

FEASIBILITY STUDY

SR 1320 (Airport Road)
from US 264 to SR 1321,
and Realignment of SR 1158
Intersection with US 264
Wilson County
U-2727

Prepared by
Program Development Branch
Division of Highways
N.C. Department of Transportation

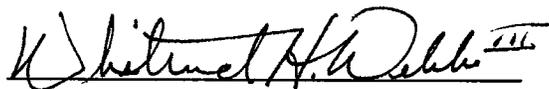


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9/20/91
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I. GENERAL DESCRIPTION

This is a feasibility study for the widening of SR 1320 (Airport Road) from a 2 lane shoulder section to a five-lane curb and gutter section, from US 264 to SR 1321, in Wilson County. Total project cost is estimated at \$2,385,400. This study also evaluates the realignment of the SR 1158 intersection with US 264. Refer to Figure 1.

A feasibility study presents recommended cross sections for improvements, general alignments of improvements, estimated cost of construction and right-of-way, and attempts to flag potential environmental, permitting, or any other observed issues which deserve consideration in the planning and construction stages.

This study is not an exhaustive environmental investigation.

II. NEED FOR PROJECT

Residential development occurring along Airport Road has increased traffic on the studied section. Plans for new and expanded subdivisions present a need for more capacity in the future. SR 1320 is currently a two-lane roadway with a 20 foot pavement width and 6-foot unpaved shoulders on 60 feet of Right of Way. The purpose for this project is to provide increased capacity to support development, improve airport access, and to provide a continuation of an adjacent widening project. This project, U-2222, is under construction. It widens SR 1320 to a five-lane, 59-foot curb and gutter section from SR 1321 to NC 58.

The City of Wilson identified U-2727 as its top priority project during the 1990 TIP hearings.

SR 1320 serves as a Rural Major Collector. The 1983 Wilson mutually adopted Thoroughfare Plan identifies SR 1320 as a Major Thoroughfare, with future use as part of an outer loop system. Land use surrounding the project is mixed between zoning for office areas and residential development.

The 1988 Average Daily Traffic (ADT) is 5,000 vehicles per day (vpd). By the design year of 2011, anticipated traffic is estimated at 10,500 vpd. With the current facility, traffic will experience a LOS E in the design year. With a five-lane curb and gutter section, a LOS B is expected in the year 2011.

During the period from January 1, 1988 through December 31, 1990, a total of 53 accidents were reported along the studied portion of SR 1320, with half of the accidents at the SR 1321 intersection with US 264. This resulted in an accident rate of 397 accidents per 100 million vehicle miles, compared to a statewide average of 293. This accident rate is 35% above norm. One fatality occurred when a pedestrian was struck. Most prevalent accident types were running off the road to the left and right side (44%) and rear-end collisions (25%). The recommended cross-section and center left-turn lane, along with the improved SR 1320 / US 264 intersection will reduce accident rates.

Traffic predictions, incorporation in the thoroughfare plan, and an accident rate 35% above the state average, indicate that an improvement is warranted.

III. RECOMMENDATIONS

A five-lane, 64-foot curb and gutter section is recommended from US 264 to SR 1321. The intersection of US 264 and SR 1320 should include a right and left turn lane on the SR 1320 approach with a minimum 150' queue length, a left turn lane on the eastbound US 264 approach, and a right turn lane on the westbound US 264 approach. New signalization will be necessary. Ninety feet of right-of-way is required for this project. Widening should occur symmetrically and asymmetrically as determined desirable to avoid adverse impacts. One box culvert must be extended for the widening.

Total project cost is estimated at:

| | |
|--------------------|--------------|
| Right of Way | \$ 340,000 |
| Construction | \$ 2,200,000 |
| Total Project Cost | \$ 2,540,000 |

Low utility conflicts are expected.

IV. OTHER COMMENTS AND CONCERNS

Since the widening is under an approach envelope to the Wilson airport, coordination with the Federal Aviation Administration may be needed.

Widening may require placing fill in a small amount of wetlands on both sides of SR 1320, estimated at 1,142 linear feet. Habitat in the project area is suitable to the Red-cockaded woodpecker, known to occur in Wilson County. A Corps of Engineers Nationwide Permit should be adequate. No historical or archaeological sites have been identified, and no public parks are affected.

The Division Engineer favors a 59-foot curb and gutter section to continue the U-2222 improvements. However, a 64-foot curb and gutter section is recommended to accommodate truck traffic between US 264 and the airport, adjacent industrial park, and National Guard Armory.

No business or residential relocatees are expected.

V. ALTERNATIVES STUDIED BUT NOT RECOMMENDED

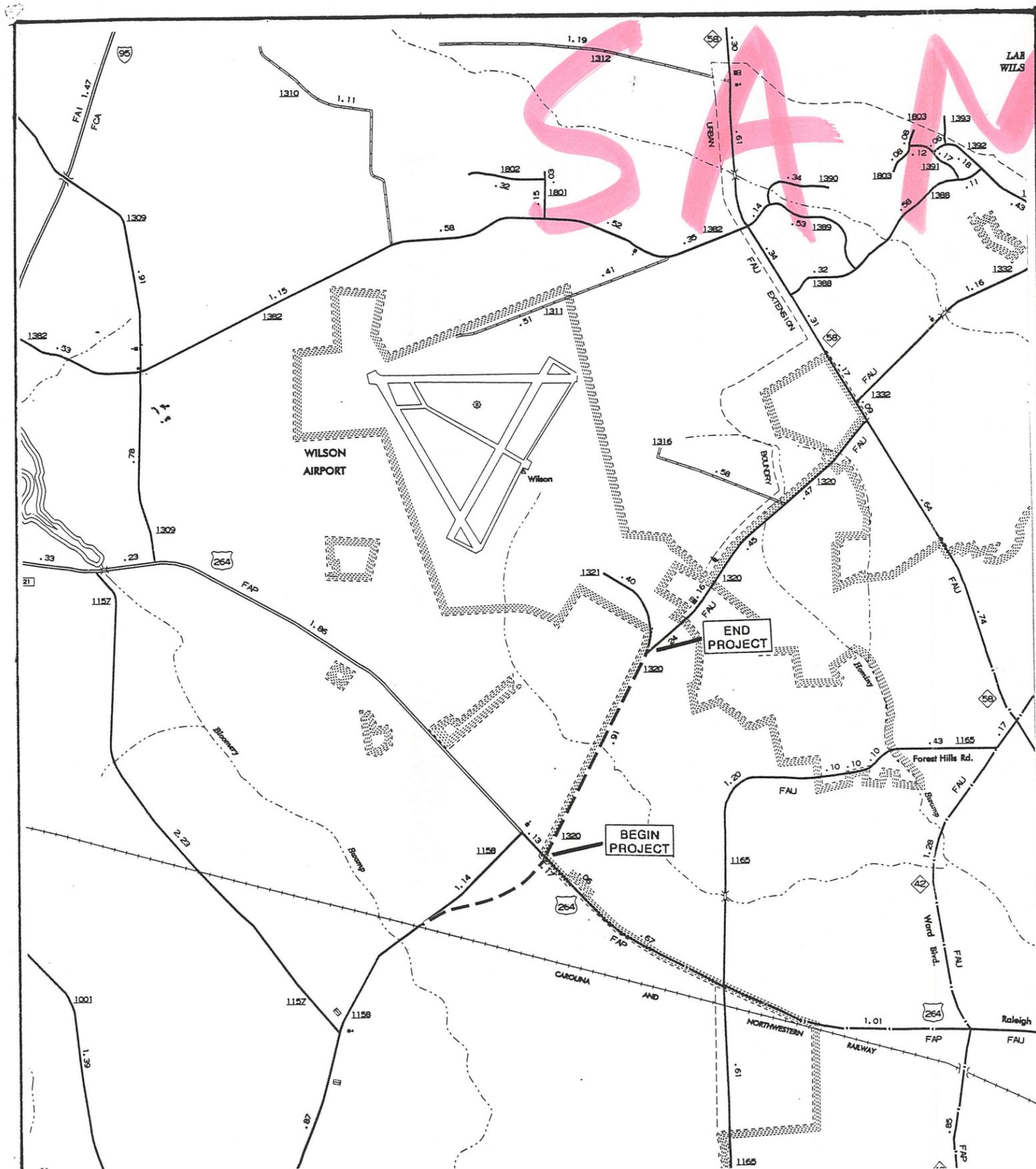
The City of Wilson also requested that this study include the realignment of the intersection of SR 1158 with US 264 (Referred to as Section C in Figure 2). The current configuration causes an "offset" intersection on US 264 between SR 1320 and SR 1158.

Since Trinity Church is located on the west side of SR 1320, the only viable alternative is realigning SR 1158 so that it joins US 264 at the SR 1320 intersection (See Figure 2). To incorporate sight-distance requirements and minimum degree of curvature for a 50 mph design speed, realignment of SR 1158 must begin immediately on the north side of its intersection with the Norfolk Southern Railroad.

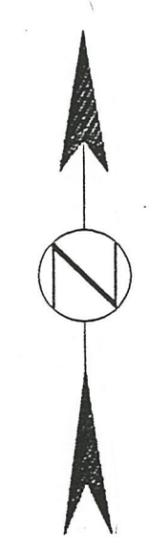
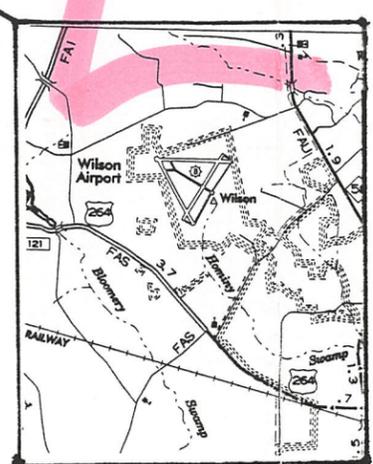
An additional consideration for improvement of this intersection is its potential integration into the future US 264 Bypass. If this improvement occurs, a minimum 100' of right-of-way should be purchased now to allow for future widening.

Total cost of Section C is \$688,200, including \$525,000 construction cost for a 28' paved section and \$163,200 right-of-way cost for a 100' width.

At this time, a specific corridor for the bypass has not been identified, therefore it cannot be assumed that the realignment of SR 1158 will be used in the future bypass. Since traffic on SR 1158 does not justify the improvement, this alternative is not recommended.



SAMPLE




FEASIBILITY UNIT
WILSON
 SR 1320 (AIRPORT ROAD) FROM
 US 264 TO SR 1321
 U-2727
 SCALE: 1" = 0.5 MI DATE: JUNE 1991

FIGURE 1

