Pedestrian and Bicycle Element

Introduction

Many people who venture out from behind the wheel of their motor vehicles to walk or bicycle do so for health-related or social purposes: some are under doctors' orders to "get in shape," while some are simply answering the call from a friend who wants to exercise regularly. The lucky ones who live in a walkable neighborhood can step outside their doors and loop around the immediate area. Others must drive to a walkable area, a greenway, or even to the nearest indoor regional shopping center to walk the halls of a mall.

As a community, our goal is to create many walkable neighborhoods with multiple destinations reached safely on-foot or by bicycle. The most common destinations include the homes of friends, schools, parks, recreation areas, senior and community centers, ice-cream shops, convenience-oriented stores, restaurants and bars, libraries and post offices, bus stops, greenway trails, and historic sites and districts. Ideally, worksites in the community also should be accessible by walking and bicycle, at least from the nearest bus stop to the worksite building entrance. Fuquay-Varina's lack of bus service is addressed in Chapter 5.

The Town of Fuquay-Varina is emphasizing the revitalization of its "Traditional Commercial District," centered along South Main Street. The Town is also pursuing the creation of a walkable business district near the junction of the two rail tracks (where NC 55 meets US 401/NC 42).

Unfortunately, the area centered along North Main Street is less pedestrian-friendly and designed more for vehicular access at this time. However, the town is embarking on an expansion of the South Main streetscape project that would allow for pedestrian and bicycle access in this area.

Vision

The Town of Fuquay-Varina envisions the physical layout of the streets and walkways to be built so the community becomes interconnected, thereby sustaining its livability. To provide both shade and inspiration, trees will be prevalent along the transportation corridors.

Goals and Objectives

Although perhaps seemingly indirect, walking is referenced in the Town's adopted *Comprehensive Land Use Plan* Vision Statement:

> *"People want choices about how they can best deal with traffic."*

The implication is that real choices will be provided to citizens who want to live, work, play, and study within walking distance. This desire for "real choices" means the Town is interested in creating walkable districts that connect surrounding neighborhoods with a business district that is itself safe, convenient, and enjoyable to walk within.

A direct reference to walking is contained in the Town's adopted *Comprehensive Growth Management Plan Policy Guidelines*. It is expressed in terms of a goal, objective, and strategies, as follows:

GOAL: Encourage alternative modes of transportation including pedestrian corridors, bus, and light rail.

OBJECTIVE: Provide greater opportunities and alternatives for pedestrian use and access to community services and the work environment.

STRATEGIES:

1. Develop standards and locations for park-and-ride facilities that will tie to future mass transit systems.
2. Develop plans and strategies for bus routes to Raleigh and RTP as a short-range need.
3. Develop mixed-use planning guidelines that utilize alternative modes of transportation, including pedestrian-friendly access, as part of the transportation concept.
4. Integrate pedestrian movement within the community with transportation corridors (sidewalks) greenways and service areas.
5. Encourage private development to provide transportation management systems and reserve corridors for a future transit system to the Town.
6. Promote and develop means to establish a local bus transportation service for the Town and pursue regional links.

Transportation plans no longer focus solely on roadway solutions. In the quest for an improved quality of life, we now strive for

livable communities. A common theme of any livable community is how well it accommodates pedestrians and cyclists.

The value of walking and bicycling has numerous benefits, including:

- Personal Benefits —Cardiovascular fitness and cost savings
- Societal Benefits —Reduced vehicle miles of travel, improved public health through a cleaner environment and healthier citizens, and improved mobility for those without access to private automobiles
- Environmental Benefits —Reduced air and noise pollution and fewer parking lots/spaces/structures

Walking

Pedestrian can be defined both as "undistinguished, ordinary" and "going on foot." Considering both definitions, travel by foot should be ordinary and commonplace.

For the most part, Fuquay-Varina has an interconnected network of sidewalks (typically on one side of the street) in good condition throughout the Traditional Commercial District and in the Varina business district. Traveling farther from the historic centers, sidewalks are less frequent and are disconnected. Approaching the rural fringe, few if any sidewalks exist. These facilities are illustrated in Figure 6.1.

Currently Adopted Plans

In 1999, the *Greenway System Master Plan* was adopted by the Town of Fuquay-Varina. In August 2002, the Town Board adopted the *Fuquay-Varina Open Space Plan*. These documents contain maps showing natural areas and corridors that interconnect and are intended for walking and bicycling. These system maps of existing bicycle facilities are presented in Figure 6.2.

All recommended greenways serve a recreational purpose, while some might also provide transportation service. Considering this potential for dual-purpose, the Town might want to consider pursuing one or more greenways as transportation projects.

This plan identifies one new greenway that would be a rail with trail along the existing railroad corridor just west of South Main Street. This specific project is discussed in more detail later in this chapter.

Existing Sidewalk on Judd Parkway
Source: Glenda Gibson

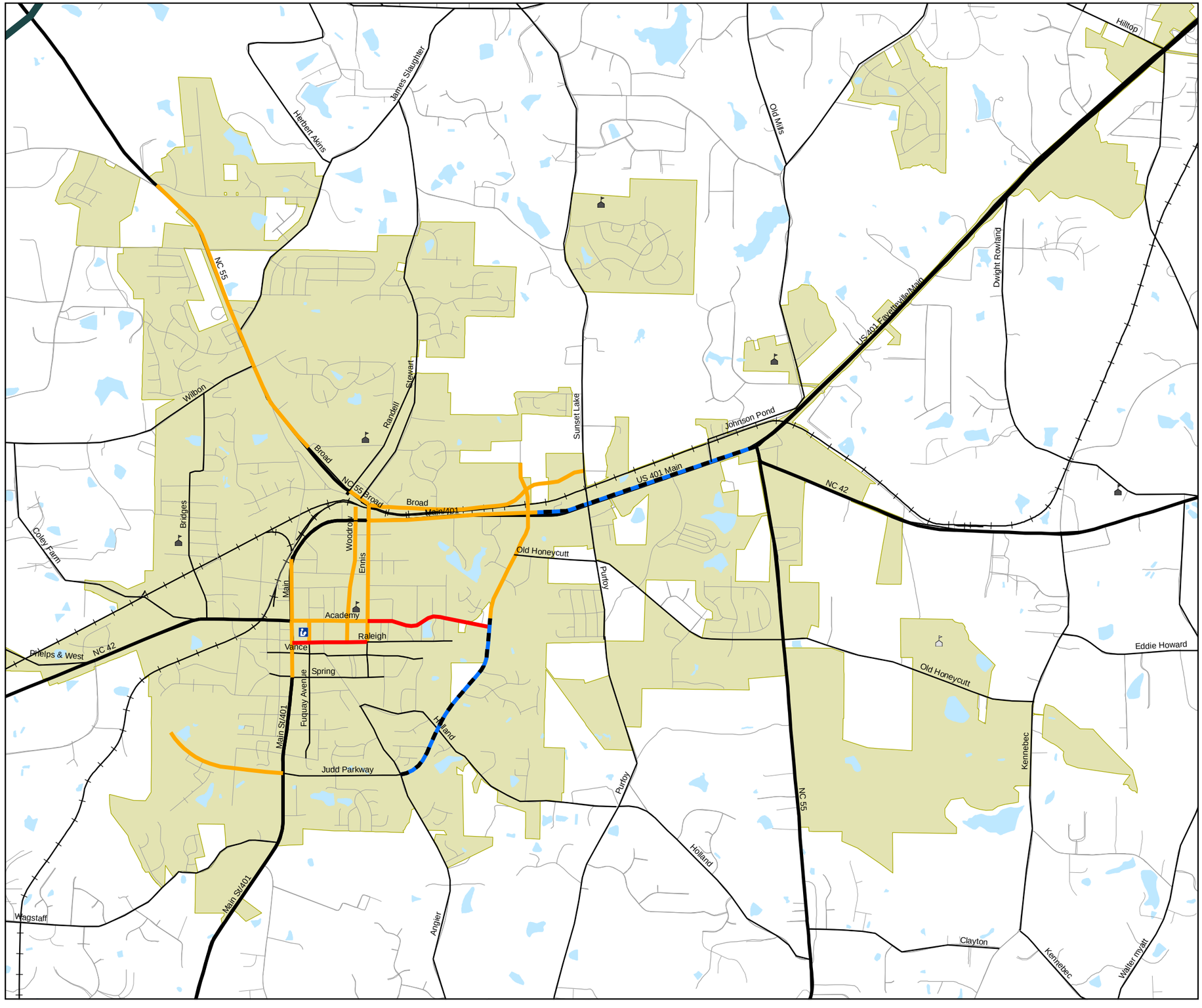

FIGURE 6.1

Existing Sidewalks on Major/Minor Roadway Network

- Study Area
- Town of Fuquay-Varina
- County Boundary
- Bodies of Water
- Exisiting Sidewalk on One Side of Road
- Existing Sidewalk Both Sides of Street
- Sidewalk Varies Throughout Segment
- Existing School
- Future School
- Library

Fuquay-Varina Community Transportation Plan

Kimley-Horn and Associates, Inc.

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Miles

FIGURE 6.2

Existing Bicycle Facilities

Study Area
Town of Fuquay-Varina
County Boundary
Bodies of Water

FieldWorkData

Bike Lanes

Bicycle Lane on One Side
Bicycle Lanes on Both Sides of Road
Existing School
Future School
Library

Fuquay-Varina Community Transportation Plan

Kimley-Horn and Associates, Inc.

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Miles

Statement of Community Support

Comments provided by the Transportation Plan Citizen Advisory Committee and citizens that participated in the public workshops include the following suggestions relative to walking and bicycling:

- Sidewalks and street lights are needed to connect all destination points within Fuquay-Varina
- Allow bikes on sidewalks
- Sidewalks are needed on Main Street between downtown and uptown
- Greenway connections are needed to downtown
- More greenways are needed within the town
- More routes to safely ride bicycles to downtown and nearby parks are needed
- Need continuous sidewalks to the high school and Wal-mart

Based on a survey taken by participating citizens, they ranked existing facilities as poor to fair. The citizens said that they would like to spend 14% of the transportation budget on pedestrian and bicycle facilities, a substantial amount more than currently spent today.

Recent History of Past Efforts

In the time since the adoption of the *Greenway System Master Plan* in 1999, Fuquay-Varina has demonstrated a commitment to pedestrian improvements. One example is the Town securing funding for one of the "pilot projects" described in the 1999 plan. The city applied for and was awarded an Enhancement Grant from NCDOT to develop the 0.6-mile long route from the Fuquay-Varina Middle School at Academy Street and Ennis Street to Academy Street and Judd Parkway. The Town also has recently been awarded another Enhancement Grant that will fund a new greenway along Wagstaff Road, between Carroll Howard Johnson Environmental Education Park and South Park (approximately 0.5 miles). This dedication to providing alternate modes of transportation is critical to the success of an overall transportation plan.

Case Study: South Main Street — In 2005, Town funds were used to rebuild three blocks of South Main Street from Academy Street to just south of Spring Street. The purpose was to enhance the walkability along and across South Main Street.

Parallel on-street parking is more prevalent now on Main Street and crosswalks are shorter, resulting from extensions of the curbline out into the street. Traffic flow is maintained in one travel lane in each direction. In a typical weekday 24-hour period, as many as 15,000 vehicles per day use this section of South Main Street. The land use, building architecture, and transportation infrastructure are in harmony along South Main Street: pedestrian-oriented businesses are packed into short walks from each other, and buildings address the street so that pedestrians feel a degree of "enclosure" next to the building. Furthermore, store windows offer something interesting to look into and building entrances are convenient to the street. Pedestrians are buffered on the street side by the presence of on-street parking. This design is a prototypical pedestrian-friendly design.

Case Study: West Broad Street — Town funds also were used to rebuild two blocks of West Broad Street from Ennis Street to Ransdell Road. Crosswalks across Broad Street at Stewart Street are shorter now that curb extensions were built into Broad Street. The purpose was to enhance the walkability along and across Broad Street and to restore the historic character of the former Varina town center.

Traffic flow is contained in one lane in each direction. On a typical weekday 24-hour period, 13,000 vehicles use Broad Street. Despite these classic design elements, the rebuilt commercial district suffers from an imbalance between vehicles and pedestrians. The rebuilt section also is close to what is perhaps the worst bottleneck in Fuquay-Varina: the intersection of US 401/NC 55/NC 42/Broad Street/Ennis Street/Norfolk Southern Railroad. Traffic back-ups extend north along Broad Street as well as in other directions, making the commercial district pedestrian-unfriendly. Also, back-ups mean the angled parking spaces are inconvenient.

Once Wake Chapel Road is reopened across the railroad tracks with a new bridge in 2006 and when Judd Parkway is completed later, it is hoped that traffic on Broad Street will be calmed so that the streetscape project will meet its intended objective and business will thrive with the return of pedestrians.

Three general steps can be taken to provide an improved pedestrian environment:

1. Integrating land use and transportation to create communities and neighborhoods that are designed for walking

2. Adopting pedestrian-friendly development standards, policies, and guidelines

3. Having a proactive attitude toward change

Step 3 is a critical step. *Bicycling & Walking in North Carolina, A Long-Range Transportation Plan* conceives the following vision for the future:

> *"All citizens of North Carolina and visitors to the state will be able to walk and bicycle safely and conveniently to their desired destinations, with reasonable access to all roadways."*

The fulfillment of this vision of pedestrian-accessible communities requires a "can-do" attitude. Fuquay-Varina can build on current successes and make sure that as they experience growth, pedestrian issues will be given appropriate consideration.

Scope and Purpose

The scope of this plan is to consider the entire urban service area for Fuquay-Varina to identify future corridors that will provide an interconnected network of on- and off-road pathways for walking and bicycling. The purpose is to increase the number of walking and bicycling trips, offer safe and healthy places for citizens to exercise, and provide convenient choices for citizens to travel by modes other than driving. Because of the numerous demands for public funds, the emphasis in this plan is on requirements for construction of new streets (by developers and by government agencies) that will have facilities for walking and bicycling. Retrofit of existing streets to include sidewalks and bikeways will be carefully selected so that usage will be highly probable and the investment of scarce public funds will be optimized.

Opportunities

Current opportunities to develop pathways in Fuquay-Varina focus on the construction of new interconnected streets. These are typically built by developers as a condition of approval by the Town of Fuquay-Varina. Adoption of this plan will add strength to the Town's position to justify the need for such facilities.

Near-term opportunities may arise if a transportation bond initiative is presented to the voters in a referendum. Use of abandoned rail corridors could be considered in such a bond referendum, including corridors traveling northwest and southeast from the Varina district that are no longer used by the owner CSX Transportation, Inc. Funds to acquire the corridors and construct paved trails could be considered.

Current Needs

An old roadway design standard that led to the provision of four-foot wide sidewalks directly adjacent to 45 mph four- and five-lane roadways does not induce the desired number of pedestrians in Fuquay-Varina. Some retrofit of such facilities should be considered.

Likewise, the design standards for residential streets (locals and collectors) should include sidewalks on both sides unless it is a short street with a cul-de-sac.

Development sites should be designed not only with cars and trucks in mind but also for pedestrian and bicycle access as well. Consideration should be given to the fact that pedestrians typically won t walk more than 1 mile and that the average trip length by bicycle is 6 miles. The shortest path from the front door of a new development to the surrounding network of walkways and bikeways would be helpful, in particular so that pedestrians would not have to walk too far to get to new building entrances.

Safe and convenient facilities at intersections are needed, too. The dearth of pedestrian and bicycle activity creates a traveling environment where motorists do not expect to see a pedestrian crossing the intersection or a bicyclist sharing the road. Reversing this condition begins with the creation of safe facilities for pedestrians and bicyclists.

Community awareness of these needs and the opportunity to provide facilities and services to citizens could be enhanced. Clubs for walking and bicycling can be key to creating awareness, yet these depend on volunteers for promoting that understanding.

The Four Es of Pedestrian and Bicycle Planning

Four important components contribute to the success of a non-vehicular transportation system:

Education —Once pathway systems are developed and in-place, new and experienced cyclists need to be made aware of where these systems are and what destinations can be accessed. Motorists, pedestrians, and cyclists need to understand the "rules of the road "to keep themselves safe while operating not only on but also adjacent to these facilities. No known programs or initiatives are in place to educate travelers in Fuquay-Varina about laws related to pedestrians and bicyclists.

Encouragement —The most nebulous of the four components, people need to be encouraged to walk and bicycle. The more desirable Fuquay-Varina becomes for pedestrians and cyclists (by providing more destinations oriented for them), the more

successful these modes will become. Setting a goal to be widely recognized as pedestrian- and bicycle-friendly is a worthy idea. No known programs or initiatives are in place to encourage Fuquay-Varina citizens to walk or bicycle.

Enforcement—It is critical to make sure that laws pertaining to the interaction between motorists and pedestrians and cyclists are heeded by all to ensure safety. Local ordinances restricting riding bicycles on sidewalks are typically not enforced. In the absence of safe interconnected bikeways, it is appropriate not to enforce the sidewalk bike-riding law unless cyclists are not showing safe courteous behavior when passing pedestrians. More important, local law enforcement officers and Town engineers should review all crash reports involving pedestrians and bicyclists and take appropriate countermeasures to address locations with chronic problems or community-wide trends involving driver behavior.

Engineering—All the education, encouragement, and enforcement conceivable would be inadequate without safe and convenient facilities for pedestrians and bicyclists. Before there can be facilities for walking and riding bicycles, a network of pathways must be planned and designed. Good design and route choices are essential parts of a successful pathway network. Facilities are the realm of engineers and landscape architects.

Pedestrian Facilities

Three basic types of pedestrian facilities exist.

Sidewalks—Adjacent to and within the roadway right-of-way, sidewalks should be at least 5 feet wide (4 feet if critical constraints won't allow the wider walkway) in residential areas or 10 feet (or wider) in pedestrian-oriented retail areas. Except in rare instances along low-volume low-speed residential streets where right-of-way or topography dictates a narrow design, a buffer is needed. A buffer between the travelway used by pedestrians and the travelway used by motor vehicles creates a separation that is important to the pedestrian's comfort. If uncomfortable, people will not walk unless no other option is available. The buffer can be parked cars, landscaping, or street "furnishings," such as benches. On-street parking should be a minimum of 7 feet wide, preferably 8 feet wide (inclusive of the gutter pan). Landscaping strips could be a minimum of 5 feet wide. Spaces 8 feet and wider, however, produce healthier grounds through more air and water to grow mature street trees with decent amounts of shade for pedestrians. Street furnishing zones can vary widely depending on the level of human activity in the area.

Existing sidewalk on Main Street
Source: Chad Lijewski

Shared Use Paths —These paths are shared by pedestrians, joggers, skaters, bicyclists, and other types of human-powered motion. These are sometimes located within the roadway right-of-way running parallel to the road, but more often occurring off-road. Shared-use paths should be a minimum of 10-foot wide paved surface allowing for two-way travel. High usage indicated through observation or counts would suggest wider facilities — perhaps separation of foot paths from higher-speed users.

When these facilities are adjacent to roadways, careful engineering is needed at crossings of driveways and intersections. The key factor here is to cross at the normal location of crosswalks so that motorists are more expectant of seeing a pedestrian or cyclist.

Connector Paths —These paths are typically short walkways that connect two neighborhood cul-de-sacs or a neighborhood with a shopping center or other activity center. This type of facility is critical when retrofitting established urban centers and suburban subdivisions built when zoning ordinances required separation of uses. Since then, the realization that commerce and livability can be enhanced in walkable communities has forced creative approaches to connecting trip origins (homes) with logical destinations.

Bicycle Facilities

It is important to understand the differences between the types of facilities.

Shared Lane —This type of facility is often referred to as a "wide outside lane," a "shared lane," or a "wide curb lane." One local example is East Academy Street in Fuquay-Varina, between Judd Parkway and South Main Street. These facilities provide extra width in the outermost travel lane on either single- or multi-lane roadways to accommodate cyclists. Typically, shared lane facilities have an outer lane width of 14 feet on multi-lane roadways and 15 feet on two-lane roadways.

Wide outside lane/shared lane photo by NCDOT Bicycle Unit

It is important to note that the lane width that is measured on this facility type does not include any curb-and-gutter adjacent to the travel lane. This facility is most appropriate on travel routes with moderate traffic volumes and is suitable for cyclists who are comfortable riding with the flow of regular traffic. These routes can be ridden by basic cyclists, but are most often preferred by advanced cyclists.

Striped Lanes —This type of facility consists of an exclusive-use area adjacent to the outermost travel lane. A local example is Judd Parkway west of Main Street. The area delineated for cyclists is a minimum of 4 feet wide and is marked by a solid white line on the left side and frequent signs and stenciled pavement markings

Striped Bike Lane photo by NCDOT Bicycle Unit

indicating either "Bike Only" or another such message so as to deter vehicles other than bicycles from using the lane for travel. In situations where a striped lane encounters on-street parking, extra width is required, most often a minimum of one additional foot (5-foot total lane width). As with the shared lane facility, delineated bike lane minimum widths do not include any curb-and-gutter that may exist, because these areas are unsuitable for bicycle travel. Striped bike lanes are one of the facilities of choice for basic and child cyclists because they offer a measure of security (separation from vehicles) not found in all other facilities.

Shared-Use Paths (one side of street)—This type of facility is typically a 10-foot-wide asphalt path that runs parallel to the street and is shared by pedestrians and cyclists traveling both directions on the same path. These paths are set back from the curb by a planted verge area that has a minimum width of 5 feet. It is generally unacceptable to construct this type of facility where frequent curb cuts and intersections exist because the probability for conflicts between pedestrians, cyclists, and vehicles is dramatically increased. This facility type is generally suitable for all levels of cyclists, but is most often preferred by basic and child cyclists.

Shared-use path parallel to a roadway
photo by Phil Hinton

Signed Routes —This type of route is created in cases where no room or need exists to create additional space for cyclists. Often, signed routes lead cyclists through the "quieter" streets of a town, using neighborhood streets where traffic speeds and volumes are low. This type of route is good for cyclists of any level, provided that it is planned on streets that have low traffic volumes and speed. Signed routes are helpful in linking neighborhoods with networks of greenways and bike lanes. Collector streets make for ideal signed bicycle routes because they connect, they are typically low-volume, and should be designed for low speeds.

Pedestrian System Plan

Existing System —The predominant type of existing pedestrian facility is a narrow sidewalk on one side of most streets in the urbanized area of Fuquay-Varina. Sidewalks in the Traditional Commercial District of the historic Fuquay district are interconnected, but elsewhere sidewalks are not interconnected. There are approximately 9 miles of existing public streets in the urban service area with sidewalks on at least one side of the street.

Most community-oriented facilities and districts are linked by sidewalks in at least one direction, including the following:

- Community Parks —Such as Falcon Park, South Park, and Action Park, but not the Jones Soccer Complex near West Academy Street
- Neighborhood Parks
- Public Schools —Fuquay-Varina Middle School near downtown, but not Fuquay-Varina High School, Lincoln Heights, or Fuquay-Varina elementary school
- U.S. Post Office —Is connected to the north along Judd Parkway and is not continuously connected to the south near Academy Street
- Wake County Library —Downtown location on Raleigh Street is connected
- Wake Med (Medical) Outpatient and Skilled Nursing Center —Location on Ransom Street is not connected
- Community Centers —Locations at Woodrow Street (old library, downtown), South Park, and Pine Acres are connected
- Historic Fuquay Springs
- Town Hall

Future System —The predominant type of pedestrian facility in the future will be sidewalks on both sides of all streets built after 2005, in addition to short sections of connector walkways linking subdivisions, neighborhoods, shopping areas, and community facilities. The plan shows 201 miles of public streets in the urban service area with sidewalks on at least one side of the street.

Figure 6.3 shows the recommended pedestrian plan with sites expected to generate pedestrian trips that will be served by one or more types of pedestrian facilities.

Bicycle System Plan

The residents of Fuquay-Varina encompass a wide range of bicycle skill levels and facility preferences, tending to prefer striped bicycle lanes and off-road shared-use paths. Differences in riding ability and trip purposes must be considered when identifying the most suitable bikeway system for a community. The bicycle plan

map, illustrated in Figure 6.4, represents a system of interconnected facilities that, when implemented, will provide the basic necessities for all skill levels. This map is a critical part of the annual transportation planning process, and should be used as a guide for future capital projects.

Another bicycle facility not included in the map is the provision for bicycle parking. Many potential bicyclists fear their vehicles will be stolen if they are parked on bike racks. However, most bicycle thefts occur at the residences when bikes are left unattended. Bicycle theft can never be eliminated; some common-sense measures, however, can be taken to avoid or limit the chance of theft. First, the placement of bicycle parking should always be in a visible, weather-protected, and well-lighted location. Secondly, bicycles should be locked using the wheel and frame for security. U-shaped bicycle racks are recommended.

Consideration should be given to providing bicycle parking to key destination points throughout the town. Some potential areas include but are not limited to malls, theaters, parks, central business district, and local schools. The cost for such amenities range from a few hundred to several thousand dollars, depending on the type and quality of material.

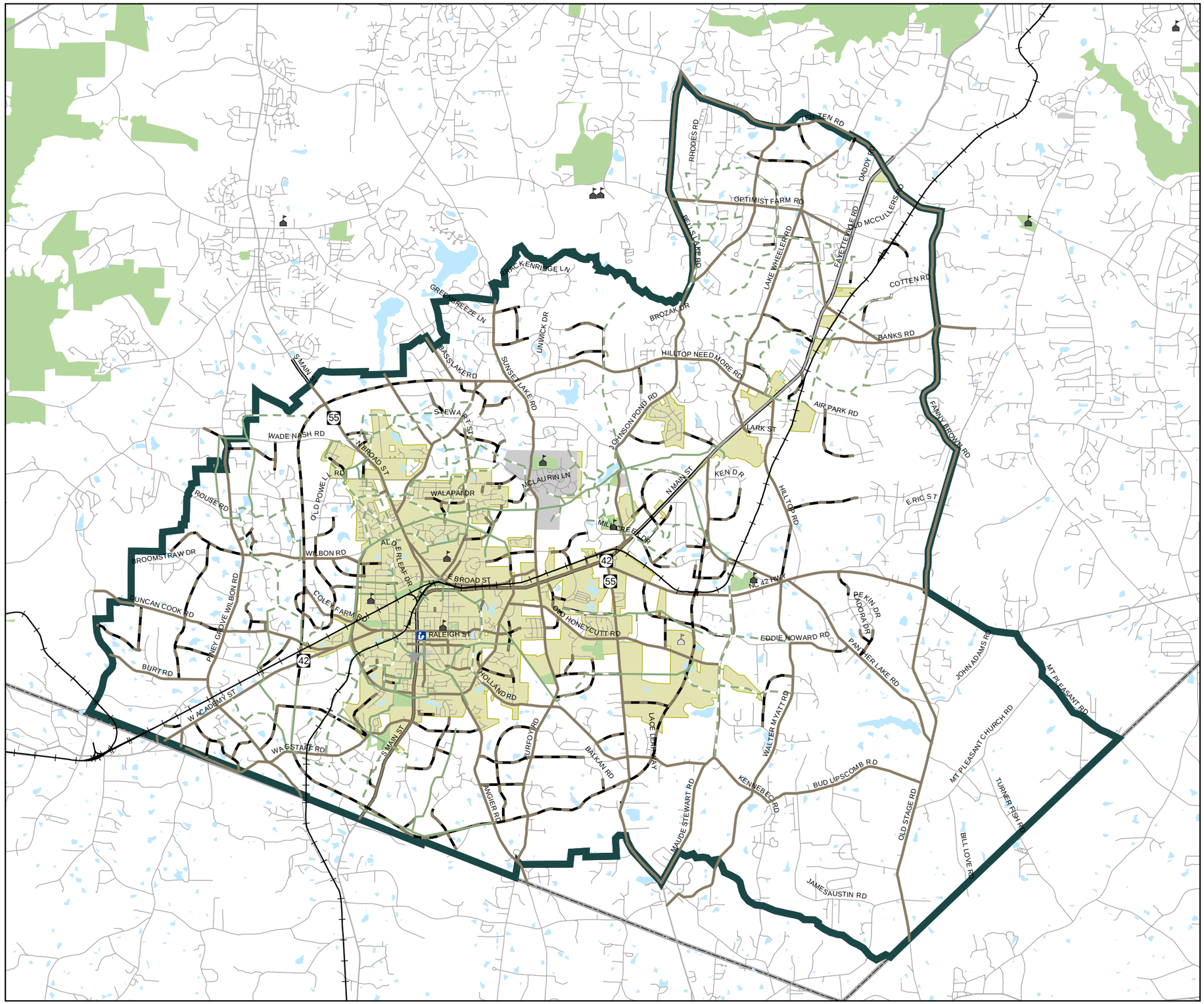

FIGURE 6.3

Proposed Pedestrian Facilities

- Study Area
- County Boundary
- Town of Fuquay-Varina
- Historic District
- Parks and Open Space
- Existing School
- Future School
- Library
- Proposed Sidewalk on New Location
- Proposed Sidewalk
- Propsed Greenways
- Potential Greenways for Further Study

Fuquay-Varina Community Transportation Plan

Kimley-Horn and Associates, Inc.

N W E S

0 0.4 0.8 1.6 2.4 3.2 Miles

FIGURE 6.4

Proposed Bicycle Facilities

- Study Area
- County Boundary
- Town of Fuquay-Varina
- Historic District
- Parks and Open Space
- Existing School
- Future School
- Library

Bike Facilities

- Proposed Paved Shoulder
- Proposed Bike Lane on New Location
- Proposed Bike Lane
- Proposed Outside Lane on New Location
- Proposed Outside Lane
- Proposed Greenway
- NC State Bike Route 5

Fuquay-Varina Community Transportation Plan

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N W E S

0 0.4 0.8 1.6 2.4 3.2 Miles

Implementation Considerations

New Routes and Signage Improvements —A policy to improve bicycle route signage and directional signage will show connections between the routes. Comprehensive and frequent bicycle signage can also promote bicycling by making the extensive bicycle route system more easily discernible and generally known. With this in mind, it is recommended that bicycle signage be implemented town-wide to provide a comprehensive, understandable system. The bicycle plan identifies potential locations for bicycle signage.

Norfolk Southern Railroad —The railroad tracks represent a barrier for bicycle traffic. Just as with motor vehicle travel, the infrequent crossings of the railroad that runs parallel to Main Street increase the trip length of many bicycle trips.

Restriping Improvements —The plan identifies several minor improvements (each project less than $10,000) that could be implemented in group packages. Several restriping improvements are recommended to existing facilities. The stripe provides bicyclists the comfort of being delineated from the motorist travel lane.

Safety, Education, and Promotion

The integration of bicycle and pedestrian facilities into the transportation planning and design process is crucial. A part-time bicycle and pedestrian coordinator and periodic training will help to achieve the full integration of bicycles into our everyday lives. Poor planning may overlook safety issues. For example, correcting water drainage grates oriented the wrong way is an easy and low-cost way to reduce bicycle crashes and improve mobility.

Identifying safety issues was a critical element of the plan. For instance, different levels of bicycle riders each have different handling abilities. For this reason, several projects are proposed to offer appropriate safety measures, such as a separate 4-foot bike lane or shared-use path for those bicyclists with less experience.

Some roadways should not be considered for bicycle travel due to unsafe conditions. Roadways like North Main Street carry high volumes of traffic, have high speeds, and the presence of numerous driveways or conflict areas create unsafe conditions for cyclists with only basic skills. By state law, bicyclists are considered vehicles and therefore have the right to use any public street unless specifically designated and signed for no bicycle usage. An exception could be made for North Main Street if a feasibility study shows that a shared-use pathway could be built between the roadway and the parallel Norfolk-Southern railroad

tracks. The infrequency of street crossings and driveways would make for a nice linear bicycle facility in this busy corridor.

Sidewalk Requirements

Currently, sidewalk implementation is required on both sides of collector streets. It is recommended that this process be amended to require developers to construct a sidewalk on both sides of collector streets and most local streets (except cul-de-sacs). Cul-de-sac streets should have connector paths at the ends to connect with adjacent parcels. Additionally, sidewalks should be required on both sides of major and minor arterials. Consideration can be given to shared-use paths along parkways (e.g., Judd, Eastern, and Western Parkways) where driveway frequencies will be limited. It is not recommended that sidewalks be required on cul-de-sacs.

Local Ordinances

A review of the Fuquay-Varina subdivision regulations indicates a need exists to define standards and policy measures for inclusion of bicycle and pedestrian facilities into the Fuquay-Varina planning process. The following bicycle and pedestrian ordinances and enforcement initiatives are recommended for the planning area:

Recommendation —Work with the Chief of Police to increase enforcement on the following offenses:

- Motorists and bicyclists running stoplights and stop signs
- Motorists failing to yield right-of-way to pedestrians at intersections
- Motorists failing to share the road with bicyclists
- Bicyclists riding the wrong way down the street
- Bicyclists riding at night without lights

Recommendation —Increase police patrols, preferably with police on bicycles.

Recommendation —Enforce state law requiring bicyclists under the age of 17 to wear safety helmets when riding on a public facility.

Recommendation —This plan proposes projects contiguous to sewer, fiber optics, TV cable, phone line, or natural gas rights-of-way (ROW). As a result, the town should consider modifying its policy to allow a shared-use easement along these types of utility ROW, which would alleviate the cost associated with ROW acquisition and renegotiations.

Recommendation —Fuquay-Varina's current sidewalk policy restricts riding bicycles on the sidewalk. Obviously, a limited space of 5 feet is inadequate for both pedestrians and bicyclists. However, this ordinance should not apply to sidewalks along high-speed roadways where an alternative bikeway facility would add considerable distance to a bicycle trip.

Recommendation —Retrofitting Existing Streets: Under the North Carolina General Statutes Article 10 of G.S. 160A, special assessments may be used to finance sidewalks and pedestrian projects. Currently, the town reserves the right to construct sidewalks without petitions from abutting property owners. However, financial constraints and lack of enforcement limit the effectiveness of this policy. It is recommended that the Town establish a policy of requiring that 75 percent of the project cost be paid by the property owners and the Town be responsible for 25 percent. Consideration should be given to the proportion of front footage, area of land reserved, number of lots served, value added to benefiting property, or a combination of these factors. Front footage is the most common factor. This policy should apply to all new residential, commercial, and industrial development, as well as those pedestrian facilities identified on the plan.