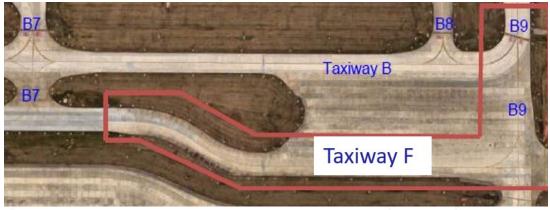


Taxiway F Rehabilitation



North End (comp.)

South End (ongoing)



Taxiway F Rehabilitation

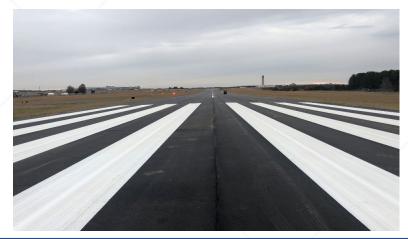




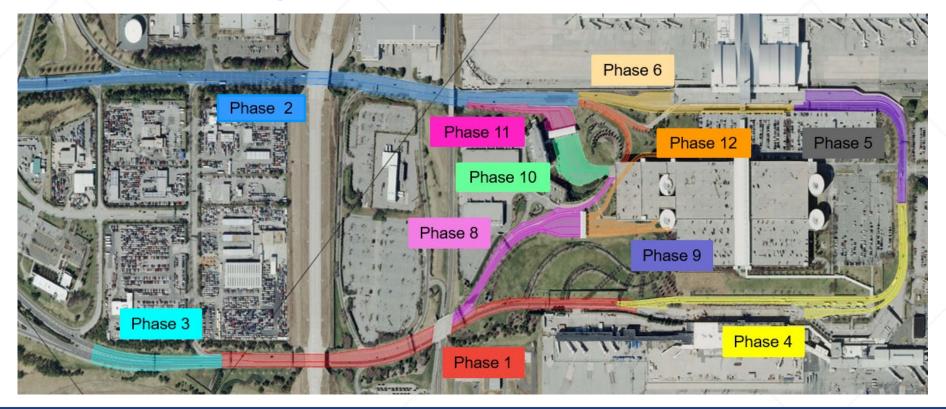


Runway 14-32 Re-paving





John Brantley Boulevard Rehabilitation



John Brantley Boulevard Rehabilitation





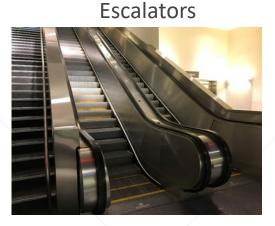
Parking Garage Rehabilitation



Traction Elevators



Powered Walks



Hydraulic Elevators



RDU, Ralei



Airport Signage

- Terminal Signage
- Roadway Signage
- Parking Lot Signage



Terminal Signage



Terminal Signage

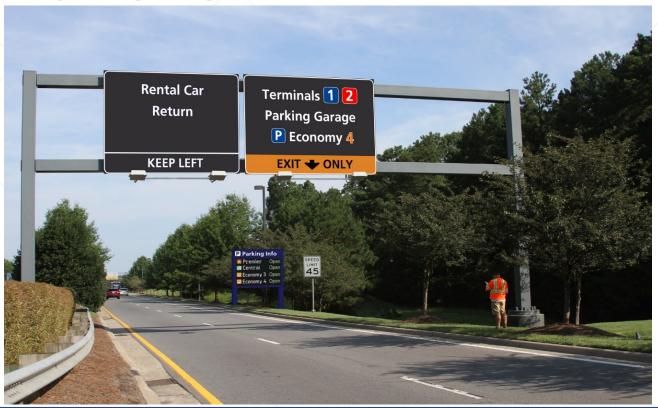








Roadway Signage



Signage: Recent Additions

| lerminal 🙎 | | |
|------------|----------|--------|
| Air Canada | Delta | United |
| Alaska | Frontier | Via |
| Allegiant | JetBlue | |
| American | Spirit | |

All International Arrivals

- ← Airport EXIT

 Terminal 1 2
 - P Terminal Parking
 - P Express
 - P Economy 4

P Express
P Economy 4
General Aviation
North Cargo

NEXT RIGHT



Raleigh-Durham Airport Authority

Business Opportunity Workshop

Thiané Carter
Director of Small Business Programs
September 10, 2019



Small Business Programs

- RDUAA has two programs designed to foster the inclusion of minority and women-owned small businesses
 - Federal Disadvantaged Business Enterprise (DBE)
 - RDUAA Minority and Women-owned Small Business (MWSB)
- RDUAA requires that its business partners make an effort in good faith to achieve MWSB or DBE goals
- Most contracts have MWSB goals; Federally assisted contracts have DBE



What are MWSBs?

- Small businesses owned, operated and controlled by individuals that are:
 - Black American,
 - Hispanic American,
 - Asian American,
 - Native Americans, or
 - Women

MWSB Program Goals

- There are separate goals for the participation of minority-owned small businesses (MB) and women-owned small businesses (WB)
- The goals are determined based on the type of work being performed and the availability of MB and WB firms
- Past goals:
 - Architecture, Engineering, Planning 10% MB, 5% WB
 - Construction at Risk Services 10% MB, 5% WB
 - Construction Varies widely based on scope



MWSB Program Results – 5 Years

- \$32 million in consultant fees
- \$201 million in construction contracts
- On-call consultants:
 - 10.9% MB & 12.8% WB participation
- Construction contracts:
 - 7.7% MB & 16.1% WB participation



MWSB Program Certification

- RDUAA accepts various certifications
 - NCDOT Disadvantaged Business
 Enterprise DBE
 - SBA 8(a) Business Development
 Certification SBA 8(a)
 - Women's Business Enterprise
 National Council Women-Owned
 Small Business WOSB



MWSB Program Certification

- RDUAA must verify business size for these certifications
 - NCDOA Historically Underutilized Business – HUB
 - Minority or women-owned HUBs only
 - Carolinas-Virginia Minority Supplier
 Development Council CVMSDC



Programs

programs webpage.

Find additional information and

resources through Raleigh-Durham Airport Authority small business

RDUAA Small Business Programs

Locating MWSBs

- RDUAA certified directory
- www.rdu.com/mwsbdirectory
- Includes DBE firms from NCDOT

it works today

Learn more about this system and how

Information for Vendors

Account Access

passwords

Lookup Vendor accounts or reset user

Account Lookup

Forant Password











Upcoming Construction Projects

- Terminal 1: Expansion
- Terminal 2: FIS Facilities Expansion
- Terminal 2: Landside Expansion

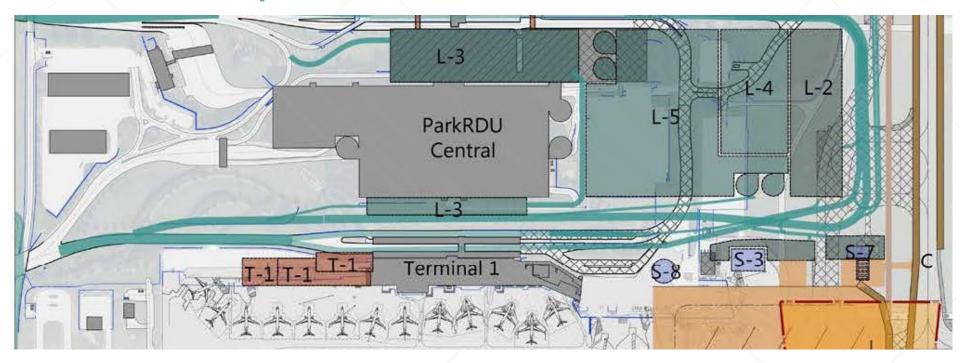


Upcoming Projects

Design (and Construction) Opportunities

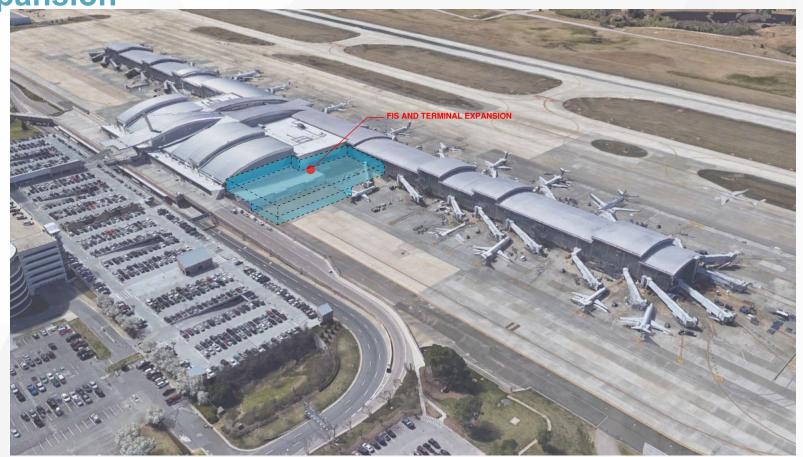
- Maintenance: Snow Equipment Building
- Campus Building Assessment
- Terminal 2: Modernization
- Terminal 1/2: Restroom Modernization
- Terminal 1/2: Restaurant Refresh (Design Support)
- GA Campus Development (Design Support)

Terminal 1: Expansion

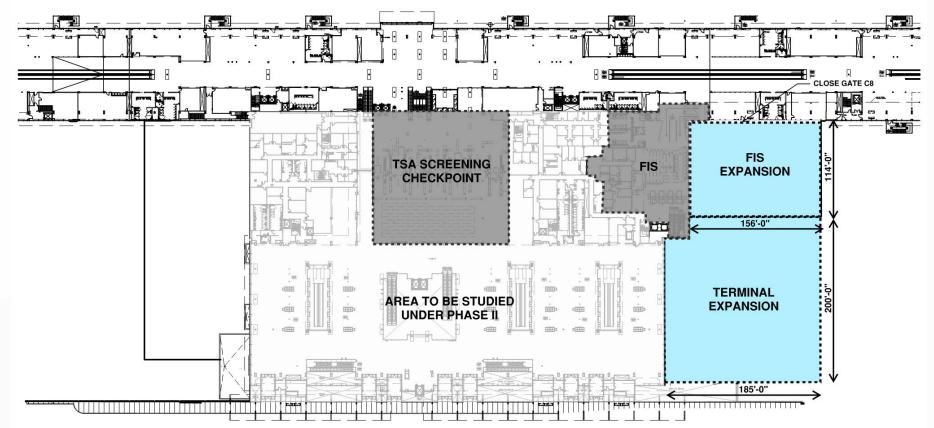


Terminal 2: FIS (Federal Inspections Station) Facilities

Expansion

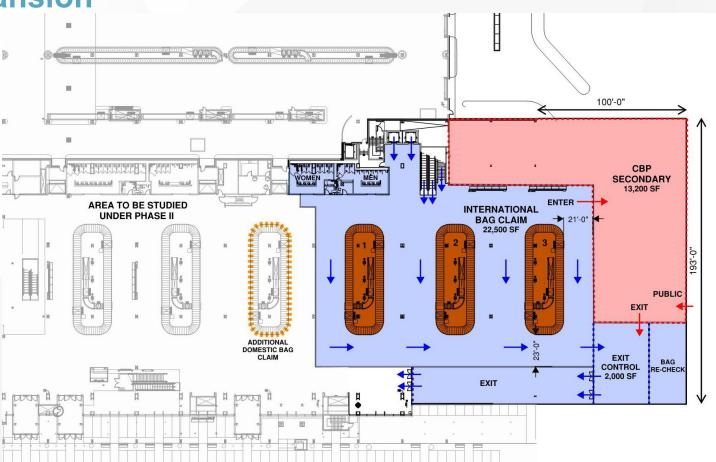


Terminal 2: FIS (Federal Inspections Station) Facilities Expansion

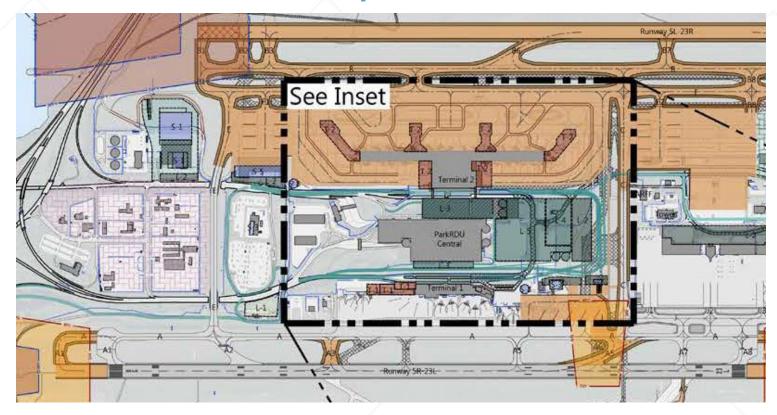


Terminal 2: FIS (Federal Inspections Station) Facilities

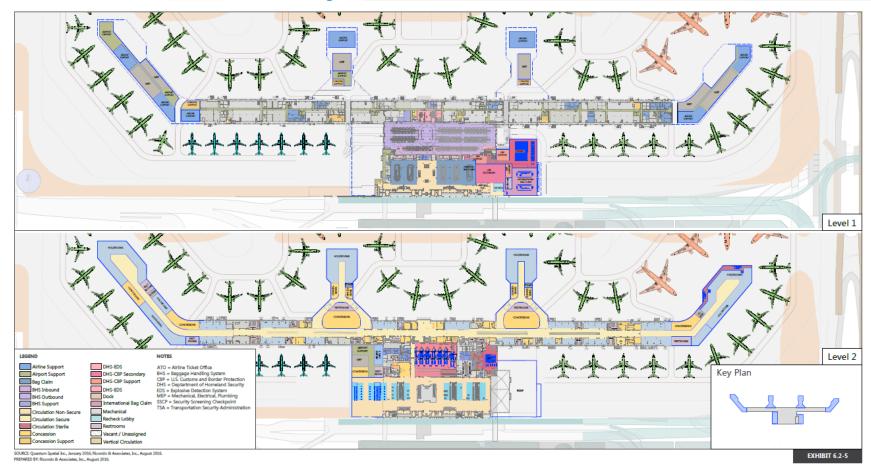
Expansion



Terminal 2: Landside Expansion



Terminal 2: Future Expansion



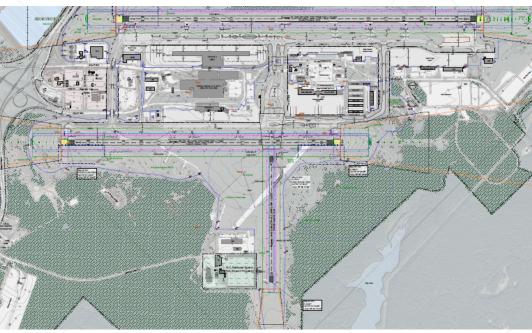
Maintenance: Snow Equipment Building



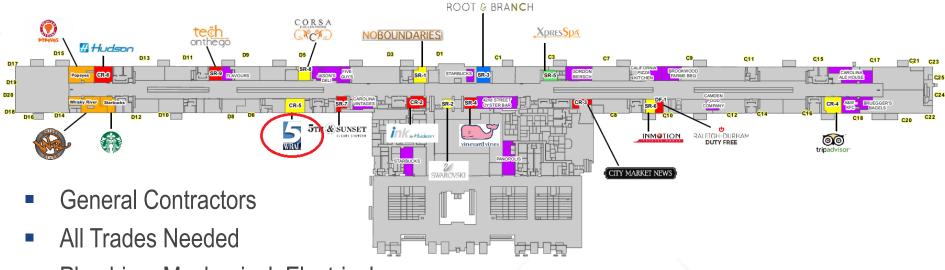


Updating the Campus Building Assessment





Tenant Projects: Terminal 2 Restaurant Refresh



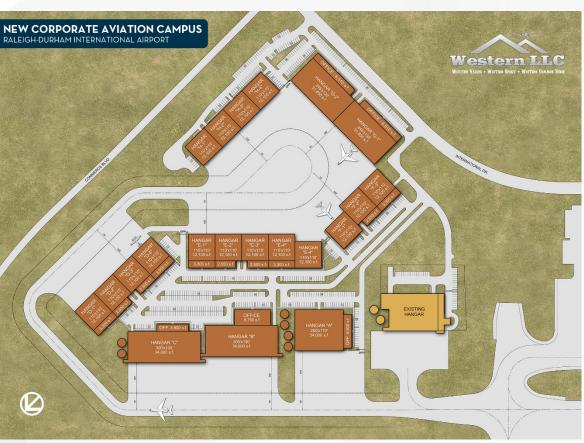
- Plumbing, Mechanical, Electrical
- Fire Protection, Drywall, Painting, etc.

https://www.rdu.com/do-business-with-rdu/

Tenant Projects: GA Campus Development



Western LLC









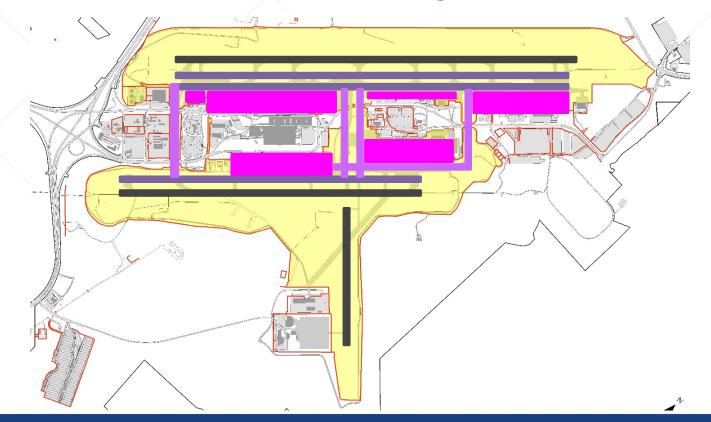


Agenda

- Airport Layout & Terminology
- Current & Upcoming Proposed Projects
 - Airside Design & Construction
 - Landside Design & Construction
- Questions

Airside and/or
Landside Civil
Engineering
Consultants and
Contractors

Airside vs. Landside Civil Projects





- Design (and Construction) Opportunities
 - Preservation Projects
 - TW F
 - RW 5R Service Road
 - RW 5R-23L
 - Rehabilitation Projects
 - GA T-hangar Apron
 - T2 Apron
 - TW B (South TW D) & TW Connectors B1 B5
 - TW E
 - New Design Projects
 - RW 5R-23L Extension
 - RW 5R-23L High Speed Exit Taxiway

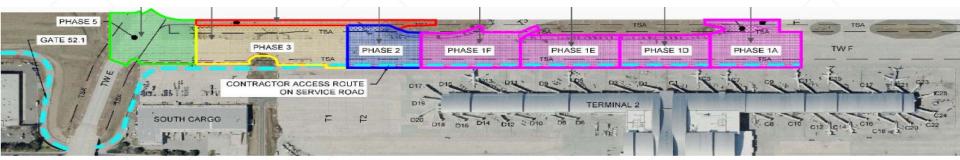


- **Design Opportunities**
 - Preservation Projects
 - TW F
 - RW 5R Service Road
 - RW 5R-23L
 - Rehabilitation Projects
 - GA T-hangar Apron
 - T2 Apron
 - TW B (South TW D) & TW Connectors B1 B5
 - TVV F
 - New Design Projects
 - RW 5R-23L Extension
 - RW 5R-23L High Speed Exit Taxiway

Taxiway F Preservation



T/W F Rehab (South) - Proposed Construction Schedule – V2







RW 5R Service Road Preservation



RW 5R Service Road Preservation





RW 5R-23L Preservation



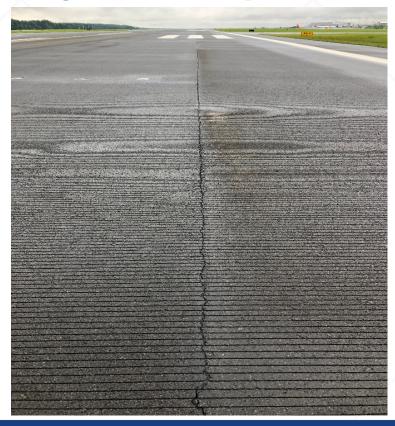
Runway 5R-23L

Runway 5R-23L – Centerline Paving – Before & After





Runway 5R-23L Repair – Joint Repair – Before & After







- **Design Opportunities**
 - Preservation Projects
 - TVV F
 - RW 5R Service Road
 - RW 5R-23L
 - Rehabilitation Projects
 - GA Area Pavement
 - T2 Apron
 - TW B (South TW D) & TW Connectors B1 B5
 - TW E
 - New Design Projects
 - RW 5R-23L Extension (CMR)
 - RW 5R-23L High Speed Exit Taxiway (CMR)

GA Area Pavement Rehabilitation



GA Tie-down Apron

Storm Water Inlets

GA T-Hangar Apron



GA T-Hangar Pavement Rehabilitation





GA Tie-Down Apron Rehabilitation & Inlets





T2 Apron Pavement Rehabilitation

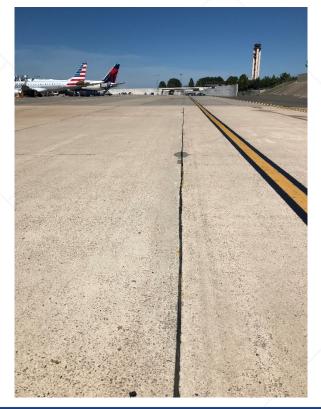


T2 Apron (North)

T2 Apron (South)



T2 Apron Pavement Rehabilitation

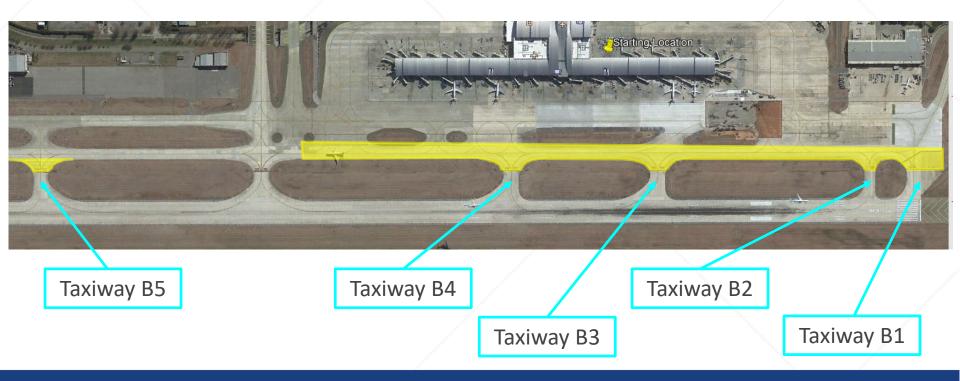




T2 Apron (North)

T2 Apron (South)

Taxiway B (South) & B1-B5 Rehabilitation



Taxiway B Rehabilitation





Taxiway B1 / B2 / B3 / B4 / B5 Rehabilitation

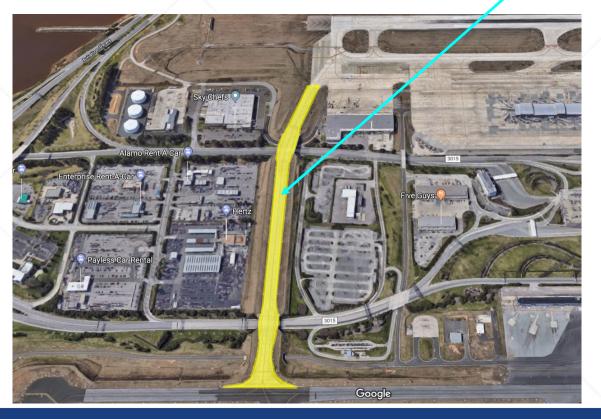






Taxiway E Rehabilitation

Taxiway E



Taxiway E Rehabilitation



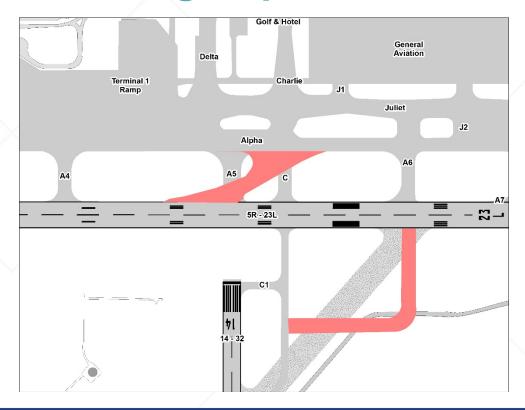




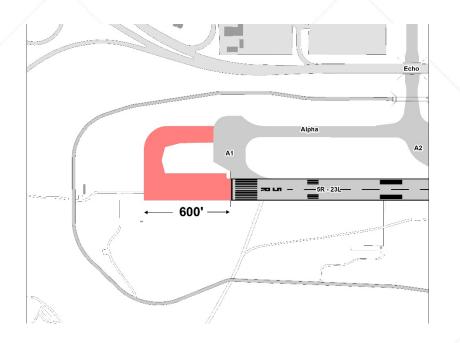


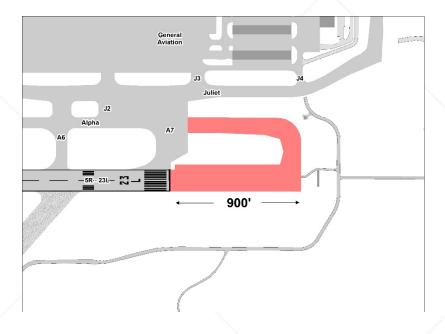
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 - T2 Apron
 - TW B (South TW D) & TW Connectors B1 B
 - T\// F
 - New Design Projects
 - RW 5R-23L Extension
 - RW 5R-23L High Speed Exit Taxiway & TW Y

Runway 5R-23L High Speed Exit and TW Y



Runway 5R-23L Extension







- Construction Opportunities (already in design)
 - Preservation Projects
 - RW 5L-23R
 - Rehabilitation Projects
 - International Drive
 - TW C & D
 - N Cargo Apron Area and TW J
 - RW 5L-23R Replacement



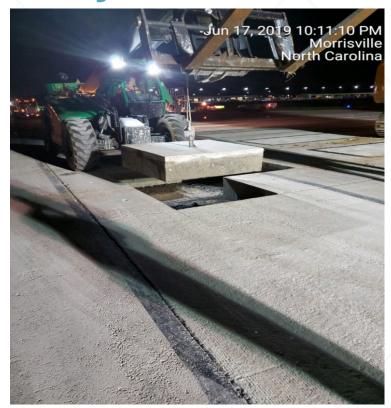
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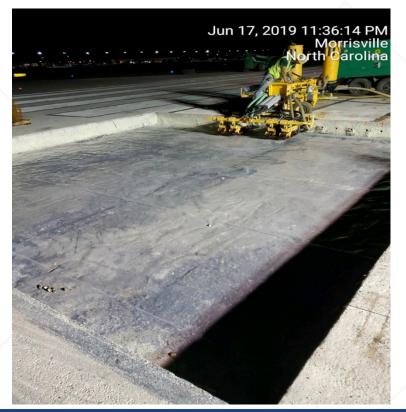


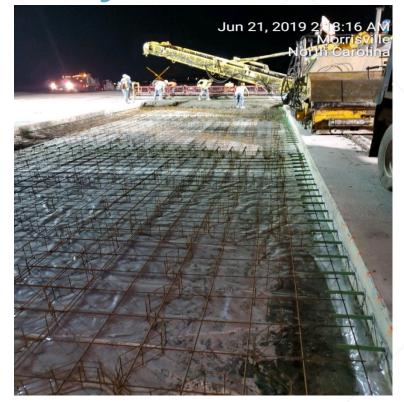
Runway 5L-23R

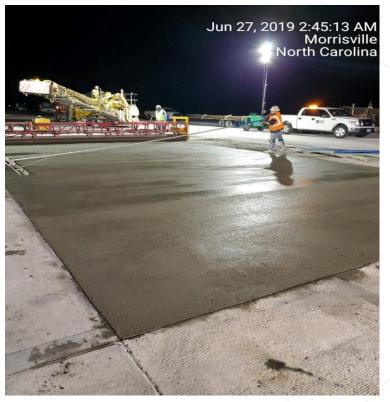








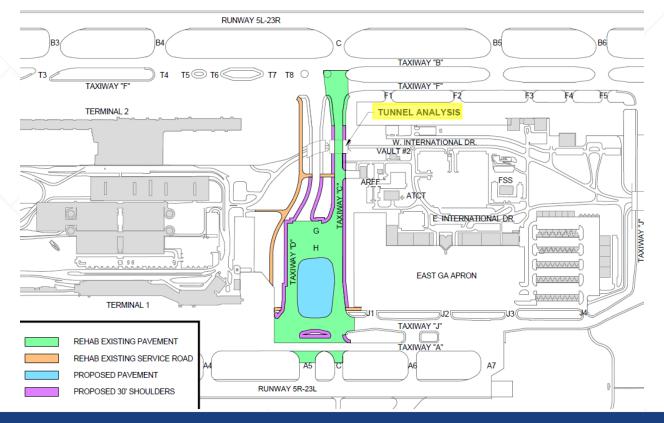






- Construction Opportunities (already in design)
 - Preservation Projects
 - RW 5L-23R
 - Rehabilitation Projects
 - TW C & D
 - N Cargo Apron Area and TW J
 - RW 5L-23R Replacement

Taxiway C & D Rehabilitation



Taxiway C Rehabilitation

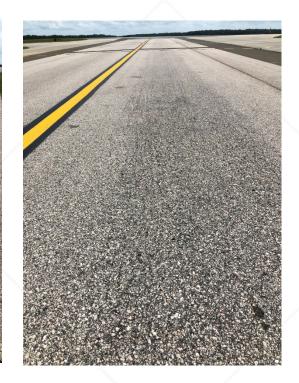




Taxiway D Rehabilitation







North Cargo Apron Area and TW J Rehab



N Cargo Apron TW J

North Cargo Taxilane Rehabilitation





Taxiway J Rehabilitation







R/W 5L-23R Replacement / RW to T/W Conversion



Existing RW 5L-23R converted to a Taxiway



Proposed Landside Civil Projects

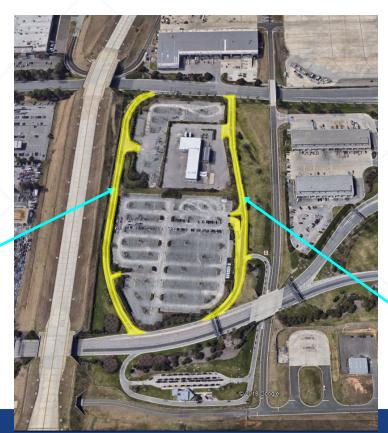
- Design (and Construction) Opportunities
 - Preservation Projects
 - RDU & Departure Dr.
 - Park Economy 3
 - Rehabilitation Projects
 - Rental Car Rd. / Cedar Fork Rd. / Trade Dr.
 - Park Economy 1 & Cargo Dr.
 - Park Express / Business St. / Park Economy 4 / Employee Lot
 - Commerce Dr.
 - National Guard Dr.
 - Maintenance Building Parking Lot
 - New Design Projects
 - CONRAC & JBB Reconfiguration
 - Rental Car Storage Lot Expansion
 - Aviation Parkway / National Guard Drive Intersection Improvements



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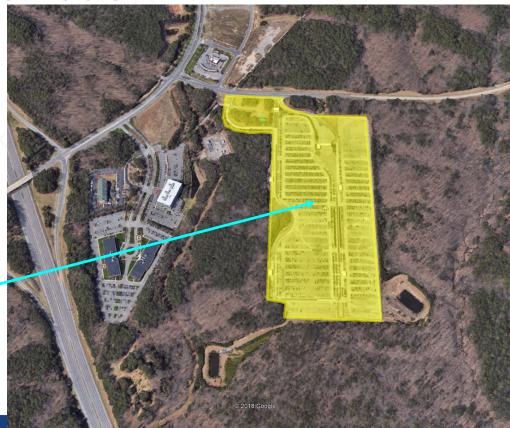
RDU & Departure Drive Preservation



RDU Drive

Departure Drive

PE 3 Preservation



PE 3 Lot

PE 3 Preservation







Proposed Landside Civil Projects

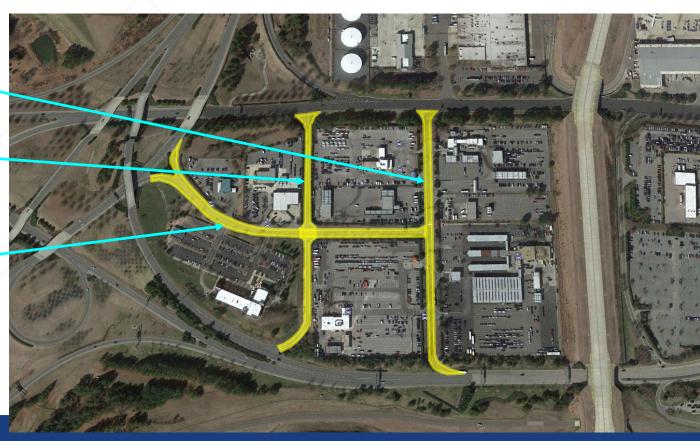
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Rental Car Rd. / Cedar Fork Rd. / Trade Dr. Rehabilitation

Rental Car Rd.

Cedar Fork Rd.

Trade Dr.



Park Economy 1 & Cargo Dr. Rehabilitation



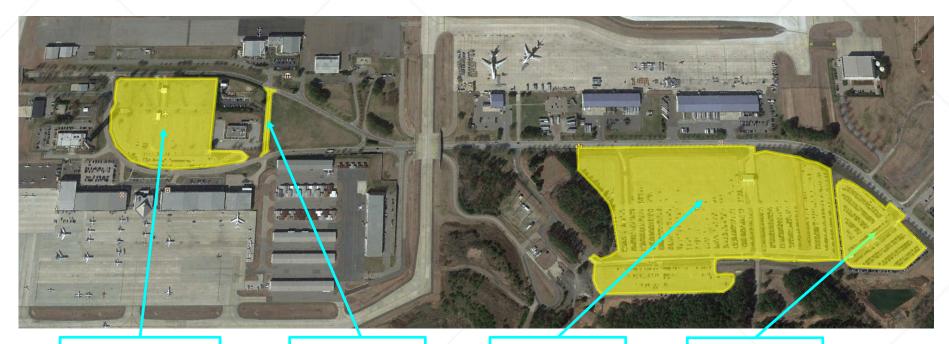
Cargo Dr.

PE 1



Raleigh-Durham Airport Authority

Park Express / Business St. / Park Economy 4 / Employee Lot Rehabilitation



Park Express Lot

Business St.

PE 4 Lot

Employee Lot



Commerce Dr. Rehabilitation



Commerce Dr.

National Guard Drive Rehabilitation



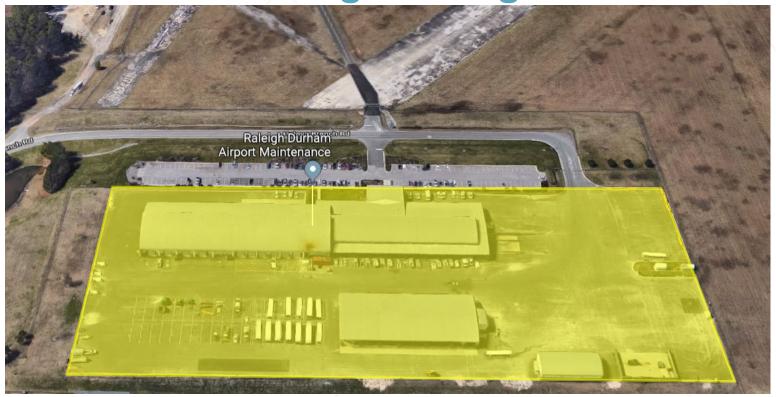
National Guard Dr.

National Guard Drive

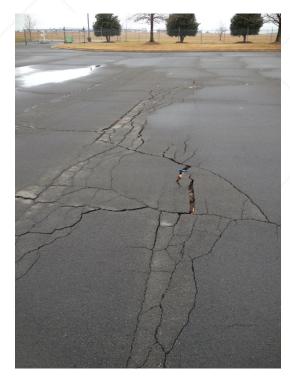




Maintenance Building Parking Lot Rehab



Maintenance Building Parking Lot Rehab





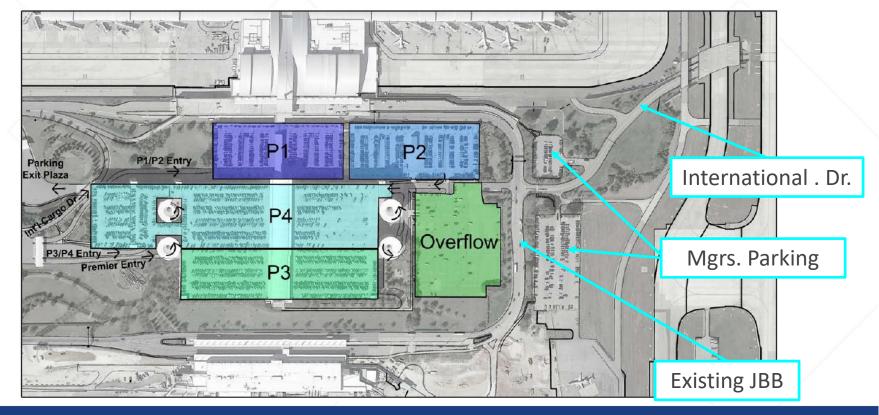




Proposed Landside Civil Projects

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 - Rehabilitation Projects
 - Rental Car Rd. / Cedar Fork Rd. / Trade Dr.
 - Park Economy 1 & Cargo Dr.
 - Park Express / Business St. / Park Economy 4 / Employee Lot
 - Commerce Dr.
 - National Guard Dr.
 - Maintenance Building Parking Lot
 - New Design Projects
 - CONRAC & JBB Reconfiguration
 - Rental Car Storage Lot Expansion
 - Aviation Parkway / National Guard Drive Intersection Improvements

Existing Parking Garage Configuration



CONRAC & JBB Reconfiguration International Dr. **Terminal 2** Reconfiguration **New PPG** RAC GTC PG4 PG3 JBB Reconfiguration Pedestrian Circulation To/From GTC **Existing JBB** To/From ConRAC **Terminal 1**

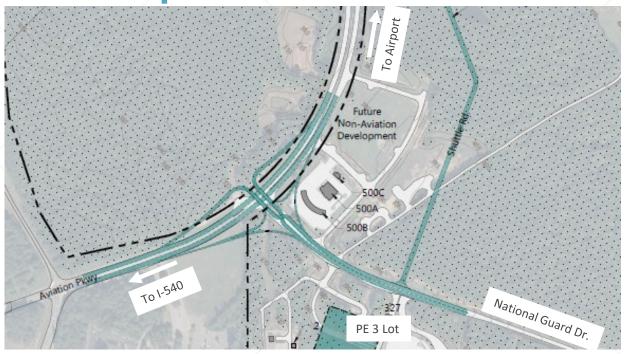
CONRAC & JBB Reconfiguration (Rendering)



Rental Car Storage Lot Expansion



Aviation Parkway / National Guard Drive Intersection Improvements





Proposed Landside Civil Projects

Construction Opportunities (already in design)

- Rehabilitation Projects
 - International Drive
- New Construction Projects
 - Park Economy 3 Expansion
 - Lumley Rd. Relocation



Proposed Landside Civil Projects

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- Rehabilitation Projects
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International Drive



West and East International Drive

International Drive



International Drive





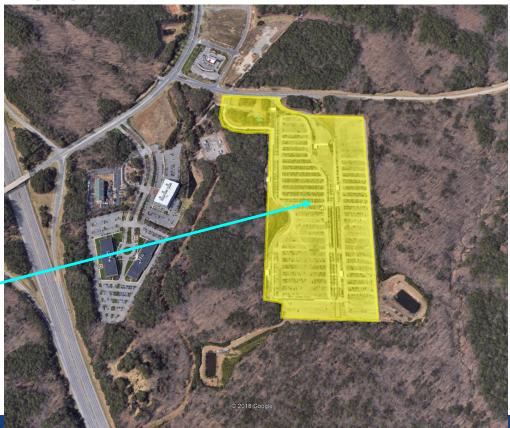


Proposed Landside Civil Projects

Construction Opportunities (already in design)

- Rehabilitation Projects
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PE 3 Expansion



PE 3 Lot

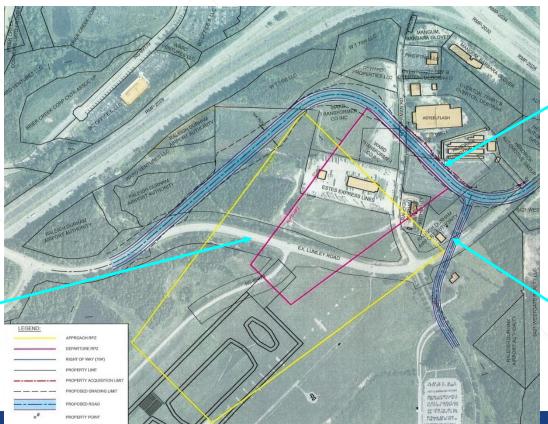


PE 3 Expansion (Initial Concept)

- ~4,360 additional spaces
- ~8,180 spaces total
- ~35 additional acres
- 2 new bus stops
- Relocated entry plaza



Lumley Road Relocation



Relocated Lumley Rd.

> Relocated Commerce Blvd.

Existing

Lumley

Rd.



Miscellaneous Projects

- Miscellaneous Airside and Landside Repairs and Pavement Marking
- Bridge and Tunnel Inspection and Repairs
- Miscellaneous Traffic Structures Inspection, Repairs, Painting
- Aircraft Fueling System Improvement and Repairs
- Underground Piping Cathodic Protection Assessment and Improvements
- Ductbanks and Cables Installation and Repair









Environmental Consulting and Other Services

- Environmental Compliance
 Assistance Services
- National Environmental Policy Act (NEPA) Documentation Services
- Aircraft Noise Monitoring and Abatement Services



Environmental Compliance Assistance

- Programs Requiring Inspections
 - Fats, Oils and Grease Program
 - AST/UST and SARA Title III
 - Airport National Pollutant Discharge Elimination System (NPDES) Permit



Environmental Compliance Assistance

- Inspections continued
 - Stormwater Pollution Prevention Plan (SWPPP)
 - Spill Prevention Control and Countermeasure (SPCC) Plan
 - Facility Response Plan (FRP)

Environmental Compliance Assistance

- Programs Requiring Sampling and Documentation
 - Potable Water Distribution System
 - NPDES Stormwater Permit
 - Stormwater sampling
 - Stormwater visual inspections
 - Groundwater Remediation System

Environmental Compliance Assistance

- Plans Potentially Requiring Updates/Potential New Permit Or Permit Renewal Applications
 - Water Distribution Sampling Plan Development/Review
 - NPDES Stormwater Permit renewal
 - Air Quality Permit emissions calculations and renewal
 - SPCC Plan and FRP updates
 - Fats, Oils, and Grease Plan



Environmental Compliance Assistance

- Plans and Permits continued
 - Water Distribution Sampling Plan Development/Review
 - NPDES Stormwater Permit
 - Wastewater Collection System Permit
- Groundwater remediation system
 - Operating and monitoring system, preparing quarterly reports
 - Monitoring groundwater wells, preparing semiannual reports





Other Environmental Services

 Sampling, monitoring contractor excavation, and providing remediation guidance for impacted soils encountered during construction activities



Other Environmental Services

- Conducting studies identified in Authority's on-going Sustainability Management Plan
 - e.g., such as solid waste recycling studies, energy efficiency studies, etc.



NEPA Documentation Assistance

 For projects not included in the FAA's Runway 5L-23R Environmental Impact Statement (EIS) but requiring an Environmental Assessment



NEPA Documentation Assistance - continued

- FAA has not finalized the EIS projects
- Potential Projects include Taxiway D and E Rehabilitations and new ARFF/AOC Facility



NEPA Related Services

 Delineating streams/wetlands and local ecological/natural resources & identifying/permitting environmental impacts for projects not part of Runway EIS



Aircraft Noise Monitoring and Abatement Assistance

- Analyzing effects of FAA's upcoming Required Navigation Performance procedures
- Analyzing effects of potential federal noise laws and regulations
- Preparing materials for public consumption



Raleigh-Durham Airport Authority **Business Opportunity Workshop** William C. Sandifer, Senior Vice President & COO September 10, 2019



Topics

- Final Questions
- Afternoon Schedule
- Lunch on your own



