



CITY OF DURHAM | NORTH CAROLINA

Date: February 21, 2011

To: Thomas J. Bonfield, City Manager
Through: Theodore L. Voorhees, Deputy City Manager
Mark Ahrendsen, Transportation Director
Ed Venable, Manager of Engineering and Stormwater
From: Dale McKeel, Bicycle and Pedestrian Coordinator
Subject: DurhamWalks! Plan Follow-up Report

Executive Summary

At the February 4, 2010 work session, the Transportation Department presented a report on the status of the implementation of the DurhamWalks! Pedestrian Plan, adopted in 2006. That report discussed the purpose of the DurhamWalks! Plan, provided an overview of the four major goals of the plan, and discussed progress on those goals. The purpose of this memo is to provide information requested by the City Council members at the February 4, 2010 work session and to discuss next steps in the implementation of the plan.

Recommendation

Staff recommends that City Council receive the report and endorse these follow-up actions:

1. Use Revised Ranking Methodology. It is recommended that staff use the revised DurhamWalks! ranking methodology that gives greater weight to sidewalk corridors near schools and park / recreation centers.
2. Prepare Revised Rankings. It is recommended that staff, with assistance from the Bicycle and Pedestrian Advisory Commission, update the sidewalk corridor rankings using the revised methodology and taking into account changes that have occurred since the DurhamWalks! Plan was adopted in 2006. The changes that will be incorporated into the rankings include completed sidewalks, new schools and parks, changes to the city limits, changes to bus routes, new crash data, etc.
3. Prepare Sidewalk Construction Priority List for City Council Review and Adoption. It is recommended that staff, with assistance from the Bicycle and Pedestrian Advisory Commission, use the revised rankings to prepare a sidewalk construction priority list. This list will be reviewed and adopted by City Council. Sidewalk construction projects will be selected from the list as funds and staff resources are available. The list will be developed by closely reviewing the sidewalk corridor rankings, but will also consider other factors such as project length, staff resources, funding, unique opportunities, sidewalk petitions, constructability challenges, etc. The list will be updated, reviewed, and adopted by City Council every three to five years.

Staff proposes to bring the revised corridor rankings and construction priority list to City Council over the next few months. This will allow staff to complete the data collection and mapping tasks associated with preparing the revised rankings and construction priority list.

Background

The DurhamWalks! Pedestrian Plan was adopted in 2006. At the February 4, 2010 work session staff provided a report on the DurhamWalks! Plan, which discussed the purpose of the plan, provided an overview of the plan's four major goals, and discussed progress on those goals. The report is on-line at:

http://www.durhamnc.gov/agendas/2010/cws20100215/208206_6863_271039.pdf

Issues and Analysis

City Council members requested additional information on several topics at the February 4, 2010 work session. This section provides the information requested by City Council members.

Priority Ranking for Sidewalks

1. *City Council requested that staff re-rank the sidewalk corridor projects by updating the pedestrian crash data and putting more weight on safety, access to schools, and access to parks / recreation centers?*

The DurhamWalks! Plan identified and ranked sidewalk corridor projects. The following factors were used in ranking projects:

- Project type. There are three project types: (1) filling in existing sidewalk gaps in a corridor; (2) new sidewalk on both sides for the entire length of the corridor; (3) new sidewalk on one side of a corridor when there's already a sidewalk on one side.
- Presence of transit (near a bus route).
- Safety need (based on reported vehicle-pedestrian crashes).
- Proximity to schools.
- Road type (arterial, collector, or neighborhood street).
- Compatible land uses (used to suggest potential for sidewalk use).
- Public comments.
- Proximity to parks and recreation centers.
- Proximity to existing or proposed greenway trails.

As requested, the sidewalk corridor projects have been re-ranked by updating pedestrian crash data and giving greater weight to locations near schools and parks / recreation centers. The rankings have also been updated to include schools and parks that have been built since 2006. The original and revised rankings are illustrated in Attachment A.

Funding and Progress

2. *What are the funding sources for sidewalk repair and construction?*

Funding sources used over the past several years include:

- 2005, 2007, and 2/3 Bond funds
- Federal funds allocated by the DCHC MPO (including STP-DA and CMAQ funds)
- Federal funds allocated by NCDOT through a competitive process (Enhancement and Safe Routes to Schools funds)
- Federal funds provided through ARRA (stimulus) funds
- Sidewalk payment-in-lieu funds
- CIP federal/state funds – used to provide the City’s required match for sidewalk included in NCDOT highway projects

In the past, the City also spent CIP Pay-as-you-go funds on sidewalks.

3. *Have sidewalk bond funds been spent in a timely manner?*

Attachment B provides an overview of bond fund expenditures. As noted in the report, ARRA (stimulus) funds also have been used for sidewalk construction, allowing bond funds to remain available for future sidewalk construction.

4. *Provide a list of sidewalk projects that are completed and underway since the adoption of the DurhamWalks! Plan.*

See Attachment C.

5. *What is the cost of sidewalk per linear foot (LF) and cost per mile?*

Generally, the cost of sidewalk is \$30-\$60 per LF and \$158,400-\$316,800 per mile. Cost can vary greatly based on several factors, such as whether the street has existing curb and gutter and the width of the right of way.

6. *What is the total estimated cost of completing all the sidewalks recommended by the DurhamWalks! Plan?*

The plan recommended the construction of about 170 miles of new sidewalks. Based on a cost of \$158,400-\$316,800 per mile, the cost to construct 170 miles of sidewalk ranges from \$26.9 million to \$53.9 million.

7. *How long will it take us to construct the sidewalk projects in the Plan?*

About 19 miles of new sidewalk were constructed by the city and NCDOT in the five-year period from 2006 to 2010, for an average of 3.8 miles of sidewalk per year. At this rate, it will take about 45 years to construct the 170 miles of new sidewalk recommended by the plan.

However, please note that during the 2006-2010 period (1) the City was also repairing hundreds of feet of existing sidewalk and reconstructing sidewalks as part of the downtown streetscape project, and (2) the private sector constructed thousands of feet of sidewalk as part of development projects.

8. *Does ribbon paving limit the construction of sidewalks? What are the engineering consequences of ribbon paving a street relative to sidewalks?*

On ribbon-paved streets, both NCDOT and the City of Durham typically require that new sidewalks be placed behind a swale. While each situation is unique, constructing a sidewalk behind a swale often means that additional right-of way is needed and that additional clearing/grading is necessary behind the swale before the sidewalk can be constructed. On ribbon-paved streets, it is sometimes necessary to construct curb/gutter in order to construct a sidewalk.

9. *How much have we spent on ADA ramps and how much will we spend to complete them?*

As discussed in Attachment B, \$850,000 has been set aside in bond funding for ADA repairs. Additional bond funds are available if needed for this work.

Petition Sidewalks

10. *For petition sidewalks, what is the cost to the City and what is the participation cost via assessment to the property owner?*

The City's cost is answered in # 6. The property owner is assessed \$5 per LF. Therefore, the City pays an estimated 83-92% of the cost of construction.

11. *How does Durham's sidewalk petition cost of \$5 per linear foot for petition sidewalk compare to other cities?*

Cities have chosen many different methods to process and fund sidewalk petitions from residents. In Raleigh and Fayetteville, the assessment rate is \$6 and \$10 per linear foot, respectively (Raleigh also assesses for sidewalk repairs). Raleigh is considering eliminating its assessment program and paying 100 percent of all sidewalk costs. In Greensboro and Charlotte, the City pays 100 percent of the costs. Asheville pays 100 percent, but will only accept petitions for sidewalks that are on the city's sidewalk priority list. Attachment D provides additional information on how other cities in North Carolina handle sidewalk petitions.

12. *Do we currently have petition sidewalk projects and if so, how much will it cost to construct them? Is there any existing funding?*

Attachment E provides a list of the nine petitioned sidewalks that have been ordered by the City Council. The total estimated cost for these sidewalks is \$582,467. Funding has been provided through the CIP for one petition project, Wilderness Road sidewalk, which is currently under contract.

13. *Who do residents contact for sidewalk petitions?*

The contact person for petition sidewalks is Nathan McHenry, Engineering Services Supervisor in the Public Works Department, at 560-4326, ext 30252.

Specific Locations

14. *The sidewalk on Gregson Street near the Durham School of the Arts is in need of repair.*

As shown in Attachment F, Street Maintenance crews made temporary repairs to three locations on Gregson between Trinity and Morgan. At the March 15, 2010 meeting, the City Council approved an extension to Contract SW-19. This extension is repairing an additional 50 sites consisting of over 9,600 feet of sidewalk, including portions of Gregson Street, where repairs are being made to 1200 feet of sidewalk on the west side of the street. In addition, Durham Public Schools recently submitted a site plan for the School of Arts that includes the repair of several hundred feet of sidewalk on the east side of Gregson between Minerva and Morgan.

15. *When will the City construct sidewalk on S. Alston Ave sidewalk from Campus Hills Park to Riddle Road?*

The Durham-Chapel Hill-Carrboro MPO has allocated federal CMAQ funds for the construction of this sidewalk in 2015. If priorities change or other funding sources become available, it may be possible to expedite this project.

16. *Look at the need for a sidewalk between North Roxboro Road in the vicinity of the Old Farm neighborhood?*

Sidewalk on the section of North Roxboro Road in the vicinity of the Old Farm neighborhood is a priority B in the DurhamWalks! Plan. Priority B does not mean that this section of sidewalk is a low priority; in fact, it is a high priority -- just not as high as a priority A. A significant barrier to pedestrian movement in this area is the bridge over the Eno River, which does not have a sidewalk (however, there is an adjacent pedestrian bridge, but it is not accessible from the shoulder of North Roxboro Road).

17. *Pedestrian signals are needed at the NC 55-Riddle Road intersection.*

The City has added pedestrian signals at the NC 55-Riddle Road intersection. In 2010, pedestrian signals were added to 13 intersections in the City of Durham.

Safety

18. *There is a concern about pedestrian safety at the Fayetteville-Pilot intersection (near Food Lion).*

There are currently pedestrian signals on the north and west legs of the Fayetteville-Pilot intersection and at the American Tobacco Trail crossing just north of the intersection. Over the past three years, there have been two pedestrian and two bicycle crashes in the vicinity of the intersection. City traffic engineering staff have reviewed the crash reports and cannot identify a preventable pattern or other engineering improvements that could be made to improve safety (bicycle, pedestrian, and motor vehicle) at the intersection or ATT crossing.

19. *Why have we not seen a reduction in pedestrian crashes in Durham?*

There is no clear answer. Over the past ten years, pedestrian crashes have been trending upward in Durham and some other NC cities, including Charlotte and Raleigh, but trending downward in others, including Greensboro, High Point, Wilmington, and Cary. The UNC Highway Safety Research Center is currently reviewing pedestrian crash data as part of the project to promote pedestrian safety education and enforcement in Durham. Pedestrian crashes occur in locations where there is sidewalk, and in locations where there is not sidewalk.

20. Education program should include focus on texting while driving.

This concern has been passed on to the UNC Highway Safety Research Center staff for consideration as part of the pedestrian safety education and enforcement project.

21. There is a concern about the number of pedestrian crashes on Holloway Street.

City staff shares the concern about pedestrian safety on Holloway Street. The Holloway Street corridor was studied as part of the DurhamWalks! Plan (see Appendix 3). The plan noted the high number of pedestrians in the corridor and lack of sidewalks in many areas, particularly east of Guthrie Street. Several notes:

- Sidewalks, crosswalks, and pedestrian signals were recently added at the Junction Road and Hoover Road intersections, where there have been a number of pedestrian crashes over the past five years.
- The East End Connector project (construction in FY 2014) will add sidewalk to Holloway Street between US 70 and Miami Boulevard. City staff and the Bicycle and Pedestrian Advisory Commission will need to closely review the design of pedestrian facilities for this project. There are currently many logistical challenges to providing pedestrian signals or crosswalks at the five-leg intersection of Miami-Holloway-Gary; perhaps these can be addressed as part of the East End Connector project.
- The City's long-term list includes adding pedestrian signals at the Holloway-Raynor and Miami-Raynor intersections. It is anticipated that the Miami-Raynor signals will be installed in the 2010-2011 fiscal year.

Other

22. PACS should be more involved in pedestrian issues.

During the development of the DurhamWalks! Plan, there was extensive public outreach conducted through PAC meetings. City staff would welcome the opportunity to attend PAC meetings to discuss the DurhamWalks! Plan and pedestrian issues.

23. Are the pedestrian paths in Ocracoke a possible model for some streets in Durham?

City staff spoke to the NCDOT District Engineer who oversees streets in Ocracoke, which is unincorporated. Concrete shoulders about two-feet wide have been added to both sides of NC 12 within the village area. While not intended to be a pedestrian facility, the shoulder is used by pedestrians in the old coastal village where sidewalks are generally not feasible due to right-of-

way constraints and the proximity of buildings to the roadway. The walkways work reasonably well in Ocracoke, in part due to the high volumes of pedestrian and the low speed of adjacent vehicles.

As mentioned previously, both NCDOT and the City of Durham typically require that new sidewalks be placed behind a swale or a curb. In more rural areas or low volume streets, a paved or unpaved shoulder can provide a place for pedestrians to walk. Unfortunately, on many ribbon-paved streets in Durham with high volumes of pedestrians (such as Dearborn, Archdale, Horton, and Cook roads), there is not much shoulder adjacent to the roadway. So even if the City or NCDOT wanted to add a concrete shoulder similar to those in Ocracoke, the swales adjacent to the road would need to be moved in order to widen the shoulder. Given the cost of moving the swales, as well as the higher speeds of vehicles on these streets as compared to Ocracoke, City staff believes that funds would be better spent building standard sidewalks either behind a curb or behind a swale.



Concrete shoulder in Ocracoke Village (courtesy Google Streetview)

24. *City Council should receive more regular updates on status of implementation. Residents should be able to go to website and see the status of sidewalks (funded / unfunded / construction date, etc.)*

Noted. The Public Works website contains detailed information about active and completed sidewalk projects:

http://www.durhamnc.gov/departments/works/construction_projects_active.cfm

http://www.durhamnc.gov/departments/works/construction_projects_completed.cfm

25. *There needs to be more diversity on the Bicycle and Pedestrian Advisory Commission (race / geographic location / gender)*

Noted. Recent appointments have increased the number of females and minorities on the Commission. Currently there are 16 members: 3 White females / 2 African-American males / 1 Asian male / 10 White males.

Alternatives

Staff recommends that City Council receive the report and endorse these follow-up actions:

1. Use Revised Ranking Methodology. It is recommended that staff use the revised DurhamWalks! ranking methodology that gives greater weight to sidewalk corridors near schools and park / recreation centers.
2. Prepare Revised Rankings. It is recommended that staff, with assistance from the Bicycle and Pedestrian Advisory Commission, update the sidewalk corridor rankings using the revised methodology and taking into account changes that have occurred since the DurhamWalks! Plan was adopted in 2006. The changes that will be incorporated into the rankings include completed sidewalks, new schools and parks, changes to the city limits, changes to bus routes, new crash data, etc.
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Financial Impacts

There is no cost associated with receiving this report.

SDBE

This item does not require review by the Equal Opportunity Equity Assurance Department.

Attachment A. Revised sidewalk corridor ranking.

Sidewalk corridors have been re-ranked using 2004-2009 crash data and by weighting parks and schools 50 percent higher than in the original plan.

Road Name	Extent From	Extent To	2006 Total Score	2011 Total Score	2006 ABC Rank	2006 Number Rank	2011 Number Rank	Change in Rank ¹
Hope Valley A1	HWY 54	Swarthmore	14	15.5	A	1	1	0
AlstonA3	Cecil (NC 55)	Riddle	12	13.5	B	18	2	16
DearbornA1	Old Oxford	Ruth	12	13.5	A	2	3	-1
FayettevilleA2	Woodcroft	MLK	11.5	13	A	11	4	7
GarrettA1	Hope Valley	Swarthmore	11.5	13	A	3	5	-2
Club1	Ruffin	Ambridge	11.25	12.75	A	7	6	1
HWY 54 PW2	Alston	Miami	11.75	12.75	B	No Score	7	N/A
Roxboro2	Pacific	Murray	12.25	12.75	A	No Score	8	N/A
HillandaleA2	Carver	I-85	11.5	12.5	A	4	9	-5
Roxboro6	Enterprise	Cornwallis	11	12.5	A	17	10	7
Cameron	Erwin	Duke University	10.5	12	A	9	11	-2
Campus Walk	Morreene	LaSalle	11	12	A	10	12	-2
LaSalleA1	Kangaroo	Erwin	11	12	A	16	13	3
AlstonA6	Carpenter Fletcher	Sedwick	10.5	11.5	A	12	14	-2
Markham2	Washington	Avondale	11	11.5	A	5	15	-10
University3	Old Chapel Hill	Hope Valley	10.5	11.5	A	6	16	-10
AndersonA1	Lewis	Yearby	9.75	11.25	B	23	17	6
Cook - Juliette	Fayetteville	Fayetteville	9.75	11.25	B	42	18	24
HillandaleA1	Peppertree	Carver	10.25	11.25	A	8	19	-11
CornwallisA1	Chapel Hill Rd	Roxboro	10	11	A	14	20	-6
DukeA1	Roxboro	Carver	9.5	11	B	19	21	-2
Erwin2	Cameron	LaSalle	10	11	B	28	22	6
GuessA2	Carver	Horton	10	11	B	20	23	-3
Hope Valley A4	MLK (Was Archdale)	15-501 Business	10	11	A	15	24	-9
AlstonA2	Holloway	NC 147	9	10.5	B	26	25	1
Avondale	Roxboro	Geer	10.5	10.5	A	13	26	-13
Cornwallis1	Erwin	Chapel Hill	9	10.5	B	36	27	9
HortonA2	Stadium	Roxboro	9	10.5	B	46	28	18
Markham1	Ninth	Washington	9.5	10.5	B	29	29	0
Old Chapel Hill A1	Pope	Garrett	9	10.5	B	21	30	-9
Broad1	Durham Freeway	F Street	9.25	10.25	B	53	31	22
CheekPW2	Geer	Hardee	9.75	10.25	A	No Score	32	N/A
FayettevilleA1	Massey Chapel	Crooked Creek	10.25	10.25	B	24	33	-9
FayettevilleA4	Buxton	Pilot	9.25	10.25	B	55	34	21
HardeePW	Holloway	Cheek	10.25	10.25	B	No Score	35	N/A
Randolph	Erwin	Pickett	8.75	10.25	B	No Score	36	N/A
Sedwick	Grandale	Alston	9.25	10.25	B	44	37	7
DukeA2	Carver	Murray	9.5	10	B	27	38	-11
University2	Martin Luther King	Old Chapel Hill	10	10	B	22	39	-17
University4	Hope Valley	Forest Hills	9.5	10	B	31	40	-9
Academy1	Duke University	Cornwallis	8.25	9.75	B	40	41	-1
HollowayA2	Miami	Junction	9.75	9.75	B	25	42	-17
HWY 54 PW3	Highgate	Fayetteville	9.75	9.75	B	No Score	43	N/A
Washington	Glendale	Urban	8.25	9.75	B	60	44	16
Cheek	Hoover	Junction	8.5	9.5	B	45	45	0
HortonA1	Hillandale	Stadium	8.5	9.5	B	38	46	-8
HWY 54A3	NC 55	Alston	8.5	9.5	B	47	47	0
Kent2	Lakewood	University	8	9.5	B	48	48	0
Lakewood1	Chapel Hill	University	8	9.5	B	49	49	0
RiddleA1	Fayetteville	HWY 55	8.5	9.5	B	39	50	-11
AngierPW	Hoover	Midway	8.75	9.25	B	No Score	51	N/A
Durham - Chapel HillA3	Cornwallis	University	9.25	9.25	B	32	52	-20
GuessA1	Hillcrest	Carver	8.75	9.25	B	57	53	4
HollowayA3	Junction	Chandler	9.25	9.25	B	33	54	-21
MidlandPW	Cheek	Geer	9.25	9.25	B	No Score	55	N/A
Morreene2	Campus Walk	Erwin	8.25	9.25	B	43	56	-13
RaynorPW	Miami	Hardee	9.25	9.25	B	No Score	57	N/A
Cobb	Carroll	Duke	7.5	9	B	62	58	4
FayettevilleA5	Nelson	Pekoe	8	9	B	37	59	-22
Morreene1	Neal	Campus Walk	8	9	B	67	60	7

Shading indicates that a substantial amount of sidewalk has been constructed since 2006, or that sidewalk has been designed and will be under construction in the future.

Footnote 1. A positive number indicates an improved rank.

Attachment A. Revised sidewalk corridor ranking.

Sidewalk corridors have been re-ranked using 2004-2009 crash data and by weighting parks and schools 50 percent higher than in the original plan.

Road Name	Extent From	Extent To	2006 Total Score	2011 Total Score	2006 ABC Rank	2006 Number Rank	2011 Number Rank	Change in Rank ¹
RoxboroA2	Monk	Infinity	8.5	9	B	30	61	-31
University5	Forest Hills	Lakewood	8.5	9	B	52	62	-10
Anderson2	Lewis	Campus	7.25	8.75	B	69	63	6
Club2	Ambridge	Dearborn	8.75	8.75	B	41	64	-23
Durham - Chapel HillA1	I-40	15-501	8.75	8.75	B	54	65	-11
GarrettA4	15-501	Pickett	7.75	8.75	B	92	66	26
Lakewood2	University	Blackwell	7.75	8.75	B	76	67	9
Murray	Broad	Roxboro	8.25	8.75	B	59	68	-9
University1	Old Chapel Hill	Ivy Creek	8.75	8.75	B	35	69	-34
Hope Valley A3	Surrey	MLK (Was Archdale)	7.5	8.5	B	64	70	-6
Latta	Guess	Roxboro	7.5	8.5	B	65	71	-6
Liberty1	Dillard	Alston	7.5	8.5	B	50	72	-22
Milton	Tom Wilkinson	Roxboro	7.5	8.5	B	66	73	-7
LaSalleA2	Sprunt	Kangaroo	8.25	8.25	B	58	74	-16
Roxboro3	Davidson	Knox	7.75	8.25	B	No Score	75	N/A
Academy2	Cornwallis	University	7	8	B	97	76	21
AlstonA1	Trinity	Holloway	7.5	8	B	79	77	2
Erwin1	Kerley	Mt. Sinai	7	8	B	82	78	4
Erwin3	Flowers	Pettigrew	7	8	B	83	79	4
Liberty2	Park	Miami	8	8	B	101	80	21
Miami	Angier	Stirrup Creek	7	8	B	86	81	5
RiddleA2	HWY 55	Ellis	7.5	8	B	88	82	6
Taylor1	Elizabeth	Alston	7	8	B	90	83	7
Carpenter Fletcher	E Woodcroft Pkwy/Carpenter	Alston	7.75	7.75	B	No Score	84	N/A
Chapel Hill5	Anderson (Was Vesson)	University	6.75	7.75	B	70	85	-15
Duke6	Cobb	Lakewood	7.25	7.75	B	71	86	-15
FayettevilleA3	MLK	Buxton	7.75	7.75	B	73	87	-14
Hillandale1	Rose of Sharon	Peppertree	6.75	7.75	B	93	88	5
HollowayA1	Guthrie	Miami	7.75	7.75	B	94	89	5
HWY 54A1	Fayetteville	Barbee	7.75	7.75	B	34	90	-56
Old Oxford	Roxboro	Dearborn	7.75	7.75	B	95	91	4
Swift	Duke University	Durham Freeway	6.75	7.75	B	96	92	4
Trinity2	Rosetta	Edgar	7.75	7.75	B	78	93	-15
Broad2	F Street	North Pointe	7.5	7.5	B	61	94	-33
Cornwallis3	Fayetteville	TW Alexander	7.5	7.5	B	63	95	-32
Freeman	Clayton	Valmet	7	7.5	B	100	96	4
Holt School	Valley	Duke	6	7.5	C	120	97	23
Morehead3	Duke	Roxboro	7.5	7.5	B	51	98	-47
Pettigrew	Fayetteville	Briggs	7.5	7.5	B	87	99	-12
RoxboroA1	Pacific	Monk	7.5	7.5	B	89	100	-11
Shannon	Durham-Chapel Hill	Old Chapel Hill	7.5	7.5	B	68	101	-33
Buchanan3	Trinity	Club	7.25	7.25	B	103	102	1
Duke2	Leon	Club	7.25	7.25	B	91	103	-12
Durham - Chapel HillA2	15-501	Cornwallis	7.25	7.25	B	72	104	-32
Formosa	Pekoe	Concord	6.25	7.25	C	No Score	105	N/A
GarrettA3	Old Chapel Hill	15-501	7.25	7.25	B	56	106	-50
Hillsborough1	Sparger	LaSalle	7.25	7.25	B	74	107	-33
HWY 54A2	Barbee	NC55	7.25	7.25	B	75	108	-33
North Pointe	Woodmont	Broad	7.25	7.25	B	77	109	-32
Barbee	Fayetteville	Herndon	6	7	B	98	110	-12
DearbornA2	Ruth	Club	7	7	B	99	111	-12
Duke4	Peabody	Memorial	7	7	B	81	112	-31
Kent1	Morehead	Lakewood	5.5	7	C	123	113	10
Lebanon	Guess	Guess	6	7	B	109	114	-5
Leon	Duke	Glendale	6	7	B	110	115	-5
Main	Briggs	Gary	6	7	B	111	116	-5
Roxboro5	Holloway	Liberty	7	7	B	102	117	-15
Taylor3	Guthrie	Gary	6	7	B	113	118	-5
Glendale2	I-85	Corporation	6.25	6.75	C	117	119	-2
AlstonA5	Cornwallis	Carpenter Fletcher	6.5	6.5	B	80	120	-40

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Attachment A. Revised sidewalk corridor ranking.

Sidewalk corridors have been re-ranked using 2004-2009 crash data and by weighting parks and schools 50 percent higher than in the original plan.

Road Name	Extent From	Extent To	2006 Total Score	2011 Total Score	2006 ABC Rank	2006 Number Rank	2011 Number Rank	Change in Rank ¹
Geer3	Elizabeth	Miami	6.5	6.5	B	84	121	-37
Geer4	Miami	Great Bend	6.5	6.5	B	106	122	-16
Hillandale3	I-85	Fulton (NC 147)	6.5	6.5	B	85	123	-38
Juniper	Hanover	Miami	6	6.5	B	108	124	-16
Tom Wilkinson	Milton	Roxboro	5.5	6.5	C	124	125	-1
Dacian	Buchanan	Watts	5.25	6.25	C	142	126	16
Duke3	Club	Minerva	6.25	6.25	C	116	127	-11
Dixon	University	MLK (Was Archdale)	5	6	C	132	128	4
Gregson2	Club	Markham	6	6	B	107	129	-22
Hart	Maple	Harvard	5	6	C	133	130	3
Newby	Horton	Holt School	5	6	C	155	131	24
RoxboroA3	Infinity	Tom Wilkinson	6	6	B	112	132	-20
Vickers	Proctor	University	5	6	C	136	133	3
Chapel Hill4	Huron	Anderson	5.75	5.75	C	114	134	-20
CornwallisA2	Roxboro	Fayetteville	5.75	5.75	C	115	135	-20
GarrettA2	Swarthmore	Old Chapel Hill	5.75	5.75	B	104	136	-32
Ninth	Markham	Hillsborough	5.75	5.75	C	146	137	9
Oakland	Sprunt	Green	5.25	5.75	C	147	138	9
Rose of Sharon	Cole Mill	Guess	4.75	5.75	C	128	139	-11
Swarthmore	end	Hope Valley	4.75	5.75	C	149	140	9
Umstead1	Scout	Merrick	5.75	5.75	B	105	141	-36
Urban	Buchanan	Washington	4.75	5.75	C	129	142	-13
Ward	Chapel Hill	Forest Hills	5.25	5.75	C	130	143	-13
Archdale1 (Now MLK)	Old Chapel Hill	Hope Valley	5.5	5.5	C	118	144	-26
Casa	Valley	Horton	4.5	5.5	C	152	145	7
Hyde Park	Fern	Drew	5.5	5.5	C	121	146	-25
James	Lakewood	University	5.5	5.5	C	122	147	-25
Maryland	Guess	Club	5	5.5	C	135	148	-13
North Bend	Carpenter Fletcher	Meridian	5.5	5.5	C	No Score	149	N/A
Ridgeway	Mathison	Lakeland	4.5	5.5	C	156	150	6
Valley	Casa	Holt School	4.5	5.5	C	157	151	6
Albany	Sprunt	Indian	4.75	5.25	C	137	152	-15
Broad3	Eatondale	Carver	5.25	5.25	C	138	153	-15
Buchanan2	Yancey	Main	5.25	5.25	C	125	154	-29
Chapel Hill2	Maplewood/Duke Univer	Lakewood	5.25	5.25	C	139	155	-16
Cole Mill	Sparger	Hillsborough	5.25	5.25	C	141	156	-15
Indian	Hillandale	Albany	4.75	5.25	C	144	157	-13
AlstonA4	Riddle	Cornwallis	5	5	C	150	158	-8
AlstonA7	Sedwick	TW Alexander	5	5	C	151	159	-8
Briggs	Holloway	Main	5	5	C	131	160	-29
Hillsborough2	LaSalle	Ninth	5	5	C	119	161	-42
Knox1	Watts	Vista	4.5	5	C	154	162	-8
Buchanan1	Old Chapel Hill	Butler	3.75	4.75	C	167	163	4
Chapel Hill1	Kent	Carroll	4.75	4.75	C	158	164	-6
Chapel Hill3	Prince	Huron	4.75	4.75	C	140	165	-25
Foster	Hunt	Monmouth	4.75	4.75	C	126	166	-40
Green2	Carolina	Ninth	3.75	4.75	C	180	167	13
Guess1	Bramble	Redmond	4.75	4.75	C	143	168	-25
Martin Luther King	Yorktown	HWY 55	4.75	4.75	C	145	169	-24
Morehead1	Anderson	Shepherd	4.75	4.75	C	160	170	-10
Old Chapel Hill A2	University	MLK (Archdale)	4.75	4.75	C	127	171	-44
Old Chapel Hill A3	MLK (was Archdale)	University	4.75	4.75	C	148	172	-24
Wabash	end	Plum	3.75	4.75	C	172	173	-1
Hope Valley A2	Swarthmore	Surrey	4.5	4.5	C	134	174	-40
Jester	Alston	end	3.5	4.5	C	174	175	-1
Luther	Rose of Sharon	Rose of Sharon	3.5	4.5	C	175	176	-1
Maple2	Taylor	Angier	4.5	4.5	C	164	177	-13
Acadia	Knox	Markham	3.75	4.25	C	165	178	-13
Everett	Arbor	Edgevale	3.75	4.25	C	169	179	-10
Forestview	Forest Hills	Lakewood	3.75	4.25	C	170	180	-10

Shading indicates that a substantial amount of sidewalk has been constructed since 2006, or that sidewalk has been designed and will be under construction in the future.

Footnote 1. A positive number indicates an improved rank.

Attachment A. Revised sidewalk corridor ranking.

Sidewalk corridors have been re-ranked using 2004-2009 crash data and by weighting parks and schools 50 percent higher than in the original plan.

Road Name	Extent From	Extent To	2006 Total Score	2011 Total Score	2006 ABC Rank	2006 Number Rank	2011 Number Rank	Change in Rank ¹
Green3	Ninth	Broad	4.25	4.25	C	159	181	-22
Archdale2	Alpine	Oak Ridge	4	4	C	161	182	-21
Grandale	Barbee	Scott King	4	4	C	163	183	-20
Gregson1	Duke	Club	4	4	C	153	184	-31
Maple1	Liberty	Taylor	4	4	C	176	185	-9
Mathison	Ridgeway	End	3	4	C	185	186	-1
Ancroft	Delray	Riddle	3.75	3.75	C	166	187	-21
Corporation2	Rigsbee	Mangum	3.75	3.75	C	168	188	-20
Georgia	Hillsborough	Club	3.75	3.75	C	171	189	-18
Lynn	Gibson	Miami	3.75	3.75	C	181	190	-9
Geer1	Washington	Foster	3.5	3.5	C	162	191	-29
Roxboro7	Cornwallis	Oak Ridge	3.5	3.5	C	177	192	-15
Roxboro8	Juliette	Hope Valley	3.5	3.5	C	178	193	-15
Sparger	Cole Mill	Stafford	3.5	3.5	C	188	194	-6
Corporation1	Duke	Rigsbee	3.25	3.25	C	179	195	-16
Duke Homestead	Carver	Guess	3.25	3.25	C	190	196	-6
Watts	Green	Englewood	3.25	3.25	C	173	197	-24
Canal	Roxboro	Gearwood	3	3	C	182	198	-16
Fern	Calvin	Driver	3	3	C	183	199	-16
Herndon	Barbee	Ainsley	3	3	C	184	200	-16
Pinecrest	Academy	Marion	3	3	C	186	201	-15
Seaton	Revere	Wenonah	3	3	C	187	202	-15
Umstead2	Riverdale	Guess	3	3	C	189	203	-14
Gibson	Lynn	Mineral Springs	2.75	2.75	C	191	204	-13
Green1	Oakland	Carolina	2.75	2.75	C	192	205	-13
Green4	Watts	Glendale	2.75	2.75	C	193	206	-13
Hammond	Farthing	Roxboro	2.75	2.75	C	194	207	-13
Kenan	Duke Homestead	Carver	2.75	2.75	C	195	208	-13
Masondale	Roxboro	Formosa	2.75	2.75	C	196	209	-13
Merrimac	Morehead	House	2.75	2.75	C	197	210	-13
Ancroft2	Ancroft	ATT	2.25	2.25	C	198	211	-13
Englewood	Watts	Ruffin	2.25	2.25	C	199	212	-13
Shoreham	University	Stuart	1.75	1.75	C	200	213	-13
Solitude	Whisperwood	Sedwick	1.75	1.75	C	201	214	-13
Glendale1	Leon	Lavender	1.25	1.25	C	202	215	-13

Shading indicates that a substantial amount of sidewalk has been constructed since 2006, or that sidewalk has been designed and will be under construction in the future.

Footnote 1. A positive number indicates an improved rank.

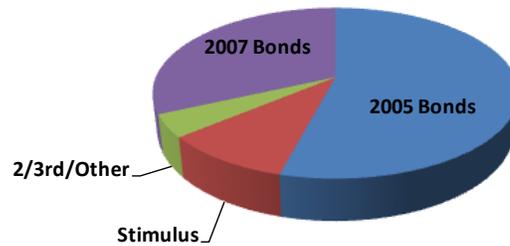
Attachment B. Sidewalk Funding and Project Status

Note: This report includes funding for trail projects managed by the Public Works Department. During the time period between 2006 and 2010, other trail projects were managed by the General Services Department, but those funds are not included in this report.

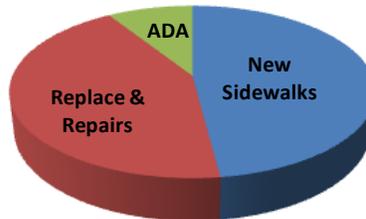
AUTHORIZED FUNDING:

Voter approved bonds in November 2005 and November 2007 provides 86% of the sidewalk funding in place including significant amounts dedicated to Americans with Disabilities Act (ADA) repairs. A Federal Stimulus (ARRA) grant provided funding for additional sidewalk construction and repairs as well as repaving of the American Tobacco Trail (ATT), North/South and Riddle Road Spur trails.

Funding Sources



Uses

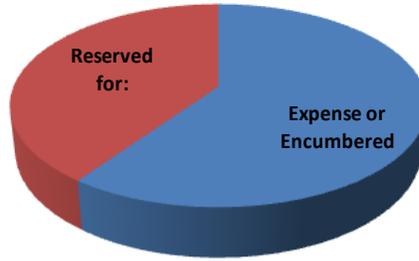


SOURCE	PURPOSE	AMOUNT
2005 Bonds	Replacement	\$2,500,000
2005 Bonds	ADA Repairs	\$500,000
2005 Bonds	New Sidewalks	\$2,100,000
2007 2/3rds Bonds	ADA Repairs	\$350,000
2007 Bonds	Repairs	\$1,500,000
2007 Bonds	New Sidewalks	\$1,500,000
Other CIP Funds	Repairs	54,000
Federal Stimulus (ARRA)	New Sidewalks	\$922,000
Total		\$9,426,000

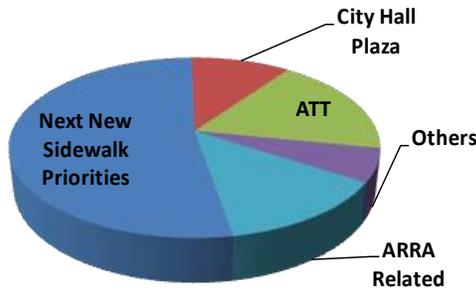
SUMMARY OF ACTIVITY:

While the large amount of activity in street repaving, ADA compliance and, more recently, in street ARRA projects has taken priority in designing and awarding sidewalk contracts, the delays have provided excellent savings on bid awards versus expected engineering cost estimates. Those savings will allow design and bidding to continue down the priorities listing much further than was originally anticipated.

Activity to Date



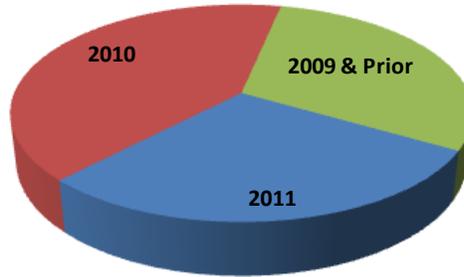
Reserved For:



USE	AMOUNT
Expense/Encumbered To Date	\$5,643,000
Reserved For:	
Sidewalk Next Identified Priorities	\$1,986,000
City Hall Plaza Project	\$390,000
American Tobacco Trail	\$682,000
Professional Services	\$175,000
Garrett Road	\$50,000
ARRA Related	\$500,000
Total Expense, Encumbered And Reserved	\$9,426,000

SPENDING/ENCUMBRANCE BY FISCAL YEAR:

Spending by Fiscal Year

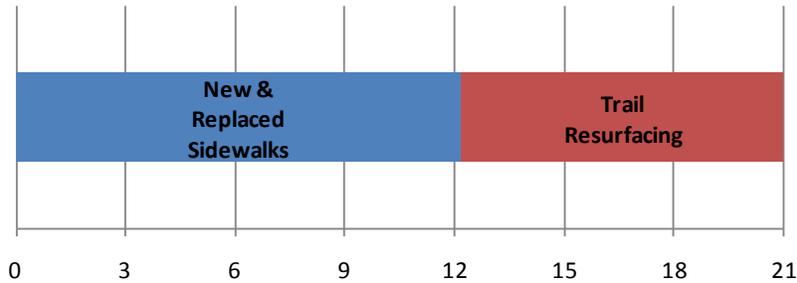


FISCAL YEAR	AMOUNT
2011	\$1,628,000
2010	\$2,320,000
2009 - Prior	\$1,695,000
Total Expense & Encumbered	\$5,643,000

MAJOR SIDEWALK PROJECTS TO DATE (EXPENSE OR ENCUMBERED):

Sidewalk projects are comprehensive in nature. Prior to beginning projects, all right-of-way (ROW) access must be legally secured. In some cases, the purchase of ROW access is required. Project activities include but are not limited to: removal and disposal of existing sidewalks and curbs, replacement or construction of curbs and gutters, movement or replacement of utility access or devices, and planting or replanting of trees, shrubs and/or grass. Projects must be fully designed prior to bid and actively managed and inspected throughout construction.

Miles of Projects



PROJECTS	FUNDING	PROJECT ACCOMPLISHES
SW-18	2005 Bonds	Repaired or replaced over 4 miles of sidewalks on Fayetteville Street, West Corporation Street, sidewalk and fencing on Shannon Road as well as sidewalks on Hillandale/Fulton and the sidewalk/trail on Stadium Drive. also installed curb-cut ramps as various locations
ST-224	2005 Bonds	Provided downtown sidewalk improvements in conjunction with the streetscape projects
SW-19	2005 Bonds	Provided 1.6 miles of sidewalk repairs and curb cut ramps at approximately 400 locations throughout the city
SW-20	2005 Bonds & 2007 2/3rds Bonds	Built 1,700 linear feet of new sidewalk on Hillandale Road to link existing sidewalks to Club and Fulton streets. Also provided new handicap ramps.
SW-21	2005 Bonds	Provided ADA compliant curb ramps at 265 locations throughout the city.
ST-246	Federal Stimulus	Repaving of 8.8 miles of the American Tobacco Trail, North/South trail and Riddle Road Trail.
SW-25	Federal Stimulus	3.5 miles of sidewalk installation and repairs to Dearborn, Hillandale, Hillsborough-Markham, Hope Valley Rd, Washington St, University Dr.
SW-26	2007 Bonds	Provides 2.7 miles of new sidewalks for Wilderness Road, Hunt Street, Club Boulevard, Markham Avenue, West Lakewood Avenue as well as additional curb ramps.

Attachment C. Sidewalks Completed and Underway Since the Adoption of the DurhamWalks!
Plan

Location	Priority	Contract	Type	Length (ft)	Status / Notes
Fayetteville Street Sidewalk	Repair	SW-18	Repairs	~21,000	Complete
** Various **	Repair	SW-19	Repairs	~10,000	Under construction (80 % complete)
Corporation Street	C	SW-18	New	40	Complete - Part of N-S Greenway
Stadium Drive	Not ranked	SW-18	New	~1,350	Complete - Part of N-S Greenway
Hillandale-Fulton – Club to NC 147	B	SW-20	New	~1,700	Complete – Funds requested prior to DurhamWalks! (Enhancement grant)
Obie Drive - Fayetteville St to Barbee Rd	Not ranked / Petition	ST-227	New	~7,300	Part of street reconstruction
Garrett Road Extension – Jordan High to NC 54	A	ST-232	New	~ 1,200	Part of new street construction
Dearborn St - Old Oxford to Ruth Street	A	SW-25	New	~ 5,500	ARRA - Under construction
NC 751 – south of Swarthmore	A	SW-25	New	~ 800	ARRA - Under construction
Hillandale Rd - Cammie to Peppertree	A	SW-25	New	~ 3,700	ARRA - Complete
Hillsborough Rd / Markham Ave - US 15-501 Bypass to Broad	C	SW-25	New	~ 7,600	ARRA - Complete
Washington St - Trinity to Glendale	B	SW-25	New	~ 5,200	ARRA - Under construction in 2011
University Drive - Old Chapel Hill Rd to Old Chapel Hill Rd	A & B	SW-25	New	~7,300	ARRA - Complete
Wilderness Rd - Park Overlook Dr to Deer Chase Wynd	Not ranked / Petition	SW-26	New	~1,200	Bidding this winter; construct in 2011
Hunt Street - Riggsbee to Foster	Not ranked	SW-26	New	~400	Bidding this winter; construct in 2011
Markham - Washington to Avondale	A	SW-26	New	~3,600	Bidding this winter; construct in 2011
Club - Ruffin to Ambridge	A	SW-26	New	~4,400	Bidding this winter; construct in 2011
Lakewood Avenue – short section near Blackwell St	B	SW-26	New	~80	Bidding this winter; construct in 2011
Garrett Rd - NC751 to Swarthmore	A	TBD	New	~3,000	Design Complete, ROW being acquired
Fayetteville St – Pilot St to Cornwallis Rd	B	TBD	New	~ 650	Under design; bidding in 2011

Sidewalks are also provided along several roadways as part of NCDOT construction projects (the City pays half the cost of sidewalk on most NCDOT projects):

- I-85 Widening – sidewalks at bridges and interchanges – completed by NCDOT (~19,100 ft)
- NC 55 – Cornwallis to Meridian Parkway – completed by NCDOT (~16,000 ft)
- NC 55 – NC 54 to Sedwick – completed by NCDOT (~10,000 ft)
- MLK, Jr. Parkway – Yorktown to NC 55 (Priority B) – completed by NCDOT (~3,400 ft)
- MLK, Jr. Parkway – Chapel Hill Rd to Hope Valley Rd (Priority C) – completed by City of Durham (~8,300 ft)
- Holloway Street – US 70 to Junction Rd (Priority A) – completed by NCDOT (~3,750 ft)
- Hillandale – I-85 to Carver (Priority A) – under construction by NCDOT
- Miami Boulevard – Methodist Dr to Ellis Rd (Priority B) – design complete, construction to begin in 2011 by NCDOT
- Hope Valley Road – S. Roxboro to NC 54 (Priority A) – under design by City of Durham
- Alston Avenue – NC 147 to Holloway St (Priority A) – under design by NCDOT
- Holloway Street – Miami to US 70 (Priority A) – under design by NCDOT (part of East End Connector)
- Old Durham-Chapel Hill Road – Pope Rd to Garrett Rd (Priority B) – under design by NCDOT

Attachment D. Sidewalk Petition Policies in Other NC Municipalities

At the December 9, 2010 City Council Work Session, Councilmember Brown raised the question concerning how other municipalities in the state charge for sidewalk additions. In our survey of seven (7) different municipalities, we found that they were about equally split as to whether they assess for this type of improvement or not. Those that did assess ranged in price from \$6.00 per front foot up to actual cost. The City of Durham currently assesses at the rate of \$5.00 per front foot. Details for each municipality are outlined below. Current construction cost for the City of Durham is approximately \$55.00 - \$60.00 per linear foot, which is in line with those municipalities that reported their per foot construction costs to us.

The surveyed municipalities and their various procedures are outlined below:

- 1) Raleigh – They do have a petition process for sidewalks. In order to have a sidewalk installed, the street must have curb and gutter in place. The current assessment rate for sidewalk along a roadway that has existing curb and gutter is \$ 6.00 per front foot. For streets where curb and gutter is needed to be installed as a part of the petition process, the assessment rate is \$32.00 per front foot.
- 2) Charlotte – They have two types of petition processes, an assessment based procedure and a non-assessment based procedure. Both require sponsors. For the assessment based procedure, the sponsor must live in the affected area. For the non-assessment procedure, any resident may serve as the sponsor. Under the non-assessment procedure a sidewalk must be “nominated” for construction. This may be done by requesting a sidewalk nomination form and having at least 25% of those property owners affected by the sidewalk sign in favor of nominating it. Once nominated a public hearing is held and the City circulates a petition for the project. In order for the project to go forward at least 60% of the property owners must sign in favor of the improvement. Once this is done the project waits funding through bond issues and is 100% funded with no assessment.

Under the assessment based procedure, a property owner within the limits of the requested improvement may serve as a petition sponsor. At least 51% of the property owners from both sides of the street must sign in order for the petition to be deemed sufficient. Once built (on one side only) property owners on both sides of the street are assessed based on a per foot rate determined by actual cost. We have been told that to date this process has never been utilized.

- 3) Greensboro – They do have a petition process. The petition sponsor must live in the affected area. The petition may be for only one side of the street (unless in a school district), with a minimum distance of one city block. In order for a petition to be sufficient it must be returned with at least 51% of affected owners signing. There is no assessment and the city funds 100% of the cost. Even under this scenario they only receive 35% - 40% of the petitions back that are issued.
- 4) Winston-Salem – They have no formal petition process. Any resident may submit a request for a sidewalk on any city maintained street. Their Engineering Department reviews all such

requests and determines the need for that location. If it is deemed eligible it is put in queue to wait funding. There is no assessment and is 100% city funded.

- 5) Asheville – Has no petition policy or procedure. Through a consultant they have identified areas that need sidewalk and have compiled a list to construct once funding comes available. Any resident may request additional areas be added to the list, and they will be reviewed, but advised that if the area is not already on the identified list, they will only be considered once the existing list has been constructed. The city funds 100% and there is no assessment levied.
- 6) Fayetteville – They do have a petition process. Any resident may request a petition for any street. Sidewalks can be petitioned for either side, but not both. Property owners on both sides must sign, and the petition must have at least 80% of the owners signing in favor of the sidewalk. Once constructed, the property owners on both sides are assessed at \$10.00 per front foot.
- 7) Wilmington – Wilmington has no policy or procedure in place for residents to request sidewalk. The city advises residents that sidewalk is placed in areas where needed (identified by the city) as funds become available.

Source: Engineering Division, City of Durham Public Works Department.

Note: Pages 3-12 through 3-19 of the DurhamWalks! Pedestrian Plan provides additional information on the sidewalk petition processes used by other cities in North Carolina and other cities nationally.

Attachment E. Current Petitioned Sidewalks Ordered by Durham City Council

Street	Limits	Length (feet)	Ordered Date	Pet./EAA Date	Auth	Estimated Total Cost
Wilderness Rd (N/S)	Park Overlook Dr to Deer Chase Wynd	1,162	12/19/2005	8/17/2005	pet	\$ 63,936.00
S. Roxboro Street (E/S)	Juliette Dr. S. to Greyfield Blvd.	1,594	9/18/2006	6/27/2006	pet	\$ 87,650.00
Juliette Drive (N/S)	S. Roxboro St. to PIN #0729-01-16-2672	216	9/18/2006	6/27/2006	pet	\$ 11,871.00
Infinity Road S/S)	Shadebush Dr to Lazyriver Dr	440	1/6/2007	6/27/2006	pet	\$ 24,213.00
Green Street (S/S)	Gregson to Watts	771	6/4/2007	3/22/2007	pet	\$ 42,405.00
Monmouth Ave (S/S)	N. Buchanan to Watts St.	271	11/19/2007	9/20/2007	pet	\$ 14,905.00
Fayetteville Rd (W/S)	N p/1 PIN 0717-02-69-7405 to S p/1 PIN 0717-02-69-7405	215	10/6/2008	8/4/2008	pet	\$ 11,839.00
Sedwick (N/S)	Revere Road to Grandale Drive	2,823	11/3/2008	8/22/2008	pet	\$ 155,273.00
University Dr (E/S)	Durham Chapel Hill Blvd to W. Forest Hills Dr	3,098	4/6/2009	8/27/2008	pet	\$ 170,375.00
	Total	10,590				\$ 582,467.00

Note: Cost estimates based on \$55 per linear foot.

Source: Engineering Division, City of Durham Public Works Department.

Attachment F. Sidewalk Repair on Gregson Street

