

**FEASIBILITY STUDY**

**Canton  
Beaverdam Street (SR 1592)/Thompson Street  
from Fiberville Road (NC 215)  
to Elizabeth Street/Hy-Vu Drive  
Haywood County**

**Division 14**

**U-3801**

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

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Date

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### I. General Description

This feasibility study describes recommended improvements to Beaverdam Street (SR 1592) and Thompson Street in Canton. It is recommended that Beaverdam Street be widened and realigned from Fiberville Road (NC 215) to its intersection with Thompson Street (a non-system city street) and that Thompson Street be widened from Beaverdam Street to its intersection with Elizabeth Street/Hy-Vu Drive. The project has a length of 0.9 miles (1.4 km) and the project location is shown on Figure 1.

The recommended cross section is a 2-lane, 36-foot (11.0 -m) wide (face-to-face), curb-and-gutter section with 12-foot (3.6-m) wide travel lanes and 8-foot (2.4-m) wide berms.

It is recommended that the project is to be constructed on 60 feet (18.3 m) of right-of-way.

It is anticipated that there will be 17 residences and no businesses relocated as a result of this project.

The total cost of the project, including construction and right-of-way, is estimated to be \$3,800,000 as follows:

Right-of-way	\$1,600,000
Construction	2,200,000
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Total	\$3,800,000

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project

including costs, and to identify potential problems that may require consideration in the planning and design phases.

## **II. Need for Project**

The purpose of this project is to improve the traffic carrying capacity and the safety of the main ingress-egress route to the North Canton Elementary School. The school is located approximately 0.8 miles (1.3 km) east of Fiberville Road, on the north side of Thompson Street (a non-system city street). The project will improve alignment, increase travel lane width, and provide significant safety improvements over the existing roadway which is characterized as being very curvy with steep grades and heavily rolling terrain.

This project was requested by the Town of Canton.

Beaverdam Street and Thompson Street are classified as minor thoroughfares on the Canton Thoroughfare Plan and are not classified in the North Carolina Statewide Functional Classification System.

Development along the project is generally dense residential. However, at approximately 0.5 miles (0.8 km) east of Fiberville Road, there is a church, located on the south side of Thompson Street, and a salvage yard and storage facility located on the north side. North Canton Elementary School is located on the north side of Thompson Street at approximately 0.8 miles (1.3 km) east of Fiberville Road.

Within the project terminals, existing Beaverdam Street is a very winding segment of 2-lane roadway with a 20-foot (6.1-m) wide pavement and curbs on both sides. There are no defined gutters. The roadway runs generally parallel to Beaverdam Creek and any significant widening would have to be accomplished asymmetrical to the south. The south side of the roadway is densely developed with residences which in some cases have out-buildings constructed at the roadway edge. The south side of the roadway also has steep hillsides and any widening to the south side would require significant cuts and the construction of retaining walls. At the west project terminal, Beaverdam Street intersects with Fiberville Road and creates a "T" intersection. This intersection is stop-sign controlled on Beaverdam Street.

At the western project terminal, Fiberville Road (NC 215) is a 4-lane, 52-foot (15.8-m) wide (face-to-face), curb-and-gutter facility.

Thompson Street (a non system city street) extends from approximately 0.3 miles (0.5 km) east of Fiberville Road to Ferguson Street/North Main Street, at approximately 1.0 miles (1.6 km) east of Fiberville Road. From its western

terminus to Elizabeth Street/Hy-Vu Drive, Thompson Street is a 2-lane rural section with 10-foot (3.0 -m) wide travel lanes and soil shoulders. From Elizabeth Street/Hy-Vu Drive to its eastern terminus, the roadway is a 28-foot (8.5-m) wide curb-and-gutter section.

The 1996 estimated Average Daily Traffic (ADT) volumes, along the project route, range from a low of approximately 900 vehicles per day (vpd) to a high of approximately 1500 vpd. The estimated design year (2020) ADT volumes range from approximately 2,700 vpd to 4,500 vpd. School bus traffic is estimated to make up approximately 3% of the daily traffic.

It is estimated that the existing roadway is currently operating at Level of Service C but will reach Level E by the design year (2020). If the proposed improvements are made, it is projected that Level C will be maintained through the design year.

During the three-year period from February 1, 1994 thru January 31, 1997, there were 4 accidents reported on Beaverdam Street/Thompson Street, within the project limits. There were no fatalities reported during this period, but 2 of the accidents resulted in injuries. The accident rate along the project route is 259.7 accidents per 100 million vehicle miles (acc/100mvm). This compares with the 1996 statewide rate of 247.7 acc/100mvm for urban secondary roads.

### **III. Recommendations / Description of Project**

It is recommended that Beaverdam Street be widened and realigned from Fiberville Road (NC 215) to it's intersection with Thompson Street (a non-system city street) and that Thompson Street be widened from Beaverdam Street to it's intersection with Elizabeth Street/Hy-Vu Drive. The project has a length of 0.9 miles (1.4 km) and the project location is shown on Figure 1.

The recommended cross section is a 2-lane, 36-foot (11.0 -m) wide (face-to-face), curb-and-gutter section with 12-foot (3.6-m) wide travel lanes and 8-foot (2.4-m) wide berms.

At the Fiberville Road intersection, it is recommended that the intersection be signalized and that Beaverdam Street include three lanes consisting of a right-turn lane, a left-turn lane, and one lane eastbound from Fiberville Road.

It is recommended that the project be constructed on 60 feet (18.3 m) of right-of-way.

It is anticipated that there will be 17 residences and no businesses relocated as a result of this project.

The total cost of the project, including construction and right-of-way, is estimated to be \$3,800,000 as follows:

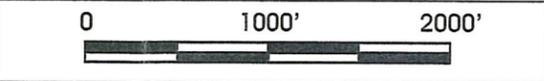
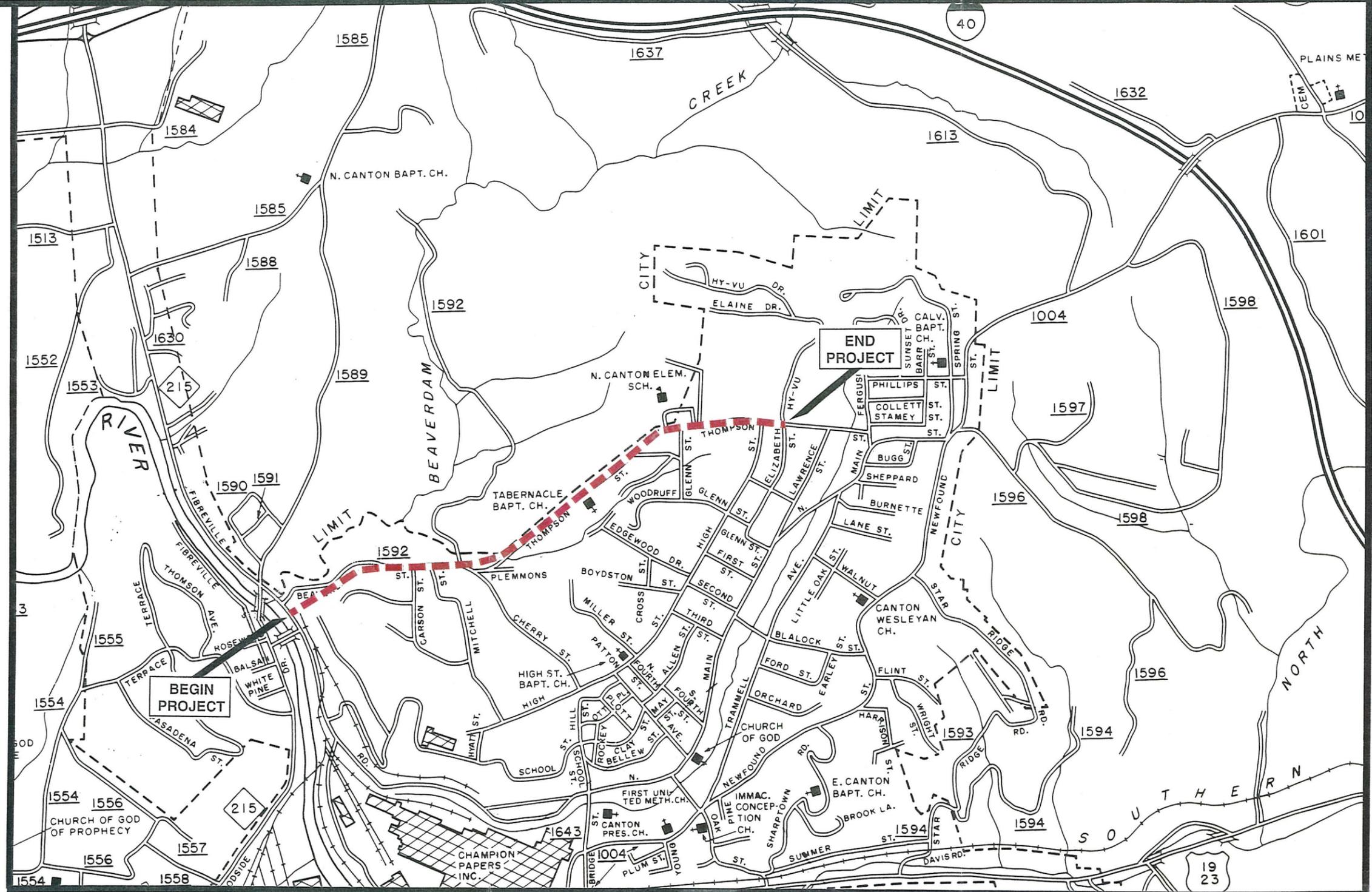
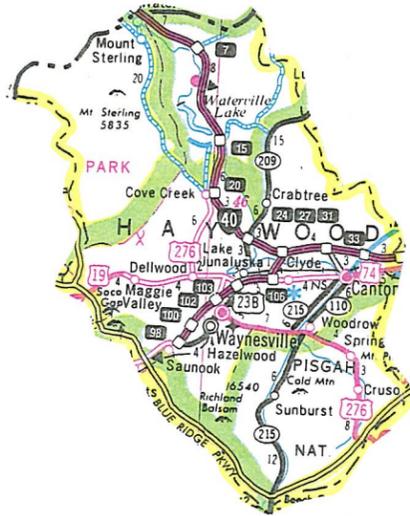
Right-of-way	\$1,600,000
Construction	2,200,000
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Total	\$3,800,000

## **VI. Other Comments**

An environmental screening was not conducted for this study. However, no impacts to historic properties or wetlands are anticipated.

Based on maps at the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

The NCDOT Bicycle Program has not identified this segment of roadway as a roadway with need for special accommodations for bicycles.



North Carolina Department of Transportation  
Program Development Branch

**U-3801**  
SR 1592 (Beaverdam St./Thompson St.)  
from NC 215  
to North Canton Elementary School

Canton, Haywood County

DIVISION 14 FIGURE 1