



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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SECRETARY

January 24, 1995

MEMORANDUM TO: Whitmel H. Webb, P. E.
Manager of Program Development Branch

FROM: David G. Modlin, Jr., P. E.
Head of Feasibility Studies

SUBJECT: New Bridge from Mann's Harbor to Kill Devil
Hills, FS 27-95-015

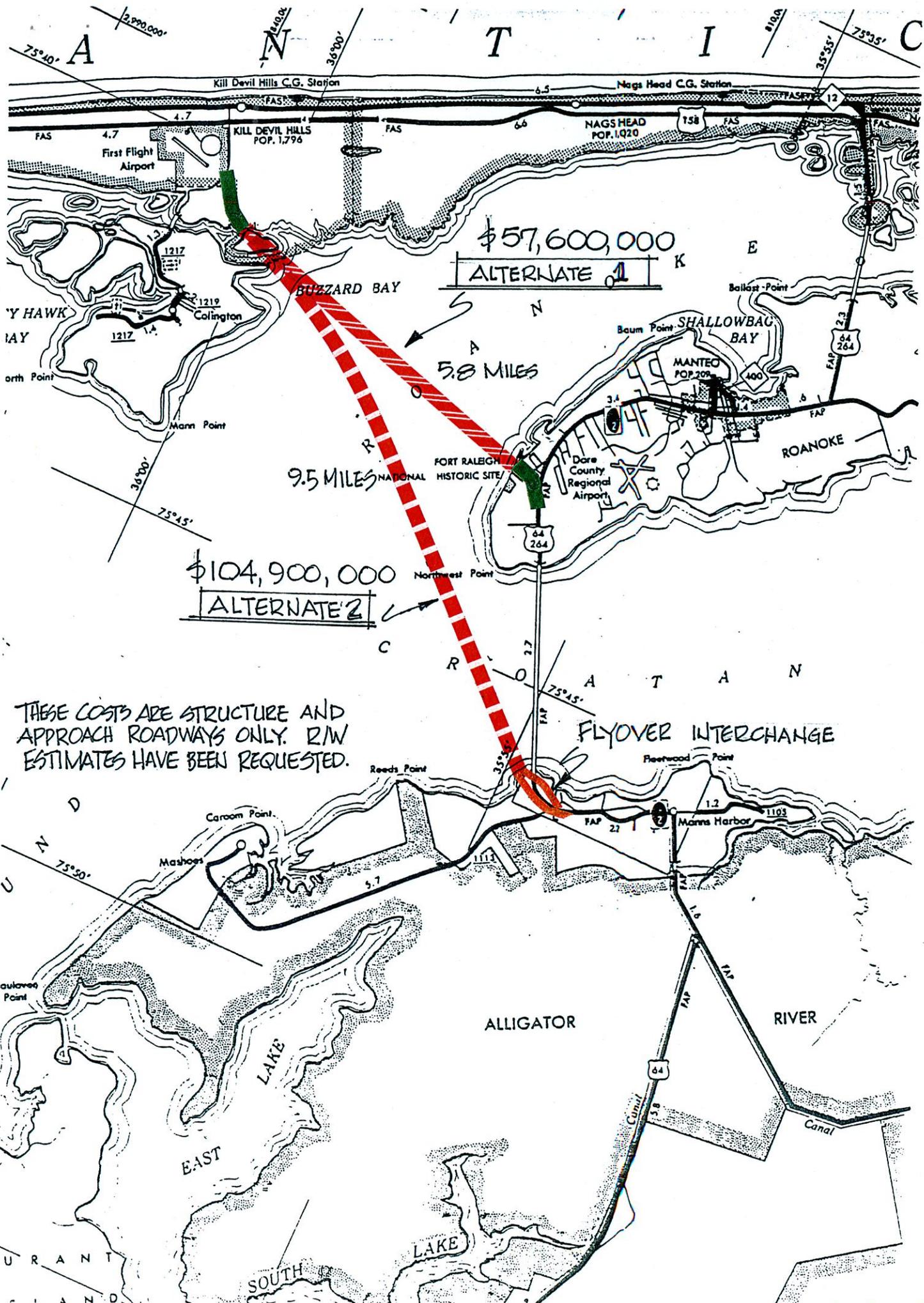
At the request of Board Member R. V. Owens, the cost of providing a new bridge across Roanoke and Croatan Sounds from Mann's Harbor to Kill Devil Hills has been investigated. Two Alternates were studied.

Alternate 1 leaves existing SR 1217 west of First Flight Airport in Kill Devil Hills and proceeds south to connect with US 64/264 in Manteo. The studied connection to US 64/264 would pass east of the Fort Raleigh Historic Site and connect to existing US 64/264 via at-grade intersection and provide the through movement. The existing eastern leg of US 64/264 would tie into the new routing via signalized, tee intersection. The approaches to the structure would be 2-lane, 24 feet (7.3 m) of pavement with 8-foot (2.4-m) shoulders including 2-foot (0.6-m) paved. The studied structure would provide for 65-foot (19.8-m) clearance over Roanoke Sound. The clear roadway width of the studied structure was 36 feet (11.0 m). The approximate length of Alternate 1 is 5.8 miles (9.4 km). The estimated cost of Alternate 1 is \$ 60,100,000 (\$ 57,600,000 for construction and \$ 2,500,000 for right of way).

Alternate 2 leaves existing SR 1217 west of First Flight Airport in Kill Devil Hills and proceeds southwest to connect with existing US 64 via a trumpet interchange at the west approach to the US 64 bridge across Croatan Sound. The Kill Devil Hills approach to the structure would be 2-lane, 24 feet (7.3 m) of pavement with 8-foot (2.4-m) shoulders including 2-foot (0.6-m) paved. The studied structure would provide 65-foot (19.8-m) vertical clearance over both Roanoke



and Croatan Sounds. The clear roadway width of the studied structure was 36 feet (11.0 m). The approximate length of Alternate 2 is 9.5 miles (15.3 km). The estimated cost for Alternate 2 is \$ 109,900,000 (\$ 104,900,000 for construction and \$ 5,000,000 for right of way).



\$57,600,000
ALTERNATE 1

\$104,900,000
ALTERNATE 2

THESE COSTS ARE STRUCTURE AND APPROACH ROADWAYS ONLY. R/W ESTIMATES HAVE BEEN REQUESTED.

FLYOVER INTERCHANGE

ALLIGATOR

RIVER

EAST LAKE

SOUTH LAKE

