

- Study Area
- Project Area Boundaries
- Durham and Wake Counties
- Triangle Region

- RTP
- Apex
- Cary
- Durham
- Morrisville
- Raleigh

Source: NCDOT GIS (March 2007)

Source: Triangle J Council (March 2007)

Project Location

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Map Date: September 2007

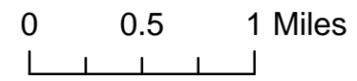
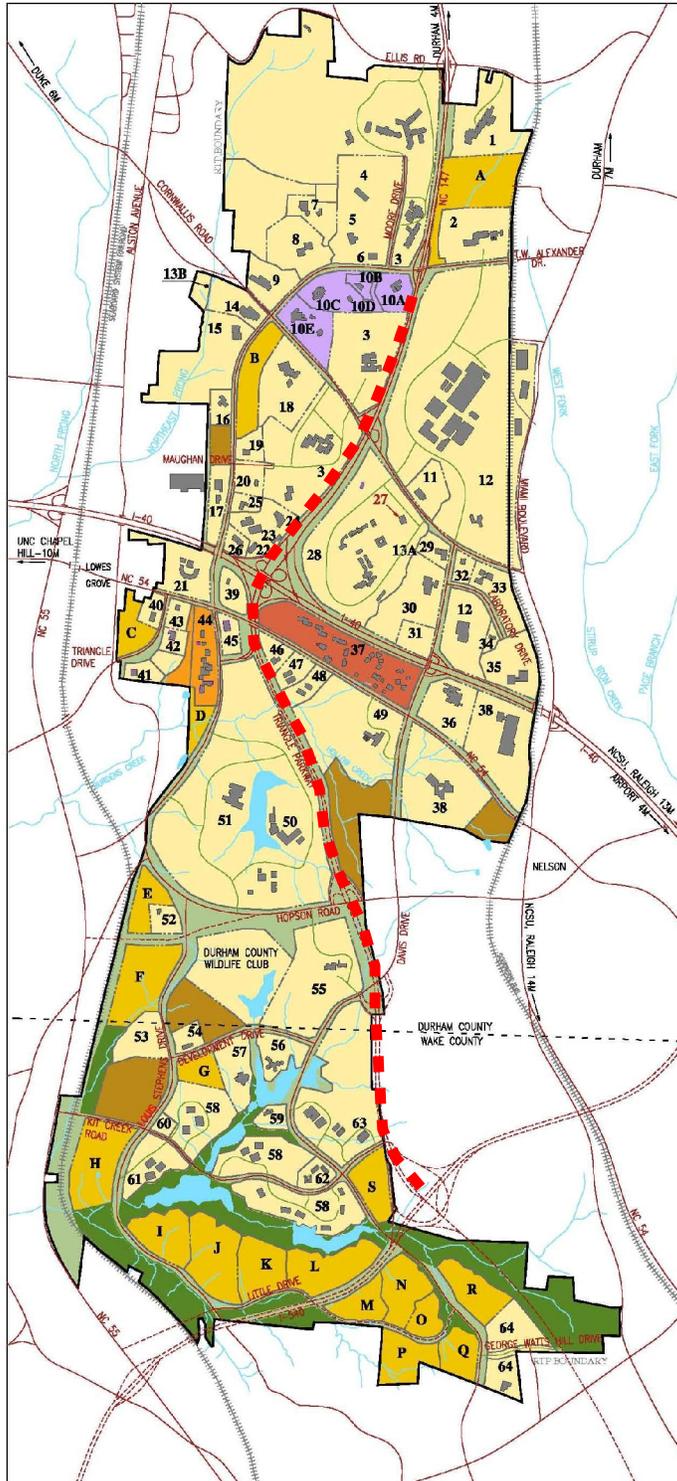


Figure
I-1



RESEARCH TRIANGLE PARK

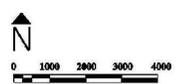
North Carolina



LEGEND

- Sold
- Under Option/ Committed
- Available for Sale
- Service Center/ (Commercial, Office, Hotel)
- Park Research Center (Lab/Office)
- TUCASI Campus
- Natural Area Preserve
- Proposed Triangle Parkway
- Research Triangle Park Boundaries

January 2006



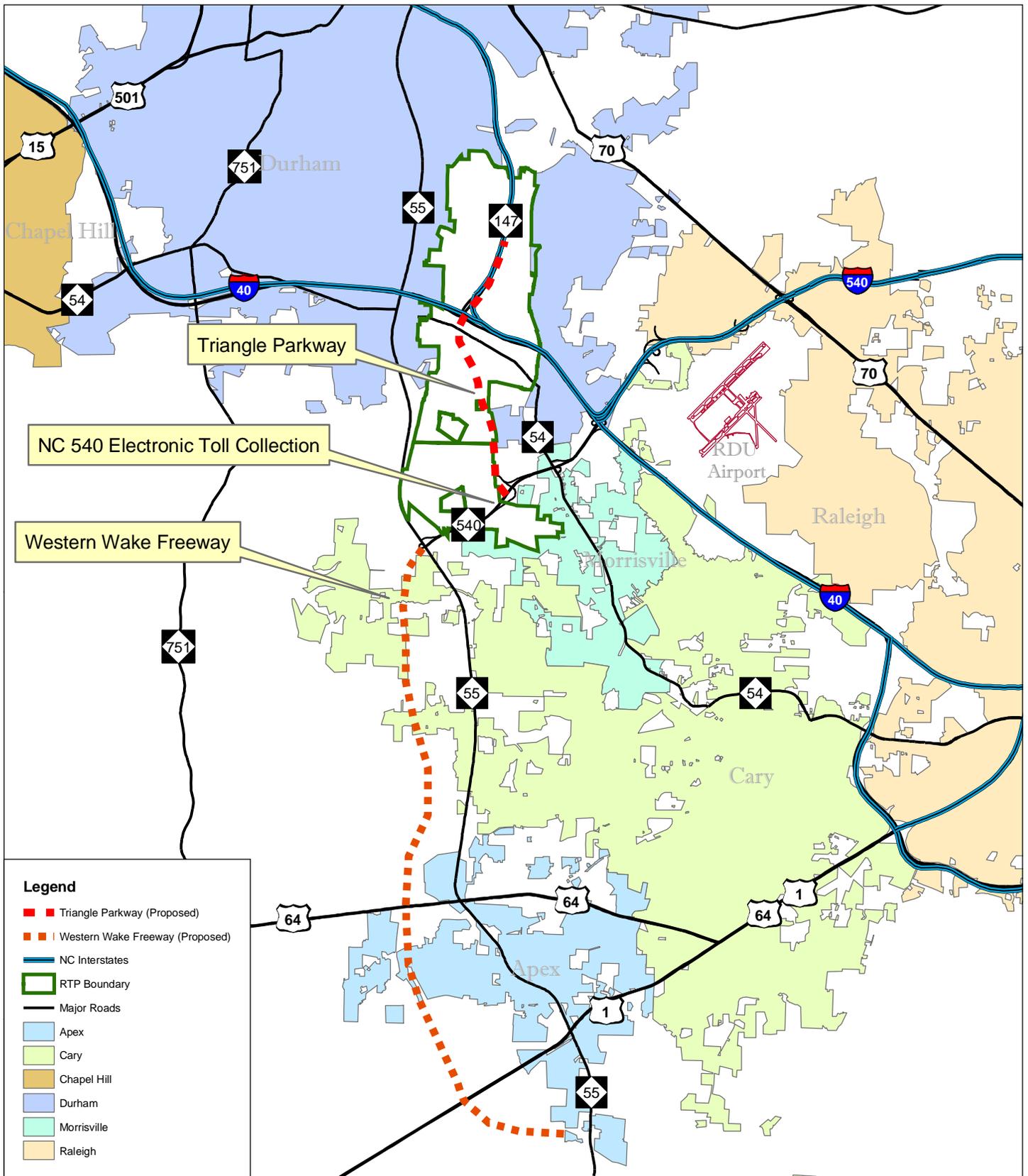
RTP MASTER PLAN
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Map From the Research Triangle Foundation

Figure

I-2

September 2007



NCTA Projects in the Triangle Region

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

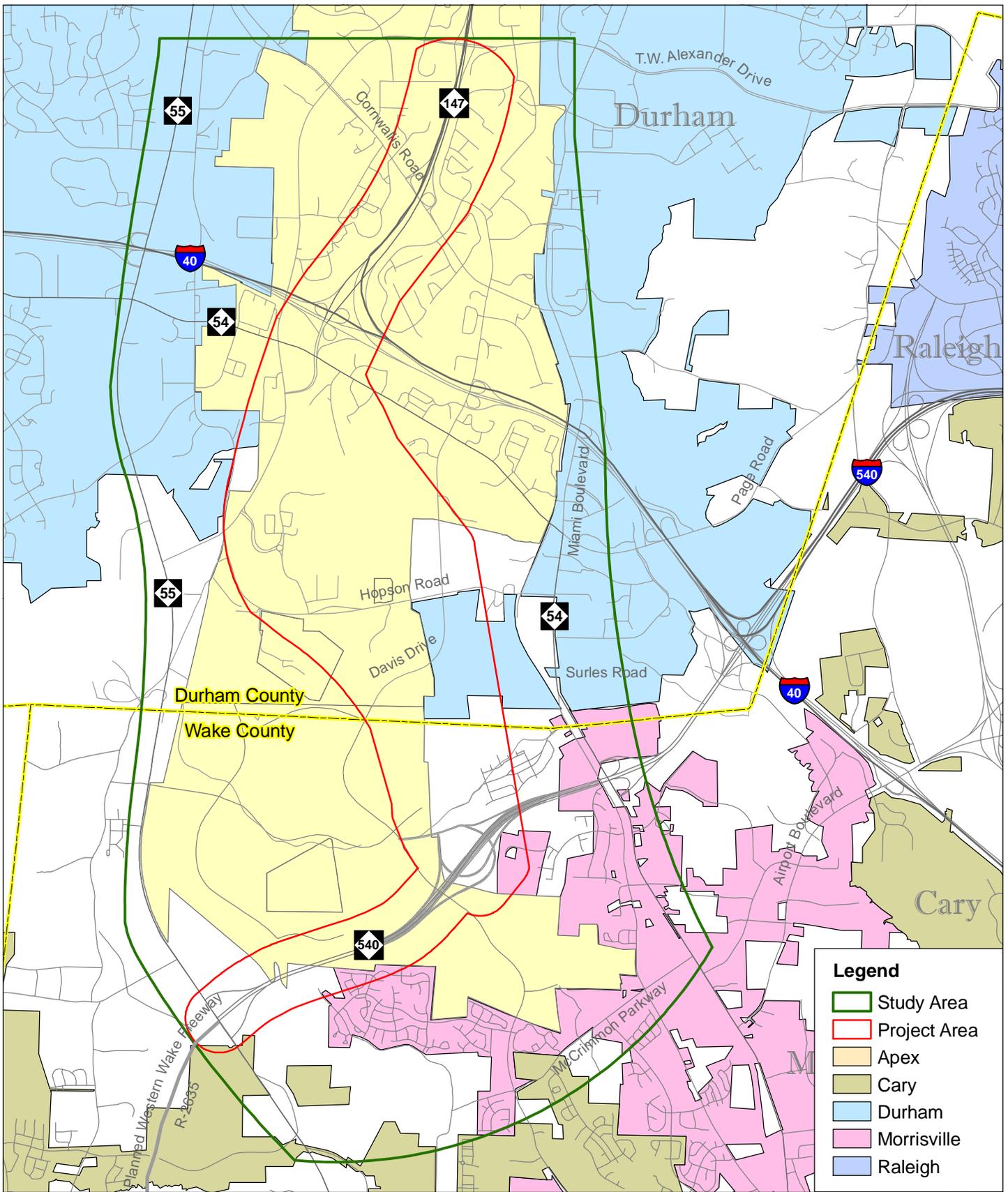
Figure

I-3



Data Source: CGIA BasinPro (2007) and NCDOT GIS (2007)

September 2007



Legend

- Study Area
- Project Area
- Apex
- Cary
- Durham
- Morrisville
- Raleigh

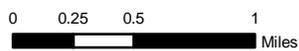


PROJECT VICINITY

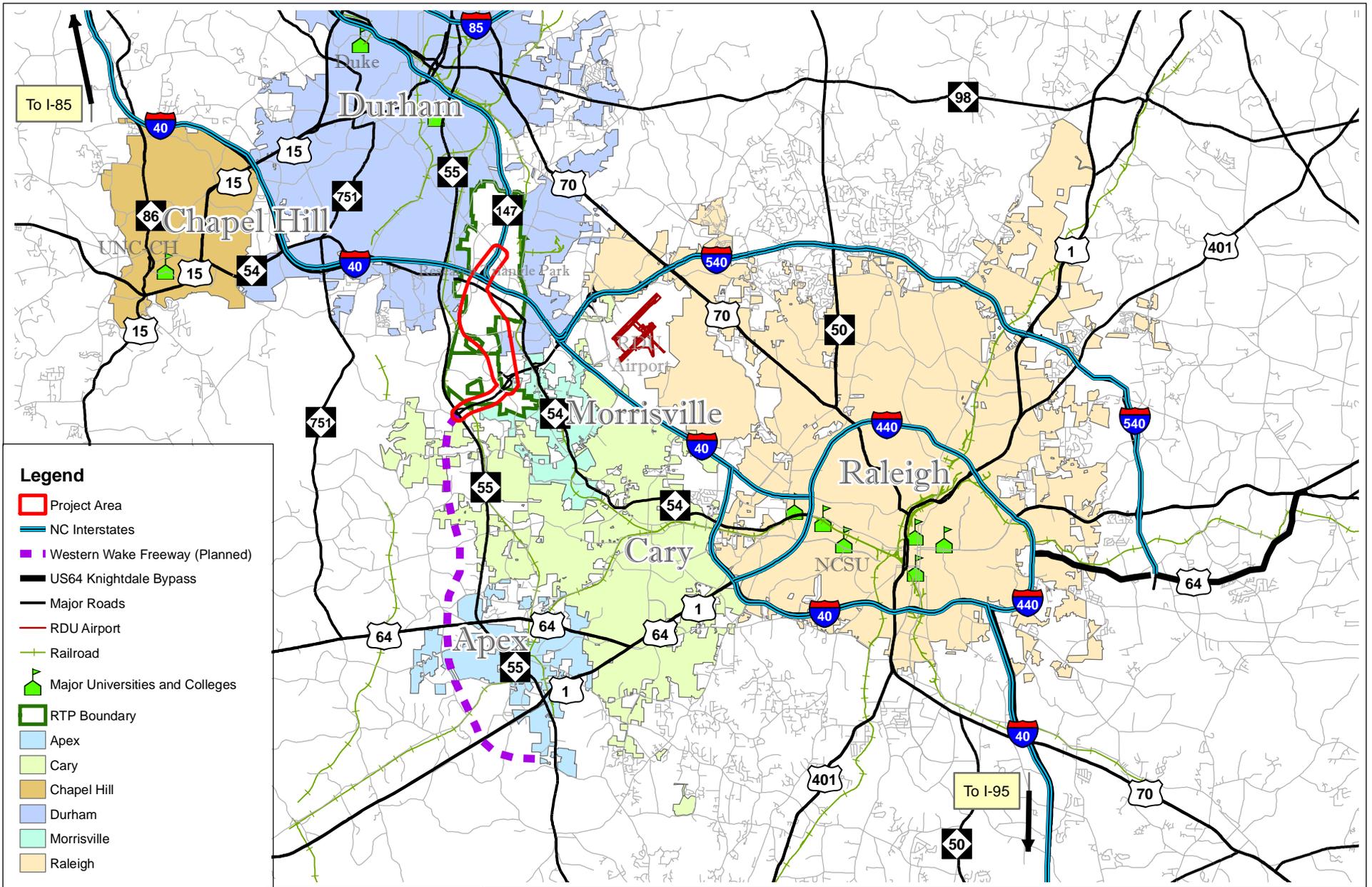
U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

1-1



Source: NCDOT GIS (March 2007)
 Map Date: September 2007



- Legend**
- Project Area
 - NC Interstates
 - Western Wake Freeway (Planned)
 - US64 Knightdale Bypass
 - Major Roads
 - ✈ RDU Airport
 - + Railroad
 - Major Universities and Colleges
 - RTP Boundary
 - Apex
 - Cary
 - Chapel Hill
 - Durham
 - Morrisville
 - Raleigh



Map Source:
NCTA Annual Report
to the Joint Legislative
Transportation Oversight
Committee, 12/12/06

Map Date: September 2007

0 1 2 4
Miles

Major Urban Centers
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

1-2

- Freeways**
- 55 mph or Greater
 - Minimum 4 Lanes with Median
 - Access Only Provided at Interchanges
 - All Cross Streets are Grade-Separated
 - No Traffic Signals
 - No Driveways

- Expressways**
- Speed Limit: 45 to 60 mph
 - Minimum 4 Lanes with Median
 - Access at Interchanges for Major Cross Streets, At-Grade Intersections for Minor Cross Streets, Median Breaks for U-turns
 - No Traffic Signals
 - Limited/No Driveway Access Encouraged

- Boulevards**
- Speed Limit: 30 mph to 55 mph
 - Minimum 2 Lanes with Median
 - At-Grade Access at Major and Minor Cross Streets
 - Traffic Signals Allowed
 - Limited Driveways Allowed but Access may be Restricted to Right-in/Right-out

- Thoroughfare**
- Speed Limit: 25 to 55 mph
 - Minimum 2 Lanes; No Median
 - Uncontrolled Access onto facility
 - Traffic Signals Allowed
 - Driveways with Full Movements
 - Continuous Left Turn Lanes optional



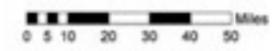
Vision Plan

Adopted by The North Carolina Board of Transportation
Plan Date: September 2, 2004



Legend

- Freeways**
- Existing
 - Needs Upgrade
 - Recommended
- Expressways**
- Existing
 - Needs Upgrade
 - Recommended
- Boulevards**
- Existing
 - Needs Upgrade
 - Recommended
- Thoroughfares**
- Existing
 - Needs Upgrade
 - Recommended
- US/Other Route
- ⊕ State Port
 - ✈ Major Airport
 - ⚓ Intermodal Connector
 - ⚓ Coast Guard Station
 - ⚓ Major Military Base
 - Urban Area
 - Water Features



Prepared By:
The North Carolina Department of Transportation
Transportation Planning Branch
Base Map Date: March 29, 2004

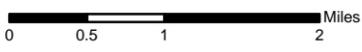
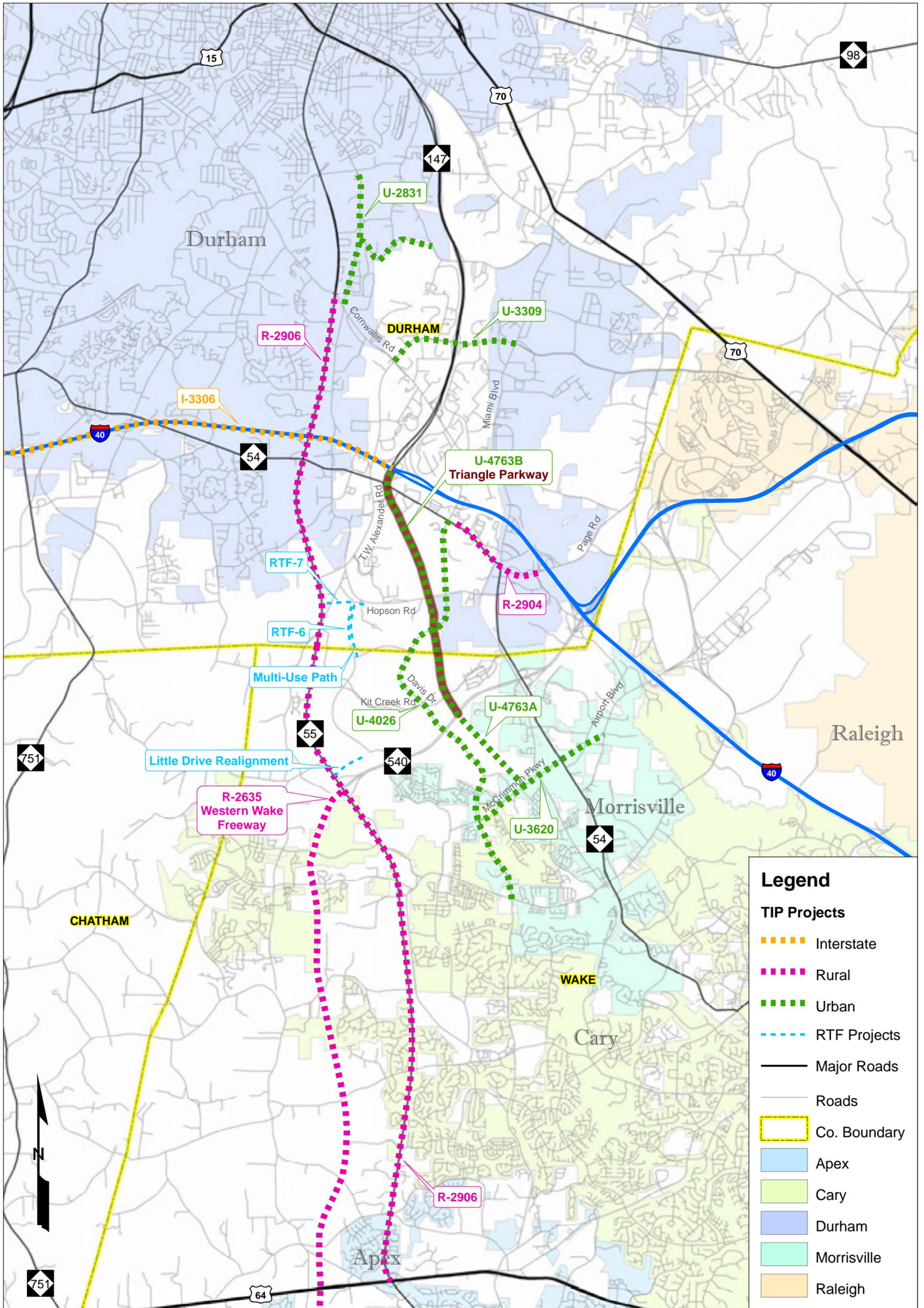


Prepared For:
 NORTH CAROLINA Turnpike Authority

Strategic Highway Corridors
U-4763B Triangle Parkway
New Location from Northern Wake Expressway to I-40
Durham and Wake Counties, North Carolina



Figure
1-3



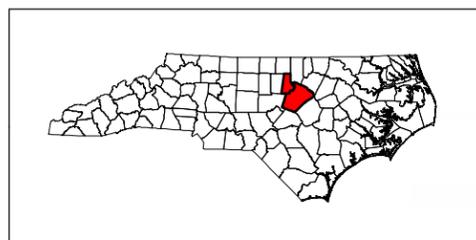
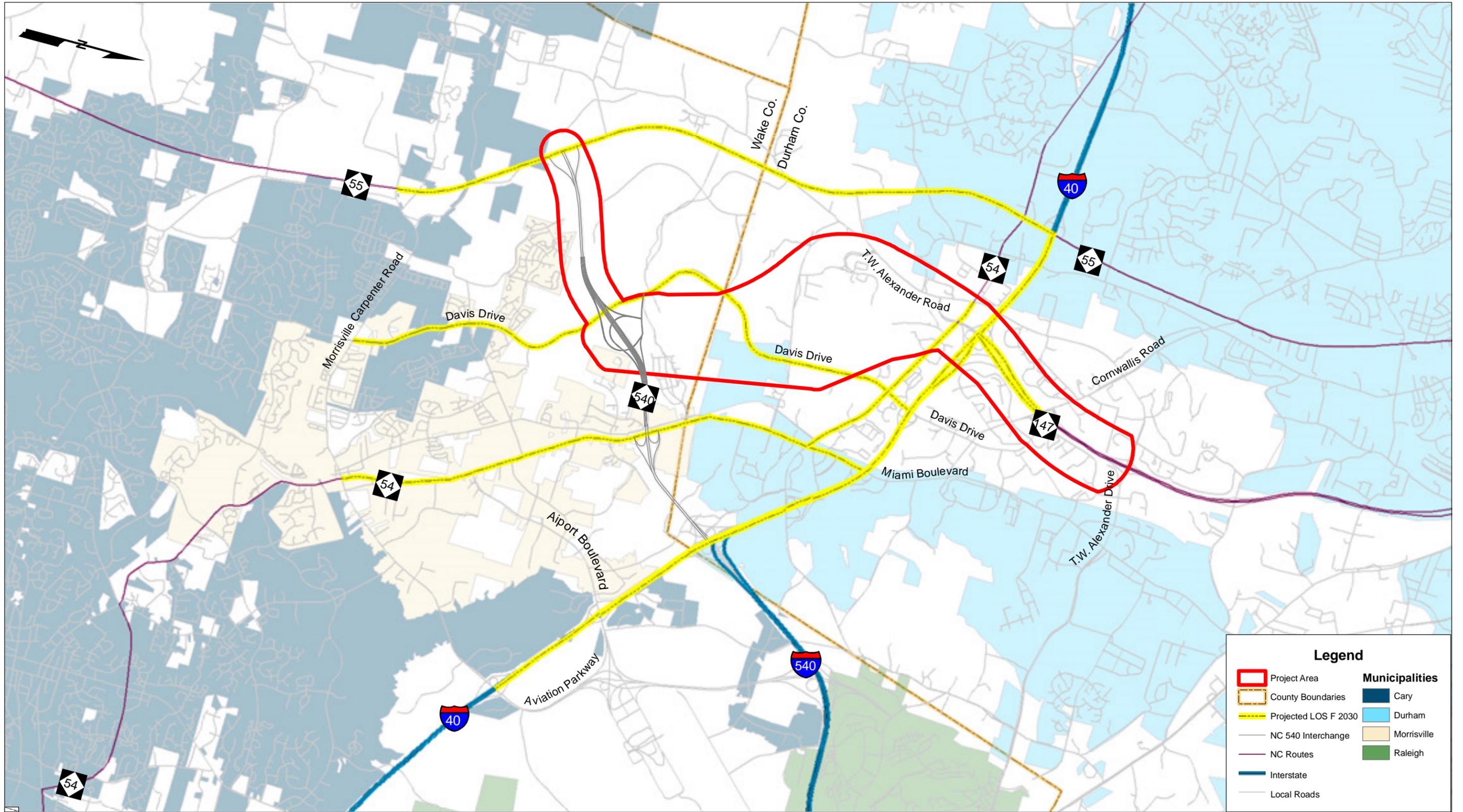
Other Transportation Projects

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Data From the North Carolina Department of Transportation
 2007-2013 State Transportation Improvement Program
 September 2007

Figure

1-4

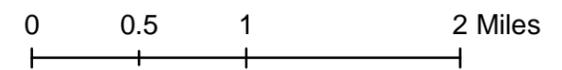


Prepared For:



LOCAL ROADWAY IMPACTS

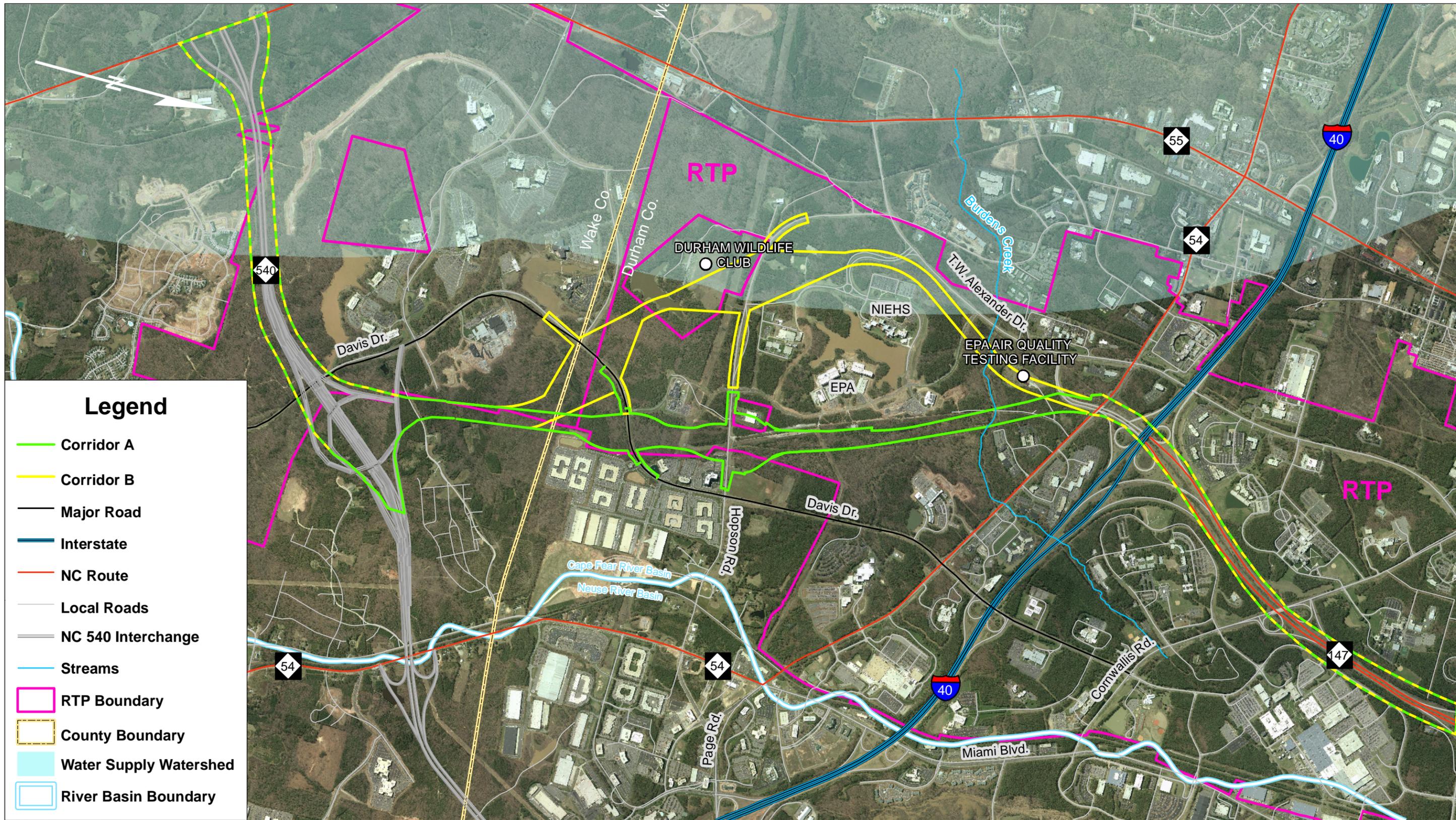
U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina



Source: NCDOT GIS and NC CGIA
 Map Date: September 2007

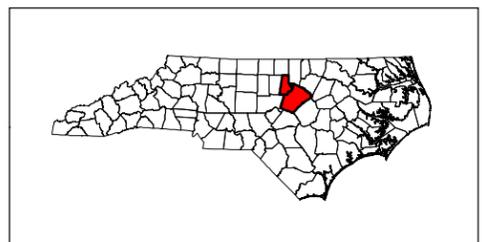
Figure

2-1



Legend

- Corridor A
- Corridor B
- Major Road
- Interstate
- NC Route
- Local Roads
- NC 540 Interchange
- Streams
- RTP Boundary
- County Boundary
- Water Supply Watershed
- River Basin Boundary



Prepared For:

**NORTH CAROLINA
Turnpike Authority**

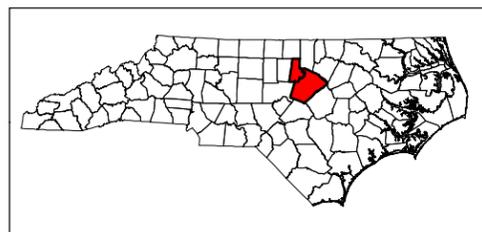
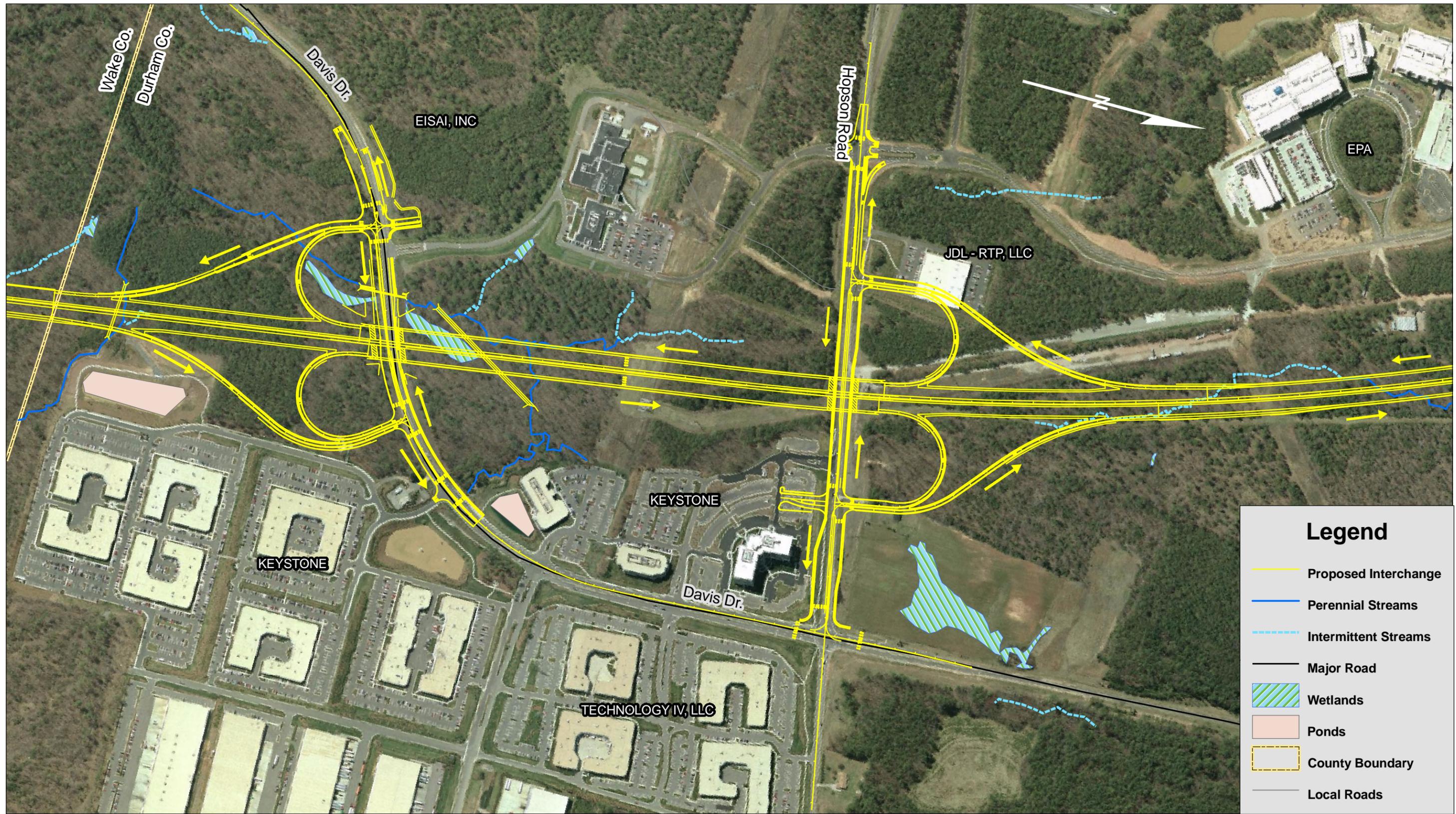
TRIANGLE PARKWAY CORRIDORS

U-4763B Triangle Parkway
New Location from NC 540 to I-40
Durham and Wake Counties, North Carolina

0 0.25 0.5 1 Mile

Map Date: September 2007

Figure
2-3



Prepared For:

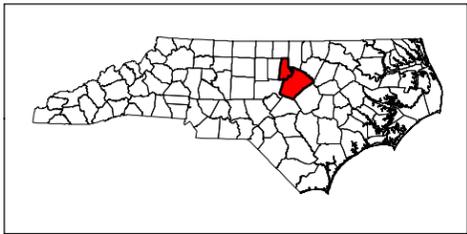
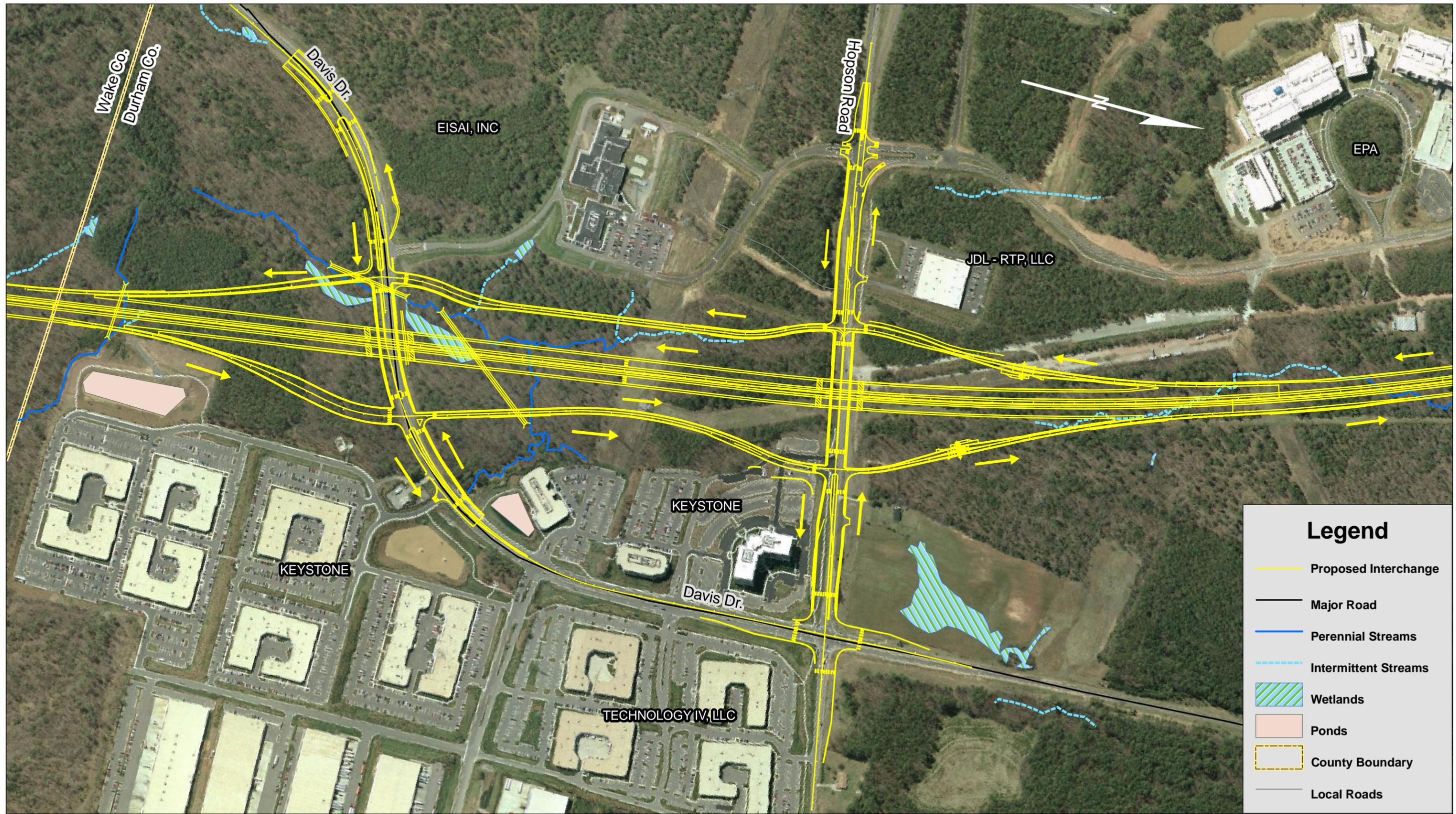
NORTH CAROLINA
Turnpike Authority

**Design Option 1 (Partial Cloverleaf): Hopson Rd.
and Davis Dr. Interchange**
U-4763B Triangle Parkway
New Location from NC 540 to I-40
Durham and Wake Counties, North Carolina

0 250 500 1,000 Feet

Source: NCDOT GIS, NC CGIA, USGS, and Mulkey Inc.
Map Date: September 2007

Figure
2-4



Prepared For:

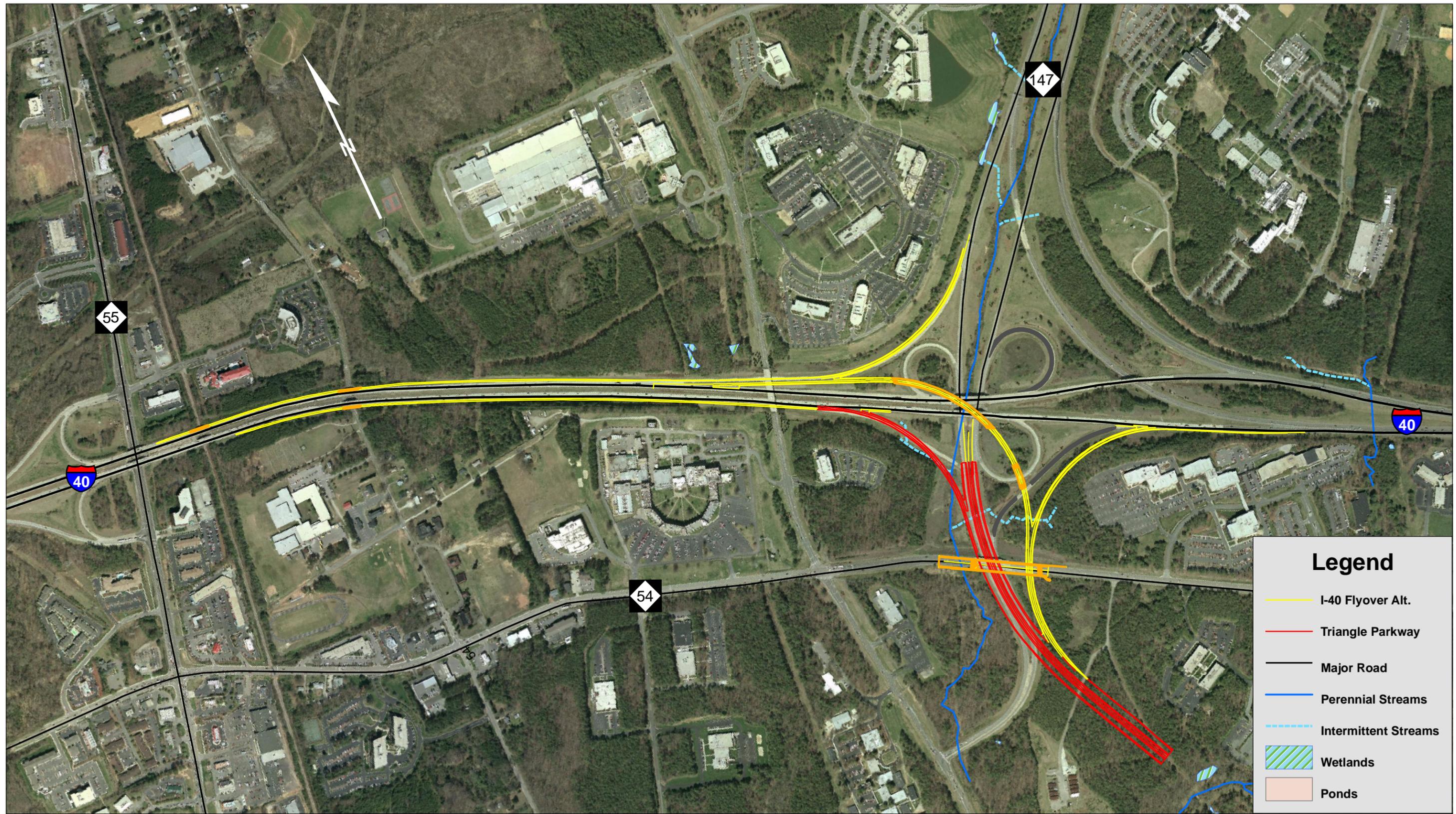
NORTH CAROLINA
Turnpike Authority

PREFERRED OPTION
Design Option 2 (Split Diamond): Hopson Rd. and Davis Dr. Interchange
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

0 250 500 1,000 Feet

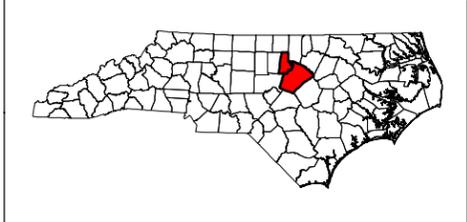
Source: NCDOT GIS, NC CGIA, USGS, and Mulkey Inc.
 Map Date: September 2007

Figure
2-5



Legend

-  I-40 Flyover Alt.
-  Triangle Parkway
-  Major Road
-  Perennial Streams
-  Intermittent Streams
-  Wetlands
-  Ponds



Prepared For:



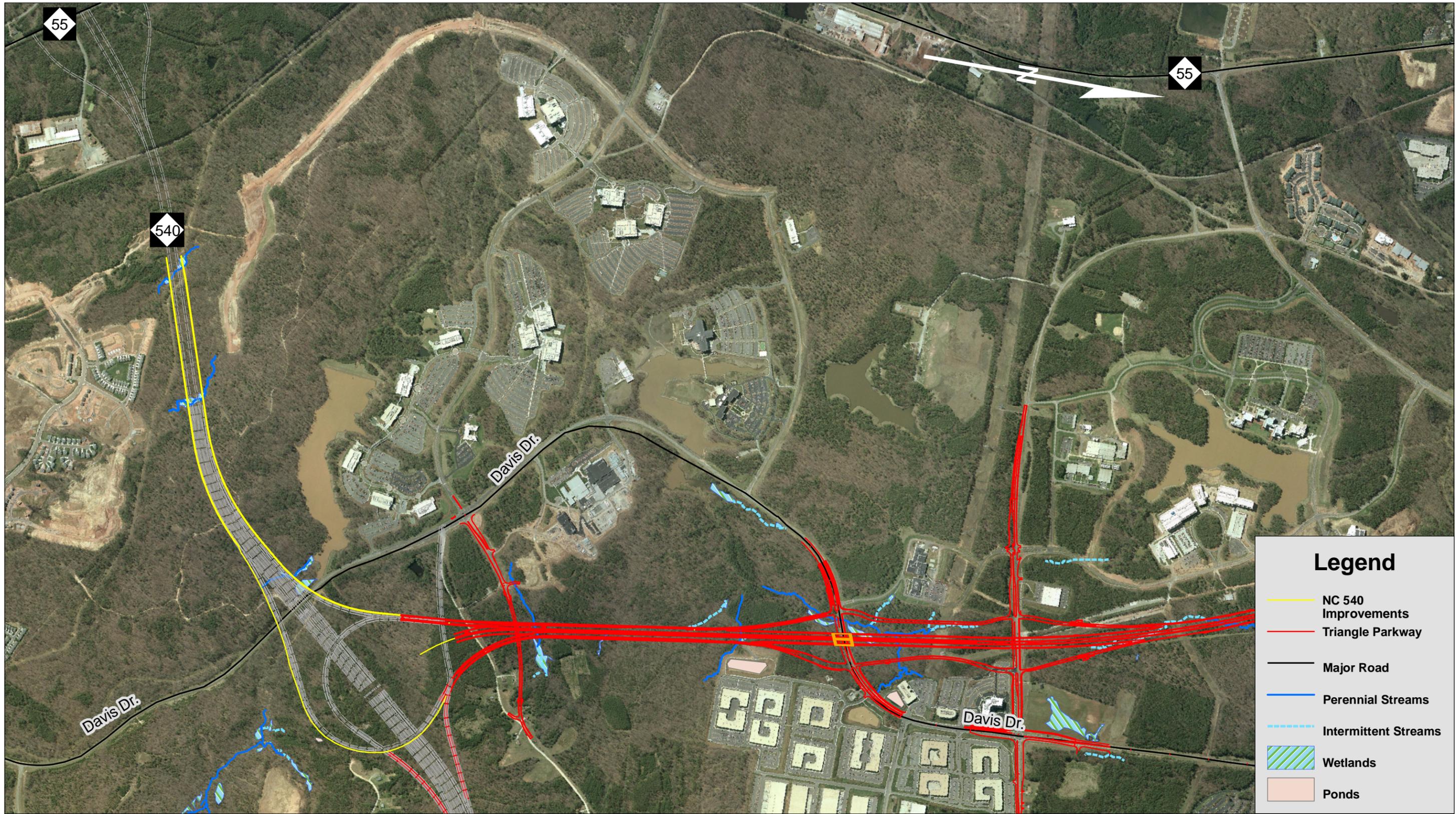
Potential Modifications at I-40 and NC 540
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

0 375 750 1,500 Feet



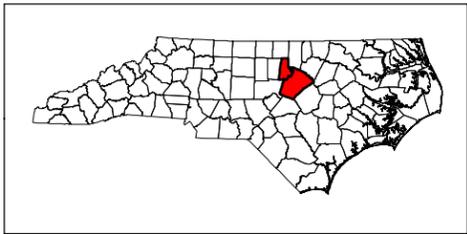
Source: NCDOT GIS, NC CGIA, USGS, and Mulkey Inc. Map Date: September 2007

Figure
2-6



Legend

- NC 540 Improvements
- Triangle Parkway
- Major Road
- Perennial Streams
- Intermittent Streams
- Wetlands
- Ponds



Prepared For:

NORTH CAROLINA
Turnpike Authority

NC 540 Widening Alternative
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

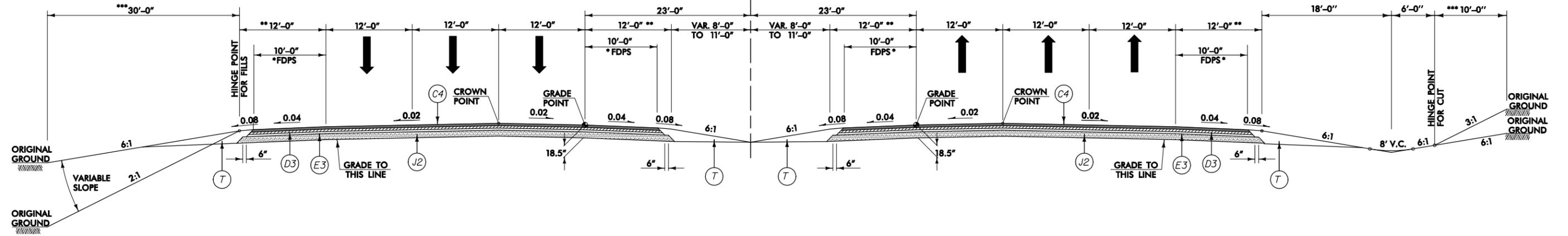
0 500 1,000 2,000 Feet

Source: NCDOT GIS, NC CGIA, USGS, and Mulkey Inc. Map Date: September 2007

Figure
2-7

-L- (Triangle Parkway)

℄ -L-



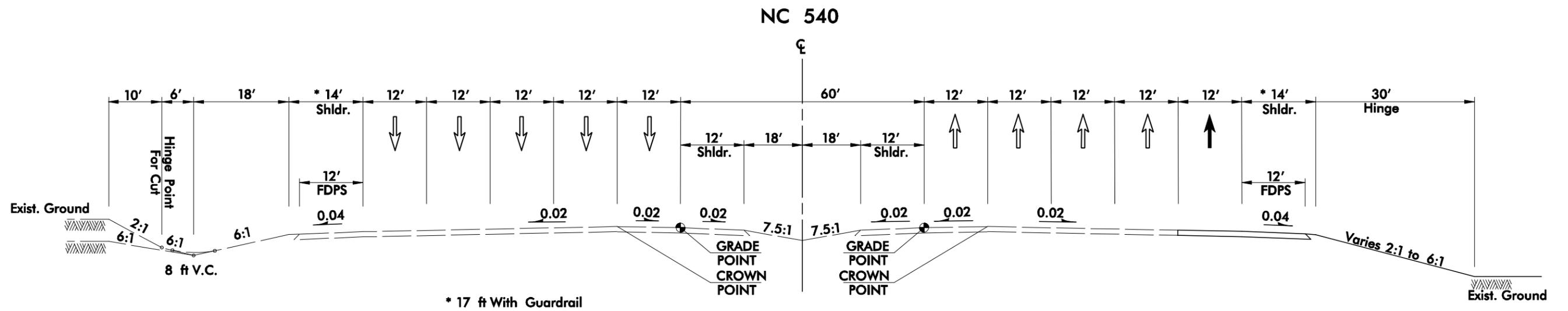
MAINLINE TYPICAL SECTION



Typical Section
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

3-1



TYPICAL SECTION



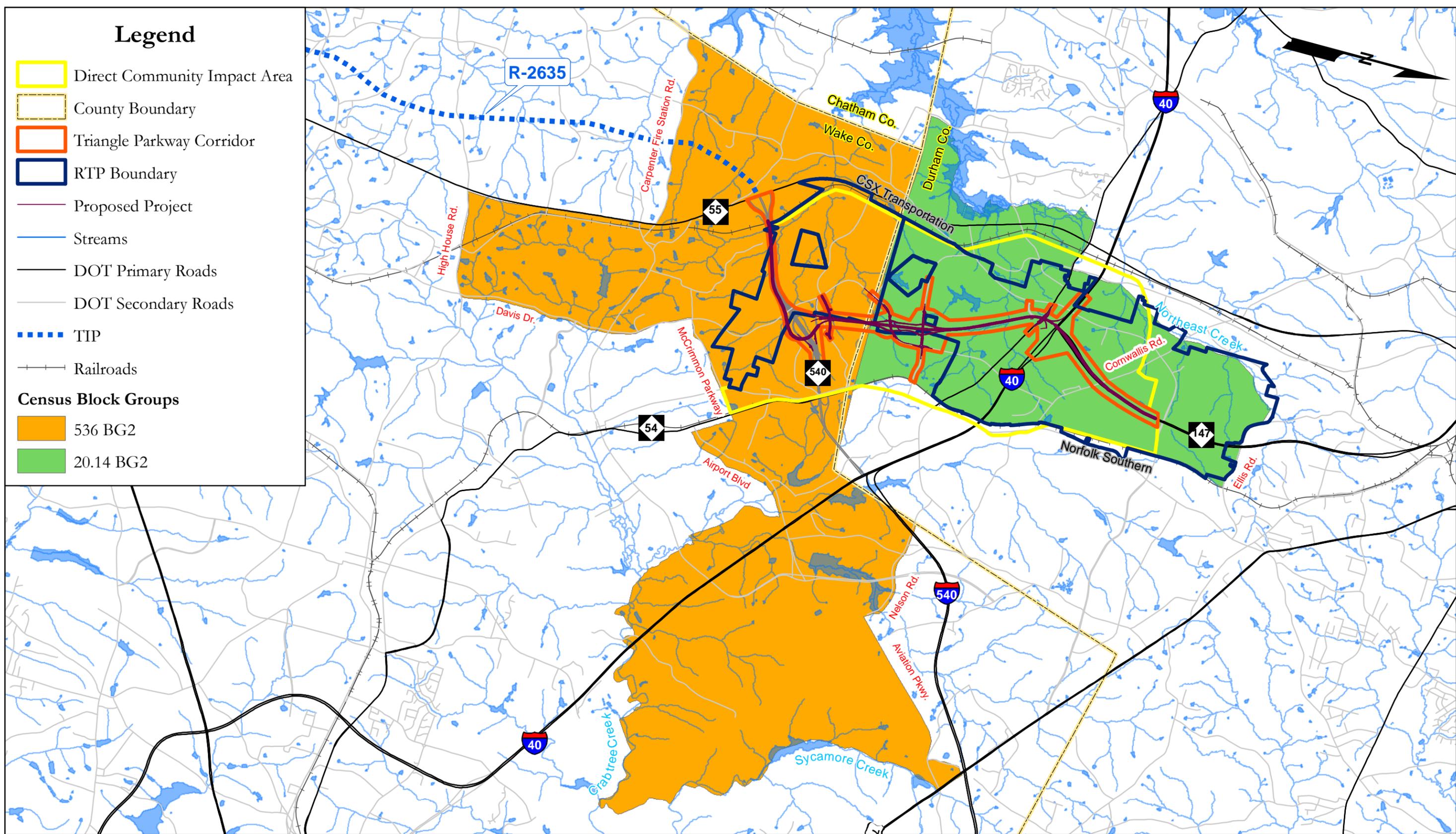
Typical Section
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

3-2

Legend

-  Direct Community Impact Area
 -  County Boundary
 -  Triangle Parkway Corridor
 -  RTP Boundary
 -  Proposed Project
 -  Streams
 -  DOT Primary Roads
 -  DOT Secondary Roads
 -  TIP
 -  Railroads
- Census Block Groups**
-  536 BG2
 -  20.14 BG2



Prepared For:



DCIA and Demographic Area

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham & Wake Counties, North Carolina



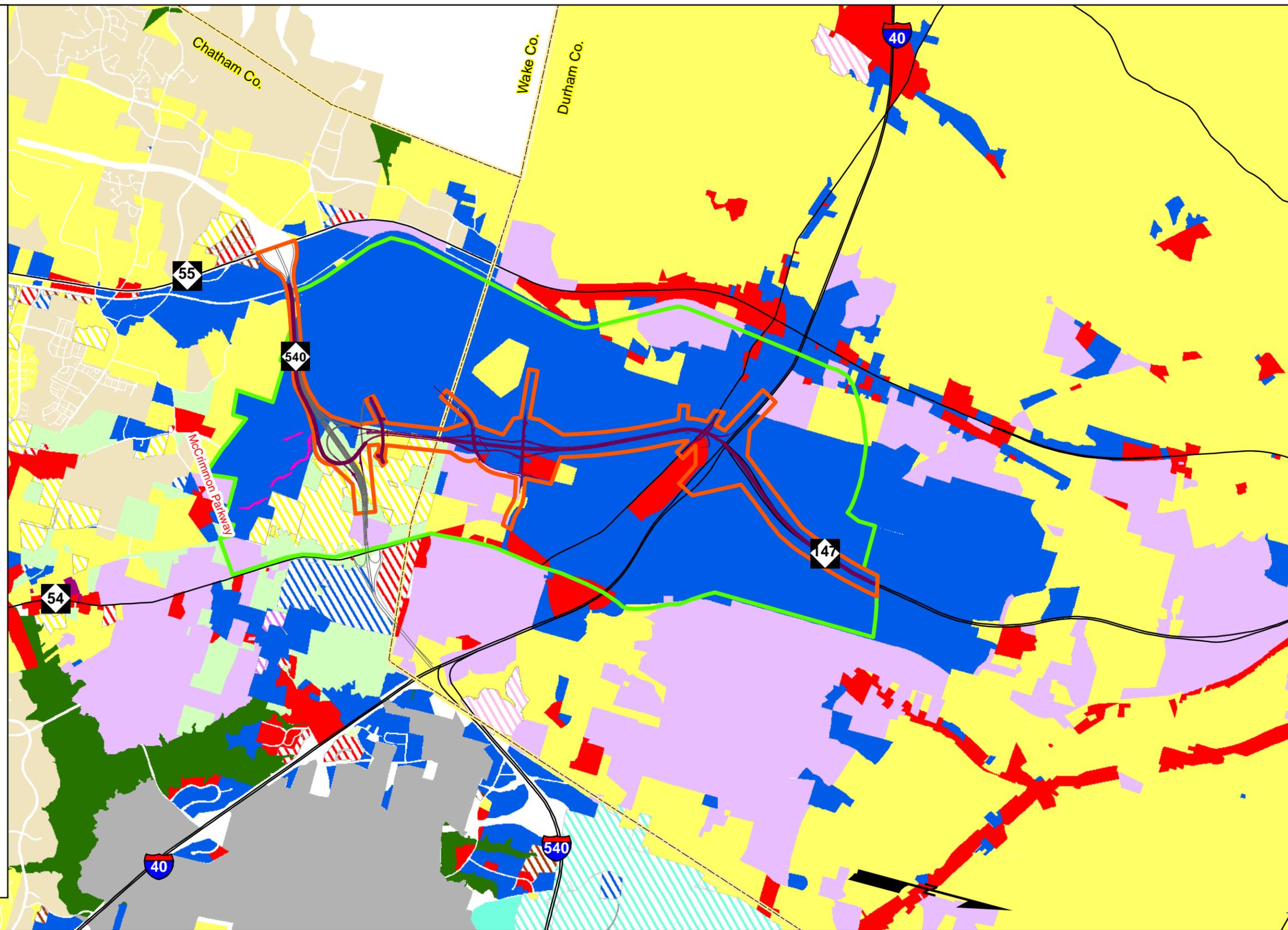
Data Source: NCDOT, Durham, and Wake Counties
 US Census 2000
 Map Date: October 2007

Figure No.

4-1

Legend

-  Proposed Project
-  Triangle Parkway Corridor
-  Direct Community Impact Area
-  County Boundary
-  RTP Conservation Easement
-  Agricultural
-  Airport
-  Commercial / Commercial Buffer
-  Conservation Buffer
-  Corridor
-  Industrial
-  Planned Developments
-  Not Zoned
-  Recreation
-  Research / Office and Institutional
-  Residential
-  Town Centers
-  Conditional Use - Airport
-  Conditional Use - Commercial / Commercial Buffer
-  Conditional Use - Conservation Buffer
-  Conditional Use - Corridor
-  Conditional Use - Industrial
-  Conditional Use - Mixed Use
-  Conditional Use - Research / Office and Institutional
-  Conditional Use - Residential



Prepared For:



Generalized Zoning

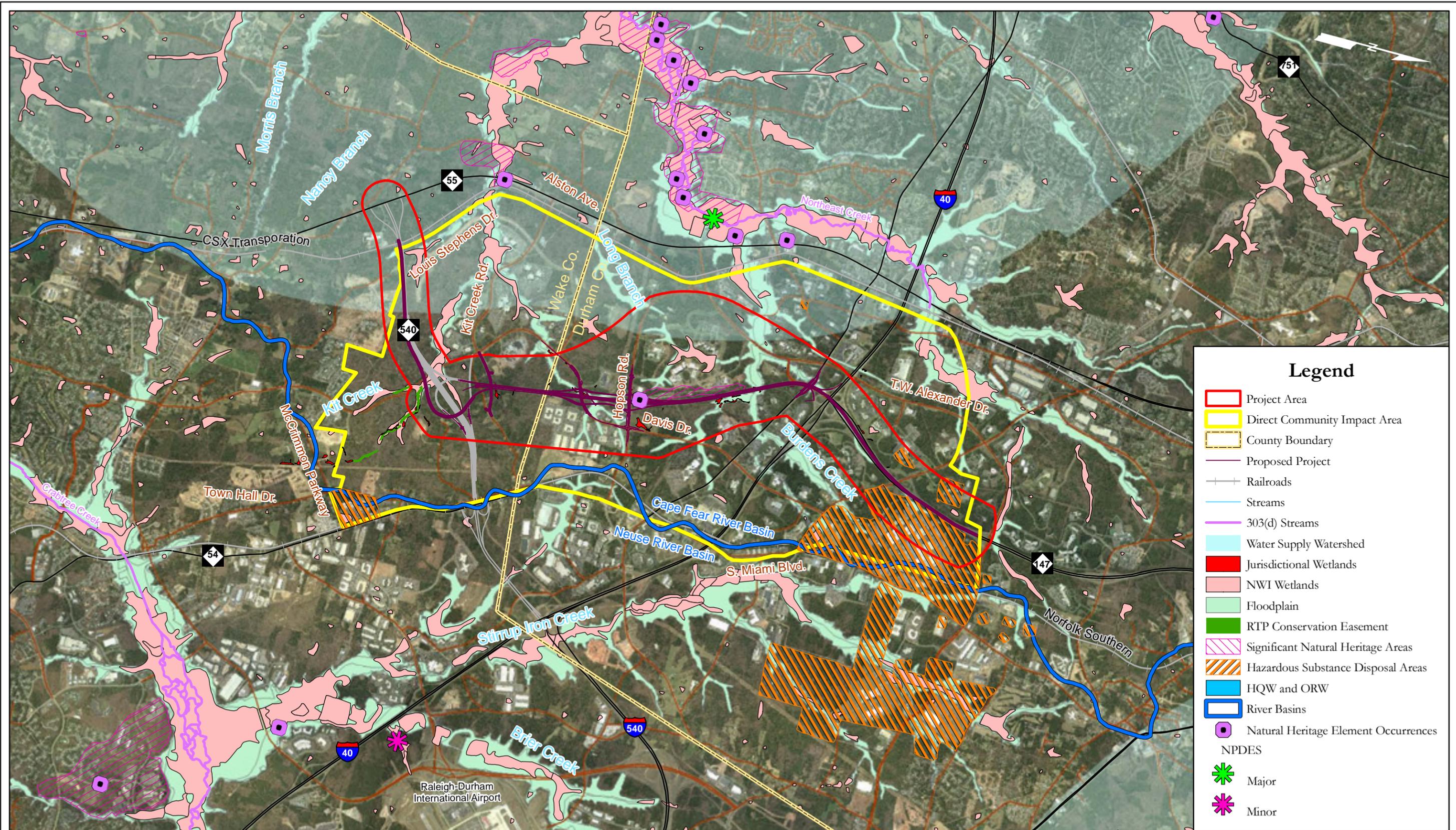
U-4763B Triangle Parkway
New Location from NC 540 to I-40
Durham & Wake Counties, North Carolina



Data Source: NCDOT, Durham County, Wake County, City of Cary, and Town of Morrisville Map Date: October 2007

Figure No.

4-2



Legend

- Project Area
- Direct Community Impact Area
- County Boundary
- Proposed Project
- Railroads
- Streams
- 303(d) Streams
- Water Supply Watershed
- Jurisdictional Wetlands
- NWI Wetlands
- Floodplain
- RTP Conservation Easement
- Hazardous Substance Disposal Areas
- HQW and ORW
- River Basins
- Natural Heritage Element Occurrences
- NPDES
- ✱ Major
- ✱ Minor



Prepared For:

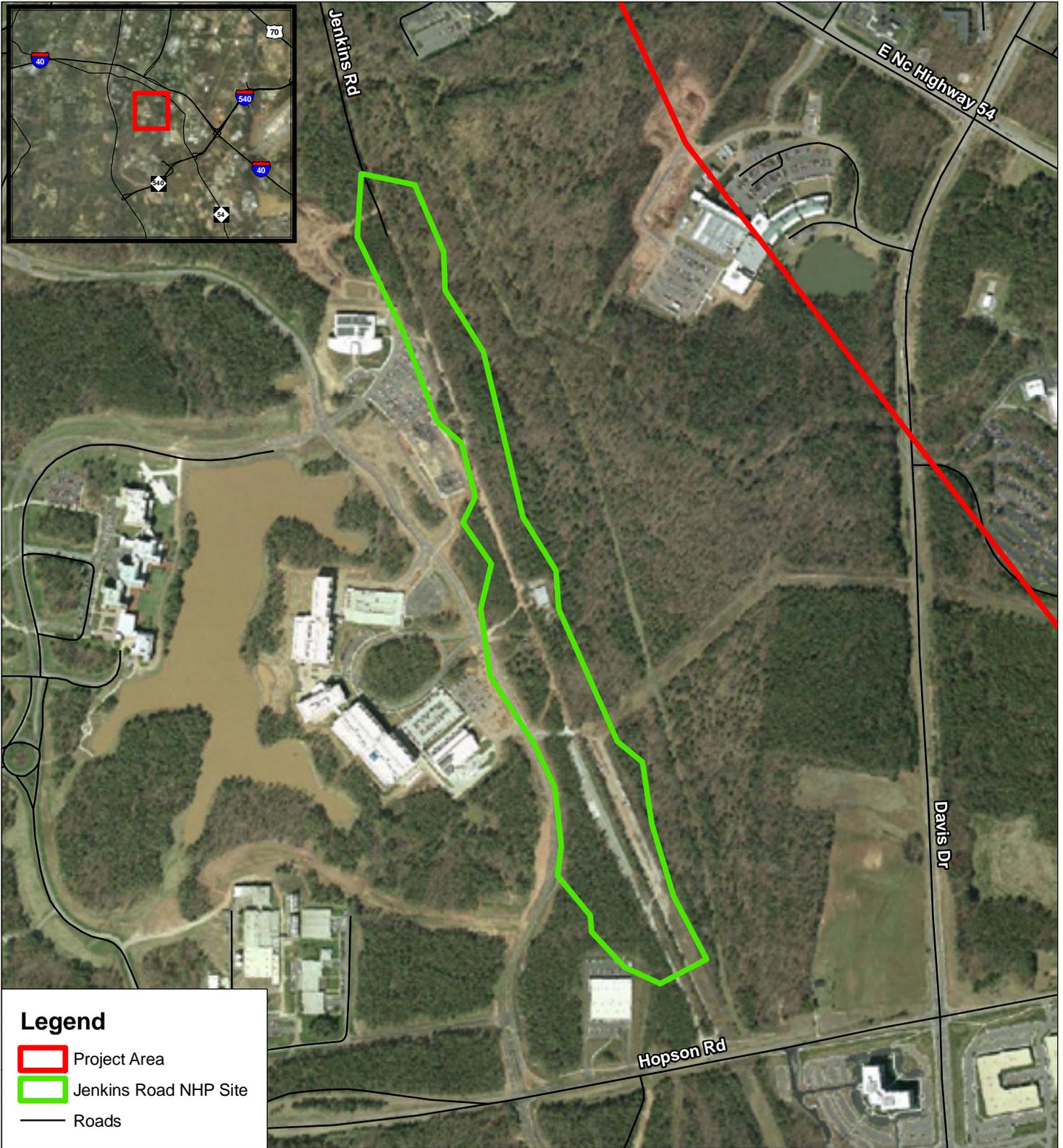
NORTH CAROLINA
Turnpike Authority

Water Resources and Hazardous Materials Sites
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham & Wake Counties, North Carolina

0 0.5 1 2
 Miles

Aerial Source: USGS Digital Orthographic Quadrangles
 Data Source: NHP, NCDOT, Durham, and Wake Counties Map Date: October 2007

Figure No.
4-3



Legend

- Project Area
- Jenkins Road NHP Site
- Roads

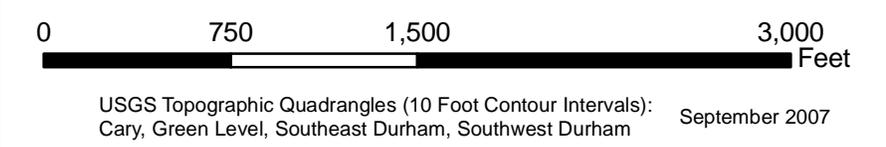
Prepared For:

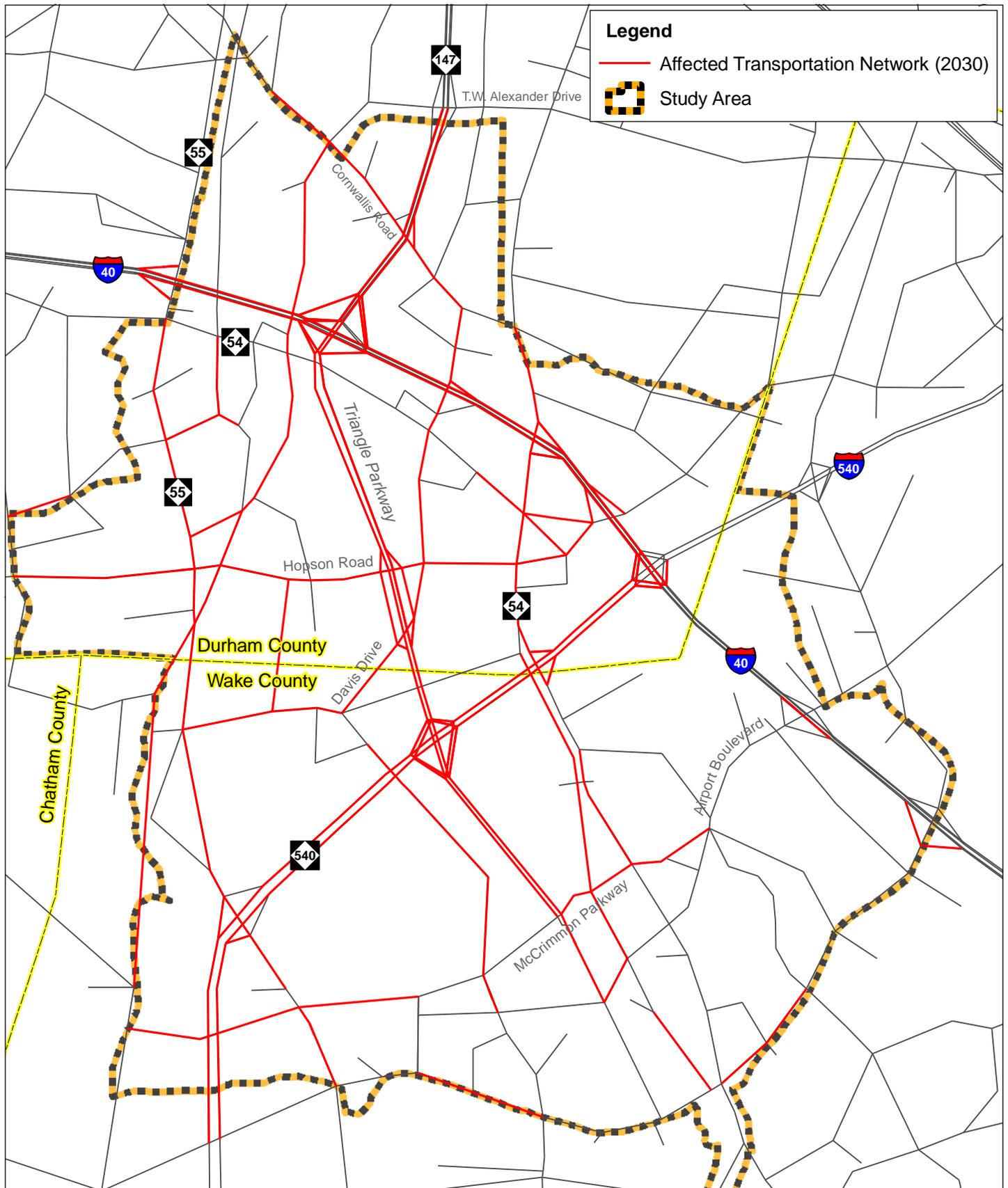


Natural Heritage Area
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

4-4





Legend

- Affected Transportation Network (2030)
- Study Area

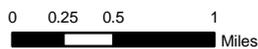


Mobile Source Air Toxics (MSATs) Study Area and Affected Transportation Network

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

Figure

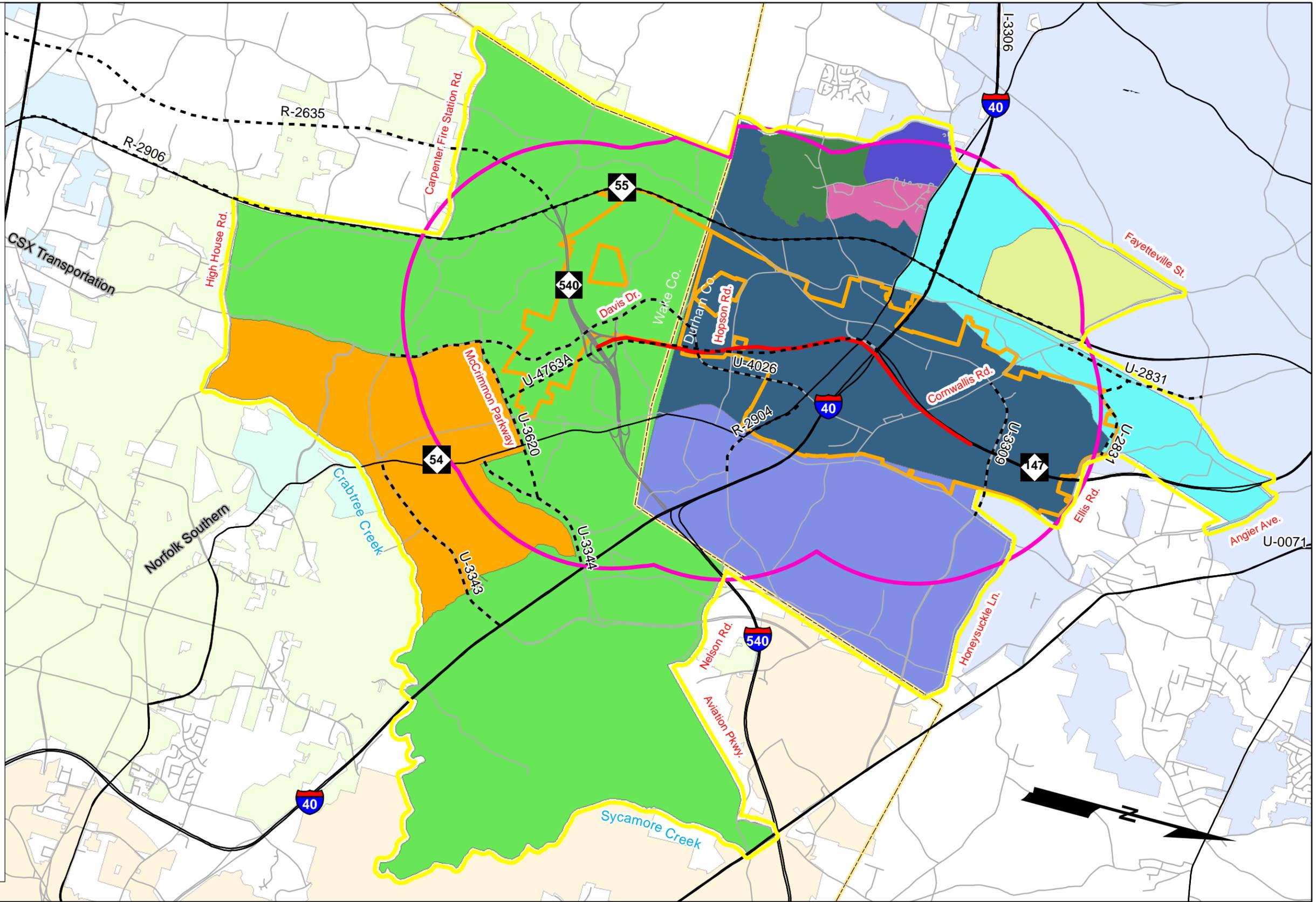
5-1



Source: MAB
 Map Date: January 2008

Legend

-  Extended Demographic Area
-  Future Land Use Study Area
-  County Boundary
-  RTP Boundary
-  Proposed Alignment
-  Streams
-  DOT Primary Roads
-  DOT Secondary Roads
-  I-540
-  TIP
-  Railroads
- Municipalities**
-  Apex
-  Cary
-  Durham
-  Morrisville
-  Raleigh
- Census Block Groups**
-  536 BG1
-  20.13 BG1
-  20.14 BG1
-  536 BG2
-  20.13 BG2
-  20.14 BG2
-  20.10 BG2
-  20.13 BG3
-  20.14 BG3



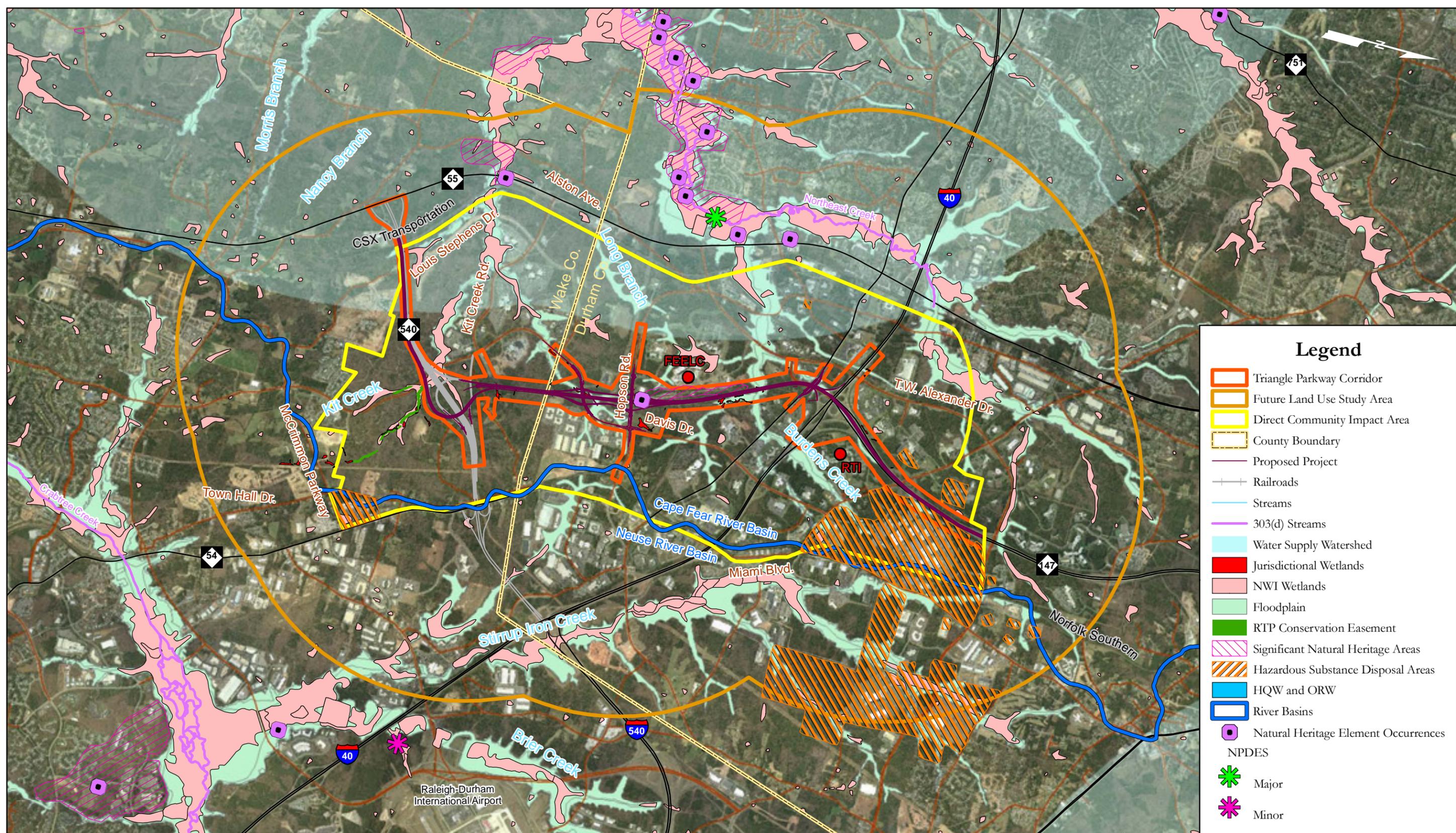
Prepared For:

NORTH CAROLINA Turnpike Authority

**Future Land Use Study Area
and Extended Demographic Area**
 U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham and Wake Counties, North Carolina

0 0.5 1 2 3 4 Miles
 Source: USGS Digital Orthographic Quadrangles
 Data Source: NCDOT, Durham, and Wake Counties
 Map Date: September 2007

**Figure
6-1**



Legend

- Triangle Parkway Corridor
- Future Land Use Study Area
- Direct Community Impact Area
- County Boundary
- Proposed Project
- Railroads
- Streams
- 303(d) Streams
- Water Supply Watershed
- Jurisdictional Wetlands
- NWI Wetlands
- Floodplain
- RTP Conservation Easement
- Significant Natural Heritage Areas
- Hazardous Substance Disposal Areas
- HQW and ORW
- River Basins
- Natural Heritage Element Occurrences
- NPDES**
- Major
- Minor



Prepared For:
 NORTH CAROLINA Turnpike Authority

Notable Features

U-4763B Triangle Parkway
 New Location from NC 540 to I-40
 Durham & Wake Counties, North Carolina

0 0.5 1 2 Miles

Aerial Source: USGS Digital Orthographic Quadrangles
 Data Source: NHP, NCDOT, Durham, and Wake Counties
 Map Date: September 2007

Figure No.
 6-2