# Pedestrian and Bicycle Facilities Analysis for the City of Eton

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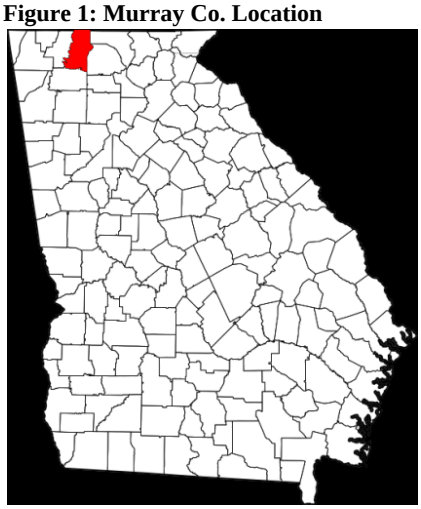
# 1. Contents



* Title Page photographs courtesy of www.eton-ga.gov

# 2. Introduction

**Figure 1: Murray Co. Location**



Source: http://en.wikipedia.org/wiki/Murray_County,_Georgia

In June 2005, a Regional Bike and Pedestrian Plan was completed for the Georgia Department of Transportation. This plan contains an inventory of existing bicycle and pedestrian facilities, and recommends a variety of improvements including new bicycle routes, sidewalks, and multi-use paths to be located in several neighborhoods. The sidewalk recommendations are very general however; they indicate only where existing sidewalks are presently located and where new sidewalks may be desirable to enable walking as an alternative transportation opportunity to get to shopping, schools, parks, and other local activity centers.

The purpose of this document is to evaluate more closely the condition of existing pedestrian facilities and bicycle facilities in the City of Eton, to determine how walkable and bikeable the city is, and to assist local officials in developing an improvement program.

According to the State of Georgia, a pedestrian is "*any person who is afoot (GLC 40-1-1). By State definition roller skaters, in-line skaters, skateboarders, and wheelchair users are also considered pedestrians.*"[1] All trips begin and end on foot in the form of a pedestrian trip; and 39% of all trips less than one mile are pedestrian trips. For this reason, pedestrian facilities are an essential component of an integrated transportation system. Safety, security, efficient mobility, attractive environments, and accessibility are primary concerns for providing pedestrian facilities.

**Figure 2: Murray County**


Source: www.murraycounty.georgia.gov

To that end, the following sections describe existing pedestrian facilities; provide an analysis for improvements to those facilities; and, finally offer construction standards for those improvements.

[1] Georgia Department of Transportation, (2006). Glossary of Acronyms and Terms. In Context Sensitive Design Online Manual (Glossary). Retrieved January 14, 2008, from http://wwwb.dot.ga.gov/csd/resources/glossary/glossaryPR.html

# 3. Existing Pedestrian Facilities and Conditions

## 3.1 Inventory of Existing Sidewalks

The Georgia Department of Transportation (GDOT), defines a sidewalk as "a firm, stable surface constructed of non-penetrable material for use by pedestrians that runs continuous [sic] from one property to another; usually located parallel to a vehicular thoroughfare between the curb line or lateral line of a roadway and the adjacent property line."[2] Sidewalks are not limited to use by walkers, they are also devoted to other non-motorized transportation users such as joggers, skaters, and individuals traveling in wheelchairs.

Eton is a small town in central Murray County with a rural atmosphere, so the sidewalk to roadway ratio is relatively small when compared to available sidewalks in an urban setting. Sidewalks are limited to high traffic areas in town along Old CCC Cap Road. The number, condition, and material makeup of sidewalks are the subject for the inventory that follows.

In 2004, as a component of a contract with GDOT, NGRDC staff collected GIS centerline data for all existing sidewalks in Eton. In all, over 3,099 linear feet of sidewalks currently exist within the Eton city limits, that is only a little more than a half mile in total distance. All of the sidewalks are made of concrete at a width of five feet, and share a curb-line with Old CCC Camp Road. They are elevated above road grade; however, there is not much of a curb and gutter present.

***Map 1: Existing Sidewalks***, shows that there is a good network of sidewalks on both sides of Old CCC Camp Road. However, the community lacks a network of sidewalks in the neighborhoods that surround the city center. Thus, sidewalks are a commodity that this community has little of, and due to small capital improvements budgets any future facility expansion can only be completed as components of state and/or federally sponsored improvements projects or grant aid. Information on some programs that may have been in interest to city officials is provided at the end of this document.

**Sidewalk Inventory in Eton**

- ✓ **3, 099 linear feet of sidewalks, roughly 0.6 miles**
- ✓ **All sidewalks meet ADA requirements**
- ✓ **All sidewalks are five feet in width**
- ✓ **All sidewalks are attached to the roadway**
- ✓ **Sidewalks lack residential connectivity to the downtown**
- ✓ **Sidewalk facilities are provided exclusively on both sides of Old CCC Camp Road**
- ✓ **All sidewalks can be classified in <u>good</u> condition**
- ✓ **There is potential for excellent sidewalk to neighborhood connectivity in the Eton community**

[2] Georgia Department of Transportation. (2000) *GPS Data Collection Guidelines and Standards: A Manual for Georgia Service Delivery Regions and Regional Development Centers.* (Atlanta, Georgia: GDOT, 2000).

## Map 1: Existing Sidewalks


Source: NGRDC

During the data collection process, NGRDC staff utilized GDOT's *GPS Data Collection and Standards Manual* to determine the approximate condition of the sidewalk.[3] Sidewalks were rated as "Excellent," "Good," or "Poor."

None of the existing sidewalks in the community is in an "Excellent" condition. An "Excellent" sidewalk is defined as a sidewalk having outstanding accessibility, attention to detail, intact surfaces, sensitivity to context – in short, referring to the feeling that the walk has "gone above and beyond" required standards; as well as the majority of characteristics contained in a "Good" condition. The sidewalks along Old CCC Camp Road do not quite meet the requirements to be classified into the excellent category.

All 3,099 linear feet (100%) of sidewalks located in Eton were determined to fit in the "Good" category. GDOT defines a "Good" classification as having intact walkways easily passable for pedestrians, skaters, walkers with strollers, and persons traveling by wheelchair.

Eton contains no sidewalks classified as being in poor condition. A "Poor" condition defined as containing the presence of large cracks, poor provision for drainage, the existence of overgrown or excessive vegetation, or bulging due to the presence of a tree's root system, et cetera - in short, the walk is in such disrepair that reasonable passage by pedestrian traffic is uncomfortable, difficult, or impossible.

**Sidewalk Condition Ratings**

**Excellent:**

- ✓ **Outstanding accessibility**
- ✓ **Attention to detail**
- ✓ **Intact surfaces**
- ✓ **Sensitivity to context**
- ✓ **Most components of the GOOD Category as well**

**Good:**

- ✓ **Easily passable walkways for walkers, cyclists, wheelchairs, etc**
- ✓ **Intact surfaces**
- ✓ **No obstacles**

**Poor:**

- ✓ **Presence of large cracks**
- ✓ **Poor drainage**
- ✓ **Existence of overgrown or excessive vegetation**
- ✓ **Bulging surface due to tree root networks**
- ✓ **Presence of disrepair**
- ✓ **Uncomfortable**
- ✓ **Difficult**
- ✓ **Impassable**

The most noticeable item RDC staff found was that most of the residential neighborhoods have no sidewalk connectivity with the existing sidewalks in Eton. In addition, the existing sidewalks have no separation between the vehicular traffic on the roadway and the pedestrian traffic on the sidewalks. The Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the Americans with Disabilities Act Accessibility Guidelines (ADAAG), suggests that there should be a minimum buffer zone between vehicular and pedestrian traffic. This buffer is achieved by either having parking spaces adjacent to the curb such as in a commercial area or downtown, or with a planting out lawn along the verge of the roadway (See ***Figure 3***, p. 7 and ***Figure 7***, p. 13).

[3] Georgia Department of Transportation. 2002. GPS Data Collection Guidelines and Standards: A Manual for Georgia Service Delivery Regions and Regional Development Centers.

Separated or detached sidewalks are the most appealing for pedestrian safety and sidewalk design, particularly in residential areas. This detached design allows for a parkway atmosphere by adding a tree-lined out lawn along the roadway's verge to separate pedestrians from the dangerous velocity of vehicular traffic. Adding a planting strip and/or on-street parking along the streets in Eton will not only add to the curbside appearance but also create a safer pedestrian atmosphere.

**Figure 3: Eton Sidewalk Example**

Source: NGRDC

## 3.2 Inventory and Assessment of Existing Crosswalks

For the purpose of this study, the RDC also inventoried crosswalk conditions throughout the community. Crosswalks are located at intersections where sidewalks exist at immediately opposite sides of the roadway. A crosswalk may or may not be marked.

***Table 1: Crosswalk Conditions*** summarizes the inventoried locations and condition of crosswalks in the city. The primary focus of the inventory was to determine if pedestrian crosswalks were properly marked, if they were handicapped accessible, and contained signage, etc. if necessary. Of the six surveyed crosswalk locations, none has adequate crosswalk markings. They are all located on Old CCC Camp Road east of U.S. Highway 411. These crosswalks are highlighted in the table. The table also illustrates the status of curb cuts and handicapped accessibility conditions. Of the six intersections, all crosswalks have adequate curb cuts or handicapped accessibility. ***Map 3: Deficient Crosswalks*** - shows the locations of these, and the table lists what improvements are needed. It is recommended that equipping all major intersections with these signs and/or signals (See ***Figures 10 & 11***, pp. 14-15) will create a safer and more efficient environment for pedestrians and motorists alike.

## Table 1: Crosswalks Conditions

| Eton | Intersection | ADA Compliant | Street Markings | Signage |
|---|---|---|---|---|
| **1** | Old CCC Camp Road & Merritt Street | Yes | No | No |
| **2** | Old CCC Camp Road & Hall Street | Yes | No | No |
| **3** | Old CCC Camp Road & Glenn Street | Yes | No | No |
| **4** | Old CCC Camp Road & Harris Street | Yes | No | No |
| **5** | Old CCC Camp Road & Murray Street | Yes | No | No |
| **6** | Old CCC Camp Road & Old Federal Road | Yes | No | No |

Source: NGRDC

## Map 2: Crosswalk Locations


Source: NGRDC

Municipalities throughout the region contain crosswalks that differ by on-site conditions such as grade, cross-slope, width and vertical clearance, as well as passing space, grates and gaps, and obstacles or protruding objects; however, the issue of handicap accessibility is unavoidable. All crosswalks must be compliant with the Americans with Disabilities Act (ADA) since its passage in 1990.

All of the crosswalks in Eton contain curb cuts, but no crosswalk is fully compliant with ADA standards. A "fully" compliant crosswalk means that the intersection contains all components of proper crosswalk configurations, such as pavement markings, curb cuts, and signs/signals if necessary. Many of these items can be corrected quite easily.

# 4. Recommendations

Compliance with regulatory standards, safety considerations, and improving connectivity are the primary focus for determining how best to improve Eton's pedestrian systems. With this in mind, the RDC recommends improvements in the following areas: 1) correct existing crosswalk and sidewalk deficiencies, and 2) adding new sidewalk facilities in neighborhoods adjacent to the downtown.

## 4.1 Crosswalk Improvements

The primary concern with existing deficiencies is the lack of marked crosswalks at roadway intersections. This is very important and is recommended by GDOT and the RDC, it is an inexpensive project, especially with the relatively small number of existing crosswalks in Eton. Proper marking of existing pedestrian crosswalks will address the most important deficiency that RDC staff observed in Eton.

According to the *Manual of Uniform Traffic Control Devices* (MUTCD), a crosswalk should be marked with "solid white lines not less than 6 inches, marking both edges of the crosswalk and spaced at least 72 inches apart."[4]

Horizontal crosswalks, have a line pattern that is distinguished by lines lying at a right (90º) angle to the flow of traffic patterns, in essence, forming a pedestrian pathway from one side of the street intersection to the other. ***Figure 4: Horizontal Crosswalk*** is a photograph of a horizontal crosswalk located at an urban intersection.

Another form of crosswalk that makes recognition easy for both pedestrians and motorists is the "ladder" marked crosswalk. It is composed of a series of broad lines placed at a parallel angle in reference to the sidewalk curbsides; another way to think about it is by noticing that the painted lines run with the flow of traffic. This ladder crosswalk can be closed (***Figure 5***) within the previously mentioned horizontal walkway lines across the roadway or open (***Figure 6***).

**Figure 4: Horizontal Crosswalk**

Source: **www.sacdot.com**

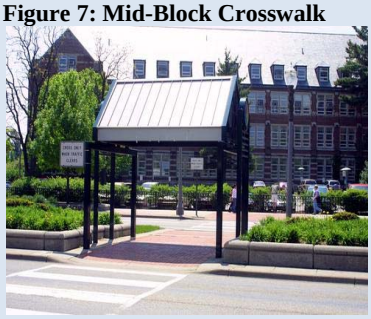
**Figure 5: Closed Ladder Crosswalk**

Source: www.latimesblogs.latimes.com

**Figure 6: Open Ladder Crosswalk**

Source: www.cityofsacramento.org

**Figure 7: Mid-Block Crosswalk**



Source: www.contextsensitivesolutions.org

[4] American Planning Association, Planning and Urban Design Standards (Hoboken, New Jersey: John Wiley & Sons Publishing, 2006), 223.

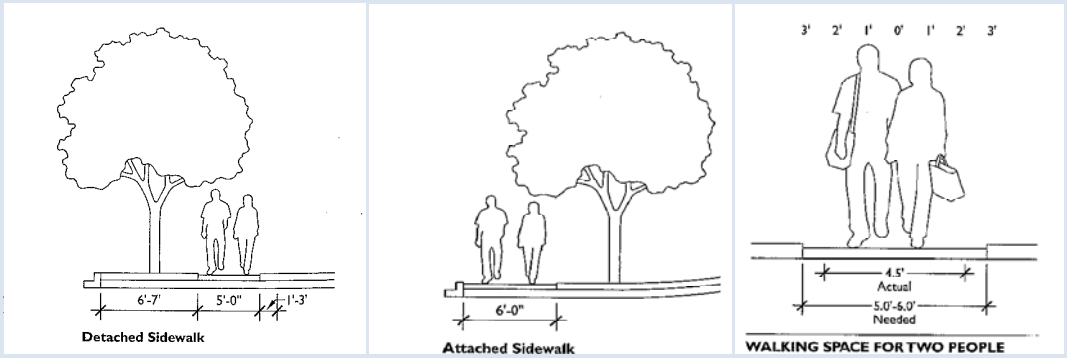
A band or stripe can consist of many different types of materials, from a simple painted line on the pavement to a more aesthetically detailed cobble stone or stamped-concrete layout. Some may even contain reflective materials. Major crosswalks also typically have signage and visual/audio displays to assist pedestrians when and where it is safe to cross the roadway. Therefore, the City should give thorough consideration to the importance that all intersections should contain visual markings and/or signage to indicate the presence of a crosswalk for motorists and pedestrians alike. Especially if the City is entertaining the notion of creating a larger economic development base by adding more commercial and tourist resources within their community.

Crosswalks are quite easily retrofitted or updated to meet the recommended standards simply by painting the recommended crosswalk lines on the street, and ensuring the ADA standards. It is also highly recommended to create mid-block crosswalks where needed (***Figure 7***). These allow the safe passage of pedestrian traffic more directly to a popular destination, or already proven pathways that are not currently designated as a crosswalk. This is an idea that is ideal for parks and school zones.

Sidewalks that lie immediately adjacent to the roadway are another concern that the RDC has noted, because of the close proximity to the adjacent roadway. The American Planning Association's *Planning and Urban Design Standards*[5] manual recommends that a minimum six-foot wide sidewalk be installed where it will lie immediately adjacent to the roadway (See ***Figure 8***). If sidewalks are to be separated from the street, the sidewalk width can be reduced to five feet; however, there should be at least a six-foot planting strip between the street and the sidewalk. This planting strip allows the placement of mailboxes, utility poles, etc. without intruding upon the sidewalk. As wonderful as a six foot wide separation would be, the RDC realizes that this may be an unrealistic scenario for the City due to Right-of-Way issues, roadway and topological restrictions. It is still strongly recommended that separation be obtained at all costs to allow for safety purposes. In the future, the RDC recommends that the city consider the above-recommended standards for all future pedestrian facilities planning and construction, if feasible.

## 4.2 Improving Existing Sidewalk Deficiencies

**Figure 8: Sidewalk Examples**




Source: American Planning Association

[5] American Planning Association: Planning and Urban Design Standards (Hoboken, New Jersey: John Wiley & Sons Publishing, 2006), 223.

As stated before there are no sidewalks in poor conditions in the city of Eton. Nonetheless, sidewalk conditions will eventually deteriorate and need repair and/or replacement. ***Figure 9*** is an example of what a poor sidewalk condition may look like. For example, this particular photograph was taken by RDC staff locally and shows a sidewalk cracked and broken in multiple places, as well as containing a steel utility cover that lies a full ¾" above the surface of the concrete. The city public works department, through a routine maintenance and repair program, can easily repair sections such as this.

**Figure 9: Sidewalk in Poor Condition**

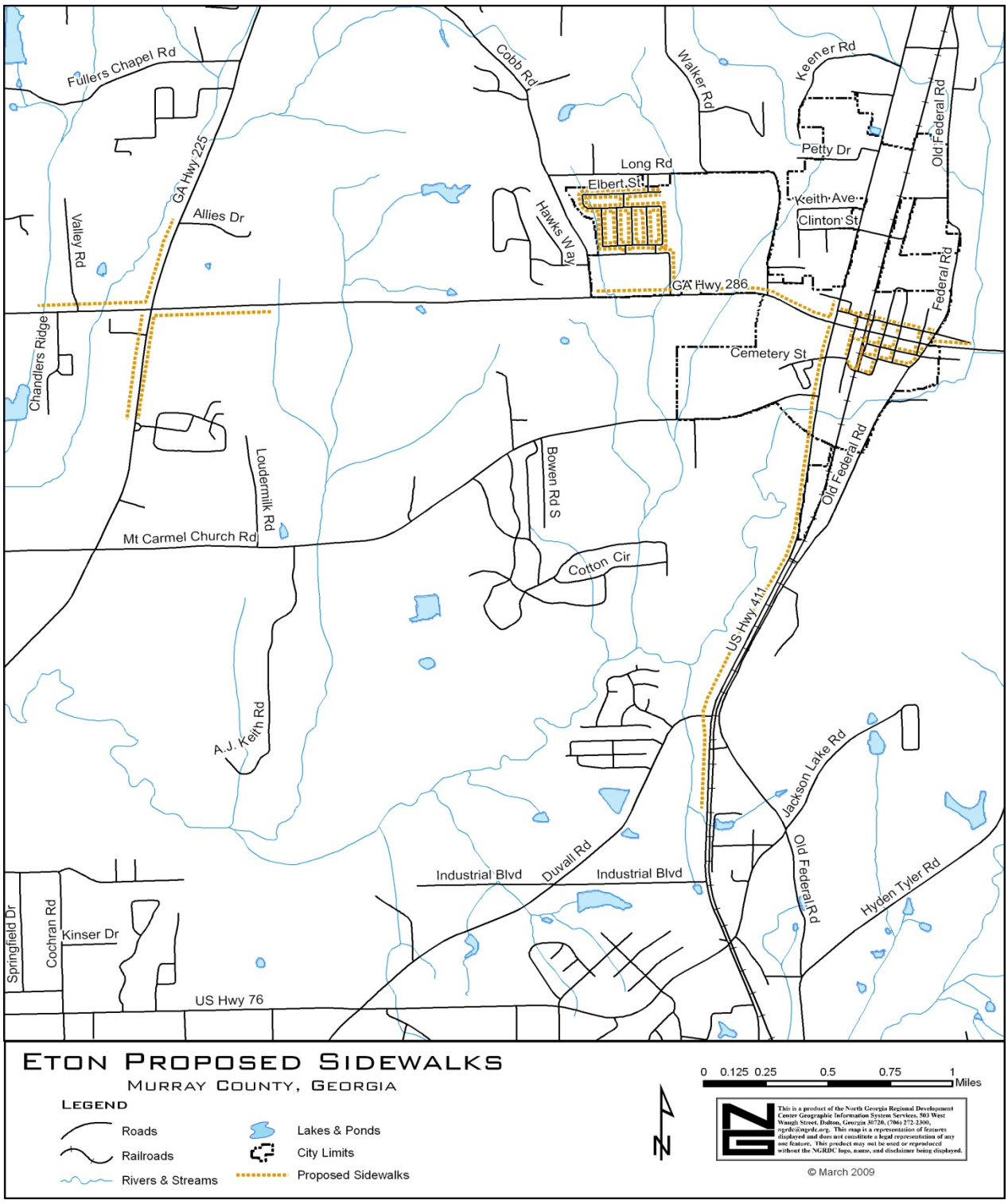
Source: NGRDC

## 4.3 Additional Sidewalks

The City of Eton should plan for sidewalk additions and improvements on current streets by using a strategic rehabilitation program in coordination with future GDOT improvements along state and federal roads. New sidewalk facilities should strongly be considered throughout the residential neighborhoods adjacent to the downtown area. Good community planning encourages connectivity among neighborhoods, and between neighborhoods and downtowns and other activity centers such as schools, parks, and commercial centers. Most individuals are willing to walk at least a quarter mile, and many will consider walking up to one-half mile if it is safe.

***Map 4: Proposed Sidewalks***, shows proposed new sidewalk locations. Installing these new sidewalks will substantially improve pedestrian safety, and provide additional connectivity between schools, parks, activity centers, and neighborhoods. The City should also consider making provisions within its Subdivision Regulations and Zoning Codes to assure that new sidewalks are provided wherever new development takes place in the future. As a minimum requirement, the Development Code should instruct that the developers shall provide sidewalks along each street within or adjacent to a subdivision or any other development at their own expense, if located inside the City of Eton. The development code should also specify the minimum design and construction standards to be followed in the installation.

## Map 3: Proposed Sidewalks




Source: NGRDC

## 4.4 Signs and Signals

NGRDC staff also observed the lack in conformity with street signs on many local streets. There was an absence of traffic markers such as stop or yield signs at some corners, but also there were a few streets that had no street name signs, and there were few or no pedestrian signs and signals as well.

The USDOT-FHWA advises that, "*Street name signs should be installed in urban areas at all street intersections regardless of other route signs that may be present, and should be installed in rural areas to identify important roads that are not otherwise signed,*" (*United States Department of Transportation: Federal Highway Administration, 2003*). In addition, the FHWA recommends that, "*In business districts and on principal arterial streets, street name signs should be placed at least on diagonally opposite [street] corners. In residential areas, at least one street sign mounted at each intersection. They should be mounted with their faces parallel to the streets they name,*" (*United States Department of Transportation: Federal Highway Administration, 2003*)[6].

**Figure 10: Pedestrian Street Sign Examples**


Source: USDOT & FHWA

**United States Department of Transportation - Federal Highway Administration Regulations –**

*Manual of Uniform Traffic Control Devices for Streets and Highways (2003 ed. Revision 1 November 2004).*

- ✓ Street signs should be installed at all intersections
- ✓ Lettering must be a minimum of 4 in. on a residential street with a speed limit of 25 mph or less
- ✓ Supplemental lettering such as street type (St., Ave., Rd., etc.) and/or section lettering (E, NW, etc.) must be a minimum of 3 in. in height
- ✓ Street signs must be retro reflective or illuminated to show same shape and color both day & night
- ✓ Street names must be white lettering on a green background
- ✓ At intersection crossroads where the same street has two different street names for each direction of travel, both street names may be labeled on the same street sign with directional arrows alongside appropriate name

[6] United States Department of Transportation: Federal Highway Administration. (2003). *Manual of Uniform Traffic Control Devices for Streets and Highways* (1st Edition, Revision 1: November 2004 ed., Vol. Section 2B, 2C, and 2D). Washington D.C., United States of America: Federal Highway Administration.

**Figure 11: Vehicular Street Sign Examples**


Source: USDOT & FHWA

# 5. Summary of Recommended Design Standards for Pedestrian Facilities

The following summary of recommended design standards should be considered when improving existing facilities or installing new facilities. For more details on design standards, see also the Georgia Department of Transportation's *Georgia Pedestrian and Streetscape Guide* (June 2005). A copy found online is located at Georgia Department of Transportation's website: http://www.dot.state.ga.us/travelingingeorgia/bikepedestrian/Documents/ped_streetscape_guide_june05.pdf

## 5.1 Pedestrian Sidewalks:

- The minimum recommended width for all sidewalks is five feet.
- Sidewalks that are immediately adjacent to the street should be a minimum six feet wide.
- Sidewalks that are detached from the street should have a planting strip between the street and the sidewalk. Ideally, this strip should be six feet wide.
- Sidewalks should be provided on both sides of streets to provide access to schools, shopping areas and parks. Sidewalks on one side of the street may adequately serve residential areas.
- Provide adequate signage for pedestrians.
- Sidewalks should have a cross-slope of 1.5% to 2.0% to allow for drainage.
- Sidewalks should be well designed and laid out in all school zones.

## 5.2 Pedestrian Crosswalks:

- All crosswalks must be ADA compliant and if curbs are present, provide a handicap accessible curb cut.
- Proper signs and signals for pedestrians and motorists should be present to indicate a pedestrian right-of-way.
- All crosswalks should be properly marked with either horizontal or ladder type designs.
- Crosswalk markings should be a minimum of 6 feet wide and have a stop bar painted on the road to indicate where motorists should stop for pedestrians.
- School zone signs and signals must be present.

### 5.3 Signs and Signals:

- All intersections should have streets properly labeled.
- Residential streets should have at least one corner labeled by a green sign with white lettering measuring 4 inches in height.
- Larger intersections should have at least two diagonally opposite corners labeled with green street signs with white lettering measuring 4 inches in height.
- All directional, street designation and section labels may accompany street names on the same sign with a minimum 3-inch height (NW, AVE, BLVD, E, S, etc.).
- All intersections should have accompanying traffic signs or signals, such as STOP, YIELD, etc. and notification of a potential pedestrian and/or bicycle crossing.

# 6. Bicycle Facilities Analysis and Recommendations

## 6.1 Existing Facilities

Currently, there are no dedicated bicycle lanes or paths in the City of Eton. There are also no bicycle routes identified by signage. All cyclists currently have to ride in the road at their own risk.

## 6.2 Proposed Facilities

The Regional Bicycle and Pedestrian Facilities Plan adopted by the North Georgia Regional Development Center in June, 2005 proposes the development of bicycle routes in several locations in Murray County, two of which travel through the City of Eton. These routes were developed and recommended with the input of citizens in Murray County in 2004. (See ***Map Five: Proposed Regional Bicycle Routes***.)

**Route 1**, ***Scenic Byway Bicycle Route***, travels along Holly Creek-Cool Springs Road, Old CCC Camp Road, Crandall-Ellijay Road, U.S. 411, and S.R. 2. The route travels just outside the City of Chatsworth via Holly Creek-Cool Springs Road, which intersects into State Route 52 and ***Route 90***.

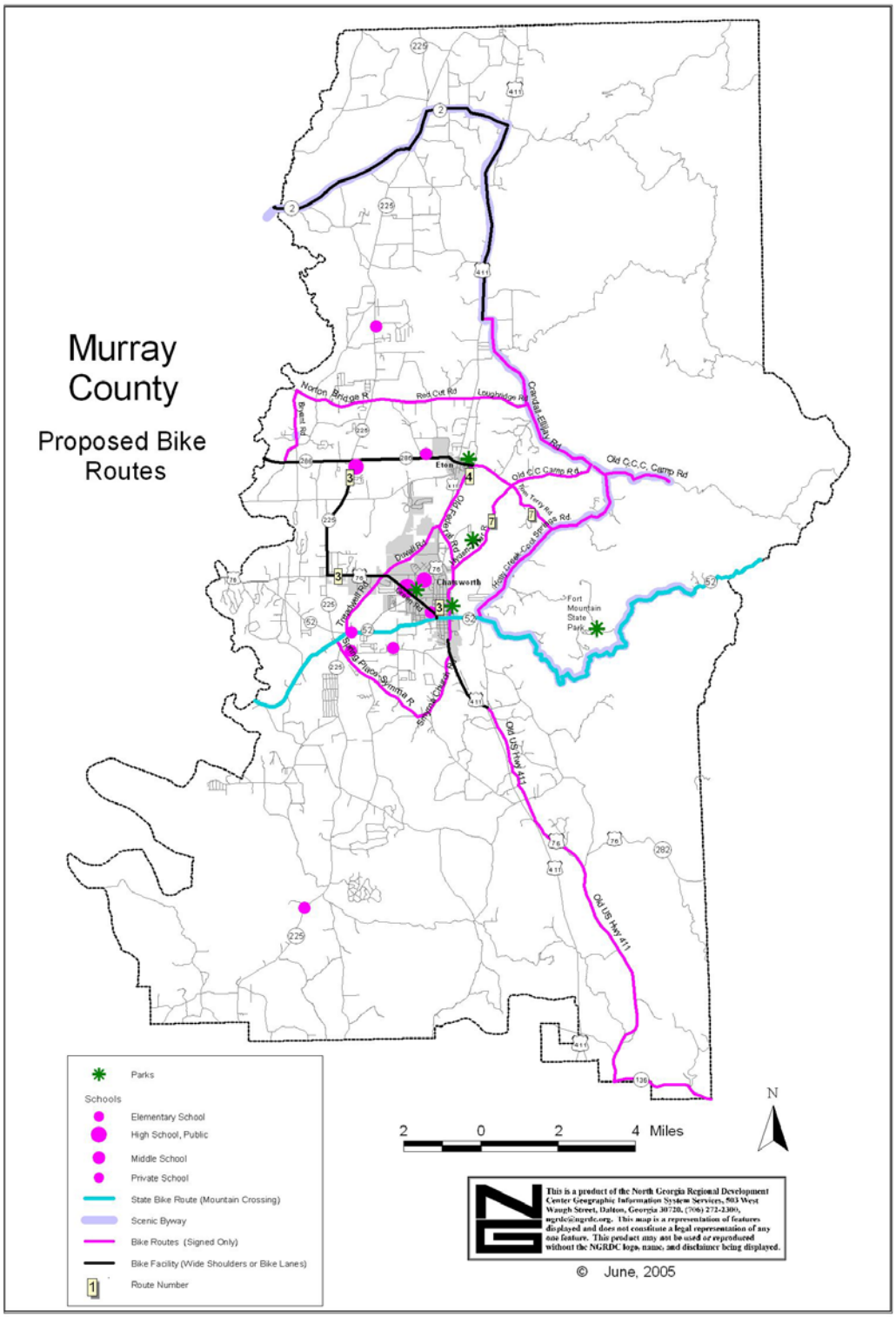
**Route 2**, ***GA 286 Route***, proposed north of the Chatsworth city limits as a route that primarily runs through the City of Eton. However, this route is accessible from Chatsworth via ***Route 4*** and ***Route* 5**. This route loops around Eton and connects with ***Route 1***.

**Route 3**, ***GA 225 Route***, begins in Chatsworth connecting ***Route 90*** at Green Road and travels northwest onto U.S. 76, then turns north on State Route 225 and terminates at State Route 286 connecting ***Route* 2**.

**Route 4**, ***Duvall Road Route***, begins in Spring Place and travels northeast along Treadwell Road-Duvall Road, crosses the railroad, travels northeast into Eton along Old Federal Road, and terminates at the Old CCC Camp Road (***Route* 1**).

All regional bicycle routes have been adopted by the RDC in 2005 (See ***Map 5: Proposed Bicycle Routes***). All of these routes are primarily on State roadways, with a few municipal/county roadway exceptions, and because they have been adopted within an official plan, the state must follow the recommendations within the recognized plan. The RDC proposed that these specific roadways be provided with bicycle lanes or wide shoulder facilities, and have "Share the Road" signs installed throughout.

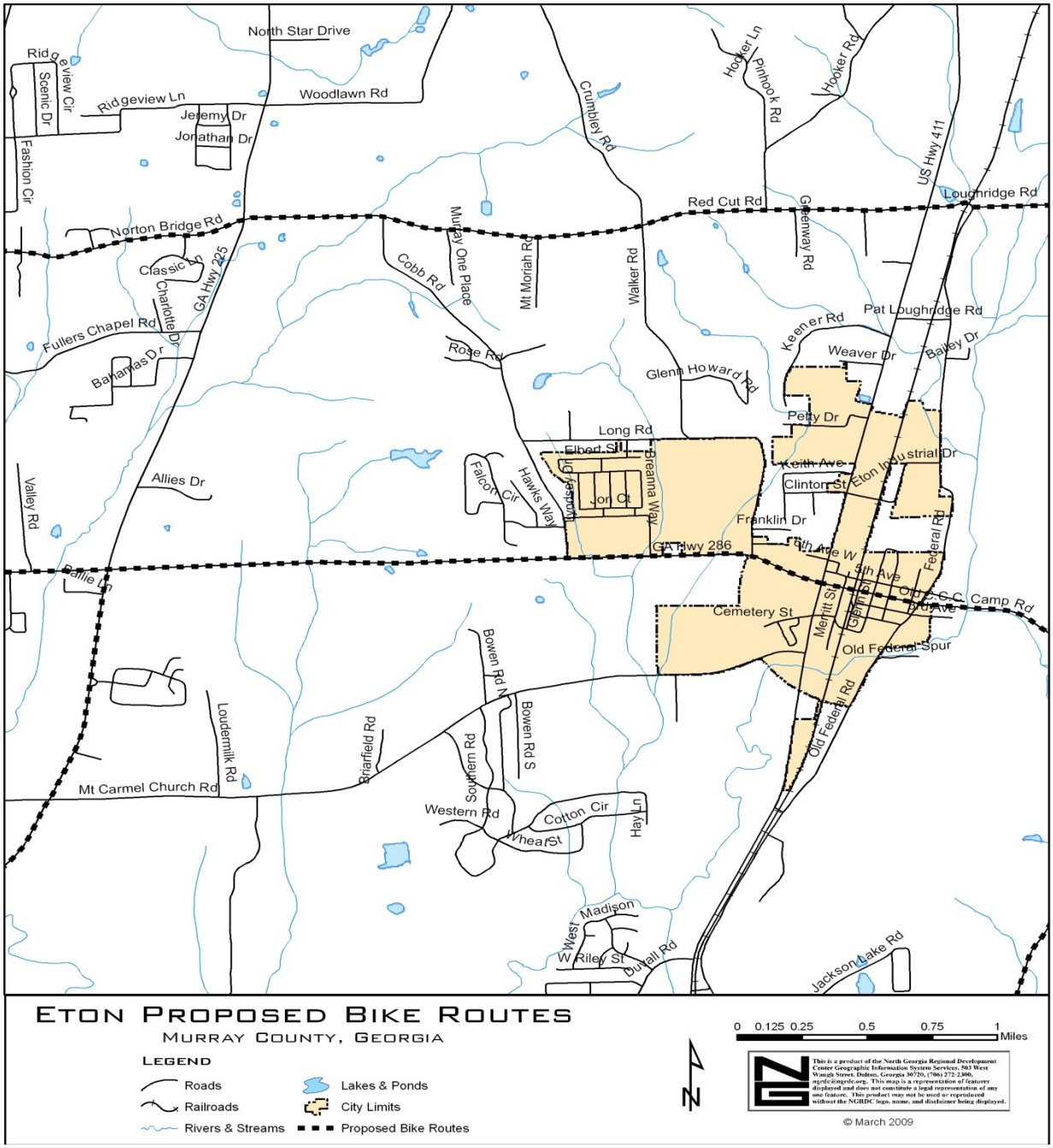
## Map 4: Proposed Regional Bicycle Routes




Source: North Georgia Regional Bike and Pedestrian Facilities Plan

The regional network of bicycle routes planned to connect schools and nearby parks and surrounding neighborhoods throughout the City, (See ***Map 6: Proposed Local Bike Routes***). These proposed routes, are located primarily on connector streets that inter-link the Eton road network. Due to the physical constraints within the right-of-way for these particular roads, it is recommended that the City install "Share the Road" sign on both sides the street to provide cyclists and motorists the heads-up that this is a specific bicycle route and cyclists may safely utilize the roadway.

## Map 5: Proposed Local Bike Routes




Source: NGRDC

## 6.3 Types of Bicyclists

Bicyclists can generally be classified into three user types, which is useful to assist in the design of facilities:

Group A - Advanced Bicyclist –

These are expert or experienced riders who can operate under most traffic conditions. Expert riders often use their bicycles as transportation and desire direct access to destinations with minimal delay. These riders are confident riding their bicycles alongside motor vehicles and are able to negotiate high-speed roadways without special bicycle facilities. In designing facilities for expert riders, adequate space should be provided so that cyclists and motorists can pass comfortably without shifting positions.

Group B - Casual Bicyclist –

These are casual adult and teenage riders who are less confident of their ability to operate in traffic without provisions for bicycles. The casual bicyclist prefers comfortable access to destinations, preferably by a direct route, using either low-speed, low traffic-volume streets, or designated bicycle facilities and well-defined separation of bicycles and motor vehicles on arterial and collector streets or separated bike paths.

Group C - Inexperienced –

These are riders with very little experience including children whose roadway use is initially monitored by adults. They desire access to key destinations surrounding residential areas including schools, recreation facilities, and shopping. They prefer access to these sites via residential streets with low motor vehicle speed limits and volumes, or well-defined separation of bicycles and motor vehicles along major streets, or separated bike paths within greenways.

## 6.4 Types of Bicycle Facilities

There are three types of bicycle facilities that can be provided to meet the needs of cyclists:

- Class I: Multi-use Paths
- Class II: Bike Lanes/Shouldered Bikeways
- Class III: Bike Routes

Class I: Multi-Use Path –

Sometimes more popularly known as greenways, multi-use paths do not allow motor vehicle traffic but they do permit a range of non-motorized travel including bicycling, walking, running, and in-line skating. Although typically built in an independent right-of-way, park, or easement, multi-use paths may also be located within road rights-of-way, separated from motor vehicle traffic by open space or a structural barrier. Multi-use paths are typically 10 to 12 feet wide.

Multi-use paths attract recreational users, but because they typically wind through a community and connect destinations, they also offer an excellent opportunity to function as non-motorized transportation routes. For inexperienced cyclists and children, multi-use paths may be the preferred facility. Multi-use paths are also excellent training ground for building skills to ride on the road.

***Recommendation:*** *Facilities such as these would work great in and around parks and schools. Eton Elementary School already has a multi-sue path that both students and the neighborhood use on a regular basis. Another great location was proposed along the Mill Creek Corridor and future park locations.*

**Figure 12: Example of multi-use path**

Source: North Georgia Regional Bike & Pedestrian Plan

Class II: Bike Lanes/Shouldered Bikeways -

Bicycle lanes are designated sections of a roadway signed, striped, and marked exclusively for bicycle use. A significant cycling demand or expectation in urban areas typically contains bicycle lanes on arterial streets and roadways. They are one-way facilities placed on both sides of a street in order to carry bicyclists in the same direction as motor vehicles. The American Association of State Highway and Transportation Officials (AASHTO) standards for bike lanes are 5 feet from the face of the curb to the white edge line if curb and gutter is present, or 4 feet from the face of the curb to the white edge line if there is no gutter pan.

**Figure 13: Bike Lanes/Shouldered Bikeways**

Source: North Georgia Regional Bike & Pedestrian Plan

Shouldered bikeways are paved shoulders separated from travel lanes with a lane stripe, and are typical for rural roadways without curbs and gutters. Pavement markings are not typically used on shouldered bikeways, since they can also be used for other functions, such as vehicle breakdowns. Generally, a 6.5 foot paved shoulder functions well if no curb or gutter is present, such as in rural areas. Signage should also be placed on these facilities to indicate the presence of bicyclists.

***Recommendation:*** *As mentioned before, facilities of this nature have been proposed along Route 1, Route 2, Route 3, and Route 4. Often times however, this will be expensive, due to the labor, materials, and right-of-way purchase agreement. However, these improvements can be accommodated at the same time a roadway is scheduled for widening or other major improvements. To help alleviate the burden of cost on the County, a majority of these routes are located along State-owned corridors. Per GDOT policy, whenever the State intends to improve a state highway route, that is also designated as a bicycle route in an official plan, the State will install the recommended bicycle facilities as called for in the plan. All of the other proposed routes fall on city streets. An alternate approach that may be more practical for the city to consider would be to develop the remaining routes as Class III – Bike Routes.*

Class III: Bike Routes –

On a bike route, bicyclists and motorists share the same travel lanes. Except in the cases where wide outside travel lanes provide safety, motorists will typically have to move into the adjacent lane in order to pass a bicyclist. Bike routes function well on local and minor collector streets, where traffic volumes and speed are typically lower than on major collector and arterial streets. There are three types of shared roadways: Wide Outside Lanes, Shared Signed Roadways, and Local Streets.

**Figure 14: Wide Outside Bike Lanes**


Source: North Georgia Regional Bicycle & Pedestrian Plan

On major collector and arterial streets where severe physical constraints prohibit the construction of bike lanes, Wide Outside Lanes are a desirable alternative. Wide Outside Lanes are wider than the typical 11 or 12 feet, and it is recommended that they be 13 to 14 feet wide. Because they provide less operating room than bicycle lanes, and are not designated for exclusive bicycle use, some cyclists will be uncomfortable using Wide Outside Lanes. However, Wide Outside Lanes allow most motorists to pass without weaving into the adjacent lane and, provide a greater degree of comfort to cyclists than a typical 11 or 12-foot lane.

Shared Signed Roadways are arterial or collector streets where bicycle traffic or demand is high, but Bike Lanes or Wide Outside Lanes cannot be provided due to severe physical constraints. Shared Signed Roadways posted with appropriate speed limits rely on signage to encourage both drivers and cyclists to be alert for all roadway users. In addition, use of traffic calming devices on collectors further encourages appropriate travel speeds.

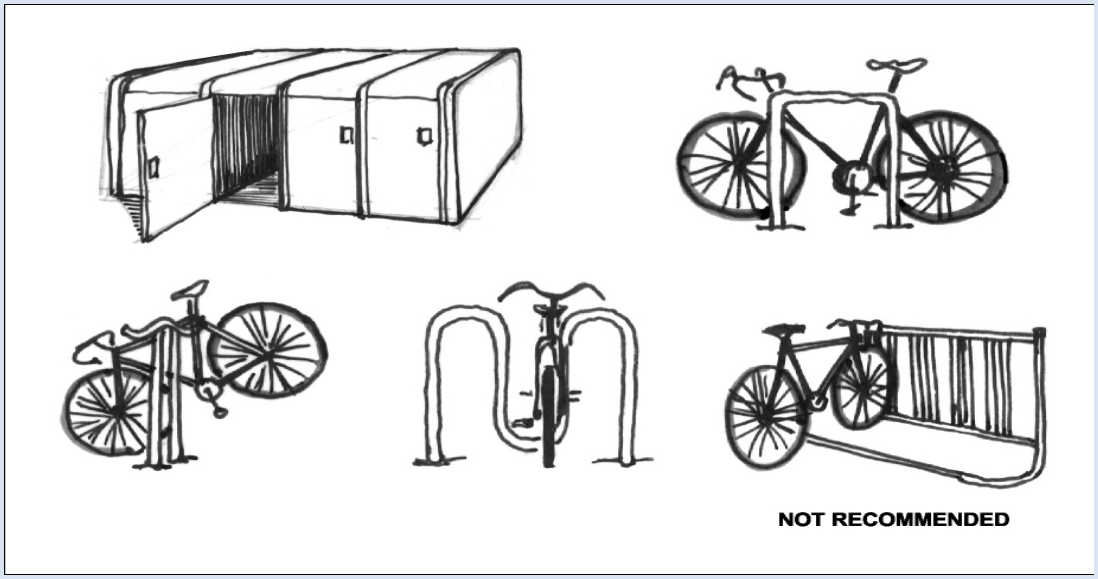
***Recommendation:*** *As indicated earlier, development of Bike Lanes or Shouldered Bikeways can be expensive. It is not likely that the variety of city streets that are proposed as bike routes will receive substantial improvements such as a major widening in the near future. Therefore, the roadway widths of these routes are likely to remain as they are, and the route will need to function as either as Wide Outside Lanes or as Shared Signed Roadways. Each route should be evaluated as to whether wide outside lanes could be established. In addition, it is recommended that "Share the Road" signage be installed at reasonable intervals along each route within the city. Posted speed limits on these routes in the City are reasonable; however, if excessive speeds are commonplace, the city should consider greater enforcement.*

In addition to the specific routes described above, all other local streets should be able to accommodate bicyclists safely without any special treatment. In some cases, signage could be used to identify a through bike route that follows a local street. In cases where local streets carry more traffic at greater speeds than were designed for, implementing traffic calming techniques such as speed humps and curb extensions to help insure that bicycle and motor vehicle traffic operate compatibly

## 6.5 Bicycle Parking Facilities

Cyclists are often discouraged from using their bicycles as transportation because they have no place to park their bicycles at their destination. Bicycle parking can be addressed by the provision of bike racks or bike lockers. Bike racks come in a range of shapes, sizes, and materials. The intention of bike racks is to provide a short-term parking solution only, and is suitable for the occasional user. However, they do not provide a high degree of protection from theft, vandalism, and weather for long term parking requirements, such as may be required by a biking commuter. Bike lockers can serve this type of parking requirement. Bike lockers are containers designed to store bicycles without dismantling. A rider can also store riding gear in the locker. The bicycle is completely enclosed and secure from impact. (See illustration.)

**Figure 15: Various Bicycle Parking Facilities**




Source: North Georgia Regional Bicycle & Pedestrian Plan

**Illustration of several types of bike rack and locker designs. The older style rack illustrated at the lower right corner does not permit a bike frame to be secured and is substandard.**

Generally, bicycle racks should:

- Accommodate high security U-type locks,
- Permit the frame and at least one wheel to be locked,
- Be covered in areas where bikes may be left for longer periods of time, and
- Be securely anchored.

Each bicycle parking space should be at least six feet long by two feet wide. Like motorists, bicyclists need space to maneuver their vehicles into parking spaces. Accordingly, when full, a bike rack should have about five feet of clearance on at least three sides.

***Recommendation:*** *Initially, bike racks should be installed at three locations in the city: 1) in the public areas, 2) at the City & County Parks, and 3) at all the schools.*

# 7. Funding and Other Assistance

There are a variety of potential funding sources including local, state, and federal funding programs that can be used to construct the proposed bicycle and pedestrian improvements. Many of the federal and state programs are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits.

Most of the funding for recent bicycle and pedestrian improvements for many communities has come from the U.S Federal Highway Administration Transportation Enhancement (TE) grants. GDOT solicits applications for TE funding every two years.

Another Federal Highway Administration program can also be used to make sidewalk and bicycle facility improvements is the Safe Routes to School Program. Safe Routes to School was initiated under the SAFETEA-LU Act in 2005, Georgia received a $16.6 million share through the fiscal 2009 year. Approximately 70% of these funds allotted are for construction of infrastructure facilities within two-mile radii of elementary and middle schools (K-8). The remaining 30% funding is reserved for education and information programs. It should be noted that funding provided requires no local match; it is 100% federally funded. More information can be found online with the Georgia's Department of Transportation Safe Routes to Schools program website at http://www.dot.ga.gov/localgovernment/FundingPrograms/srts/Pages/default.aspx.

Another program that may be of use is the National Recreation Trails Program, administered by the Georgia Department of Natural Resources. This program provides funds primarily for projects that are limited to construction and/or maintenance of trails for typically recreational purposes. They require a 20% local match in funding and currently there is over $2 million available in Georgia more information available online at the Georgia state parks website located at http://www.gastateparks.org/net/content/item.aspx?s=18195.0.1.5.

The Georgia Department of Transportation website is a good source for funding information located online at http://www.dot.state.ga.us/Pages/default.aspx.

The North Georgia Regional Development Center can provide a variety of technical assistance in helping the City with implementation of the recommendations including providing information about funding programs, and preparing grant applications.

A variety of general and technical information resources can also be of assistance for planning and designing pedestrian & bicycle facilities. A list of these resources can be found in the appendix. One effective way is to complete a walkability or bikeability checklist for your community. Example checklists are also located in the appendices.

# 8. Appendices

**Appendix A** – U.S. Department of Transportation and the Federal Highway Administration in cooperation with the National Center for Safe Routes to School presents the community Walkability Checklist. (Material provided)

**Appendix B** - U.S. Department of Transportation and the Federal Highway Administration in cooperation with the National Highway Traffic Safety Administration presents the community Bikeability Checklist. (Material provided)

# Walkability Checklist

## How walkable is your community?

### Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

### Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go.

The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall.

After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.

SafeRoutes
National Center for Safe Routes to School

Pedestrian and Bicycle Information Center

U.S. Department of Transportation

Take a walk and use this checklist to rate your neighborhood's walkability.

# How walkable is your community?

**Location of walk** _____

_____

**Rating Scale:**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| awful | many problems | some problems | good | very good | excellent |

## 1. Did you have room to walk?

☐ Yes ☐ Some problems:

- ☐ Sidewalks or paths started and stopped
- ☐ Sidewalks were broken or cracked
- ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
- ☐ No sidewalks, paths, or shoulders
- ☐ Too much traffic
- ☐ Something else _____

Locations of problems: _____

**Rating:** (circle one)
**1 2 3 4 5 6**

_____

_____

## 2. Was it easy to cross streets?

☐ Yes ☐ Some problems:

- ☐ Road was too wide
- ☐ Traffic signals made us wait too long or did not give us enough time to cross
- ☐ Needed striped crosswalks or traffic signals
- ☐ Parked cars blocked our view of traffic
- ☐ Trees or plants blocked our view of traffic
- ☐ Needed curb ramps or ramps needed repair
- ☐ Something else _____

Locations of problems: _____

**Rating:** (circle one)
**1 2 3 4 5 6**

_____

_____

## 3. Did drivers behave well?

☐ Yes ☐ Some problems: Drivers...

- ☐ Backed out of driveways without looking
- ☐ Did not yield to people crossing the street
- ☐ Turned into people crossing the street
- ☐ Drove too fast
- ☐ Sped up to make it through traffic lights or drove through traffic lights?
- ☐ Something else _____

Locations of problems: _____

**Rating:** (circle one)
**1 2 3 4 5 6**

_____

_____

## 4. Was it easy to follow safety rules? Could you and your child...

| | | |
|---|---|---|
| ☐ Yes | ☐ No | Cross at crosswalks or where you could see and be seen by drivers? |
| ☐ Yes | ☐ No | Stop and look left, right and then left again before crossing streets? |
| ☐ Yes | ☐ No | Walk on sidewalks or shoulders facing traffic where there were no sidewalks? |
| ☐ Yes | ☐ No | Cross with the light? |

Locations of problems: _____

**Rating:** (circle one)
**1 2 3 4 5 6**

_____

_____

## 5. Was your walk pleasant?

☐ Yes ☐ Some unpleasant things:

- ☐ Needed more grass, flowers, or trees
- ☐ Scary dogs
- ☐ Scary people
- ☐ Not well lighted
- ☐ Dirty, lots of litter or trash
- ☐ Dirty air due to automobile exhaust
- ☐ Something else _____

Locations of problems: _____

**Rating:** (circle one)
**1 2 3 4 5 6**

_____

_____

## How does your neighborhood stack up? Add up your ratings and decide.

**1.** _____
**2.** _____
**3.** _____
**4.** _____
**5.** _____

**Total** _____

| | |
|---|---|
| **26–30** | Celebrate! You have a great neighborhood for walking. |
| **21–25** | Celebrate a little. Your neighborhood is pretty good. |
| **16–20** | Okay, but it needs work. |
| **11–15** | It needs lots of work. You deserve better than that. |
| **5–10** | It's a disaster for walking! |

Now that you've identified the problems, go to the next page to find out how to fix them.

Now that you know the problems,
you can find the answers.

# Improving your community's score...


| | What you and your child can do immediately | What you and your community can do with more time |
|---|---|---|
| **1. Did you have room to walk?** | | |
| Sidewalks or paths started and stopped<br>Sidewalks broken or cracked<br>Sidewalks blocked<br>No sidewalks, paths or shoulders<br>Too much traffic | • pick another route for now<br>• tell local traffic engineering or public works department about specific problems and provide a copy of the checklist | • speak up at board meetings<br>• write or petition city for walkways and gather neighborhood signatures<br>• make media aware of problem<br>• work with a local transportation engineer to develop a plan for a safe walking route |
| **2. Was it easy to cross streets?** | | |
| Road too wide<br>Traffic signals made us wait too long or did not give us enough time to cross<br>Crosswalks/traffic signals needed<br>View of traffic blocked by parked cars, trees, or plants<br>Needed curb ramps or ramps needed repair | • pick another route for now<br>• share problems and checklist with local traffic engineering or public works department<br>• trim your trees or bushes that block the street and ask your neighbors to do the same<br>• leave nice notes on problem cars asking owners not to park there | • push for crosswalks/signals/ parking changes/curb ramps at city meetings<br>• report to traffic engineer where parked cars are safety hazards<br>• report illegally parked cars to the police<br>• request that the public works department trim trees or plants<br>• make media aware of problem |
| **3. Did drivers behave well?** | | |
| Backed without looking<br>Did not yield<br>Turned into walkers<br>Drove too fast<br>Sped up to make traffic lights or drove through red lights | • pick another route for now<br>• set an example: slow down and be considerate of others<br>• encourage your neighbors to do the same<br>• report unsafe driving to the police | • petition for more enforcement<br>• request protected turns<br>• ask city planners and traffic engineers for traffic calming ideas<br>• ask schools about getting crossing guards at key locations<br>• organize a neighborhood speed watch program |
| **4. Could you follow safety rules?** | | |
| Cross at crosswalks or where you could see and be seen<br>Stop and look left, right, left before crossing<br>Walk on sidewalks or shoulders facing traffic<br>Cross with the light | • educate yourself and your child about safe walking<br>• organize parents in your neighborhood to walk children to school | • encourage schools to teach walking safely<br>• help schools start safe walking programs<br>• encourage corporate support for flex schedules so parents can walk children to school |
| **5. Was your walk pleasant?** | | |
| Needs grass, flowers, trees<br>Scary dogs<br>Scary people<br>Not well lit<br>Dirty, litter<br>Lots of traffic | • point out areas to avoid to your child; agree on safe routes<br>• ask neighbors to keep dogs leashed or fenced<br>• report scary dogs to the animal control department<br>• report scary people to the police<br>• report lighting needs to the police or appropriate public works department<br>• take a walk wih a trash bag<br>• plant trees, flowers in your yard<br>• select alternative route with less traffic | • request increased police enforcement<br>• start a crime watch program in your neighborhood<br>• organize a community clean-up day<br>• sponsor a neighborhood beautification or tree-planting day<br>• begin an adopt-a-street program<br>• initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times) |

| | | |
|---|---|---|
| **A Quick Health Check** | | |
| Could not go as far or as fast as we wanted<br>Were tired, short of breath or had sore feet or muscles<br>Was the sun really hot?<br>Was it hot and hazy? | • start with short walks and work up to 30 minutes of walking most days<br>• invite a friend or child along<br>• walk along shaded routes where possible<br>• use sunscreen of SPF 15 or higher, wear a hat and sunglasses<br>• try not to walk during the hottest time of day | • get media to do a story about the health benefits of walking<br>• call parks and recreation department about community walks<br>• encourage corporate support for employee walking programs<br>• plant shade trees along routes<br>• have a sun safety seminar for kids<br>• have kids learn about unhealthy ozone days and the Air Quality Index (AQI) |

Need some guidance?
These resources might help...

# Great Resources

## WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road , Suite 300
Campus Box 3430
Chapel Hill, NC
27599-3430
Phone: (919) 962-2202
www.pedbikeinfo.org
www.walkinginfo.org

National Center for
Safe Routes to School
730 Martin Luther
King, Jr. Blvd., Suite 300
Campus Box 3430
Chapel Hill, NC 27599-3430
Toll-free 1-866-610-SRTS
www.saferoutesinfo.org

National Center for Bicycling and Walking
Campaign to Make America Walkable
1506 21st Street, NW
Suite 200
Washington, DC 20036
Phone: (800) 760-NBPC
www.bikefed.org

## WALK TO SCHOOL DAY WEB SITES

USA event: www.walktoschool-usa.org
International: www.iwalktoschool.org

## STREET DESIGN AND TRAFFIC CALMING

Federal Highway Administration
Pedestrian and Bicycle Safety Research Program
HSR - 20
6300 Georgetown Pike
McLean,VA 22101
www.fhwa.dot.gov/environment/bikeped/index.htm

Institute of Transportation Engineers
www.ite.org

Surface Transportation Policy Project
www.transact.org

Transportation for Livable Communities
www.tlcnetwork.org

## WALKING COALITIONS

America Walks
P.O. Box 29103
Portland, Oregon 97210
Phone: (503) 222-1077
www.americawalks.org

## PEDESTRIAN SAFETY

National Highway Traffic Safety Administration
Traffic Safety Programs
400 Seventh Street, SW
Washington, DC 20590
Phone: (202) 662-0600
www.nhtsa.dot.gov/people/injury/pedbimot/ped

SAFE KIDS Worldwide
1301 Pennsylvania Ave. NW
Suite 1000
Washington, DC 20004
Phone: (202) 662-0600
Fax: (202) 393-2072
www.safekids.org

## WALKING AND HEALTH

US Environmental Protection Agency
Office of Children's Health Protection (MC 1107A)
Washington, DC 20460
Phone: 202-564-2188
Fax: 202-564-2733
www.epa.gov/children/
www.epa.gov/airnow/
www.epa.gov/air/urbanair/ozone/what.html
www.epa.gov/sunwise/uvindex.html
www.epa.gov/otaq/transp/comchoic/ccweb.htm

President's Task Force on Environmental Health Risks and
Safety Risks to Children
www.childrenshealth.gov

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
Phone: (888) 232-4674
www.cdc.gov/nccdphp/dnpa/readyset
www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm

Prevention Magazine
33 East Minor Street
Emmaus, PA 18098
www.itsallaboutprevention.com

Shape Up America!
6707 Democracy Boulevard
Suite 306
Bethesda, MD 20817
www.shapeup.org

## ACCESSIBLE SIDEWALKS

US Access Board
1331 F Street, NW
Suite 1000
Washington, DC 20004-1111
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov

# Bikeability Checklist

## How bikeable is your community?

### Riding a bike is fun!

Bicycling is a great way to get around and to get your daily dose of physical activity. It's good for the environment, and it can save you money. No wonder many communities are encouraging people to ride their bikes more often!

### Can you get to where you want to go by bike?

Some communities are more bikeable than others: how does yours rate? Read over the questions in this checklist and then take a ride in your community, perhaps to the local shops, to visit a friend, or even to work. See if you can get where you want to go by bicycle, even if you are just riding around the neighborhood to get some exercise.

At the end of your ride, answer each question and, based on your opinion, circle an overall rating for each question. You can also note any problems you encountered by checking the appropriate box(es). Be sure to make a careful note of any specific locations that need improvement.

Add up the numbers to see how you rated your ride. Then, turn to the pages that show you how to begin to improve those areas where you gave your community a low score.

Before you ride, make sure your bike is in good working order, put on a helmet, and be sure you can manage the ride or route you've chosen. Enjoy the ride!


NHTSA
National Highway Traffic Safety Administration

Pedestrian and Bicycle Information Center

U.S. Department of Transportation

Go for a ride and use this checklist to rate your neighborhood's bikeability.

# How bikeable is your community?

**Location of bike ride (be specific):** _____

**Rating Scale:**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| awful | many problems | some problems | good | very good | excellent |

## 1. Did you have a place to bicycle safely?

### a) On the road, sharing the road with motor vehicles?

☐ Yes ☐ Some problems (please note locations):

- ☐ No space for bicyclists to ride
- ☐ Bicycle lane or paved shoulder disappeared
- ☐ Heavy and/or fast-moving traffic
- ☐ Too many trucks or buses
- ☐ No space for bicyclists on bridges or in tunnels
- ☐ Poorly lighted roadways

Other problems: _____

_____

### b) On an off-road path or trail, where motor vehicles were not allowed?

☐ Yes ☐ Some problems:

- ☐ Path ended abruptly
- ☐ Path didn't go where I wanted to go
- ☐ Path intersected with roads that were difficult to cross
- ☐ Path was crowded
- ☐ Path was unsafe because of sharp turns or dangerous downhills
- ☐ Path was uncomfortable because of too many hills
- ☐ Path was poorly lighted

Other problems: _____

_____

**Overall "Safe Place To Ride" Rating:** (circle one)

**1 2 3 4 5 6**

## 2. How was the surface that you rode on?

☐ Good ☐ Some problems, the road or path had:

- ☐ Potholes
- ☐ Cracked or broken pavement
- ☐ Debris (e.g. broken glass, sand, gravel, etc.)
- ☐ Dangerous drain grates, utility covers, or metal plates
- ☐ Uneven surface or gaps
- ☐ Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
- ☐ Bumpy or angled railroad tracks
- ☐ Rumble strips

Other problems: _____

_____

**Overall Surface Rating:** (circle one)

**1 2 3 4 5 6**

## 3. How were the intersections you rode through?

☐ Good ☐ Some problems:

- ☐ Had to wait too long to cross intersection
- ☐ Couldn't see crossing traffic
- ☐ Signal didn't give me enough time to cross the road
- ☐ Signal didn't change for a bicycle
- ☐ Unsure where or how to ride through intersection

Other problems: _____

_____

**Overall Intersection Rating:** (circle one)

**1 2 3 4 5 6**

Continue the checklist on the next page...

## 4. Did drivers behave well?

☐ Yes ☐ Some problems, drivers:

- ☐ Drove too fast
- ☐ Passed me too close
- ☐ Did not signal
- ☐ Harassed me
- ☐ Cut me off
- ☐ Ran red lights or stop sign

Other problems: _____

_____

**Overall Driver Rating:** (circle one)

**1 2 3 4 5 6**

## 5. Was it easy for you to use your bike?

☐ Yes ☐ Some problems:

- ☐ No maps, signs, or road markings to help me find my way
- ☐ No safe or secure place to leave my bicycle at my destination
- ☐ No way to take my bicycle with me on the bus or train
- ☐ Scary dogs
- ☐ Hard to find a direct route I liked
- ☐ Route was too hilly

Other problems: _____

_____

**Overall Ease of Use Rating:** (circle one)

**1 2 3 4 5 6**

## 6. What did you do to make your ride safer?

Your behavior contributes to the bikeability of your community. Check all that apply:

- ☐ Wore a bicycle helmet
- ☐ Obeyed traffic signal and signs
- ☐ Rode in a straight line (didn't weave)
- ☐ Signaled my turns
- ☐ Rode with (not against) traffic
- ☐ Used lights, if riding at night
- ☐ Wore reflective and/or retroreflective materials and bright clothing
- ☐ Was courteous to other travelers (motorist, skaters, pedestrians, etc.)

## 7. Tell us a little about yourself.

In good weather months, about how many days a month do you ride your bike?

- ☐ Never
- ☐ Occasionally (one or two)
- ☐ Frequently (5-10)
- ☐ Most (more than 15)
- ☐ Every day

Which of these phrases best describes you?

- ☐ An advanced, confident rider who is comfortable riding in most traffic situations
- ☐ An intermediate rider who is not really comfortable riding in most traffic situations
- ☐ A beginner rider who prefers to stick to the bike path or trail

## How does your community rate? Add up your ratings and decide.

**(Questions 6 and 7 do not contribute to your community's score)**

**1.** _____
**2.** _____
**3.** _____
**4.** _____
**5.** _____
**Total** _____

| | |
|---|---|
| **26–30** | Celebrate! You live in a bicycle-friendly community. |
| **21–25** | Your community is pretty good, but there's always room for improvement. |
| **16–20** | Conditions for riding are okay, but not ideal. Plenty of opportunity for improvements. |
| **11–15** | Conditions are poor and you deserve better than this! Call the mayor and the newspaper right away. |
| **5–10** | Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again. |

## Did you find something that needs to be changed?

On the next page, you'll find suggestions for improving the bikeability of your community based on the problems you identified. Take a look at both the short- and long-term solutions and commit to seeing at least one of each through to the end. If you don't, then who will?

During your bike ride, how did you feel physically? Could you go as far or as fast as you wanted to? Were you short of breath, tired, or were your muscles sore? The next page also has some suggestions to improve the enjoyment of your ride.

Bicycling, whether for transportation or recreation, is a great way to get 30 minutes of physical activity into your day. Riding, just like any other activity, should be something you enjoy doing. The more you enjoy it, the more likely you'll stick with it. Choose routes that match your skill level and physical activities. If a route is too long or hilly, find a new one. Start slowly and work up to your potential.

Now that you know the problems,
you can find the answers.

# Improving your community's score...

## 1. Did you have a place to bicycle safely?

| | What you can do immediately | What you and your community can do with more time |
|---|---|---|
| **a) On the road?** | | |
| No space for bicyclists to ride (e.g. no bike lane or shoulder; narrow lanes)<br>Bicycle lane or paved shoulder disappeared<br>Heavy and/or fast-moving traffic<br>Too many trucks or buses<br>No space for bicyclists on bridges or in tunnels<br>Poorly lighted roadways | • pick another route for now<br>• tell local transportation engineers or public works department about specific problems; provide a copy of your checklist<br>• find a class to boost your confidence about riding in traffic | • participate in local planning meetings<br>• encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads<br>• ask your public works department to consider "Share the Road" signs at specific locations<br>• ask your state department of transportation to include paved shoulders on all their rural highways<br>• establish or join a local bicycle advocacy group |
| **b) On an off-road path or trail?** | | |
| Path ended abruptly<br>Path didn't go where I wanted to go<br>Path intersected with roads that were difficult to cross<br>Path was crowded<br>Path was unsafe because of sharp turns or dangerous downhills<br>Path was uncomfortable because of too many hills<br>Path was poorly lighted | • slow down and take care when using the path<br>• find an on-street route<br>• use the path at less crowded times<br>• tell the trail manager or agency about specific problems | • ask the trail manager or agency to improve directional and warning signs<br>• petition your local transportation agency to improve path/roadway crossings<br>• ask for more trails in your community<br>• establish or join a "Friends of the Trail" advocacy group |

## 2. How was the surface you rode on?

| | | |
|---|---|---|
| Potholes<br>Cracked or broken pavement<br>Debris (e.g. broken glass, sand, gravel, etc.)<br>Dangerous drain grates, utility covers, or metal plates<br>Uneven surface or gaps<br>Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)<br>Bumpy or angled railroad tracks<br>Rumble strips | • report problems immediately to public works department or appropriate agency<br>• keep your eye on the road/path<br>• pick another route until the problem is fixed (and check to see that the problems are fixed)<br>• organize a community effort to clean up the path | • work with your public works and parks department to develop a pothole or hazard report card or online link to warn the agency of potential hazards<br>• ask your public works department to gradually replace all dangerous drainage grates with more bicycle-friendly designs, and improve railroad crossings so cyclists can cross them at 90 degrees<br>• petition your state DOT to adopt a bicycle-friendly rumble-strip policy |

## 3. How were the intersections you rode through?

| | | |
|---|---|---|
| Had to wait too long to cross intersection<br>Couldn't see crossing traffic<br>Signal didn't give me enough time to cross the road<br>The signal didn't change for a bicycle<br>Unsure where or how to ride through intersection | • pick another route for now<br>• tell local transportation engineers or public works department about specific problems<br>• take a class to improve your riding confidence and skills | • ask the public works department to look at the timing of the specific traffic signals<br>• ask the public works department to install loop-detectors that detect bicyclists<br>• suggest improvements to sightlines that include cutting back vegetation; building out the path crossing; and moving parked cars that obstruct your view<br>• organize community-wide, on-bike training on how to safely ride through intersections |

# Improving your community's score...

(continued)

## 4. Did drivers behave well?

Drivers:
Drove too fast
Passed me too close
Did not signal
Harassed me
Cut me off
Ran red lights or stop signs

**What you can do immediately**

- report unsafe drivers to the police
- set an example by riding responsibly; obey traffic laws; don't antagonize drivers
- always expect the unexpected
- work with your community to raise awareness to share the road

**What you and your community can do with more time**

- ask the police department to enforce speed limits and safe driving
- encourage your department of motor vehicles to include "Share the Road" messages in driver tests and correspondence with drivers
- ask city planners and traffic engineers for traffic calming ideas
- encourage your community to use cameras to catch speeders and red light runners

## 5. Was it easy for you to use your bike?

No maps, signs, or road markings to help me find my way
No safe or secure place to leave my bicycle at my destination
No way to take my bicycle with me on the bus or train
Scary dogs
Hard to find a direct route I liked
Route was too hilly

- plan your route ahead of time
- find somewhere close by to lock your bike; never leave it unlocked
- report scary dogs to the animal control department
- learn to use all of your gears!

- ask your community to publish a local bike map
- ask your public works department to install bike parking racks at key destinations; work with them to identify locations
- petition your transit agency to install bike racks on all their buses
- plan your local route network to minimize the impact of steep hills
- establish or join a bicycle user group (BUG) at your workplace

## 6. What did you do to make your ride safer?

Wore a bicycle helmet
Obeyed traffic signals and signs
Rode in a straight line (didn't weave)
Signaled my turns
Rode with (not against) traffic
Used lights, if riding at night
Wore reflective materials and bright clothing
Was courteous to other travelers (motorists, skaters, pedestrians, etc.)

- go to your local bike shop and buy a helmet; get lights and reflectors if you are expecting to ride at night
- always follow the rules of the road and set a good example
- take a class to improve your riding skills and knowledge

- ask the police to enforce bicycle laws
- encourage your school or youth agencies to teach bicycle safety (on-bike)
- start or join a local bicycle club
- become a bicycle safety instructor

Need some guidance?
These resources might help...

# Great Resources

## STREET DESIGN AND BICYCLE FACILITIES

American Association of State Highway and Transportation Officials
444 North Capitol Street, NW, Suite 249
Washington, DC 20001
Tel: (202) 624-5800
www.aashto.org

Institute of Transportation Engineers
1099 14th Street, NW, Suite 300 West
Washington, DC 20005-3438
Tel: (202) 289-0222
www.ite.org

Association of Pedestrian and Bicycle Professionals (APBP)
P.O. Box 23576
Washington, DC 20026
Tel: (202) 366-4071
www.apbp.org

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road, Suite 300
Campus Box 3430
Chapel Hill, NC 27599-3430
Tel: (919) 962-2202
www.pedbikeinfo.org
www.bicyclinginfo.org

Federal Highway Adminisrtation
400 Seventh Street, SW
Washington, DC 20590
www.fhwa.dot.gov/environment/bikeped/index.htm

## EDUCATION AND SAFETY

National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, D.C. 20590
Tel: (202) 366-1739
www.nhtsa.dot.gov/people/injury/pedbimot/bike/

League of American Bicyclists
1612 K Street NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Bicycle Safety Network
www.cdc.gov/ncipc/bike/default.htm

National Safe Kids Campaign
1301 Pennsylvania Ave NW, Suite 1000
Washington, DC 20004
Tel: (202) 662-0600
www.safekids.org

## PATHS AND TRAILS

Rails to Trails Conservancy
1100 17th Street SW, 10th Floor
Washington, DC 20036
Tel: (202) 331-9696
www.railtrails.org

National Park Service
Rivers, Trails and Conservation Assistance Program
1849 C Street, NW, MS-3622
Washington, DC 20240
www.ncrc.nps.gov/rtca/rtca-ofh.htm

## HEALTH

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
4770 Buford Highway, NE
Atlanta, GA 30341-3724
www.cdc.gov/nccdphp/dnpa
Tel: (770) 488-5692

National Center for Injury Prevention and Control
Childhood Injury Prevention
4770 Buford Highway, NE
Atlanta, GA 30341
www.cdc.gov/ncipc

## ADVOCACY AND USER GROUPS

Thunderhead Alliance
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.thunderheadalliance.org

League of American Bicyclists
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Center for Bicycling and Walking
1506 21st Street, NW, Suite 200
Washington, DC 20036
Tel: (202) 463-6622
www.bikewalk.org

Surface Transportation Policy Project
1100 17th Street, NW, 10th Floor
Washington, DC 20036
Tel: (202) 466-2636
www.transact.org

## OTHER USEFUL RESOURCES

Bikes and transit: www.bikemap.com

Bicycle information: www.bicyclinginfo.org

Bicycle-related research:
www.tfhrc.gov/safety/pedbike/pedbike.htm

Bicycling Magazine: www.bicycling.com/

Bicycle touring:
Adventure Cycling Association
P.O. Box 8308
Missoula, MT 59807
(800) 755-2453
(406) 721-8754
www.adv-cycling.org