

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5103</u>
W.B.S. No.	<u>42238.1.1</u>
Federal Project No.	<u>BRSTP-1627(11)</u>

A. Project Description:

The purpose of this project is to replace New Hanover County Bridge No. 35 on SR 1627 (3rd St.) over an abandoned railroad. The existing Bridge No. 35 is 299 feet long. The proposed bridge will be approximately 263 feet long providing a minimum of 81 feet of clear deck width. The bridge will include four 11-foot lanes, a 16 foot center turn lane, and two 2-foot outside gutters. The bridge will also accommodate 8'-6" sidewalks as part of the City of Wilmington Streetscape Plan. The roadway grade of the new structure will be approximately 4' lower than the existing structure at its highest point.

The approach roadway will extend approximately 134 feet from the north end of the new bridge and 108 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes northbound and southbound with a 16' center turn lane. The roadway will be designed as an Urban Arterial with a 40 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 35 has a sufficiency rating of 31.6 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to structural evaluation of 2 out of 9 according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA's Highway Bridge Program.

Bridge No. 35 carries 18,550 vehicles per day with 21,300 vehicles per day projected for the year 2035. Components of both the concrete superstructure and substructure have experienced an increasing degree of deterioration that can no longer be addressed by maintenance activities. The posted weight limit on the bridge is down to 18 tons for all vehicles. The bridge is approaching the end of its useful life. Replacement of the bridge will result in safer traffic operations.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
  - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
  - b. Widening roadway and shoulders without adding through lanes
  - c. Modernizing gore treatments
  - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
  - e. Adding shoulder drains
  - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
  - g. Providing driveway pipes
  - h. Performing minor bridge widening (less than one through lane)
  - i. Slide Stabilization
  - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
  - a. Installing ramp metering devices
  - b. Installing lights
  - c. Adding or upgrading guardrail
  - d. Installing safety barriers including Jersey type barriers and pier protection
  - e. Installing or replacing impact attenuators
  - f. Upgrading medians including adding or upgrading median barriers
  - g. Improving intersections including relocation and/or realignment
  - h. Making minor roadway realignment
  - i. Channelizing traffic
  - j. Performing clear zone safety improvements including removing hazards and flattening slopes
  - k. Implementing traffic aid systems, signals, and motorist aid
  - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
  - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
  - b. Rehabilitating or replacing bridge decks
  - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
  - d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
5. Construction of new truck weigh stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7. Approvals for changes in access control.
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2012 prices, are as follows:

Structure	\$ 2,346,000
Roadway Approaches	\$ 262,000
Structure Removal	\$ 210,000
Misc. & Mob.	\$ 357,000
Eng. & Contingencies	\$ 475,000
Total Construction Cost	\$ 3,650,000
Right-of-way Costs	\$ 0
Right-of-way Utility Costs	\$ 114,000
Total Project Cost	\$ 3,764,000

**Estimated Traffic:**

Current(2013) -	18,550 vpd
Year 2035 -	21,300 vpd
TTST -	1%
Dual -	2%

**Accidents:** Traffic Engineering has evaluated a recent three year period and found eighteen accidents occurring in the vicinity of the project. None were associated with the geometry of the bridge or its approach roadways.

**Design Exceptions:** There are no anticipated design exceptions for this project.

**Pedestrian and Bicycle Accommodations:** This portion of SR 1627 (3<sup>rd</sup> Street) is part of State Bike Route No. 5 (Cape Fear Run). It is recommended that the bridge and the approach roadway are designed to accommodate wide outside lanes or bicycle lanes depending on the future cross-section of the roadway. The new bridge will be designed with an 8'-6" sidewalk. Pedestrian safe railing is also recommended. The City of Wilmington has developed a Streetscape Plans which calls for a 15 ft. future greenway trail which leads to the future Multi-modal Unit. Adequate horizontal and vertical clearance under the bridge has been incorporated.

**Coordination with Municipality:** NCDOT has agreed to pay 100% for additional costs for sidewalks and "Church Rail". The City of Wilmington will share costs for lighting and brick stamping on the bridge.

**Alternatives Discussion:**

**No Build** – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1627.

**Rehabilitation** – The bridge was constructed in 1920 and the concrete materials within the bridge are reaching the end of their useful life.

Rehabilitation would require replacing the concrete components which would constitute effectively replacing the bridge.

**Offsite Detour** – Bridge No. 35 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour.

The traffic is a mixture of local and through traffic. Local traffic will most likely travel along Davis St., N. Fourth St. and Red Cross Street (see Figure 1A) although many will find their own preferred routes on the local grid. Their delay will be less than five minutes per trip.

For through traffic the offsite detour would include US 74/NC 133 over the Isabel Holmes Bridge to US 421/17 south to US 76/US17 Business over the Memorial Bridge (see Figure 1B). The detour for the average road user would result in 2 minutes additional travel time (1 miles additional travel). Up to 12-month duration of construction is expected on this project.

WAVE, the local bus system, is working out a separate detour more appropriate for their routes.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. New Hanover County Emergency Services along with New Hanover County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 3 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concur with the use of the detour.

**Onsite Detour** – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

**Staged Construction** – Staged construction was not considered because of the availability of an acceptable offsite detour.

**New Alignment** – Given that the alignment for SR 1627 is acceptable, a new alignment was not considered as an alternative.

**Other Agency Comments:**

The **N.C. Wildlife Resource Commission** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

**Response:** NCDOT will be replacing the existing bridge with a new bridge.

The **City of Wilmington**, the **N.C. Division of Water Quality**, the **Army Corps of Engineers**, the **Division of Coastal Management**, and **N.C. Marine Fisheries** had no special concerns for this project.

**Public Involvement:**

A newsletter has been sent to all those living along SR 1627. No comments have been received to date.

Based on the impacts the bridge replacement would have on nearby businesses, a Citizen’s Informational Workshop was determined necessary. A Citizen’s Informational Workshop was held July 25, 2013. A total of fourteen people attended the workshop. There were some concern about the offsite detour impacting the Azalea Festival and Martin Luther King Parade. There were some concerns from WAVE Transit about the city busses being able to utilize the offsite detour. NCDOT will evaluate the project schedule to minimize impacts to the Azalea Festival and Martin Luther King Parade. WAVE Transit is working with the City of Wilmington on a detour that is able to carry the weight of the busses.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u>  <b>x</b>  </u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input type="checkbox"/>	<u>  <b>x</b>  </u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u>  <b>x</b>  </u>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<u>  <b>x</b>  </u>	<input type="checkbox"/>

- |     |  |                          |                     |
|-----|--|--------------------------|---------------------|
| (5) | Will the project require the use of U. S. Forest Service lands?  | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities?            | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (7) | Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties?     | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?                 | <input type="checkbox"/> | <u>  <b>x</b>  </u> |

PERMITS AND COORDINATION

YES                      NO

- |      |  |                          |                     |
|------|--|--------------------------|---------------------|
| (10) | If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources?  | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (12) | Will a U. S. Coast Guard permit be required?   | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (13) | Could the project result in the modification of any existing regulatory floodway?  | <input type="checkbox"/> | <u>  <b>x</b>  </u> |
| (14) | Will the project require any stream relocations or channel changes?  | <input type="checkbox"/> | <u>  <b>x</b>  </u> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES                      NO

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area?   | <input type="checkbox"/> | <u>  <b>x</b>  </u>      |
| (16) | Will the project require the relocation of any family or business?  | <input type="checkbox"/> | <u>  <b>x</b>  </u>      |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? | <input type="checkbox"/> | <u>  <b>x</b>  </u>      |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?                        | <u>  <b>x</b>  </u>      | <input type="checkbox"/> |

- |      |   |                                     |                          |
|------|---|-------------------------------------|--------------------------|
| (19) | Will the project involve any changes in access control?   | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property?   | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?  | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (22) | Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?  | <u>  <b>x</b>  </u>                 | <input type="checkbox"/> |
| (23) | Is the project anticipated to cause an increase in traffic volumes?   | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (24) | Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?   | <u>  <b>x</b>  </u>                 | <input type="checkbox"/> |
| (25) | If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? | <u>  <b>x</b>  </u>                 | <input type="checkbox"/> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project?  | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?   | <u>  <b>x</b>  </u>                 | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?  | <input checked="" type="checkbox"/> | <u>          </u>        |
| (29) | Will the project affect any archaeological remains which are important to history or pre-history?   | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?             | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended?  | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?   | <input type="checkbox"/>            | <u>  <b>x</b>  </u>      |

F. Additional Documentation Required for Unfavorable Responses in Part E

**Response to Question 28:** Bridge No. 35 is a non-contributing element in the Wilmington Historic District. The abandoned rail corridor under Bridge No. 35 is a contributing element to the historic district. Bridge No. 35 will be replaced in place with a long-span bridge which will be open over the historic rail bed leaving the area intact. Therefore this bridge replacement will have a “No Adverse Effect” on the Wilmington Historic District (see green sheet commitments).

G. CE Approval

TIP Project No.	<u>B-5103</u>
W.B.S. No.	<u>42238.1.1</u>
Federal Project No.	<u>BRSTP-1627(11)</u>

Project Description:

The purpose of this project is to replace New Hanover County Bridge No. 35 on SR 1627 (3rd St.) over an abandoned railroad. The existing Bridge No. 35 is 299 feet long. The proposed bridge will be approximately 263 feet long providing a minimum of 81 feet of clear deck width. The bridge will include four 11-foot lanes, a 16 foot center turn lane, and two 2-foot gutters. The bridge will also accommodate 8'-6" sidewalks as part of the City of Wilmington Streetscape Plan. The roadway grade of the new structure will be approximately 4' lower than the existing structure at its highest point.

The approach roadway will extend approximately 134 feet from the north end of the new bridge and 108 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes northbound and southbound with a 16' center turn lane. The roadway will be designed as an Urban Arterial with a 40 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

Categorical Exclusion Action Classification:

<u>      </u>	TYPE II(A)
<u>  x  </u>	TYPE II(B)

Approved:

<u>10/31/13</u> Date	<u>William F. Goodwin</u> Bridge Project Development Engineer Project Development & Environmental Analysis Unit
<u>10/31/13</u> Date	<u>John Williams</u> Project Engineer Project Development & Environmental Analysis Unit
<u>10/31/13</u> Date	<u>Natalie Duckhart</u> Project Planning Engineer Project Development & Environmental Analysis Unit

For Type II(B) projects only:

<u>10/31/13</u> Date	<u>John F. Sullivan, III</u> John F. Sullivan, III, PE, Division Administrator Federal Highway Administration
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## **PROJECT COMMITMENTS:**

**New Hanover County  
Bridge No. 35 on SR 1627  
Over Abandoned Railroad  
Federal Aid Project No. BRSTP-1627(11)  
W.B.S. No. 42238.1.1  
T.I.P. No. B-5103**

### **Division 3 Construction, Resident Engineer's Office – Offsite Detour**

In order to have time to adequately reroute school busses, New Hanover County Schools will be contacted at (910) 254-4206 at least one month prior to road closure.

New Hanover County Emergency Services will be contacted at (910) 798-6900 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

### **GeoEnvironmental Section – Impacts to Underground Storage Tanks (UST's)**

Ten UST facilities were identified within the proposed project corridor. NCDOT anticipates low monetary and scheduling impacts resulting from these sites. If further design indicates potential impact to UST's, preliminary site assessments for soil and groundwater contamination will be performed prior to right of way purchase.

### **PDEA, Historic Architecture – Historic District**

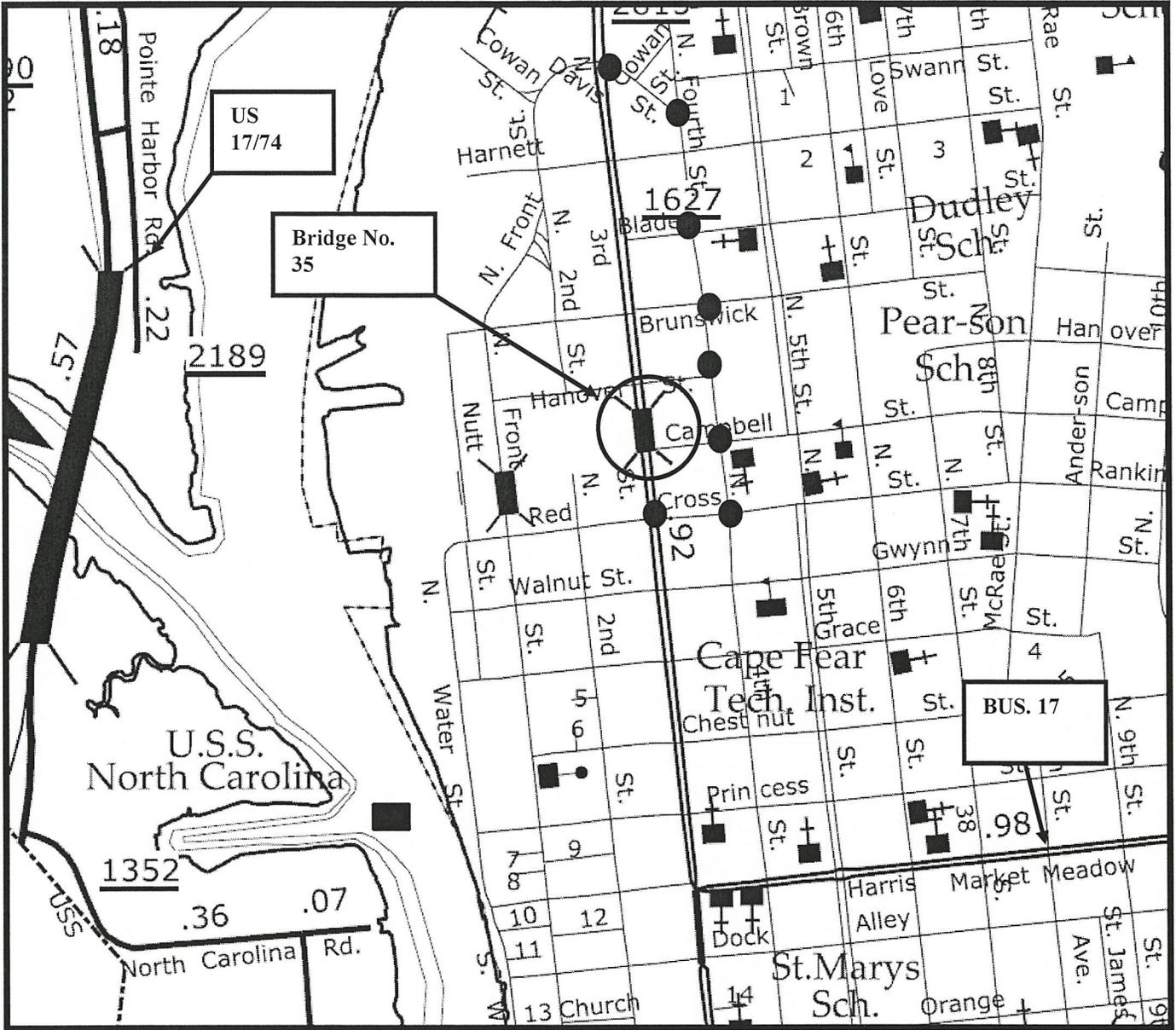
- Construction at the intersection of Third Street/ Campbell Street and Third Street/ Hanover Street will not touch/disturb historic brick street pavers which are a contributing element to the historic district.
- 8'-6" Curb/Sidewalk will be used to match Wilmington's current streetscape project sidewalk width.
- "Texas Classic Rail" or "Church Rail" will be used due to its similarity to the existing rail.
- Bridge approach guardrail may be eliminated since the existing bridge has no guardrail and the offset to the proposed rail will be equal to or greater than existing.
- Right-of-Way under the bridge will remain with NCDOT Rail.

### **Roadway Design/Program Development Branch- Sidewalks**

Existing sidewalks on the bridge are 5 feet on each side, the proposed design includes 8'-6" sidewalks with "Church Rail". NCDOT will pay 100% of the additional sidewalk and "Church Rail".

### **All Units- Municipal Agreement**

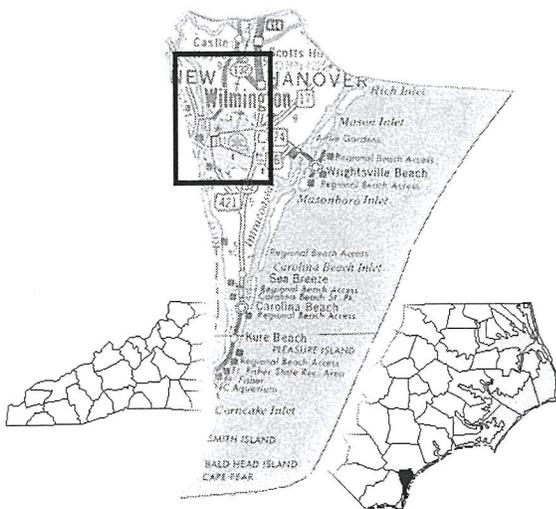
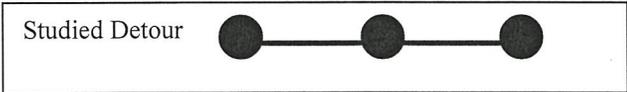
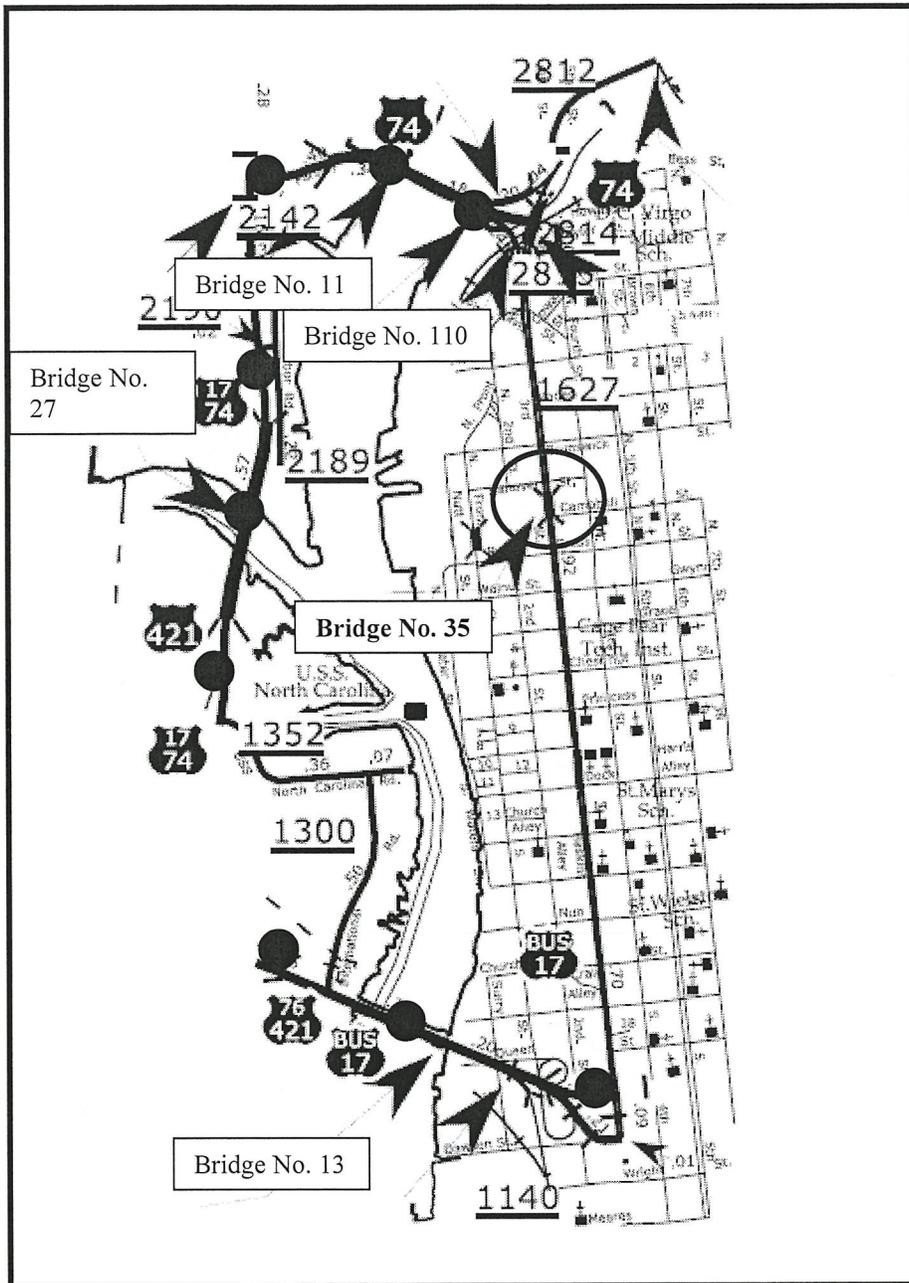
The City of Wilmington will share costs for lighting and brick stamping on the bridge.



NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS BRANCH

**NEW HANOVER COUNTY  
REPLACE BRIDGE NO. 35 ON SR 1627  
OVER ABANDONED RAILROAD  
B-5103**

Figure 1A



NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS BRANCH

**NEW HANOVER COUNTY  
REPLACE BRIDGE NO. 35 ON SR 1627  
OVER ABANDONED RAILROAD  
B-5103**

Figure 1B



N. 3RD ST. (SR 1627)

RED CROSS ST.

HANOVER ST.

N. 3RD ST.

CAMPBELL ST.

BRUNSWICK ST.



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

BRUNSWICK COUNTY  
REPLACE BRIDGE NO. 35 ON SR 1627 (3rd ST.)  
OVER ABANDONED RAILROAD  
B-5103

FIGURE 2

11-02-0024

**EFFECTS DETERMINATION FORM****PROJECT INFORMATION**

*Project No:* B-5103 *County:* New Hanover  
*WBS No:* 42238.1.1 *Document:* PCE  
*F.A. No:* *Funding:*  State  Federal  
*Federal (USACE) Permit Required?*  Yes  No *Permit Type:*

*Project Description:*

Replace Bridge No 35 over abandoned rail bed on SR 1627 (Third Street) in Wilmington.

*Brief description of review activities, results of review, and conclusions:*

Bridge No 35 is a non-contributing element in the Wilmington Historic District (NR). The status of this bridge was recently reevaluated as part of TD-4721, the Wilmington Multi-modal Transportation Center project. The rail corridor below the bridge is a contributing element to the historic district. Alternative 1 replaces the existing structure with a comparable bridge which spans the rail bed. Alternatives 2 and 3 both propose a shorter and fill the area beneath the bridge covering the rail bed. None of the alternatives require the acquisition of additional right-of way.

**EFFECTS DETERMINATION**

*Property/Site:* **Wilmington Historic District**  
*Status:* NR  
*Effects Finding:*  No Effect  No Adverse Effect  Adverse Effect

*Explanation of Effects Determination:*

The chosen alternative, Alternative 1, will replace the existing bridge with a long-span bridge which will be open over the historic rail bed leaving the area intact.

*List Environmental Commitments (if any):*

- Construction at the intersections of Third Street / Chestnut Street and Third Street / Hanover Street will be no closer than twenty-five feet from the historic brick street pavers which are a contributing element to the historic district.
- 8'-6" Curb/Sidewalk will be used to match Wilmington's current streetscape project sidewalk width.
- "Texas Classic Rail" or "Church Rail" will be used due to its similarity to the existing rail.
- Bridge approach guardrail may be eliminated since the existing bridge has no guardrail and the offset to the proposed rail will be equal to or greater than existing.
- Right-of-way under the bridge will remain with NCDOT Rail.

**SUPPORT DOCUMENTATION**

See attached: Design plans and photos.

Shelby Spillers 11-18-11  
Cultural Resources Specialist, NCDOT Date

Rebecca Medhill-Easley 11-17-11  
Representative, HPO/OSA Date

*HPO/OSA Comments:*

*for* Dahl W. Brown 11-18-11  
Representative, FHWA Date

FHWA intends to use SHPO's concurrence as a basis of a "de minimis" finding for the following properties, pursuant to Section 4(f):