

The following section discusses the physical infrastructure in the Town of Cary that influences pedestrians and the use of pedestrian facilities, including:

- ◆ Cary's road network
- ◆ Existing and proposed sidewalks
- ◆ Existing and proposed greenways
- ◆ Transit
- ◆ Parks
- ◆ Schools
- ◆ Shopping Centers
- ◆ Libraries

The Section also discusses locations with frequent pedestrian-car crashes.

Section 3. Existing Physical Conditions

3.1. Introduction

The following section discusses the physical infrastructure in the Town of Cary that influences pedestrians and the use of pedestrian facilities. Pedestrian facilities, such as sidewalks and crosswalks, often depend on where roads are located, and various destinations to which those roads lead. Pedestrians not only use sidewalks and greenways, but they also can be transit riders and bicyclists. Many pedestrians are children who walk to school, or seniors who are out for their morning walk to the grocery store.

The following section is a discussion of each major facility type involved in pedestrian facilities. These are:

- ◆ Roads
- ◆ Sidewalks
- ◆ Greenways
- ◆ Transit
- ◆ Parks
- ◆ Schools
- ◆ Shopping Centers
- ◆ Post Offices
- ◆ Libraries

In addition to these facilities, land use and development characteristics can also have an impact on pedestrian needs. Cary is home to varying types of land development, which can be categorized into three different areas of town: Northwest Cary, Central Cary, and South Cary. Each area has slightly different characteristics of the built environment, which bring with them slightly different pedestrian needs. In Central Cary, which includes downtown where development is relatively denser, pedestrian needs generally focus on maintaining and enhancing existing pedestrian facilities and providing safe, comfortable pedestrian access to transit stops. Northwest and South Cary development is characterized by new residential and commercial development that is primarily low to medium density. With the on-going construction in these areas, their pedestrian needs focus on identifying roads and locations for future pedestrian facilities to ensure pedestrian connections as development occurs, require greenways to be built as prioritized by the Parks, Recreation, and Cultural Resources Department, and ensuring development occurs on a pedestrian, walkable scale. Recommendations for future actions should be placed in the context of the surrounding development, and also the nearby existing facilities.

3.2. Roads

Roads are integral to a Pedestrian Plan for the obvious reason that they often dictate where sidewalks are located. It is also important to consider roads in the pedestrian plan in order to understand the volumes of traffic at various intersections that pedestrians must cross.

Figure 3-1 is a map of the Town of Cary showing major roads and interstates. The Town has approximately 535 miles of roads. Cary's road network has a unique layout, designed so that Cary Parkway and Maynard Road form concentric loops around the town's core and major roads such as Kildaire Farm Road, Harrison Avenue, Walnut Street, High House Road, Chatham, and Old Apex serve as radials. Cary roads are classified into the following categories: minor street, collector, minor thoroughfare, major thoroughfare, interchange, and freeway.



Image 3-1. Chatham Street is one of Cary's major connecting routes. As seen in this image, it has some sidewalk and pedestrian facilities, but they could be improved.

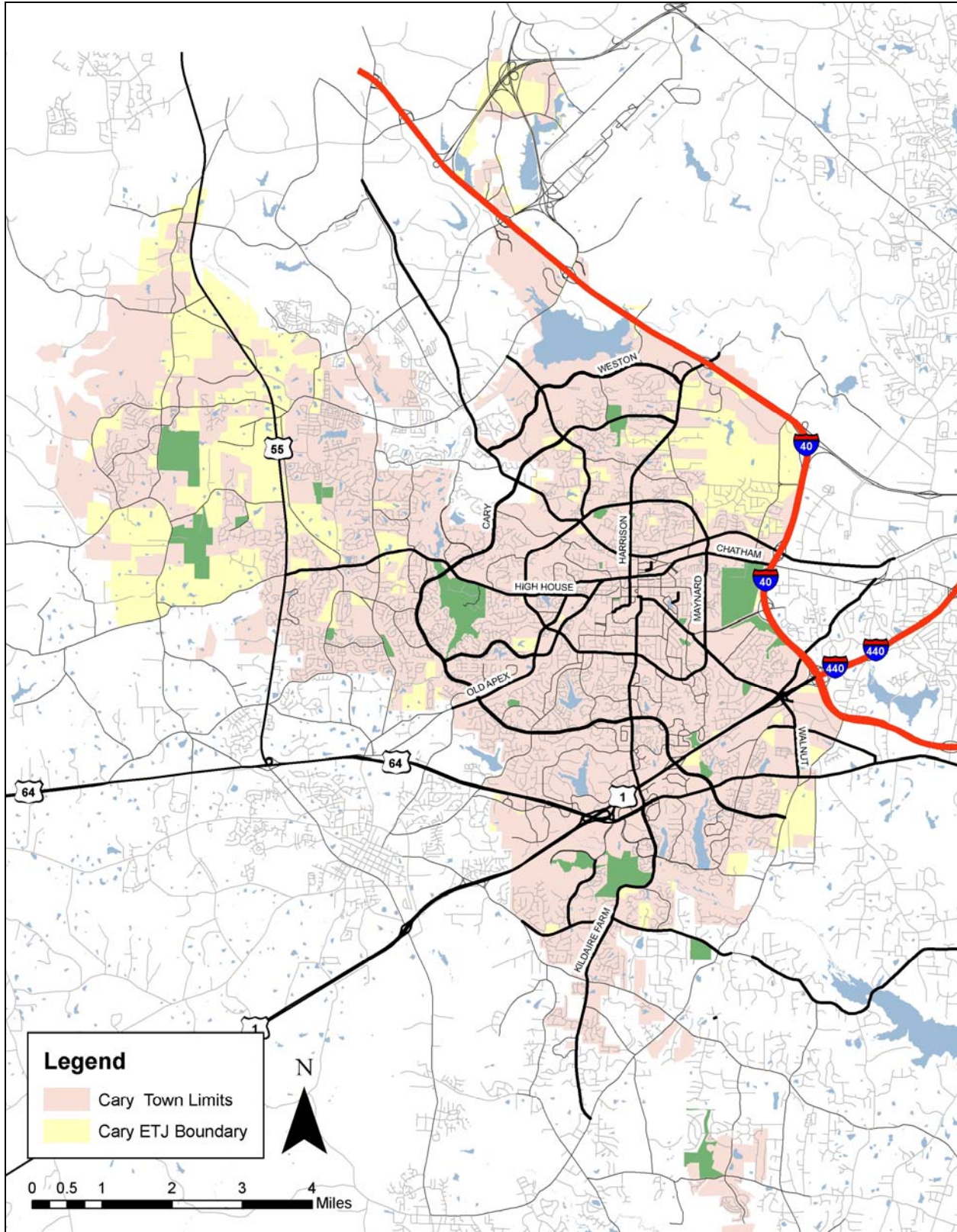


Figure 3-1. Map of major roads in Cary as of January 2007.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

3.3. Sidewalks

Sidewalks are the primary domain of pedestrians and a refuge from cars and cyclists in Cary. The presence of a sidewalk is also often the most influential factor in increasing pedestrian use. If there is not a sidewalk to a destination, people are not likely to walk to it. Width of sidewalks also affects pedestrian use.

Figure 3-2 shows the location of all existing and proposed sidewalks in Cary relative to the street network. Proposed sidewalks include sidewalks that will be constructed as part of a new development, a roadway project, or as an independent project by the Town to improve pedestrian access to a destination. Cary has 242.8 miles of existing sidewalk. In an ideal situation, one would expect the ratio of miles of sidewalk to miles of road to be about two miles of sidewalk for every one mile of road. This would mean that there is a sidewalk on each side of the road. However, sidewalks are often interrupted by driveways or parking lots, and some roads, such as interstates, are closed to pedestrian access. A more reasonable expectation for a maximum sidewalk-to-roadway ratio is around 1.75 miles of sidewalk to one mile of road. Currently, Cary's ratio of sidewalk to road is about .45 miles of sidewalk to one mile of road. Cary has 84.3 miles of proposed sidewalk. With the proposed sidewalk network complete, Cary would have a ratio of .611 miles of sidewalk to one mile of road.

Most of Cary's sidewalks are in good condition because they have been built by recent development, and therefore need little maintenance. However, some sidewalks in older neighborhoods and downtown may be showing signs of wear and tear. Crumbling, dislodged, cracked, or "pushed up" sidewalks are sometimes an eyesore and may be hazardous.



Image 3-2. This sidewalk along Kildaire Farm Road is a typical example of sidewalk conditions in Cary. Note that the shrubbery has been courteously trimmed so as not to obstruct travel.

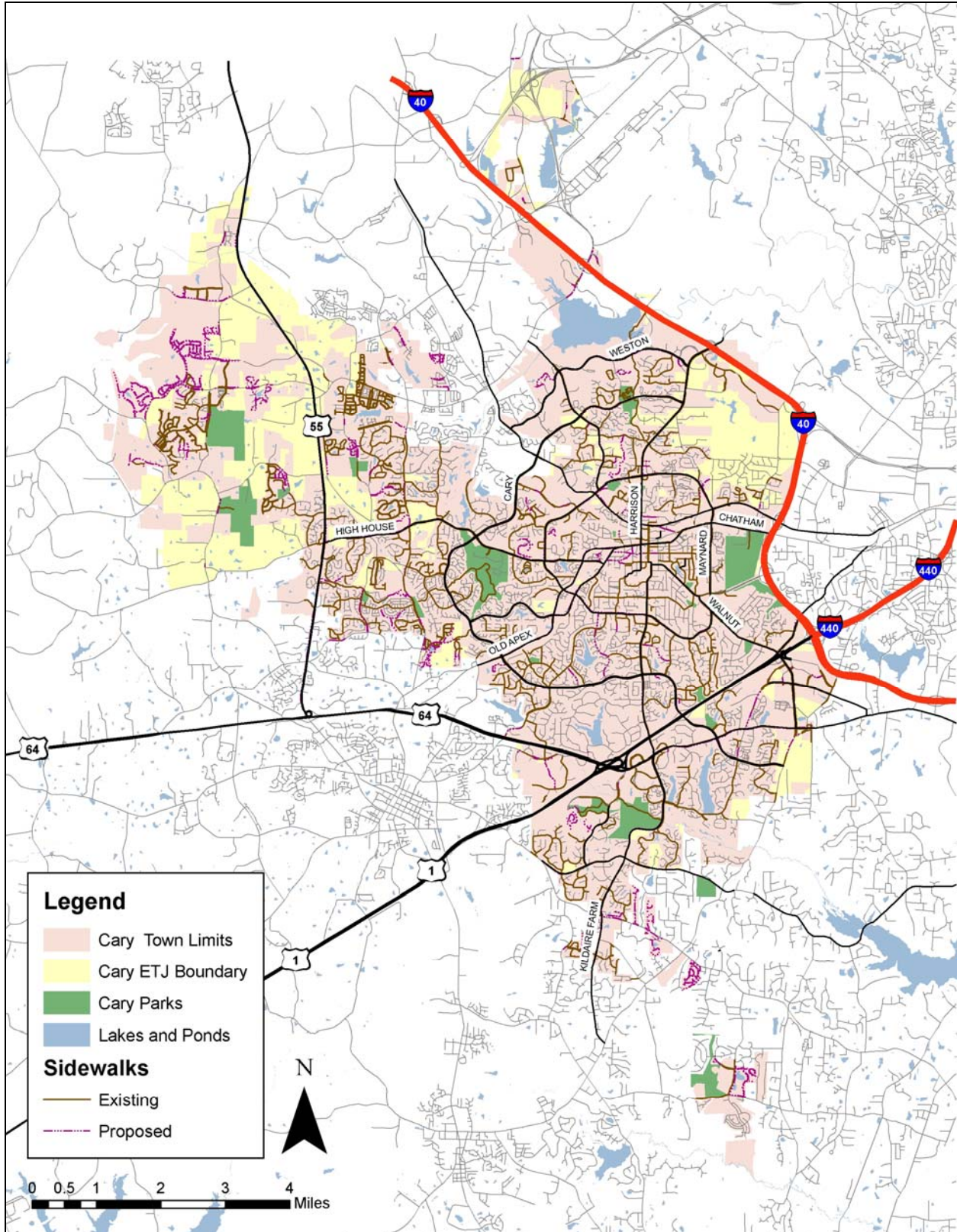


Figure 3-2. Map of sidewalk in Cary as of January 2007.

3.4. Greenways

Greenways serve as another car-free travel venue for pedestrians. Although greenways had their origins in recreation and are often thought of primarily for recreational use, they can also serve as excellent alternative travelways to reach destinations such as workplaces and shopping centers. In spite of the often meandering nature of greenways, users are increasingly commuters to work avoiding the noise and exhaust on major roadways. For this reason, it is important to consider greenways when preparing a pedestrian plan. It is also important to consider greenways and their relation to other facilities, such as sidewalks, parks, and schools.

The Town of Cary has completed a Parks, Recreation, and Cultural Resources Facilities Master Plan which shows the locations of all existing and proposed greenways (see Figure 3-3). Currently, Cary has 26 miles of existing greenways, and over 160 miles of proposed greenways. Major greenways include Black Creek Greenway, White Oak Greenway, Batchelor Branch Greenway, Hinshaw Greenway, Speight Branch and Camp Branch Greenway.



Image 3-3. The Northwoods Trail, next to Northwoods Elementary School, is an example of a typical greenway facility in Cary.

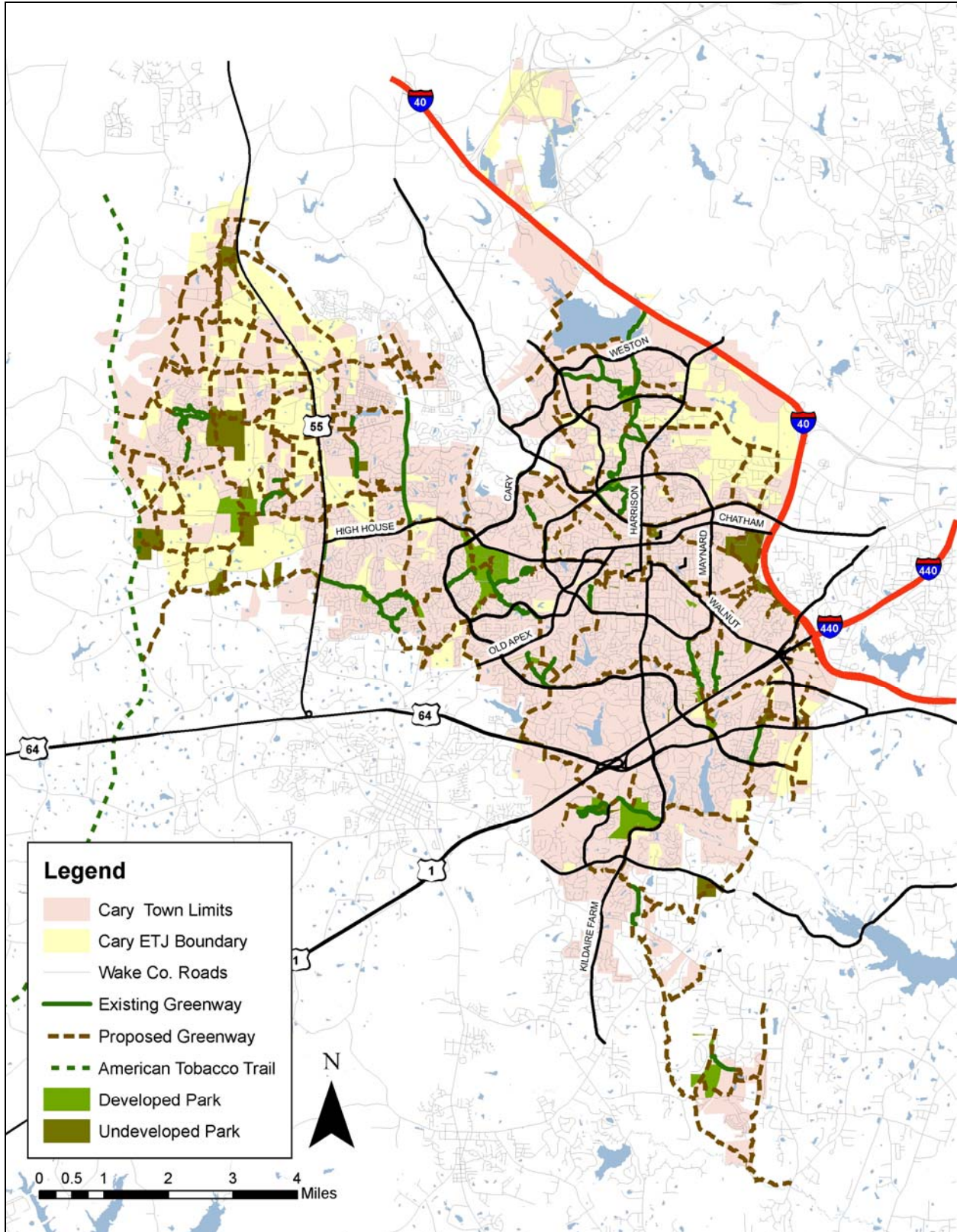


Figure 3-3. Map of greenways in Cary as of January 2007.

3.5. Transit

A transit system and pedestrian facilities are intricately linked in creating a successful pedestrian-friendly Town. All transit trips begin and end with a pedestrian trip, and frequently transit users will walk much further than drivers to reach their destinations. In Cary, the transit system consists of both C-Tran and TTA service. Figure 3-5 shows a map of the 2006 C-Tran bus routes and stops.

Most of Cary's bus system has stops that are located on sidewalks. However, there are some areas where there is a bus stop but no sidewalk. Bus stops in areas without sidewalk can become a safety issue resulting in transit riders having to walk to their destinations either in the swale area beside the road or in the street. Locations in which there are bus stops without sidewalk are as follows:

- ◆ East side of Harrison from Grande Heights to Adams
- ◆ North and South Side of Maynard: Old Apex to Kildaire Farm
- ◆ West side of Kildaire Farm: Queensferry to Keisler Road
- ◆ North side of Chatham Street: Durham to Maynard
- ◆ North side of High House: Chatham Street to Old Apex Road
- ◆ East side of Kildaire Farm Road: Maynard Road to Pleasants Avenue
- ◆ Sections of the bus route along Nottingham Drive, Donaldson Drive, and in Crossroads along Meeting Street



Figure 3-4. A C-Tran bus waits for passengers at a downtown bus stop. It is important that pedestrian facilities near transit stops are accessible and convenient.

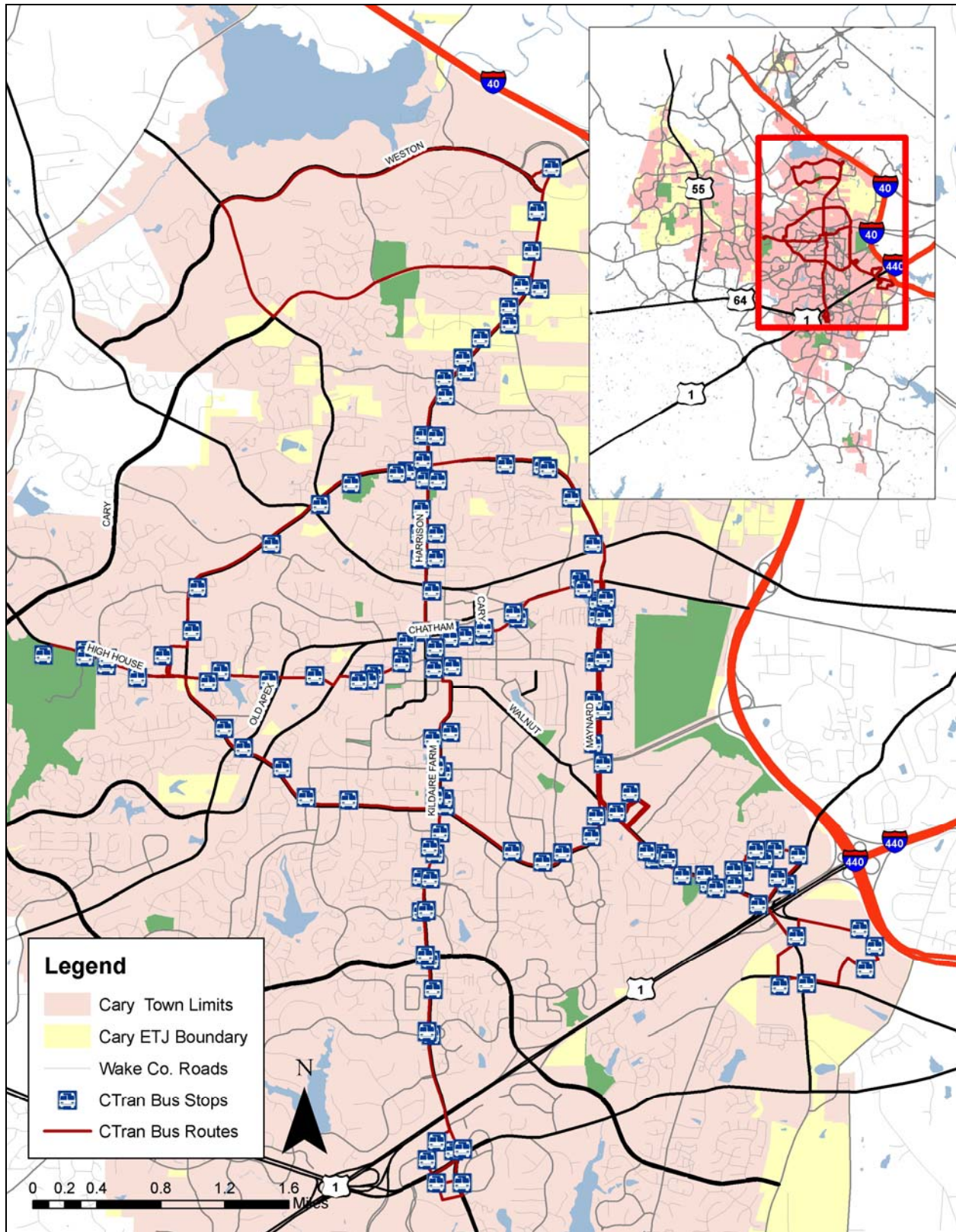


Figure 3-5. C-Tran bus stops and routes in Cary as of January 2007.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

3.6. Destinations: Parks, Schools, and Shopping Centers

3.6.1. Parks

Cary is home to over 1,550 acres of combined parks, greenways, and cultural arts facilities overseen by the Cary Parks, Recreation, and Cultural Resources Department. Currently there are 20 parks including four mini-parks, 11 neighborhood parks, two community parks, and three metro parks. There are currently six special use facilities and these include the Cary Dog Park at Godbold Park, Cary Tennis Park, Hemlock Bluffs Nature Preserve, SAS Soccer Park, SK8 Cary at Godbold Park, and the Koka Booth Amphitheatre. The USA Baseball Facility will be the Town's seventh and newest special use facility.

In addition to the existing parks, the Town has acquired additional parkland for future parks. These include the Schaffer Park, Hawes Park, Weldon Ridge Park, Amberly Park, Raftery Park, Twins Lake Park, and the Morris Branch Park.

The following are Cary's existing community centers:

- ◆ Cary Senior Center
- ◆ Bond Park Community Center
- ◆ Stevens Nature Center
- ◆ Herbert C. Young Community Center
- ◆ Middle Creek Community Center
- ◆ Jordan Hall Arts Center
- ◆ Page-Walker Arts and History Center

A current list of all facilities, including community centers, may be found at the Parks, Recreation, and Cultural Resources Department.

Figure 3-7 shows the location of the parks within Cary.



Figure 3-6. A shelter at Cary's Bond Park. Parks are important destinations for pedestrians.

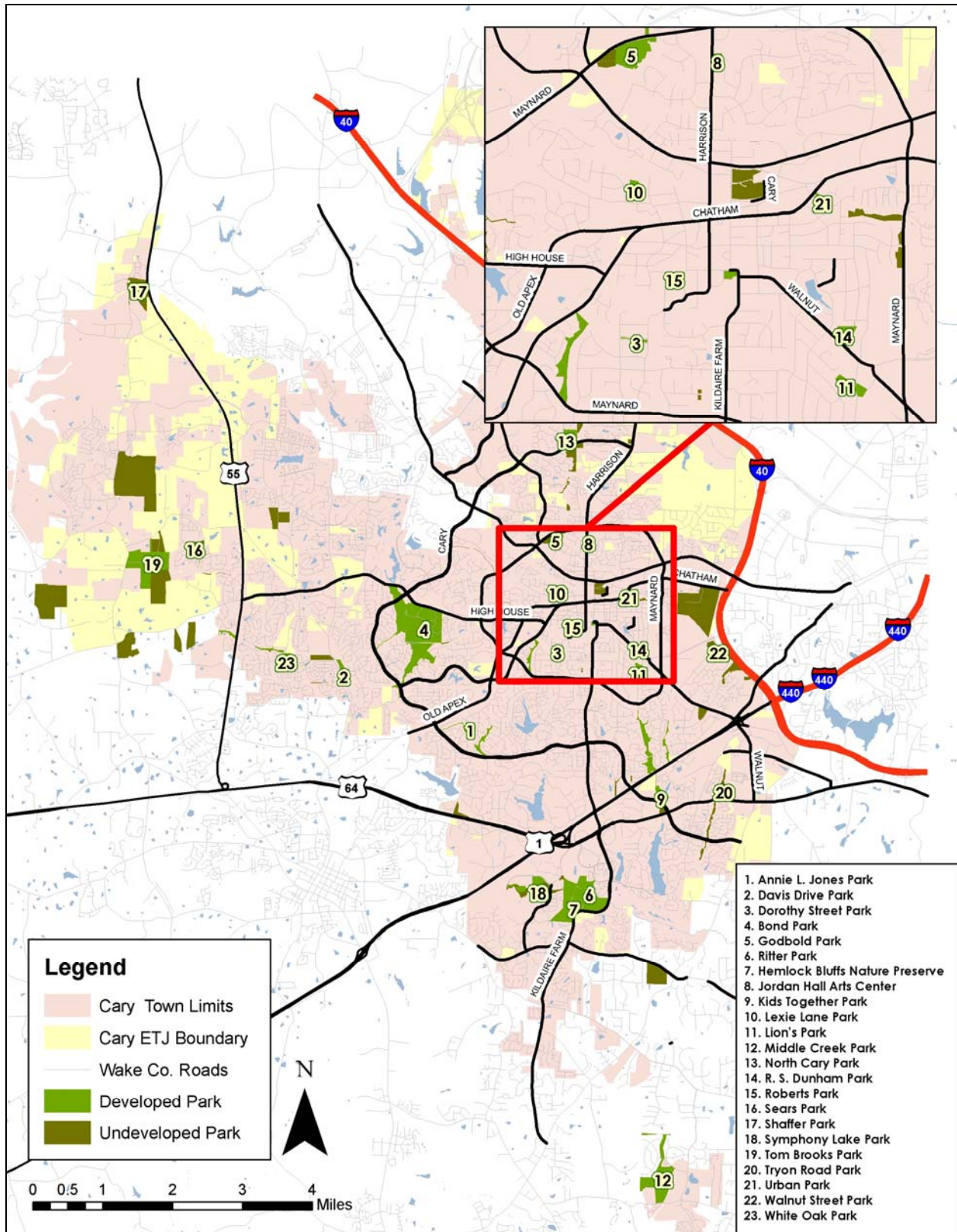


Figure 3-7. Map of park locations in Cary as of January 2007.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

3.6.2. Schools

It is important to consider schools in the pedestrian plan because schools are a major generator of pedestrians. In addition, schools need safer pedestrian facilities to accommodate the high numbers of children that will be walking nearby.

Cary is served by the Wake County Public Schools system. There are twenty-four Wake County Public Schools: sixteen elementary schools, five middle schools, and three high schools, within or near the Town limits. Figure 3-8 shows each of the school locations.

The following is a list of schools that need improvements for pedestrian access. Recommended projects are discussed in Section 6.

Elementary Schools:

- ◆ Adams Elementary
- ◆ Briarcliff Elementary
- ◆ Cary Elementary
- ◆ Green Hope Elementary
- ◆ Kingswood Elementary
- ◆ Middle Creek Elementary
- ◆ Morrisville Elementary
- ◆ Northwoods Elementary
- ◆ Oak Grove Elementary
- ◆ Penny Road Elementary

Middle Schools:

- ◆ Reedy Creek Schools
- ◆ West Cary Middle Schools

High Schools:

- ◆ Cary High School
- ◆ Green Hope High School
- ◆ Middle Creek High School



Image 3-4. Weatherstone Elementary is one of the schools in Cary with well-developed pedestrian access.

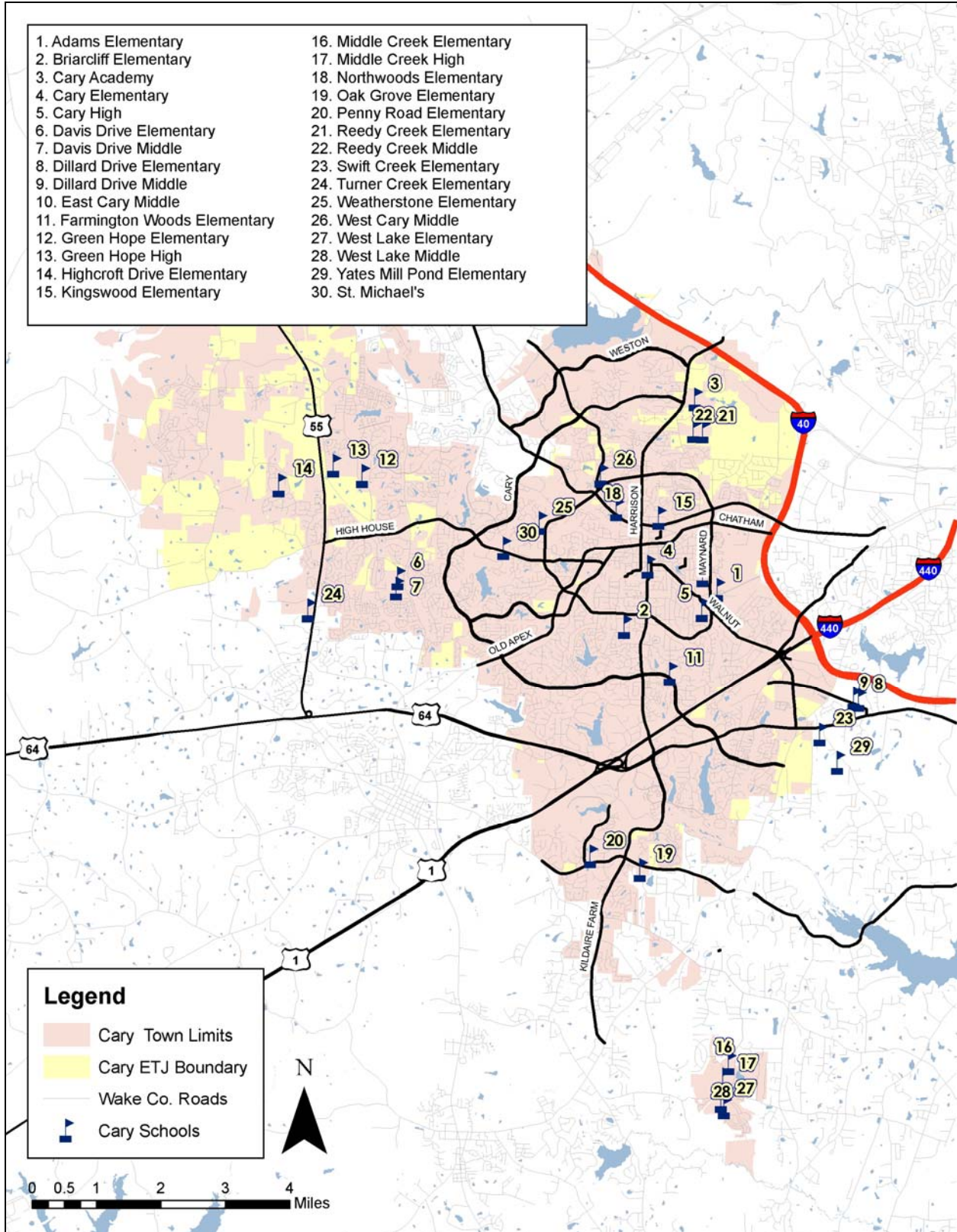


Figure 3-8. Map of school locations in Cary as of January 2007.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

3.6.3. Shopping Centers, Libraries, and Post Offices

Shopping centers, libraries, and post offices are common destinations to which people frequently walk. Projects which make the pedestrian environment safer and more pleasant at these facilities should be identified. Improvements to pedestrian access will often encourage more people to walk to these destinations. A strong, comfortable pedestrian environment around commercial centers, such as shopping centers, can often boost sales by encouraging passers-by and more window shoppers, who are likely to make purchases. In the Cary, popular commercial destinations are often described as activity centers. The following provides definitions as discussed in the Town of Cary's 2003 Land Use Plan of the varying types of activity centers in Cary:

Neighborhood Activity Center (NAC) should provide the commercial and institutional uses necessary to support the common day-to-day demands of the surrounding neighborhood for goods, services, and facilities. NAC's will likely contain approximately 250,000 square feet of non-residential floorspace.

Community Activity Center (CAC) includes the typical mix of commercial, office, and institutional uses offered by a neighborhood activity center. Additionally, it includes commercial and institutional uses that provide goods, services, and facilities which are demanded less frequently than a daily basis by the surrounding community. CAC's will likely contain approximately 500,000 square feet of non-residential floorspace.

Regional Activity Center (RAC) provides the non-residential elements intended to provide goods, services, and facilities which are demanded less frequently than on a daily basis by the surrounding region, or which are possible only with the critical mass of population provided by an entire region. RAC's will likely contain approximately 1.5 million square feet of non-residential floorspace.

Figure 3-9 shows community, neighborhood, and regional activity centers as well as shopping centers, libraries, and post offices in Cary.

Many of the focus areas in Appendix 3 provide recommended projects centered around Cary's various activity centers. Some examples include:

- ◆ Evans/Maynard Focus Area
- ◆ Walnut Street Corridor Focus Area
- ◆ East Chapel Hill Focus Area

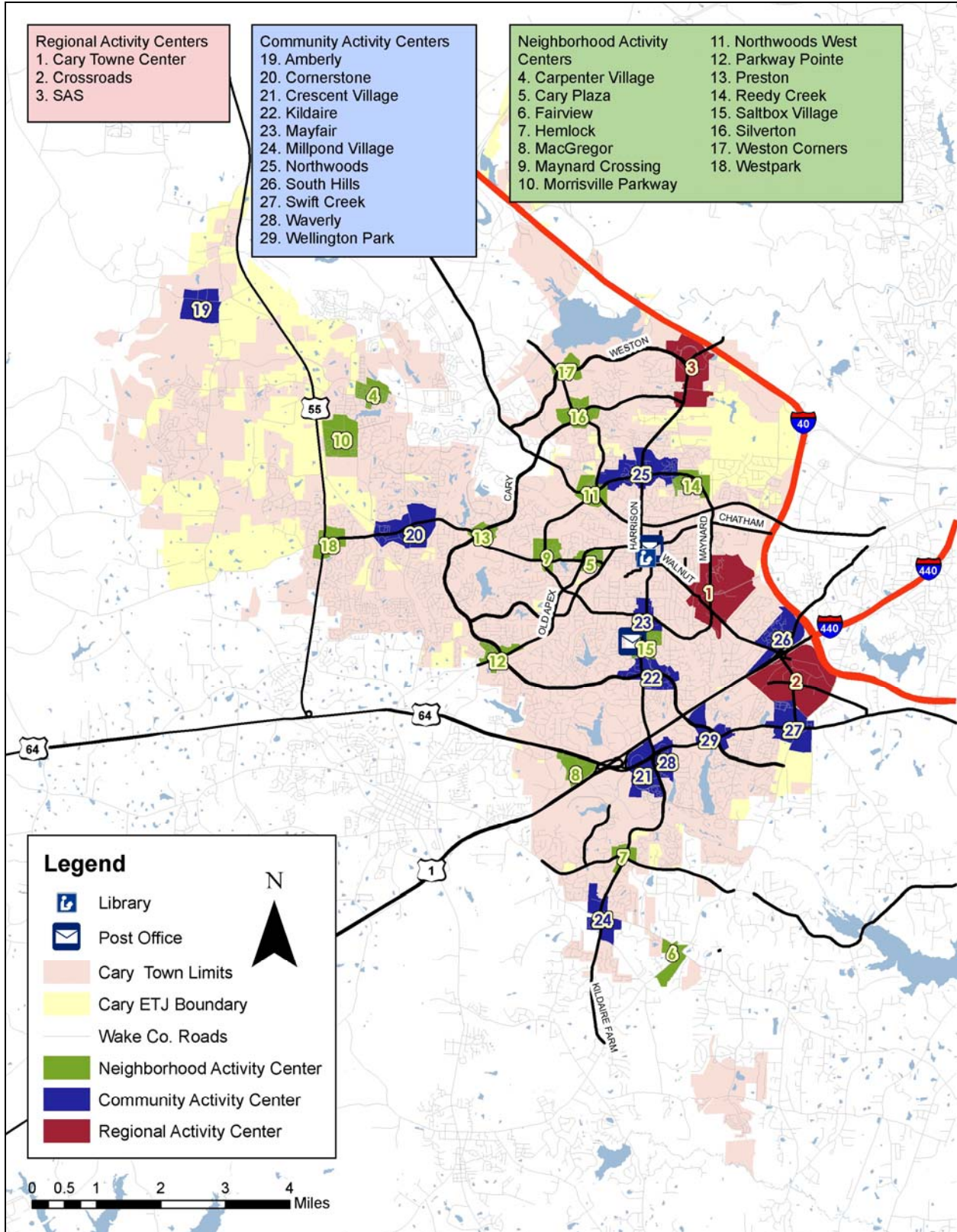


Figure 3-9. Activity centers, post offices, and libraries in Cary as of January 2007.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

3.7. Crash Analysis

Table 3-1 shows pedestrian crash data for the Town of Cary for the years 2002-2004 and the first six months of 2005. During this time, there were a total of 61 pedestrian crashes, less than 10 percent of which were disabling (Type A Injury), but nearly 50 percent involved evident injuries (Type B Injury). Less than 10 percent resulted in property damage alone. There were no fatal injuries that involved pedestrians during this period. Figure 3-10 shows a map of all pedestrian crashes between 2002 and mid-2005.

Table 3-1. Crash by type for the Town of Cary 2002-mid 2005.

Injury Type	2002	2003	2004	2005	Total
Fatality	0	0	0	0	0
Type A Injury (Disabling)	2	1	2	0	5
Type B Injury (Evident)	3	11	13	3	30
Type C Injury (Possible)	6	5	8	2	21
Property Damages Only	1	3	1	0	5
Total	12	20	24	5	61

Table 3-2 compares the Town of Cary with other similar sized municipalities in North Carolina: Fayetteville, High Point, Wilmington, Asheville, Jacksonville, and Gastonia for the years 2002-2004. During this time, Cary had no pedestrian-related fatalities. Cary also had a much lower rate of total crashes per 100,000 people than the comparative areas.

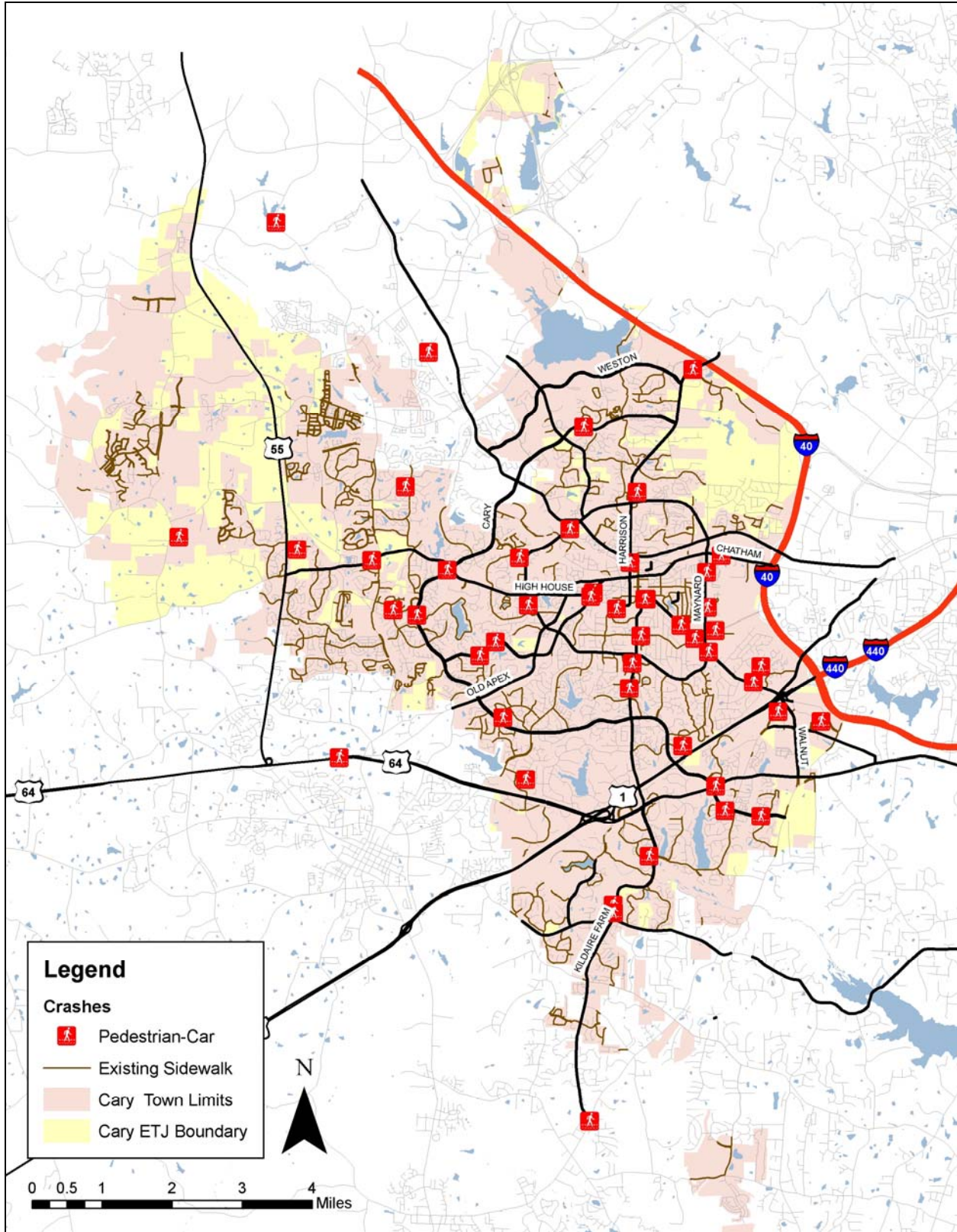


Figure 3-10. Map of pedestrian-vehicle crashes in Cary, January 2002 to June 2005.

Cary Pedestrian Plan

Section 3: Existing Physical Conditions

Table 3-2. Comparison of Cary crashes to other North Carolina cities, 2002-2004.

Area	2000 Census Population	Fatalities	Total Crashes	Fatalities per 100,000 people	Total Crashes Per 100,000, People
Cary	94,536	0	61	0.00	88.86
Fayetteville	121,015	10	230	8.26	190.06
High Point	85,839	3	110	3.49	128.15
Wilmington	75,838	8	196	10.55	258.45
Asheville	68,889	3	147	4.35	213.39
Jacksonville	66,715	3	86	4.50	128.91
Gastonia	66,355	7	136	10.55	204.96

A brief analysis of the crash data finds that, in general, most crashes are occurring in places where people walk – either to shopping, to schools, to greenways or at greenway crossings, near parks, and within neighborhoods. Many of the accidents occurred in locations which have a sidewalk or are near sidewalk. Some of the general areas that had crashes included:

- ◆ Near Cary Town Center and Adams Elementary along Cary Towne Boulevard
- ◆ Kildaire Farm Road between Maynard and High Meadow
- ◆ Kildaire Farm Road near Hemlock Bluffs
- ◆ Cary Parkway near North Cary Park
- ◆ Within Crossroads Plaza on Caitboo and Piney Plains
- ◆ Maynard between Chatham and Cary Towne Boulevard

There are several recommended corridor and intersection projects in Section 6 and Appendix 5 which address these locations; these are:

Corridor Location	From	To
Cary	Norwell	Evans
Crossroads	Caitboo	Caitboo
Caitboo	Crossroads	Crossroads
Kildaire Farm	Swift Creek Trail Entrance	Penny
Cary Towne Center	Maynard	I-40

Intersections:

Kilmayne	&	Kildaire Farm
Commonwealth	&	Kildaire Farm
Commonwealth	&	Kildaire Farm
Wren	&	Kildaire Farm
Kildaire Farm	&	High Meadow
Tate or Maple	&	Maynard

Overall, it is recommended that in order to reduce crashes, the Town target locations where people are walking, create a more connected sidewalk network, and provide more frequent locations for pedestrians to cross major streets.