



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.
GOVERNOR

DIVISION OF HIGHWAYS
December 2, 1997

GARLAND B. GARRETT JR.
SECRETARY

MEMORADUM TO: Whitmel H. Webb, P. E.

FROM: David Modlin, P. E. *David*

SUBJECT: Improvements to Brawley School Road (SR 1100), Williamson Road (SR 1109) and NC 150

At the request of Ray Spangler, Division Engineer, Division 12, the Feasibility Studies Unit has prepared estimates for improvements to SR 1100, SR 1109 and NC 150. The alternates studied for improving SR 1100 and SR 1109 were (1) 5-lane shoulder section with 2-foot paved shoulders and (2) 4-lane shoulder section with 2-foot paved shoulders and a 20-foot (16-foot raised) median. The only alternate studied for the section of NC 150 between SR 1109 and I-77 was a 5-lane curb and gutter section. The suggested right of way is 120 feet given the studied cross sections and the gently rolling terrain. The portion of NC 150 studied requires 100 feet of right of way.

The results of the study are presented in tabular form for simplicity.

<u>Route</u>	<u>Description</u>	<u>Length</u>	<u>Alternate 1</u>	<u>Alternate 2</u>	<u>RW</u>
SR 1100	Beg. to SR 1177 includes SR 2160	4.20 mi	\$ 9,200,000	\$11,000,000	\$1,000,000 No relocatees
SR 1100	SR 1177 to SR 1109	3.85 mi	7,100,000	9,000,000	4,500,000 4 Res 1 Bus
SR 1109	SR 1100 to NC 150	0.90 mi	1,700,000	2,100,000	1,100,000 3 Res 0 Bus
NC 150	SR 1109 to I77RPS	<u>0.48 mi</u>	<u>1,200,000</u>	<u>1,200,000</u>	<u>700,000</u> No relocatees
SUBTOTAL CONSTRUCTION		9.43 mi	\$ 19,200,000	\$ 23,200,000	\$ 6,600,000 7 Res 1 Bus
SR 1100	SR 1109 to US 21	<u>2.01 mi</u>	<u>6,500,000</u>	<u>8,000,000</u>	2 Res 1 Bus <u>2,500,000</u>
GRAND TOTAL		11.44 mi	\$ 25,700,000	\$ 31,700,000	\$ 8,100,000 9 Res 2 Bus

Note: Right of Way and Utility construction costs are not included.



Official traffic forecasts are not available. However, letters of March 4, 1997, from Gary Faulkner and of April 8, 1997, from Jim McDonnell, P. E., suggest that a 3-lane section may be adequate from Lake Norman to SR 1177 at Long Camp and from that point north, the estimated build-out traffic will require either a 4-lane divided or 5-lane section.



NC 150

I-277

5 Lx 5 Hdr. \$1,200,000

0.48 Mi.

5 Lx 5 Hdr. \$700,000

0.9 Mi. SR1109

4 Lx 4 Hdr Med \$2,100,000

5 Lx 5 Hdr. \$6,500,000

2.01 Mi.

5 Lx 5 Hdr. \$7,100,000

SR1109

SR1109

4 Lx 4 Hdr Med \$9,100,000

4 Lx 4 Hdr Med \$8,000,000

West

SR1177



Long Camp

5 Lx 5 Hdr. \$9,200,000

SR1100

4.2 Mi.

4 Lx 4 Hdr Med \$11,300,000

Fredell Med

SR2100

SR2153

8-13-97
DJ