

# Chapter 5. Engineering: Pedestrian Facilities Plan

## 5.1 Where do people walk?

### Trip Attractors

People in the MPO currently walk to a variety of destinations for a great number of activities. Each of these destination points is referred to as an attractor. The most common categories include:



Figure 19: Kimberly Park Swimming Pool

- Schools (ex. All public and private elementary, middle, and high schools)
- Colleges (ex. Wake Forest University, Winston-Salem State University, Salem College, Forsyth Technical Community College, NC School of the Arts)
- Religious Institutions
- Parks, Playgrounds, Greenways (ex. Joanie Moser Park, Tanglewood Park, Skyland, Salem Creek Greenway, Silas Creek Greenway)
- Recreation Centers (ex. Reynolds Park Recreation Center)
- Shopping/Retail/Services (ex. Northside Shopping Center, Hanes Mall area)
- Libraries (ex. Clemmons Branch, Rural Hall/Stanleyville Branch, Southside Branch)
- Business Parks, Office Parks, Hospitals (ex. Central Business District (CBD), Forsyth Medical Center)
- Other Modes of Transportation: Bus Stops/Park and Ride Lots (Winston-Salem Transportation Center)

Each of these categories of attractors will be considered when determining locations for improvements and new sidewalks.

## **5.2 Opportunities**

Improving pedestrian transportation in the Winston-Salem MPO can build on previous efforts. The main opportunities are 1) improving on the existing pedestrian system, and 2) taking advantage of more recent land use patterns that are placing more residents within walking distance of activities. The chief opportunity available to the MPO is the expansion of the existing sidewalk system.

The second opportunity is the existing patchwork of destination points. Until recently, land uses and development patterns in the MPO were not created so that a citizen could walk easily to destinations. The City-County Planning Board is trying to create development patterns that form a tight network of destinations from parks to residential areas, to schools, to employment centers, to shopping and tourist opportunities. Because the distance between these destination points can be quite short, there is significant potential for residents to make trips on foot. This pattern of land use makes it easier to build the sidewalk network.

## **5.3 Connectivity**

Connectivity is a major issue when looking at a sidewalk system as a mode of transportation. Obviously for the system to function properly it must connect to the most popular destination points. It also should be a seamless system, one free of obstructions or missing segments and one in which you feel safe and comfortable. Not only should connectivity within the sidewalk system be addressed but connectivity between modes is also very important. Each trip begins and ends by walking. Whether driving a car, taking the bus, riding a bike or taking the train a person must first walk in order to get to those other modes. The sidewalk system should connect to transit stations, bus stops, greenways, park and ride lots, etc.



Figure 20: Harper Hills Common Shopping Center

### Recommendations

- ❖ Future connectivity should be addressed in all planning documents. As the Piedmont Authority for Regional Transportation expands throughout the MPO and the regional rail systems is considered, pedestrian facilities need to be accommodated.
- ❖ Address street crossings, not just at intersections but where sidewalks exist on only one side of the street.
- ❖ Link existing sidewalk facilities to retail center, institutions, office parks, and industrial facilities to internal pedestrian facilities.

### **5.4 Methods for Developing Facilities**

This section describes the types of construction, maintenance and development projects used to create new sidewalks for pedestrians. Note that roadway, transit and re-construction projects offer an excellent opportunity for sidewalks to be incorporated into facility improvements. Another excellent opportunity for an increase in sidewalks is the subdivision and re-zoning process. It is much more cost-effective to provide a sidewalk when these projects are initiated than to come back later and “retrofit” a sidewalk into the existing site.



Figure 21: Bridge in Winston-Salem

### **Roadway Construction/ Reconstruction & Bridge Replacements**

#### Recommendations

- ❖ Pedestrians shall be accommodated any time a new road is constructed or an existing road is reconstructed. In the long-term, all roadways shall have pedestrian facilities. However, side paths are an acceptable solution when a roadway has high-speeds and high-traffic volume.
- ❖ All new or replacement bridges shall accommodate pedestrians on both sides of the bridge.

## **Re-zoning and Subdivisions**

As part of the zoning and subdivision process, the City/County Planning Board looks at the overall design of the project. There are certain requirements that must be met based on the *Unified Development Code*. This includes location and construction of sidewalks.

## **Traffic Calming**

In 2003, the City of Winston-Salem adopted a traffic calming policy for both existing neighborhoods and new developments. The goal of the policy is to improve neighborhood quality of life by reducing the negative impact of vehicular traffic in residential neighborhoods and by promoting safe and pleasant conditions for all users of local streets.

## ***5.5 Corridor Identification***

Corridors identified in this section are roads in which sidewalk construction is required on either one or both sides of the street depending on road classification. If a street is submitted in the zoning and subdivision process, then the requirements for sidewalk construction must meet the *Unified Development Ordinance*.

Non-residential developments and multi-family developments not requiring approval by the Planning Board or elected body are required to construct sidewalks if the development is located on one of the following roads per the *UDO*.

## Major and Minor Thoroughfares or higher

The Thoroughfare Plan Map and Technical Report which was revised in 2005 by the Transportation Advisory Committee (TAC) is the guiding document when deciding which major and minor thoroughfares or higher should be considered sidewalk corridors within the MPO. All of the existing and proposed major and minor thoroughfares are identified in the document with a “future” cross-section associated with each segment of road. Each segment’s recommended cross-section determines if sidewalks are required on those major or minor thoroughfares or higher.

## Collector Streets

Currently, the MPO is in the process of developing a collector street plan. Once this plan is complete, it will identify both existing and proposed collector streets throughout the MPO. All collector streets, except those located in the Rural Growth Area as defined by *Legacy*, will also serve as sidewalk corridors.

### Recommendation

- ❖ All Collector Streets will have sidewalks on both sides of the street.

## Schools

Each school has its own unique situation, and planning for sidewalks around each school must be done on an individual basis. Some schools located in the more developed sections of the urban area have sidewalks where school children can safely walk or bike to school. There are also schools located in the suburban and rural areas that are not easily accessible by foot or bike. There may also be safety issues along some streets where a school is located due to heavy traffic volumes.

The State of North Carolina Department of Public Instruction gives a recommendation that bus stops be located no closer than 1.5 miles from a school. Each city and/or



Figure 22: Latham Elementary School, Winston Salem

municipality in the State of North Carolina establishes their own bussing practices. Within the Winston-Salem/Forsyth County school system, bus stops are located no closer than .5 miles from a school.

### Recommendation

- ❖ Sidewalks shall be constructed on one side of each street within a .5 mile radius of each school, both public and private, excluding the Rural Growth Area. (For further information see Chapter 8, Safe Routes to School).

## **5.6 Ranking Criteria**

The Sidewalk and Pedestrian Facility Plan steering committee developed ranking criteria by which all sidewalk project recommendations will be evaluated. These ranking criteria include an evaluation of the following defining characteristics for a sidewalk project:

- Street type: Five categories, Major Thoroughfare, Minor Thoroughfare, Collector Street, Local Street and Cul-de-sac/Deadend, are considered for sidewalk projects. The highest ranking is given to a Major Thoroughfare.
- School: Points are awarded for each school, up to four schools total, located within a half-mile radius of the sidewalk project.
- Pedestrian generators: Five categories, Residential Areas, Park/Playground/Recreation Center, Shopping/Retail and Services, Library, and Business Park/Office, are considerations for a sidewalk project. Each category may only be counted once and must be within a half-mile radius.
- Connectivity: The highest ranking is given to those projects that connect to existing sidewalks, greenways, and bike trails.
- Bus Stops (Winston-Salem projects only): This includes a project located along a PART/WSTA stop and Park/Ride lots.



Figure 23: Fourteenth Street Recreation Center

Other factors play an integral role in the development of a sidewalk project. Right-of-way constraints may be an issue with the construction of some sidewalk projects. If there is not enough right-of-way to construct the project, then the estimated cost per linear foot would increase dramatically and may cause the project not to be built. In most situations right-of-way is usually not a problem. Other issues considered by the steering committee includes: average daily traffic volume, sight distance problems, and posted speed limits.

The ranking process will be used throughout the Winston-Salem Urban Area and the municipalities of the MPO each time a request is made for a sidewalk project. Projects that are located within the city limits of Winston-Salem will be ranked only against other projects from Winston-Salem. All other projects from the other municipalities and the counties will be ranked against each other. Another factor considered when ranking possible sidewalk projects is feasibility; meaning, can be constructed in that location.