

FEASIBILITY STUDY

Stanleyville and Rural Hall

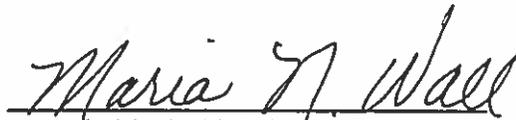
NC 66 (Broad Street)

from SR 2170 (Wallasey Road) to SR 1654 (Washington Street)

Forsyth County

U-3457

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



Maria N. Wall, P.E.
Highway Planning Engineer



David G. Modlin, Jr., Ph.D., P.E.
Head of Feasibility Studies

2/14/96

Date

FEASIBILITY STUDY

Stanleyville and Rural Hall
NC 66 (Broad Street)
from SR 2170 (Wallasey Road) to SR 1654 (Washington Street)
Forsyth County

U-3457

I. GENERAL DESCRIPTION

This is a feasibility study for the widening of NC 66 (Broad Street), from SR 2170 (Wallasey Road), in Stanleyville, to SR 1654 (Washington Street), in Rural Hall (See Figure 1). The project is approximately 1.4 miles (2.3 km) in length. The recommended typical section is a five-lane, 68-foot (20.7-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms, including sidewalks on both sides on a 100-foot (30.5-m) wide right-of-way with no access control. The estimated cost of the project is \$3,540,000 (\$140,000 for right-of-way and \$3,400,000 for construction).

II. NEED FOR PROJECT

The studied improvements are needed to reduce traffic congestion on NC 66. NC 66 is classified as a minor arterial on the Statewide Functional Classification System and as a major thoroughfare on the Winston-Salem Thoroughfare Plan.

The existing NC 66 is a two-lane, 22-foot (6.7-m) wide roadway with 2 to 6-foot (0.6 to 1.8-m) wide shoulders, from SR 2170 to SR 1656 (Park Street). From SR 1656 to SR 1654, NC 66 is a three-lane, 40 to 48-foot (12.2 to 14.6-m) face-to-face, curb and gutter section with sidewalks on both sides. Land use is mainly residential.

The south terminal is located at SR 2170 (Wallasey Road). South of this location, NC 66 continues as a two-lane road. The north terminal is located at SR 1654 (Washington Street). North of this location, NC 66 is a four-lane, 54-foot (16.5-m) face-to-face, curb and gutter section, from SR 1654 to NC 65.

NC 66 is a signed bicycle route (Horizons Park Connector) on the Winston-Salem/Forsyth Bike Map. The Office of Bicycle and Pedestrian Transportation has recommended that bicycle accommodations be provided in the studied project.

Estimated 1996 average daily traffic (ADT) on NC 66 is 10,000 vehicles per day (vpd). In the design year 2020, the traffic volume is expected to be 17,200 vpd. The existing NC 66 would operate at a level of service (LOS) D, in 1996, and a LOS E, in the design year 2020. If NC 66 is widened to a five-lane roadway, it would operate at a LOS A through the design year.

During the period from May, 1992, through April, 1995, there were 25 accidents reported along the studied section of NC 66. This resulted in an accident rate of 165.2 accidents per 100 million vehicle miles (acc/100mvm) compared to a statewide average of 268.8 acc/100mvm for this type of facility. Rear-end collisions accounted for 48% of the accidents. No fatalities were reported. The recommended improvements are expected to reduce the accident rate.

III. RECOMMENDATIONS

It is recommended that NC 66 (Broad Street) be widened, from SR 2170 to SR 1654, a distance of approximately 1.4 miles (2.3 km). The recommended typical section is a five-lane, 68-foot (20.7-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms, including sidewalks on both sides, on a 100-foot (30.5-m) wide right-of-way with no access control. Widening would be both asymmetrical and symmetrical to the existing roadway to minimize costs.

The recommended improvements are expected to decrease traffic congestion and improve safety.

Moderate utility conflicts are expected.

Total project cost is estimated as follows:

Right-of-way	\$ 140,000
Construction	\$3,400,000
Total	<u>\$3,540,000</u>

IV. OTHER COMMENTS AND CONCERNS

It is estimated that this project would not require the relocation of any residences or businesses.

This study is not a detailed planning/environmental investigation. A feasibility study presents studied cross-sections for improvements, general

corridors of improvements, and estimated costs of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues that deserve consideration in the planning and construction stages.

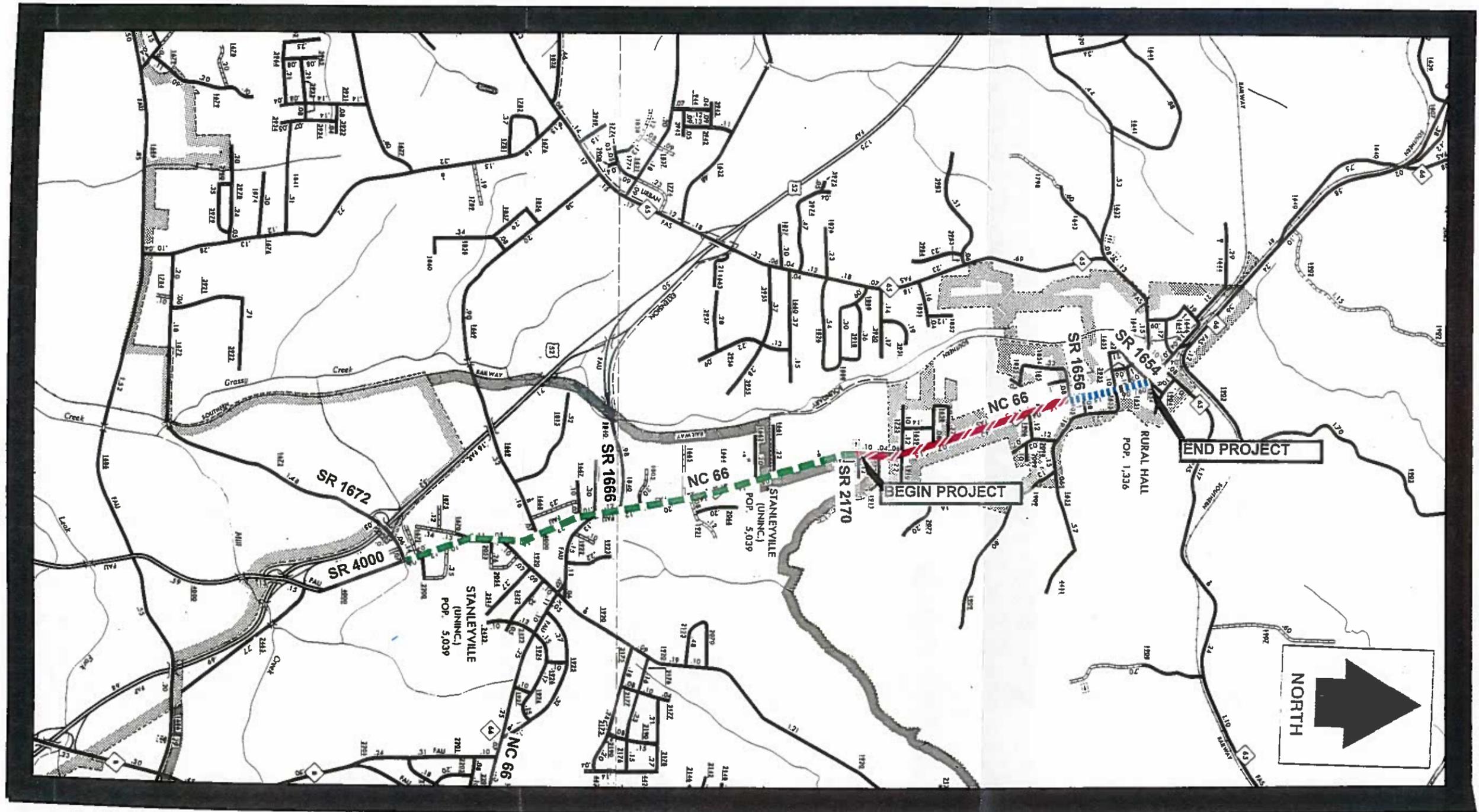
It is not anticipated that there would be any impact to the cemetery on the west side of NC 66 near SR 2170.

No historical or architecturally significant sites are known to be impacted.

V. OTHER ALTERNATES CONSIDERED

The Winston-Salem MPO requested that NC 66 be widened to a three-lane, 40-foot (12.2-m) face-to-face, curb and gutter section, with 8-foot (2.4-m) berms on the existing right-of-way. This alternate was rejected, because it did not provide a significant improvement in traffic capacity.

The corridor consisting of SR 4000, from SR 1672 (Hanes Mill Road) to NC 66 and NC 66, from SR 1666 to SR 2170 (referred to hereafter as Part II), was not included in this study. South of SR 1672, SR 4000 utilizes a five-lane, 64-foot (19.5-m) face-to-face, curb and gutter section. Part II is a 2.1-mile (3.4-km) "missing link" between the five-lane section, south of SR 1672, and the recommended project, north of SR 2170. Estimated 1996 average daily traffic (ADT) on Part II ranges from 12,400 vpd, on SR 4000, to 18,000 vpd, on NC 66. In the design year 2020, the traffic volume is expected to range from 17,300 to 25,700, respectively. The estimated cost for widening SR 4000 to a five-lane, 64-foot (19.5-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms; and NC 66 to a five-lane, 68-foot (20.7-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms, on a 100-foot (30.5-m) wide right-of-way is estimated to be \$4,180,000 (\$4,100,000 for construction and \$80,000 for right-of-way). It is recommended that Part II be considered as a phase in the widening of the corridor between Winston-Salem and Rural Hall to prevent traffic bottlenecks and to maintain the integrity of the corridor.



LEGEND	
	SECTION 1
	SECTION 2
	PART II



North Carolina Department of Transportation Program Development Branch	
U-3457	
Stanleyville and Rural Hall NC 66 (Broad Street) from SR 2170 (Wallasey Road) to SR 1654 (Washington Street) Forsyth County	
Division 9	Figure 1