

FEASIBILITY STUDY

US 74 (Andrew Jackson Highway)
From the Maxton Bypass to just west of Interstate 95
Robeson County
Transportation Improvement Program Project R-513

Prepared by the
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

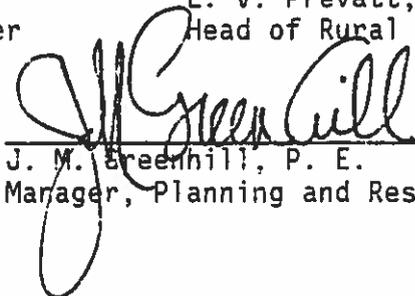


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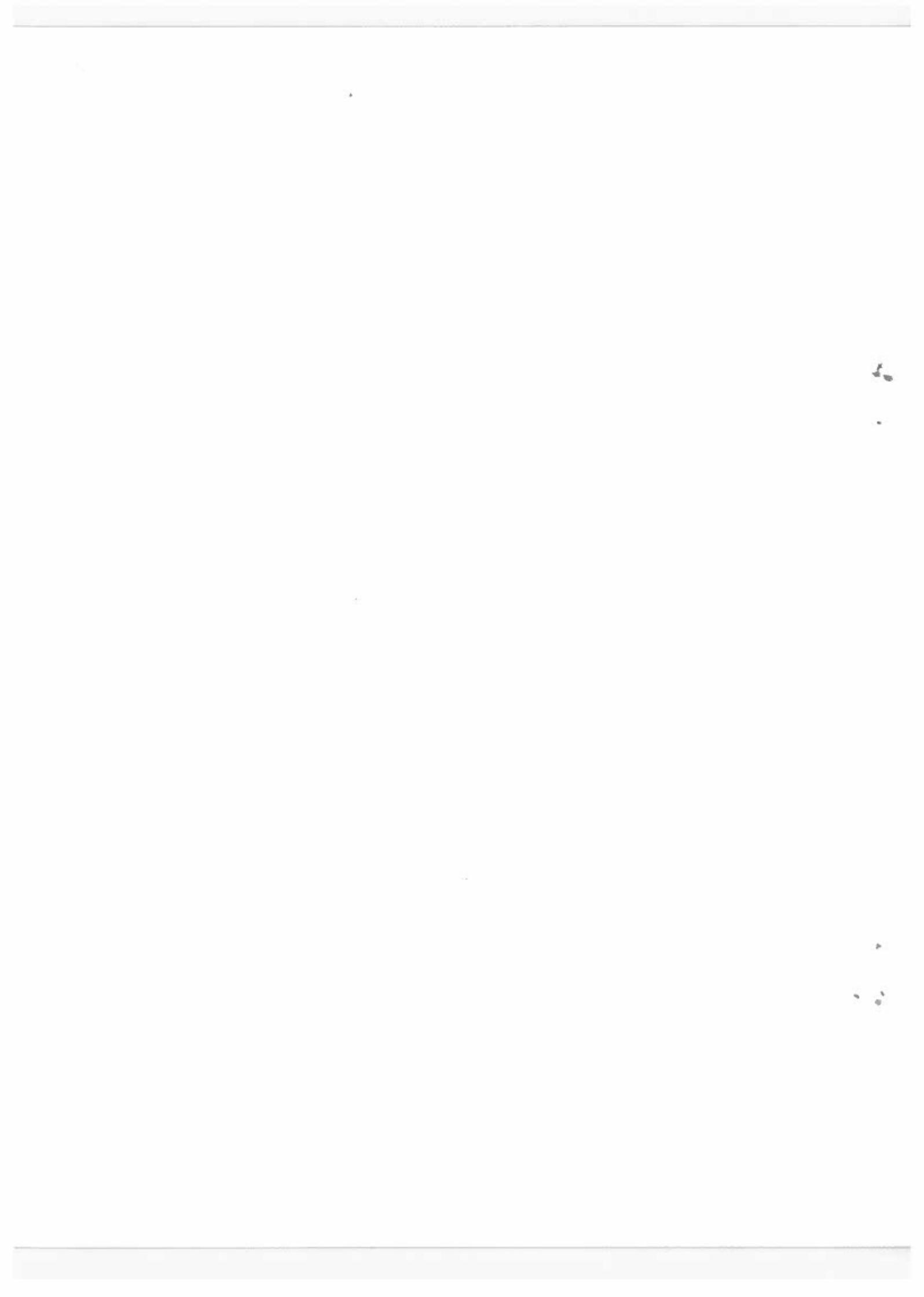
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US 74 (Andrew Jackson Highway)
From the Maxton Bypass to just west of Interstate 95
Robeson County
Transportation Improvement Program Project R-513

The subject project is included in the 1988-1996 North Carolina Transportation Improvement Program (T.I.P.) for feasibility study and/or right-of-way protection. This report presents recommendations for the location and construction of a freeway-type facility consistent with the statewide long-range plans for upgrading US 74 between Charlotte and Wilmington. The project is not currently funded. The location of the project is shown on Figure 1.

The primary emphasis of the study was to evaluate the provision of a multi-lane facility from Maxton to Lumberton. The results of this study reveal that it would be feasible and desirable to provide a four-lane, divided US 74 facility, the majority of which would be on new location. The recommended alignment would be located one-half to one mile south and approximately parallel to the existing facility. The proposed facility would tie back into the existing alignment just east of SR 1164, and it would remain on this alignment until it reaches the end of the project at Interstate 95 (I-95) (See Figure 3). The proposed improvements are consistent with recommendations previously made in a combined Corridor Study and Draft Environmental Impact Statement document covering US 74 from Laurinburg to Lumberton in 1972 (State Project 6.803308).

The recommended improvements are desirable to improve traffic flow and safety. Furthermore, the improvements are warranted in order to provide continuity in the overall statewide plans to provide a multi-lane, major arterial facility along the US 74 corridor extending from Charlotte in the west to the port city of Wilmington in the east. This portion of the US 74 facility has been identified as a "Strategic Corridor" in the 1988-1996 North Carolina Transportation Improvement Program (See Figure 6). Highways were selected as Strategic Corridors based upon their importance to a region and their value to the entire state. They are routes that combine high traffic volumes, and great economic potential. The US 74 Strategic Corridor from Charlotte to Wilmington is considered to be of vital importance to the southern tier of counties which it crosses: Mecklenburg, Union, Anson, Richmond, Scotland, Robeson, Columbus, Brunswick, and New Hanover. In addition to the subject project, a number of other improvements to the corridor are included in the latest N. C. Transportation Improvement Program, as shown on Figure 6.

I. NEED FOR THE PROPOSED PROJECT

A. LOCATION AND TYPE OF FACILITY

The section of US 74 covered in this study begins at the east end of the US 74 Bypass around Maxton, and ends at Interstate 95 south of Lumberton. This section of US 74 is approximately 14.4 miles in length and it lies entirely within Robeson County (See Figure 1).

US 74 is classified as a principle arterial route in the updated North

Carolina Functional Classification System. In addition, US 74 is a part of the Federal-Aid Primary System, designated FAP 18-4.

B. HISTORICAL BACKGROUND

US 74 extends across southern North Carolina from the Tennessee State Line to Wilmington in a west to east direction. In the studied area, US 74 connects the Cities/Towns of Maxton and Alma. The route lies south of the Town of Pembroke and the City of Lumberton. The subject section of US 74 was constructed during the 1920's as a 16-foot wide soil road. During the 1950's, the majority of this segment of US 74 was constructed on new location and widened to 22 feet of pavement. Since the 1950's, the only major improvements to the route have been periodic resurfacing.

C. CHARACTERISTICS OF THE EXISTING FACILITY

1. Cross-Section Description

The subject section of US 74 consists of two lanes with 22 feet of pavement and 9 to 10-foot grassed shoulders.

2. Right-of-Way

From the beginning of the project to SR 1166-SR 1354, the right-of-way width along US 74 is shown as 100 feet symmetrical about the center-line of the roadway. From this point to I-95, the right-of-way width is shown as 150 feet symmetrical about the center-line of the roadway.

3. Horizontal and Vertical Alignment

Level to gently rolling terrain exists along the subject section of US 74. The existing vertical and horizontal alignments are judged to be excellent with no substantial curvatures or gradients. Approximately 95-percent of the subject segment affords adequate passing sight distances of 1500 feet or more (Figures 2-A through 2-E offer Photos of the Existing Conditions along US 74).

4. Speed Limits

The posted speed limit along the subject section of US 74 is 55 mph; however, there are a few advisory speed zones located within the project limits.

5. Population

The population in the study area is composed of the Indian (55%), Black (30%), and White (15%) races. The residents of the area east of Maxton are predominantly members of the Lumbee Indian population. Furthermore, virtually all of the people who live in homes adjacent to US 74 are members of the Lumbee Indian population, and thus comprise a linearly cohesive community. Their principal source of income is agricultural-oriented and supplemented by work in the various nearby industries. These Indians are unique to southeastern North Carolina.

6. Degree of Roadside Development and Abutting Properties

Roadside development is primarily light and rural residential in nature. However, development is moderate at several rural road intersections where commercial development exists. Table 1 provides a summary of the total number of properties that either front and/or have driveway connections to the US 74 facility:

TABLE 1
NUMBER OF ABUTTING PROPERTIES ALONG US 74

<u>DIRECTION</u>	<u>NUMBER OF RESIDENCES</u>	<u>NUMBER OF BUSINESSES</u>	<u>RESIDENTIAL DENSITY (HOMES/MILE)</u>	<u>BUSINESS DENSITY (BUSINESSES/MILE)</u>
EAST-BOUND	99	14	6.88	0.97
WEST-BOUND	62	19	4.31	1.32

7. Public Facilities

The following is a summary of the existing public facilities located within the study area adjacent to the US 74 roadway:

Whitehill Freewill Baptist Church and Cemetery
Church of God Campground and Meeting Center
Riverside United Methodist Church
New Zion United Methodist Church
Riverside Baptist Church

8. Access Control

No control of access exists along the subject section of US 74.

9. Intersecting Roads

Within the study area, all existing roads intersect US 74 at-grade with stop sign control. As an extra precaution, a flashing yellow signal has been placed at the US 74-NC 710 intersection. Additionally, flashing yellow signals precede the entrance into Crowell Constructors, Inc. in both the east and west-bound directions.

10. Structures

(a). Drainage

Existing drainage structures consist exclusively of corrugated metal pipes used for cross-drainage.

(b). Bridges

There is one bridge located along existing US 74 within the project limits. The characteristics of this structure are as follows:

LOCATION: Seaboard Coastline Railroad, 2.1 miles east of NC 710
 BRIDGE NUMBER: 14
 YEAR OF CONSTRUCTION: 1948
 SUFFICIENCY RATING: 61.3
 ESTIMATED REMAINING LIFE (IN YEARS): 20
 STRUCTURE LENGTH (FEET): 135
 CLEAR ROADWAY WIDTH (FEET): 26.1

D. Project Terminals

Western Terminal: The subject project begins at the eastern-end of the US 74 Bypass around Maxton (See Figure 3). From this point, the US 74 facility extends northwesterly around Maxton, towards the City of Laurinburg in Scotland County. The roadway cross-section consists of four, 12-foot lanes of travel (2 in each direction) and 14-foot grassed shoulders (2 feet paved). The east and west-bound lanes are separated by a 68-foot wide grassed median (2 feet paved). Access along this portion of US 74 is fully controlled, and the right-of-way width is shown as varying from 320 to 340 feet. The US 74 Maxton Bypass was constructed during the early 1980's.

Eastern Terminal: The subject project ends just west of the Interstate 95/US 74 interchange (See Figure 3). Approaching the interchange area from the west, US 74 consists of four, 12-foot lanes of travel with curb and gutter inside shoulders and 14-foot grassed outside shoulders (4 feet paved). The east and west-bound lanes are separated by a 25-foot concrete median. Access is fully controlled in this area, and the right-of-way width is shown as varying from 150 to 205 feet.

From the I-95 interchange, US 74 extends eastward toward NC 41 with a roadway consisting of four, 12-foot wide lanes of travel and 14-foot grassed shoulders (4 feet paved). The east and west-bound lanes are separated by a grassed median that varies from 40 to 68 feet in width (4 feet paved). Access along this portion of US 74 is partially controlled (full control of abutting properties; designated at-grade intersections; one interchange), and the right-of-way width is shown as 370 feet.

E. Traffic Data and Capacity Analysis

Current average daily traffic (ADT) volumes within the project limits vary from a low of 6,000 vehicles per day near to a high of 6,800 vehicles per day. Truck traffic accounts for approximately 14-percent of the overall ADT. The year 2008 average daily traffic volumes are projected to vary from 10,800 to 12,200 vehicles per day. The existing traffic volumes as well as the 2008 projected volumes for the subject section of US 74 are shown on Figure 4.

Table 2, shown on the following page, provides a summary of the findings of a capacity analysis that was performed based on the existing US 74 roadway.

TABLE 2
CAPACITY ANALYSIS

<u>YEAR</u>	<u>AVERAGE PEAK HOUR VOLUMES *</u>	<u>COMPUTED LEVEL OF SERVICE</u>
1988	647	C
2008	1,160	D

* Measured in Vehicles Per Hour (VPH); Total, Both Directions, 60/40 Directional Distribution Assumed.

The results given in Table 2 indicate that the subject section of US 74 is currently operating in the level-of-service C range during daily peak periods. The level-of-service C is in the range of stable flow, but marks the beginning of flow in which the operation of individual motorists becomes significantly affected by interactions with other vehicles in the traffic stream. The selection of speed is affected by the presence of these other vehicles, and maneuvering within the stream requires substantial effort on the part of the user.

Further review of the results in Table 2 show that, by the year 2008, the subject section of US 74 will be operating in the level of service D range during daily peak periods. This level-of-service represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

F. Accident Analysis

An accident study of the subject project was conducted by the Traffic Studies Section of the NCDOT Traffic Engineering Branch for the period from January 1, 1984 to November 30, 1987. The results of the study are summarized in the following table.

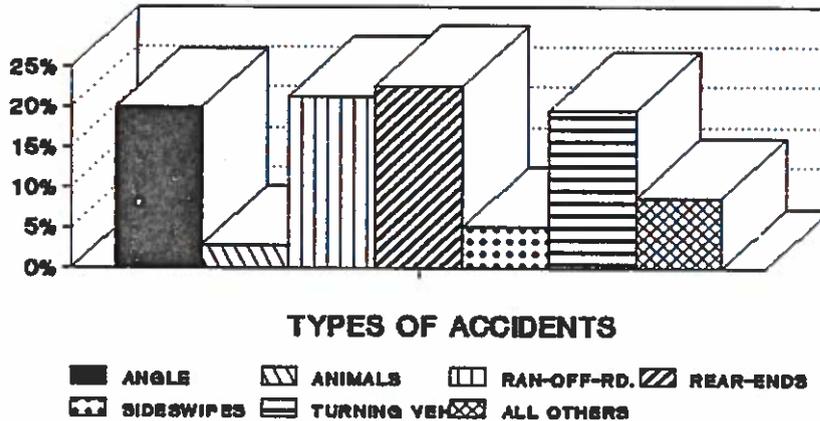
TABLE 3
ACCIDENT DATA

	<u>SUBJECT SECTION OF US 74</u>	<u>STATEWIDE AVERAGES FOR SIMILAR RURAL US ROUTES (1984-1987)</u>
TOTAL ACCIDENTS	216	N/A
FATAL ACCIDENTS	6	N/A
NON-FATAL INJURY ACCIDENTS	103	N/A
TOTAL ACCIDENT RATE *	212.03	200.13
FATAL ACCIDENT RATE *	5.89	3.85
NON-FATAL INJURY ACCIDENT RATE *	101.11	92.75

* MEASURED IN ACCIDENTS/100 MILLION VEHICLE MILES

A review of the data reveals that accidents involving rear-end collisions and vehicles running off the road are the largest percentages of the overall total accidents that occurred along the subject section of US 74 during this period.

ACCIDENTS OCCURRING ALONG US 74 FROM THE MAXTON BYPASS TO I-95



FROM JANUARY 1, 1984
TO NOVEMBER 30, 1987

Further review of the accident data reveals that a number of the accidents occurred at various intersections throughout the project. The following is a summary of the number of accidents occurring in the vicinity (i.e., within 0.1 mile) of these various intersections within the time frame of the accident study:

TABLE 3-A

HIGH ACCIDENT LOCATIONS

<u>INTERSECTION</u>	<u>NUMBER OF ACCIDENTS OCCURRING</u>
US 74 BUS AT BEGINNING OF PROJECT	9
SR 1166 - SR 1354	19
SR 1373	14
NC 710	8
SR 1157	7
SR 1003	12
SR 1204	7
SR 1207 - SR 1589 NEAR END OF PROJECT	<u>25</u>
Total	101
Percent of Overall Total	47%

II. DESCRIPTION OF THE SUGGESTED IMPROVEMENTS

A. General Description

The North Carolina Department of Transportation recommends improving US 74 to a multi-lane highway primarily on new location from the US 74 Maxton Bypass/US 74 Business junction, east of Maxton to just west of the Interstate 95/US 74 interchange, south of Lumberton. The project, as proposed, is approximately 14.5 miles in length, and lies entirely within Robeson County (See Figure 3).

The proposed relocated portion of US 74 would lie one-half to one mile south of and parallel to the existing US 74 facility. The relocated section would tie back into the existing US 74 facility near SR 1163. From the intersection of US 74 and SR 1163 eastward to SR 1589 near the end of the project, the recommended improvements call for widening the existing facility to 28 feet, and then constructing a new 28-foot pavement parallel to the existing highway. Throughout the project, the east- and west-bound lanes would be separated by a 46-foot grassed median. The location of the suggested improvements are shown in detail on Figure 3.

B. Summary of the Recommended Action

1. Length of the Subject Project

The total length of the suggested improvements is approximately 14.5 miles.

2. Cross-Section Description

A four-lane, divided facility with 10-foot usable shoulders (2 feet paved) and a 46-foot grassed median (including 2-foot paved shoulders) is proposed for this project. A detail of the proposed cross-section is shown in Figure 7.

The four-lane, divided sections to be constructed along the existing roadway, would be constructed in such a manner as to minimize any unnecessary business and residential displacements and right-of-way costs. If feasible, this would be achieved by shifting the construction of the additional 28-foot pavement either north or south of the existing roadway.

3. Right-of-Way

It is anticipated that a minimum of 250 feet of right-of-way width would be required as a minimum in order to contain the proposed improvements.

4. Access Control

The acquisition of full control of access is recommended for this project. Access to the facility would be limited to the interchange areas along the proposed route (See Figure 3).

Full control of access is recommended for this project to allow consistency between the projects termini. On the western-end of the project, the US 74 Maxton Bypass is a fully controlled access facility, and to the east, the existing US 74 facility in the vicinity of I-95 also has a full control of access design. Consequently, providing anything less than a fully controlled access facility between the termini would be inconsistent with the overall long-range highway program as well as the Strategic Corridor designation for this route.

5. Intersection Treatment

All roads intersecting at grade with the proposed US 74 facility would either be grade-separated or have their access removed. Table 4 provides a listing of the intersections and their recommended treatments (Please refer to Figure 3, N/A = not applicable).

TABLE 4

PROPOSED INTERSECTION TREATMENT

<u>LOCATION</u>	<u>EXISTING CONDITION</u>	<u>PROPOSED IMPROVEMENT</u>
US 74 BUS	AT-GRADE INTERSECTION	INTERCHANGE (with some minor re-alignment of existing US 74)
SR 1166	N/A	INTERCHANGE
SR 1165	N/A	GRADE SEPARATION
NC 710	N/A	INTERCHANGE
SR 1158	N/A	GRADE SEPARATION
SR 1157	N/A	GRADE SEPARATION
SR 1197	N/A	GRADE SEPARATION
SR 1003	N/A	INTERCHANGE
SR 1159	N/A	GRADE SEPARATION (re-align east-end to correspond with SR 1550)
US 74	N/A	INTERCHANGE *
SR 1164	AT-GRADE INTERSECTION	ACCESS DENIED *
SR 1204	AT-GRADE INTERSECTION	ACCESS DENIED *
SR 1208	AT-GRADE INTERSECTION	ACCESS DENIED
SR 1589/SR 1207	AT-GRADE INTERSECTIONS	INTERCHANGE (move intersection to approximately 1,600 feet west of existing)

* A service road would be built to connect SR 1163, SR 1164, SR 1204, and SR 1208 with SR 1207; and access to US 74 would be provided via the proposed SR 1589/SR 1207 interchange.

Please note that the above recommended intersection treatment does not provide a freeway-to-freeway facility at the junction of US 74 and Interstate 95. In order to provide such a facility, the existing US 74/I-95 interchange would have to be redesigned and, possibly, relocated.

If US 74 is upgraded in the future, from Interstate 95 eastward towards Whiteville (presently, there are no programmed projects for this section of US 74), then providing a freeway-to-freeway interchange at the US 74/I-95 junction would become even more crucial. If the project is to be implemented in the future, full consideration should be given to providing such a facility during the planning/environmental documentation stage of the project.

It should also be noted that the proposed interchange at SR 1589/SR 1207 could result in conflicting ramp terminal movements between SR 1589/SR 1207 and I-95/US 74. Presently, the ramps at I-95/US 74 interchange contact US 74 at-grade, and thus traffic exiting on or off of these ramps necessarily moves at a slow rate of speed. However, traffic exiting on to or off of the proposed interchange at SR 1589/SR 1207 would be traveling at a higher rate of speed and, since the distance between the interchanges would be only approximately 1600 feet, unsafe weave and merge conditions could eventually result. This is another reason why a freeway-to-freeway type interchange at I-95 and US 74 should be given strong consideration if this project is to be implemented.

6. Terminal Treatment

Western Terminal: The subject project begins at the eastern end of the US 74 Bypass around Maxton (See Figure 3). From this point, the US 74 facility extends northwesterly around Maxton towards the City of Laurinburg in Scotland County. Presently, there is one programmed project (T.I.P. Project L-2228) for this portion of US 74. This project is now underway, and it involves making landscape improvements around the US 74/NC 71 interchange.

Eastern Terminal: The subject project ends just west of the Interstate 95-US 74 Interchange (See Figure 3). From the I-95 interchange, US 74 extends eastward towards NC 41. There is one programmed project (T.I.P. Project K-2002) for this section of US 74. This project involves constructing a single rest area adjacent to the southeast quadrant of the US 74/NC 41 interchange within previously acquired right-of-way. Construction on this project is scheduled to begin during federal fiscal year 1990.

7. Design Speed

A 70 mph design speed is proposed for this project. The proposed design speed reflects the geometric design of the roadway, and it would provide for a margin of safety for safe vehicular operation. The design speed should not be confused with the posted speed limits or vehicular running speeds.

8. New Structures Required

(a). Drainage Structures

The placement of any required major drainage structures, such as culverts and/or, small-scale structures, such as pipes, would be included as an integral part of the construction.

(b). Bridge Structures

For the proposed project, new structures would be required at the proposed interchange locations: US 74 BUS, SR 1166, NC 710, SR 1003, US 74, and SR 1589/SR 1207; the proposed grade separations: SR 1165, SR 1158, SR 1157, SR 1197, and SR 1159; and at the Seaboard Coastline Railroad crossing.

C. Traffic Data and Capacity Analysis

Average daily traffic (ADT) volumes along the proposed US 74 route are projected to vary from a low of 8,640 vehicles per day to a high of 9,760 vehicles per day in the year 2008 (See Figure 5).

A capacity analysis was performed in order to determine the future level of service that would be provided by the new US 74 facility, based on the proposed roadway dimensions and the projected traffic volumes. The results of this analysis are shown in the following table.

TABLE 5CAPACITY ANALYSIS (BASED ON THE PROPOSED ROADWAY DIMENSIONS)

<u>DIRECTION</u>	<u>AVERAGE PEAK HOUR VOLUMES *</u>	<u>COMPUTED LEVEL OF SERVICE</u>
EAST-BOUND	556	A
WEST-BOUND	371	A

* Measured in Vehicles Per Hour (VPH), 60/40 Directional Distribution Assumed

The results given above show that the new US 74 facility would allow for operating conditions in the level-of-service A range in the year 2008. This level of service is defined as free flow operation. Motorists are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist is excellent.

D. Other Programmed US 74 Projects

There are no other programmed projects for US 74 within the project boundaries.

E. Cost Estimates

The total estimated cost for the proposed improvements is as follows:

Construction:	\$60,500,000
Right-of-Way:	<u>\$ 5,123,000</u>
Total:	\$65,623,000

F. Staged Construction

It may be determined that staging the proposed improvements to US 74 is the best course of action due to an accelerated construction schedule and/or funding considerations. Should staging be selected, it is recommended that the improvements be made with the following priority:

- Stage 1) Purchase the 250 feet of right-of-way needed for the ultimate four-lane, divided facility but construct only two of the lanes initially. The right-of-way would be offset to allow for the future widening of the facility to four lanes, separated by a 46-foot grassed median. Access to the facility would be fully controlled and limited to designated at-grade intersections and three interchanges: US 74 Business, existing US 74, and Interstate 95. The estimated cost of the Stage 1 improvements is \$32,275,000 (\$5,123,000 for right-of-way and \$27,152,000 for construction).
- Stage 2) Construct the remaining two lanes, the 46-foot grassed median, all grade separations, and all remaining interchanges. The estimated cost of constructing the Stage 2 improvements is \$33,348,000 (all necessary right-of-way purchased under Stage 1).

III. ALTERNATIVES CONSIDERED

A. Improvement of the Existing Facility

Upgrading the existing US 74 facility to either a fully controlled or partially controlled access, four-lane, divided facility was considered during this study. The fully controlled access facility would have a cross-section consisting of four, 12-foot lanes of travel, 10-foot usable shoulders (2 feet paved), and a 46-foot grassed median. Interchanges would be located at US 74 Business, SR 1166, NC 710, and SR 1003. The estimated cost of this alternative is \$52,953,000 (\$39,400,000 for construction, \$13,553,000 for right-of-way). The partially controlled access facility with the same cross-section, and designated at-grade intersections is estimated to cost \$25,217,000 (\$16,000,000 for construction, \$9,217,000 for right-of-way).

Although the total estimated cost of either of these options is less than that of the recommended action (\$65,623,000), both were rejected from further consideration, primarily because they would result in the elimination of the existing linearly cohesive Lumbee Indian community located adjacent to US 74. Upgrading the existing alignment would have a devastating effect on community relationships such as neighborhood unity, planning and zoning objectives, and educational and religious facilities. An impact of this nature is deemed imprudent and unacceptable.

As previously mentioned, the improvements outlined in this report do not afford the provision of a freeway-to-freeway interchange design at the US 74-Interstate 95 junction. Although constructing such a facility would be relatively costly (approximately \$16,206,000; \$1,206,000 for right-of-way and

\$15,000,000 for construction), it may be deemed a necessary component in order to maintain the freeway concept of US 74 at I-95. Including a freeway-to-freeway facility at US 74/I-95 as a part of the overall proposed improvements should be given full consideration during the planning/ environmental documentation stage of the project.

Please note, if the project is to be implemented at a future date, all feasible alternatives, and their associated impacts, will have to be evaluated in a planning/environmental document. Then, a final decision will be made as to the most appropriate improvements.

IV. POTENTIAL SOCIAL AND ENVIRONMENTAL IMPACTS

A. Social Impacts

The major positive social impact of the recommended action would be the potential for safer vehicular operations. In addition, the project would have a positive effect on accessibility to schools, major cities, employment centers, churches, shopping areas, hospitals and community services. Benefits in improved accessibility and mobility would be realized by residents both within and outside the project area. No schools or other educational facilities are in any way adversely affected by the recommended alignment. School bus routing would probably not be affected; however, the pick-up and discharge of school children along existing US 74 should be safer due to the reduced traffic volumes.

The proposed facility would have very little effect on the existing and future land use patterns. Along the proposed fully controlled access right-of-way and between the interchanges, the land use would remain essentially in its present form. There may be accelerated development in the one existing industrial area: the US 74/I-95 interchange. Elsewhere, the land use is almost entirely agricultural along the proposed route. The proposed facility could affect some changes in cultivation patterns due to the severing of some farms, but primary consideration was given to minimizing farm field severances in selection of the route.

The land use in the vicinity of the proposed interchanges in the rural areas may undergo a change from agricultural to commercial usage.

The development and social patterns along existing US 74 are expected to be relatively unaffected by the proposed facility, except that the air and noise pollution would be reduced. Additionally, travel along the existing highway should be relatively free and unobstructed due to the reduction of through traffic. Particular attention was given to rural neighborhoods and communities in selection of the proposed alignment, and none would be severed or otherwise disturbed.

Some negative social impacts would result from the subject project, however. The primary potential adverse social consequence of constructing the project would be the need to move several businesses and residences. The relocation assistance program of the Division of Highways includes provisions to reduce the adverse effects of relocation. These provisions would be

described in detail in a planning/environmental document before the project is implemented.

One church, Riverside Baptist, would be affected by the proposed project (See Figure 3). Although the church is set back far enough from the proposed alignment to avoid total relocation, nonetheless, some of its land would have to be acquired and parking space at the facility could be reduced. Travel to and from the churches located along the rest of the existing US 74 alignment should be safer, and the atmosphere for worship improved due to the reduction in noise attendant with the reduced through traffic.

B. Environmental Impacts

No significant or long-lasting adverse environmental effects are foreseen as a result of constructing this project. The proposed project would require a relatively small amount of the general area's woodlands, swamp and marsh lands, and farm lands. It is anticipated that the remaining area would provide adequate food, cover, and protection for these animals as they move away from the construction activity. The proposed project is not anticipated to result in any permanent adverse effect on animal life in the corridor.

Plant life within the proposed project corridor consists primarily of woodlands and cultivated agricultural production and cover crops with the principal "cash crop" being flue cured tobacco. The proposed alignment would not significantly reduce the land suitable for farming in the area. The alignment has been selected in such a manner as to minimize the number of farm fields which would be severed. The proposed project would not adversely affect the long-term plant life resources in the corridor.

The proposed project may result in minor infringement upon some of the area's swamp forest and/or seasonally flooded bottomland forest. The current water quality classifications for the watercourses located in or near the study area are as shown below.

<u>WATERCOURSE</u>	<u>CLASSIFICATION</u>
Lumber River	C Sw
Back Swamp	A II

Class C Sw waters are defined as waters which are topographically located so as to generally have low velocities and certain other characteristics which are different from adjacent streams. These watercourses are suitable for fishing and fish propagation, and other usages requiring water of lower quality.

Class A-II waters are defined as waters suitable for drinking, culinary, or food processing purposes after approved treatment.

Section 404 (Clean Water Act) permits would have to be obtained prior to the initiation of any construction activity.

The project is located within the known geographical range of the red cockaded woodpecker (Picoides borealis), and the American alligator (Alligator mississippiensis). These animals are listed as threatened and/or endangered species by the U. S. Fish and Wildlife Service (USFWS).

The project, as proposed, would not require the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge, nor does it require the use of any land from any historic site of National, State, or Local significance.

V. BASIS FOR FINDINGS

The recommendations contained in this report were based on the following:

1. Field Investigations
2. Correspondences with the Board of Transportation Member
3. Correspondences with the Division Engineer
4. Correspondences with Local Lumbee Indian Officials
5. Previous Reports (US 74 Combined Project Report and Draft Environmental Statement, Project 6.803308, Laurinburg to Lumberton, approved by Planning Board on 12-18-72)
6. Aerial Mosaics dated June, 1988
7. Cost estimates provided by the Right-of-Way Branch and Design Services Unit

As previously mentioned, if the project is to be implemented at a future date, all feasible alternatives, and their associated impacts, will have to be evaluated in a planning/environmental document. Then, a final decision will be made as to the most appropriate improvements.

TVS/pr

NORTH CAROLINA



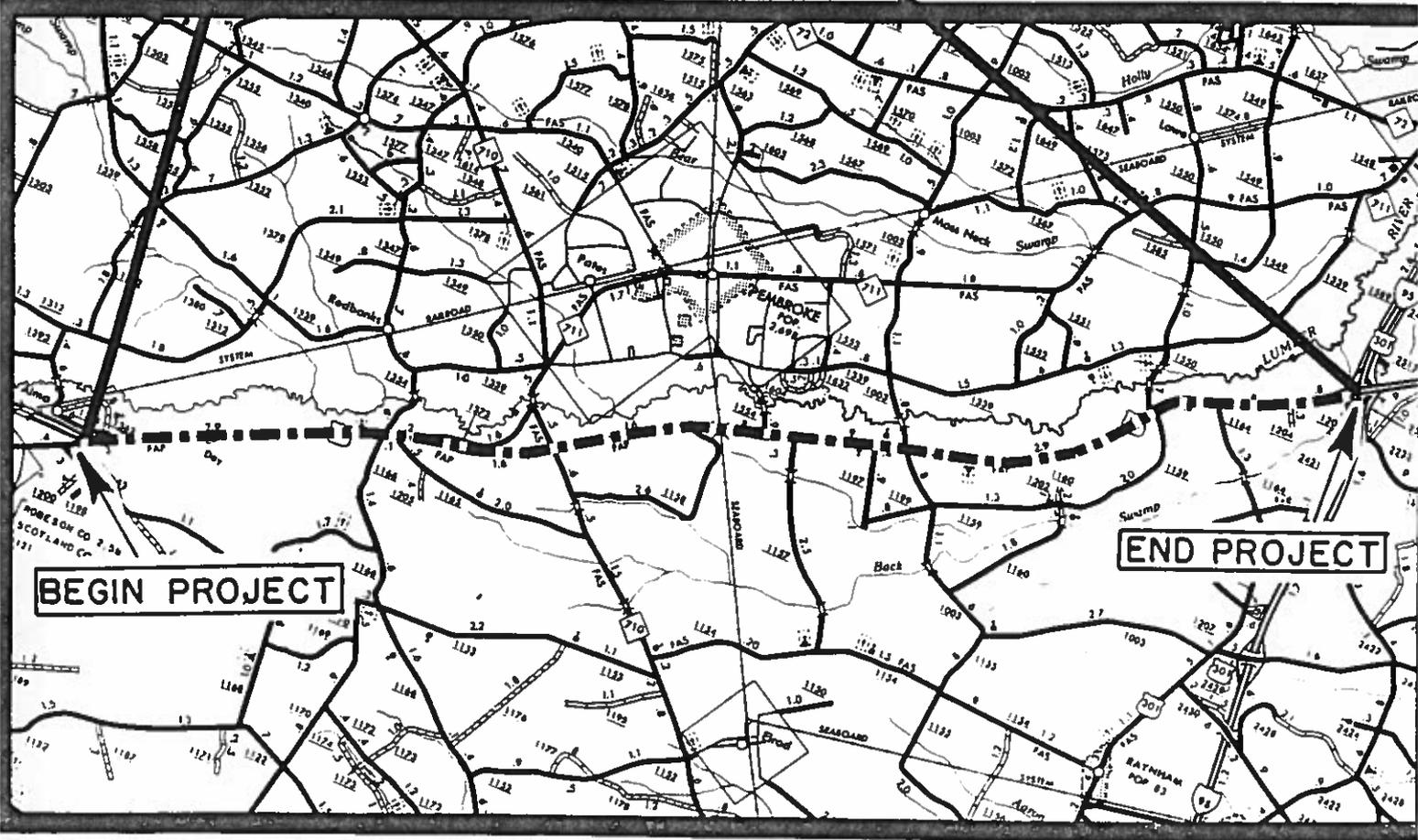
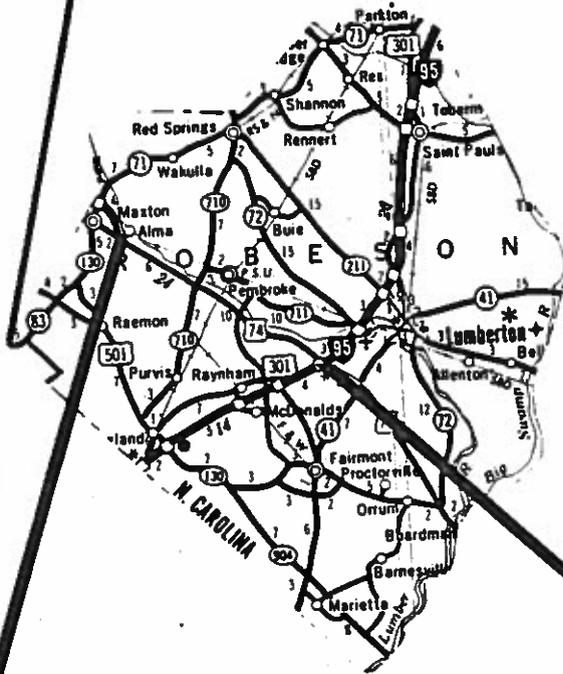
NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

6/88 AES

FIGURE 1



BEGIN PROJECT

END PROJECT



LOOKING WEST TOWARDS THE
EASTERN LIMIT OF THE
MAXTON BYPASS (BEGINNING
OF PROJECT)



LOOKING EAST TOWARDS
SR 1354-SR 1166
INTERSECTION



LOOKING EAST TOWARDS THE
US 74-SR 1373 INTERSECTIC
(US 74 TO THE RIGHT)



NORTH CAROLINA DEPARTMENT OF
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PLANNING AND RESEARCH BRANCH

Photos of Existing Conditions
Along US 74

Project R-513
Feasibility Study



LOOKING WEST TOWARDS
US 74\NC 710 JUNCTION



LOOKING WEST TOWARDS
1158 INTERSECTION



LOOKING WEST TOWARDS
THE SEABOARD COASTLINE
RAILROAD OVERPASS



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PLANNING AND RESEARCH BRANCH

Photos of Existing Conditions
Along US 74

Project R-513
Feasibility Study

8/88 AES

Fig. 2



LOOKING EAST TOWARDS
SR 1157 INTERSECTION



LOOKING EAST TOWARDS
SR 1003 INTERSECTION



LOOKING EAST TOWARDS
SR 1550 AND SR 1159
INTERSECTIONS



NORTH CAROLINA DEPARTMENT OF
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DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

Photos of Existing Conditions
Along US 74

Project R-513
Feasibility Study

8/88 AES

Fig. 2.



LOOKING WEST TOWARDS
SR 1164 INTERSECTION



LOOKING EAST NEAR CROWL
CONSTRUCTORS, INC.



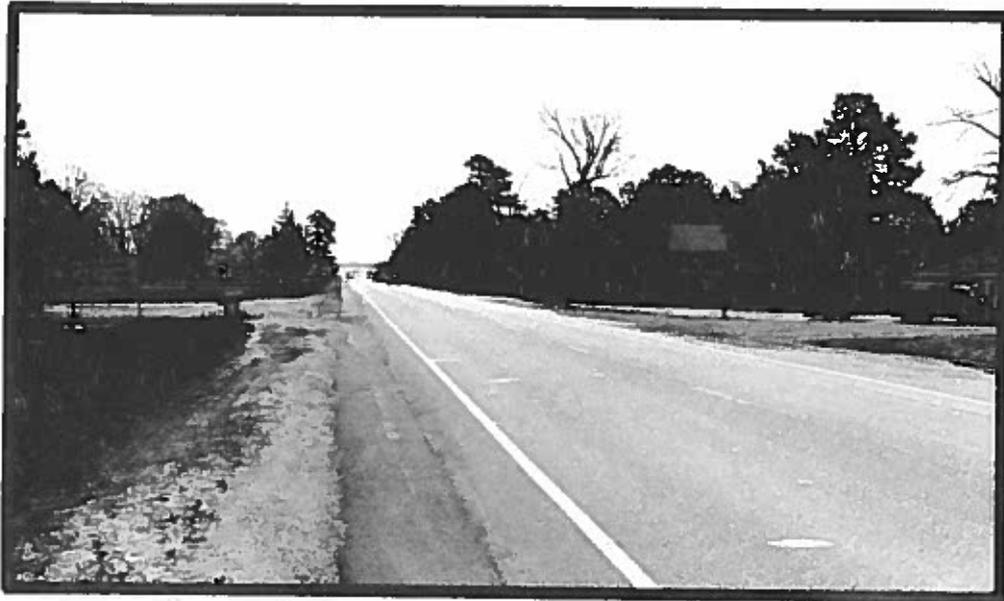
NORTH CAROLINA DEPARTMENT OF
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DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

Photos of Existing Conditions
Along US 74

Project R-513
Feasibility Study

8/88 AES

Fig. 2



LOOKING EAST TOWARDS
SR 1208 INTERSECTION



LOOKING EAST ON US 74
TOWARDS I-95 INTERCHANGE
(END OF PROJECT)



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

Photos of Existing Conditions
Along US 74

Project R-513
Feasibility Study

8/88 AES

Fig. 2-E

LUMBER RIVER

SEABOARD RAILROAD

LUMBER RIVER

TO LAURINBURG

TO MAXTON

BEGIN PROJECT

SHEET 1 OF 7

SR 1200
SR 1198
SR 1153

SR 1393

SR 1362

US 74

LEGEND



EXISTING US 74



PROPOSED US 74 RELOCATION



PROPOSED STRUCTURES



PROPOSED INTERCHANGES



PROPOSED RE-ALIGNMENTS



PROPOSED SERVICE ROADS

PHOTO MAP PREPARED BY NCDOT
DIVISION OF HWYS - PHOTOGRAMMETRY UNIT
DATE OF PHOTOGRAPHY 4-11-88

MATCHLINE



NORTH CAROLINA DEPARTMENT OF
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PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

6/88 AES

FIGURE 3

SHEET 2 OF 7

1354

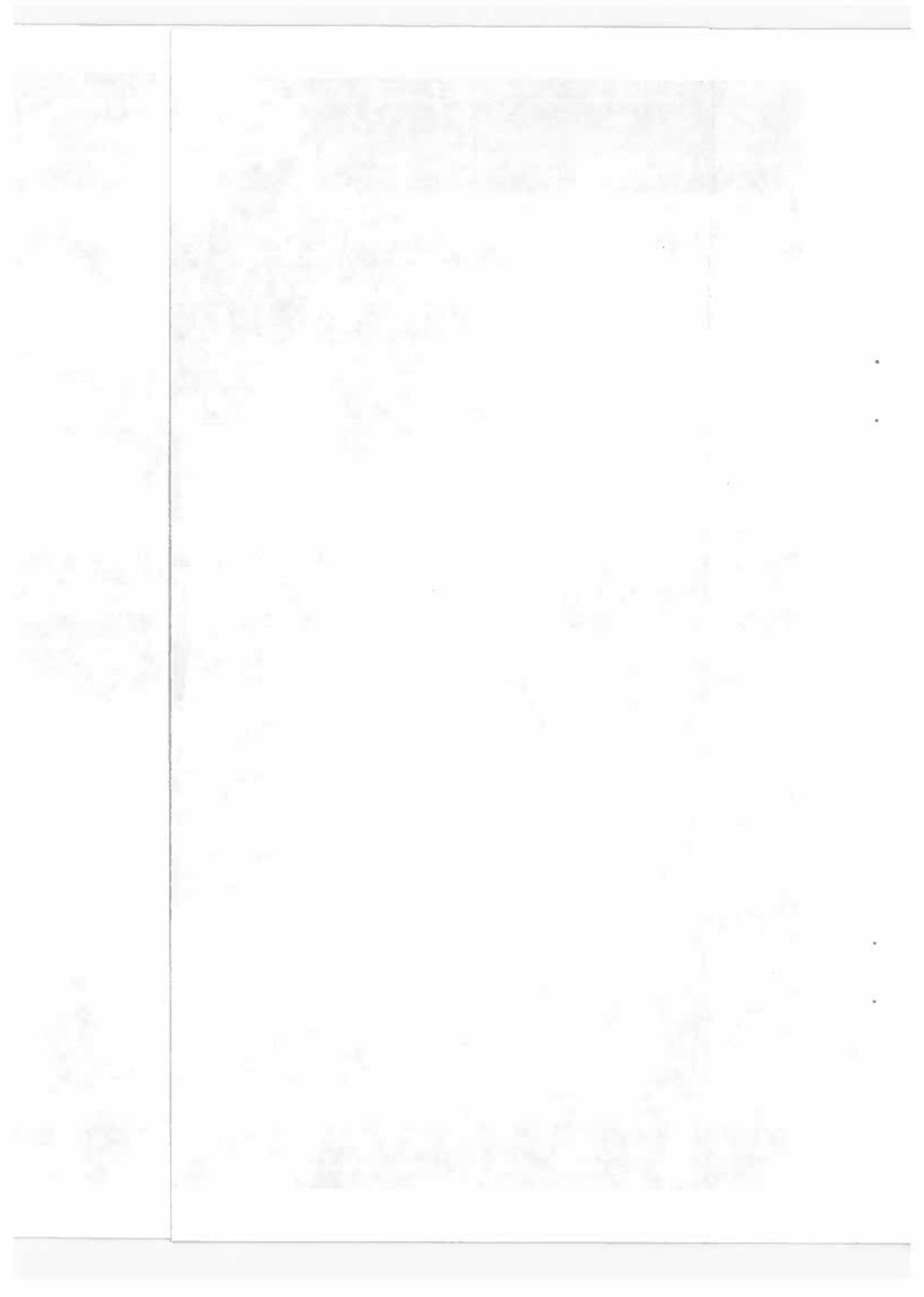
LUMBER RIVER

US 74

SR 1165

SR 1205

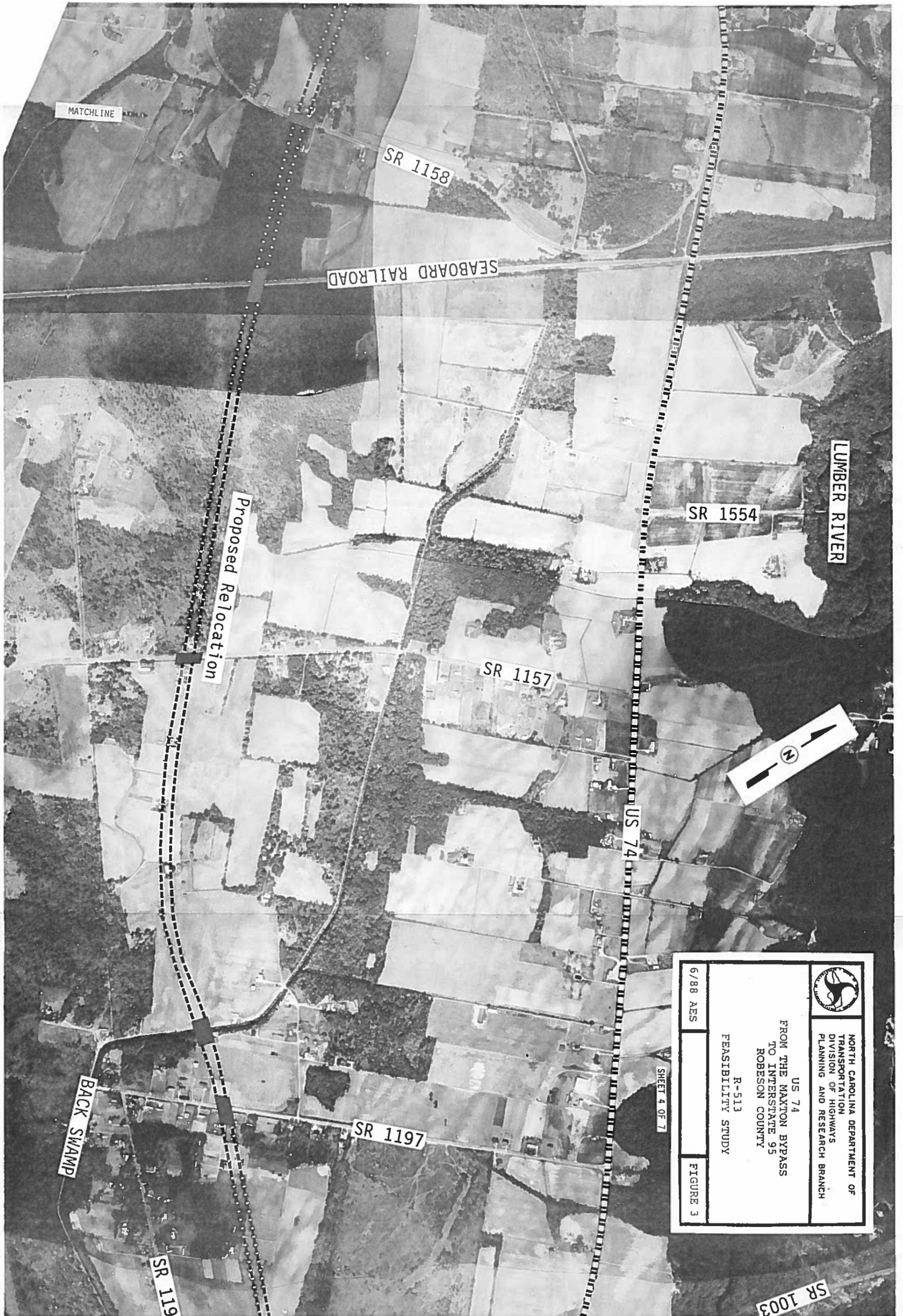
MATCHLINE



LEGEND

	EXISTING US 74
	PROPOSED US 74 RELOCATION
	PROPOSED STRUCTURES
	PROPOSED INTERCHANGES
	PROPOSED RE-ALIGNMENTS
	PROPOSED SERVICE ROADS





NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

6/88 AES

FIGURE 3

SHEET 4 OF 7

SR 1003

LEGEND

- ||||| EXISTING US 74
- ▣▣▣▣▣ PROPOSED US 74 RELOCATION
- ▣▣▣▣▣ PROPOSED STRUCTURES
- PROPOSED INTERCHANGES
- PROPOSED RE-ALIGNMENTS
- PROPOSED SERVICE ROADS



SR 1003

SR 1003

1199

MATCHLINE

SR 1159

SR 1202

US 74

LUMBER RIVER

SR 1160

MATCHLINE



MATCHLINE

SR 1159

BACK SWAMP

SR 1550

SR 1164

SR 1204

SR 1208

US 74



	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH	
US 74 FROM THE MAXTON BYPASS TO INTERSTATE 95 ROBESON COUNTY R-513 FEASIBILITY STUDY	
6/88 AES	FIGURE 3

SHEET 6 OF 7



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

6/88 AES

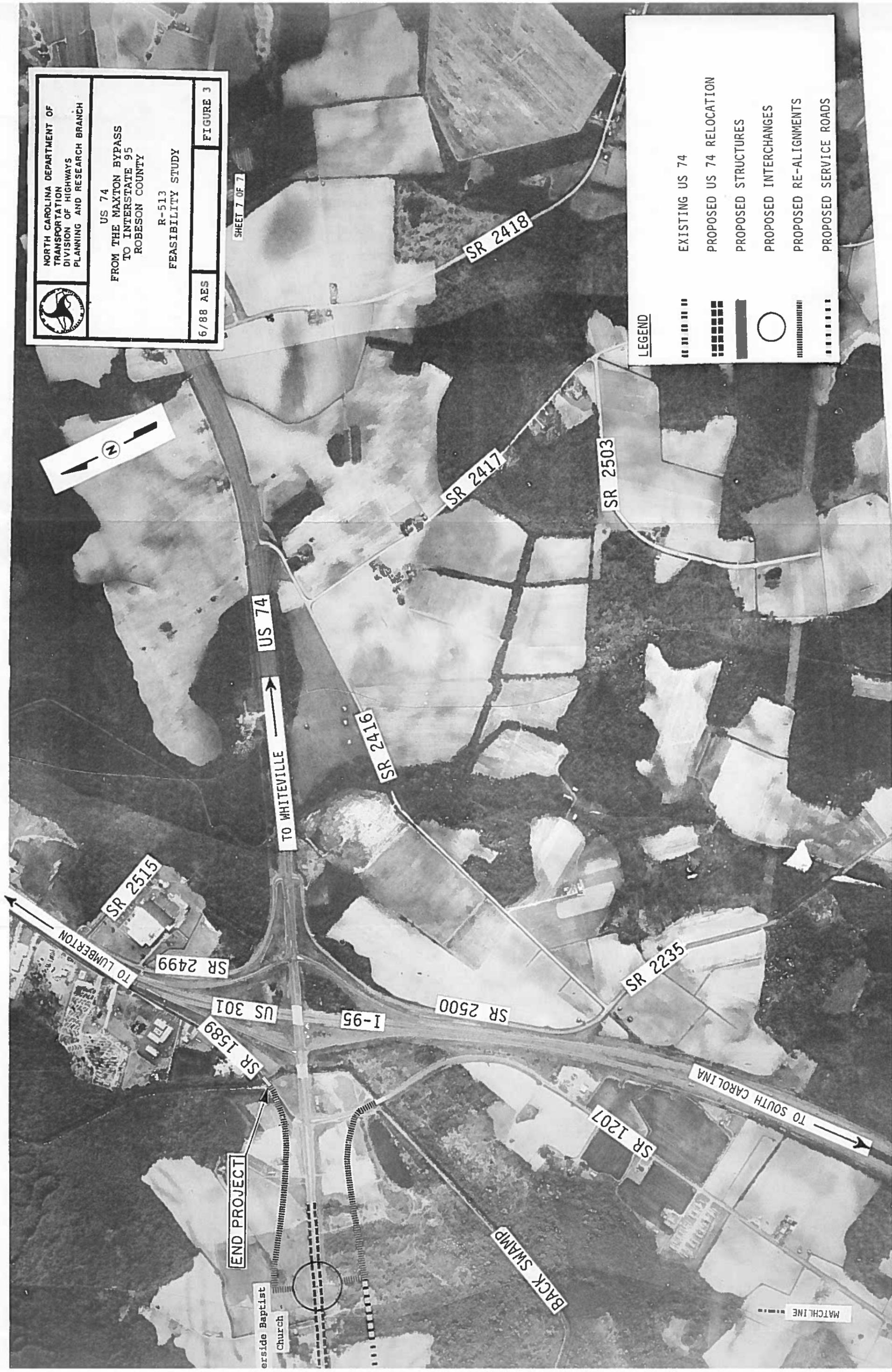
FIGURE 3

SHEET 7 OF 7



LEGEND

-  EXISTING US 74
-  PROPOSED US 74 RELOCATION
-  PROPOSED STRUCTURES
-  PROPOSED INTERCHANGES
-  PROPOSED RE-ALIGNMENTS
-  PROPOSED SERVICE ROADS





NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

7/88 AES

FIGURE

Current and Projected
Average Daily Traffic Volumes

LEGEND
1988 ADT
2008 ADT

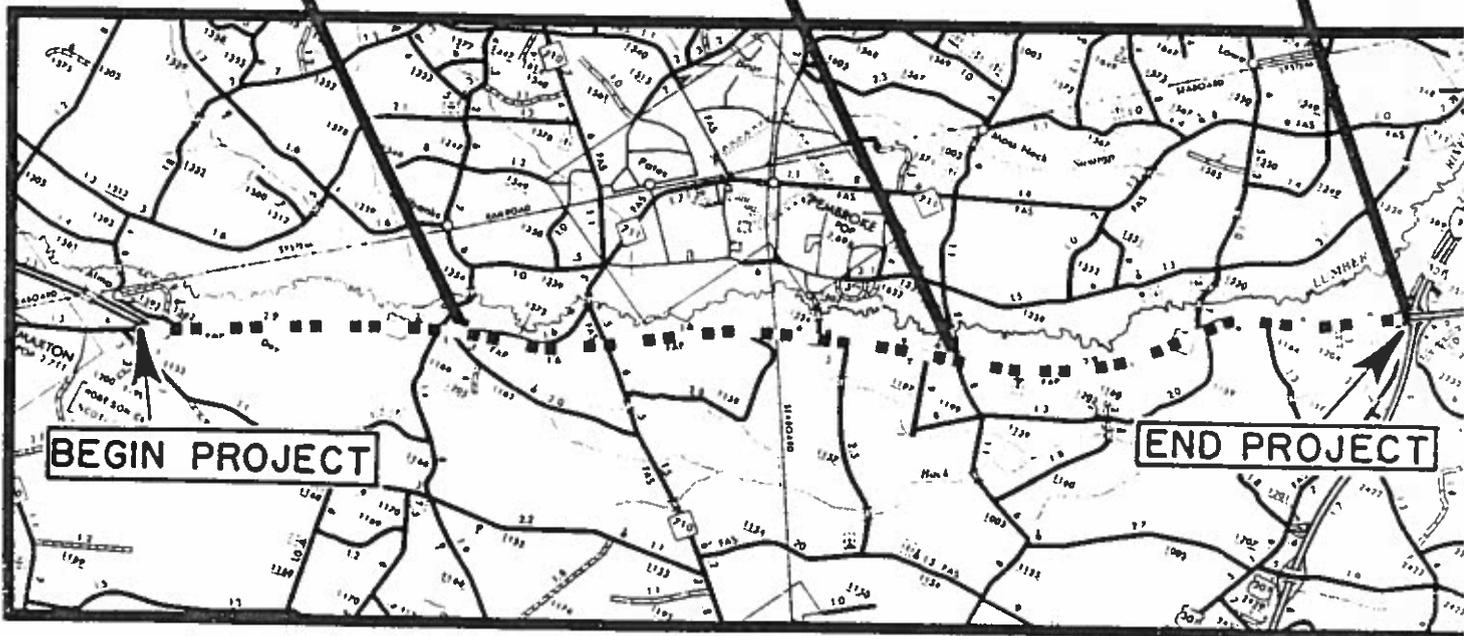


TTST - 11%
DUAL - 3%
DHV - 10%

6,600
11,800

6,000
10,800

6,800
12,200



Current and Projected
Average Daily Traffic Volumes



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

US 74
FROM THE MAXTON BYPASS
TO INTERSTATE 95
ROBESON COUNTY

R-513
FEASIBILITY STUDY

<u>LEGEND</u>
2008 ADT

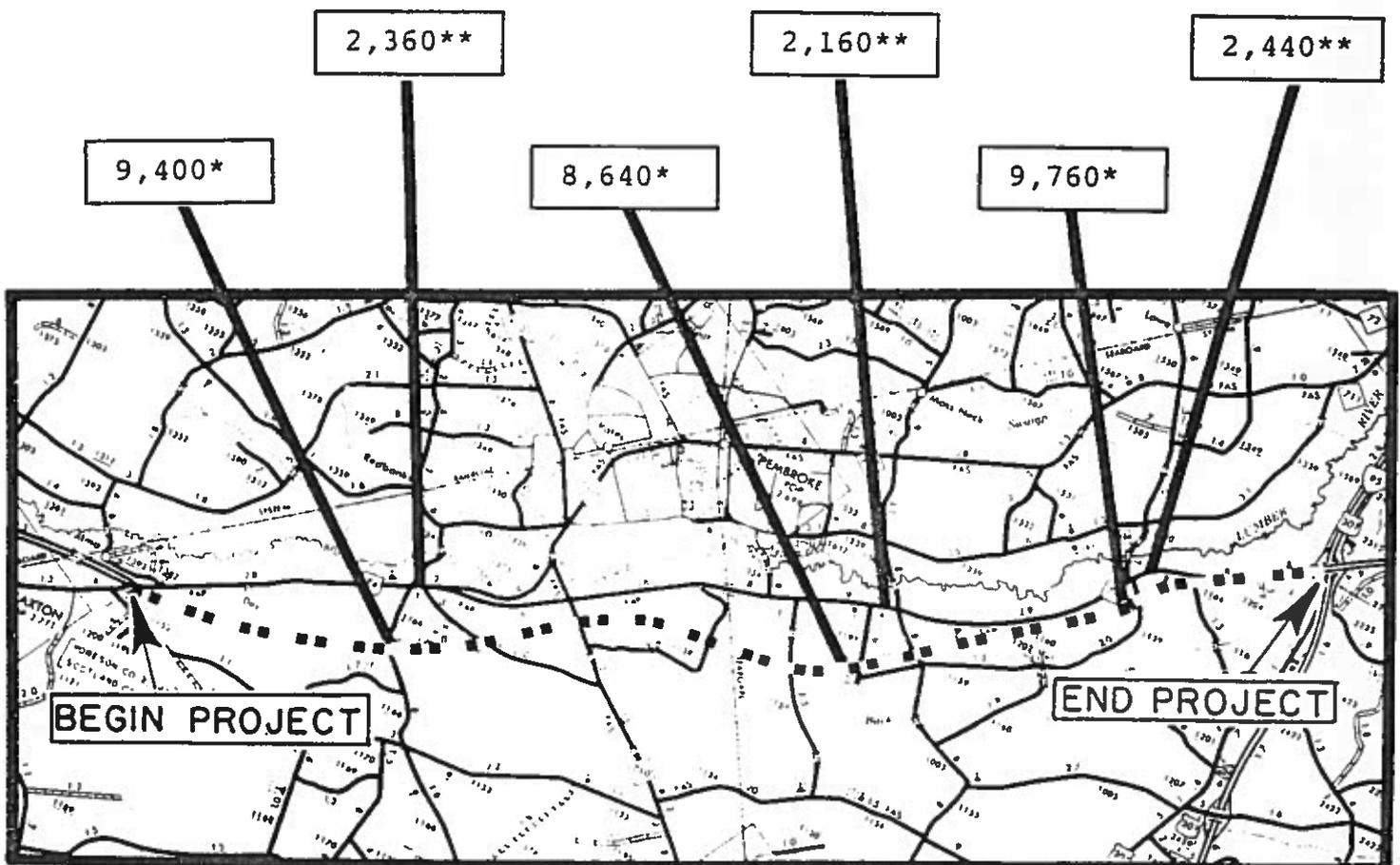
7/88 AES

FIGURE 5

*Future on relocated US 74

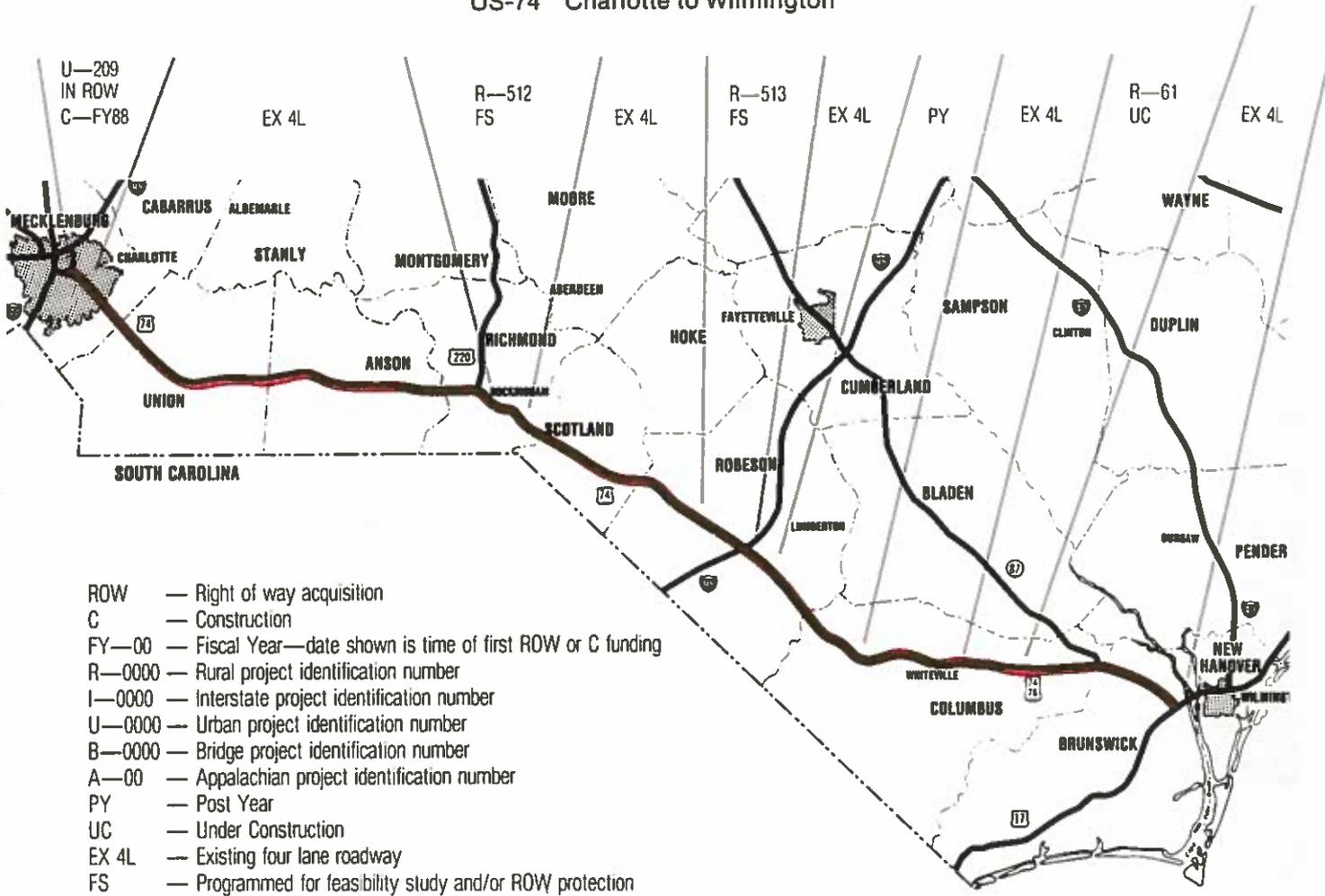
**Future on existing US 74 based
on addition of relocated US 74

TTST	- 11%
DUAL	- 3%
DHV	- 10%



Strategic Corridor

US-74 Charlotte to Wilmington



This east-west corridor is of vital importance to the southern tier of counties which it crosses. It connects the state's largest city to its largest port and, thus, carries a significant volume of commercial traffic. Between those points, the road's traffic translates into developmental opportunities, including some in areas that have struggled economically. Also, US-74 has importance to tourism because it links Charlotte and the southern Piedmont to the southeastern beaches.

Charlotte, Monroe, Wadesboro, Rockingham, Laurinburg, Lumberton, Whiteville and Wilmington are linked by US-74; and it connects I-85 and I-95.

A portion of the route is four-lane highway. Further improvements are essential.

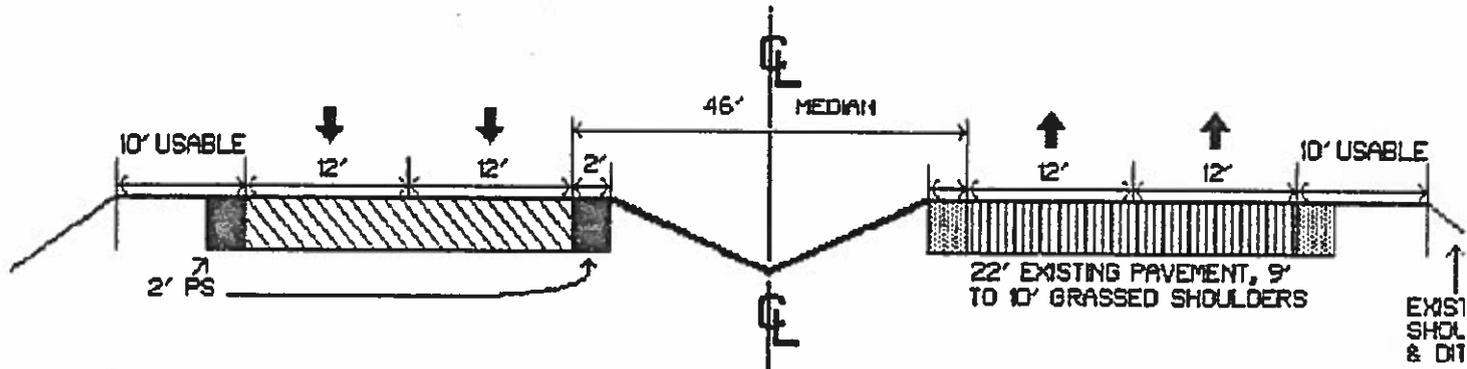
IMPROVEMENT SCHEDULE

Improvement schedules for this section of US-74 are detailed in Divisions 3, 6, 8 and 10 projects:

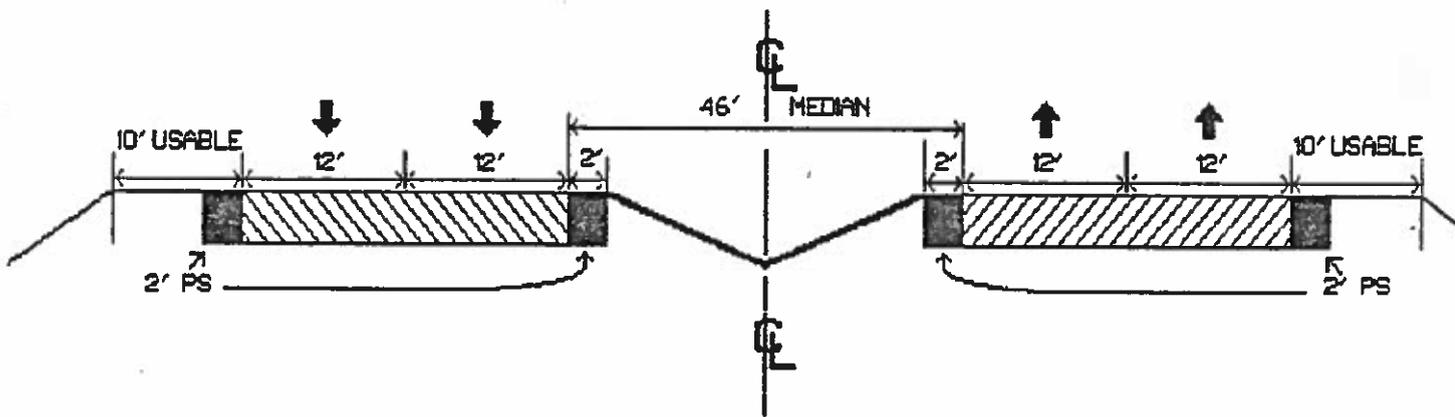
- Mecklenburg County — U-209
- Richmond County — R-512
- Robeson County — R-513
- Columbus County — R-61

FIGURE 6

* PROPOSED ROADWAY CROSS-SECTIONS PROJECT R-513



ADDING 2 LANES WITH 46' MEDIAN



NEW 4 LANES WITH 46' MEDIAN

*
FIGURES NOT DRAWN TO SCALE

FIGURE 7



