

FEASIBILITY STUDY

FS-0802A

NEW ROUTE FROM THE PROPOSED US 70 BYPASS (R-2553) TO NC 11 KINSTON, LENOIR COUNTY DIVISION 2

I - GENERAL DESCRIPTION

This feasibility study evaluates a new route from the proposed US 70 Bypass (TIP R-2553) to NC 11 in Kinston, Lenoir County. The new route is part of the relocation of NC 11 and NC 58 around the eastern side of Kinston. It is also part of Strategic Highway Corridor no. 53 (SHC 53). The planning level Purpose and Need is to satisfy anticipated traffic demand and to provide a new segment of SHC 53.

Four alternatives are included in the study. Each alternative includes four interchanges, several grade separations, a crossing of the North Carolina Railroad (NCRR) and a crossing of the Neuse River. The project alternatives vary in length from 6 to 7 miles. The **Figure 1 Project Location Map** can be found in the back of the document.



The proposed typical section is a four-lane divided freeway with a 70-foot median, 12-foot travel lanes, 10-foot full-depth outside and 4-foot full-depth inside paved shoulders, and full control-of-access within a minimum state-maintained right-of-way of 300 feet.

It should be noted that a Feasibility Study is a preliminary document that is the initial step in the planning and design process for a candidate project and not the product of exhaustive environmental or design investigations. The purpose of this feasibility study is to describe the proposed project including cost, and identify potential problems that may require consideration in the planning and design phases.

Once a candidate project is identified for funding in the TIP, the Feasibility Study is followed by a rigorous planning and design process that meets the requirements of the National Environmental Policy Act (NEPA), where either an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) is done.



II - **BACKGROUND**

This new route is included in the Kinston Comprehensive Transportation Plan^[1] (CTP), as mutually adopted by the City of Kinston and NCDOT in 2008. Since a freeway route cannot feasibly be provided through the center of Kinston on NC 11, the CTP proposes an eastern new location route. The Kinston CTP can be seen on the **Figure 1 Project Location Map**.

The new NC 11 route, in conjunction with the proposed US 70 Bypass (R-2553), provides an eastern bypass of Kinston. An additional route extending northwest from this project (beyond a future C.F. Harvey Parkway extension) would provide a NC 58 bypass. The proposed NC 11/58 route will be an important part of the future system of highways around Kinston, the Kinston Regional Jetport, and the Global TransPark (multi-modal transportation park).

The route, as previously mentioned, is part of Strategic Highway Corridor no. 53 (SHC 53). As a part of SHC 53, the route provides a high mobility, high volume, high-speed freeway facility around eastern Kinston. The controlled-access route is not intended to provide multi-modal uses by pedestrians and bicyclists. SHC 53 is



described as connecting Wilmington, NC to Norfolk, VA with a central piece of the corridor traveling along NC 11 through Kinston, Lenoir County^[2].

The new route is not within an MPO. It is within the Eastern Carolina RPO. The Eastern Carolina Rural Transportation Planning Organization (ECRPO) serves Duplin, Greene, Lenoir and Wayne Counties. The route is included on the ECRPO priority list ^[3].

Land use within the study area is largely rural and agricultural, with some residential, and a few industrial, commercial and institutional uses. Portions of the project lie within Neuse River and Southwest Creek floodplains and wetlands conservation areas.



There is a North Carolina Railroad (NCRR) line crossing the study area near the proposed Neuse River crossing. This main railway provides a connection to the NC Global TransPark and to Morehead City port.

There is also a short spur line which extends to a few local industries on US 70 (New Bern Road) such as Oldcastle Adams Blocks and Barnhill Contracting. Field observations indicate little or no recent use of the spur. Proposed improvements include bridging over the railroad and the spur line. It is anticipated that extra clearance will be required at the overpasses to meet local industry needs. Additional clearance has been provided in the studied alternatives. Further coordination is necessary in the subsequent stages of the project.

There are several Civil War Battlefields in and around Kinston. The Battle of Kinston is listed in the National Register of Historic Places ^[4]. The Wyse Fork Battlefield is not yet registered but is being



overseen by the Lenoir County Battlefields Commission ^[5]. **Table 1** below summarizes potential impacts to the battlefields from the proposed improvements:

TABLE 1 - CIVIL WAR BATTLEFIELDS - POTENTIAL IMPACTS				
Battlefield Site	Alternative			
Battle of Kinston – Upper Trent Road Engagement Site (Area 4)	Alt. 1 Potentially Alts. 2, 3, and 4			
Battle of Kinston – Naval Engagement at Camp Pool (Area 3)	Alts. 3 and 4 along western border			
Second Battle of Kinston – Wyse Forks (Wise's Fork) Battlefield Site	Alt. 4 along western border			

The degree to which the Upper Trent Road Engagement Site (Area 4) is affected by this project is dependent on the location of the proposed US 70 Bypass (R-2553). Alternative 1 likely impacts this site the most. The Camp Pool (Area 3) site north of the Neuse River is likely to be impacted by Alternative 4 along its western border. Alternatives 3 and 4 travel along the Wyse Forks Battlefield western border at Southwest Creek and are likely to have minor impacts on the site.

ADJACENT PROJECTS

Several projects in the 2009-2015 State Transportation Improvement Program (TIP) are near the study corridor. They are shown on **Figure 1** and should be considered in the subsequent stages of the project ^[6]:

- TIP project R-2553 (US 70 Kinston Bypass) proposes a four-lane divided freeway on new location in Lenoir County. It is currently programmed for planning and environmental study only. A portion of this project is part of SHC 53.
- TIP project R-2719A (C.F. Harvey Parkway) proposes a multi-lane new location roadway from US 70 to US 258 thereby completing the connection from US 70 to NC 58 in northern Lenoir County. Construction is in progress and is anticipated to be completed in 2012.



Queen St /Charles Buchanan /The Free

- TIP project B-4565 proposes replacing bridges on US 70 Business (Queen Street) over the Neuse River. R/W is scheduled for 2010 and construction for 2011.
- TIP project R-2250 (Greenville Southwest Bypass) in Pitt County is in planning. R/W is scheduled to have begun in 2009 and construction is Post Year. R-2250 is also part of SHC 53.
- Ongoing NC Global TransPark improvements in railways (i.e. TIP U-2928), roadways (i.e. TIP U-3341) and economic development (i.e. Spirit AeroSystems).
- TIP project EB-5101 proposes a pedestrian bridge over the Neuse River as a part of the Kinston Waterfront Initiative. The project is scheduled for planning and environmental study only.



OTHER PROJECTS:

- Extension of the C.F. Harvey Parkway eastward from NC 58 to NC 11 (ECRPO)^[3].
- Kinston Waterfront NOW Bike/Pedestrian Initiatives (ECRPO)^[3].
- There is also the US 70 Corridor Commission which is working on a Master Plan for US 70 from I-40 to the coast ^[7]. The Plan considers existing and planned NCDOT projects, potential access management measures and freeway improvements. A local pilot project study is underway at the US 70 intersection with NC 11/55 (Skinner's Bypass).



III - TRAFFIC AND SAFETY

These analyses are preliminary and should be examined in greater detail in the subsequent stages of the project. The levels of service (LOS) shown below reflect results of base year and horizon year analyses.

Base year 2008 and horizon year 2030 traffic forecasts for the Annual Average Daily Traffic (AADT) were provided by the NCDOT Transportation Planning Branch and are based on the Kinston Travel Demand Model. Previous forecasts for the R-2719 (C.F. Harvey Parkway) and the R-2553 (US 70 Kinston Bypass) projects were reviewed during the development of this forecast. The North Carolina Global Transpark is assumed to be in place in northern Kinston with 25,000 employees by 2030. The Kinston Bypass (R-2553) is assumed to be in place by 2030. The traffic forecast diagrams are shown on **Figures 2 through 7** in the back of the document.

The predicted AADT along the build alternative ranges from 18,800 to 28,600 vehicles per day (vpd) in horizon year 2030. Trucks are estimated to comprise up to 9% (4% Duals and 5% TTST's) of the total traffic. The highest volumes along the new route occur between US 70 (New Bern Road) and Tower Hill Road and at existing NC 11. The new freeway is anticipated to operate at a LOS B or better in horizon year 2030 as seen in **Table 2**:

TABLE 2 - FREEWAY SEGMENTS - 2030 LEVELS OF SERVICE					
Segment	From To	AADT	Peak Hour LOS		
NC 58	BEGIN US 70 Bypass (R-2553)	10,600	A		
New Route	US 70 Bypass (R-2553) US 70 (New Bern Road)	19,600	В		
New Route	US 70 (New Bern Road) Tower Hill Road	28,600	В		
New Route	Tower Hill Road NC 11	18,800	А		
NC 11	New Route END	27,800	В		

Traffic analyses in this report are based on the Highway Capacity Manual and on NCDOT Analysis Guidelines. Synchro and HCS software were used to analyze traffic components. The selection and use of traffic control signals should be based on an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location. The engineering study will be required in



the subsequent stages of the project. The following LOS are anticipated at the four proposed interchanges:

PROPOSED US 70 BYPASS (R-2553) INTERCHANGE

It is anticipated that all parts of the new interchange with the proposed US 70 Bypass (R-2553) will operate at a LOS B or better in year 2030. Two weaving movements between loop-ramps on the collector-distributor roads are anticipated to operate at a LOS A in 2030. The ramp merges and diverges are anticipated to operate at a LOS B or better in 2030.

US 70 (New Bern Road) INTERCHANGE

The new signalized intersection at the single-point diamond interchange with existing US 70 (New Bern Road) is anticipated to operate at a LOS C in 2030. A standard diamond interchange is anticipated to operate at a LOS D in 2030.

TOWER HILL ROAD INTERCHANGE

The western stop-controlled ramp terminal of the Tower Hill Road interchange is anticipated to operate at a LOS C in 2030; and the eastern stop-controlled ramp terminal at a LOS A in 2030.

NC 11 INTERCHANGE

All parts of the new interchange with existing NC 11 are anticipated to operate at a LOS B or better in year 2030. Additional traffic studies will be needed for inclusion of a future NC 58 bypass.

No Build Vs. Build Alternative

Driving patterns through downtown Kinston will be affected by the new route. Some NC 11 traffic, including those traveling SHC 53, will be relocated along the proposed Kinston Bypass and the build alternative studied here. Local drivers will also likely change their driving patterns with new interchange access and a new bridge over the Neuse River. An extensive traffic study of the No Build versus Build Alternatives should be developed in later planning stages.

SAFETY

Although there are no crash data to evaluate on the future route, controlled-access grade-separated freeways are generally safer than at-grade non-controlled-access facilities. Traffic diversions from downtown Kinston onto the freeway will reduce the potential for accidents.



According to the Work Zone Safety and Mobility Policy this will be a non-significant project (Level 4 Activity). Analysis in the subsequent stages of the project is needed to ensure that work zone impacts are identified and traffic management strategies are initiated. The need for bicycle and pedestrian accommodations in the work zone shall be assessed during the subsequent planning stages of the project.



IV - DESCRIPTION OF ALTERNATIVES

The studied alternatives are proposed to satisfy anticipated traffic demand and provide a new segment of SHC 53. The four alternatives included in the study are approximately 6 to 7 miles long. The alternatives considered can be seen on **Figures 8 and 9** in the back of the document.

The proposed typical section for all of the alternatives is a four-lane divided freeway with a 70-foot median, 12-foot travel lanes, 10-foot full-depth outside and 4-foot full-depth inside paved shoulders, and full control-of-access within a minimum state-maintained right-of-way of 300 feet.

Starting at the southern end, the alternatives begin on existing NC 58 just south of where the proposed US 70 Bypass (R-2553) will likely cross. The corridors proceed north along existing NC 58 for less than ¹/₂ mile before turning north-northeast on new location. From there the alternatives cross existing US 70 (New Bern Road), the NCRR and spur line, the Neuse River, Tower Hill Road and Dunn Family Road. The alternatives connect back to existing highway NC 11 near NC 55. The following describes the water crossings, interchanges and grade separations for all of the studied alternatives:

WATER CROSSINGS

Each alternative includes bridging of the FEMA 100-year floodways and contiguous wetlands of **Southwest Creek**, **the Neuse River** and **Jericho Run**. Alternative 1 crosses Southwest Creek approximately 1,200 feet downstream of existing NC 58; Alternative 2 downstream 3,800 feet; and Alternatives 3 and 4 downstream 1 mile. The Southwest Creek bridges vary in length from 600 to 1,800 feet. Alternatives 1 and 2 cross the Neuse River approximately 2,000 feet upstream of the existing NCRR bridge over the Neuse; Alternative 3 downstream 3,700 feet; and Alternative 4 downstream 4,000 feet. The Neuse River bridges, which include bridging the wide FEMA floodway and both railroad crossings, vary in length from 5,280 to 6,250 feet. All four alternatives cross Jericho Run about 1 mile upstream of the existing NC 55 bridge over Jericho Run. The bridges over Jericho Run are estimated to be 200 feet long.

INTERCHANGES AND GRADE SEPARATIONS

Each alternative includes proposed grade separations over the two railroad crossings and over Dunn Family Road. Each alternative also includes proposed interchanges at the future US 70 Bypass (R-2553), US 70 (New Bern Road), Tower Hill Road, and NC 11. These are described below:

PROPOSED US 70 BYPASS (R-2553) INTERCHANGE

Construction of the proposed US 70 Bypass (R-2553) interchange at the beginning of the project will sever existing NC 58. This includes a realignment of Will Baker Road to existing NC 58 north as seen on **Figure 8**. This correlates with the Kinston CTP (see **Figure 1**). NC 58 could be rerouted north on the new highway and west on US 70 (New Bern Road) back to its current route until the complete NC 58 relocation is constructed by a future project.

The conditions described here are heavily dependent upon the final location of the future US 70 Bypass. No plans are available at this time. The proposed interchange with the future US 70 Bypass,



as considered in this study, is located on top of the existing NC 58/Strawberry Branch Drive intersection. The construction of the new interchange will require that Strawberry Branch Drive be cut off from NC 58. Local access is maintained by way of Elijah Sykes Road. It is recommended that a grade separation of Elijah Sykes Road over the proposed US 70 Bypass (R-2553) be included in that future project.

Free-flowing ramp movements are needed since both the proposed US 70 Bypass and the new NC 11 route are to be freeway facilities. A direct flyover ramp is provided to the new NC 11 (eastbound to northbound) because of the heavy left-turning movement. Three loop-ramps and two collector-distributor roads are provided for the other low-volume left-turning movements.

US 70 (New Bern Road) Interchange

The study alternatives cross US 70 (New Bern Road) between Lenoir Community College and the Neuse Road intersection, just inside the southeastern Kinston city limits. A single-point diamond interchange is proposed with existing US 70 (New Bern Road). The heavy, well-distributed left-turning movements and the LOS indicate that a single-point is the best configuration at this location. This also helps with intersection spacing along US 70 by only introducing one new traffic signal.

The Lenoir County Transportation Committee, while supporting the NC 11 eastern bypass, has expressed its objection to introducing a new traffic signal on US 70 (New Bern Road). A copy of their resolution is included in Appendix A. Their master plan for the US 70 corridor includes removal of traffic signals. In order to accomplish this at the NC 11 Bypass interchange, alternative configurations, such as a freeway-to-freeway interchange, should be evaluated in the subsequent planning and design stages of the project.

NCRR AND RAILROAD SPUR GRADE SEPARATIONS

Grade separations are proposed over the NCRR and spur line. It is anticipated that additional vertical and horizontal clearances will be required over the NCRR line to accommodate local industry needs. Additional clearance has been provided in the studied alternatives. Coordination in subsequent phases of the project is imperative.

TOWER HILL ROAD INTERCHANGE

The Tower Hill Road crossing is located near Oak Hill Cemetery, a cell tower, Camp Pool Battlefield, and two residential neighborhoods at the eastern city limits. A standard diamond interchange is proposed at Tower Hill Road. The turning movements are very light with one exception. A free-flowing loop-ramp is provided in the northeast quadrant for the heavy left-turning movement to downtown Kinston (northbound to westbound).

DUNN FAMILY ROAD GRADE SEPARATION

All four alternatives cross Dunn Family Road between Cunningham Road and Tower Hill Road. A grade separation of the new NC 11 highway over Dunn Family Road is proposed.



NC 11 INTERCHANGE

All four alternatives include the same proposed interchange of old NC 11 and new NC 11. Several residences, businesses, a cell tower and two churches are potentially impacted by the construction. The freeway interchange is located between Wallace Family Road and Lemuel Dawson Road; essentially on top of the existing NC 55 intersection. It is not feasible to accommodate NC 55 within the new interchange. It is recommended that NC 55 be relocated away from the proposed freeway interchange.

In conjunction with the proposed improvements, it is recommended that NC 55 be rerouted along existing Tower Hill Road and Dunn Family Road to old NC 11 until the relocation shown on the Kinston CTP can be constructed. The future relocation of NC 58 northward, the future extension of C. F. Harvey Parkway eastward and their relationship to this interchange location should be evaluated in the subsequent planning stages. Additional Right-of-Way needed for a future NC 58 leg of the interchange is shown on the functional concepts. Costs for this addition are included below.

Various service roads will likely be needed for local access around each of the controlled-access interchanges. Costs for these, as shown on **Figures 8 and 9**, have been included below. More detailed service road studies should be performed in the subsequent phases of the project.

ALTERNATIVE 1

Alternative 1 is approximately 6.3 miles long. Study Alternative 1 most closely matches the alignment shown on the Kinston CTP. The Alternative 1 functional design concept can be seen on **Figures 8 and 9**.

No costs have been provided for Alternative 1. It is slightly longer, requires more bridges, has more wetland and floodway impacts, and more Civil War Battlefield impacts than the other alternatives (see **Table 3 Potential Impacts** in **SECTION VI** below). Team members reviewing the alternatives on August 18th, 2009 in the NCDOT Roadway Design Conference Room agreed that Alternative 1 should be excluded from the cost estimates of this study. Alternatives 2, 3 and 4 provide a reasonable range of costs at this stage of the process. These alternatives are described below.

ALTERNATIVES 2, 3 AND 4

Alternative 2 is also similar to the Kinston CTP alignment. It is the same as Alternative 1 from US 70 (New Bern Road) to the end of the project. The difference is that Alternative 2 takes a slightly more eastern route from existing NC 58 through the proposed US 70 Bypass (R-2553) interchange and across Southwest Creek to US 70 (New Bern Road). This crosses Southwest Creek at a narrower section of its floodway and wetlands, providing a shorter bridge and a shorter connection to US 70 (New Bern Road) than Alternative 1.

Alternatives 3 and 4 also begin with a more eastern route than Alternative 1. They move further east as they cross Southwest Creek at a narrow section of its floodway and wetlands. This route also brings Alternatives 3 and 4 to the western boundary of the Wyse Fork Battlefield. Alternatives 3 and 4 interchange with US 70 (New Bern Road) about 1,400 feet east of Alternatives 1 and 2. There is a



parcel with a large warehouse building for lease and a small power substation that are impacted by Alternatives 3 and 4 at the US 70 (New Bern Road) interchange.

Alternative 3 ties back into the Alternative 1 and 2 alignments after it crosses the Neuse River. Alternative 4 maintains its easternmost route as it crosses the Neuse, curves back towards Kinston and weaves between Oak Hill Cemetery and Camp Pool Battlefield.

Alternative 4 ties into the other alternatives at the Dunn Family Road grade separation. All four alternatives are the same as they cross Jericho Run and interchange with old NC 11.

It is estimated that the scope of ITS deployment for Alternatives 2, 3 and 4 including software, integration, communications, DMS and CCTVs, will cost **\$ 400,000**.

ALTERNATIVE 2

Alternative 2 is approximately 6.2 miles long. The functional design concept for Alternative 2 can be found on **Figures 8 and 9**. The costs for ITS deployment and Utility Construction are included in the construction costs listed below. The following costs have been determined based on the proposed improvements described herein:

Total Cost (Alternative 2)	\$ 235,500,000
Right-of-Way	\$ 34,000,000
Construction	\$ 201,500,000

It is anticipated that Alternative 2 will require the relocation of <u>109</u> residences, <u>10</u> businesses, <u>4</u> churches and <u>2</u> cell towers. The total cost is estimated to be \$235,500,000.

ALTERNATIVE 3

Alternative 3 is approximately 6.1 miles long. The functional design concept for Alternative 3 can be found on **Figures 8 and 9**. The costs for ITS deployment and Utility Construction are included in the construction costs listed below. The following costs have been determined based on the proposed improvements described herein:

Total Cost (Alternative 3)	\$ 230,800,000
Right-of-Way	\$ 36,000,000
Construction	\$ 194,800,000

It is anticipated that Alternative 3 will require the relocation of <u>108</u> residences, <u>15</u> businesses, <u>4</u> churches and <u>2</u> cell towers. The total cost is estimated to be \$230,800,000.

ALTERNATIVE 4

Alternative 4 is approximately 6.14 miles long. The functional design concept for Alternative 4 can be found on **Figures 8 and 9**. The costs for ITS deployment and Utility Construction are included in the



construction costs listed below. The following costs have been determined based on the proposed improvements described herein:

Total Cost (Alternative 4)	\$ 229,400,000
Right-of-Way	\$ 30,800,000
Construction	\$ 198,600,000

It is anticipated that Alternative 4 will require the relocation of $\underline{80}$ residences, $\underline{15}$ businesses, $\underline{3}$ churches and $\underline{1}$ cell tower. The total cost is estimated to be \$ 229,400,000.

V - HUMAN AND NATURAL ENVIRONMENT ISSUES

An environmental screening was conducted to identify potential environmental issues; including occurrences of threatened or endangered species, stream and wetland impacts, and human environment issues. The Geographic Information System (GIS) data obtained for the environmental screening are from Lenoir County, NCDOT and FEMA GIS databases. **Figures 8, 9, 12 and 13** include 2008 digital orthophotography and pertinent environmental features.

NATURAL ENVIRONMENT

As mentioned previously, the study alternatives cross **Southwest Creek**, **the Neuse River** and **Jericho Run**. The NC Division of Water Quality has given these waters primary classifications as Class C, Nutrient Sensitive Waters. Southwest Creek and Jericho Run have a supplemental classification as Swamp Waters. In addition, none of these are listed as 303(d) impaired waters within the study area.

There are no known critical watersheds that will be affected by this project.

The US Fish and Wildlife Service provided the National Wetlands Inventory (NWI) used in this study. Wetlands and streams will be impacted by this project. State and local buffer rules should be followed. Appropriate permitting and mitigation measures should be taken.



Bald Eagle



Neuse River Waterdog

The NC Department of Environmental and Natural Resources – Natural Heritage Program indicates that there are occurrences of the following threatened or endangered species within the project area:

There are two occurrences of the Neuse River Waterdog: one where Southwest Creek crosses existing NC 58 and one where Southwest Creek crosses US 70 (New Bern Road). The alignments considered in this study cross Southwest Creek between these two occurrences. More details on the location of this species should be acquired when planning this project's crossing of Southwest Creek.

There is also a listed occurrence of the Bald Eagle (2006 sighting) that lies within the footprint of Alternatives 1 and 2 between the Neuse River and the NCRR railroad line. The Bald Eagle has been delisted from the Federal Endangered list but is still protected under the Bald and Golden Eagle Protection Act and is still listed on the state endangered list. The NCDOT Natural Environment Unit



advised that a survey would be conducted during Natural Resources Technical Report (NRTR) investigations in the subsequent planning stage. If at that time a nest is found present, the project's construction cannot occur within 660 feet of the nest.

There are several parcels in this same area along the Neuse which have been purchased by the City of Kinston under the Clean Water Management Trust Fund (CWMTF) and are also part of Kinston's <u>Retrofitting Green - Flood Plain Preservation and Conservation Plan</u>. Please refer to **Figures 10 and 11** in the back of the document. The future planners and designers of this project should take careful consideration of the Bald Eagle sighting, the CWMTF properties, and the Kinston Floodplain Preservation and Conservation Plan.

HUMAN ENVIRONMENT

In addition to the Natural Environment issues listed above, there are human environment features that will be impacted by this project.

The City is planning to develop approximately 900 acres of land adjacent to the Neuse River as a greenspace, park, and riverfront type initiative. Alternatives 1 and 2 cross properties shown on Kinston's <u>Flood Plain Preservation & Conservation Plan</u> (Figure 11). The city desires to make a north-south pedestrian connection across the river somewhere in the vicinity of this future development and the community college. TIP project EB-5101 is scheduled for planning and environmental study of a new pedestrian bridge over the Neuse. This is part of the City's waterfront bike/pedestrian initiative.

The NC bike route along NC 58 at the south end of the study should be examined more closely in conjunction with the proposed improvements. The bicycle route is listed as an on-road route needing improvement on the Kinston CTP Bicycle Map. The City has indicated that they are working on a revised bike routing plan.

There are many community features that will be directly (and indirectly) impacted by this project:

PROPOSED US 70 BYPASS (R-2553) INTERCHANGE:

- Southwood Memorial Church & cemetery
- Southwood Elementary
- King family cemetery
- West Water Park on Strawberry Branch Road
- Wyse Fork Civil War Battlefield (Alts. 3 and 4)
- farmland

US 70 (New Bern Road) Interchange:

- warehouse property (Alts. 3 and 4)
- power substation (Alts. 3 and 4)
- farmland
- Lenoir Community College
- buisinesses



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TOWER HILL ROAD INTERCHANGE:

- Smith Chapel
- south neighborhood (Alts. 2, 3 and 4)
- north neighborhood (Alts. 2, 3 and 4)
- cell tower (Alts. 2 and 3)
- Oak Hill Cemetery
- farm (Alt. 4)
- Camp Pool Civil War Battlefield (Alt. 4)

DUNN FAMILY ROAD GRADE SEPARATION:

- residences
- farmland

NC 11 INTERCHANGE:

- Calvary Baptist Church
- United Gospel Church
- cell tower
- farmland



There are potential Environmental Justice occurrences within the footprint of the US 70 Bypass interchange and the footprint of the Alternative 2 and 3 Tower Hill Road interchange.

It is recommended that care be taken to avoid and minimize these human and natural environmental impacts in the successive planning and design stages of this project.

VI – PROJECT COSTS AND RECOMMENDATIONS

The purpose and need for the project is based on anticipated traffic demand and completion of a new segment of SHC 53. The following potential impacts (**Table 3**) were developed for comparative purposes, presented at the feasibility study coordination meeting on August 18th, 2009, and updated with NCDOT Right-of-Way Branch relocatee estimates.

TABLE 3 - POTENTIAL IMPACTS												
INATIVE	IGTH LES)	DGES .F.)	LANDS RES)	IDWAY RES)	Eagle Rrence	Relocatees		NTAL JUSTICE RENCES	OWERS	: / FEMA Res)	EFIELDS RES)	
Alter	(MI	BRII (S.	WETI (AC	FL00 (AC	BALD Occur	Residential	BUSINESS	Сниксн	ENVIRONME Occur	OCCUK	CWMTF (AC	Ватти (ас
1	6.30	789,400	49.7	47.4	Y	80	10	4	24	2	19.2	2.4
2	6.20	684,500	39.5	38.9	Y	109	10	4	24	2	19.2	0.0
3	6.10	645,800	35.2	38.3	Ν	108	15	4	54	2	0.0	0.6
4	6.14	719,000	35.8	44.7	Ν	80	15	3	30	1	0.0	2.4

Category leaders highlighted in green



Table 4 below shows the estimated project costs based on the conditions described in this report, with costs ranging from **\$ 229,400,000** to **\$ 235,500,000**. It is estimated that the project requires 94 to 127 relocations. As stated previously, Alternative 1 was excluded from the cost estimates.

	TABLE 4 - TOTAL PROJECT COSTS						
ALTERNATIVE	Right-of-Way	ITS DEPLOYMENT	CONSTRUCTION	TOTAL COST			
2	\$ 34,000,000	\$ 400,000	\$ 201,100,000	\$ 235,500,000			
3	\$ 36,000,000	\$ 400,000	\$ 194,400,000	\$ 230,800,000			
4	\$ 30,800,000	\$ 400,000	\$ 198,200,000	\$ 229,400,000			

Each of the alternatives in **Table 4** is a potential recommendation. The subsequent planning stages of the project will require careful choices regarding the numerous human and natural environment impacts. Future design refinements and detailed surveys will provide better costs and impacts. At this stage in the process **Alternative 3** at a total project cost of **\$ 230,800,000** is the best recommendation. Please refer to **Figures 12 and 13**.

VII - ADDITIONAL COMMENTS

The proposed interchange configurations of this study are preliminary and may be modified in the subsequent design and planning stages of the project.

A rail map has not yet been created for the Kinston CTP. The CTP rail map will be revisited after a current GTP rail study is complete.

VIII - ADDITIONAL RESOURCES

^[1] NCDOT Kinston Comprehensive Transportation Plan Study,
http://www.ncdot.org/doh/PRECONSTRUCT/tpb/planning/kinstonCTP.html
^[2] NCDOT Strategic Highway Corridors, Corridor Descriptions,
http://www.ncdot.org/doh/preconstruct/tpb/shc/pdf/SHC_List.pdf
^[3] Eastern Carolina RPO, Priority List, <u>http://www.eccog.org/document.asp?document_id=167</u>
^[4] NC SHPO – National Register, <u>http://www.hpo.ncdcr.gov/nrlist.htm</u>
^[5] Historical Preservation Group – Lenoir County Battlefields Commission
http://www.historicalpreservationgroup.org/battlefieldcomm.htm
^[6] NCDOT 2009-2015 TIP, http://www.ncdot.org/planning/development/tip/TIP/Trans/pdf/div2.pdf
^[7] US 70 Corridor Commission, <u>http://www.super70corridor.com/</u>

IX - FIGURES

Figure 1 – Project Location Map Figures 2 through 7 – Traffic Forecast Diagrams Figure 8, 9 – Study Alternatives Figure 10 – Kinston CWMTF w/ Study Alts. Figure 11 – Kinston Retrofitting Green w/ Study Alts. Figure 12, 13 – Recommended Alternative 3 Appendix A - Lenoir County Transportation Committee Resolution







CITY OF KINSTON LENOIR COUNTY NORTH CAROLINA	PREPARED FOK: NCDOT PROGRAM DEVELOPMENT BRANCH RALEIGH, NORTH CAROLINA W W W. n c d o t. o r g
Comprehensive Transportation Plan Plan date: August 15, 2007 Freeways Existing Needs Improvement Expressways Existing Needs Improvement Recommended Boulevards Existing Needs Improvement Recommended Other Major Thoroughfares Existing Existing	PREPARED BY: RALEIGH, NORTH CAROLINA W W W. F K K. C 0 m
Needs Improvement Recommended Minor Thoroughfares Existing Needs Improvement Recommended Existing Interchange Proposed Interchange Existing Grade Separation Proposed Grade Separation Niles 0 0.25 0.5 1 1.5 2 Sheet 2 of 5 Base map date: May 2005	w/ T.I.P. PROJECTS & KINSTON CTP F S - 0 8 0 2 A NEW ROUTE FROM PROPOSED US 70 BYPASS (R-2553) TO NC 11 KINSTON, LENOIR COUNTY

















Lenoir County Transportation Committee

RESOLUTION

In objection to the NC11 Eastern Kinston Bypass Feasibility study (FS-0802A) proposed new traffic signal at all possible intersections of the proposed NC11 bypass and US70 (East New Bern Rd.).

WHEREAS the NCDOT NC11 Eastern Kinston Bypass Feasibility Study proposes a traffic signal at all proposed intersections of NC11 and US70 (New Bern Rd.); and,

WHEREAS, Lenoir County has endorsed a pilot project to remove a traffic signal from the current intersection of NC11 and US70 at an estimated cost of \$12 million; and

WHEREAS, the current intersection of NC11 and US70 annually ranks as one of the county's most dangerous intersection; and

WHEREAS, the NC11 feasibility study includes grade separations within the design of the proposed intersections of NC11 and US70 (New Bern Rd.) making an interchange without traffic signals possible

NOW THEREFORE, BE IT RESOLVED BY LENOIR COUNTY TRANSPORTATION COMMITTEE ON AUGUST 11, 2010 THAT:

THE LENOIR COUNTY TRANSPORTATION COMMITTEE SUPPORTS A NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, FEASIBILITY STUDIES UNIT REPORT, FS-0802A; NC11 EASTERN BYPASS OF KINSTON ON NEW LOCATION WITH AN OBJECTION TO THE PROPOSED NEW TRAFFIC SIGNAL ON US70 (NEW BERN ROAD).

ADOPTED THIS 11th DAY OF AUGUST, 2010

8/11/2010 Russell H. Rhodes, Jr. Chairman

