

FEASIBILITY STUDY

Wilmington

Extension of SR 1209 (Independence Boulevard)  
from US 76 (Oleander Drive)  
to Randall Parkway

New Hanover County

U-3116

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



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Date

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#### I. GENERAL DESCRIPTION

This is a feasibility study for the extension of SR 1209 (Independence Boulevard) on a new location (see Figures 1 and 2), from its intersection with US 76 (Oleander Drive) to Randall Parkway, a distance of 1.2 miles (1.9 km). The recommended typical cross-section is a five-lane, 64-foot (19.5-meter) curb and gutter roadway with 8-foot (2.4-meter) berms. The recommended right-of-way width is 100 feet (30.5 meters) without access control. Estimated cost of this project is \$6,400,000 (\$4,200,000 for right-of-way, and \$2,200,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended typical cross sections, general alignments, and estimated cost of the improvement. The study also attempts to provide an early identification of potential environmental, permitting, or other issues which deserve consideration in the planning and construction stages.

#### II. NEED FOR PROJECT

This project was requested by the City of Wilmington and the Wilmington Area Transportation Advisory Committee. The extension of Independence Boulevard is needed to provide growing north-south traffic demand with a new thoroughfare and to divert through traffic away from residential streets. This can be accomplished by providing a new direct thoroughfare linking Oleander Drive, Wrightsville Avenue, and Randall Parkway.

The south terminal of the study is at the signalized intersection of US 76 (Oleander Drive) with SR 1209 (Independence Boulevard). At this location, Independence Boulevard is a five-lane, 80-foot (24.4-meter) roadway with curb and gutter on the east side only, divided by a 16-foot (4.9-meter) wide monolithic island. North of this location, the five-lane roadway (three southbound and two northbound lanes) tapers down to a three-lane (one southbound and two northbound lanes), 40-foot (12.2-meter) roadway. Currently, Independence Boulevard terminates at Park Avenue where it forms a "T" intersection and is stop-sign controlled.

The north terminal of this study is at the unsignalized intersection of Covil Avenue with Randall Parkway (see Figure 2). At this location Covil Avenue is a two-lane, 24-foot (7.3-meter) roadway with 4-foot (1.2-meter) usable shoulders. Randall Parkway is a two-lane roadway divided by a 20-foot (6.1-meter) wide grassed median. Covil Avenue intersects Mercer Avenue 400 feet (122 meters) south of its intersection with Randall Parkway.

North of the project terminal, Mercer Avenue and Covil Avenue are parallel north-south (see Figure 2), two-way, two-lane roadways separated by approximately 400 feet (122 meters). Mercer Avenue's pavement width is 22 feet (6.7 meters) with valley gutters and no usable shoulders or sidewalks. Covil Avenue's pavement width is 24 feet (7.3 meters) with 6-foot (1.8-meter) usable shoulders. Both roadways are crossed at-grade by a track of the CSX railroad approximately 500 feet (152 meters) north of Randall Parkway. The track currently carries two trains per day.

Estimated design year 2014 traffic demand on the proposed roadway varies from 34,000 vehicles per day (vpd) north of US 76 (Oleander Drive), to 49,000 vpd south of Randall Parkway. Based on the estimated traffic demand, the recommended five-lane roadway would offer levels-of-service D and E, respectively.

### III. RECOMMENDATIONS

It is recommended that SR 1209 (Independence Boulevard) be extended northward on a new location from its existing intersection with Park Avenue to Randall Parkway. The recommended improvements also include widening the existing

segment of SR 1209 between US 76 (Oleander Drive) and Park Avenue, and the realignment of the intersections of Mercer Avenue with Randall Parkway and Covil Avenue.

The recommended typical cross-section is a five-lane, 64-foot (19.5-meter) curb and gutter section, with 8-foot (2.4-meter) berms. The recommended right-of-way width is 100 feet (30.5 meters) without access control.

The recommended alignment for the proposed roadway (see Figure 2) would extend the existing SR 1209 across Park Avenue and then curve northward to parallel East Forest Hills Drive. North of Park Avenue, the alignment would run behind the residences facing East Forest Hills Drive and adjacent to the west boundary of Empie Park. The recommended alignment would continue on a new location across Wrightsville Avenue, parallel and to the east of Mercer Avenue, to Randall Parkway.

The recommended revisions to the intersection of Mercer Avenue, Covil Avenue and Randall Parkway could include the conversion of Mercer Avenue and Covil Avenue to a one-way pair as suggested by Figure 3. This conversion would be an option of the City of Wilmington, preferably done in conjunction with this project. The existing at-grade CSX railroad crossings at Mercer and Covil Avenues are to remain at-grade. No improvement to Mercer and Covil Avenues north of the Randall Parkway intersection are recommended as a part of this project. If the City of Wilmington chooses not to convert Mercer Avenue and Covil Avenue to a one-way pair, then the intersection shown in Figure 3 must be modified for two-way traffic on both Mercer and Covil Avenues.

It is recommended that the existing Mercer Avenue be closed to through traffic just south of this new intersection. This would allow East Forest Hills Drive, and the southern portion of Mercer Avenue to serve local traffic and adjacent properties.

Project cost is estimated as follows:

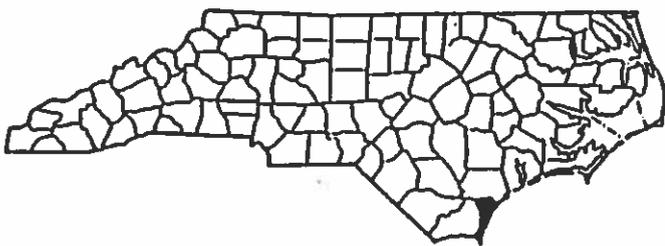
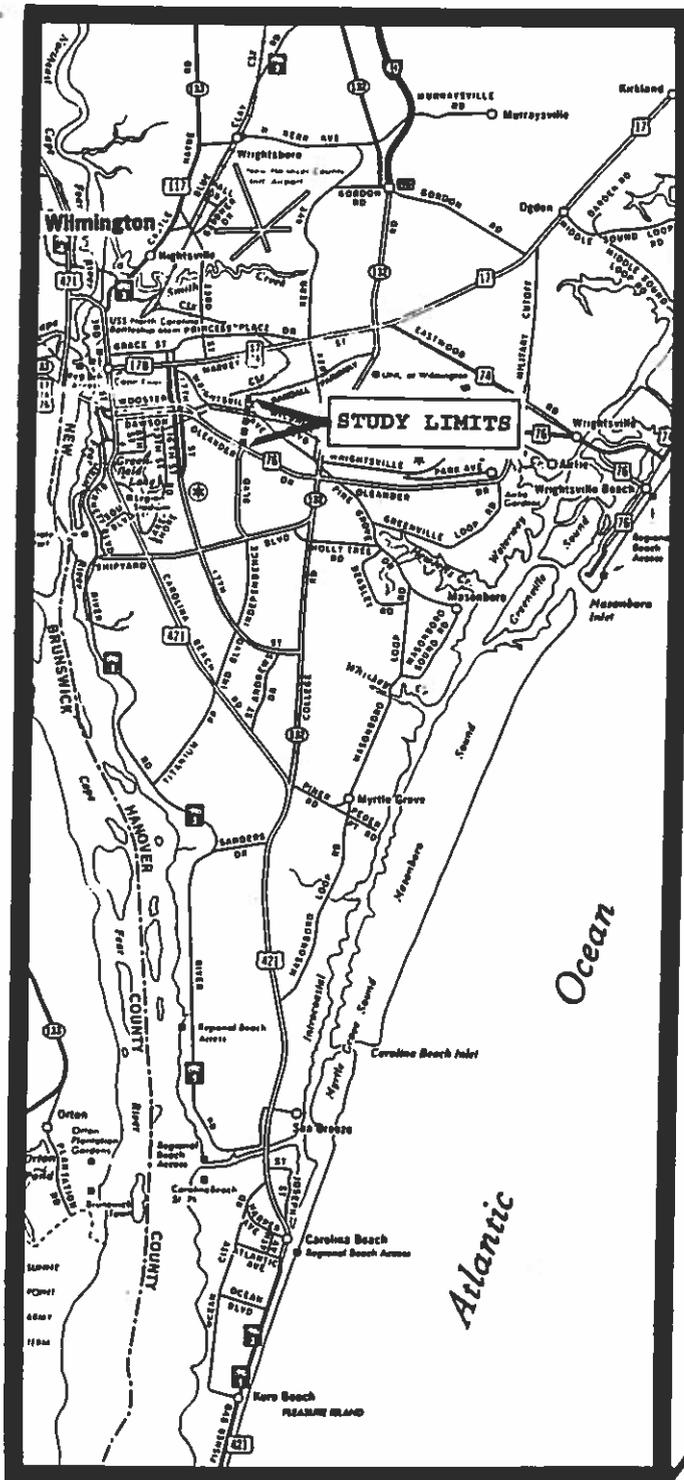
Right-of-Way	\$ 4,200,000
Construction	\$ 2,200,000
Total Project Cost	\$ 6,400,000

#### IV. OTHER COMMENTS AND CONCERNS

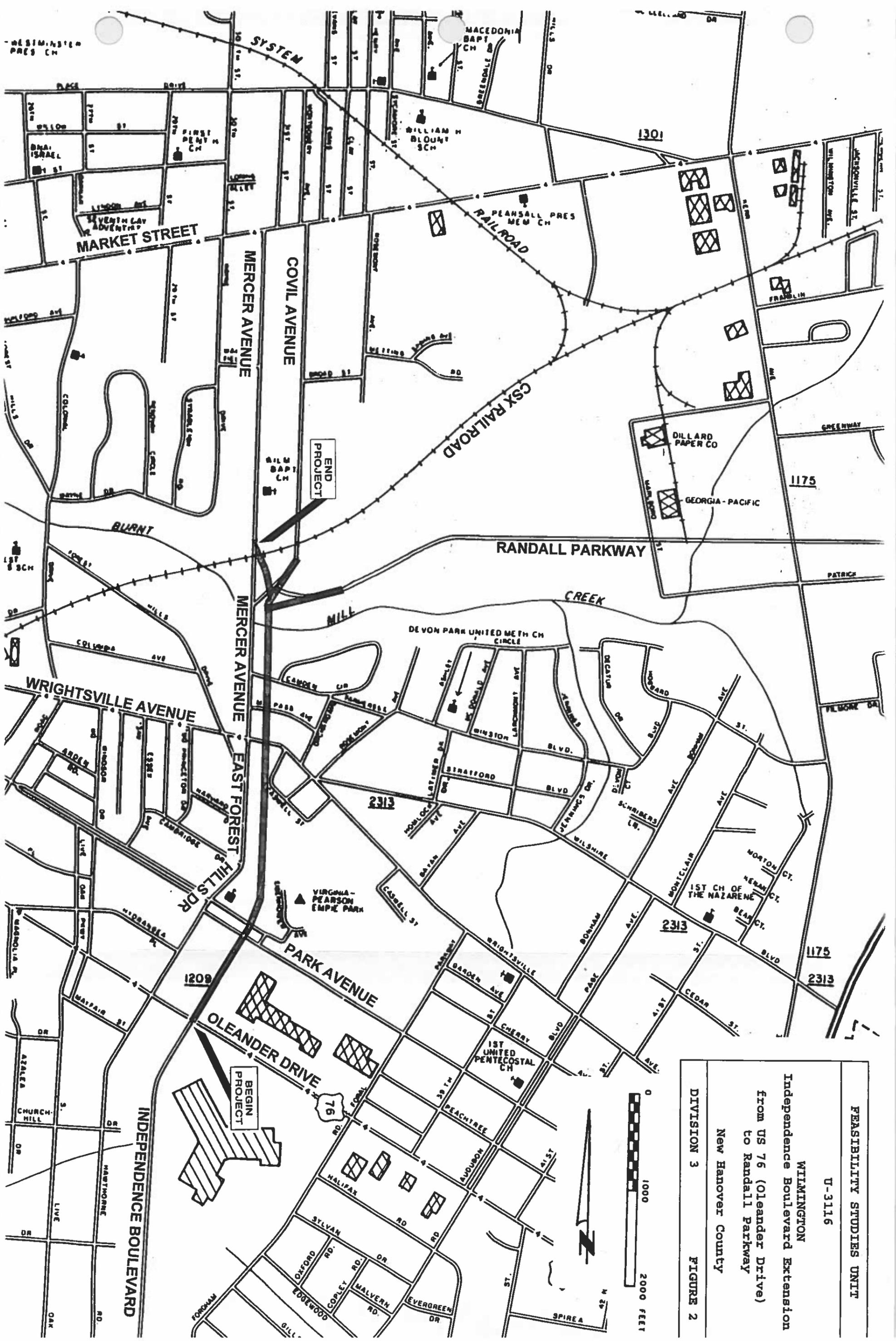
It is estimated that this project would require the relocation of 30 residences, and 4 businesses.

An environmental screening was not conducted for this study. The project may require a Corps of Engineers, Section 404 nationwide permit for the crossing of Burnt Mill Creek.

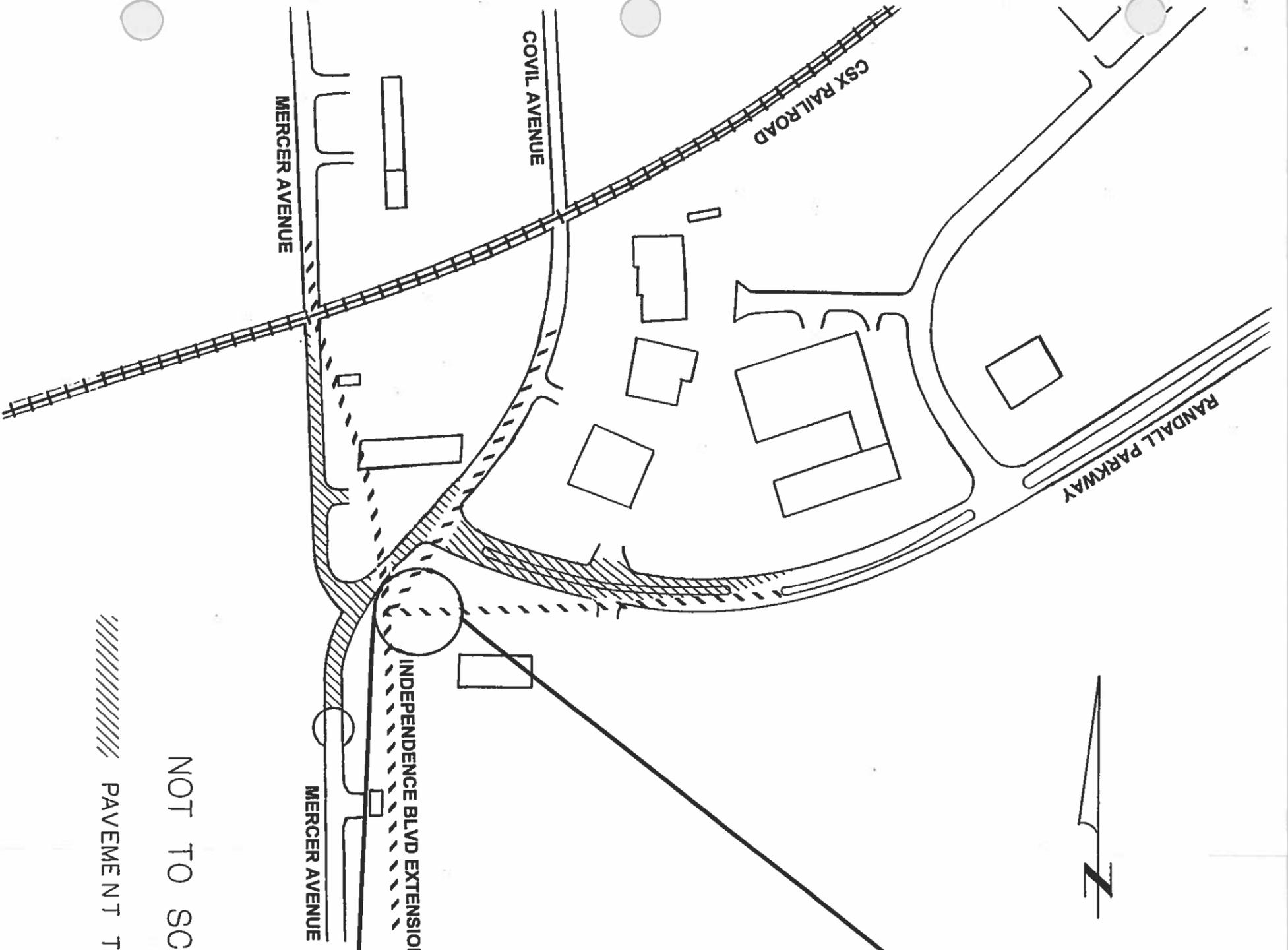
Independence Boulevard extension is listed in the Incidental Bicycle Section of the 1994-2000 Transportation Improvement Program (TIP) as needing wider outside lanes to more safely accommodate bicyclists sharing the road. A five-lane, 68-foot (20.7-meter) curb and gutter section with 14-foot (4.2-meter) outside lanes is estimated to cost \$100,000 more than the recommended 64-foot (19.5-meter) typical cross-section.



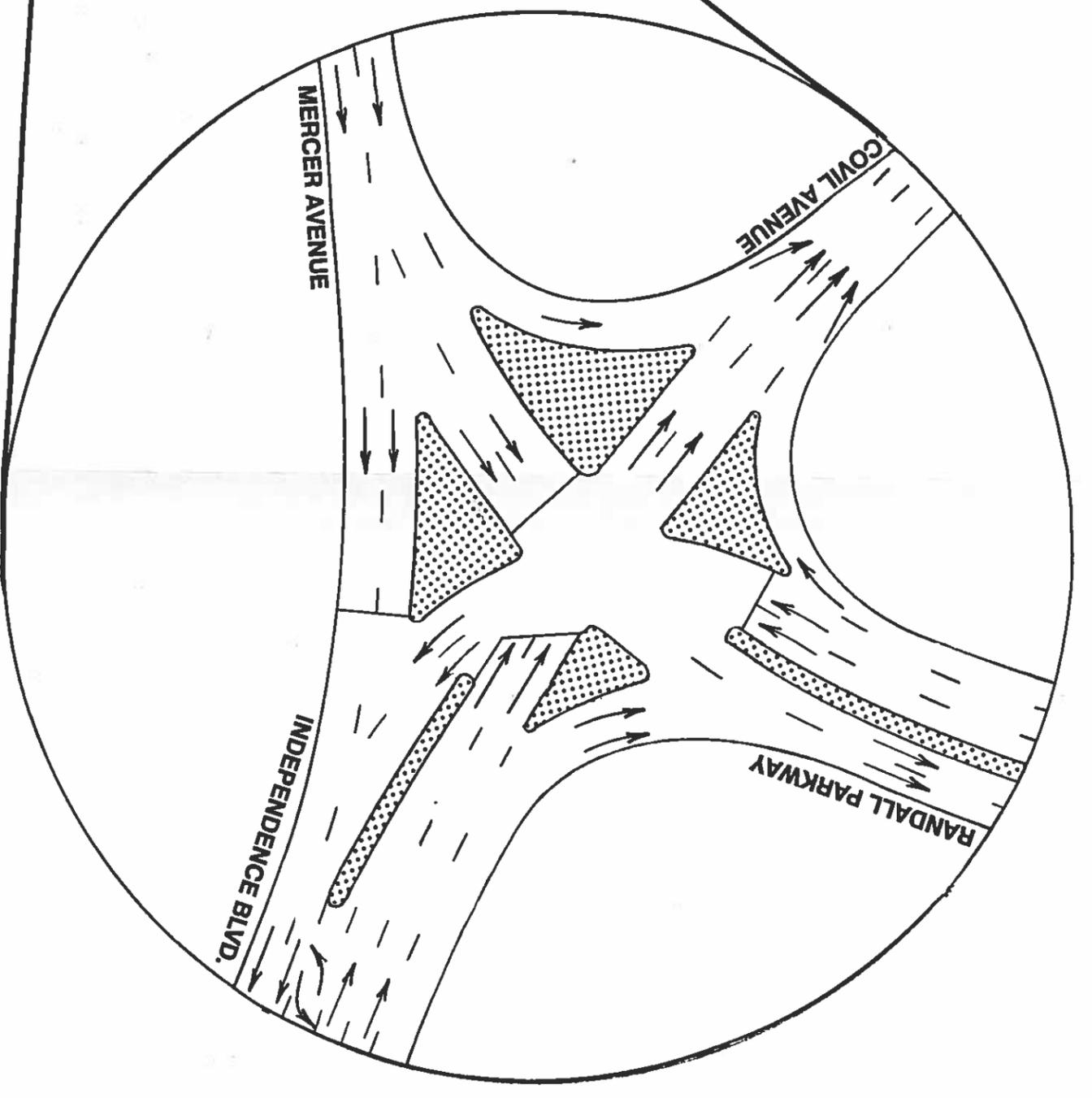
<b>FEASIBILITY STUDIES UNIT</b>	
U-3116	
<b>WILMINGTON</b> Independence Boulevard Extension	
from US 76 (Oleander Drive) to Randall Parkway	
New Hanover County	
DIVISION 3	FIGURE 1



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 Independence Boulevard Extension  
 from US 76 (Olander Drive)  
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NOT TO SCALE  
 // PAVEMENT TO BE REMOVED



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Independence Boulevard Extension	
From US 76 (Oleander Drive)	
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DIVISION 3	FIGURE 3

