

Executive Summary.

Section 1. Introduction, Goals, and Objects.

The *DurhamWalks!* Pedestrian Plan (“Plan”) was completed in 2006 by the City of Durham in order to assess the existing pedestrian environment and make recommendations for policy, program, and facility improvements. The Plan was partially funded by a grant from the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation and Transportation Planning Branch, in addition to significant funding from the City of Durham’s Public Works Department. The study area for this Plan is the City of Durham. The majority of the *DurhamWalks!* planning process was performed by City staff and consultants with the Louis Berger Group, Inc.

The *DurhamWalks!* Pedestrian Plan represents the first dedicated pedestrian plan created for the City in the modern era. Significant features of the Plan include a complete inventory of all sidewalks and hard-surface public trails and an extensive public outreach program conducted through the Partners Against Crime (PAC) District meetings, the Durham Public School System, and other venues such as the internet. The complete inventory includes information about the presence of curb ramps, sidewalk condition, width, and surface type.

As an integral part of the *DurhamWalks!* Pedestrian Plan process, a Stakeholder Committee was formed to help guide the Plan and related public outreach activities. This citizen and staff committee developed vision and mission statements for the Plan.

Vision Statement

Visitors to and residents of the City of Durham walk to their destinations often because Durham has a safe, accessible, convenient and comfortable network of sidewalks, trails, and other pedestrian facilities.

Mission Statement

The City of Durham is committed to creating and maintaining a safe, accessible network of pedestrian facilities for all residents, and implementing policies and programs to inform our citizens and enforce our laws.

Goals

- 1) **Facility Quantity.** To increase the number of pedestrian facilities: sidewalks, trails, crosswalks, pedestrian safety improvements at intersections, and other related amenities in the City of Durham.
- 2) **Facility Quality.** To improve the quality of both future and existing pedestrian facilities in Durham, especially in those areas that are suffering the worst from poor conditions.
- 3) **Safety and Security.** To enhance real and perceived pedestrian safety while increasing pedestrian activity.
- 4) **Coordination.** To guarantee that those people and agencies responsible for providing transportation and land use options assume pedestrian considerations in their everyday policies and practices.

Section 2. Evaluating Current Needs.

This section provides insight into Durham's population demographics and travel behavior as well as a brief overview of key themes generated through the survey and other public involvement efforts.

Key results of the demographic analysis found that:

- **Race:** Durham, population 187,183 (2000 US Census), is a very diverse city, with 46 percent of the population Caucasian, 44 percent African American, and 8 percent Hispanic.
- **Age:** Durham's median age is 31.0 years old, while the median age for both the state and nation is 35.3 years old. This lower median age may be attributed to the large student population associated with the universities and colleges in the city.
- **Education and Income:** Educational attainment levels and median income in Durham are higher than both the state and national averages, as is Durham's poverty rate.
- **Vehicle Ownership:** In terms of vehicle ownership, the city has higher than state and national averages in percent of households with no vehicles available and percent of households with only one vehicle available, and lower than state and national averages in percent households with 2 or more vehicles available.
- **Work Commute:** Reflecting vehicle ownership, 6.6 percent of Durham's workers take public transit or walk to work – higher than the state-wide rate of 2.8 percent.

This demographic information shows that Durham’s population is full of pedestrians – from students without cars, to lower income populations that can’t afford cars, to the elderly who no longer drive. Indeed, Durham’s population already has pedestrian-oriented tendencies, reflected in the percent of workers who commute to work via transit or walking.

The Durham Pedestrian Plan process was accompanied by an intensive public involvement and outreach program. The major elements of this program included:

- Stakeholder Committee
- Public Workshops in July 2005 and February 2006
- Telephone Hotline
- Project Website
- Surveys
- Attendance at community meetings: PAC and INC
- Flyers on buses, at public libraries, and recreation centers
- Announcements in newspapers and on the radio
- Periodic newsletters

The survey received a total of 932 responses, 833 from online surveys and 99 from handwritten surveys. In general most survey responses lament the pedestrian un-friendliness of the city, but at the same time applaud the current pedestrian planning efforts. Most survey respondents would like to walk to take care of errands, shop, commute to work, go to school, or eat at a restaurant but many state that this is impossible due to the lack of sidewalks. Many responses provide reasons for making the City more pedestrian-friendly, all of which center around improving the quality of life. Some of the reasons respondents stated were: economic benefits, health benefits, environmental benefits, safety benefits, and attractiveness to newcomers. It is notable that none of the survey respondents cited “traffic benefits” as a reason to make Durham more walkable. It is important to note that the survey responses are not a statistically-correct random sampling of Durham’s population and therefore the results of the survey may not reflect all of the needs of Durham’s citizens. However, the survey is a useful tool for guidance in identifying major needs in the community.

Several major themes were generated from the public input. Some of these were:

1. Build more sidewalks.
2. Repair old sidewalks.
3. Connect existing sidewalks where there are gaps or “missing links.”

In addition, survey results indicated that the top three improvements that would cause respondents to walk more were: 1. Better or more sidewalks, 2. Better or more access to places, and 3. Safer Intersections. Survey respondents also indicated that the top three items of most importance to them were: 1. Presence of sidewalks, 2. Personal Security, and 3. Sidewalk Condition. This input was used to help prioritize the construction of future projects and to identify areas of emphasis for the Plan.

Section 3. Existing Plans, Policies, and Programs.

In this section, a review was conducted of existing Durham plans, policies, and programs that relate to pedestrian facility development, education, and enforcement. The following items were reviewed:

- Durham Comprehensive Plan
- Unified Development Ordinance (UDO)
- Durham Trails and Greenways Master Plan
- Parks and Recreation Master Plan
- Design Guidelines Manual
- Subdivision Regulations
- Durham Code of Ordinances
- Durham Public Schools Site-Determination Policies

Recommendations were made for each of the above items.

This section also reviews Durham’s policy for constructing new sidewalk, such as the payment-in-lieu fee and sidewalk petition process and compares it with those of other cities of similar size. Some recommendations for changes to Durham’s policies include:

- **Capital Improvements Program:** It is recommended that Durham allocate a consistent level of funding out of their yearly Capital Improvements Program to construction of sidewalk and other pedestrian-related facilities. As can be seen in the review of other cities, many cities with successful pedestrian programs, including Charlotte and Winston-Salem, have allocated funding

in their budget each year to pedestrian-related activities. A consistent source of funding is necessary in order to plan for and prioritize pedestrian facilities, as well as reinforce the City's commitment to pedestrian-friendliness.

- **Sidewalk Payment-in-Lieu.** For new neighborhoods, sidewalks are currently required to be constructed as part of the approval of a development plan or site plan. Subject to the approval of the Development Review Board and only under specific circumstances, a fee can be paid rather than construct sidewalk along the Public Right of Way. The rate of Payment in Lieu for Sidewalk is set at \$20.00 per linear foot, less the current sidewalk assessment rate which is \$5.00 per linear foot. This yields a current Payment in Lieu rate for sidewalk of \$15.00 per linear foot along the frontage of the subject lot. This plan proposes a change to the payment-in-lieu fee, whereby the fee is raised to \$65 per linear foot in order to more accurately account for the real cost of installing sidewalk with curb and gutter. This money will go into a fund for future sidewalk construction.
- **Petition Process:** Advertise and promote the sidewalk petition process, so that Durham residents can be made more aware of the options available to them for requesting sidewalk. Develop an online request form and maintain a list of requested sidewalk projects online.

Section 4. Pedestrian System Plan.

This section describes the existing pedestrian system and its related facilities, and develops key projects. The section assesses the following existing conditions: major roads, existing sidewalk (Figure 1), sidewalk and trail condition (Figure 2), ADA accessibility (Figure 3), transit, schools, and land uses. Key highlights from this assessment include:

- **Sidewalk Mileage.** Durham has approximately 1,124 miles of road and 409 miles of sidewalks, which makes for a ratio of approximately one mile of sidewalk to 2.7 miles of road (.36:1 miles sidewalk to road). In an ideal situation, this ratio would be around 1.75 miles of sidewalk to 1 mile of road.
- **Sidewalk Condition.** Seventy-eight percent, or 320 miles, of the City's sidewalk is in "good" condition.
- **Accessibility.** For the purposes of this plan, ADA accessibility is defined as the presence of a curb ramp at both ends of the sidewalk segment. A non-compliant segment of sidewalk has either no curb ramps or a curb ramp at only one end.
- **Transit.** The transit system and the pedestrian system are critically dependent on each other to function well. Many of the people who use transit are also the main users of the

pedestrian system. Durham has two major transit providers: the Durham Area Transit Authority and the Triangle Transit Authority.

- **Schools.** Schools are a prime opportunity to promote walking, both for the students and for the employees who work there. In addition, schools are locations that are already the focal point of much car use and pedestrian activity. As part of the Plan, students from twenty elementary schools in Durham performed pedestrian audits of the neighborhoods near their schools.

Project development was broken into several types:

- 210 Corridor Projects
- 21 Schools Projects
- Over 274 Roads for Maintenance Projects
- 79 Intersection Projects
- 5 corridors and 9 intersections studies

These items are listed in entirety in Appendices 3 and 4 and prioritized in Section 5.

Figure 1. Map of existing sidewalk in Durham. For a larger version, please see www.durhamnc.gov/durhamwalks.

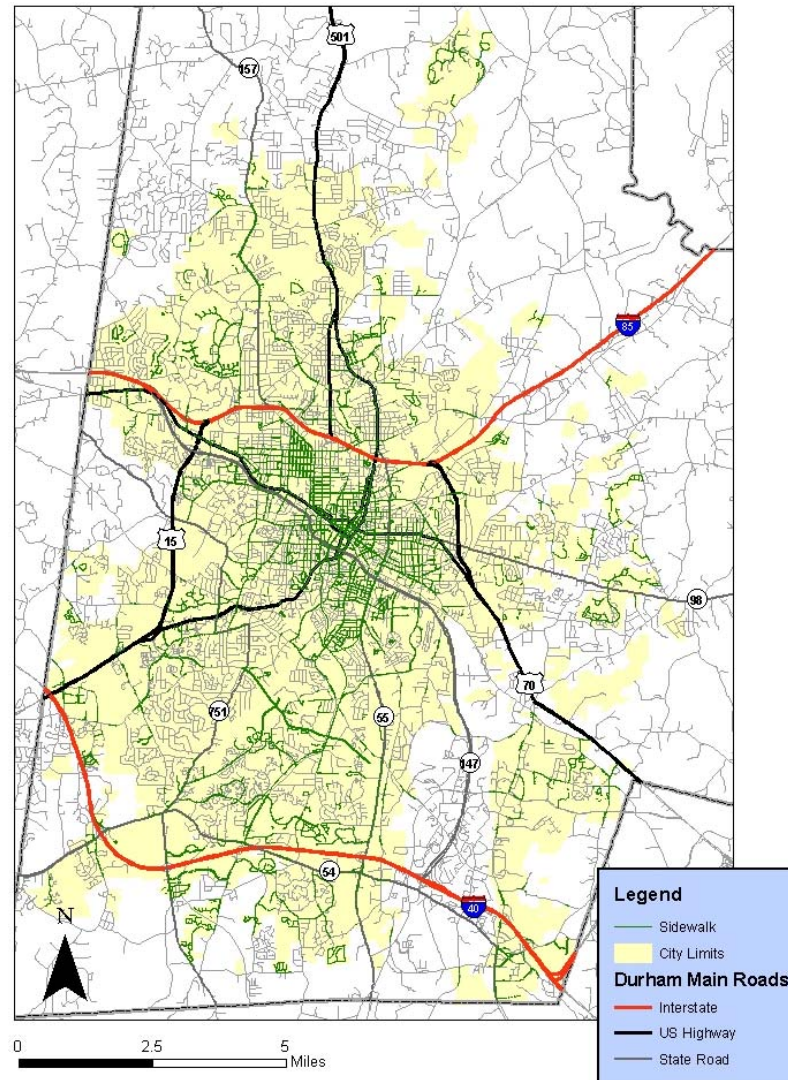


Figure 2. Sidewalk condition in Durham. For a larger version, please see www.durhamnc.gov/durhamwalks.

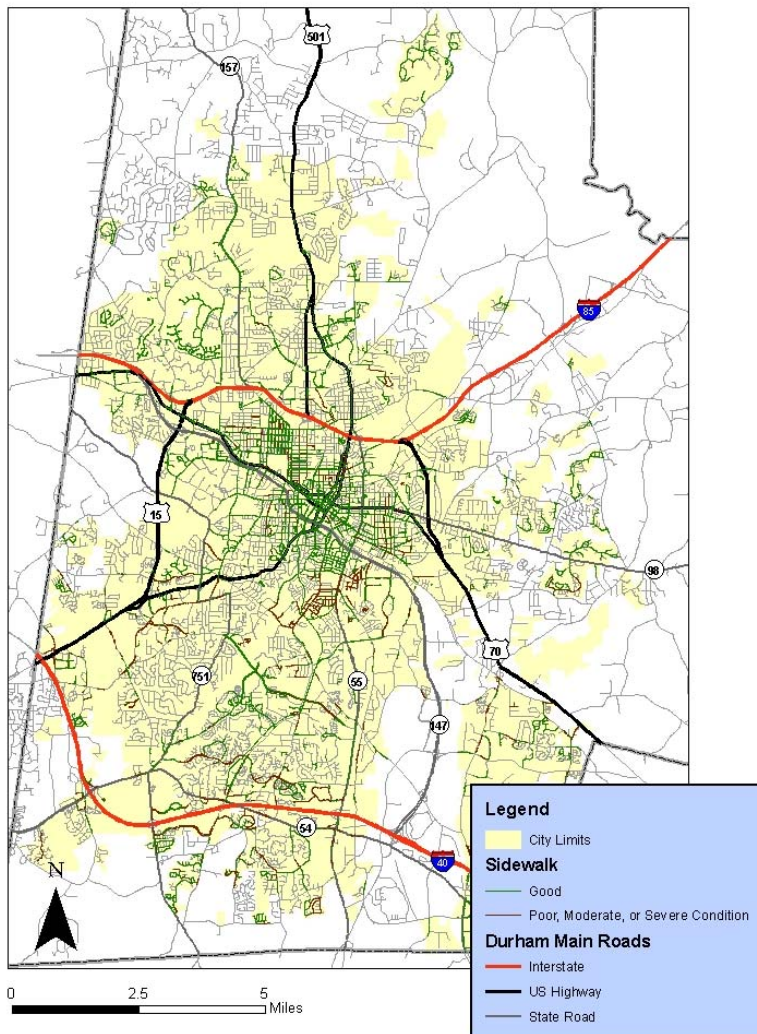
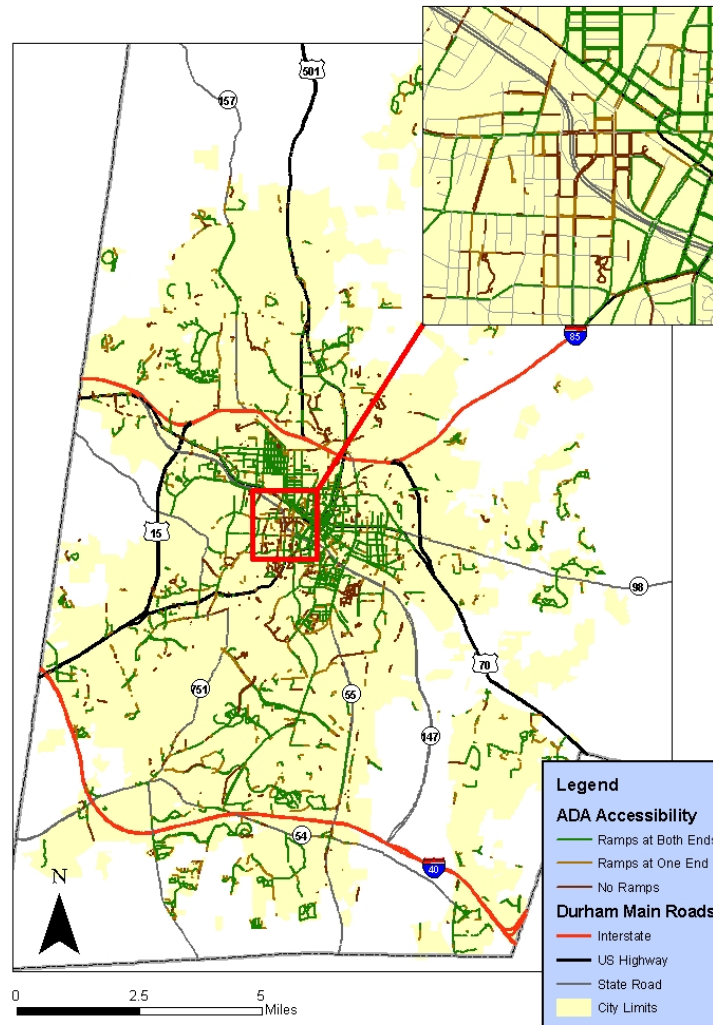


Figure 3. Locations of ADA-compliant sidewalk in Durham. For a larger version, please see www.durhamnc.gov/durhamwalks.



Section 5: Project Prioritization.

This section describes the project prioritization process and proposed implementation plan for project construction. Included in the chapter is a discussion of the project ranking method, and preliminary cost estimates.

Corridor Projects: Corridor projects were prioritized based on the following factors: project type, presence of transit, proximity to schools, safety need, road type, nearby compatible land uses, public comments, proximity to parks and recreation centers, and the presence of greenways. “A” rank projects are listed in Table 1.

Table 1. "A" Rank corridor projects and their extents.

Road Name	From	To
AlstonA6*	Carpenter Fletcher	Sedwick
Avondale	Roxboro	Geer
Cameron	Erwin	Duke University
Campus Walk	Moreene	LaSalle
CheekPW2	Geer	Hardee
Club1	Ruffin	Ambridge
CornwallisA1*	15-501	Roxboro
DearbornA1	Old Oxford	Ruth
FayettevilleA2	Woodcroft	MLK
GarrettA1	Hope Valley	Swarthmore
HillandaleA1	Peppertree	Carver
HillandaleA2*	Carver	I-85
Hope Valley A1	HWY 54	Swarthmore
Hope Valley A4	Archdale	15-501
LaSalleA1	Kangaroo	Erwin
Markham2	Washington	Avondale
Roxboro2	Pacific	Murray
Roxboro6	Enterprise	Cornwallis
University3	Old Chapel Hill	Hope Valley

**Portions of this project are part of a proposed incidental project in the 2006 – 2012 State TIP.*

PLEASE NOTE: The numbers and letters after road names have been added for the purposes of creating a unique identifier for each proposed project. This will allow projects that may occur on the same road but in different locations to be distinguished one from another.

Intersection Projects: The intersection project prioritization was based on the following factors: ADA compliance, safety, need, public comments, land use compatibility, the presence and condition of sidewalk, road type, and the presence of transit, schools, parks, or greenways. “A” rank intersection projects are listed in Table 2.

Table 2. "A" Rank intersection projects.

15-501 and Garrett*	Garrett and Trotter Ridge
Academy and Cranford	Glendale and Acadia
Broad and Main	Glendale and Club
Club and Guess	Hillandale and I-85*
Club and I-85	Hillsborough and Lasalle
Duke and I-85	HWY 54 and Fayetteville
Duke and Main	HWY 55 and HWY 54
Duke University and Chapel	Lasalle and Erwin
E Forest Hill and University	Mt. Sinai and Erwin
Fayetteville and Barbee	Roxboro and Club
Fayetteville Crossing for SW Elementary	Roxboro and I-85

**Intersection is part of a proposed project with pedestrian-related features in the 2006 – 2012 State TIP.*

Maintenance Projects. The sidewalk inventory provided the basis for identifying priority sidewalk maintenance projects. Sidewalks with severe deterioration are listed in Table 3. In addition to these sidewalks, several greenways displayed severe deterioration as well; their locations were: Southern Boundary Park, Sherwood Park, Lyon Park, and Ellerbee Creek Trail. These sidewalk locations will serve as the priority projects for the City.

Table 3. Priority maintenance projects.

Street Name	From	To	Length (Miles)
Angier	Alston	Holman	0.06
Concord	Lawson	Otis	0.09
Conyers	Wilkerson	End	0.02
Duke	Morehead	Proctor	0.07
Ellis	New Haven	Taylor Ridge	0.07
Farthing	Ellerbee	Club	0.01
Formosa	Otis	Concord	0.03
Garrett	15-501	University	0.05
Geer	Foster	North	0.19
Gregson	Minerva	Morgan	0.25
Gurley	Mallard	Primitive	0.02
Hillsborough	Hale	Carolina	0.05
Knox	Hale	Carolina	0.06
Lakewood	Fayetteville	Old Fayetteville	0.02
Martin Luther King Jr	Dixon	Hope Valley	0.01
Morehead	Vickers	Duke	0.12
Roxboro	Corporation	Dowd	0.06
Taylor	Hyde Park	Maple	0.06
Trinity	Shawnee	Rosetta	0.14
University	Cornwallis	Woodridge	0.04

Section 6. Standards and Guidelines.

The purpose of this section is to act as a stand-alone guidance document for the consideration, design, and construction of pedestrian facilities in Durham. The recommended guidance borrows heavily from pedestrian design guidelines published by the North Carolina Department of Transportation, American Association of State Highway and Transportation Officials, and the Federal Highway Administration of USDOT. Guidance is provided for on-road pedestrian facilities, off-road pedestrian facilities, mid-block crossings, and special features such as curb ramps, traffic calming, underpasses, and parking facilities.

Section 7. Programs and Policy Recommendations.

The “Three E’s” of pedestrian activity – Education, Enforcement, and Encouragement – are important supports to capital improvements. This section describes those programs that are recommended for implementation and key policy recommendations to support the “Three E’s”.

Programs discussed in this section are as follows:

- Walk-to-Work Day
- Safe Routes to School
- School-based Safety and Education Assembly
- Walk-to-School Day
- School Crossing Guard Training Program
- Walkable Communities Workshop
- Senior Safety Program
- Red Flag Crossing Program
- Walkability Training
- Sting Enforcement
- Passive Enforcement
- Spot Improvement Program
- School Strides
- Durham–focused Pedestrian Safety Brochure
- Pedestrian Awareness Task Force

Policy Recommendations include:

- Pedestrian and Transit-related recommendations:
 - Expand the marketing budget of DATA
 - Provide cursory review opportunities for any new/proposed development
 - Modify the current “checklist” of items that should be reviewed for each new/proposed development
 - Create a “Universal Access” Award
- Pedestrian Policy recommendations:

- Promote the existing sidewalk petition process in order to make residents more aware of it, and therefore more likely to use it. Currently, Durham residents can expedite sidewalk construction on neighborhood streets by providing the City with a petition for sidewalk signed by over 50 percent of the property owners along the length of the project, who also represent over 50 percent of the property along the project. Once the City has constructed the sidewalk, residents will then pay a \$5 per foot assessment for the sidewalk and \$20 per foot for any new curb and gutter.
- Increase the current payment-in-lieu fee to \$65 per linear foot for new and redeveloped properties, as discussed in Section 3. This is the most realistic baseline cost for sidewalk construction based on recent city experience.
- Develop a sidewalk connectivity policy that requires new or improved developments to connect sidewalks from the development to the nearest corner or existing sidewalk/multi-use trail.
- Establish Pedestrian Activity Centers. There are several areas within Durham that, through field observation, presence of pedestrian facilities, accident records, and other information, can be identified as areas that already have high levels of pedestrians. These areas should be designated as Pedestrian Activity Centers, where their pedestrian-friendly nature will be protected and preserved, and may be targeted in the future for special pedestrian improvements.

Section 8. Implementing the Plan.

This section of the Plan discusses how to implement the recommendations made in the previous sections by recommending potential partners and funding sources. This section also provides recommendations for various benchmarks to be used in tracking the Plan's implementation.