

**CHAPTER FIVE OUTLINE:**

- Overview
- Methodology
- Pedestrian Network Facility Types
- Crossing Improvement Recommendations
- Regional Connections
- Pedestrian Facility Network Maps

# CHAPTER FIVE: PEDESTRIAN NETWORK

## OVERVIEW

The proposed pedestrian network for Spartanburg County is a series of pedestrian improvements that creates a more connected, comprehensive system. It has been developed from past planning efforts, public input, committee input, municipalities input, field analysis, and geographic information systems (GIS) mapping. This chapter presents the methodology, recommended pedestrian network facility types, intersection improvement recommendations, regional connections, and pedestrian network maps for Spartanburg County and the City of Spartanburg. Priority project pages and recommended network maps for Spartanburg County municipalities may be found in Chapter 6. Priority projects and strategies for implementation may be found in Chapter 9: Implementation.

### HUB AND SPOKES DIAGRAM

*The 'hubs and spokes' model conceptually illustrates how destinations are linked through various types of pedestrian facilities.*

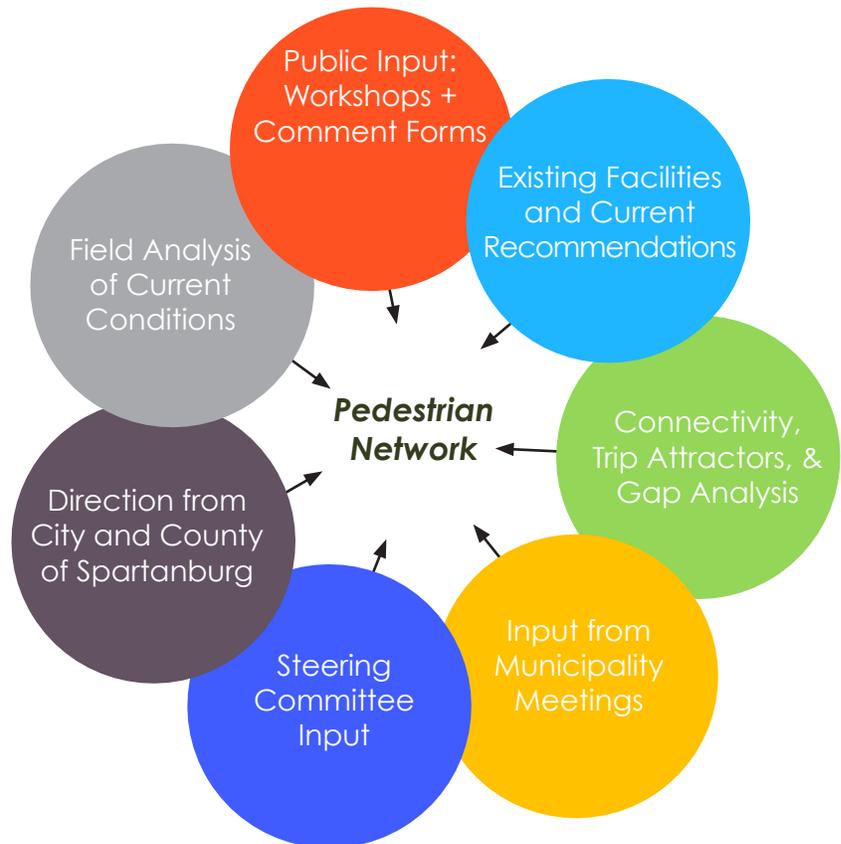


Successful development of the pedestrian network will require a long-term, cooperative effort between SCDOT, SPATS, Spartanburg County, the City of Spartanburg, and all other municipalities. Cooperative effort is important because roadways are owned and maintained by different entities.

## METHODOLOGY

The guiding philosophy in devising the network is the hubs and spokes model. Pedestrian corridors (spokes) should connect to trip attractors (hubs), such as parks, schools, Downtown, shopping centers, and other pedestrian corridors. The network then becomes a practical solution for pedestrian connectivity (see diagram at left).

Fieldwork included an examination of conditions at major intersections, conditions along primary corridors, conditions at pedestrian hubs, conditions near schools, and a consideration of gap connectivity. Map discussion and analysis was conducted at steering committee meetings and public meetings to pinpoint specific areas in need of pedestrian improvements.



## PEDESTRIAN NETWORK FACILITY TYPES

The Proposed Pedestrian Network for Spartanburg County (see Maps 5.1 and 5.2) consists of three types of projects:

- *Sidewalk projects* - The recommended sidewalks aim to expand upon the existing network of sidewalks to provide a more connected system that connects destinations along roadways. 253.7 miles of sidewalks are recommended for Spartanburg County.
- *Greenway projects* – The recommended greenways aim to expand upon a comprehensive off-road system that utilizes stream corridors and easements. Approximately 210 miles of greenway are recommended (developed mostly from Enhancement Plan recommendations).
- *Crossing improvements* – The crossing improvements aim to improve existing crossing facilities or create new crossing facilities at intersections and at mid-blocks. These improvements are critical in order to maintain a safe, connected system throughout the County. Pedestrians have a much greater risk of being struck by a vehicle when crossing a roadway as opposed to walking on the shoulder or sidewalk beside it. Nationally, nearly 75% of all police-reported pedestrian crashes involve pedestrians crossing roadway travel lanes.

### INPUTS FOR NETWORK DEVELOPMENT

The diagram above illustrates the inputs used to design the Pedestrian Network.



Above: existing conditions on SC 9.

Right: A photo visualization of a sidewalk on SC 9.



Above: existing conditions along the North Tyger River.

Right: A photo visualization of a greenway trail along the North Tyger River.

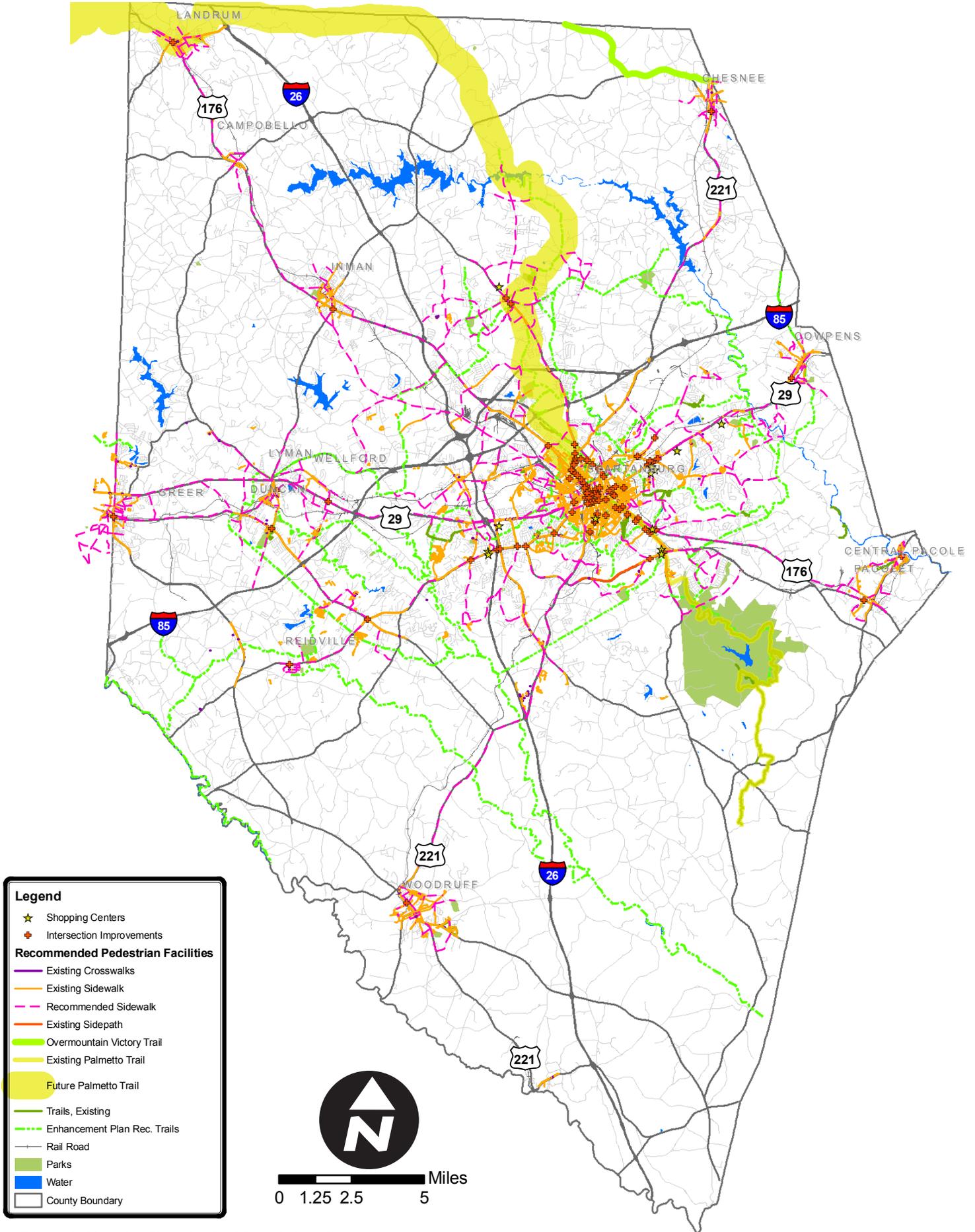


Above: existing conditions at a Church Street crossing.

Right: A photo visualization of crossing improvements on Church Street.



# MAP 5.1 SPARTANBURG COUNTY: PEDESTRIAN RECOMMENDATIONS



# MAP 5.2 METRO SPARTANBURG: PEDESTRIAN RECOMMENDATIONS



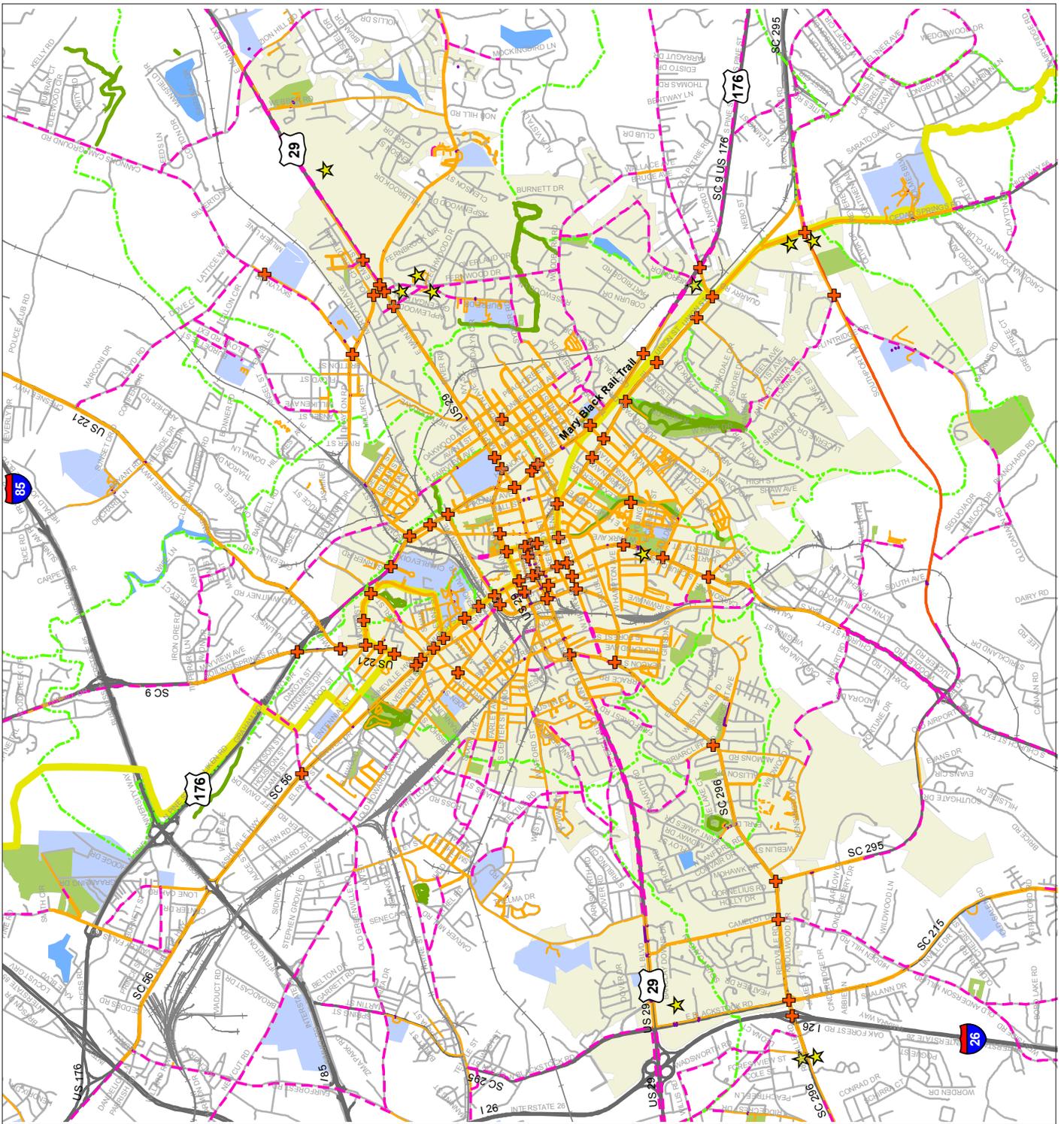
**Legend**

- ★ Shopping Centers
- ⊕ Intersection Improvements

**Recommended Pedestrian Facilities**

- Existing Crosswalks
- Existing Sidewalk
- Recommended Sidewalk
- Existing Sidepath
- Palmetto Trail
- Trails, Existing
- Enhancement Plan Rec. Trails
- Rail Road
- Parks
- Water
- Schools

Data Source: SPATS



## CROSSING IMPROVEMENT RECOMMENDATIONS

Most intersections and mid-block crossings in Spartanburg County need some form of improvement. (89 intersections were analyzed in more detail with recommendations provided). Some of the treatments recommended in this chapter have been proven to reduce crashes, as shown in the 2007 FHWA Crash Reduction Factors Study (<http://safety.fhwa.dot.gov>). The table below shows some typical countermeasures and associated crash reduction factors from that study.

TABLE 5.1 PEDESTRIAN CRASH REDUCTION FACTORS

Countermeasure	Crash Reduction Factor
Install sidewalk	74%
Install pedestrian countdown signal heads	25%
Install pedestrian refuge islands	56%
Improve/install pedestrian crossings	25%

Together these proposed facilities should be developed or improved to create a safe and connected pedestrian network throughout Spartanburg County. On-road and off-road components should be integrated to provide a connected pedestrian transportation and recreation network. All pedestrian facility projects undertaken should aim to meet the highest standards possible when topography and right-of-way allows. Design guidelines in Chapter 10 provide detailed information regarding facility type, treatment, and proper placement.

All recommendations are developed at a planning level. Each of these locations will need a more detailed project-level review. The conclusions reached through more detailed review may vary from those presented herein.

### INTERSECTION RECOMMENDATION TABLES

Committee input, public input, municipality input, and consultant fieldwork identified 89 key intersections in Spartanburg County in need of improvement. These are by no means the only crossing improvements needed throughout the County. All intersections should meet standards provided in Chapter 10: Design Guidelines. The following pages detail recommendations for the intersections that were inventoried in Chapter 2.

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INTERSECTION RECOMMENDATIONS

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