

## Project Development and Environmental Analysis Branch Scoping Information Sheets

<u>TIP No.:</u>	U-2719	<u>Sent Date:</u>	7/20/12
<u>WBS No.:</u>	35869.1.2	<u>Revision Date:</u>	
<u>Federal Aid No:</u>	IMSNHS-0440(10)	<u>Meeting Date:</u>	August 22, 2012
<u>Division:</u>	5		
<u>County:</u>	Wake		

Project Description: I-440 US 1, South of SR 1313 (Walnut Street) to north of SR 1728 (Wade Avenue) in Raleigh. Widen to multi-lanes. (see **Figure 1**).

General Project Need: Draft Project Need – The I-440 beltline is a critical link in the Triangle’s roadway network. The project segment forms a “bottleneck” on I-440, with six through lanes on I-440 to the north and south, the four through lanes in the project segment regularly experience congestion. The roadway and interchanges have substandard design elements, such as poor sight lines, narrow shoulders, and short acceleration/deceleration lanes. In addition, the pavement, structures, and interchanges along the project segment are in need of rehabilitation.

Metropolitan/Rural Planning Organization: Capital Area MPO

NEPA/404 Merger Candidate?:     Yes     No     To Be Determined

Feasibility Study Completed?:     Yes     No    Date of Study: June 1994

<u>Project Schedule:</u>	<u>Type of Document:</u>	<u>Dates:</u>
Environmental Document(s):	EA - Preferred Alt.	April 2014
	FONSI	April 2015
Right of Way Authorization Date:	Production TIP	2016
Let Date:	Production TIP	2018



Typical Section in Compliance with  
Conformity Determination?

Note: Approved May 20, 2009

Yes  No

Traffic (AADT):

	Year	Range of Traffic		
Current Year:	2011	79,000 to 134,200 <b>(Figure 4)</b>	% TTST:	3 to 5
Design Year:	2035 (No Build)	93,400 to 157,800	% Dual:	3 to 4
Design Year:	2035 (Build)	112,000 to 173,600	% DHV:	10

Source: NCDOT, *Traffic Survey Maps*, 2009  
NCDOT TPB, *Project Level Traffic Forecast Report*,  
NCDOT TPB, July 2011

Design Standards Applicable:  AASHTO  3R

Railroad Involvement:

One crossing of I-440 over railroad near Hillsborough St, which includes two main track lines and a siding. CSX Transportation and Norfolk Southern operate on this line.

Utility Involvement:

Yes, details TBD. Power lines adjacent to, and cross corridor.

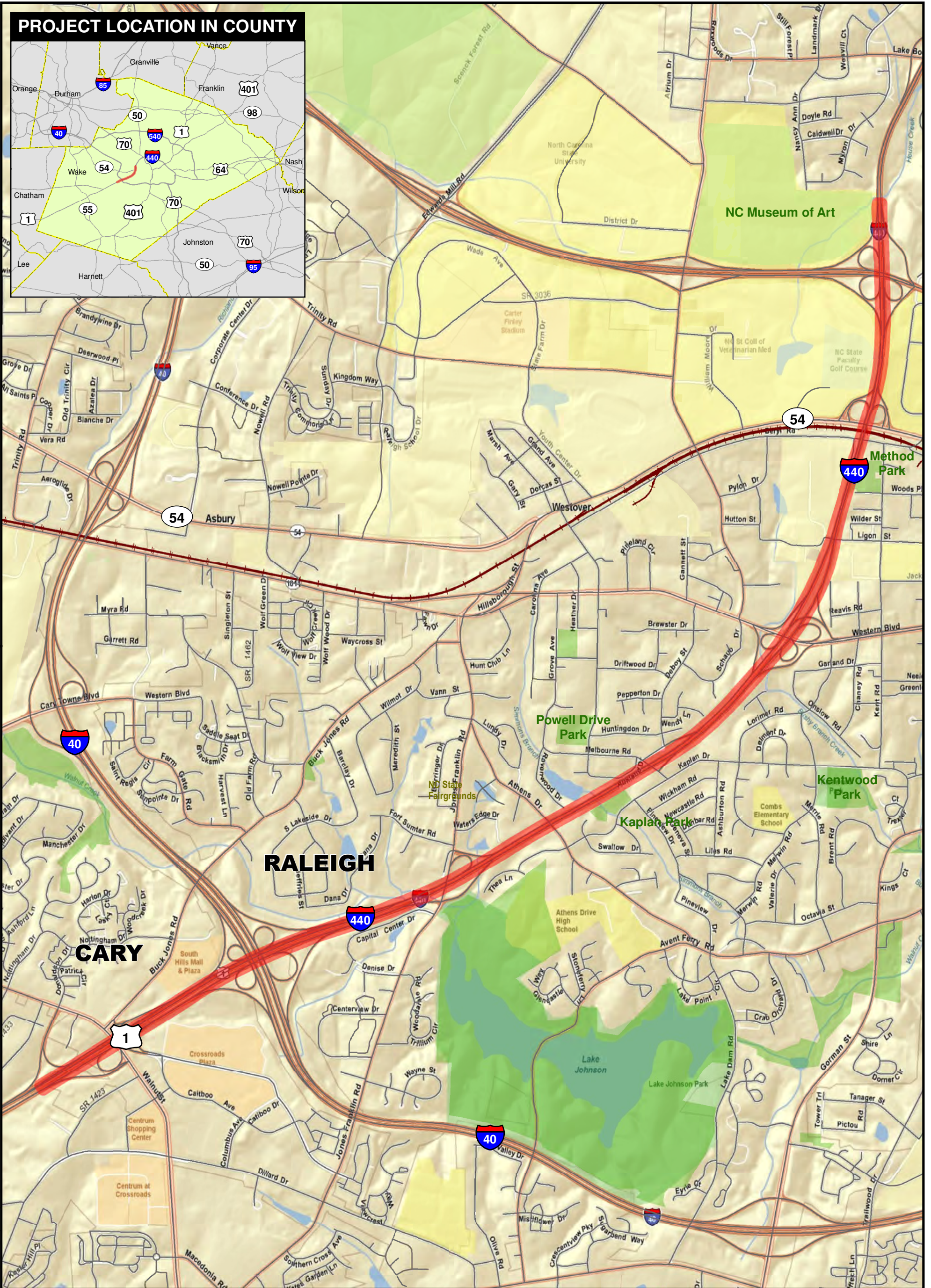
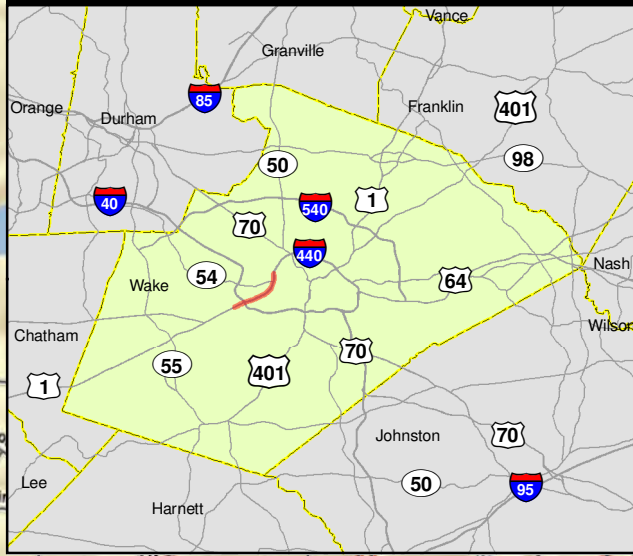
**Preliminary Project Study Area Resources Inventory Table  
(Use with Figures 2a-b and 3)**

<b>Resource/Affected Environment &amp; Measure</b>	<b>Applicability/ Resources in Study Area</b>
<b>General Project Information</b>	
Length of project (approximate in miles)	Approximately 5 Miles
Crossing or Intersecting (#) <i>Interchanges include:</i> Walnut St, I-40, Jones Franklin Rd, Melbourne Rd (1/2 interchange), Western Blvd, Hillsborough St, Wade Ave <i>Other Grade-Separated Road Crossings include:</i> Athens Drive, Ligon St, Beryl Rd	Interchanges - 7 Intersections - 0 Other Road Crossings – 3: 2 – Over, 1 - Under Pedestrian Bridge Crossing - 1 RR Crossings - 1
<b>Cultural Resources</b>	
NRHP (and eligible sites, districts, other properties) (#)	0 – National Register Site 1 – National Register District – Method Historic District
<b>Human Environment</b>	
Community Resources (#) Adjacent to the corridor	Meredith College, North Carolina State University, North Carolina Museum of Art Cemeteries – 1 (Oak Grove Cem) Churches – Western Blvd Presbyterian
Public Parks/Section 4(f) Properties (#)	3 – Lake Johnson, Kaplan Drive Park, Method Park
Greenways, Game Lands, Land and Water Conservation Fund Properties, etc. (#)	1 – Greenway - Reedy Creek Trail 1 – Lake Johnson Park – LWCF Property
Residential Properties (# potentially affected)	TBD. Residences are located adjacent to existing roadway.
Business Properties (# potentially affected)	TBD. Businesses are located adjacent to existing roadway.
High % Special Populations (Low-income, Minority)	Yes, review of 2010 Census Block Groups identified presence of minority, Hispanic , and Low-Income populations near the project corridor
<b>Natural Environment</b>	
Streams (# of stream crossings) *303(d) Stream	3 - named stream crossings, Simmons Branch, Brushy Creek and Walnut Creek Additional unnamed streams are present . Walnut Creek is on the 2010 303d list and is impaired for fish consumption due to PCB
Wetlands (est. acres)	Surveys will be conducted.
Critical Water Supply Watersheds	Swift Creek (Lake Benson) WS-III, NSW Protected Watershed (Project not in Critical Area)
Riparian Buffer Rules apply	YES – Project within Neuse River Basin riparian buffer protection program Rule 15A NCAC 02B .0242.

<b>Resource/Affected Environment &amp; Measure</b>	<b>Applicability/ Resources in Study Area</b>
Identified Critical Habitat/ESA Spp. (# known)	0 known TBD
Physical Environment	
Hazardous Materials (# suspected/known sites)	TBD
Utilities	Yes. Location and type TBD. Power line easements are located adjacent to ROW
Active agriculture (Voluntary Agricultural District)	NO – VADs or EVADs in study area,
Noise	Impacts TBD. Noise sensitive receptors in study area (residences, churches, etc.).
FEMA Buyout Properties	TBD

NOTES: This table is intended to be used in conjunction with the Environmental Features Map (**Figure 2**) and the USGS Map (**Figure 3**).

**PROJECT LOCATION IN COUNTY**



U:2719\_Sep2012\_ProjectStudyArea\_11x17.mxd\_AKB\_06.27.2012

**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



**LEGEND**

- █ U-2719 Project Study Area
- + Railroad
- █ Conservation Open Space

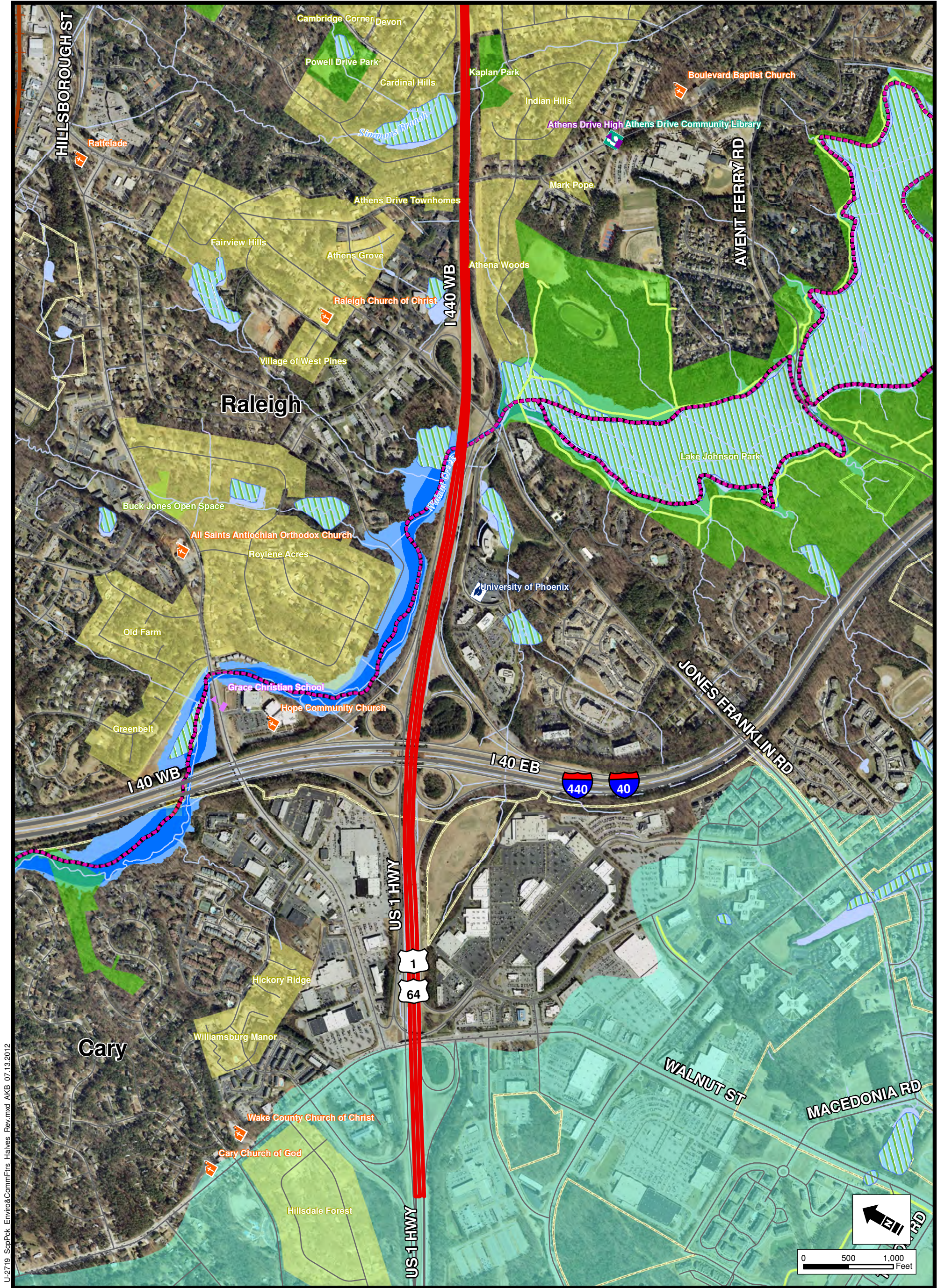


0 1,000 2,000 Feet

**PROJECT STUDY AREA**

Source: ESRI ArcGIS Online Server (services.arcgisonline.com), Wake County, NCDOT, NOneMap, NCSHPO.

**FIGURE 1**



U-2719\_ScpPck\_Enviro&CommFirs\_Halves\_Rev.mxd AKB 07.13.2012

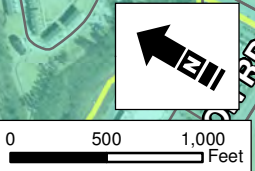
**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



**LEGEND**

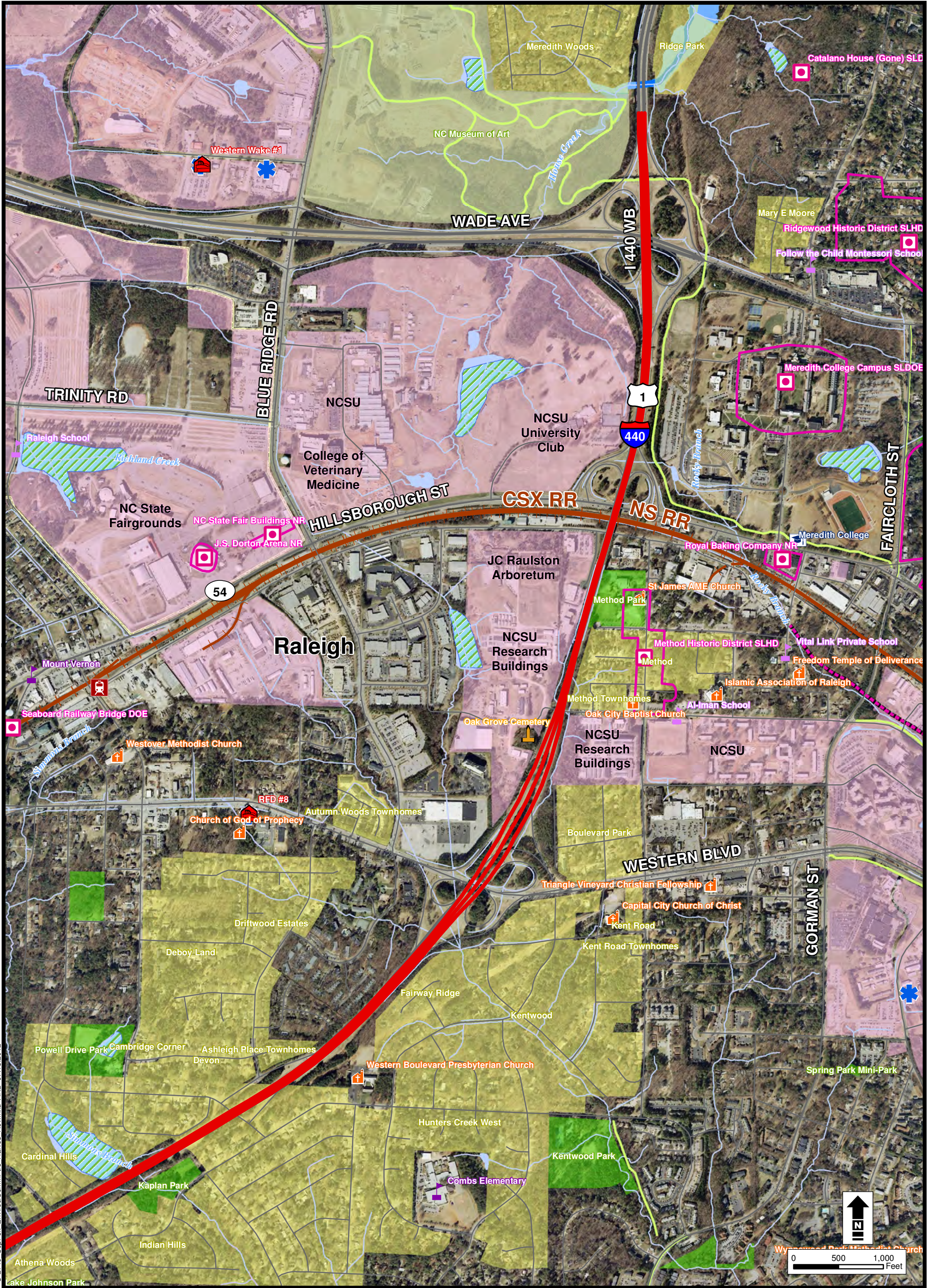
- |                         |                    |                                       |                                   |
|-------------------------|--------------------|---------------------------------------|-----------------------------------|
| U-2719 Project Area     | EMS Stations       | National Register Historic            | Conservation Open Space           |
| Cemeteries              | Public Schools     | State Owned Land                      | 303(d) Streams                    |
| Colleges & Universities | Non-Public Schools | Named Neighborhoods Adjacent to I-440 | Rivers & Streams                  |
| Church                  | Libraries          | Municipalities                        | NWI Wetlands                      |
| Fire Station            | Train Station      | Railroads                             | Lakes                             |
|                         |                    | Greenways                             | Floodway                          |
|                         |                    |                                       | 100 Year Floodzone                |
|                         |                    |                                       | Protected Watershed (Swift Creek) |



**ENVIRONMENTAL AND COMMUNITY FEATURES**

**FIGURE 2a**

Sources: ESRI, Wake County, NCDOT, NCOneMap, NCSHPO



U-2719\_ScpPck\_Enviro&CommFirs\_Halves\_Rev.mxd AKB 07.13.2012

**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



- LEGEND**
- U-2719 Project Area
  - Cemeteries
  - Colleges & Universities
  - Church
  - Fire Station
  - EMS Stations
  - Public Schools
  - Non-Public Schools
  - Libraries
  - Train Station

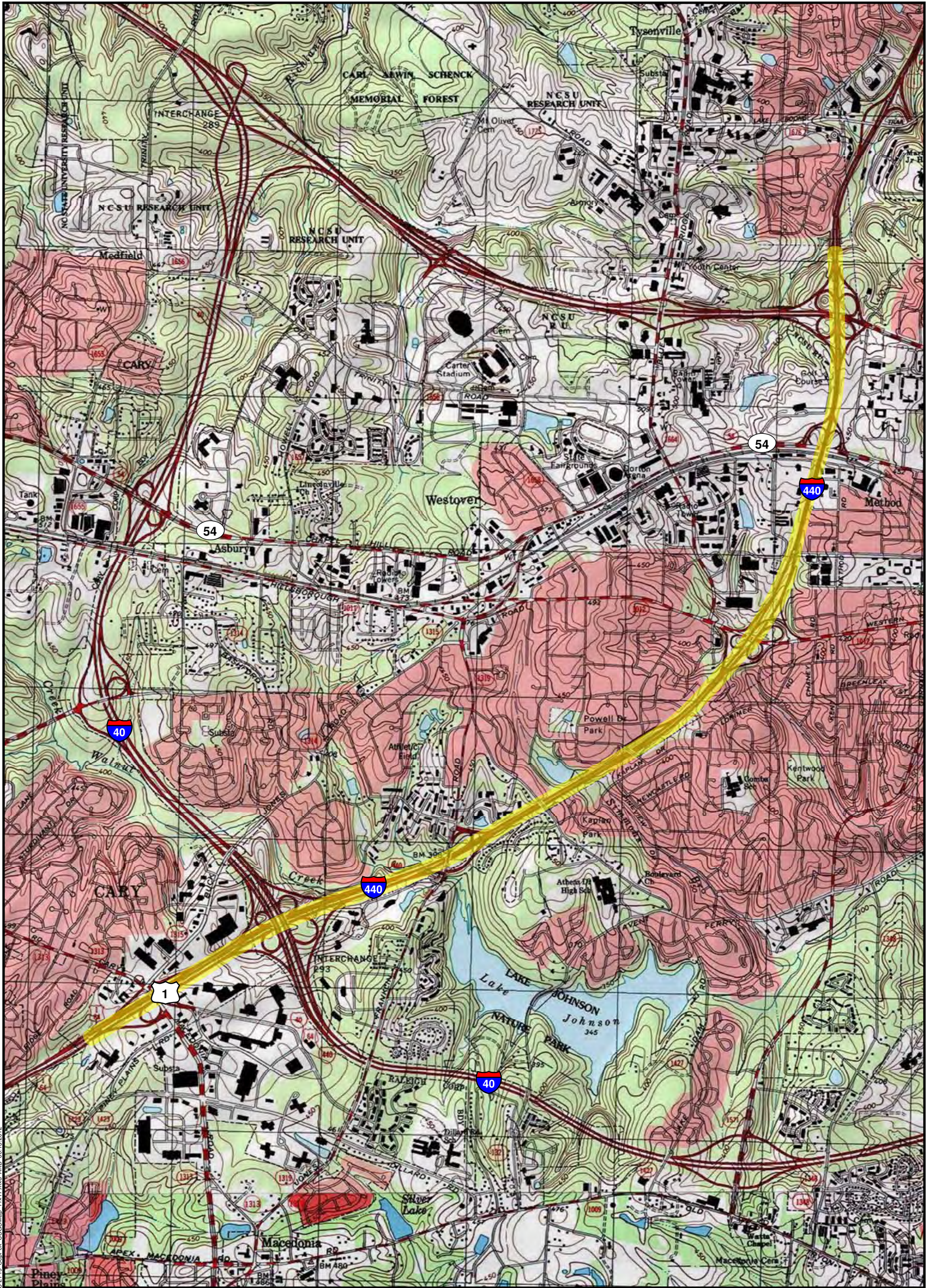
- National Register Historic
- State Owned Land
- Named Neighborhoods Adjacent to I-440
- Municipalities
- Railroads
- Greenways
- Conservation Open Space
- 303(d) Streams
- Rivers & Streams
- NWI Wetlands
- Lakes
- Floodway
- 100 Year Floodzone
- Protected Watershed (Swift Creek)

**ENVIRONMENTAL AND COMMUNITY FEATURES**

**FIGURE 2b**

Sources: ESRI, Wake County, NCDOT, NCOneMap, NCSHPO





U-2719\_SepPeck\_USGSMap\_11x17.mxd\_AKB\_06.13.2012

**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



LEGEND

U-2719 Project Study Area

Raleigh West 7.5 Minute Quadrangle  
and Cary 7.5 Minute Quadrangle

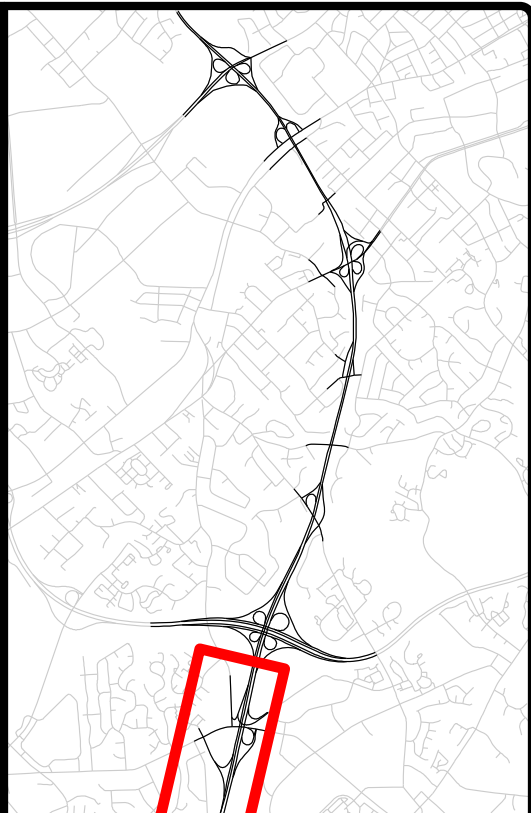
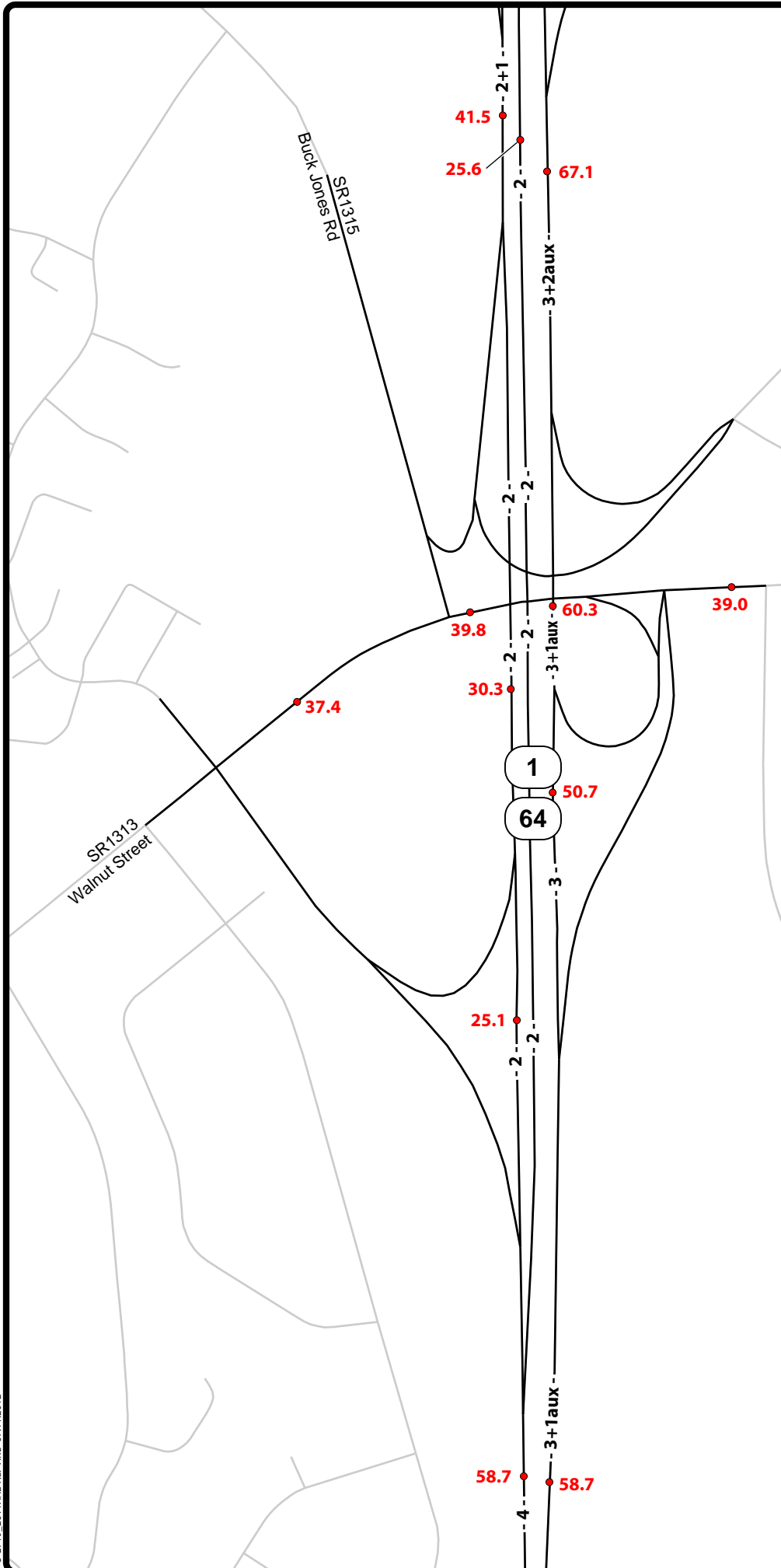


0 1,000 2,000  
Feet

**USGS MAP**

Source: ESRI ArcGIS Online Server (services.arcgis.com),  
Wake County, NCDOT.

**FIGURE 3**



**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



**LEGEND**

- # - # of Lanes
- ### 2011 AADT

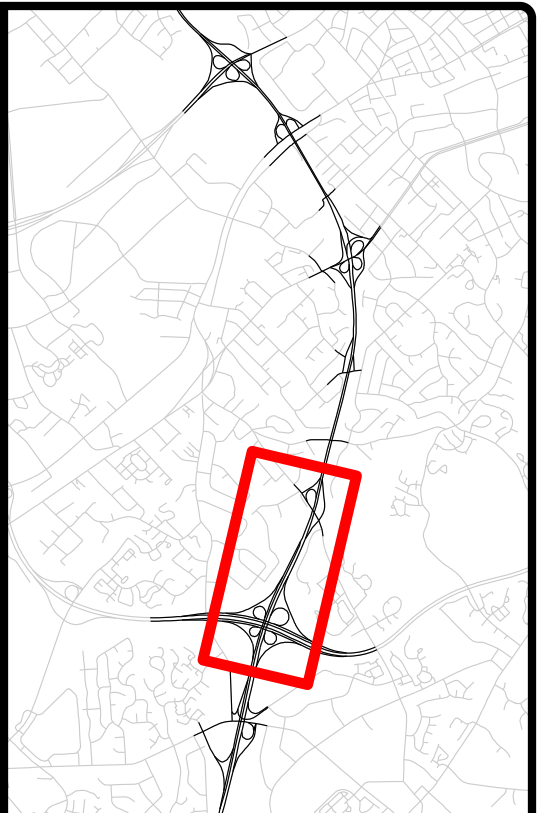
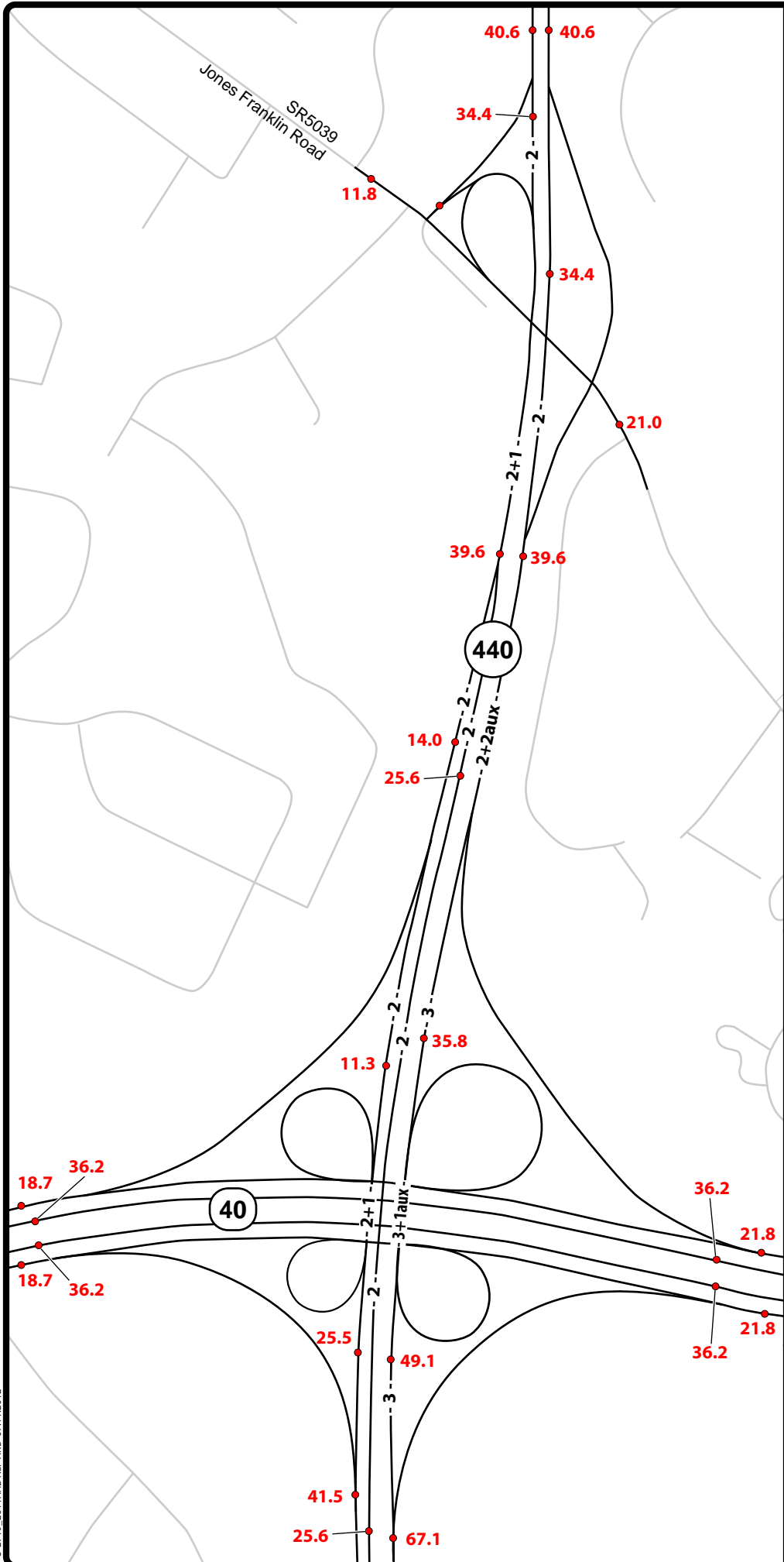
**AAADT is in 1,000s**



Source: NCDOT

**2011 NO BUILD  
AVERAGE ANNUAL  
DAILY TRAFFIC (AADT)**

**FIGURE 4a**



**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



**LEGEND**

- # - # of Lanes
- ### 2011 AADT

**AADT is in 1,000s**

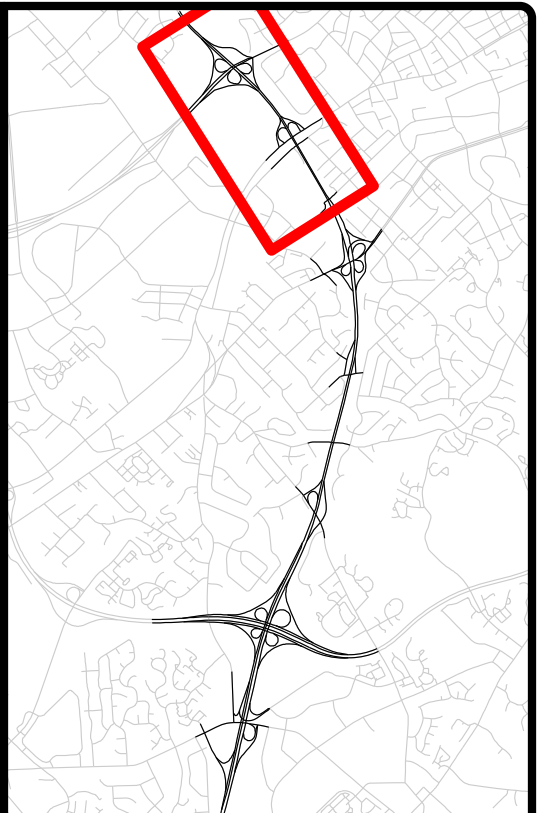
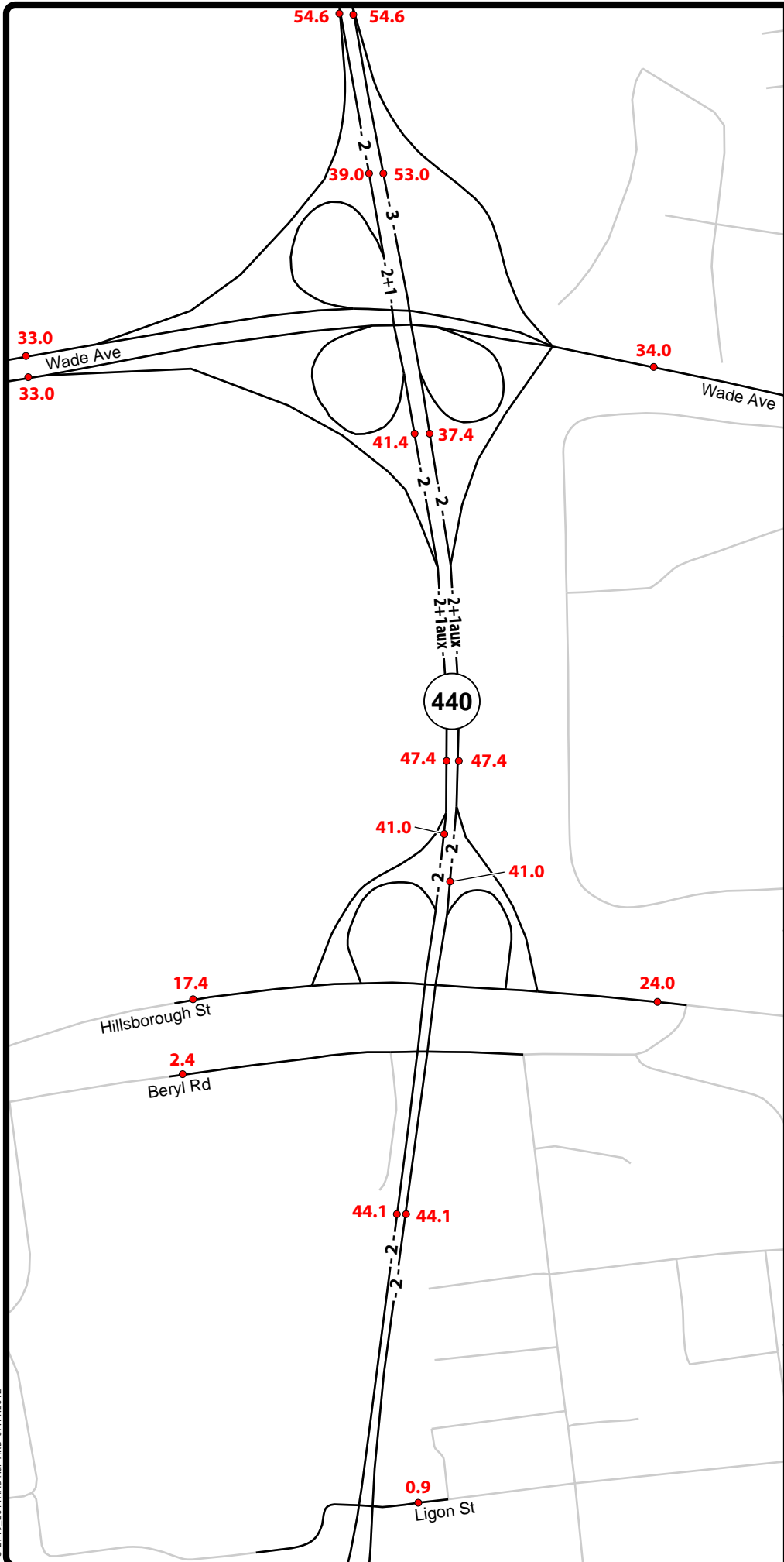


Source: NCDOT

**2011 NO BUILD  
AVERAGE ANNUAL  
DAILY TRAFFIC (AADT)**

**FIGURE 4b**





**I-440 IMPROVEMENTS**

STIP PROJECT NO. U-2719  
Wake County, North Carolina



**LEGEND**

- # - # of Lanes
- ### 2011 AADT

**AADT is in 1,000s**



Source: NCDOT

**2011 NO BUILD  
AVERAGE ANNUAL  
DAILY TRAFFIC (AADT)**

**FIGURE 4d**