



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

1534 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1534

W. LYNDO TIPPETT
SECRETARY

May 25, 2005

MEMORANDUM

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

FROM: Nicole M. Hackler *Nicole M. Hackler*
Feasibility Studies Engineer

SUBJECT: U-3457 Re-evaluation – NC 66 (Broad Street) from SR 2170 (Wallasey Road) to Park Street, Forsyth County

As requested, we have completed a re-evaluation of Feasibility Study U-3457 for the widening of NC 66 (Broad Street) from SR 2170 (Wallasey Road) to Park Street. The purpose of this study is to evaluate a three-lane section within the project limits mentioned above, a total distance of approximately 1.0 mile. (See Figure 1 for further details).

This project was originally investigated in 1996 under TIP No. U-3457, a copy of which is attached for your reference. At that time, the Winston-Salem MPO requested an investigation for a three-lane section from SR 2170 (Wallasey Road) to SR 1654 (Washington Street). The resulting study recommended that the section be five-lane in order to accommodate anticipated traffic volumes, and for an extension of the project limits to the south to SR 1672, an addition of nearly two more miles. (This extension was recommended in order to match the existing five-lane section at the southern end, to prevent traffic bottlenecks, and to maintain the integrity of the corridor). Due to local opposition to the recommended five-lane improvements, funding for this project was not pursued.

As best we can determine, the Winston-Salem Forsyth UA MPO and the Town of Rural Hall requested a three-lane alternative be studied again for this project. New limits for this three-lane section were designated on NC 66 from SR 2170 (Wallasey Road) to Paso Street. Subsequent investigation by our Department showed the current and projected traffic volumes still indicated the need for either a four or a five-lane section in order to accommodate the anticipated number of vehicles. The current year ADT is 14,000 vehicles per day (VPD) with projected volumes being 19,200 VPD in Design Year 2025, which well exceeds the capacity of a three-lane section. Our later field investigation also determined a more logical northern termini

to be at Park Street, approximately 825' north of Paso Street. This extension to the north would allow the roadway to match to an existing three-lane section at Park. With this new field investigation it was also found that the majority of the roadway within the requested project limits had recently been improved to three-lanes, with the exception of several gaps from SR 2170 (Wallasey Road) to Park Street. Given the new construction and the continued objections from both the Town of Rural Hall and the local area MPO to any section greater than three-lanes, we have only evaluated the costs and impacts associated with providing a three-lane section for the shorter limits discussed above. The three-lane curb and gutter section is to be 40' wide face to face of curbs with 15' berms and 6' sidewalks on 80' of right of way in all areas where this section has not yet been constructed. The costs shown below are for upgrading the unimproved areas of the roadway to match the recently widened portions, in order to make one continuous three-lane corridor on NC 66 (Broad Street) from SR 2170 (Wallasey Road) to Park Street. It is anticipated these spot improvements will impact no residences or businesses.

The total cost for this project is as follows:

Construction.....	\$ 1,950,000
Right of Way.....	\$ 1,600,000
<hr/>	
Total Cost.....	\$ 3,550,000.

In order to accommodate anticipated traffic volumes in this area, it is still likely a four or five-lane section with longer project limits will be needed in the future. Therefore, the three-lane upgrades indicated in this memorandum are to be considered as interim improvements only.

This work is preliminary and not the product of comprehensive environmental or design evaluations. If you should have further questions or need additional information, please do not hesitate to contact me at 733-2039 x 351, or via e-mail at nmhackler@dot.state.nc.us.

- cc: Nancy W. Dunn , Member – Board of Transportation
 Al Avant, Assistant Branch Manager – Programming
 Pat Ivey , P.E. – Division Engineer, Division 9
 Mike Stanley, P.E., TIP Squad Leader – Central Region
 Nathan Phillips, P.E., Congestion Management
 Tony Houser, P.E. Roadway Design

FEASIBILITY STUDY

Stanleyville and Rural Hall

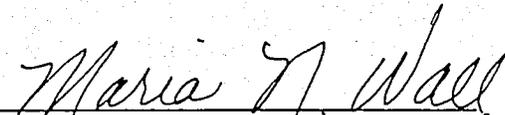
NC 66 (Broad Street)

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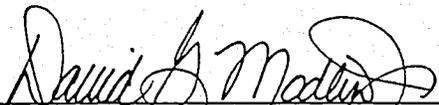
Forsyth County

U-3457

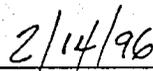
Prepared by
Program Development Branch
Division of Highways
N. C. Department of Transportation



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



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



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	\$3,540,000

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.

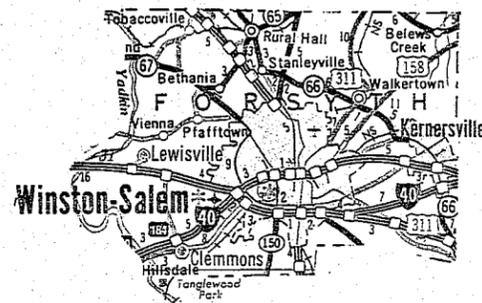
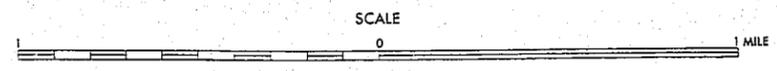
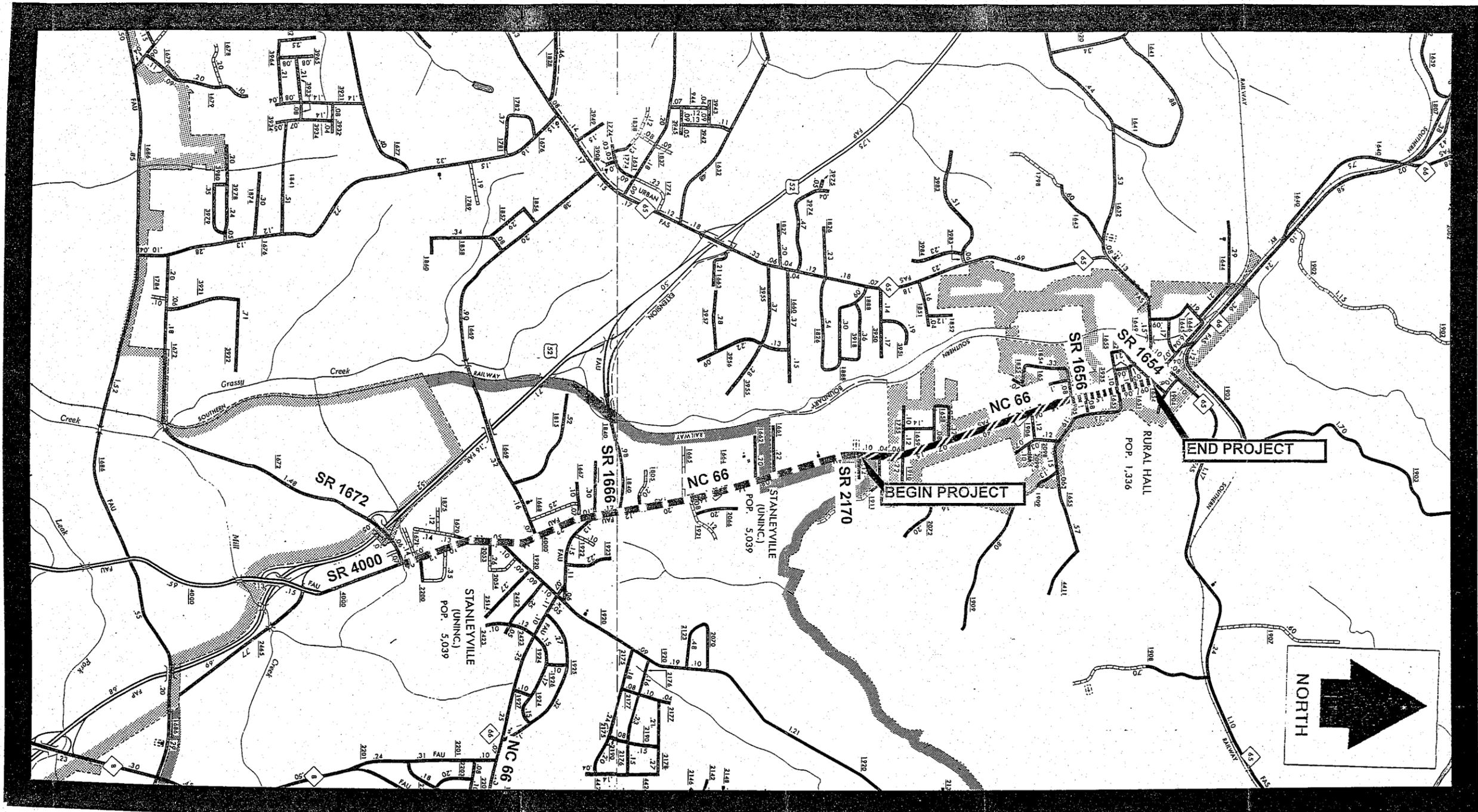
It is not anticipated that there would be any impact to the cemetery on the west side of NC 66 near SR 2170.

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

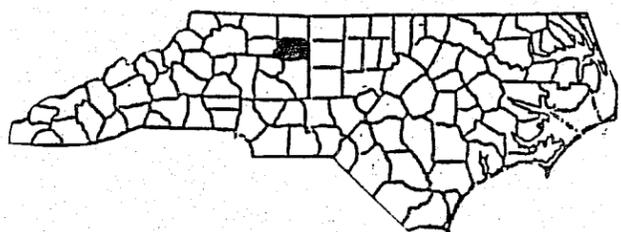
V. OTHER ALTERNATES CONSIDERED

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



loc.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

GARLAND B. GARRETT JR.
SECRETARY

January 19, 1996

Mr. Dalton D. Ruffin
Member, Board of Transportation
2871 Galsworthy Drive
Winston-Salem, NC 27106

Dear Mr. Ruffin:

SUBJECT: Feasibility Study # U-3457, Stanleyville-Rural Hall, NC 66 (Broad Street)
from SR 2170 (Wallasey Road) to SR 1654 (Washington Street), Forsyth
County.

Attached is a preliminary draft of the subject feasibility study for your review and
comments. This report documents the results of the project study.

Please review this preliminary report and send me any comments you may have. We
look forward to receiving your comments by February 13, 1996 so that we can
incorporate them into the final feasibility study report.

If you have any questions concerning the attached feasibility study, please contact me at
(919) 733-2039.

Sincerely,

A handwritten signature in cursive script that reads "David G. Modlin, Jr.".

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

DGM/joa

Attachment

cc: Mr. D. B. Waters, Division Engineer, Division 9
Ms. M. N. Wall, P. E.



FEASIBILITY STUDY

Stanleyville and Rural Hall

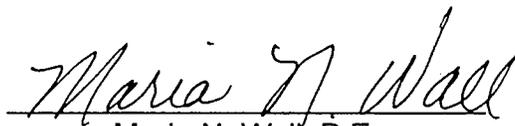
NC 66 (Broad Street)

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

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U-3457

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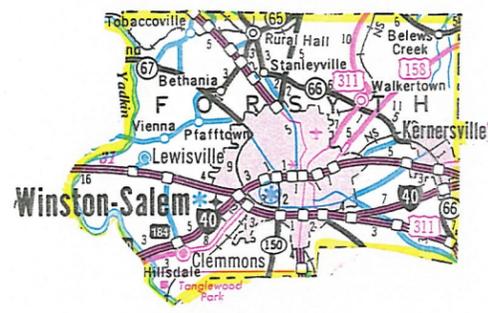
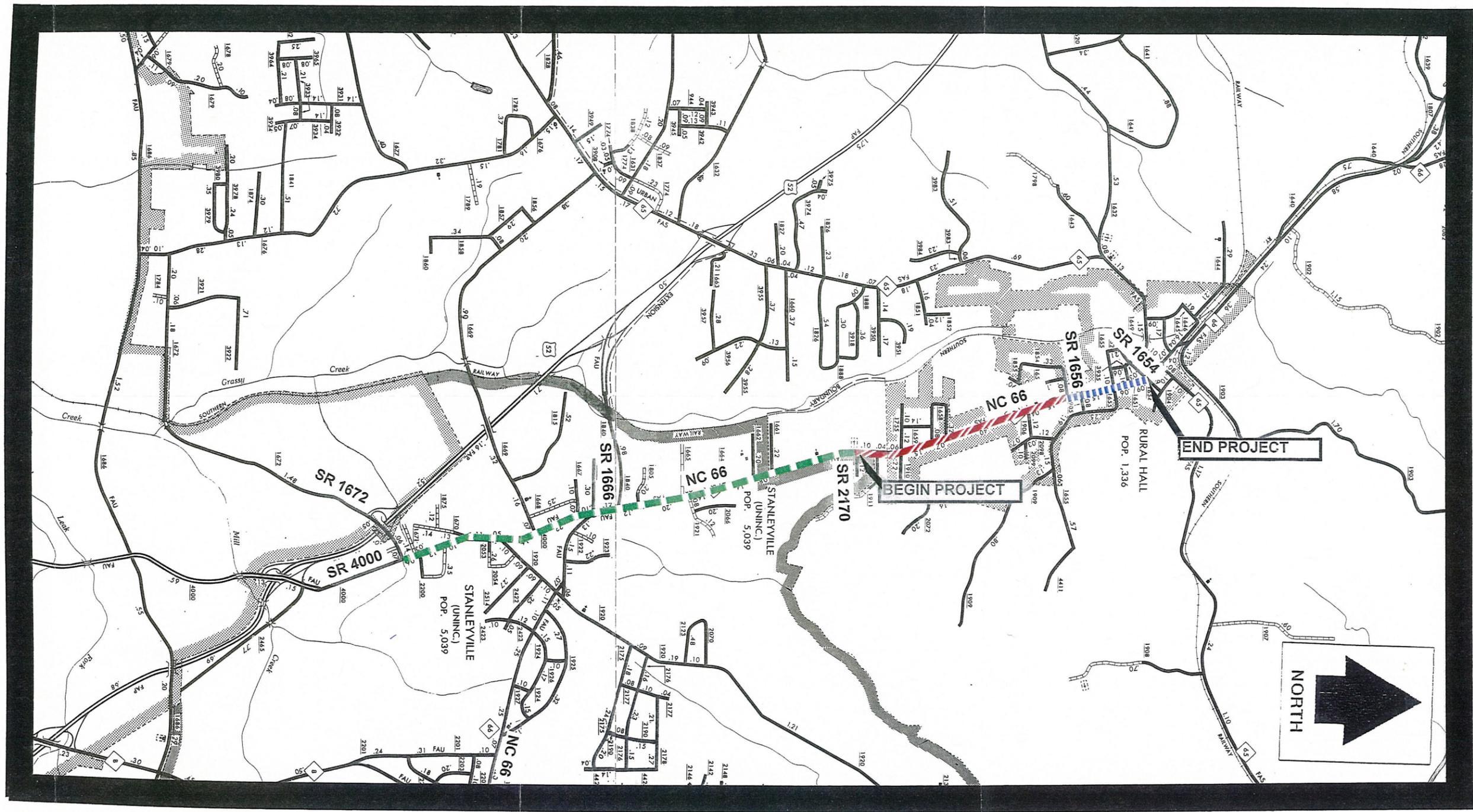
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	SECTION 1
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	PART II



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



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
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W. LYNDO TIPPETT
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May 25, 2005

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FROM: Nicole M. Hackler *Nicole M. Hackler*
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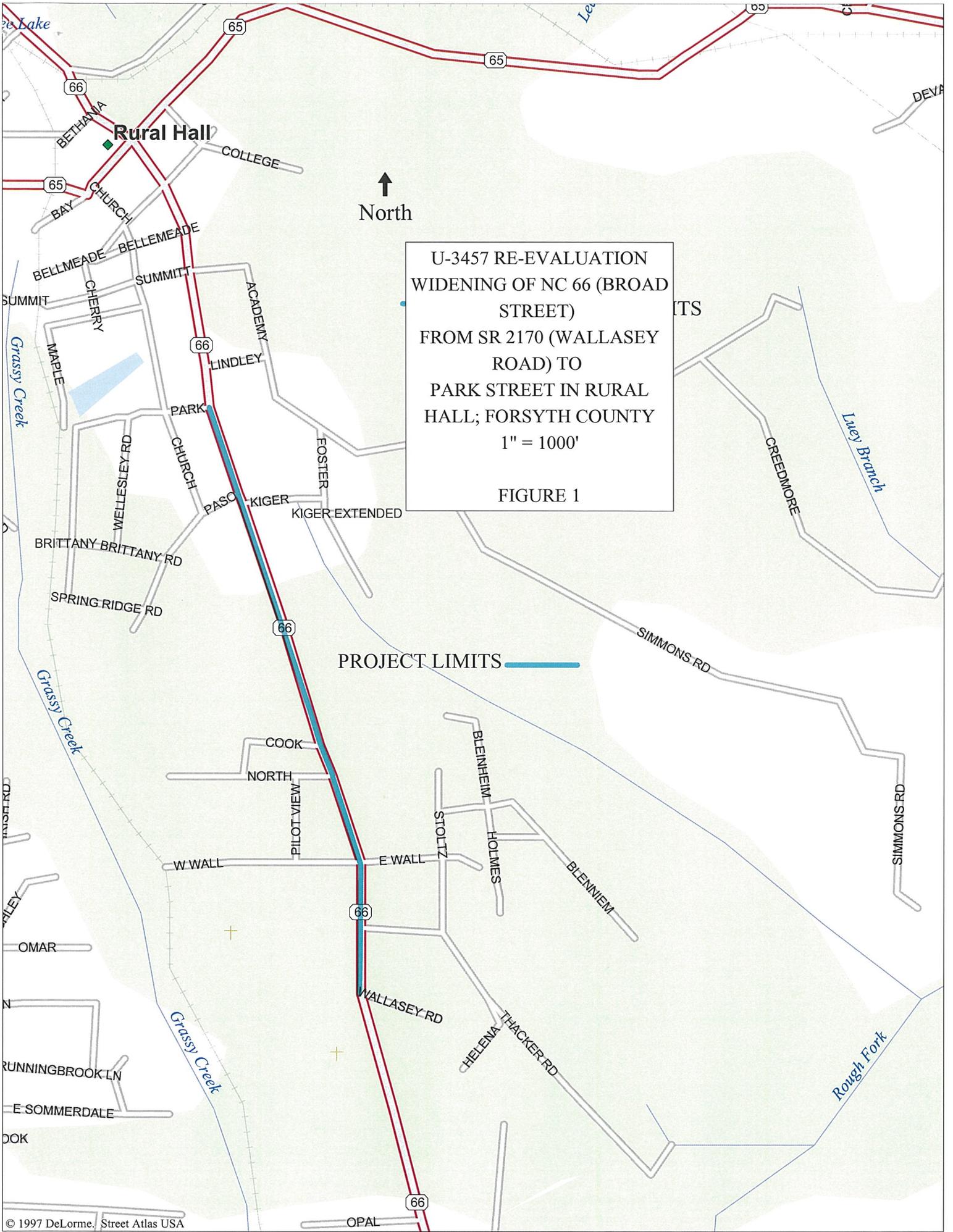
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Tony Houser, P.E. Roadway Design



U-3457 RE-EVALUATION
 WIDENING OF NC 66 (BROAD
 STREET)
 FROM SR 2170 (WALLASEY
 ROAD) TO
 PARK STREET IN RURAL
 HALL; FORSYTH COUNTY
 1" = 1000'
 FIGURE 1

PROJECT LIMITS ———