

**OLD FARMS ROAD PROJECTS:
OVERVIEW
AND
PURPOSE AND NEED**

Overview

Old Farms Road begins at Avon Center in Avon, Connecticut and runs southerly, paralleling the Farmington River until it passes the Avon Old Farms School, a private boys' boarding school, where it turns easterly and passes over the Farmington River to terminate at State Route 10. Thompson Road begins at State Route 167 at a point generally west of the Avon Old Farms School and runs over the Farmington Valley Greenway (the former Penn Central Railroad) to intersect with Old Farms Road just to the south of the Avon Old Farms School. The totality of the project area is comprised of three separate projects or phases. The first phase involved replacement of the bridge over the Farmington River and associated work on Route 10, Old Farms Road and Tillotson Road. The second phase, which is the phase under consideration for this 8-24 referral, is the realignment of Old Farms Road from its intersection with Thompson Road, through the intersection with Scoville Road, to a point where the new alignment will join the existing roadway approximately 1700 feet north of the intersection with Scoville. The third phase will consist of rebuilding the roadway between the first two phases, and reconstructing the portion of Thompson Road from Old Farms Road to the greenway trail. For locus and project area, see Figure 1.

Old Farms Road and Thompson Road within the project area are very rural in character. Both roads are very winding and hilly, and the roadway consists of an approximate 18-foot paved traveled way with no shoulders and no side-ditches for drainage. On the section of Old Farms Road between the intersection with Thompson Road and the intersection with Tillotson Road there are two bridges, neither of which has any shoulders. The Avon Old Farms School owns all of the abutting land within the project area, with the exception of a portion of property owned by the Town of Avon known as the Fisher Farm. Development of the abutting property is limited to buildings comprising the Avon Old Farms School in the northeast quadrant of the project area.

Old Farms Road is classified as an Urban Collector from the intersection with State Route 44 to the intersection with Thompson Road. Thompson Road is classified as an Urban Collector in its

entirety. The balance of Old Farms Road is classified as a Rural Collector. Both roads are Town-maintained, and the Town reports that frost heaving and pavement icing are major wintertime problems.

Over the past twenty years, traffic on roads in the project area has increased markedly. Residential development west of the project area has coupled with job growth to the east, resulting in travel demands on U.S. Route 44 through Avon Center, located to the north of the project area, and on Route 4 to the south of the project area. To circumnavigate the congestion on these Routes, an increasing number of motorists are turning to the corridor of Thompson Road and Old Farms Road. Meanwhile, the Avon Old Farms School depends on the two roads for pedestrian movements between the living areas and the recreational areas of their property. The presence of increasing numbers of motorists alongside the pedestrian traffic is raising the potential for accidents. Several serious accidents, including two fatalities, have occurred on roads in this corridor since 1981.

Purpose and Needs

Purpose

The purpose of this project is to improve safety for vehicle, bicycle and pedestrian traffic, improve through traffic operations, and provide opportunities for alternative modes of transportation such as improved bicycle and pedestrian usage. One of the primary purposes is to improve cross-town mobility by providing a safe alternative to the highly congested Routes 4 and 44.

Needs

The subject corridor has many deficiencies that need to be addressed, as enumerated below:

1. Safety - The roadways in the project area are experiencing an excessive number of accidents compared to similar corridors elsewhere in Connecticut. The accident rate for the roadways within the project area range from 1.91 to 11.81 accidents per million vehicle-miles (a/mvm), which ranges from 15 percent below to 527 percent higher than the statewide average of 2.24 a/mvm for similar 2-lane urban bi-directional roadways. The portion of the road which is considered a 2-lane rural collector had an accident rate of 4.88 a/mvm which was 339 percent the state average of 1.441 a/mvm. The accident rate for intersections within the project area ranges from 0.31 to 0.18 accidents per million entering vehicles (a/mev) for urban sections and 0.57 a/mev the rural intersection. The statewide rate for similar intersections is 0.231 a/mev for urban and 0.178 a/mev for rural. Therefore, the intersection accident rate within

the project area varies from 22 percent below to 320 percent higher than the statewide average for similar intersections. An analysis has shown that the roadway's geometry, narrow lanes and other roadway conditions are contributing to the majority of accidents. Of all the accidents recorded, approximately 91 percent have factors associated with the substandard conditions of the roadways. The narrow roadway combined with the roadside features confine travelers, therefore, eliminating opportunities for accident avoidance. Large trucks are experiencing difficulties negotiating the roadway. The sharp curvature, narrow lanes, and roadway constrictions at the two bridges require large trucks to cross the centerline. In addition, excessive speeds historically contribute to the above mentioned roadway conditions to create a more hazardous roadway. The observed speeds are typical of the underlying usage patterns associated with a Major Collector. The observed speeds vary greatly along the subject corridor due geometric characteristics of the road. The limited observations show speeds typically exceed 35 miles per hour (mph). The geometric characteristics, limited sight distances, narrow lanes and shoulders are contributing to operational and safety problems along the corridor. The existing corridor has an estimated safe running speed of 20-25 mph, whereas, ConnDOT requires a design speed of 35-45 mph for urban collectors and 50 mph for rural collectors.

2. Roadway Deficiencies Capacity / Congestion / Mobility - Several roads in the region have reached the point of excessive congestion and resulting delays. Specifically, Routes 44 and 4 run east-west providing access to commercially developed areas, Interstate 84 east of the Farmington River and the residential communities west of the River. The subject projects addresses capacity problems by providing a safe alternative.
3. Travel Demand - As the town and neighboring communities continue to develop commercially and residentially, more vehicular traffic is generated, which contributes to the growing demand. A review of the rate of development in Avon and the adjacent communities reveals an expansion rate of around 2 percent per annum. The primary arterial roadways in the area are experiencing growing capacity and congestion problems. Reviews of these corridors, indicates improvements would be very difficult to implement due to right of way constraints.
4. Transportation Planning - The Town has long-term plans to address issues related to expanding congestion problems and land use patterns. This project is one part of the plan and

helps to address several issues, including reduction in congestion, alternate routes, improved safety, enhanced emergency response, preservation of open space, alternative modes of transportation and improvements to the environment. A previous Route 10 Corridor Study has indicated that improvements to Old Farms Road in Avon would support the Route 10 facility.

5. Social Demands - Public and private recreation facilities in the area are creating a social demand on the roadway system. This demand includes motorists, bicyclists and pedestrians.
6. System Linkage - The roadway has become an important link in the east / west traffic movements in the town of Avon. The congested nature of Route 44 and 4 causes motorists to seek alternate routes. Old Farms Road and Thompson Road are experiencing this growing demand. In addition, this road provides bypass capability in emergencies including but not limited to accidents on Route 44.
7. Modal Interrelationships - Alternative forms of transportation will reduce the numbers of cars utilizing the roadway systems. Efforts to provide safe and user friendly facilities will encourage alternative forms of transportation including bicycle, equestrian and pedestrian. Although the numbers will be small, significant recreational uses will be developed. This link is important since it connects the valuable resources of the Farmington Valley Greenway and Farmington River Trail System.

Additional Goals, Objectives and Opportunities

The construction of this project can also have an effect on the realization of certain non-transportation goals, objectives and opportunities for the community of Avon. To be viable, these goals, objectives and opportunities need to be considered in the overall plan. The following is a summary of the project's additional goals, objectives and opportunities:

1. Provide congestion mitigation in the center of town: The congestion affects mobility, restricts accessibility to schools, homes, businesses, and constitutes an undue hardship to the public. In addition, the restricted mobility caused by the congestion represents loss of essential services such as fire protection, police and medical services.

2. Improved emergency access times in town: Cross-town movement is slowed by the congestion on primary arterial roadways.
3. Improve access to the town center: Old Farms Road leads to the center of Avon's business center. Improvements to this link will improve access by providing an alternative.
4. Improve access to the recreational trails associated with the Farmington River and the Farmington Valley Greenway: This project will provide a small loop trail as well as a connection of the greenway trail to Avon's Fisher Meadows Recreational Area and its trail systems. An off-road paved multi-use trail will provide a bicycle and pedestrian friendly facility that will expand passive and active recreation in the area. Avon Old Farms School agrees in concept to establishing a bikeway along the south side of the new east-west road within an expanded right-of-way to provide such a connection.
5. Improve safety for the public and the school: by improving sight lines, by providing safe roadway crossing zones at the intersections, and by providing a dedicated multi-use trail, students, cyclists, and pedestrians will be able to coexist safely with motorists.
6. Reduce the need for maintenance operations on the roadways, and minimizing expenditures: the new roadway construction will include new sub-base, base and bituminous concrete that exceed the Town's roadway construction standards. This will result in a longer life span and reduced maintenance costs.
7. Modernize drainage to minimize impacts to the environment: Updated drainage using the latest design and low impact development (LID) techniques will also greatly reduce the existing icing and frost heaving problems that lead to premature deterioration of the roadway.
8. Consolidate the properties owned by the school: This will improve campus security, safety and internal operations.