



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

June 06, 2011

**MEMORANDUM**

**TO:** Mr. Calvin W. Leggett, P.E.  
Manager, Program Development Branch

**FROM:** Mr. R. N. Prince  
Feasibility Studies Engineer

**SUBJECT:** **R-2220** – Proposed widening of US-64 from just east of I-85 to US-220 in Davidson/Randolph Counties.

As requested, we have completed feasibility study R-2220 for the widening of US-64 from east of I-85 to US-220 near Asheboro in Davidson/Randolph Counties. This project proposes to construct a four-lane divided section of roadway for the limits mentioned above, a distance of approximately 21.7 miles. Our evaluation of this project was based on a four-lane divided shoulder section with 12-foot travel lanes, a 46-foot depressed grass median, and 8-foot shoulders (4-feet of which is paved) on 250-feet of right of way. It is anticipated that one hundred and three (103) residences and sixty one (61) businesses would need to be relocated due to this project.

The estimated total cost of this project is as follows:

Construction .....	\$135,000,000
Right of Way .....	\$66,200,000
<u>Utility Relocation .....</u>	<u>\$13,500,000</u>
Total Cost.....	\$214,700,000

The current year Average Daily Traffic (ADT) along US-64 ranges from 7,300 vehicles per day (vpd) to 26,000 vpd. For the design year 2035, the traffic volume along US-64 is estimated to range between 11,900 vpd to 34,600 vpd. Truck traffic is estimated to make up approximately between 10 and 15percent of the daily traffic. The existing segment of US-64 operates at a level of service (LOS) E under current traffic volumes at the heaviest travelled sections. If no improvements are made in the 2035 design year, it is projected that this segment along US-64 will operate at a LOS F. With the proposed improvements, US-64 is projected to operate at a LOS C or better.

Between March 1, 2008 and February 28, 2011, 286 total crashes were reported within the project limits. The crash rate for US-64 is 97.31 crashes per 100 million vehicle miles (crashes/100MVM) traveled. This rate is lower than the statewide rate of 151.02 crashes/100MVM for a two-lane undivided rural United States route. However, the fatal rate of 2.38 crashes/100 MVM is higher than the statewide rate of 1.78 crashes/100 MVM but lower than the critical crash rate of 3.23 crashes/100 mvm. There were

89 non-fatal injury crashes, 190 property damage only crashes, and 7 fatal crashes during the period. The most prevalent types of crashes were classified as other (34%), Run off Road & Fixed Object (23%), Rear End (17%), Left Turn (13%), Angle (7%), Right Turn (4%) and Side Swiped (2%). It should be noted 27% of the accidents was due to animals.

A detailed investigation was not conducted for this feasibility study; however it is anticipated that there will be a minor impact to Tabernacle Elementary School. No impacts to parks, recreation areas, or community facilities are anticipated with this project.

Maps at the Survey and Planning Branch of the North Carolina State Historic Preservation Office were used to determine if any historic properties on the National Register of Historic Places (NRHP) or state study lists exist within the proposed project corridor. No properties located within the project corridor were found to be potentially historic properties.

The proposed project corridor is located in the Yadkin River Basins. US-64 crosses several water bodies, the Uwharrie River, Little Uwharrie River, Caraway Creek, Little Caraway Creek and Brier Creek in the project corridor. These water bodies will likely need to be surveyed and have the appropriate coordination with the North Carolina Department of Environment and Natural Resources (NCDENR) and the U.S. Army Corps of Engineers (USACE) during any environmental document study.

US-64 crosses Class WS-III Water Supply Watershed associated with Uwharrie River watershed, Caraway Creek watershed and also considered a High Quality Water Zones in DWQ. Permitting with the U.S. Army Corps of Engineers (USACE) will likely need to be obtained before construction of the project, and appropriate mitigation measures should be taken if deemed necessary.

An anadromous fish spawn, Significant Aquatic Endangered Species Habits area and the National Heritage Program was identified in the project study area.

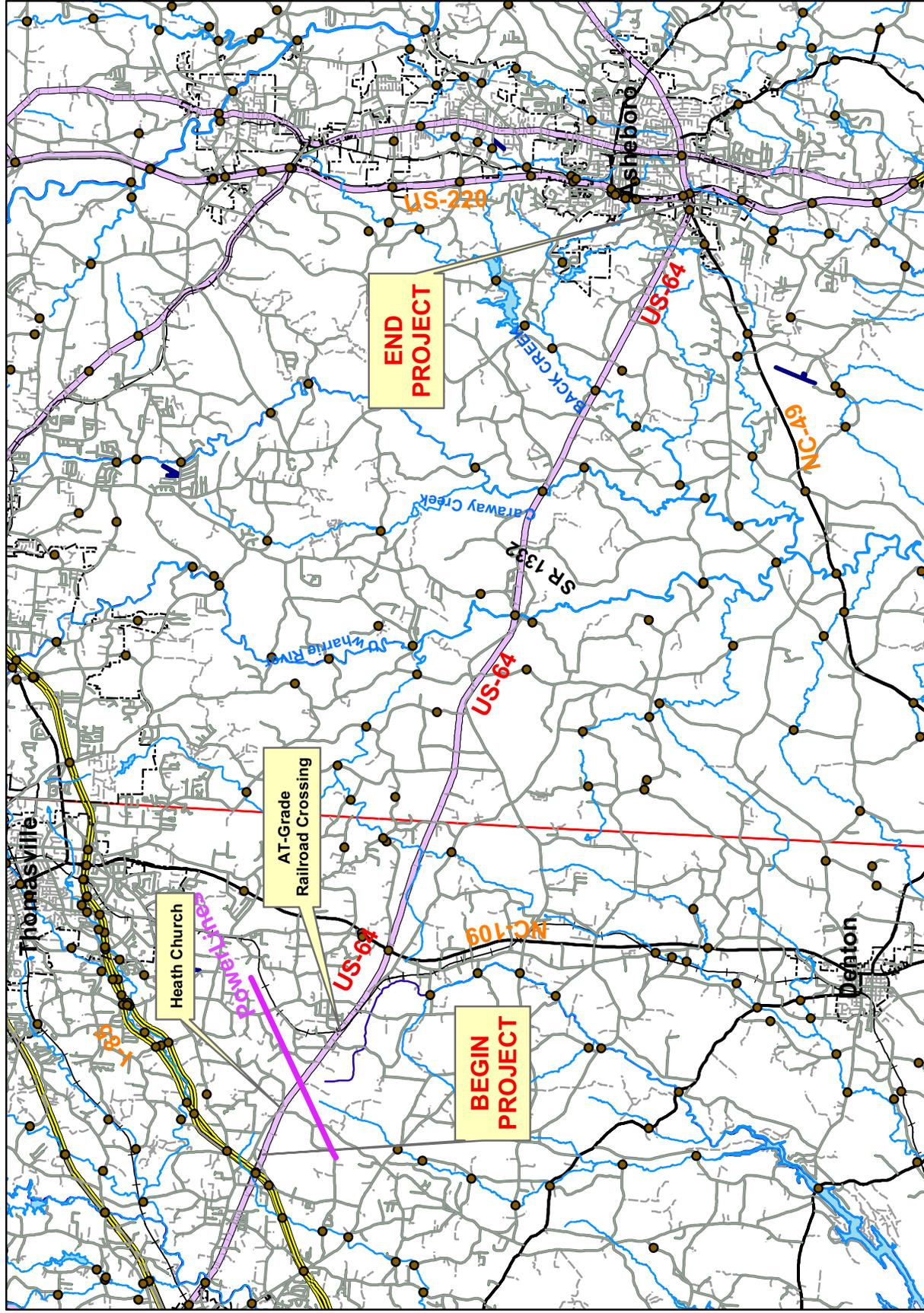
US-64 contains 5 bridges, a railroad at-grade crossing, Power lines, Tabernacle Volunteer Fire Department and 2 churches that should be considered during the design phase.

As you are aware, this work is preliminary and not the product of comprehensive environmental or design evaluations. If you should have further questions or additional information is needed, please do not hesitate to contact me at 715-5538, or via e-mail at [rnprince@ncdot.gov](mailto:rnprince@ncdot.gov).

ATT: Project Map

cc: Al Avant, Assistant Branch Manager – Programming  
Mike Stanley, P.E., Manager – TIP Central Region  
Pat Ivey, P.E., Division 9 Engineer  
Tim Johnson, P.E., Division 8 Engineer

# R-2220 Davidson/Randolph Counties Location Map



## LEGEND

- NCDOT Bridge Locations
- Water Bodies
- Rivers
- Secondary Roads
- Old City Boundaries
- Airports
- Major Rivers
- dotrail
- Primary Routes
- I
- NC
- US
- dotuniverse
- Roads
- I
- NC
- SR
- US

