Project Development and Environmental Analysis Branch
Scoping Information Sheets

TIP No.: U-2719
Sent Date: 7/20/12

WBS No.: 35869.1.2
Revision Date:

Federal Aid No: IMSNHS-0440(10)
Meeting Date: August 22, 2012

Division: 5
County: 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

Project Schedule:

<table>
<thead>
<tr>
<th>Type of Document</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Document(s):</td>
<td></td>
</tr>
<tr>
<td>EA - Preferred Alt.</td>
<td>April 2014</td>
</tr>
<tr>
<td>FONSI</td>
<td>April 2015</td>
</tr>
</tbody>
</table>

Right of Way Authorization Date: Production TIP 2016
Let Date: Production TIP 2018
### Design Criteria:

#### Length of Project:
- **Existing:** Approximately 5 miles
- **Proposed:** TBD

#### Right of Way:
- **Existing:** Varies 80 to 375 feet
- **Proposed:** TBD

#### Type of Access Control:
- **Existing:** Controlled Access
- **Proposed:** Controlled Access

#### Roadway Typical Section:
- **Existing:**
  - Southbound – 2 through lanes with an auxiliary lane between some interchanges and a collector-distributor road near I-40.
  - Northbound – 2 through lanes with an auxiliary lane between Hillsborough St. and Wade Avenue.
  - Median width varies. **Figure 4** shows the # of lanes along project.
- **Proposed:** 6-lane divided typical section.

#### Speed:
- **Existing Posted Speed:** 55 mph
- **Proposed Design Speed:** 60 mph

#### Bridge/ Culvert Inventory:
- No bridges over streams.
- Multiple bridges over roads and a bridge over railroad.

#### Functional Classification:
- Freeway/Urban Interstate

#### Strategic Highway Corridor Information:
- N/A

#### CTP/Thoroughfare Plan Designation (Facility Type):
- Freeway – Needs Improvement (October 2010)

#### Air Quality Status:
- [ ] Non-attainment
- [x] Maintenance
- [ ] Attainment

#### Horizon Completion Year (Long Range Trans. Plan):
- 2035
Typical Section in Compliance with Conformity Determination?
Note: Approved May 20, 2009  ☒ Yes  ☐ No

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

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)

<table>
<thead>
<tr>
<th>Resource/Affected Environment &amp; Measure</th>
<th>Applicability/ Resources in Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Project Information</strong></td>
<td></td>
</tr>
<tr>
<td>Length of project (approximate in miles)</td>
<td>Approximately 5 Miles</td>
</tr>
<tr>
<td>Crossing or Intersecting (#)</td>
<td></td>
</tr>
<tr>
<td>Interchanges include: Walnut St, I-40, Jones Franklin Rd, Melbourne Rd (1/2 interchange), Western Blvd, Hillsborough St, Wade Ave</td>
<td>Interchanges - 7</td>
</tr>
<tr>
<td>Other Grade-Separated Road Crossings include: Athens Drive, Ligon St, Beryl Rd</td>
<td>Intersections - 0</td>
</tr>
<tr>
<td>Other Road Crossings – 3: 2 – Over, 1 - Under Pedestrian Bridge Crossing - 1</td>
<td>Other Road Crossings – 3: 2 – Over, 1 - Under Pedestrian Bridge Crossing - 1 RR Crossings - 1</td>
</tr>
<tr>
<td><strong>Cultural Resources</strong></td>
<td></td>
</tr>
<tr>
<td>NRHP (and eligible sites, districts, other properties) (#)</td>
<td>0 – National Register Site 1 – National Register District – Method Historic District</td>
</tr>
<tr>
<td><strong>Human Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Community Resources (#)</td>
<td>Meredith College, North Carolina State University, North Carolina Museum of Art Cemeteries – 1 (Oak Grove Cem) Churches – Western Blvd Presbyterian</td>
</tr>
<tr>
<td>Adjacent to the corridor</td>
<td></td>
</tr>
<tr>
<td>Public Parks/Section 4(f) Properties (#)</td>
<td>3 – Lake Johnson, Kaplan Drive Park, Method Park</td>
</tr>
<tr>
<td>Greenways, Game Lands, Land and Water Conservation Fund Properties, etc. (#)</td>
<td>1 – Greenway - Reedy Creek Trail 1 – Lake Johnson Park – LWCF Property</td>
</tr>
<tr>
<td>Residential Properties (# potentially affected)</td>
<td>TBD. Residences are located adjacent to existing roadway.</td>
</tr>
<tr>
<td>Business Properties (# potentially affected)</td>
<td>TBD. Businesses are located adjacent to existing roadway.</td>
</tr>
<tr>
<td>High % Special Populations (Low-income, Minority)</td>
<td>Yes, review of 2010 Census Block Groups identified presence of minority, Hispanic, and Low-Income populations near the project corridor</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Streams (# of stream crossings)</td>
<td>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</td>
</tr>
<tr>
<td>*303(d) Stream</td>
<td></td>
</tr>
<tr>
<td>Wetlands (est. acres)</td>
<td>Surveys will be conducted.</td>
</tr>
<tr>
<td>Critical Water Supply Watersheds</td>
<td>Swift Creek (Lake Benson) WS-III, NSW Protected Watershed (Project not in Critical Area)</td>
</tr>
<tr>
<td>Riparian Buffer Rules apply</td>
<td>YES – Project within Neuse River Basin riparian buffer protection program Rule 15A NCAC 02B .0242.</td>
</tr>
<tr>
<td>Resource/Affected Environment &amp; Measure</td>
<td>Applicability/ Resources in Study Area</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Identified Critical Habitat/ESA Spp. (# known)</td>
<td>0 known TBD</td>
</tr>
<tr>
<td><strong>Physical Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Hazardous Materials (# suspected/known sites)</td>
<td>TBD</td>
</tr>
<tr>
<td>Utilities</td>
<td>Yes. Location and type TBD. Power line easements are located adjacent to ROW</td>
</tr>
<tr>
<td>Active agriculture (Voluntary Agricultural District)</td>
<td>NO – VADs or EVADs in study area,</td>
</tr>
<tr>
<td>Noise</td>
<td>Impacts TBD. Noise sensitive receptors in study area (residences, churches, etc.).</td>
</tr>
<tr>
<td>FEMA Buyout Properties</td>
<td>TBD</td>
</tr>
</tbody>
</table>

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

- # -  # of Lanes

### 2011 AADT

AADT is in 1,000s

Source: NCDOT

2011 NO BUILD AVERAGE ANNUAL DAILY TRAFFIC (AADT)

FIGURE 4c
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