



## APPENDIX A OUTLINE:

- Overview
- Public Workshops
- Public Opinion Form
- Public Opinion Form Results
- Public Workshop Map Comments

# APPENDIX A: PUBLIC INPUT SUMMARY

## OVERVIEW

Significant public input was gathered from multiple efforts throughout the planning process, which helped shape the outcome of a majority of the recommendations in this Plan. Public input was solicited via two public workshops, public outreach, paper opinion forms, and an online interactive version of the opinion form. A Steering Committee, composed of Raleigh officials and residents, was created to guide and foster the development of this Plan. The variety and depth of public input sought to ensure that a range of citizens from all areas of Raleigh were expressed and represented.

## PUBLIC WORKSHOPS

Two public workshops were conducted during the planning process, each drawing significant comment, suggestion, support and awareness for the project. Newsletters were created and distributed at each Public Workshop, to keep the public abreast of the planning process. Copies of these newsletters can be found later in this appendix.



The initial public workshop was held in April 2008 at the Glen Eden Neighborhood Center and introduced the project to the public. Informational boards outlined the planning process, project timeline, and announced opportunities for public input. Participants were asked to add their goals and visions to the Project Goals Board. Additionally, base maps of the Raleigh area were provided to gather input on desired bicycling routes, problem areas, areas of opportunity and existing bicycle facility identification. Approximately 70 people attended this meeting.



The second public workshop was held in August 2008, during the final phases of the project. Preliminary network maps were presented at the Sertoma Arts Center and people were solicited for comments. 113 attended this workshop, providing input through map markups, direct conversation with client and consultant, and comment forms.

## PUBLIC OPINION FORM

An online comment form was created for the Raleigh Bicycle Plan. The consultant worked with the City of Raleigh and Steering Committee to prepare questions and tabulate the results of this survey that received 838 online and paper responses. The online survey link was made available on the City of Raleigh's website, distributed to numerous local email listserves, and publicized at each of the public workshops. The survey contained 32 questions related to bicycling and demographics.

*Two public workshops occurred during this planning process. Approximately 183 people attended these, providing input into plan recommendations. Above: Photo from first public workshop at Glen Eden Neighborhood Center. Below: Photo from second public workshop at the Sertoma Arts Center.*





A variety of respondents completed the survey including a wide range of age groups and user groups. The majority of respondents were bicyclists. In general, most respondents supported the concept of a more bikeable community. People wanted to bike to a number of locations including greenways/trails, parks, and shopping. The leading factor that discouraged respondents from biking was a lack of bicycle facilities, especially bicycle lanes and greenways.

## PUBLIC OPINION FORM RESULTS

1. How important to you is improving bicycling conditions in the Raleigh area? (select one)			
		Response Percent	Response Count
Very important		93.5%	780
Somewhat important		5.4%	45
Not important		1.1%	9
<b>answered question</b>			<b>834</b>
<b>skipped question</b>			<b>5</b>

2. How do you rate present bicycling conditions in the Raleigh area? (select one)			
		Response Percent	Response Count
Excellent		1.6%	13
Fair		47.1%	393
Poor		51.3%	428
<b>answered question</b>			<b>834</b>
<b>skipped question</b>			<b>5</b>





3. What bicycling destinations would you most like to get to? (choose all that apply)			Response Percent	Response Count
Downtown		69.5%	572	
NC State		40.7%	335	
Other college		10.1%	83	
Elementary, Middle, or High Schools		18.2%	150	
Grocery stores		55.3%	455	
Places of work		68.3%	562	
Restaurants		39.7%	327	
Public Transportation		35.1%	289	
Other Shopping (retail stores)		32.7%	269	
Parks		71.1%	585	
Entertainment		32.8%	270	
<b>Trails and greenways</b>		<b>80.2%</b>	660	
I DON'T BICYCLE.		2.2%	18	
Other specific location (please specify)		17.5%	144	
			<i>answered question</i>	<b>823</b>
			<i>skipped question</i>	<b>16</b>

**4. What do you think are the top three roadway intersections (in Raleigh City limits) most needing bicycling improvements? (Example response: Smith Street & 1st Avenue)**

Blue Ridge & Hillsborough	28
Glenwood and Peace	26
Hillsborough and Oberlin	25
Hillsborough and Gorman	24
Glenwood and Creedmor	24
Avent Ferry and Western	23
Millbrook and Six Forks	23
Morgan and Hillsborough	22
Five Points	21
Six Forks and Wake Forest	21





5. What do you think are the top three roadway corridors (in Raleigh City limits) most needing bicycling improvements?

Hillsborough St.	163
Glenwood Ave.	117
Six Forks Rd.	79
Capital Blvd	66
Wade Ave.	59
Creedmoor Rd.	40
Falls of Neuse Rd.	39
Western Blvd.	37
Avent Ferry Rd.	36
Peace St.	36
Wake Forest Rd.	33
Blue Ridge Rd.	31
Atlantic Ave.	27
Oberlin Rd.	26
Millbrook Rd.	16
New Bern Ave.	15
Lake Wheeler Rd	13
Leesville Rd.	12
Strickland Rd	12
Tryon Rd.	12
Duraleigh Rd	11
Edwards Mill Rd	10
Poole Rd.	9
Buck Jones Rd	8
Ebenezer Church Rd	7

6. What other bicycle related improvements do you consider priorities?

More bike lanes	82
Connect and expand greenways	52
More roadway space for bicyclists	42
Drivers education	36
More bicycle parking	34





**7. How long have you been bicycle riding? (select one)**

		Response Percent	Response Count
Do not bicycle		2.2%	15
1-2 years		10.0%	69
2-5 years		13.9%	96
5-10 years		12.3%	85
10-20 years		19.3%	133
<b>20+ years</b>		<b>42.3%</b>	<b>292</b>
<b>answered question</b>			<b>690</b>
<b>skipped question</b>			<b>149</b>

**8. How frequently do you bicycle? (select one)**

		Response Percent	Response Count
never		3.3%	23
few times per month		23.1%	159
<b>few times per week</b>		<b>47.1%</b>	<b>324</b>
5+ times per week		26.5%	182
<b>answered question</b>			<b>688</b>
<b>skipped question</b>			<b>151</b>



9. Which statement best describes your comfort level on a bicycle.			
		Response Percent	Response Count
I am comfortable bicycling on the road with automobiles in all situations, including heavy traffic.		38.2%	263
I am most comfortable on off-road paths or in a clearly designated bicycle lane.		45.1%	310
I don't feel comfortable sharing any roadway with cars and prefer off-road paths or very low-traffic residential roads.		16.7%	115
<i>answered question</i>			<b>688</b>
<i>skipped question</i>			<b>151</b>

10. How many people are in your household? (select one)			
		Response Percent	Response Count
1		15.9%	110
2		44.7%	309
3		14.5%	100
4		20.1%	139
5+		4.8%	33
<i>answered question</i>			<b>691</b>
<i>skipped question</i>			<b>148</b>





**11. How many bicycles do you have in your household? (select one)**

		Response Percent	Response Count
0		0.7%	5
1		13.2%	91
2		21.5%	149
3		17.6%	122
4		17.8%	123
5+		29.2%	202
<b>answered question</b>			<b>692</b>
<b>skipped question</b>			<b>147</b>

**12. How many automobiles are at your household? (select one)**

		Response Percent	Response Count
0		1.2%	8
1		21.8%	151
2		57.1%	395
3		15.6%	108
4		3.6%	25
5+		0.7%	5
<b>answered question</b>			<b>692</b>
<b>skipped question</b>			<b>147</b>



13. Which terms most describe your current level of bicycling activity? (choose all that apply)			
		Response Percent	Response Count
Do not bicycle	<input type="checkbox"/>	3.0%	21
Bicycle occasionally for short, utilitarian trips (1-5 times per month)	<input type="checkbox"/>	18.7%	129
Bicycle regularly for short, utilitarian trips (1-5 times per week)	<input type="checkbox"/>	26.7%	184
Bicycle occasionally on-road for fitness or recreation (1-5 times per month)	<input type="checkbox"/>	30.1%	208
<b>Bicycle regularly on-road for fitness or recreation (1-5 times per week)</b>	<input type="checkbox"/>	<b>49.1%</b>	<b>339</b>
Occasionally commute by bicycle (3-5 days a month)	<input type="checkbox"/>	20.0%	138
Regularly commute by bicycle (3-5 days a week)	<input type="checkbox"/>	26.1%	180
Occasionally mountain bicycle (1-2 times per month)	<input type="checkbox"/>	20.9%	144
Regularly mountain bicycle (1-2 times per week)	<input type="checkbox"/>	16.8%	116
<b>answered question</b>			<b>690</b>
<b>skipped question</b>			<b>149</b>

14. Should public funds be used to improve bicycle transportation options? (yes/no)			
		Response Percent	Response Count
Yes	<input type="checkbox"/>	97.7%	675
No	<input type="checkbox"/>	2.3%	16
<b>answered question</b>			<b>691</b>
<b>skipped question</b>			<b>148</b>





15. Which types of funds should be used to improve bicycle transportation options? (please check all that apply)			
		Response Percent	Response Count
Existing local taxes		78.9%	537
New local taxes		39.6%	270
State and federal grants		81.5%	555
<b>NCDOT maintenance funds</b>		<b>87.7%</b>	<b>597</b>
Other (please specify)		21.9%	149
<i>answered question</i>			<b>681</b>
<i>skipped question</i>			<b>158</b>

16. Is there a bicycle path, greenway trail, or bicycle lane within a half mile of your home? (yes/no)			
		Response Percent	Response Count
Yes		49.3%	309
No		50.7%	318
<i>answered question</i>			<b>627</b>
<i>skipped question</i>			<b>212</b>

17. Do you ride on the bicycle path, greenway trail, or bicycle lane near your home? (yes/no)			
		Response Percent	Response Count
Yes		79.7%	247
No		20.3%	63
<i>answered question</i>			<b>310</b>
<i>skipped question</i>			<b>529</b>

18. If there was a bicycle path, greenway trail, or bicycle lane within a half mile of your home, would you ride on it? (yes/no)			
		Response Percent	Response Count
Yes		94.7%	305
No		5.3%	17
<i>answered question</i>			<b>322</b>
<i>skipped question</i>			<b>517</b>





19. Which of the following factors prevent you from bicycling or from bicycling more often? (choose all that apply)			
		Response Percent	Response Count
Lack of bicycle lanes, paved shoulders, or paths		76.8%	522
Gaps in bicycle facilities		39.1%	266
Narrow lanes		62.5%	425
Other travel modes are safer or more comfortable		23.5%	160
Crossing busy roads		51.5%	350
Hills		7.5%	51
Loose gravel or potholes		18.8%	128
Yard waste in bicycle lane		14.6%	99
Drainage grates		12.5%	85
Poor lighting (along routes/trails or at roadway crossings)		18.5%	126
Personal safety (from crime)		9.4%	64
Physical ability		3.2%	22
Travel time or distance		19.7%	134
Heavy traffic		52.9%	360
High-speed traffic		60.4%	411
Inconsiderate motorists		66.0%	449
Lack of bicycle parking		23.1%	157
Lack of showers and lockers at workplace		19.0%	129
NOTHING		6.5%	44
	Other (please specify)		92
	<b>answered question</b>		<b>680</b>
	<b>skipped question</b>		<b>159</b>





**20. Which of the following changes would encourage you to bike more often? (choose all that apply)**

	Response Percent	Response Count
Increased enforcement on speeding	32.0%	216
Commuter programs or incentives	37.5%	253
Bicycle racks at destination	36.4%	246
Showers or locker rooms at workplace	25.0%	169
Map of bicycle routes	35.3%	238
<b>More bicycle lanes</b>	<b>83.6%</b>	<b>564</b>
More off road bike paths or greenways	67.7%	457
More programs and events for new cyclists	17.9%	121
Safety education	26.7%	180
More bike racks on buses	18.1%	122
Lower speed limits	19.6%	132
NOTHING	2.1%	14
Other (please specify)		137
	<b>answered question</b>	<b>675</b>
	<b>skipped question</b>	<b>164</b>

**21. Please rate the importance of each of the following transportation improvements in the Raleigh area. (rank in order, with 1 being the highest priority)**

	#1	#2	#3	4	Rating Average	Response Count
Automobile/roadway improvements	19.9% (131)	13.9% (91)	18.6% (122)	<b>47.6% (313)</b>	2.94	657
Bicycle improvements	39.8% (263)	<b>41.1% (271)</b>	14.1% (93)	5.0% (33)	1.84	660
Pedestrian improvements	8.8% (58)	25.2% (165)	<b>41.2% (270)</b>	24.8% (163)	2.82	656
Public Transportation improvements	<b>33.4% (222)</b>	21.2% (141)	25.6% (170)	19.8% (132)	2.32	665
					<b>answered question</b>	<b>682</b>
					<b>skipped question</b>	<b>157</b>

**22. How often do you take your bike on a Capital Area Transit (CAT) bus?**

	Response Percent	Response Count
<b>Never</b>	<b>89.2%</b>	<b>611</b>
A few times per year	6.3%	43
A few times per month	2.8%	19
A few times per week	1.6%	11
Five or more times per week	0.1%	1
	<b>answered question</b>	<b>685</b>
	<b>skipped question</b>	<b>154</b>





23. How often do you take your bike on a Triangle Transit Authority (TTA) bus?			
		Response Percent	Response Count
Never		89.4%	613
A few times per year		6.1%	42
A few times per month		2.3%	16
A few times per week		1.6%	11
Five or more times per week		0.6%	4
<b>answered question</b>			<b>686</b>
<b>skipped question</b>			<b>153</b>

24. Which aspect of biking is most appealing to you? (choose all that apply)			
		Response Percent	Response Count
Increased health and fitness		96.1%	659
Money saved on fuel		70.8%	486
More time outdoors		78.3%	537
Faster commute		14.4%	99
Easier to find convenient parking		20.7%	142
Fewer traffic jams		26.2%	180
Reducing the amount of time spent in a car		50.7%	348
Less negative impact on the environment/preserving the environment		78.0%	535
I DO NOT BICYCLE.		1.5%	10
Other (please specify)		10.3%	71
<b>answered question</b>			<b>686</b>
<b>skipped question</b>			<b>153</b>





**25. How do you feel drivers in your area typically behave around bicyclists? (Please check all that apply)**

		Response Percent	Response Count
Courteous, yield, and give bicyclists space		28.4%	193
Drive too fast		57.4%	390
<b>Pass bicyclists too closely</b>		<b>68.8%</b>	<b>467</b>
Tolerate bicyclists not following rules of the road		15.6%	106
Harass bicyclists		32.8%	223
Fail to yield to bicyclists crossing a street		37.4%	254
Other (please specify)		16.9%	115
<b>answered question</b>			<b>679</b>
<b>skipped question</b>			<b>160</b>

**26. How do you feel bicyclists in your area typically behave? (Please check all that apply)**

		Response Percent	Response Count
<b>Courteous, obeying all traffic laws</b>		<b>57.2%</b>	<b>365</b>
Cycle in the roadway the opposing direction as vehicles		14.1%	90
Fail to comply with traffic laws		40.6%	259
Ride too slowly		5.0%	32
Are young and/or inexperienced		13.0%	83
Multiple cyclists ride abreast in the same travel lane		29.0%	185
Behave rudely		5.6%	36
Don't signal turns or stops		35.7%	228
Ride on sidewalks		41.4%	264
Ride at night without lights		23.5%	150
<b>answered question</b>			<b>638</b>
<b>skipped question</b>			<b>201</b>

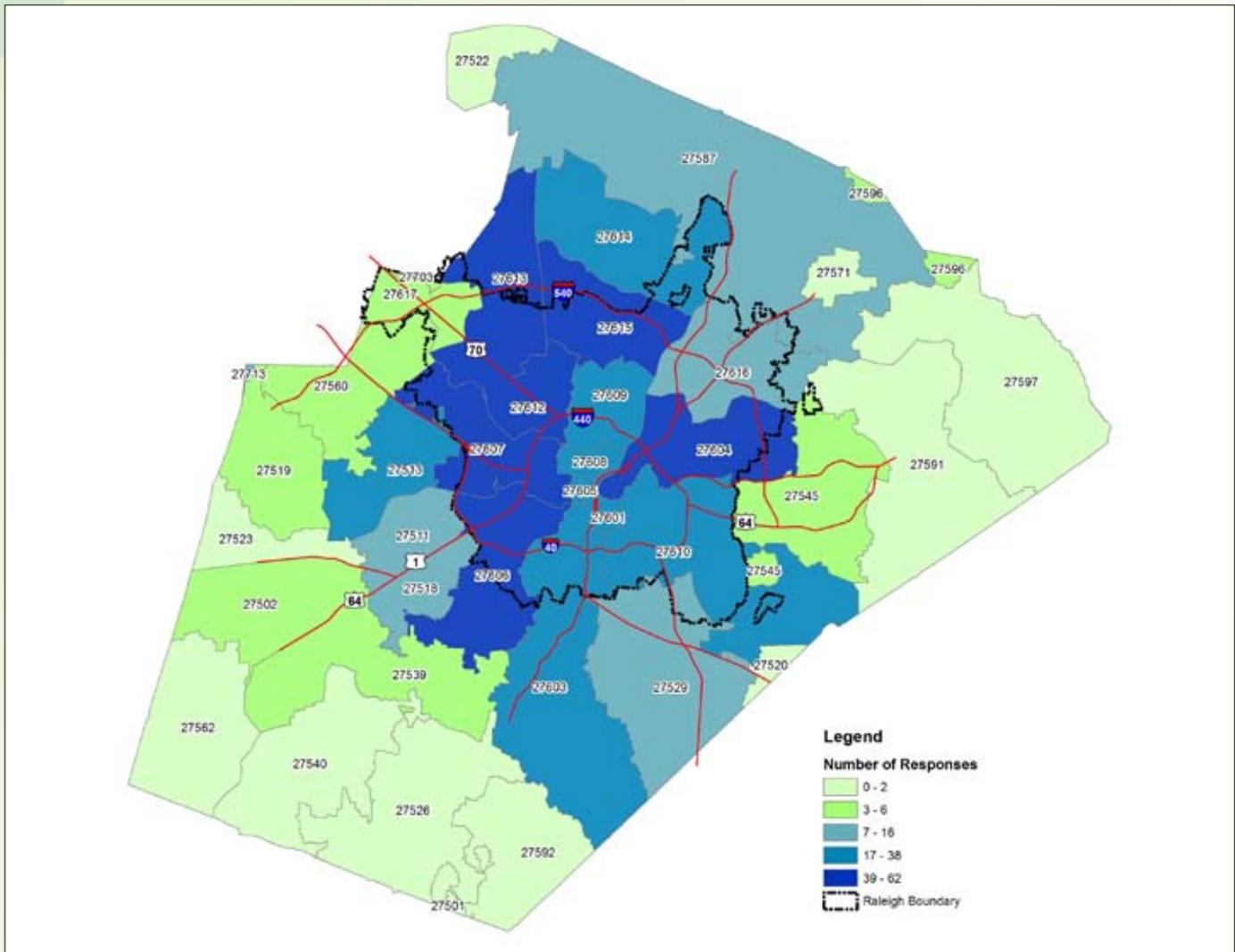




27. What is your zip code?

27613	62	27518	7	27501	1
27612	61	27560	6	27526	1
27607	60	27617	6	27549	1
27604	49	27502	4	27592	1
27606	44	27519	4	27619	1
27615	44	27545	4	27701	1
27609	38	27703	4	27707	1
27513	35	27539	3		
27605	33	27596	3		
27614	33	27517	2		
27603	29	27520	2		
27608	29	27522	2		
27610	21	27523	2		
27601	17	27527	2		
27616	12	27540	2		
27587	10	27602	2		
27511	9	20815	1		
27529	8	27278	1		
27713	8	27312	1		

The zipcode map below shows the geographic distribution of respondents to the comment form throughout Wake County and the City of Raleigh. The distribution is fairly representative and equitable with the most response coming from west and northwest Raleigh zipcodes.





28. What is your gender?			Response Percent	Response Count
Male			69.9%	475
Female			30.1%	205
			<b>answered question</b>	<b>680</b>
			<b>skipped question</b>	<b>159</b>

29. What is your age?			Response Percent	Response Count
0-9			0.0%	0
10-19			1.6%	11
20-29			18.6%	127
30-39			28.4%	194
40-49			28.0%	191
50-59			19.8%	135
60 and older			3.5%	24
			<b>answered question</b>	<b>682</b>
			<b>skipped question</b>	<b>157</b>

31. Where do you live? (select one)			Response Percent	Response Count
Raleigh			76.4%	505
Cary			8.8%	58
Durham			2.7%	18
Wake Forest			1.7%	11
Knightdale			0.6%	4
Garner			1.4%	9
Wake County, outside Raleigh City limits			8.5%	56
			Other (please specify)	40
			<b>answered question</b>	<b>661</b>
			<b>skipped question</b>	<b>178</b>





## PUBLIC WORKSHOP MAP COMMENTS

Sub-Area	Category	Workshop/Map Reference # / Comment
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Note: The sub-areas of 'North Raleigh', 'East Raleigh', and 'West Raleigh' are delineated for public input analysis only. 'North Raleigh' refers to areas north of US 70 and US 401. 'East Raleigh' refers to areas south and east of US 401. 'West Raleigh' refers to areas south and west of US 70. Comments are written verbatim and assigned a number on the input map. Clarification of both written and drawn comments are in parenthesis.

### Public Workshop #1

West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	1. When will Wade Avenue to the beltline bridge be connected? (North of Merideth College, from the shopping center on Wade Ave to the existing trail)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	2. Why is this a bike lane only part time? (Regarding the bike lane on Ridge Road near the Wade Ave shopping center) Employees of Whole Foods are allowed to park in the bike lane certain hours of the day.
West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	3. Service Road and Trails (noted in Umstead State park)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	4. New pavement, but no bike marking or shoulder (on Ebenezer Church Road, running just east of Umstead, from Graylyn Road to Duraleigh Road)
West Raleigh, North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	5. Crossing (improvements needed at the intersection of Glenwood Ave and Graylyn Road)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	6. Bike Path (requested on Blue Ridge Road, from Edwards Mill Road to Western Blvd)
West Raleigh	Ancillary Facility	Glen Eden, Map #1 4/2/08	7. No Parking (signs noted along entrances to Umstead State Park at Graylyn Road, reedy Creek Road, and Trenton Road)
West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	8. (greenway requested along creek from Umstead State Park to Crabtree Creek Trail)
West Raleigh, North Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	9. Better lighting needed here (at Crabtree Creek Greenway underpass at US 70/Glenwood Ave)
West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	10. (Greenway requested parallel and east of I-440, from Glen Eden Drive to existing trail at the beltline bike/ped bridge)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	11. (Commonly used on-road bike route noted on Glen Eden Drive, from US 70/Glenwood Ave west to Ridge Road > south on Ridge Road to Wade Avenue > east on Wade Avenue to Faircloth Street > south on Faircloth to Hillsborough Street)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	12. (Intersections noted for improvement: Ridge Road/Wade Avenue and Wade Avenue/Faircloth)
West Raleigh, North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	13. Bike Path (requested on, or along Glenwood Avenue/US 70, from I-440 to Hillsborough Street)
West Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	14. (Bicycle facility requested on Oberlin Road, from Glenwood Ave/US 70 to Hillsborough Street)
West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	15. Trails? (Circled area around NCSU Campus)
West Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	16. Work with Meredith College on (greenway) access issues: gate is open daylight hours only; commuters need access, like on the American Tobacco Trail (which is open until 10:00 PM for commuters)
Citywide	Policy/Program	Glen Eden, Map #1 4/2/08	17. Regional Map (requested for bicycle facilities)
West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #1 4/2/08	18. Need a good east-west connector between Raleigh and RTP - through Umstead and Cary? (Bike/Ped) Bridge over 70?
Citywide	Policy/Program	Glen Eden, Map #1 4/2/08	19. Allow mountain bike trail development in City parks: Build facilities for all cyclists; on- and off-road cyclists
East Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	20. Link and show At. Augustine's College (trail connection requested from St. Augustine's College, south to Little Rock Trail on Watson Street)
East Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	21. Link these greenways? (trail connection requested from Buckeye Trail to Anderson Point)
Citywide	Greenway Facility	Glen Eden, Map #1 4/2/08	22. Connect existing greenways with downtown Raleigh
East Raleigh, North Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	23. Future Trail (requested along the Nuese River from Falls Lake to the existing Nuese River trail near Milburnie Park)
Citywide	Ancillary Facility, Policy/Program	Glen Eden, Map #1 4/2/08	24. Some crosstown bike routes are not signed well
North Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	25. Why is the (Middle Crabtree Creek Trail) still closed? (noted just south and west of the exit ramps for Capital Blvd at I-440)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	26. (Commonly used on-road bike route noted on Granville Road from Glenwood Avenue/US 70, east to Aleghany Drive > Aleghany Drive north to Crabtree Valley Trail > then north across I-440 on Yadkin Drive)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	27. Too narrow (noted on Six Forks Road, from I-440, south to Wake Forest Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	28. Tight (area noted along Wake Forest Road around intersection of I-440)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	29. Bad; No Shoulder (On St. Albans Drive, from Wake Forest Road to Apache Drive)





Sub-Area	Category	Workshop/Map Reference	# / Comment
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	30. Restripe (St. Albans Drive is wide enough to restripe from I-440 to Wake Forest Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	31. Bike Lane/Bike Route (requested along Six Forks Road, from I-540 to I-440)
North Raleigh	Ancillary Facility	Glen Eden, Map #1 4/2/08	32. Need lights in tunnel (Bent Creek Trail at North Hills Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	33. Need shoulders to I-440 (on Falls of the Nuese Road from Millbrook Drive)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	34. Check intersection approach (on Falls of the Nuese Road, heading south into intersection with E. Millbrook Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	35. Bike lanes (requested on falls of the Nuese Road, from I-540 to E. Millbrook Rd.)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	36. This detour makes no sense! Keep on Spring Forest; safer too (noted near Spring Forest Road and Rainwater Road on Bike Route #11)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	37. Bike Route #11 (drawn on map)
North Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #1 4/2/08	38. Turn arrow needed (at intersection of Spring Foest Road and Departure drive)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	39. Restripe (Sawmill Road, from Falls of the Nuese to Lead Mine Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	40. Check Stripping (Sawmill Road, from Lead Mine Road to Creedmore Rd)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	41. Bike Lane (Requested on Creedmore Road, from Strickland Road to Glenwood Avenue/US 70)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	42. Shoulders needed (on Leesville Road, from Norwood Road to W. Millbrook Road.
North Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	43. Nedd connection to bike trail. Currently not open to mountain bikers. (Noted in area around Leesville Park)
North Raleigh	Greenway Facility	Glen Eden, Map #1 4/2/08	44. (Greenway requested from Bent Creek Trail, north to I-540 near Honeycutt Park; existing tunnel noted under I-540)
North Raleigh	Ancillary Facility	Glen Eden, Map #1 4/2/08	45. Trek Raleigh (store location noted on Durant Road)
North Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #1 4/2/08	46. Access over Durant Road needed (along existing 'Durant Connector Trail' near Raven Ridge Road; no connectivity or safe crossing noted between school, Durrant Nature Park, and the neighborhoods north of Durant Road)
North Raleigh	Bike Facility	Glen Eden, Map #1 4/2/08	47. (Bike facility requested for Falls of the Nuese Road, from I-540 north > to a proposed greenway connection to New Falls of the Nuse Road > continuing on New Falls of the Nuese > ending at Capital Blvd.)
North Raleigh	Ancillary Facility	Glen Eden, Map #1 4/2/08	48. (Future trail crossing requested as needed at Raven Ridge Road near Koupela Drive)
North Raleigh	Ancillary Facility	Glen Eden, Map #1 4/2/08	49. M.B. (mountain bike trails requested at Falls Lake)
North Raleigh, West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	1. Wide outside lane existing (on Sawmill Road, from Six Forks Road to Creedmoor Road)
North Raleigh, West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	2. (Potential bike route noted from I-440 near Six Forks Road, south to Dorthea Dix Soccer park; Route travels along the following roads: Lassiter Mill Road > Ramblewood Drive > Bellvue Road > W. Drewery Lane > Crabtree Chase Drive > Anderson Drive > Hazelwood Drive > Reeves Drive > Aycock Road > Glenwood Ave > Devereux Street> Boylen Avenue > Rocky Branch Trail)
West Raleigh	Greenway Facility	Glen Eden, Map #2 4/2/08	3. Finish This! (greenway connection between Umstead State park and Crabtree-Oak Park Trail)
West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	4. Wide shoulders on Ebenezer Church Road (from Glenwood Ave/US 70 to Duraleigh Road)
West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	5. Add bike lanes or wide outside lanes (on Blue Ridge Road from Glenwood Ave/US 70 to Duraleigh Road)
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #2 4/2/08	6. Get Raleigh future road GIS layer (for analysis in the Bike Plan)
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #2 4/2/08	7. Consider bike accomodations while doing rerouting of road projects
East Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	8. Check for improvement plans (of the intersection and/or surrounding area of Rock Quarry Road/New Hope Road/Jones Sausage Road)
East Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	9. Need improvements (on Poole Road, from Rose lane to Sunnybrook Road)
East Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #2 4/2/08	10. What is the best connection? (between Downtown and middle Crabtree Creek Trail)
West Raleigh	Ancillary Facility	Glen Eden, Map #2 4/2/08	11. Farmer's Market (location noted as a trip attractor near intersection of Avent Ferry and Lake Wheeler Road)
West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	12. Needs bike accommodations (Gorman Street, from Hillsborough Street to Western Blvd.)
West Raleigh	Bike Facility	Glen Eden, Map #2 4/2/08	13. Maintenance (needed on Hillsborough Street, from Morgan to Pullen)
Citywide	Bike Facility	Glen Eden, Map #3 4/2/08	1. Need a good east-west bike corridor - to Cary; NC 54 and Hillsborough Street?
Citywide	Policy/Program	Glen Eden, Map #3 4/2/08	2. Promote safety for cyclists by building driver-awareness: follow speed limits, stop at traffic lights, etc.
West Raleigh, East Raleigh	Policy/Program, Greenway Facility	Glen Eden, Map #3 4/2/08	3. Low area, needs high-level maintenance (for corridor north of Tryon street and south of Rush Street)
Citywide	Policy/Program, Ancillary Facility	Glen Eden, Map #3 4/2/08	4. Signage should be first priority when built; bike lanes need to signed





Sub-Area	Category	Workshop/Map Reference	# / Comment
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	5. There are a lot of cyclists using Oberlin Road (Check for possible improvements)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	6. Two-way on Person & Bount? (Is this feasible & would this be good for cyclists?)
Citywide	Policy/Program	Glen Eden, Map #3 4/2/08	7. No motorized bikes on greenways
East Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	8. (Greenway connection requested from Worthdale Trail to Walnut Creek Trail, to Neuse River)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	9. (Good on-road route, check for improvements; from N. Peartree Lane at Buckeye Trail, south to Donald ross Drive > the east to Sunnybrook drive via either Kidd Road or Poole Road > south on Sunnybrook Drive to Rock Quarry Road)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	10. (Good on-road route, check for improvements; from Sunny Brook, west on Rock Quarry Road to the following roads: Crosslink Road > Rush Street > Renfrow Rd > Carolina Pines Ave > Henslow Drive > Sierra drive > Lineberry Drive > to either north or south on Trailwood Drive.)
East Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	11. Open Trail (between S. Wilmington Street and Garner Road, just north of I-40)
East Raleigh	Ancillary Facility	Glen Eden, Map #3 4/2/08	12. Wake Wed (location noted as trip attractor at south end of Buckeye Trail)
East Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	13. (Greenway connection requested between south end of Buckeye Trail and Anderson Point, along Crabtree Creek to the Neuse River)
Citywide	Policy/Program	Glen Eden, Map #3 4/2/08	14. Is there an existing downtown bike/walk historic tour? - Look into it.
East Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	15. Greenway or paved shoulders (along North Raleigh Blvd, from Brentwood Road to Trawick Road)
North Raleigh, East Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	16. Greenway-Sewerline (Greenway requested on sewerline running north-south from Brentwood Trail to Timberlake Park, contiuing south across I-440 to Buckeye Trail)
East Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	17. (Check conditions at I-440 and Brentwood Drive)
North Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	18. Status of bridge?/Closed? (Middle Crabtree Creek Trail, near the I-440 exit ramps at Capital Blvd)
North Raleigh, East Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	19. (Check conditions at I-440 and Capital Blvd)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	20. East-West connector (possible bike route noted along Glasscock Street and Larson Drive, from Delway Street to Chatham Lane)
North Raleigh, East Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	21. Connectivity! (needed across Capital Blvd; possible bike/ped bridge across Capital Blvd, between Peace Street and Wake Forest Rd)
North Raleigh, East Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	22. (Check current connditions on Atlantic Ave bridge over Capital Blvd; noted as poor; only way across for approximately one mile heading south)
North Raleigh, East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	23. (Check current connditions on Peace Street across Capital Blvd; only way across for approximately one mile heading north)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	24. (downtown connector: along Salisbury Street, from downtown, to Halifax, to Franklin, to Harp, to Delway, to Person/Mordecai)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	25. (downtown connector: along Bount Street, from downtown, to Peace, to N. Boundary Street, to Brookside Drive)
East Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	26. Connect Shaw and St. Augustine; off-road or sidepath
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	27. (Check W. Cabarrus Street as a downtown connector from Rocky Branch Trail)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	28. (Check S. Boylen as a connector to Rocky Branch and dorthea Dix)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	29. Heavey cycling use (On Yeates Mill Pond Road from Tryon Road south)
West Raleigh	Ancillary Facility	Glen Eden, Map #3 4/2/08	30. (Area of high student population noted south of Avent Ferry Road, near Lake Johnson)
West Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	31. Closing time for bike/ped bridge over I-440 is bad for commuter cyclists.
West Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	32. Perhaps an alternative route is needed from greenway to Ridge Road.
West Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	33. Yes (in response to comment #31, Map #3)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	34. Connection through Centennial! (from upper Walnut Trail to Rocky Branch Trail)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	35. Not bike-friendly: needs improvements (along Avent Ferry Road, from Lake Johnson to Western Blvd)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	36. Rocky Branch (greenway connection requested from Rocky Branch to reedy Creek Trail through NCSU)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	37. Poorly maintained (noted on Founders Road, from Ashe Ave to Faircloth Street)
West Raleigh	Bike Facility, Ancillary Facility	Glen Eden, Map #3 4/2/08	38. Roundabout? (noted on intersection of Founders Road/Ashe Avenue/E. Morgan Drive)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	39. (Check condition on W. Morgan, from N. Dawson to Founders Road)
West Raleigh, North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	40. Rush hour is bad (noted on Glenwood Ave/US 70 from W. Morgan to Fairview Road)





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West Raleigh, North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	41. (Check conditions on Fairview Road, from Glenwood Ave/US 70 to Oberlin Road)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	42. Check for restripe (on Oberlin Road, from Fairview Road, to Founders Road)
West Raleigh	Ancillary Facility, Policy/Program	Glen Eden, Map #3 4/2/08	43. Bike Coop (location noted as a trip attractor on Chamberlain Street near Garden Street Trail)
West Raleigh	Ancillary Facility	Glen Eden, Map #3 4/2/08	44. Bike Shop (location noted as a trip attractor on Wade Ave and Ridge Road)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	45. (Commonly used route noted Faircloth Street, to Wade, to Ridge Road, to Glen Eden, to Blue Ridge, to Crabtree Valley Trail)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	46. High demand! (noted for greenway connection between Ridge Road and the I-440 bridge)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	47. House Creek (greenway connection requested along the east side of I-440, from the bike/ped bridge to Glen Eden Drive)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	48. Dangerous (noted on Lake Boone Trail, from Duraleigh Road to Glenwood Ave/I-440)
West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	49. (greenway or sidepath connection requested along Wade Ave between Reedy Creek Trail and Ridge Road)
West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	50. Need bike connection to Fairgrounds (location noted at intersection of Blue Ridge Road and Hillsborough Street)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	51. (Check for possible facilities on Youth Center Drive, from Hillsborough Street to RBC Center Road and Loblolly Trail. Also check along Westchase Blvd)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	52. Multiple crashes; dangerous (Noted along Blue Ridge Road from Hillsborough Street to Macon Pond Road)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	53. Existing bicycle lanes (noted on Edwards Mill Road, from Wade Avenue to Reedy Creek Road)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	54. Existing Sidepath (noted on Reedy Creek Road, from Edwards Mill Road to Reedy Creek Lake)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	55. These median strips making riding here very difficult! Why are they even there? (noted along Reedy Creek Road, just west of Edwards Mill Road)
West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	56. Outside beltline there are many destinations, not many options (for getting there; mentioned near Fairgrounds)
West Raleigh	Policy/Program	Glen Eden, Map #3 4/2/08	57. Slower speed for cars (request on Reedy Creek Road near Reedy Creek Lake)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	58. Wider Shoulders on Ebenezer Church Road (From Umstead State Park to Duraleigh Road)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	59. (Check for potential improvements along Trenton Road, from Reedy Creek Road to SAS Campus Drive; from SAS, connect on-road to Cary)
West Raleigh, North Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	60. Getting across 70 towards RTP is difficult
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	61. Connect Raleigh and Cary (through Umstead State Park trails)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	62. Please complete! (noted for greenway connection between Umstead State Park and Crab Tree-Oak Park Trail)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	63. Missing Link!!! (noted for greenway connection between Umstead State Park and Crab Tree-Oak Park Trail)
West Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	64. Build a bridge over low spot on Ceder Ridge Trail, so I can ride when wet! (noted in Umstead State Park)
West Raleigh	Ancillary Facility	Glen Eden, Map #3 4/2/08	65. Rock Quarry (location noted near Umstead State Park)
West Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	66. Wider shoulder on Ebenezer Church Road (noted along entire border of Umstead State Park)
West Raleigh	Policy/Program, Ancillary Facility	Glen Eden, Map #3 4/2/08	67. Allow parking for bike commuters on Ebenezer Church Road at Umstead: take down no parking signs at park entrance
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #3 4/2/08	68. My preference is for wider roads over bike lanes. Bike lanes always have rocks, etc., in them and drivers perception is that you are only allowed in the road if you are in the bike lane!
Citywide, North Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	69. Connect Crabtree Greenway to downtown!
Citywide	Bike Facility	Glen Eden, Map #3 4/2/08	70. I-440- Significant barrier to bicycles!!!
North Raleigh, West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	71. (Check out intersection of I-440 and Glenwood Avenue for improvements)
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #3 4/2/08	72. Resign existing bike routes (particularly noted in area of I-440 and Glenwood Ave/US 70)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	73. (Check potential bike route for improvements: From White Oak Road at Glenwood Avenue, to Oxford Road, to Fallon Creek Trail/Middle Crabtree Creek Trail)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	74. (Check potential bike route for improvements: From Whitaker Mill Road at Glenwood Avenue, to Noble Road, to Fallon Creek Trail/Middle Crabtree Creek Trail)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	75. (Check out intersection of I-440 and Six Forks Road for improvements)





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North Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	76. Creek (check out potential connection underneath I-440 between Six Forks Road and Wake Forest Road)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	77. (Wake Forest Road, from E. Six Forks Road to St. Albans Drive, is noted as too tight for bicycles)
North Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #3 4/2/08	78. Connect these neighborhoods to the greenway (across I-440, from Brentwood Trail area to the Middle Crabtree Creek area)
North Raleigh	Greenway Facility	Glen Eden, Map #3 4/2/08	79. Rail Road ROW? (check out opportunity for access parallel to Atlantic Avenue, from Middle Crabtree Creek, across I-440, and north towards Wake Forest)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	80. (Check on-road conditions on Atlantic Avenue near and across I-440)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	81. No shoulder (check conditions on Stalbans Drive, from Wake Forest Road to New Hope Church Road)
North Raleigh	Ancillary Facility	Glen Eden, Map #3 4/2/08	82. Bike shop (location noted as a trip attractor, near Milbrook Road and Falls of the Nuese Road)
North Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	83. Bike Lanes; Restripe (On Falls of the Nuese Road, from Milbrook Road north past Spring Forest Road)
East Raleigh	Bike Facility	Glen Eden, Map #3 4/2/08	84. Road diet for Wake Forest Road south of Capital Blvd?
Citywide	Policy/Program, Greenway Facility	Glen Eden, Map #3 4/2/08	85. Open greenway facilities at night for commuters until 10:00PM
North Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	1. (Red dotted line noted from Almance Drive from Allegany to Glenwood; Check conditions and connection to Crabtree Greenway)
North Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	2. (Red dotted line from Allegany/Granville from Crabtree Greenway to Glenwood; Check conditions)
North Raleigh	Ancillary Facility	Glen Eden, Map #4 4/2/08	3. North Hills Mall indicated as a Trip Attractor
North Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	4. Lassiter Mill Road, between I-440 and Six Forks Road is narrow (in front of North Hills Mall)
North Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	5. Lassiter Mill Road from Crabtree Creek to Glenwood is too narrow.
North Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	6. Potential Creek Corridor from Crabtree Creek, north under I-440 to St. Albans, and north to Millbrook (parallel to Quail Hollow).
North Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	7. Fix Crabtree Creek Greenway at Atlantic Avenue
North Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	8. Fix Crabtree Creek Greenway between US 1 and Atlantic
North Raleigh	Ancillary Facility	Glen Eden, Map #4 4/2/08	9. Potential location for bike/ped overpass over Capital Blvd, connecting Wade Ave to Park on Halifax Street.
West Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	10. Connect Crabtree Greenway from Lindsay Drive to Umstead State Park.
West Raleigh	Ancillary Facility	Glen Eden, Map #4 4/2/08	11. Hospital noted on Blue Ridge Road (potential employee trip attractor)
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	12. Ridge Road from Wade to Glen Eden Drive has an existing Bike lane.
West Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	13. The House Creek Greenway was noted as under development, connecting Crabtree Creek Greenway to Merideth College along I-440
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	14. Noted existing sidepath along Reedy Creek Road from Blue Ridge to Umstead Park.
West Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	15. Greenway Connection needed around east and north side of Merideth College (to bypass the gates that close at dusk).
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	16. Red dotted line notes a route that connects NC State to Crabtree Creek Greenway, along the following roads: Sussix Rd., Brooks Ave, Hillsborough Rd, Dan Allen Dr, Fraternity Ct, Varsity Dr
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	17. Existing sharrow noted at NC State on Dan Allen Dr
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	18. Existing sidepath and wide outside lanes noted along Centennial Parkway, from Avert Ferry to Lake Wheeler Road
West Raleigh	Policy/Program	Glen Eden, Map #4 4/2/08	19. Check out long range plans for NC State's Centennial Campus
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	20. Lake Wheeler Road, from Centennial Parkway to Tryon Road, needs bike lanes to connect to Walnut Creek Greenway.
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	21. Request for bike lanes on Carolina Pines Avenue, from Lake Wheeler Road to South Saunders (I-70)
West Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	22. Connect Centennial Parkway to S. Saunders with a greenway paralleling I-40
West Raleigh, East Raleigh	Policy/Program, Greenway Facility	Glen Eden, Map #4 4/2/08	23. Improve security and signage along greenway between Dorthea Dix property and S. Wilmington St.
East Raleigh	Greenway Facility	Glen Eden, Map #4 4/2/08	24. Greenway under construction between Ketter Center Dr and Garner Rd
West Raleigh, East Raleigh	Policy/Program, Bike Facility	Glen Eden, Map #4 4/2/08	25. Use sharrows on all streets in downtown proper (box around downtown is delineated with a green line)
West Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	26. Boylen Ave from Cabarruss Street, north to Park on Clay Street (noted as a desirable route)
East Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	27. Note to make Lane Street 2-way in Downtown
East Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	28. Note to make Jones Street 2-way in Downtown





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East Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	29. Red dotted line noted as a bike route on the following roads: Crabtree Greenway, Raleigh Blvd, Lehmen Rd, Glasscock St, Brookside Dr, Watauga St, Oakwood Ave, into downtown.
East Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	30. Bike facility desired on Automotive Way from Brookside Drive to Person Street
East Raleigh	Bike Facility	Glen Eden, Map #4 4/2/08	31. Request for connection along Atlantic Ave from Automotive Way, north to Crabtree Greenway
East Raleigh	Policy/Program, Greenway Facility	Glen Eden, Map #4 4/2/08	32. Security issue on greenway between Fayetteville Street and Keeter Drive (loitering).
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	33. Request for Safe Routes to School Programs
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	34. Reduce parking requirements - Density Bonus
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	35. Provide showers at workplaces
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	36. Provide incentives to install showers at workplaces
Citywide	Policy/Program, Greenway Facility	Glen Eden, Map #4 4/2/08	37. Extend hours for cyclists on greenways, like the ATT in Durham
Citywide	Policy/Program, Greenway Facility	Glen Eden, Map #4 4/2/08	38. Provide centerline striping on all greenway trails
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #4 4/2/08	39. Sweep bike lanes regularly
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #4 4/2/08	40. Enforce 'no parking' in bike lanes
Citywide	Policy/Program, Bike Facility	Glen Eden, Map #4 4/2/08	41. No leaf piles in bike lanes
West Raleigh	Policy/Program	Glen Eden, Map #4 4/2/08	42. Look at the Lake Wheeler Road Streetscape Project (part of the Southwest Raleigh District Plan update)
West Raleigh	Bike Facility, Greenway Facility	Glen Eden, Map #4 4/2/08	43. Connect NC State main campus to Centennial Campus
Citywide	Bike Facility	Glen Eden, Map #4 4/2/08	44. Contact 'Raleigh Rickshaws' input on downtown bike conditions
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	45. Any new roads crossing greenways need to do so with separated greenway bridge/tunnel under or over.
Citywide	Policy/Program	Glen Eden, Map #4 4/2/08	46. Signs should be number 1 priority





Sub-Area	Category	Workshop/Map Reference	# / Comment
<b>Public Workshop #2</b>			
Citywide	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	1. Need better connections to Cary (Hillsborough and Trinity)
Citywide	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	2. Need better connections to NC State
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	3. Need connection from Lake Johnson to NC State
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	4. Need trail connection from Lake Johnson to NC State
East Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	5. Need to develop Neuse River Greenway
East Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	6. Add facility to New Falls of Neuse Road
East Raleigh	Policy/Program	Sertoma Arts Center, Map #1, 8/26/08	7. Need biofilter as part of Neuse Greenway Plan (Neuse River an EPA Top 10 Most Endangered River)
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	8. Need alternative route to RTP
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	9. Add sharrow to bicycle route - Sierra/Lineberry/Henslowe
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	10. Hillsborough Rd, near NC State, should become bicycle lane
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	11. Need connection to Lassiter Mill
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	12. Consider bicycle lanes for Oberlin
East Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	13. Is US-1 an option to connect Wake Forest to Raleigh?
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	14. Put bike path on proposed overpass over I-40 near Trailwood Dr.
West Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	15. Bicycle lane on Faircloth
East Raleigh	Bike Facility	Sertoma Arts Center, Map #1, 8/26/08	16. Concept - Capitol Blvd - open creek as a ped bicycle park, northward from Downtown
Citywide	Policy/Program	Sertoma Arts Center, Map #1, 8/26/08	17. Action Step: Inventory small projects/quick fixes like changing grates and signage
Citywide	Policy/Program	Sertoma Arts Center, Map #2, 8/26/08	1. Existing and future bicycle lanes must be swept in order for people to use them.
Citywide	Policy/Program	Sertoma Arts Center, Map #2, 8/26/08	2. Bike racks on buses are often full.
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	3. Great bike lane potential on Lassiter Mill
West Raleigh	Policy/Program	Sertoma Arts Center, Map #2, 8/26/08	4. Need bicycle lockers and showers at Cameron Village
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	5. House Creek Greenway paralleling I-440 would be great
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	6. Would like bicycle lanes on Jones Franklin
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	7. Definitely need bicycle lanes on Six Forks Rd.
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	8. Blue Ridge and Reedy Creek is dangerous intersection
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	9. Edwards Mill and I-40 is a deadly intersection
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	10. Glenwood and Creedmoor is dangerous intersection
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	11. Need bicycle lanes and road diet for Hillsborough Rd coming into Downtown
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	12. Impossible to cross Capitol near Six Forks (need bridges).
East Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	13. Need ramp (must jump curb or ride on sidewalk now) at greenway crossing of Raleigh Rd. near Crabtree Blvd.
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	14. Traffic calming needed on Northcliff
North Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	15. Extend greenway northbound across Sawmill
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	16. Consider road diet on Ebenezer Church
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	17. Paved shoulder missing in places along Gorman St. just north of I-40
Citywide	Policy/Program	Sertoma Arts Center, Map #2, 8/26/08	18. Bicycle lockers needed for Downtown bus station
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	19. Need bicycle facilities on Lumley
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	20. Need connections from Briar Creek into Umstead (at Lumley)
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	21. Need connections to RTP and Perimeter Park
West Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	22. Need connections to RTP
East Raleigh	Bike Facility	Sertoma Arts Center, Map #2, 8/26/08	23. Dangerous curves on Buffaloe and Forestville.
South Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	1. Need connection to Garner
South Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	2. Need Tryon to be a safe bicycle corridor
South Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	3. Make Lake Wheeler a high priority
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	4. Make Avent Ferry a priority from Tryon to Lake Johnson
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	5. Need connection to NCSU Centennial Campus from Upper Walnut Trail greenway (just south of Avent Ferry)
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	6. Connect bicycle lane to RTP
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	7. Add bicycle lane paint to Faircloth north of Hillsborough (wide enough)
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	8. Cabarrus needs to be on greenway map - connection to greenway grid! Also in Comp Plan
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	9. Need to continue Clark as bicycle facility westward to Faircloth
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	10. Hillsborough west of Downtown needs bicycle lanes.
Citywide	Policy/Program	Sertoma Arts Center, Map #3, 8/26/08	11. Consider longer hours for greenways to facilitate bicycle commuting - i.e 6am-11pm
West Raleigh	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	12. Connect Jones Franklin to greenways
Downtown	Bike Facility	Sertoma Arts Center, Map #3, 8/26/08	13. Need bicycle racks at City Market
Citywide	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	1. Bicycle lanes downtown would be symbolic and build momentum for the entire City
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	2. Extend Clark Ave. facility westward from Oberlin and Cameron Village
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	3. Bicycle lanes on Hillsborough
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	4. Bicycle lanes on Hillsborough
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	5. Bicycle lanes on Hillsborough
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	6. Bicycle lanes on Hillsborough
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	7. Bicycle lanes on Hillsborough
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	8. Bicycle lanes on Hillsborough





Sub-Area	Category	Workshop/Map Reference	# / Comment
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	9. Dangerous where Upper Walnut Trail ends at Trailwood, just south of Avent Ferry
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	10. Crossing issue of Edwards Mill over Wade Avenue
Citywide	Policy/Program	Sertoma Arts Center, Map #4, 8/26/08	11. Bicycle racks Downtown
South Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	12. Very important to connect greenway just south of downtown (Lower Walnut Creek Trail and Rocky Branch Trail)
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	13. Provide access from Brier Creek to Umstead
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	14. New development coming in Brier Creek - need connection into Raleigh
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	15. Need connections to RTP
Citywide	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	16. Need bicycle spokes into Downtown
Citywide	Policy/Program	Sertoma Arts Center, Map #4, 8/26/08	17. Education and enforcement important - booths at events to distribute materials
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	18. Need bicycle lanes and sidewalks on Lake Wheeler Rd.
Citywide	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	19. Greenways need safe roadway crossing and need to connect (many have dead ends)
Citywide	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	20. Greenways should have separation of pedestrians and bicyclists
Citywide	Policy/Program	Sertoma Arts Center, Map #4, 8/26/08	21. Drivers education important. Should be part of new drivers curriculum/test
Citywide	Policy/Program	Sertoma Arts Center, Map #4, 8/26/08	22. Put bicycle-related questions on drivers license test
Citywide	Policy/Program	Sertoma Arts Center, Map #4, 8/26/08	23. More bicycle racks needed everywhere with shelters...
East Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	24. Straighten Buckeye Trail (Crabtree Creek Greenway) in places to help commuters - north of Milburnie Rd.
Downtown	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	25. Consider bicycle lanes for Wilmington, Person, and Blount
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	26. Connection of Crabtree-Oak Park Trail westward to Umstead critical
West Raleigh	Bike Facility	Sertoma Arts Center, Map #4, 8/26/08	27. Need to connect Western sidepath greenway to Centennial campus
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	1. Need bicycle lanes along Avent Ferry to connect to Lake Johnson
Citywide	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	2. Need to consider bicycle activated sensors for stop lights
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	3. Reduce speed on AVENT Ferry to 35mph
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	4. Connect Upper Walnut Trail to Centennial Campus
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	5. Take a look at Nazareth for possible bike stripe - lot of students ride there because it prevents having to go along AVENT Ferry
Citywide	Policy/Program	Sertoma Arts Center, Map #5, 8/26/08	6. Need bike parking in parking garages
Citywide	Policy/Program	Sertoma Arts Center, Map #5, 8/26/08	7. Need better wayfinding signage and mile markers along greenways
Downtown	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	8. Bike lanes along Blount and Person
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	9. Want bicycle lanes along Oberlin
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	10. Need bicycle corridor to RTP
East Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	11. Need connection from Crabtree Creek Greenway at Raleigh Blvd into Downtown
East Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	12. Bike facilities along Wake Forest Rd north of Downtown should be a priority
Citywide	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	13. Need better greenway wayfinding signage.
Downtown	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	14. Need connection from western Downtown southward to Western Blvd. greenway
Citywide	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	15. Need separation stripe for pedestrians and bicyclists on greenways.
North Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	16. Need connection from northern Downtown north across all railroad tracks.
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	17. Western Blvd and I-40 is a dangerous intersection
West Raleigh	Bike Facility	Sertoma Arts Center, Map #5, 8/26/08	18. Western Blvd and Blue Ridge is dangerous intersection.
Citywide	Policy/Program	Sertoma Arts Center, Map #5, 8/26/08	19. Need greenways to be safer from crime (especially greenways in SE Raleigh area)
Downtown	Policy/Program	Sertoma Arts Center, Map #5, 8/26/08	20. Downtown proper roads should all have speed limits of 25mph, including Hillsborough, Glenwood S.





Below: Flyer for first public workshop



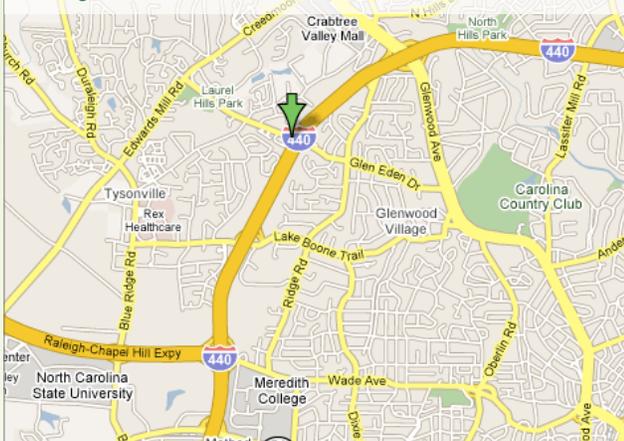
*Come and help shape the future of your community!*  
**APRIL 2, 2008**  
**4:00-7:00 PM**

# PUBLIC WORKSHOP for the

## RALEIGH BICYCLE TRANSPORTATION PLAN



Glen Eden Pilot Neighborhood Center  
1500 Glen Eden Drive  
Raleigh, NC 27612



This is a great opportunity to learn about the main components of the Bicycle Transportation Plan and to provide input on how to improve bicycling conditions in Raleigh. Drop in anytime between 4 PM and 7 PM to talk with Steering Committee members, City staff, and project consultants.

Contact Info: Fleming A. El-Amin II, Public Works/Transportation Services,  
TEL: (919) 516-2158; EMAIL: Fleming.El-Amin@ci.raleigh.nc.us





Below: Front of newsletter for first public workshop



**RALEIGH BICYCLE TRANSPORTATION PLAN**  
the city of raleigh, north carolina



Three common bicycle facilities (top to bottom): wide outside lane, bicycle lane, and greenway. The Plan aims to improve conditions for cyclists of all skill levels, from beginners to experts.

# BICYCLE PLAN NEWSLETTER

## Conditions to Improve for Bicycling in the Capital City

April 2008

1

Newsletter #1

The City of Raleigh and the North Carolina Department of Transportation's Division of Bicycle and Pedestrian Transportation are developing a citywide comprehensive bicycle plan for the Capital City. Raleigh's original bicycle plan was adopted in 1991 and is overdue for an update.

The Plan will include an open, participatory process, with residents of Raleigh providing input through the Steering Committee, public workshops and an online comment form. The new plan will feature:

- A thorough analysis of current conditions for bicycling in Raleigh
- Standards and guidelines for the development of bicycle facilities
- Integration of bicycle policy into codes and ordinances
- Recommendations for programming, operations, maintenance, and funding
- A prioritized list of recommended strategic improvements

The goal is an integrated, seamless transportation framework to facilitate cycling as a viable transportation alternative throughout Raleigh.

A team of consultants will be conducting extensive fieldwork in April and May of 2008, evaluating the current bicycling conditions and creating a Bicycle Level of Service (BLOS) for Raleigh roadways. The goal of the inventory and analysis will be to identify 1) the current suitability of roadways for bicycling, 2) gaps in the bicycle network, and 3) opportunities for bicycle facility development.

### Steering Committee

The Bicycle Transportation Plan Steering Committee will provide consistent feedback and direction throughout the development of the Plan. The committee assembled earlier this year at the project Kick-Off Meeting, where the overall scope of the project was discussed, and draft vision and goals of the plan were explored. Attendance at the first meeting included:

- Brad Amstutz (Raleigh Police Department)
- Fleming El-Amin (Bicycle Plan Project Manager)
- Sig Hutchinson
- David Jerose (CAMPO Bike/Ped)
- Eric Lamb (Raleigh Transportation)
- Timothy Lee
- Laura Loyek
- Bob Mosher (NCDOT Project Manager)
- JJ Walter (CAMPO Bike/Ped)



This project was made possible with a matching grant from the North Carolina Department of Transportation (NCDOT) Division of Bicycle and Pedestrian Transportation.





Below: Flyer for second public workshop

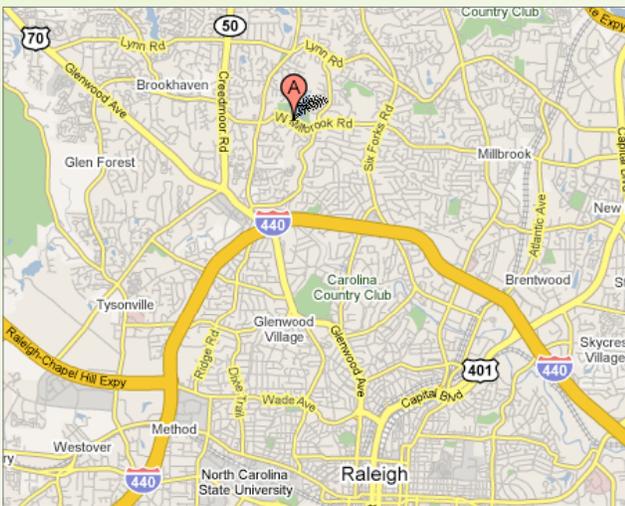


*Come and help shape the future of your community!*  
**AUGUST 26, 2008**  
**4:00-7:00 PM**

# BICYCLE PLANNING PUBLIC WORKSHOP



**THE RALEIGH ROOM at the SERTOMA ARTS CENTER**  
**1400 W MILLBROOK ROAD, RALEIGH, NC**



- Come to the Raleigh Room any time between 4 and 7pm to learn about Raleigh's Draft Bicycle Transportation Plan.
- Talk directly with Steering Committee members, city staff, and project consultants.
- Provide input on draft recommendations and write and/or draw your comments on draft maps.

Contact Info: Fleming A. El-Amin II, Public Works/Transportation Services,  
TEL: (919) 516-2158; EMAIL: Fleming.El-Amin@ci.raleigh.nc.us





Below: Front of newsletter for second public workshop



RALEIGH BICYCLE TRANSPORTATION PLAN  
the city of raleigh, north carolina



Group bicycle rides throughout the City of Raleigh in May of 2008 encouraged bicycling and involvement in the planning process (events above part of Bike-to-Work Week and the Southeast Transportation Forum).

# BICYCLE PLAN NEWSLETTER #2

## Project Planning on Schedule

August 2008

1 Newsletter #2

The City of Raleigh is currently developing a DRAFT Bicycle Plan to address alternative transportation, community health and wellness, recreation, and safety needs. Through a combination of fieldwork, committee and public input, and an examination of existing conditions and needs, a draft bicycle network has been developed for public review, starting at the second public workshop on Tuesday, August 26 at the Sertoma Arts Center.

The planning process has included a high level of public involvement. Over 600 people have participated thus far in the online survey, which has helped project planners identify roadways and intersections most in need of bicycle-related improvements. In April 2008, over 70 people participated in an open house public workshop, which featured a 'visioning' board, educational posters and materials, and maps where participants were invited to write and draw their comments and ideas. Finally, local stakeholders (who volunteer time on project committees) are providing valuable insight and guidance as the plan develops.

### Benefits of Bicycling

- Affordability
- Increased health and physical activity
- Environmental benefits
- Energy conservation
- Automobile traffic reduction
- Quality of life



The development of the Bicycle Plan and network has been supported by stakeholders and residents alike. Here the Downtown Raleigh Alliance provides input specific to the Downtown area.



Division of  
Bicycle &  
Pedestrian  
Transportation

This project was made possible with a matching grant from the North Carolina Department of Transportation (NCDOT) Division of Bicycle and Pedestrian Transportation.







**APPENDIX B OUTLINE:**  
Prioritization Process  
Project Cut-Sheets

# APPENDIX B: PRIORITIZATION + PHASE 1/ TOP PRIORITY CUT-SHEETS

## PRIORITIZATION PROCESS

The prioritization process began by making a list of all the roadways in the City of Raleigh for which bicycle recommendations were made. The roadways were then broken down into 243 segments at logical points, such as major intersections. Most segments are between one and two miles long, with several that are longer in more suburban and less developed areas.

The weighted criteria used to rank each segment was custom designed for Raleigh, based on public input, steering committee input, and data collected pertaining to Raleigh's existing conditions. Project steering committee members were given a worksheet with example criteria and weights used in other North Carolina communities. They were then asked to adjust both the criteria and the weights assigned to each criteria, according to the bicycling-related needs and desires expressed by themselves and the public (the specific criteria and weights used are listed on the following page). Furthermore, public survey results were also incorporated into the prioritization process.

After creating a list of prioritized individual segments, the top 25 were selected from the list based on two additional key factors. First, to ensure an equitable distribution of projects across the City of Raleigh, five priority projects were selected from each of the five council districts. Second, those chosen were selected based on both their high ranking from the prioritization process and the required method of construction. This last part is key because it results in the most efficient use of limited funding to complete 'paint' and 'restripe' projects that are relatively inexpensive.

In summary, the three steps to selecting the top 25 were: 1) prioritization through weighted criteria and public input; 2) equity across council districts; and 3) ease of construction/cost-effectiveness.

*Note:* While it is ideal to develop bicycle facilities in order of priority, it is best to also construct facilities as opportunities arise. Some of the most cost-effective opportunities to provide bicycle facilities are during routine roadway construction, reconstruction, and repaving projects. A new commercial development or a roadway widening project, for instance, would provide the means to build bicycle facilities or trails as a component of an existing effort, regardless of priority ranking through this process.





## Criteria and Weight Used to Prioritize Bicycle Facilities

Criteria	Weight*
Top 1-5 "Most in Need of Improvement" (from Online Survey)	5
Direct Access to/from Downtown (Downtown Overlay District)	5
Direct Access to/from an Existing or Funded Greenway	5
Direct Access to/from a Park or Recreation Center	5
Direct Access to/from a School	5
Serves Areas with a High % of No Vehicle Ownership (Census Data)	5
Segment Contains High Level of Reported Bike Accidents	5
Top 6-10 "Most in Need of Improvement" (from Online Survey)	4
Direct Access to/from Proposed Transit Hubs	4
Segment Contains an Intersection "Most in Need of Improvement" (from Online Survey)	4
Top 11-25 "Most in Need of Improvement" (from Online Survey)	3
College/University Proximity (1 mile radius)	3
Segment Serves as a Regional Connection and/or Interstate Highway Crossing	3
Direct Access to/from High Density Residential Areas (Census Data)	2
Direct Access to Major Shopping Centers**	2
Direct Access to Major Employment Centers***	2
Direct Access to/from a Planned Greenway	1

\* (zero = lowest priority, 5 = highest)

\*\* Major Shopping Centers: Cameron Village, Crabtree Valley Mall, North Hills Shopping Center, Triangle Towne Center, Mission Valley Shopping Center, Glenwood South, North Carolina Farmers' Market, City Market, Five Points, Seaboard Station

\*\*\* Major Employment Centers: Wake Medical Center, State Capital, NC State University, Rex Healthcare, Progress Energy, Wake County Government, City of Raleigh Government





















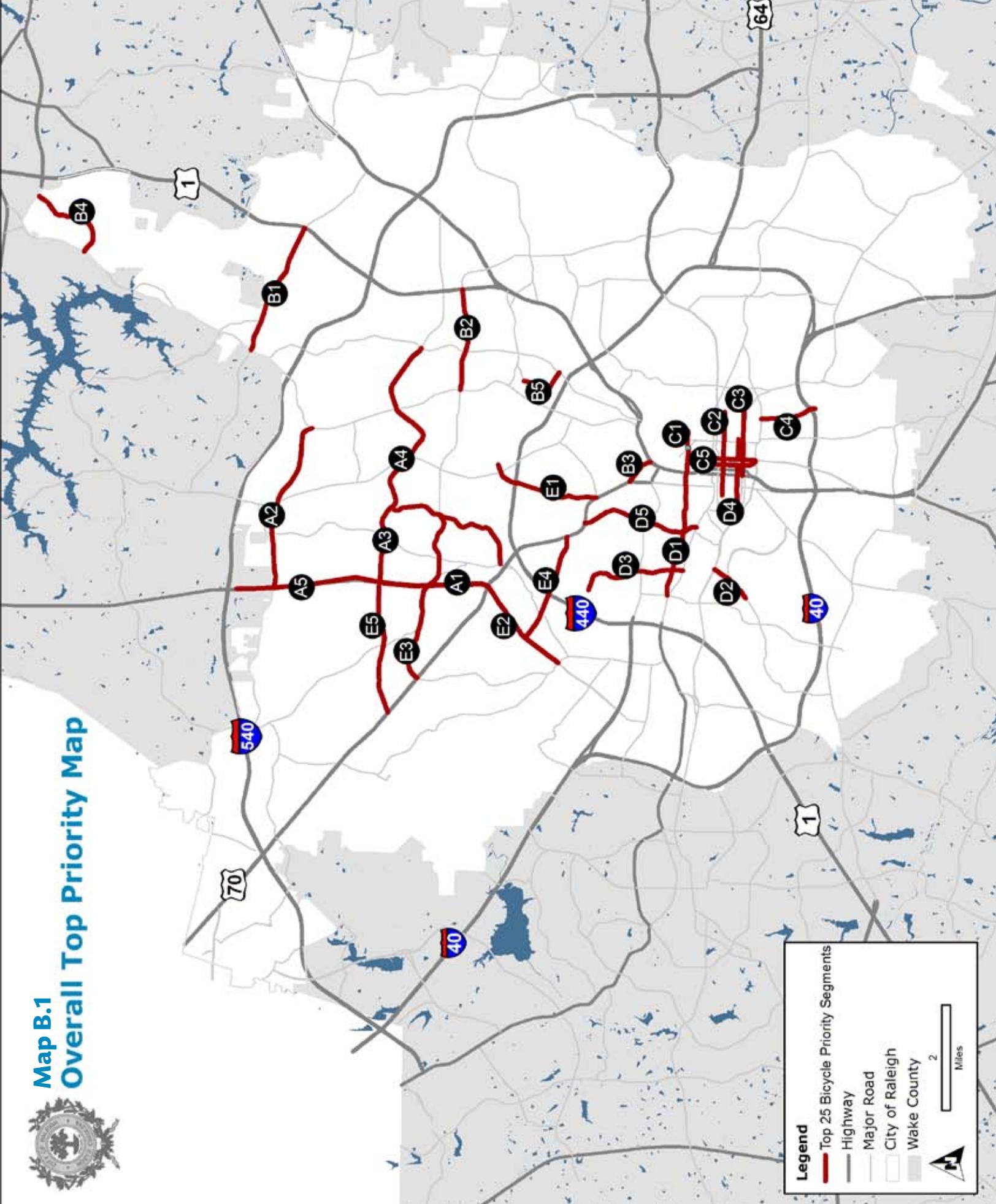
## **PROJECT CUT-SHEETS**

The following project cut-sheets are provided for anyone who wishes to better understand the top 25 projects that are recommended in this plan. The cut sheets are particularly useful for city- and NC DOT-engineers as they begin developing more detailed design work for these projects. They will also help city planning and transportation department staff as they explain these projects to various parties, such as the City Council, potential funding agencies, and interested citizens. The map on the following page shows the locations of these key projects.





# Map B.1 Overall Top Priority



**Legend**

- Top 25 Bicycle Priority Segments
- Highway
- Major Road
- City of Raleigh
- Wake County

2 Miles





**CITY COUNCIL DISTRICT A**

**PROJECT A1:  
CREEDMOOR ROAD**

**Phase 1 (2009)**

**From** Glenwood Ave.  
**To** Lynn Rd.

**Miles** 2.1  
**Feet** 10,900

**Recommendation:**  
Bicycle Lane (restripe)  
- 10,900 feet

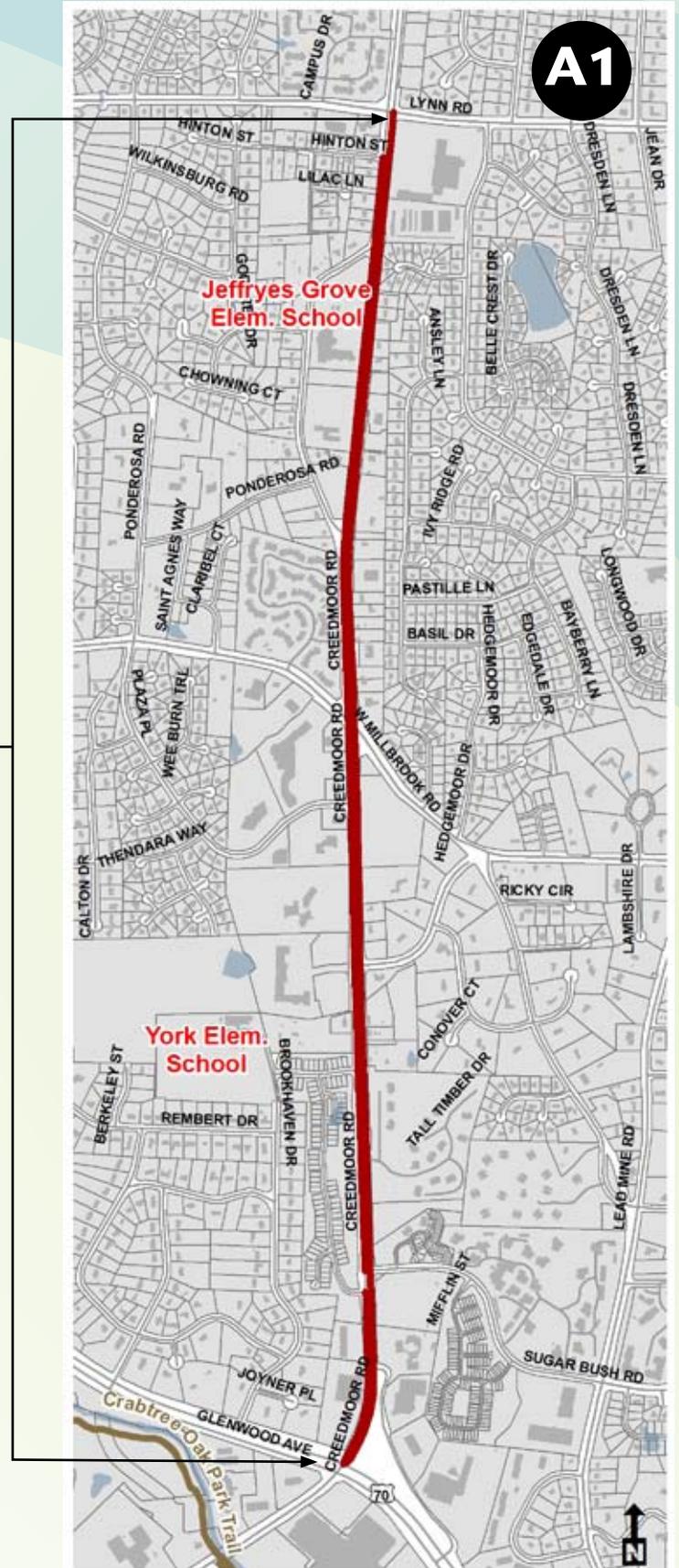
**Important Notes:**  
A speed limit reduction should be considered for this roadway when developing bicycle lanes.

*Current:  
4 lanes and center  
median, with 14' lanes  
(14|14|M|14|14)*

*Bicycle lane restripe:  
(6|11|11|M|11|11|6)*

**Cost Estimate:**  
\$47,834

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works





### CITY COUNCIL DISTRICT A

### PROJECT A2: STRICKLAND ROAD

#### Phase 1 (2009)

**From** Creedmoor Rd.  
**To** Falls of the Neuse Rd.

**Miles** 3.3  
**Feet** 17,400

**Recommendation:**  
Bicycle Lane (restripe)  
- 17,400 feet

**Important Notes:**  
Connects to W. Millbrook Middle School, Honeycutt Creek Trail, Baileywick Trail, and residential and commercial areas; also was high-ranking in public requests.

**Cost Estimate:**  
\$116,880

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works

*Current:*  
Mostly 5 lanes  
and center turn  
lane totaling 64'  
(14|12|12|12|14)

*Bicycle lane restripe:*  
(6|11|10|10|10|11|6)

*Current:*  
Varying 6 to 7 lanes,  
totaling 86'

*Bicycle lane restripe*

*Current:*  
Five lanes and center  
turn lane totaling 64'  
(14|12|12|12|14)

*Bicycle lane restripe:*  
(6|11|10|10|10|11|6)





**CITY COUNCIL DISTRICT A**

**PROJECT A3:  
LYNN ROAD**

**Phase 1 (2009)**

**From** Creedmoor Rd.  
**To** Sandy Forks Rd.

**Miles** 2.7  
**Feet** 14,600

**Recommendation:**  
Bicycle Lane (restripe)  
- 14,600 feet

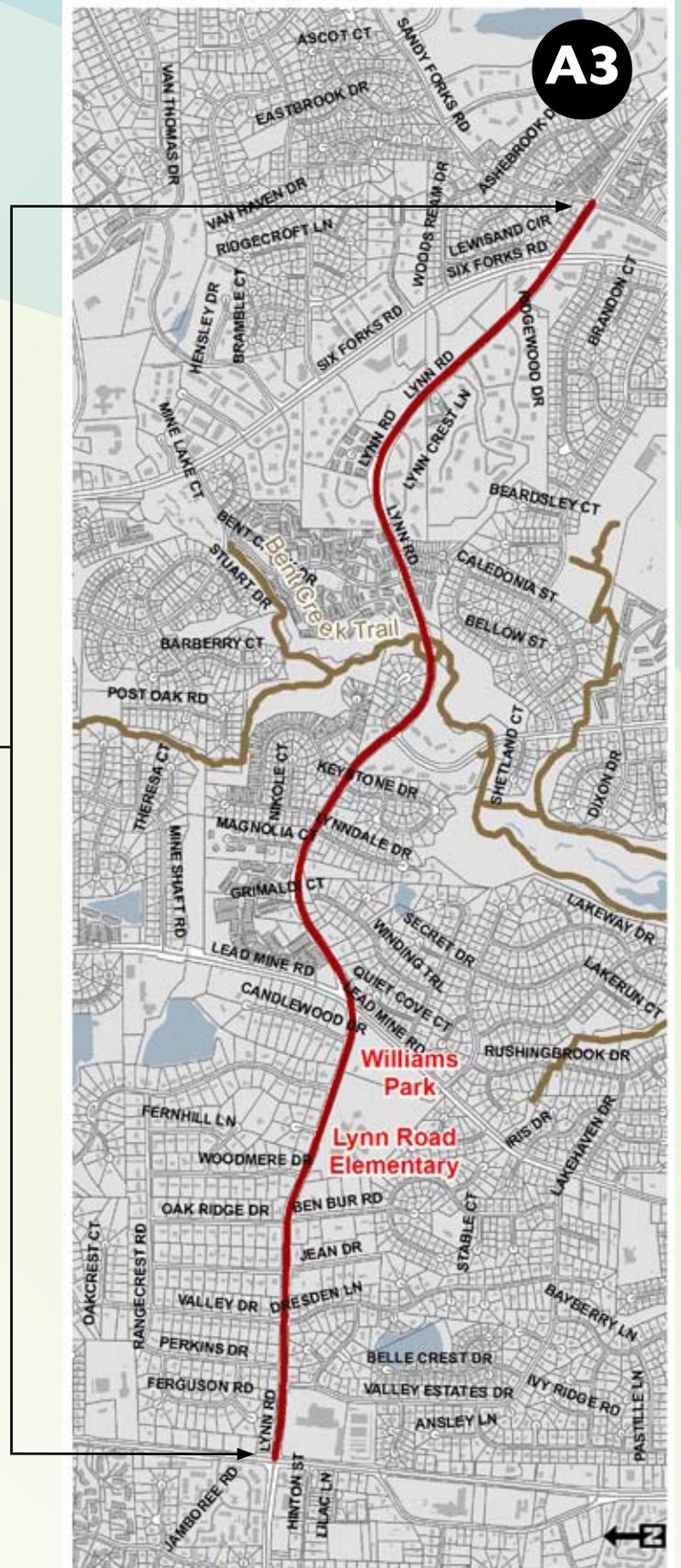
**Important Notes:**  
Connects to Bent Creek Trail,  
Williams Park, Lynn Road  
Elementary, and residential  
and commercial areas

*Current:  
5 lanes with center  
turn lane, totaling  
62-64'  
(14|12|12|12|14)*

*Bicycle lane restripe:  
(6|11|10|10|10|11|6)*

**Cost Estimate:**  
\$97,578

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works





### CITY COUNCIL DISTRICT A

#### PROJECT A4: **SPRING FOREST ROAD**

#### Phase 1 (2009)

**From** Sandy Forks Rd.  
**To** Atlantic Ave.

**Miles** 2.5  
**Feet** 13,100

**Recommendation:**  
Bicycle Lane (restripe)  
- 13,100 feet

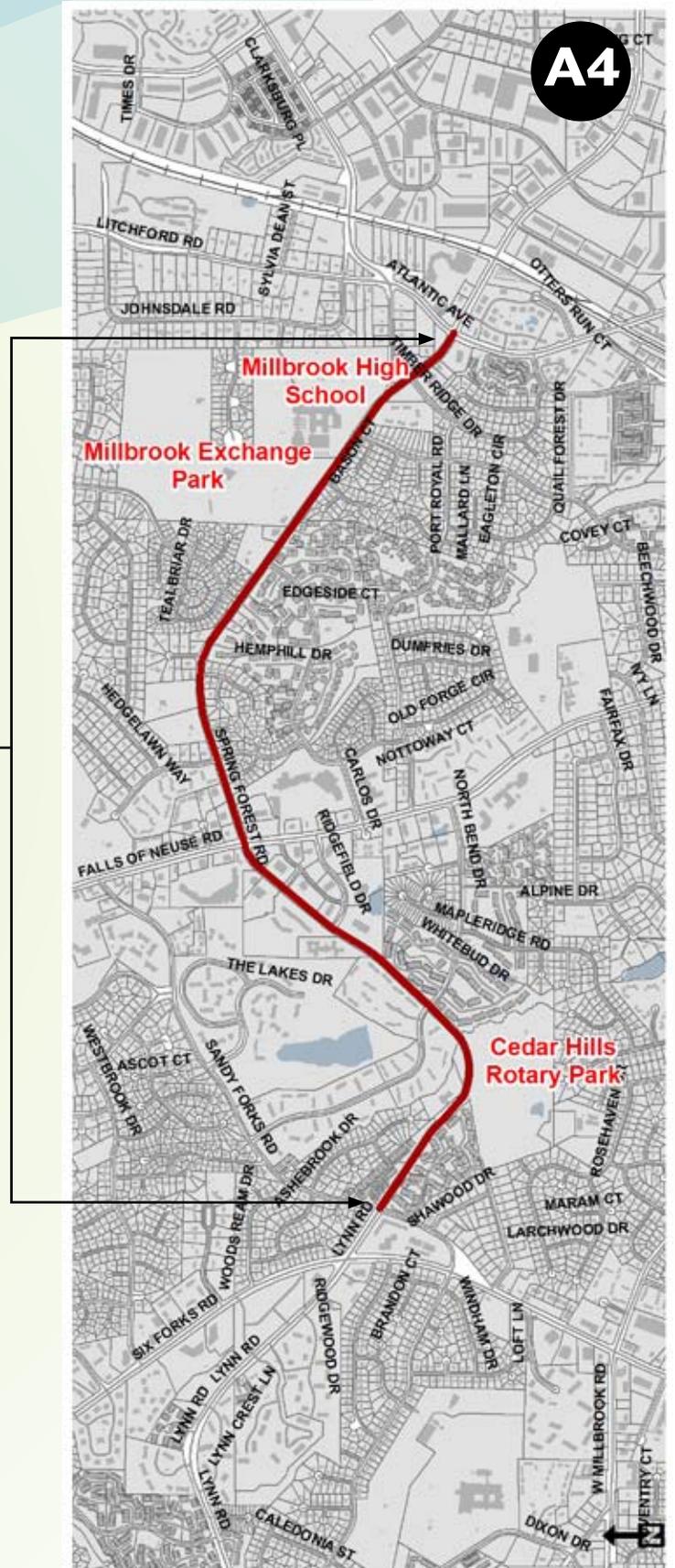
**Important Notes:**  
Connects to Millbrook High School, Millbrook Exchange Park, Cedar Hills Park, and residential and commercial areas.

*Current:  
5 lanes with center  
turn lane, totaling 64'  
(14|12|12|12|14)*

*Bicycle lane restripe:  
(6|11|10|10|10|11|6)*

**Cost Estimate:**  
\$87,406

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works





**CITY COUNCIL DISTRICT A**

**PROJECT A5:  
CREEDMOOR ROAD**

**Phase 1 (2009)**

**From** Lynn Rd.  
**To** I-540

**Miles** 2.7  
**Feet** 14,400

**Recommendation:**

Bicycle Lane (restripe)  
- 14,400 feet

**Important Notes:**

- Mix of land uses
- Commercial, office, residential; shopping centers
- Major commuting route
- High-ranking in public request
- A speed limit reduction should be considered for this roadway when developing bicycle lanes.

**Cost Estimate:**

\$64,026

**Agency/Agencies:**

NCDOT  
City of Raleigh Public Works

*Current:  
4 lanes with  
center median:  
26' on each side*

*Bicycle lane restripe:  
(6|10|10|M|10|10|6)*

*Current:  
Irregular, multiple  
lanes, divided,  
turning lanes, major  
commercial area*

*Bicycle lane restripe*

*Current:  
4 lanes with  
center median:  
24'-28' on each side*

*Bicycle lane restripe  
(4-5|10|10|M|10|10|4-5)*





### CITY COUNCIL DISTRICT B

#### PROJECT B1: **DURANT ROAD**

#### Phase 1 (2009)

**From** Falls of the Neuse Rd.  
**To** Capital Blvd.

**Miles** 2.5  
**Feet** 13,400

**Recommendation:**  
Bicycle Lane (restripe)  
- 13,400 feet

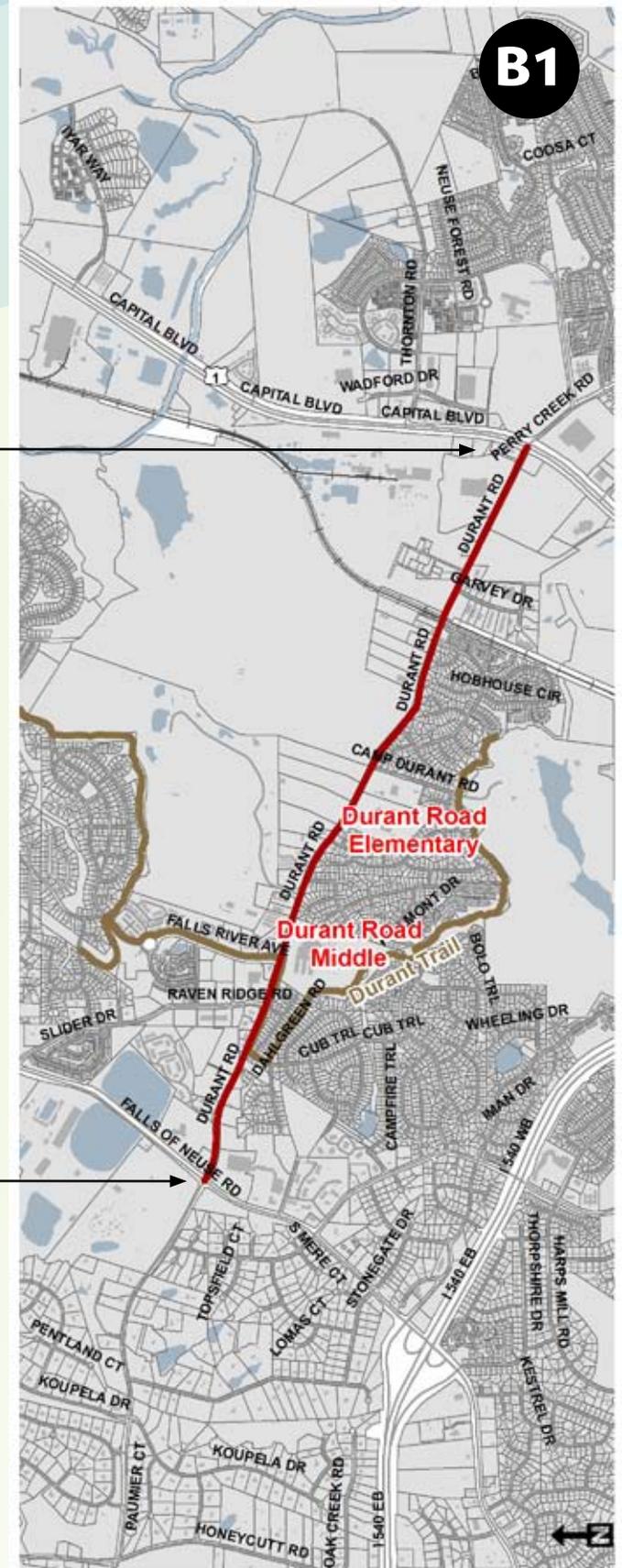
**Important Notes:**  
Connects to Durant Road Elementary School, Durant Road Middle School, Durant Trail - Falls River Trail, and residential and commercial connections.

*Current:  
Mostly 5 lanes with  
center turn lane,  
totaling 64'*

*Bicycle lane restripe:  
(5|11|11|11|11|11|5)*

**Cost Estimate:**  
\$88,740

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works





**CITY COUNCIL DISTRICT B**

**PROJECT B2:  
E. MILLBROOK ROAD**

**Phase 1 (2009)**

**From** Falls of the Neuse Rd.  
**To** Capital Blvd.

**Miles** 1.9  
**Feet** 10,200

**Recommendation:**  
Bicycle Lane (restripe)  
- 10,200 feet

**Important Notes:**

- Connects to Millbrook Elementary and residential and commercial areas.
- High-ranking in public request
- Serves area with higher percentage not owning a vehicle

**Cost Estimate:**  
\$62,204

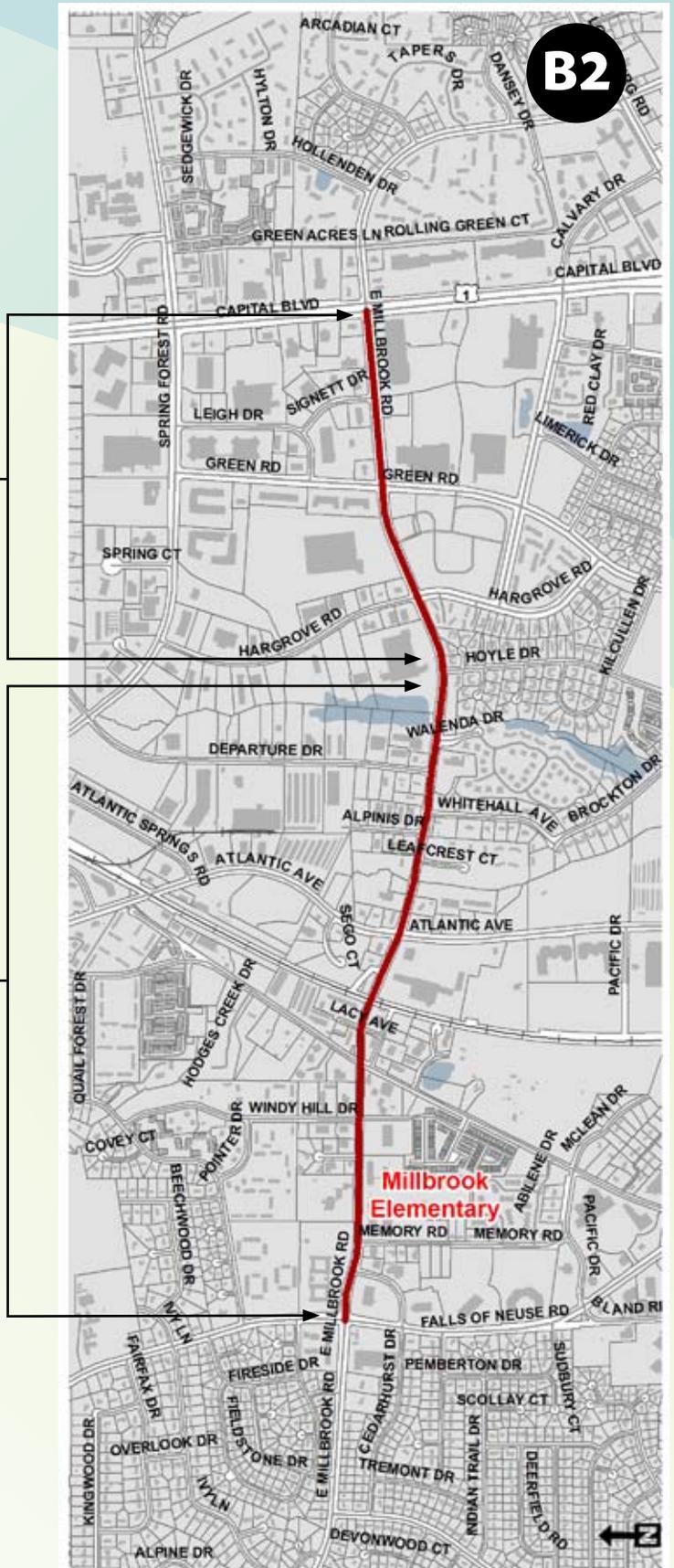
**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works

*Current:  
4 lanes with  
center median  
(13|13|M|13|13)*

*Bicycle lane restripe:  
(6|10|10|M|10|10|6)*

*Current:  
5 lanes with  
center turn lane,  
totaling 64'-68"  
(14|12|12|12|14)*

*Bicycle lane restripe:  
(6|11|10|10|10|11|6)*





### CITY COUNCIL DISTRICT B

#### PROJECT B3: **FAIRVIEW ROAD**

#### Phase 1 (2009)

**From** Glenwood Ave  
**To** Capital Blvd.

**Miles** 0.6  
**Feet** 3,000

**Recommendation:**  
Shared lane marking (stripe)  
- 3,000 feet

**Important Notes:**  
-Connects to Five Points, Underwood Elementary, and residential and commercial areas.

**Cost Estimate:**  
\$2,404

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
2 lanes totaling 24'-  
26' with sections of  
on-street parking*

*Shared lane  
markings after every  
intersection and at  
least every 250'*





**CITY COUNCIL DISTRICT B**

**PROJECT B4:  
WAKEFIELD PLANTATION ROAD**

**Phase 1 (2009)**

**From** Falls of the Neuse Rd.  
**To** NC 98

**Miles** 1.7  
**Feet** 9,200

**Recommendation:**  
Bicycle lane (stripe)  
- 9,200 feet

**Important Notes:**  
Connects to Wakefield Schools, Wakefield Trail, residential areas, and Wake Forest (NC 98 future multi-use sidepath).

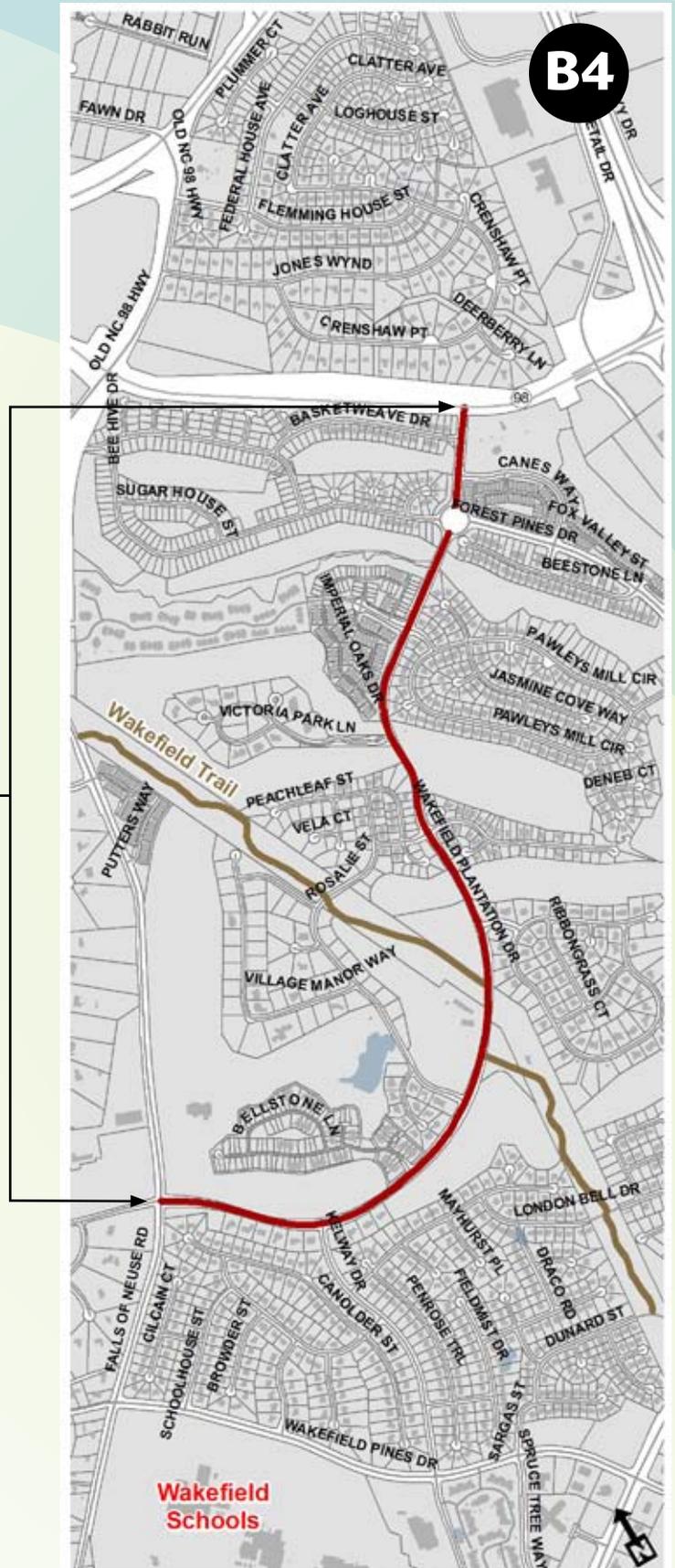
**Cost Estimate:**  
\$19,447

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
2 lanes totaling 40'*

---

*Bicycle lane stripe:  
(6|14|14|6)*





### CITY COUNCIL DISTRICT B

#### PROJECT B5:

#### WOLF PACK LANE/BUSH STREET

#### Phase 1 (2009)

**From** St. Albans Dr.  
**To** Atlantic Ave.

**Miles** 0.8  
**Feet** 4,400

**Recommendation:**  
Bicycle lane (stripe)  
- 9,200 feet

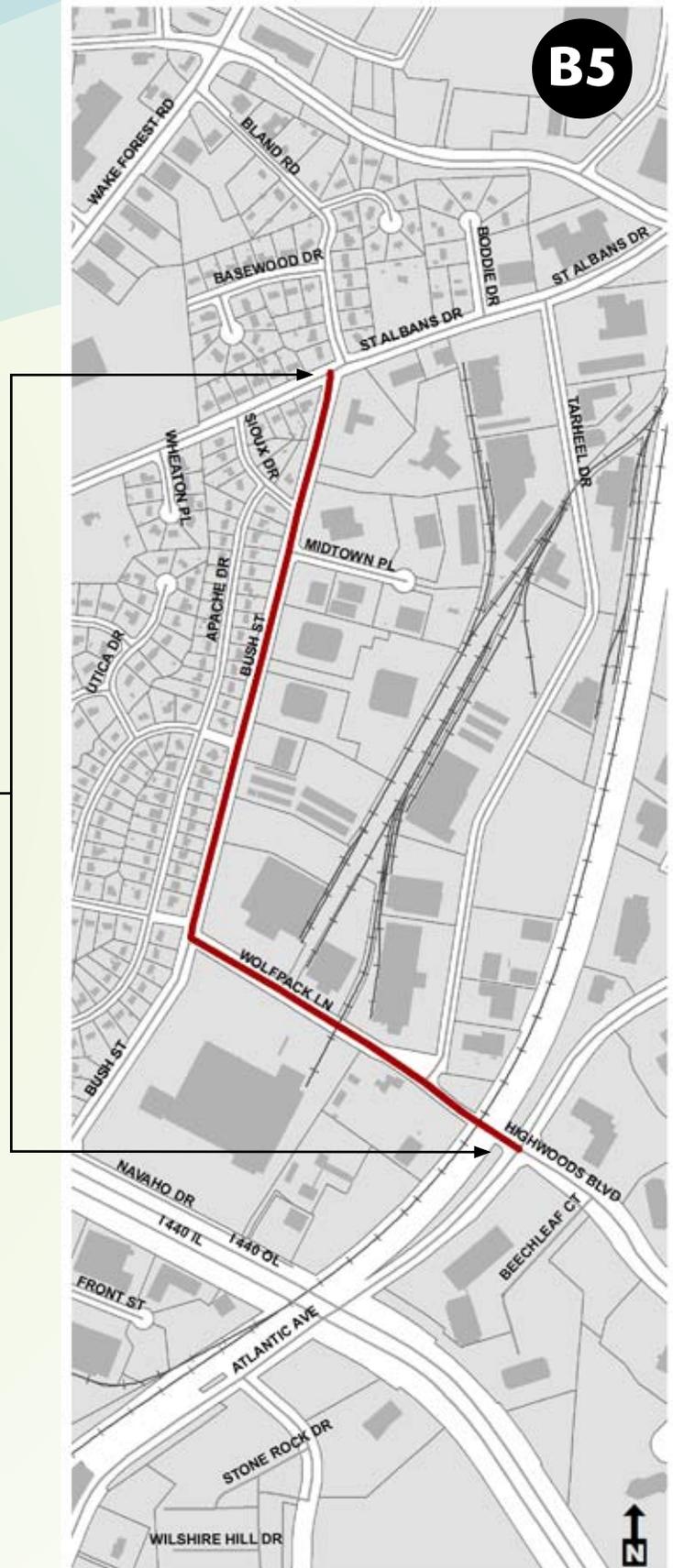
**Important Notes:**  
Connects to a mix of land uses: commercial, office, residential.

**Cost Estimate:**  
\$9,907

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
2 lanes totaling 42'*

*Bicycle lane stripe:  
(6|15|15|6)*







### CITY COUNCIL DISTRICT C2

#### PROJECT C1: **HARGETT STREET**

#### Phase 1 (2009)

**From** St. Mary's St.  
**To** S. Tarboro St.

**Miles** 1.6  
**Feet** 8,300

**Recommendation:**  
Shared Lane Marking  
- 8,300 feet

#### Important Notes:

- Connects to Downtown, Nash Square, Moore Square, Shaw University, Chavis Way Greenway
- Serves area with higher percentage not owning a vehicle

**Cost Estimate:**  
\$8,309

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:*  
2 lanes (2-way) with  
on-street parking  
totaling 36'

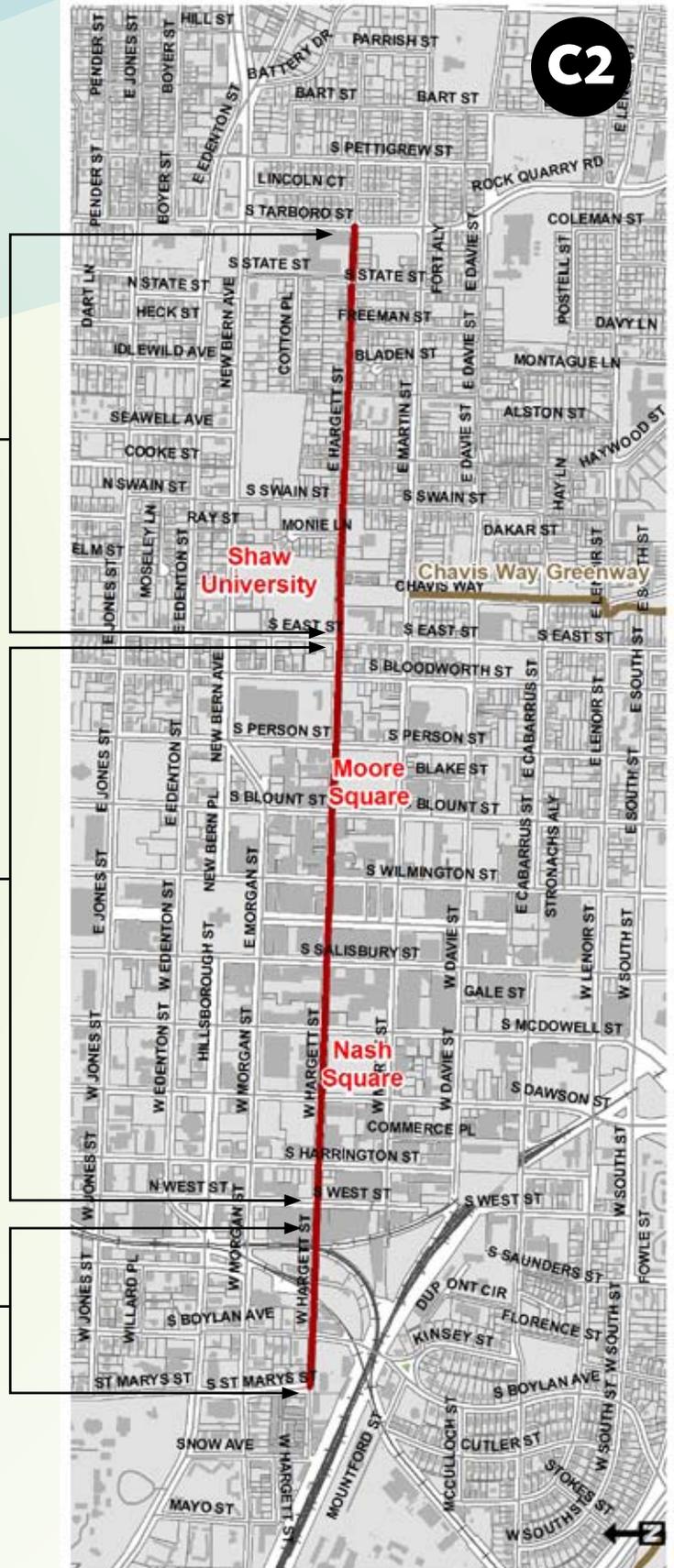
*Shared lane  
markings after every  
intersection and at  
least every 250'*

*Current:*  
2-3 lanes (1-way,  
westbound) with  
on-street parking  
totaling 40'-42'

*Shared lane  
markings after every  
intersection and at  
least every 250'*

*Current:*  
2 lanes (2-way) with  
on-street parking  
totaling 36'

*Shared lane  
markings after every  
intersection and at  
least every 250'*





**CITY COUNCIL DISTRICT C**

**PROJECT C3:  
LENOIR STREET**



**Phase 1 (2009)**

**From** S. Dawson St.  
**To** S. Tarboro St.

**Miles** 1.25  
**Feet** 6,600

**Recommendation:**  
Shared Lane Marking  
- 6,600 feet

**Important Notes:**  
-Connects to Downtown, Convention Center, Chavis Heights Park/Greenway, Ligon Middle School, and Hunter Elementary School

-Serves area with higher percentage not owning a vehicle

**Cost Estimate:**  
\$6,572

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
2 lanes (2-way) with  
on-street parking  
totaling 40'*

*Shared lane  
markings after every  
intersection and at  
least every 250'*

*Current:  
2 lanes (2-way) with  
on-street parking  
totaling 25'-30'*

*Shared lane  
markings after every  
intersection and at  
least every 250'*

*Current:  
1-way, westbound  
with on-street  
parking totaling 42'*

*Shared lane  
markings after every  
intersection and at  
least every 250'*





### CITY COUNCIL DISTRICT C

### PROJECT C4: SOUTH STATE STREET

#### Phase 1 (2009)

**From** Bunche Dr.  
**To** MLK Blvd..

**Miles** 1.1  
**Feet** 5,600

**Recommendation:**  
Bicycle Lane (stripe)  
- 4,800 feet

Shared Lane Marking  
- 800 feet

#### Important Notes:

-Connects to Downtown, areas south of Downtown, Ligon Middle School, Carnage Middle School, Fuller Elementary School, and Lower Walnut Creek Trail.

-Serves area with higher percentage not owning a vehicle

#### Cost Estimate:

\$11,742

#### Agency/Agencies:

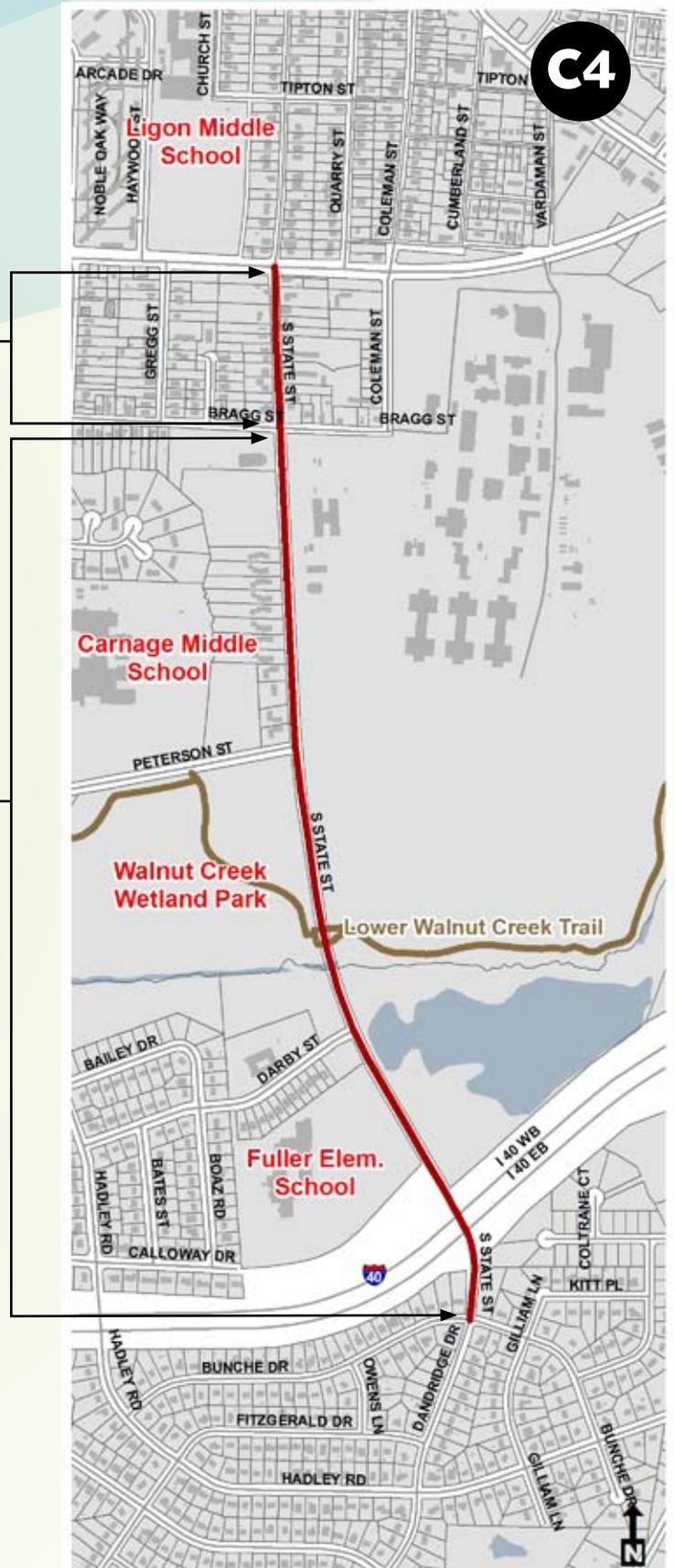
City of Raleigh Public Works

*Current:  
2 lanes with on-street parking totaling 30'*

*Shared lane markings (to keep facility going to MLK) after each intersection and at least every 250'*

*Current:  
2 lanes totaling 40'-44'*

*Bicycle lane stripe: (6|15|15|6)*





**CITY COUNCIL DISTRICT C**

**PROJECT C5:  
WILMINGTON ST. + SALISBURY ST.**

**Phase 1 (2009)**

**From** Peace St.  
**To** MLK Blvd..

**Miles** 2.6  
**Feet** 13,700

**Recommendation:**  
Bicycle Lane (restripe)  
- 7,000 feet (Salisbury St.)

Bicycle Lane (restripe)  
- 6,700 feet (Wilmington St.)

**Important Notes:**

-Connects to Downtown, State Capitol, and Convention Center.

-Serves area with higher percentage not owning a vehicle

-A study should be conducted to determine proper removal of on-street parking to create adequate space for bicycle lanes. If parking cannot be modified, shared road markings with wide outside lanes should be considered.

**Cost Estimate:**  
\$24,742

**Agency/Agencies:**  
NCDOT  
City of Raleigh Public Works

*Current (Salisbury):  
Mostly 3 lanes, one-way,  
with on-street parking  
on one side; totaling 42'*

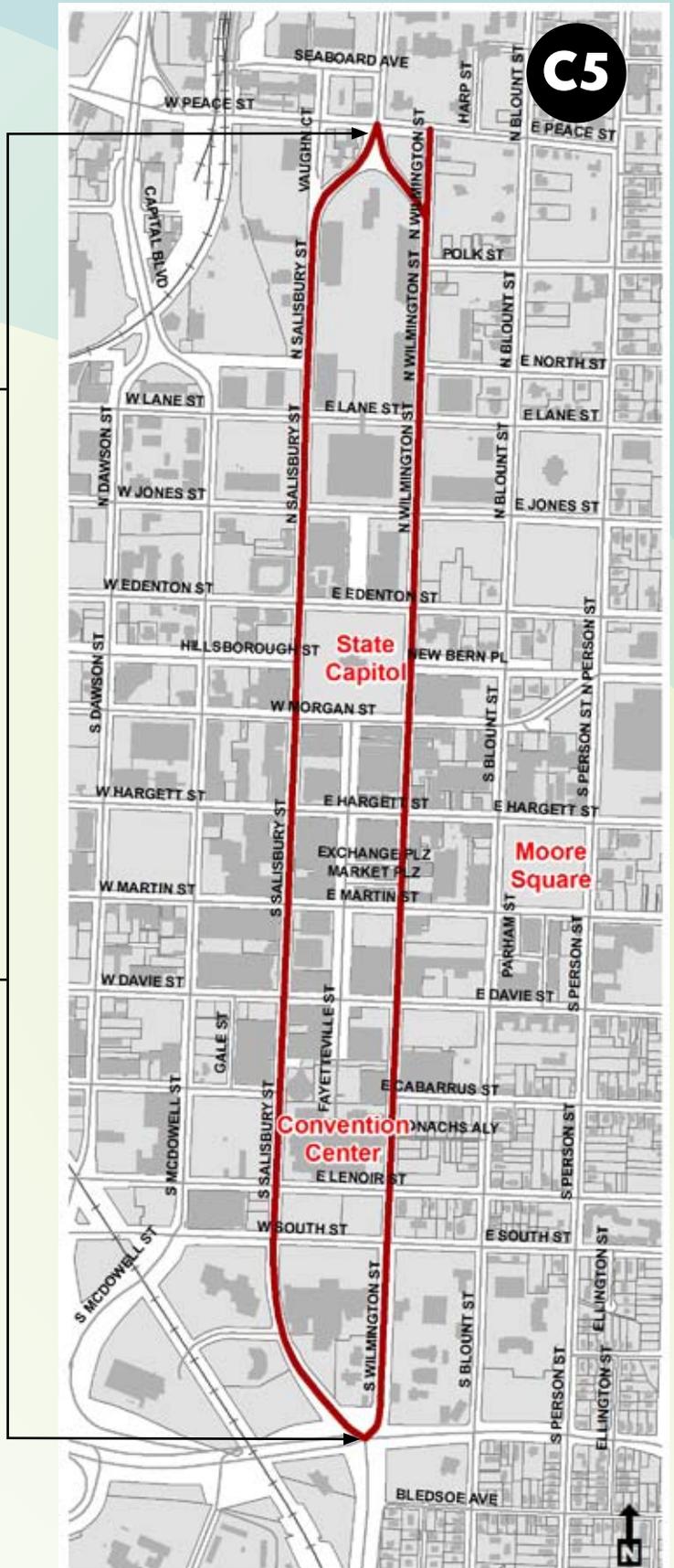
*Preferred: Bicycle lane  
restripe with removal  
of a travel lane:  
(6|12|12|12)*

*Alt: Shared lane  
markings after each  
intersection and at least  
every 250' in a wide  
outside lane*

*Current (Wilmington):  
Mostly 2 lanes, one-way,  
with on-street parking  
both sides totaling 42'*

*Preferred: Bicycle lane  
restripe and remove  
parking on one side:  
(6|12|12|12)*

*Alt: Bicycle lane restripe  
and narrow parking:  
(8|6|10|10|8)*





### CITY COUNCIL DISTRICT D

#### PROJECT D1:

**CLARK AVENUE (+ SEGMENTS OF PEACE ST. AND EVERETT AVE.)**

#### Phase 1 (2009)

**From** Faircloth St.  
**To** St. Mary's St.

**Miles** 2  
**Feet** 10,500

**Recommendation:**  
Bicycle Lane (restripe)  
- 4,700 feet

Shared Lane Marking  
- 5,800 feet

#### Important Notes:

-Connects to Cameron Village (future transit hub), residential areas, and is near NC State.

-Serves area with higher percentage not owning a vehicle

-A study should be conducted to analyze the need for on-street parking along segments of this route. If parking can be removed, a bicycle lane can be striped instead of a sharrow.

#### Cost Estimate:

\$28,451

#### Agency/Agencies:

City of Raleigh Public Works

*Current:*  
3 lanes with center turn lane, totaling 40'-42' (14|13|14)

*Bicycle lane restripe:*  
(5|10|10|10|5)

*Current:*  
2 lanes with on-street parking (totaling 20' each direction, with center median).

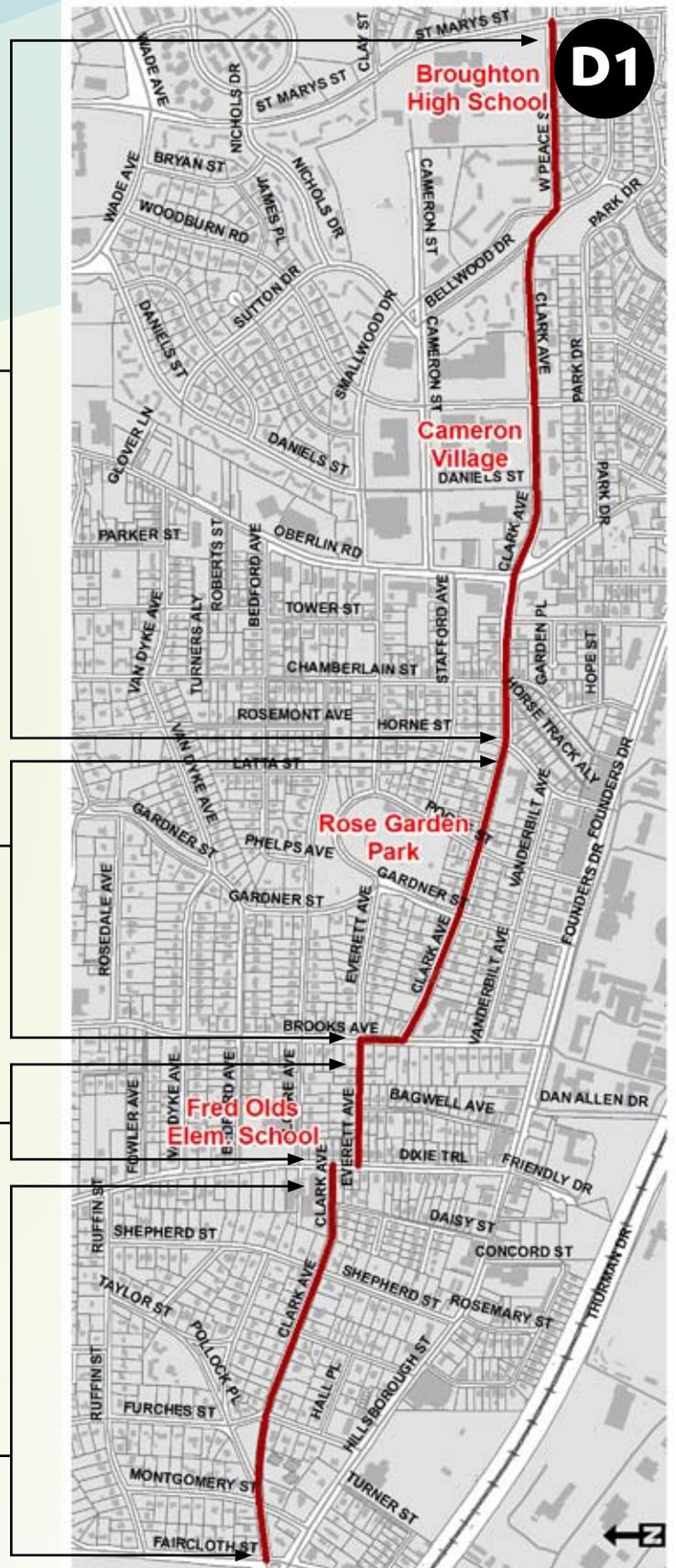
*Shared lane markings after each intersection and at least every 250'*

*Current:*  
2 lanes with some on-street parking, totaling 26'

*Shared lane markings after each intersection and at least every 250'*

*Current:*  
2 lanes with on-street parking, totaling 40'-42'

*Shared lane markings after each intersection and at least every 250'*





**CITY COUNCIL DISTRICT D**

**PROJECT D2:  
AVENT FERRY ROAD**

**Phase 1 (2009)**

**From** Crest Rd.  
**To** Western Blvd.

**Miles** 0.8  
**Feet** 4,280

**Recommendation:**  
Bicycle Lane (restripe)  
- 4,280 feet

**Important Notes:**  
-Connects to NC State University, student apartments, shopping centers/restaurants

-High-ranking in public request

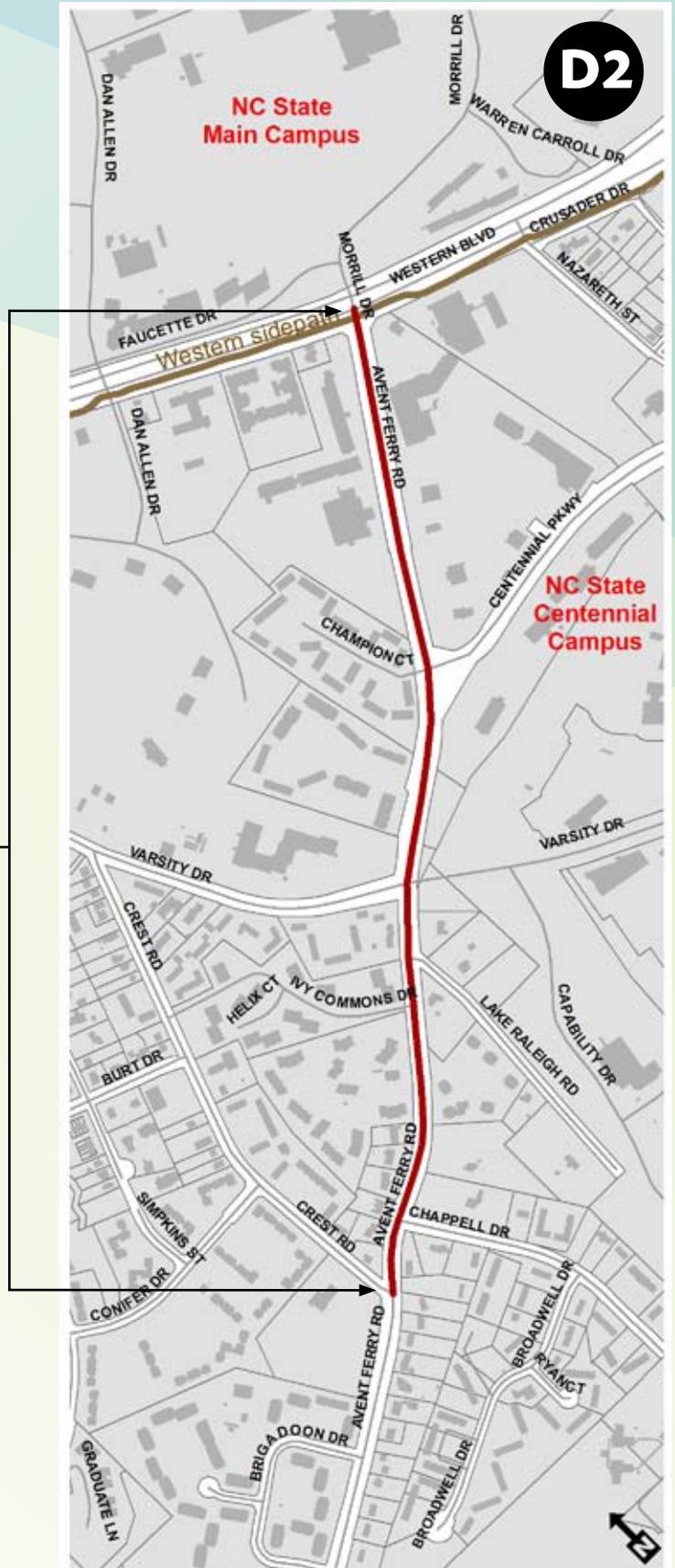
-Serves area with higher percentage not owning a vehicle

**Cost Estimate:**  
\$29,964

**Agency/Agencies:**  
NCDOT +  
City of Raleigh Public Works

*Current:  
5 lanes with center turn  
lane, totaling 60'-64'  
(12|12|12|12|12)*

*Bicycle lane restripe:  
(5|10|10|10|10|10|5)*





### CITY COUNCIL DISTRICT D

#### PROJECT D3:

#### DIXIE TRAIL

(+ SEGMENT OF LAKE BOONE TRAIL)

#### Phase 1 (2009)

**From** Hillsborough St.

**To** Ridge Rd.

**Miles** 2

**Feet** 10,800

#### Recommendation:

Bicycle Lane (restripe)  
- 9,300 feet. (Dixie Trail)

Bicycle Lane (road diet)  
- 1,500 feet. (Lake Boone Trail)

#### Important Notes:

-Connects to existing bicycle lane on Ridge Road, residential areas, schools, and parks.

-Serves area with higher percentage not owning a vehicle

-A study should be conducted to analyze the need for on-street parking along segments of this route.

#### Cost Estimate:

\$50,600

#### Agency/Agencies:

City of Raleigh Public Works

*Current:*  
4 lanes  
totaling 48':  
(12|12|12|12)

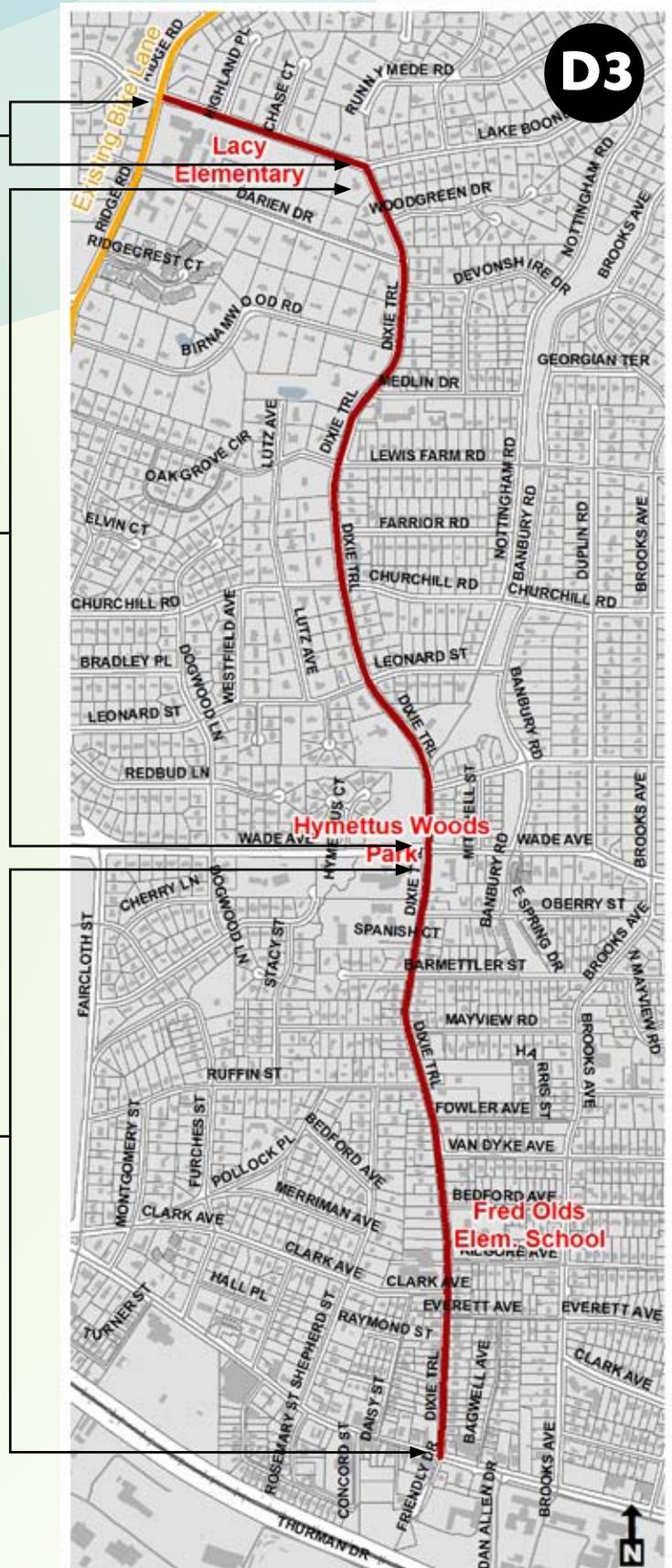
*Bicycle lane road diet with new center turn lane:*  
(6|12|12|12|6)

*Current:*  
3 lanes with a center turn lane, totaling 44'-48' (16|14|16)

*Bicycle lane restripe:*  
(6|12|10|12|6)

*Current:*  
3 lanes with a center turn lane, plus on-street parking, totaling 44'-48' (the center turn lane is not in the center of the total roadway width)

*Bicycle lane restripe:*  
(9|4|10|10|4|9)





**CITY COUNCIL DISTRICT D**

**PROJECT D4:  
CABARRUS STREET**

**Phase 1 (2009)**

**From** Western Blvd.  
**To** Chavis Way

**Miles** 1.2  
**Feet** 6,450

**Recommendation:**  
Shared Lane Marking  
- 2,050 feet.

Bicycle Lane (restripe)  
- 4,400 feet.

**Important Notes:**

-Connects to Downtown, Convention Center, Fayetteville St., Western Blvd. sidepath (Rocky Branch Trail), and Chavis Way Greenway.

-Serves area with higher percentage not owning a vehicle.

-Identified as "Green Street" in Raleigh Comprehensive Plan

**Cost Estimate:**  
\$16,439

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
2 lanes with on-street parking totaling 26'*

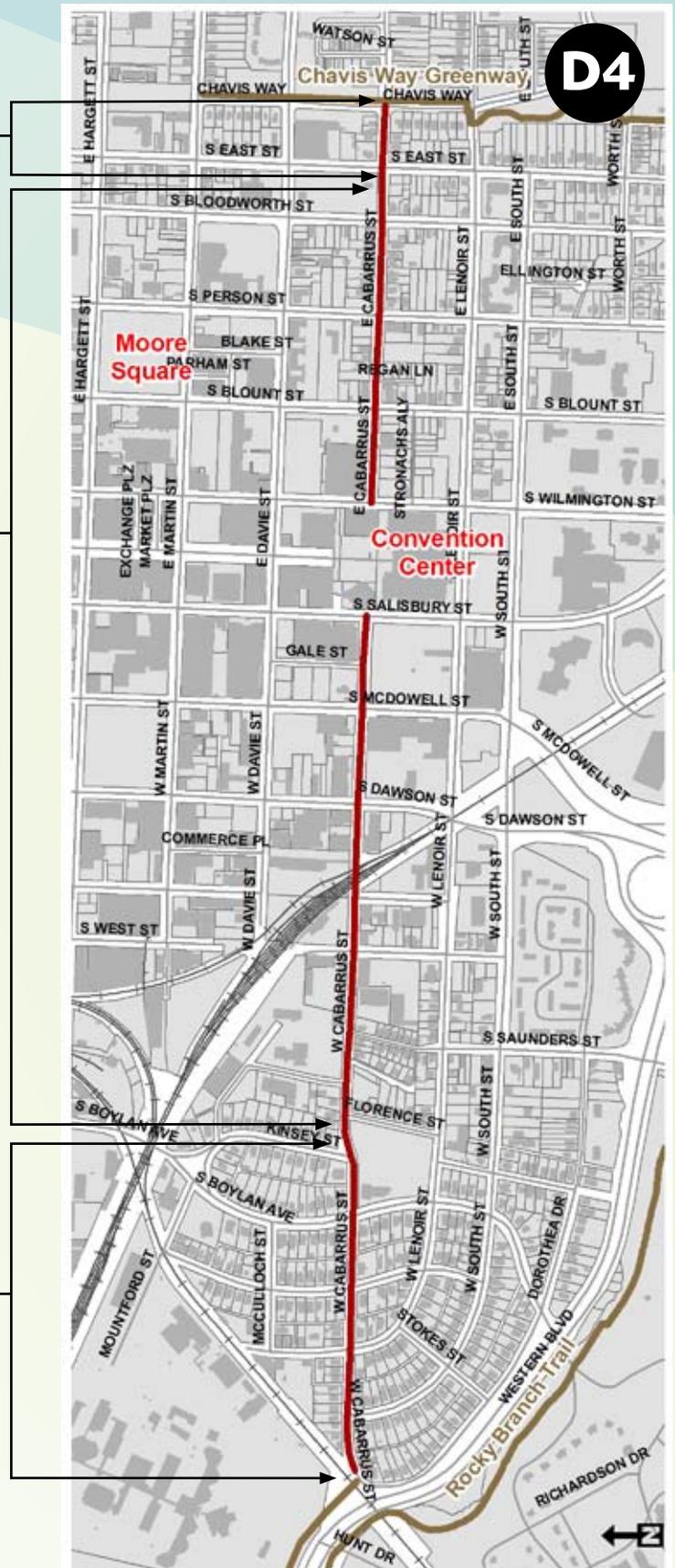
*Shared lane markings after each intersection and at least every 250'*

*Current:  
2 lanes with on-street parking totaling 42'*

*Remove on-street parking on one side (as on Green Street) + Bicycle lane restripe:*

*Current:  
2 lanes with on-street parking totaling 36'*

*Shared lane markings after each intersection and at least every 250'*





### CITY COUNCIL DISTRICT D

### PROJECT D5: OBERLIN ROAD

#### Phase 1 (2009)

**From** Hillsborough St.  
**To** Glenwood Ave.

**Miles** 2.3  
**Feet** 12,200

**Recommendation:**  
Bicycle Lane (stripe)  
- 1,500'

Shared Lane Marking  
- 1,600'

Bicycle Lane (restripe)  
- 9,100'

#### Important Notes:

-Connects to Cameron Village, Broughton High School, Daniels Middle School, NC State, and commercial, office, and residential areas

-High-ranking in public request

-Serves area with higher percentage not owning a vehicle.

#### Cost Estimate:

\$46,466

#### Agency/Agencies:

City of Raleigh Public Works

*Current:*  
3 lanes with center turn lane totaling 40' (13|14|13)

*Bicycle lane restripe:*  
(4|10|10|10|4)

*Current:* 2 lanes with center turn lane (off-center), totaling 28'-30'

*Bicycle lane restripe:*

*Current:* 2 lanes with on-street parking, totaling 36'

*Remove parking + Bicycle lane restripe*

*Current:* 2 lanes with center turn lane (off-center), totaling 34'

*Bicycle lane restripe*

*Current:* 6-7 lanes, totaling 80'

*Bicycle lane restripe*

*Current:* 2 lanes with center turn lane (off-center), totaling 32'-36'

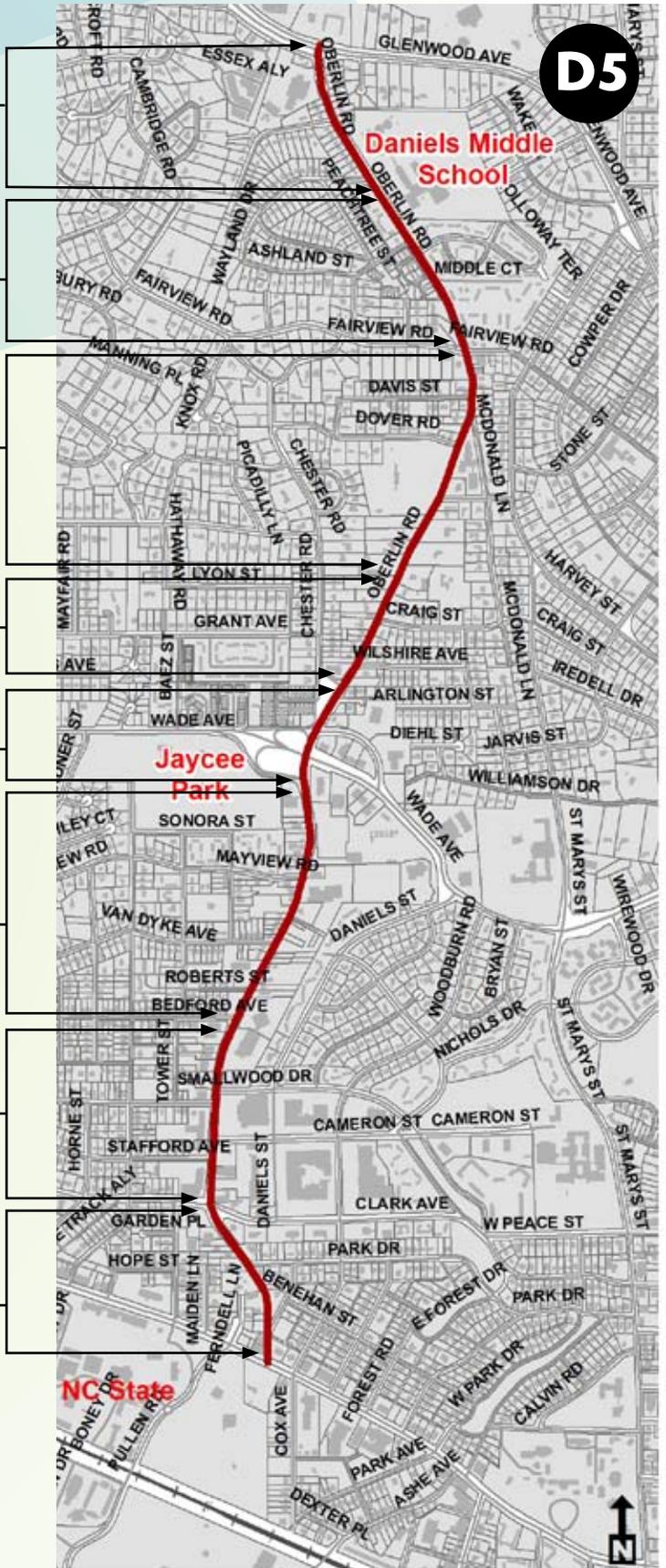
*Bicycle lane restripe*

*Current:* 5 lanes with center turn lane, totaling 55'

*Shared lane markings after each intersection and at least every 250'*

*Current:* 2 lanes totaling 36'-40'

*Bicycle lane stripe*



**D5**





**CITY COUNCIL DISTRICT E**

**PROJECT E1:  
LASSITER MILL ROAD  
/ST. MARYS ST.**

**Phase 1 (2009)**

**From** Glenwood Ave.  
**To** Camelot Dr.

**Miles** 2.2  
**Feet** 11,400

**Recommendation:**

Bicycle Lane (stripe)  
- 8,100'

Bicycle Lane (restripe)  
- 900'

Bicycle Lane (road diet)  
- 2,400'

**Important Notes:**

-Connects to Alleghany Trail, Root Elementary, Drewry Hills Park, residential connections, and North Hills Shopping Center

**Cost Estimate:**

\$26,732

**Agency/Agencies:**

City of Raleigh Public Works

*Current:  
5 lanes with a center  
turn lane, totaling 55'*

*Bicycle lane road diet:  
remove outer lanes  
and replace with  
bicycle lanes*

*Current:  
2 lanes totaling 40'-42'*

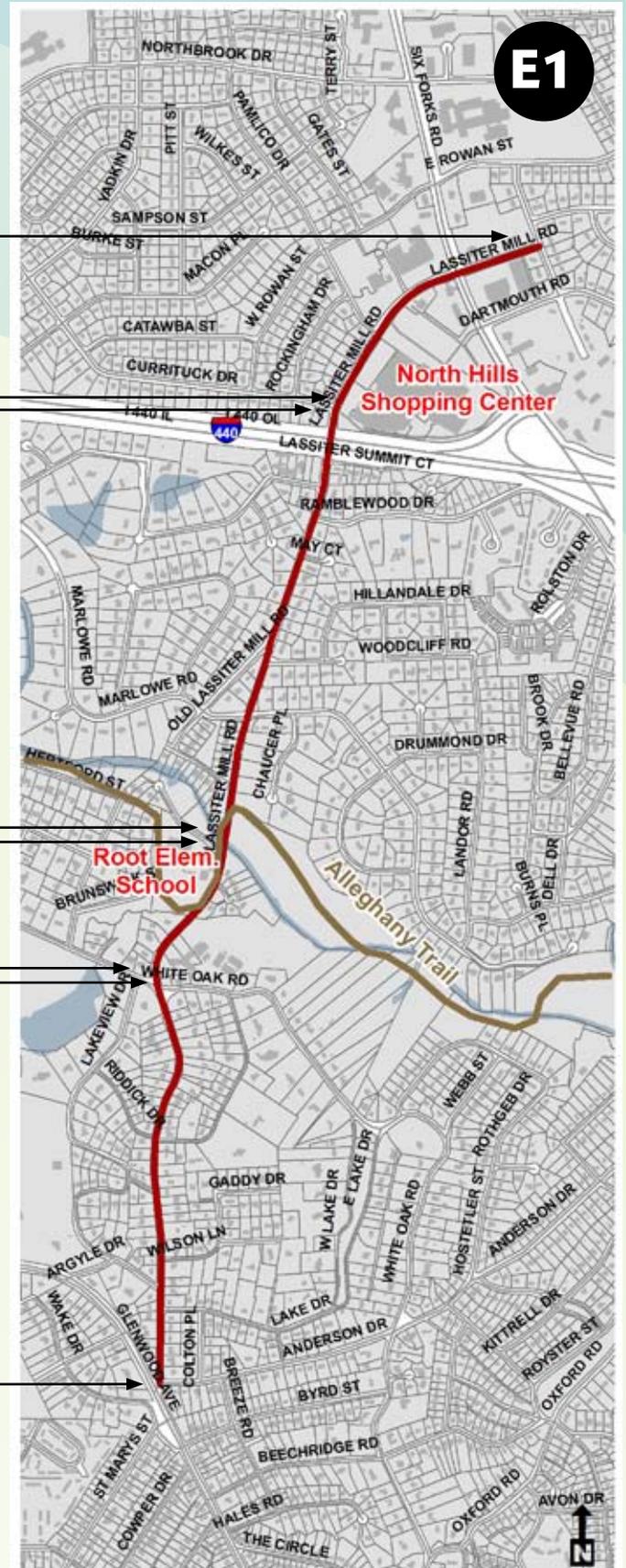
*Bicycle lane stripe*

*Current:  
3 lanes with a center  
turn lane, totaling 42'  
(14|14|14)*

*Bicycle lane restripe:  
(6|10|10|10|6)*

*Current:  
2 lanes totaling 40'*

*Bicycle lane stripe*





### CITY COUNCIL DISTRICT E

### PROJECT E2: EDWARDS MILL ROAD / CREEDMOOR ROAD

#### Phase 1 (2009)

**From** Blue Ridge Rd.  
**To** Glenwood Ave.

**Miles** 2.0  
**Feet** 10,400

**Recommendation:**  
Bicycle Lane (restripe)  
- 10,400'

#### Important Notes:

-Connects to existing bicycle lane on Edwards Mill, Crabtree-Oak Park Trail, Crabtree Valley Mall, Stough Elementary, Laurel Hills Park, and residential and commercial areas

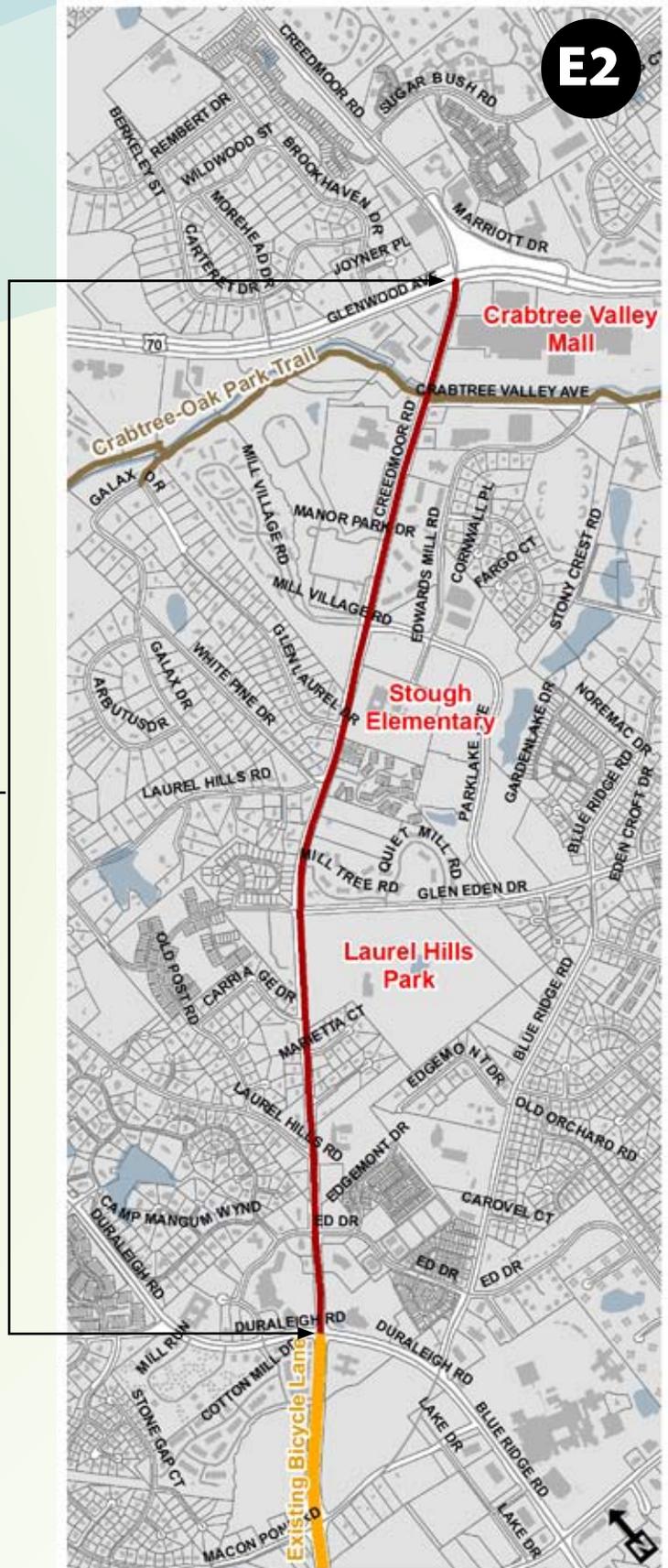
-High-ranking in public request

**Cost Estimate:**  
\$70,530

**Agency/Agencies:**  
City of Raleigh Public Works

*Current:  
5 lanes with a center  
turn lane, totaling 65'  
(13|13|13|13|13)*

*Bicycle lane restripe:  
(5|11|11|11|11|11|5)*





**CITY COUNCIL DISTRICT E**

**PROJECT E3:  
W. MILLBROOK ROAD**

**Phase 1 (2009)**

**From** Glenwood Ave.  
**To** North Hills Dr.

**Miles** 3.4  
**Feet** 18,100

**Recommendation:**  
Bicycle Lane (restripe)  
- 18,100'

**Important Notes:**  
-Connects to Shelley Lake,  
Wooten Meadow Park,  
and residential and  
commercial land uses

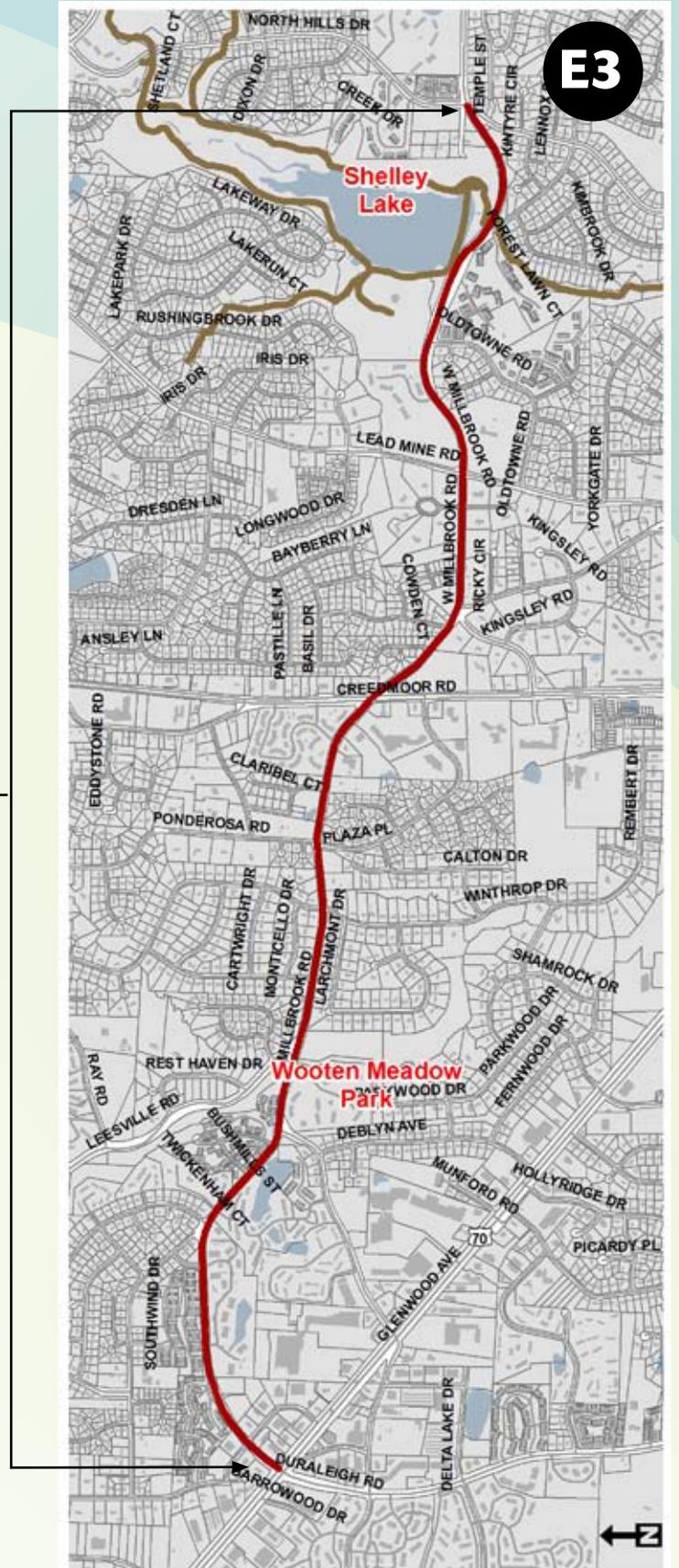
-High-ranking in public  
request

**Cost Estimate:**  
\$121,210

**Agency/Agencies:**  
NCDOT and  
City of Raleigh Public Works

*Current:  
Mostly 5 lanes with  
a center turn lane,  
totaling 64'-68'  
(13|13|13|13|13)*

*Bicycle lane restripe:  
(5|11|11|11|11|11|5)*





### CITY COUNCIL DISTRICT E

#### PROJECT E4:

#### **GLEN EDEN DRIVE**

#### Phase 1 (2009)

**From** Glenwood Ave.  
**To** Edwards Mill Rd.

**Miles** 2.1  
**Feet** 11,000

#### Recommendation:

Bicycle Lane (stripe)  
- 8,200 feet

Bicycle Lane (road diet)  
- 2,800 feet.

#### Important Notes:

-Connects to Edwards Mill Rd. bicycle lane, Ridge Rd. bicycle lane, Laurel Hills Park, and commercial and residential areas

#### Cost Estimate:

\$31,637

#### Agency/Agencies:

City of Raleigh Public Works

*Current:  
2 lanes totaling 42'-44'*

*Bicycle lane stripe*

*Current:  
4 lanes totaling 62'*

*Bicycle lane road diet:  
3 lanes with center  
turn lane or median,  
and bicycle lanes*





# CITY COUNCIL DISTRICT E

## PROJECT E5: LYNN ROAD

E5

### Phase 1 (2009)

**From** Creedmoor Rd.  
**To** Glenwood Ave.

**Miles** 2.5  
**Feet** 13,300

### Recommendation:

Bicycle Lane (restripe)  
- 13,300'

### Important Notes:

-Connects to Lake Lynn Trail and Park, Hillburn Drive Elementary, and commercial and residential areas

### Cost Estimate:

\$89,286

### Agency/Agencies:

NCDOT and  
City of Raleigh Public Works

*Current:*  
5 lanes with center turn lane, totaling 60'-67'  
(12|12|12|12|12)

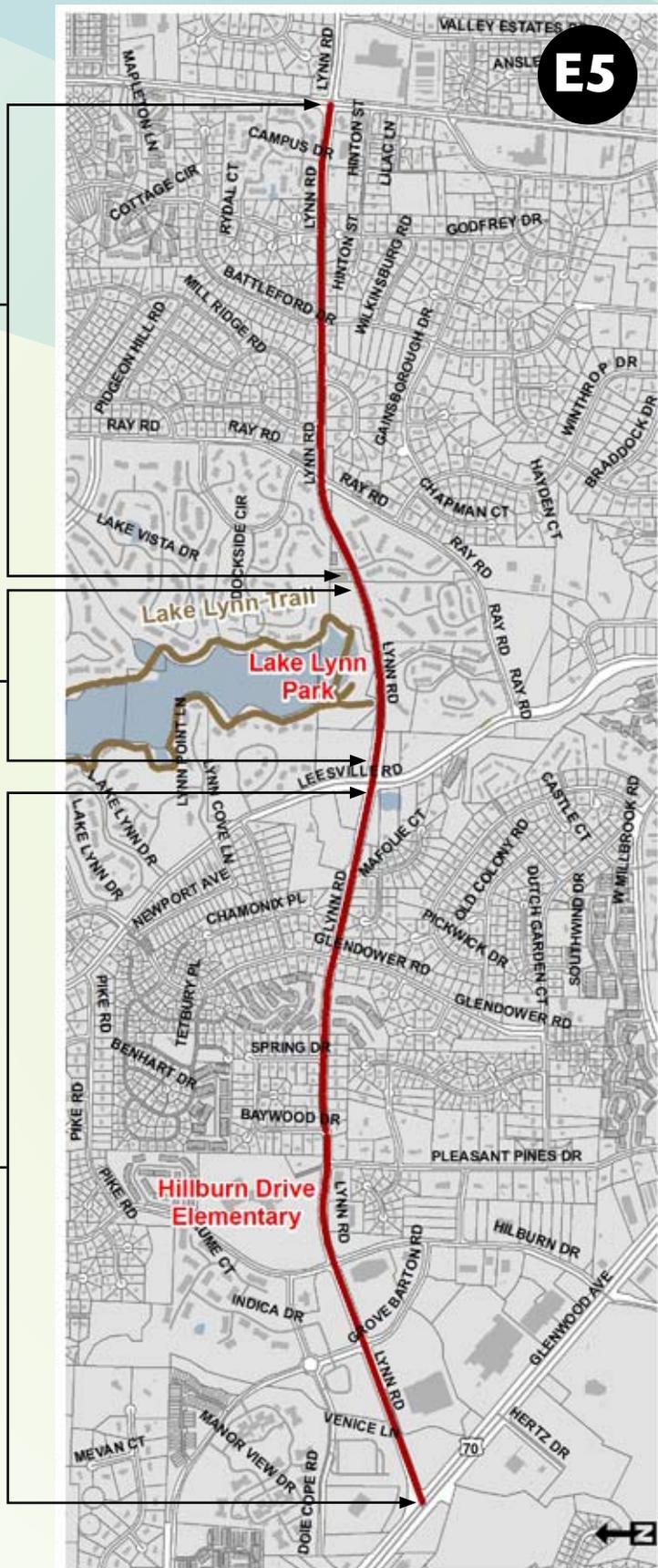
*Bicycle lane restripe:*  
(5|10|10|10|10|5)

*Current:*  
4 lanes totaling 50'  
(13|12|12|13)

*Bicycle lane restripe*  
(5|10|10|10|10|5)

*Current:*  
Mostly 5 lanes with center turn lane, totaling 60'-64'  
(12|12|12|12|12)

*Bicycle lane restripe*  
(5|10|10|10|10|10|5)





## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 1*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost-effective construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

Top 1-5 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from Downtown (Downtown Overlay District)  
 Direct Access to/from an Existing or Funded Greenway  
 Direct Access to/from a Park or Recreation Center  
 Serves Areas with High Percent No Vehicle  
 Segment Contains High Level of Reported Bike Accidents  
 Top 6-10 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from Proposed Transit Hubs  
 Segment Contains a Top 10 Intersection "Most in Need of Improvement"  
 College/University Proximity (1 mile radius)  
 Direct Access to/from Interstate Highway Crossing  
 Direct Access to Major Shopping Residential Areas (Census)  
 Direct Access to/from a Planned Greenway  
 Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
MARTIN LUTHER KING JR BLVD	Poole Rd	S Saunders St	Bicycle Lane	New Construction/Restripe	C	State	0	5	5	15	10	5	5	0	0	0	0	3	0	0	0	0	0	48
MARTIN ST	Dawson St	Pettigrew St	Sharrow	Stripe	C	City	0	5	5	10	0	5	5	0	4	0	0	3	0	2	2	0	0	41
AVENT FERRY RD	Crest Rd	Western Blvd	Bicycle Lane	Restripe	D	State	0	0	5	0	0	5	10	4	4	4	0	3	0	0	2	2	0	39
CLARK AVE	Faircloth St	St. Marys St	Bicycle Lane/Sharrow	Restripe	D	City	0	0	10	10	0	5	5	0	4	0	0	3	0	0	2	0	0	39
DIXIE TRL	Ridge Road	Hillsborough St	Bicycle Lane	Restripe, Road Diet	D, E	City	0	0	5	10	10	5	5	0	0	0	0	3	0	0	0	0	0	38
PEACE ST/BOUNDARY ST	St. Marys St	Watauga St	Bicycle Lane/Sharrow	Restripe, Road Diet/Stripe	C, D	City	0	5	0	0	5	5	5	4	0	4	0	3	0	2	2	2	0	37
HARGETT ST	St. Marys St	S Tarboro St	Sharrow	Stripe	C, D	City	0	5	0	10	0	5	5	0	4	0	0	3	0	2	0	2	0	36
CABARRUS ST	Western Blvd	Chavis Way	Bicycle Lane/Sharrow	Restripe/Stripe	D, C	City	0	5	10	5	0	5	5	0	0	0	0	3	0	2	0	0	0	35
LENOIR ST	S Dawson St	S Tarboro St	Sharrow	Stripe	C	City	0	5	5	5	5	5	5	0	0	0	0	3	0	2	0	0	0	35
WESTERN BLVD	Gorman St	S McDowell St	Wide Outside Lane	Stripe	D	State	0	0	5	5	0	5	5	4	0	4	0	3	0	0	2	2	0	35
HILLSBOROUGH ST	I-440	Gardner St	Sharrow	Stripe	D	State	5	0	5	0	0	5	5	0	0	4	0	3	3	0	0	2	0	32
MCDOWELL ST	South St	Lane St	Wide Outside Lane	Stripe	C, D	State	0	5	5	5	0	5	5	0	0	0	0	3	0	2	0	2	0	32
OBERLIN RD	Glenwood Ave	Hillsborough St	Bicycle Lane/Sharrow	Restripe/Stripe	E, D	City	0	0	0	0	5	5	5	0	4	4	3	3	0	0	2	0	0	31
S BLOUNT ST	Hoke St	Morgan St	Bicycle Lane	Road Diet	C	State	0	5	0	5	0	5	5	0	4	0	0	3	0	2	2	0	0	31
S STATE ST	Bunche Dr	MLK Blvd	Bicycle Lane/Sharrow	Stripe/Stripe	C	City	0	0	5	5	5	5	5	0	0	0	0	3	3	0	0	0	0	31
AVENT FERRY RD	Athens Dr	Crest Rd	Bicycle Lane	New Construction	D	State	0	0	0	0	0	5	10	4	4	4	0	3	0	0	0	0	0	30
GARNER RD	Wake County Line	MLK Blvd	Bicycle Lane	Restripe	C	City	0	0	5	5	0	5	5	0	0	0	0	3	6	0	0	0	0	29
GLENWOOD AVE	Peace St	W. Morgan St	Sharrow	Stripe	D	City	5	5	0	5	0	5	0	0	0	4	0	3	0	0	2	0	0	29
HILLSBOROUGH ST	Oberlin Rd	Salisbury St	Bicycle Lane/Sharrow	Restripe/Stripe	D	State	5	5	0	5	0	5	0	0	0	4	0	3	0	2	0	0	0	29
W MORGAN ST	Person St	Hillsborough St	Bicycle Lane	Road Diet, Restripe	C, D	State	0	5	0	0	0	5	10	0	0	4	0	3	0	0	0	2	0	29
GORMAN ST	Avent Ferry Rd	Hillsborough St	Bicycle Lane	Restripe	D	City	0	0	5	0	0	5	5	0	4	4	0	3	0	0	0	2	0	28
N RALEIGH BLVD	Brentwood Rd	New Bern Ave	Bicycle Lane	Restripe	C, B	State	0	0	10	5	0	0	10	0	0	0	0	3	0	0	0	0	0	28
S WILMINGTON ST	Saunders St	MLK Blvd	Bicycle Lane	Restripe	C, D	State	0	0	5	0	0	5	5	0	4	0	0	3	6	0	0	0	0	28
TARBORO ST	Oakwood Ave	MLK Blvd	Bicycle Lane/Sharrow	Road Diet/Stripe	C	City	0	0	0	10	5	5	5	0	0	0	0	3	0	0	0	0	0	28
HILLSBOROUGH ST	I-40	I-440	Bicycle Lane	Restripe	D, E	State	5	0	0	0	0	5	0	0	4	4	0	3	6	0	0	0	0	27
S PERSON ST	New Bern Ave	Hoke St	Bicycle Lane	Road Diet	C	State	0	5	0	5	0	5	5	0	0	0	0	3	0	2	2	0	0	27
AVENT FERRY RD	Tryon Rd	Athens Dr	Bicycle Lane	Stripe	D	State	0	0	5	5	5	0	0	4	0	0	0	0	6	0	0	0	0	25
BOYLAN AVE	Western Blvd	Fletcher Park	Sharrow	Stripe	D	City	0	5	5	5	0	5	0	0	0	0	0	3	0	2	0	0	0	25
DAWSON ST	Western Blvd	Lane St	Bicycle Lane	Restripe	D, C	State	0	5	0	5	0	5	5	0	0	0	0	3	0	0	0	2	0	25
HILLSBOROUGH ST	Gardner St	Oberlin Rd	Bicycle Lane	New Construction	D	State	5	0	0	5	0	5	5	0	0	0	0	3	0	0	0	2	0	25





## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 2*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost-effective construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

- Top 1-5 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Downtown (Downtown Overlay District)
- Direct Access to/from an Existing or Funded Greenway
- Direct Access to/from a Park or Recreation Center
- Serves Areas with High Percent No Vehicle
- Segment Contains High Level of Reported Bike Accidents
- Top 6-10 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Proposed Transit Hubs
- College/University Proximity (1 mile radius)
- Regional Connection and/or Interstate Highway Crossing
- Direct Access to/from High Density Residential Areas (Census)
- Direct Access to Major Shopping Centers\*\*
- Direct Access to/from a Planned Greenway
- Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
JONES ST	St. Marys St	Tarboro St	Bicycle Lane	Stripe, Road Diet	C, D	City	0	5	0	5	0	5	5	0	0	0	0	3	0	0	2	0	0	25
LASSITER MILL/ST MARYS	Camelot Dr	Glenwood Ave	Bicycle Lane	Stripe, Road Diet	E	City	0	0	10	5	5	0	0	0	0	0	0	0	3	0	2	0	0	25
S SAUNDERS ST	Wake County Line	MLK Blvd/Western Blvd	Wide Outside Lane	Stripe	D	State	0	0	5	0	0	10	0	0	4	0	0	0	6	0	0	0	0	25
EDWARDS MILL/CREEDMOOR	Duraleigh Rd	Glenwood Ave	Bicycle Lane	Restripe	E	State	0	0	5	5	5	0	0	0	4	0	3	0	0	0	2	0	0	24
SALISBURY ST	MLK Blvd	Peace St	Bicycle Lane	Restripe	C, D	City	0	5	0	0	0	5	5	0	0	0	0	3	0	2	2	2	0	24
SIX FORKS RD	Millbrook Rd	Anderson Dr	Bicycle Lane	New Construction	A, E	State	5	0	0	0	10	0	0	0	0	4	0	0	3	0	2	0	0	24
W NORTH ST/LANE ST	St. Marys St	East St	Sharrow	Stripe	C, D	City	0	5	0	0	5	5	0	0	0	0	0	3	0	2	2	2	0	24
ASHE AVE	Western Blvd	Hillsborough St	Bicycle Lane	Stripe	D	City	0	0	5	5	0	5	5	0	0	0	0	3	0	0	0	0	0	23
FAIRCLOTH ST	Hillsborough St	Wade Ave	Bicycle Lane	Stripe	D	City	5	0	10	0	0	5	0	0	0	0	0	3	0	0	0	0	0	23
EDENTON ST	Hillsborough St	New Bern Ave	Bicycle Lane	Restripe	C, D	State	0	5	0	0	0	5	5	0	0	0	0	3	0	2	0	2	0	22
N BLOUNT ST	Railroad	Morgan St	Bicycle Lane	Road Diet	C	City	0	5	0	0	0	5	5	0	0	0	0	3	0	2	2	0	0	22
POOLE RD	MLK Blvd	New Bern Ave	Bicycle Lane	Road Diet	C	City	0	0	0	0	5	5	5	0	0	0	3	3	0	0	0	0	0	21
WESTERN BLVD	Gorman St	Jones Franklin Rd	Wide Outside Lane	Stripe	D	State	0	0	0	0	0	5	5	4	4	0	0	3	0	0	0	0	0	21
CREST RD	Varsity Dr	Avent Ferry Rd	Bicycle Lane	Restripe, Road Diet	D	City	0	0	5	0	5	5	0	0	0	0	0	3	0	0	0	2	0	20
EAST ST	Oakwood Ave	MLK Blvd	Sharrow	Stripe	C	City	0	5	0	0	0	5	5	0	0	0	0	3	0	2	0	0	0	20
GORMAN ST	Tryon Rd	Avent Ferry Rd	Bicycle Lane	Restripe	D	State	0	0	5	0	0	0	5	0	4	0	0	0	6	0	0	0	0	20
MILBURNIE RD/HILL ST	New Bern Ave	New Bern Ave	Bicycle Lane	Restripe	C	City	0	0	5	0	5	5	0	0	0	0	0	3	0	0	0	2	0	20
N PERSON ST	New Bern Ave	Brookside Dr	Bicycle Lane	Road Diet	C	State	0	5	0	0	0	5	5	0	0	0	0	3	0	2	0	0	0	20
WAKE FOREST RD	Capital Blvd	I-440	Bicycle Lane	Road Diet, New Construction	B	State	0	0	5	0	0	0	5	0	0	4	3	0	3	0	0	0	0	20
WILMINGTON ST	MLK Blvd	Peace St	Bicycle Lane	Restripe	C	City	0	5	0	0	0	5	0	0	4	0	0	0	0	2	2	2	0	20
BLUE RIDGE RD	Western Blvd	Lake Boone Trail	Bicycle Lane	New Construction	E, D	State	0	0	5	0	0	5	0	0	0	4	3	0	0	0	0	2	0	19
BLUE RIDGE RD	Lake Boone Trail	Glenwood Ave	Bicycle Lane	New Construction	E	State	0	0	5	5	0	0	0	0	4	0	0	0	0	0	2	2	1	19
CREEDMOOR RD	Glenwood Ave	Lynn Rd	Bicycle Lane	Restripe	A, E	State	0	0	0	0	5	0	0	4	4	4	0	0	0	0	2	0	0	19
EBENEZER CHURCH RD	Masota Rd	Duraleigh Rd	Paved Shoulder	New Construction	E	State	0	0	10	5	0	0	0	0	0	0	3	0	0	0	0	0	1	19
NEW BERN AVE	Yonkers Rd	Poole Rd	Wide Outside Lane	Stripe	C	State	0	0	0	0	0	5	5	0	0	0	3	3	0	0	0	2	1	19
STRICKLAND RD	Creedmoor Rd	Falls of the Neuse Rd	Bicycle Lane	Restripe	A	State	0	0	5	5	5	0	0	0	0	0	3	0	0	0	0	0	1	19
W MILLBROOK RD	Glenwood Ave	North Hills Dr	Bicycle Lane	Restripe, Road Diet	E, A	State	0	0	5	10	0	0	0	0	0	0	3	0	0	0	0	0	1	19
BROOKSIDE DR/WATAUGA ST	Oakwood Ave	Automotive Way	Bicycle Lane	Stripe, Restripe	C	City	0	0	0	5	5	5	0	0	0	0	0	3	0	0	0	0	0	18
CAPITAL BLVD	Wake County Line	Spring Forest Rd	Wide Outside Lane	Stripe	B	State	5	0	0	0	0	0	0	0	4	0	0	0	6	0	2	0	1	18
CHAVIS WAY	E Lenoir St	MLK Blvd	Bicycle Lane	Stripe	C	City	0	0	5	5	0	5	0	0	0	0	0	3	0	0	0	0	0	18



### BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 3*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost effective-construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

Top 1-5 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from Downtown (Downtown Overlay District)  
 Direct Access to/from an Existing or Funded Greenway  
 Direct Access to/from a Park or Recreation Center  
 Direct Access to/from a School  
 Serves Areas with High Percent No Vehicle  
 Segment Contains High Level of Reported Bike Accidents  
 Top 6-10 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from High Density Residential Areas (Census)  
 Segment Contains a Top 10 Intersection  
 College/University Proximity (1 mile radius)  
 Regional Connection and/or Interstate Highway Crossing  
 Direct Access to/from Major Shopping Centers\*\*  
 Direct Access to/from a Planned Greenway  
 Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
FALLS OF NEUSE RD	Old NC 98	Dunn Rd	Bicycle Lane	New Construction	B	State	0	0	5	0	5	0	0	4	0	0	0	0	3	0	0	0	1	18
NEW BERN AVE	Poole Rd	Person St	Wide Outside Lane	Stripe	C	State	0	0	0	0	0	5	5	0	0	0	3	3	0	2	0	0	0	18
ROCK QUARRY RD	I-40	MLK Blvd	Bicycle Lane	Restripe	C	State	0	0	5	5	0	5	0	0	0	0	0	3	0	0	0	0	0	18
S RALEIGH BLVD	New Bern Ave	Rock Quarry Rd	Bicycle Lane	New Construction	C	State	0	0	5	0	0	5	5	0	0	0	0	3	0	0	0	0	0	18
SOUTH ST	East Street	Boylan Ave	Bicycle Lane	Restripe, Stripe	C, D	City	0	5	0	0	0	5	5	0	0	0	0	3	0	0	0	0	0	18
ST MARYS ST	Peace St	Hargett St	Sharrow	Stripe	D	City	0	5	0	0	5	5	0	0	0	0	3	0	0	0	0	0	0	18
CHAPEL HILL RD	I-40	Hillsborough St	Bicycle Lane	New Construction	E	State	0	0	0	0	5	5	0	0	0	0	0	6	0	0	0	0	0	16
POOLE RD	Maybrook Dr	Neuse River Greenway	Bicycle Lane	New Construction	C	State	0	0	0	10	0	0	0	0	0	0	3	0	3	0	0	0	0	16
CRABTREE VALLEY AVE	Glenwood Ave	Glenwood Ave	Bicycle Lane	New Construction	E	City	0	0	5	0	0	0	0	4	0	0	0	3	0	2	0	1	15	
DURANT RD	Capital Blvd	Falls of the Neuse Rd	Bicycle Lane	Restripe	B	State	0	0	5	0	10	0	0	0	0	0	0	0	0	0	0	0	0	15
FAYETTEVILLE ST	Morgan St	Convention Center	Sharrow	Stripe	C, D	City	0	5	0	0	0	5	0	0	0	0	3	0	2	0	0	0	0	15
GLEN EDEN DR	Edwards Mill Rd	Glenwood Ave	Bicycle Lane	Stripe, Road Diet	E	City	0	0	0	10	0	0	0	0	0	0	0	3	0	0	0	2	15	
GLENWOOD AVE	Pleasant Valley Rd	Lead Mine Rd	Wide Outside Lane	Stripe	E	State	5	0	0	0	0	0	0	4	4	0	0	0	0	2	0	0	0	15
JONES FRANKLIN RD	Tryon Rd	Buck Jones Rd	Bicycle Lane	New Construction	D	State	0	0	0	5	0	0	0	4	0	0	0	6	0	0	0	0	0	15
LAKE WHEELER RD	Centennial Pkwy	Western Blvd	Sidewalk	New Construction	D	City	0	0	5	0	0	5	0	0	0	0	3	0	0	0	2	0	0	15
LYNN RD	Glenwood Ave	Creedmoor Rd	Bicycle Lane	Restripe	E	State	0	0	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	15
LYNN RD	Creedmoor Rd	Sandy Forks Rd	Bicycle Lane	Restripe	A	State	0	0	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	15
NORTH HILLS DR	Lead Mine Rd	Lynn Rd	Bicycle Lane	Stripe	A	City	0	0	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	15
OAKWOOD/E NORTH/LORD BERKLE	New Bern Ave	N Wilmington St	Sharrow/Bicycle Lane	Stripe/Stripe	C	City	0	0	0	0	0	5	5	0	0	0	0	3	0	2	0	0	0	15
REEDY CREEK RD	Edwards Mill Rd	Umstead State Park	Sharrow	Stripe	E	State	0	0	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	15
SPRING FOREST RD	Sandy Forks Rd	Atlantic Ave	Bicycle Lane	Restripe	A, B	State	0	0	0	10	5	0	0	0	0	0	0	0	0	0	0	0	0	15
ST MARYS ST	Glenwood Ave	Peace St	Bicycle Lane	Restripe, Stripe	E, D	City	0	0	0	5	5	0	0	0	0	0	3	0	2	0	0	0	0	15
TRENTON RD	I-40	Reedy Creek Rd	Paved Shoulder	New Construction	E	City	0	0	5	5	0	5	0	0	0	0	0	0	0	0	0	0	0	15
WEST ST	Wade Ave	Hargett St	Sharrow	Stripe	D	City	0	5	0	0	0	5	0	0	0	0	3	0	2	0	0	0	0	15
GLENWOOD AVE	Oberlin Rd	Whitaker Mill Rd	Wide Outside Lane	Stripe	E, B	State	5	0	0	0	0	0	0	0	4	0	0	3	0	2	0	0	0	14
LAKE WHEELER RD	Tryon Rd	Centennial Pkwy	Bicycle Lane	New Construction	D	State	0	0	0	5	0	0	0	0	0	0	3	0	6	0	0	0	0	14
NEW BERN AVE	Old Milburnie Rd	Yonkers Rd	Wide Outside Lane	Stripe	C, B	State	0	0	5	0	0	0	0	0	0	0	3	0	6	0	0	0	0	14
SIX FORKS RD	Anderson Dr	Capital Blvd	Bicycle Lane	New Construction	E, B, C	State	5	0	5	0	0	0	0	0	4	0	0	0	0	0	0	0	0	14
VARSITY DR	Western Blvd	Marcom St	Bicycle Lane	New Construction	D	City	0	0	0	0	0	5	0	0	4	0	0	3	0	0	0	2	0	14
WESTERN BLVD	I-40	Jones Franklin Rd	Wide Outside Lane	Stripe	D	State	0	0	0	0	0	0	0	4	4	0	0	6	0	0	0	0	0	14





## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 4*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost effective-construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

- Top 1-5 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Downtown (Downtown Overlay District)
- Direct Access to/from an Existing or Funded Greenway
- Direct Access to/from a Park or Recreation Center
- Serves Areas with High Percent No Vehicle
- Segment Contains High Level of Reported Bike Accidents
- Top 6-10 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Proposed Transit Hubs
- College/University Proximity (1 mile radius)
- Regional Connection and/or Interstate Highway Crossing
- Direct Access to/from High Density Residential Areas (Census)
- Direct Access to/from Interstate Highway Crossing
- Direct Access to Major Shopping Centers\*
- Direct Access to Major Employment Centers\*\*
- Direct Access to/from a Planned Greenway
- Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
BUCK JONES RD	I-40	Western Blvd	Bicycle Lane	New Construction	D	City	0	0	0	0	0	0	0	0	4	0	3	0	6	0	0	0	0	13
E MILLBROOK RD	Falls of the Neuse Rd	Capital Blvd	Bicycle Lane	Restripe	B	State	0	0	0	0	5	5	0	0	0	0	3	0	0	0	0	0	0	13
EBENEZER CHURCH RD	Graylyn Dr	Masota Rd	Paved Shoulder	New Construction	E	State	0	0	5	5	0	0	0	0	0	0	3	0	0	0	0	0	0	13
EBENEZER CHURCH RD/GRAYLAN	Westgate Rd	Umstead State Park	Bicycle Lane	Restripe	E	State	0	0	5	5	0	0	0	0	0	0	3	0	0	0	0	0	0	13
EDWARDS MILL RD	Western Blvd	Wade Ave	Bicycle Lane	New Construction/Restripe	E	State	0	0	5	0	0	5	0	0	0	0	3	0	0	0	0	0	0	13
FAIRCLOTH ST	Hillsborough St	Wade Ave	Bicycle Lane	Stripe	D	City	0	0	5	0	0	5	0	0	0	0	0	3	0	0	0	0	0	13
FORESTVILLE RD	Louisburg Rd	Buffaloe Rd	Bicycle Lane	New Construction	B	City	0	0	0	5	5	0	0	0	0	0	0	0	3	0	0	0	0	13
FOX RD	Spring Forest Rd	Southall Rd	Bicycle Lane	New Construction	B	City	0	0	0	5	5	0	0	0	0	0	0	0	3	0	0	0	0	13
HAYWOOD ST/S SWAIN ST	MLK Blvd	E Jones St	Sharrow/Bicycle Lane	Stripe/Stripe	C	City	0	0	0	0	5	5	0	0	0	0	0	3	0	0	0	0	0	13
LAKE DAM RD	Tryon Rd	Existing Greenway	Paved Shoulder	New Construction	D	City	0	0	5	5	0	0	0	0	0	0	0	0	3	0	0	0	0	13
ROCK QUARRY RD	South New Hope Road	I-40	Bicycle Lane	New Construction	C	State	0	0	0	0	5	0	5	0	0	0	0	0	3	0	0	0	0	13
WAKE FOREST RD	I-440	Falls of the Neuse Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	5	5	0	0	0	0	0	3	0	0	0	0	13
S SAUNDERS ST	Cabarrus St	Lake Wheeler Rd	Wide Outside Lane	Stripe	D, C	State	0	0	5	0	0	0	0	0	4	0	0	3	0	0	0	0	0	12
SKYCREST DR	New Hope Rd	Wake County Line	Bicycle Lane	New Construction	B	State	0	0	5	0	0	0	0	0	0	0	0	0	6	0	0	0	1	12
VARSITY DR	Marcom St	Avent Ferry Rd	Bicycle Lane	Stripe	D	City	0	0	0	0	0	5	0	0	4	0	0	3	0	0	0	0	0	12
ATLANTIC AVE	New Hope Church Rd	Brookside Dr	Bicycle Lane	Road Diet	B, C	City	0	0	5	0	0	0	0	0	0	0	3	0	3	0	0	0	0	11
LEESVILLE RD	New Leesville Blvd	Westgate Rd	Bicycle Lane	Stripe	E	State	0	0	0	5	0	0	0	0	0	0	3	0	3	0	0	0	0	11
OLD WAKE FOREST RD	Fox Rd	Litchford Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	5	0	0	4	0	0	0	0	0	0	2	0	11
TRYON RD	Cyrus St	Sunnybrook Rd	Bicycle Lane	Stripe	C	State	0	0	0	5	0	0	0	0	0	0	3	0	3	0	0	0	0	11
TRYON RD	Lake Wheeler Rd	S. Saunders St.	Bicycle Lane	Restripe	D	State	0	0	0	0	0	5	0	0	0	0	3	0	3	0	0	0	0	11
BRIER CREEK PKWY	Globe Rd	T W Alexander Dr	Bicycle Lane	Restripe	E	State	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	10
BROOKS/CANTERBURY/FAIRVIEW	St. Marys St	Lake Boone Trail	Bicycle Lane	Stripe	E	City	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10
FOREST PINES/HONEYCHURCH	Common Oaks Dr	Old NC 98	Bicycle Lane	Road Diet	B	City	0	0	0	0	5	0	0	0	0	0	0	0	3	0	0	2	0	10
GLENWOOD AVE	Lead Mine Rd	Oberlin Rd	Wide Outside Lane	Stripe	E	State	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
GLENWOOD AVE	Toyota Dr	Pincrest Rd	Wide Outside Lane	Stripe	E	State	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10
S SAUNDERS ST	Lake Wheeler Rd	S Wilmington St	Bicycle Lane	Road Diet	D	State	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	10
SIX FORKS RD	Sawmill Rd	Millbrook Rd	Bicycle Lane	New Construction	A	State	5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	10
SUNNYBROOK RD	I-40	Poole Rd	Bicycle Lane	Restripe	C	State	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10
TRAILWOOD DR	Main Campus Dr	Avent Ferry Rd	Bicycle Lane	New Construction	D	State	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	10
FAIRVIEW RD	Capital Blvd	Glenwood Ave	Sharrow	Stripe	B	City	0	0	0	0	0	0	0	0	0	4	0	3	0	0	2	0	0	9



## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 5*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost effective-construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

Top 1-5 "Most in Need of Improvement" from Online Survey	Direct Access to/from Downtown (Downtown Overlay District)	Direct Access to/from an Existing or Funded Greenway	Direct Access to/from a Park or Recreation Center	Direct Access to/from a School	Serves Areas with High Percent No Vehicle	Segment Contains High Level of Reported Bike Accidents	Top 6-10 "Most in Need of Improvement" from Online Survey	Direct Access to/from Proposed Transit Hubs	College/University Proximity (1 mile radius)	Regional Connection and/or Interstate Highway Crossing	Direct Access to/from High Density Residential Areas (Census)	Direct Access to Major Shopping Centers**	Direct Access to/from Employment Centers**	Direct Access to/from a Planned Greenway	Totals
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Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
FALLS OF NEUSE RD	Spring Forest	Old Wake Forest Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0	9
FALLS OF NEUSE RD	Strickland Rd	Spring Forest	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	5	4	0	0	0	0	0	0	0	0	0	9
PECAN RD	S Wilmington St	Lake Wheeler Rd	Bicycle Lane	Stripe	D	City	0	0	0	0	0	5	0	0	4	0	0	0	0	0	0	0	0	9
SUMNER BLVD/BARROW DR	Gresham Lake Rd	Triangle Town Blvd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	4	0	0	0	3	0	2	0	0	9
ATHENS DR	Jones Franklin Rd	Avent Ferry Rd	Bicycle Lane	Stripe	D	City	0	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	0	8
GLASCOCK/LARSON/CHATHAM	Milburnie Rd	Person St	Sharrow/Bicycle Lane	Stripe/Restripe	C	City	0	0	0	0	0	0	5	0	0	0	0	3	0	0	0	0	0	8
GLENWOOD AVE	Wake County Line	Brier Creek Parkway	Wide Outside Lane	Stripe	E	State	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	8
GLOBE RD	Wake County Line	Brier Creek Parkway	Bicycle Lane	Restripe	E	City	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	8
LEESVILLE RD	Westgate Rd	Lynn Rd	Bicycle Lane	New Construction	E	State	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	0	8
LUMLEY RD	Arnold Palmer Dr	Glenwood Ave	Bicycle Lane	Restripe	E	State	0	0	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	8
N STATE ST	Oakwood Ave	Glascocock St	Bicycle Lane	Restripe	C	City	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	8
OLD MILBURNIE RD	Forestville rd	New Bern Ave	Bicycle Lane	New Construction	C	City	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	8
POOLE RD	I-440	MLK Blvd	Bicycle Lane	New Construction	C	State	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	0	0	8
S MCDOWELL ST	Saunders St	South St	Wide Outside Lane	Stripe	C, D	State	0	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	0	8
SIX FORKS RD	I-540	Sawmill Rd	Bicycle Lane	New Construction	A	State	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	8
SKYCREST DR	Brentwood Rd	New Hope Rd	Bicycle Lane	New Construction	B	State	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	8
STRICKLAND RD	Leesville Rd	Creedmoor Rd	Bicycle Lane	New Construction	A, E	State	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	0	0	8
T W ALEXANDER DR	Wake County Line	Brier Creek Parkway	Bicycle Lane	New Construction	E	State	0	0	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	8
TRINITY RD	I-40	Blue Ridge Rd	Bicycle Lane	New Construction	E	State	0	0	0	0	0	5	0	0	0	0	0	0	3	0	0	0	0	8
WAKEFIELD PLANTATION DR	NC 98 Bypass	Falls of the Neuse Rd	Bicycle Lane	Stripe	B	City	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	0	8
WOLFPACK LN	Bush St	Atlantic Ave	Bicycle Lane	Stripe	B	City	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	8
BUFFALOE RD	I-540	Wake County Line	Bicycle Lane	Road Diet	B	State	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	7
CREEDMOOR RD	Lynn Rd	I-540	Bicycle Lane	Restripe	A	State	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	0	7
FALLS OF NEUSE RD	Dunn Rd	Durant Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	0	7
FALLS OF NEUSE RD	Durant Rd	Strickland Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	0	7
LOUISBURG RD	Spring Forest Rd	Mitchell Mill Rd	Wide Outside Lane	Stripe	B	State	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	7
MILLBROOK RD	North Hills Dr	Falls of the Neuse Rd	Sharrow	Stripe	A	State	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	7
NAZARETH ST	Centennial Pkwy	Western Blvd	Sharrow	Stripe	D	City	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	2	0	7
LAKE BOONE TRL	Edwards Mill Rd	Ridge Rd	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	1	6
LEAD MINE RD	Glenwood Ave	Yorkgate Dr	Bicycle Lane	Restripe	A	State	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2	0	0	6





## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 6*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost effective-construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

Top 1-5 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from Downtown (Downtown Overlay District)  
 Direct Access to/from an Existing or Funded Greenway  
 Direct Access to/from a Park or Recreation Center  
 Serves Areas with High Percent No Vehicle  
 Segment Contains High Level of Reported Bike Accidents  
 Top 6-10 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from High Density Residential Areas (Census)  
 Segment Contains a Top 10 Intersection  
 College/University Proximity (1 mile radius)  
 Regional Connection and/or Interstate Highway Crossing  
 Direct Access to/from Major Shopping Centers\*\*  
 Direct Access to/from a Planned Greenway  
 Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
NEW FALLS OF NEUSE RD	Capital Blvd	Falls of the Neuse Rd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	1	6
NEWTON RD	Six Forks Rd	Falls of the Neuse Rd	Sharrow	Stripe	A	City	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	6
POOLE RD	I-440	Maybrook Dr	Bicycle Lane	Restripe	C	State	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	6
SUNNYBROOK RD	New Bern Ave	Poole Rd	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	6
TRYON RD	Jones Franklin Rd	Lake Wheeler Rd	Bicycle Lane	Stripe	D	State	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	6
TRYON RD	S Saunders St.	Cyrus St	Bicycle Lane	New Construction	C, D	State	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	6
WHITAKER MILL RD	Atlantic Ave	Glenwood Ave	Bicycle Lane/Sharrow	Road Diet/Stripe	B	City	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	6
ANDERSON DR	Glenwood Ave	Six Forks Rd	Bicycle Lane	Stripe	B	City	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
BARWELL RD	Rock Quarry Rd	Poole Rd	Bicycle Lane	New Construction	C	City	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
BUFFALOE RD	Southall Rd	I-540	Bicycle Lane	New Construction	B	State	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
BUSH ST	St. Albans	Wolfpack Ln	Bicycle Lane	Stripe	B	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
CAPITAL BLVD	Spring Forest Rd	Highwoods Blvd	Wide Outside Lane	Stripe	B	State	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
CORPORATE CENTER DR	Trinity Rd	Chapel Hill Rd	Bicycle Lane	Stripe	E	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
CROSS LINK RD/RUSH ST	Rock Quarry Rd	S Wilmington St	Bicycle Lane	Restripe/Road Diet	C	City	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
GLENWOOD AVE	Pinecrest Rd	Pleasant Valley Rd	Bicycle Lane/Sharrow	Restripe/Stripe	E	State	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
GREEN RD	Spring Forest Rd	New Hope Church Rd	Bicycle Lane	Road Diet	B	City	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
HOKE ST	S Blount St	Garner Rd	Bicycle Lane	Stripe	C	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
LEWIS FARM RD	Banbury Rd	Canterbury Rd	Sharrow	Stripe	E	City	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
N NEW HOPE RD	Buffaloe Rd	Corporation Pkwy	Bicycle Lane	Stripe	B	State	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
NEW HOPE CHURCH RD	Green Rd	Wake Forest Rd	Bicycle Lane	Restripe	B	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
POYNER RD	Glenwood Forest	Ebenezer Church Rd	Bicycle Lane	New Construction	E	City	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
RAY RD	Strickland Rd	Leesville Rd	Bicycle Lane	New Construction	E	State	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SAWMILL RD	Creedmoor Rd	Six Forks Rd	Bicycle Lane	Restripe	A	City	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SPRING FOREST RD	Atlantic Rd	Fox Rd	Bicycle Lane	Restripe	B	State	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
ST ALBANS DR	Wake Forest Rd	New Hope Church Rd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
WATKINS RD	Mitchell Mill Rd	Jones Bay Ln	Bicycle Lane	New Construction	B	City	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
WESTCHASE BLVD/C. F. STADIUM	Blue Ridge Rd	Edwards Mill Rd	Bicycle Lane	Restripe	E	City	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
DURALEIGH RD/BLUE RIDGE RD	Lake Boone Trail	Glenwood Ave	Bicycle Lane	Restripe	E	State	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	4
ATLANTIC AVE	Dixie Forest Rd	New Hope Church Rd	Bicycle Lane	Road Diet	B	City	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
ATLANTIC AVE	New Hope Church Rd	Six Forks Rd	Bicycle Lane	Road Diet	B	City	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
AUBURN CHURCH RD	Jones Sausage Rd	Wall Store Rd	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3



## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 7*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost effective-construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

Top 1-5 "Most in Need of Improvement" from Online Survey  
 Direct Access to/from Downtown (Downtown Overlay District)  
 Direct Access to/from an Existing or Funded Greenway  
 Direct Access to/from a Park or Recreation Center  
 Serves Areas with High School  
 Segment Contains High Percent No Vehicle  
 Top 6-10 "Most in Need of Reported Bike Accidents"  
 Direct Access to/from Proposed Transit Hubs  
 Segment Contains a Top 10 Intersection "Most in Need of Improvement"  
 Top 11-25 "Most in Need of Improvement" from Online Survey  
 College/University Proximity (1 mile radius)  
 Regional Connection and/or Interstate Highway Crossing  
 Direct Access to/from High Density Residential Areas (Census)  
 Direct Access to/from Major Shopping Centers\*\*  
 Direct Access to/from a Planned Greenway  
 Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
GLENWOOD FOREST DR	Glenwood Ave	Poyner Rd	Bicycle Lane	Stripe	E	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
GRESHAM LAKE RD	Rainwater Rd	Capital Blvd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
JONES SAUSAGE RD	I-40	Rock Quarry Rd	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
LEESVILLE RD	Lynn Rd	Millbrook Rd	Bicycle Lane	New Construction	E	State	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
LEESVILLE RD	Mt. Herman Rd	Westgate Rd	Bicycle Lane	New Construction	E	State	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
LITCHFORD RD	Falls of the Neuse Rd	Old Wake Forest Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
MITCHELL MILL RD	Louisburg Rd	Wake County Line	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
N BOUNDARY ST	Brookside Dr	Person St	Sharrow	Stripe	C	City	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
NEW LEESVILLE BLVD	Shady Grove Rd	Leesville Rd	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
PLEASANT VALLEY RD	Millbrook Rd	Glenwood Ave	Bicycle Lane	Road Diet	E	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
PLEASANT VALLEY RD	Glenwood Ave	Duraleigh Rd	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
RAY RD	I-540	Strickland Rd	Paved Shoulder	New Construction	E	State	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
ROCK QUARRY RD	Wake County Line	South New Hope Road	Bicycle Lane	New Construction	C	State	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
SWAIN ST	Lenoir St	Jones St	Sharrow	Stripe	C	City	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
TRAILWOOD DR	Tryon Rd	Main Campus Dr	Bicycle Lane	Restripe	D	State	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
SHANTA DR	New Bern Ave	Milburnie Rd	Bicycle Lane	Restripe	C	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
ST ALBANS DR/CAMELOT DR	Lassiter Mill Rd	Wake Forest Rd	Bicycle Lane	Stripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TRIANGLE TOWN BLVD	Sumner Blvd	Capital Blvd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
DUNN RD	Durant Rd	Falls of the Neuse Rd	Bicycle Lane	Restripe	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
FERNWOOD DR/REMBERT DR	Deblyn Ave	Glenwood Ave	Sharrow	Stripe	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
N NEW HOPE RD	Corporation Pkwy	US 64	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ROGERS LN	New Hope Rd	New Bern Ave	Bicycle Lane	Restripe, Road Diet	C	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ACC BLVD	Brier Creek Pkwy	Leesville Rd	Bicycle Lane	Road Diet	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARNOLD PALMER DR/BRIER CLUB L	T W Alexander Dr	Lumley Rd	Bicycle Lane	Stripe	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATTLE BRIDGE RD	Rock Quarry Rd	Wake County Line	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRENTWOOD RD	Noblin Rd	Capital Blvd	Bicycle Lane	Stripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRENTWOOD RD	Capital Blvd	New Hope Church Rd	Bicycle Lane	Road Diet	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUFFALOE RD	Capital Blvd	Southall Rd	Bicycle Lane	Road Diet	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CALVARY DR	Louisburg Rd	Green Rd	Bicycle Lane	Road Diet	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAROLINA PINES AVE	Lake Wheeler Rd	S Saunders Rd	Bicycle Lane	New Construction	D	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





## BICYCLE FACILITY SEGMENT PRIORITIZATION *Table B-1, Part 8*

Recommended bicycle facility segments (below) are prioritized according to weighted criteria (right).

**Light blue** = Top 25 Projects (high priority with cost-effective construction method and equity across Council Districts)

**Gray** = Additional projects with cost-effective construction methods (bicycle lane restripe/stripe/road diet and shared lane markings)

- Top 1-5 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Downtown (Downtown Overlay District)
- Direct Access to/from an Existing or Funded Greenway
- Direct Access to/from a Park or Recreation Center
- Serves Areas with High Percent No Vehicle
- Segment Contains High Level of Reported Bike Accidents
- Top 6-10 "Most in Need of Improvement" from Online Survey
- Direct Access to/from Intersection "Most in Need of Improvement"
- Segment Contains a Top 10 Intersection "Most in Need of Improvement"
- Top 11-25 "Most in Need of Improvement" from Online Survey
- College/University Proximity (1 mile radius)
- Regional Connection and/or Interstate Highway Crossing
- Direct Access to/from High Density Residential Areas (Census)
- Direct Access to Major Shopping Centers\*
- Direct Access to/from a Planned Greenway
- Totals

Bicycle Facilities	From	To	Facility Type	Method	Council District	Maintenance	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	2	1	77
DEANA LN	Capital Blvd	New Hope Church Rd	Bicycle Lane	Restripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FAIRBANKS DR	Westgate Rd	Leesville Rd	Bicycle Lane	Stripe	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FOREST OAKS DR	Old Wake Forest Rd	Atlantic Ave	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FORESTVILLE RD	Buffaloe Rd	Old Milburnie Rd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HARDIMONT RD	Wake Forest Rd	St. Albans Dr	Bicycle Lane	Stripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HARPS MILL RD	Newton Rd	Litchford Rd	Bicycle Lane	Stripe	A, B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HIGHWOODS BLVD	Atlantic Ave	Capital Blvd	Bicycle Lane	Restripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEAD MINE RD	Sawmill Rd	Six Forks Rd	Bicycle Lane	Restripe	A	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEAD MINE RD	Yorkgate Dr	Sawmill Rd	Bicycle Lane	New Construction	A	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LINEBERRY DR	Sierra Dr	Lake Wheeler Rd	Bicycle Lane	New Construction	D	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LINEBERRY DR	Sierra Dr	Trailwood Dr	Bicycle Lane	Stripe	D	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOUISBURG RD	Capital Blvd	Spring Forest Rd	Wide Outside Lane	Stripe	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MT HERMAN RD/SHADY GROVE RD	ACC Blvd	New Leesville Blvd	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N NEW HOPE RD	Capital Blvd	Buffaloe Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW HOPE CHURCH RD	Capital Blvd	Green Rd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NICHOLS RD	Harps Mill Rd	Litchford Rd	Sharrow	Stripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHCLIFT DR	North Hills Dr	Six Forks Rd	Sharrow	Stripe	A	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEARL RD	Rock Quarry Rd	Auburn Church Rd	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERRY CREEK RD	Capital Blvd	Louisburg Rd	Bicycle Lane	Restripe	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PINECREST RD	Glenwood Ave	Fairbanks Dr	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIDGE RD	Crabtree Valley Ave	Tazwell Place	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S NEW HOPE RD	US 64	Old Poole Rd	Bicycle Lane	Restripe	C	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S NEW HOPE RD	Old Poole Road	Rock Quarry Rd	Bicycle Lane	New Construction	C	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SANDY FORKS RD	Six Forks Rd	North Bend Dr	Bicycle Lane	Restripe	A	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SANDY FORKS RD	North Bend Dr	Falls of the Neuse Rd	Bicycle Lane	New Construction	A	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIERRA DR	Lake Wheeler Rd	Lineberry Dr	Bicycle Lane	Restripe	D	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHALL RD	Louisburg Rd	Buffaloe Rd	Bicycle Lane	New Construction	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPRING FOREST RD	Fox Rd	Buffaloe Rd	Bicycle Lane	New Construction	B	State	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARNELL AVE	Ridge Road	Glenwood Ave	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTGATE RD	Glenwood Ave	Leesville Rd	Bicycle Lane	New Construction	E	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTINGHOUSE BLVD	Capital Blvd	N Raleigh Blvd	Bicycle Lane	Restripe	B	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YONKERS RD	New Bern Ave	Capital Blvd	Bicycle Lane	New Construction	C	City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





# APPENDIX C: COST ESTIMATES FOR TOP 25 PROJECTS

These cost estimates cover the top 25 projects identified in Appendix B, with the letter-number labels (A1 through D5) corresponding to the project cut-sheets. The total estimated cost for construction of these top 25 projects is approximately **\$1.2 million**.

The source of the base figures (for lane stripe removal, lane stripping, symbol marking, and signs) is the North Carolina Department of Transportation (NCDOT) Division of Bicycle and Pedestrian Transportation. This Division of NCDOT has collected figures from DOT engineers, staff from various municipalities throughout North Carolina, and alternative transportation planning consultants. These cost estimates are for planning purposes only.

**Project Cutsheet A1**

<b>Project Segment Road</b>	<b>Creedmoor Rd.</b>
<i>From</i>	Glenwood Ave.
<i>To</i>	Lynn Rd.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2.1
<i>Feet</i>	10,900
Number of Lanes	4
# of 4 inch stripes to remove	2
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$8,720.00</i>
# of 4 inch stripes to stripe	4
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$26,160.00</i>
# of bicycle symbol markings per 250 ft	87.2
# of bicycle symbol markings at intersections	4
Total # of markings	91
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$5,915.00</i>
# of signs (after major intersections)	4
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$800.00</i>
<b>Total cost</b>	<b>\$41,595.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$47,834.25</b>

**Project Cutsheet A2**

<b>Project Segment Road</b>	<b>Strickland Rd.</b>
<i>From</i>	Creedmoor Rd.
<i>To</i>	Falls of the Neuse Rd.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	3.3
<i>Feet</i>	17,400
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$27,840.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$62,640.00</i>
# of bicycle symbol markings per 250 ft	139.2
# of bicycle symbol markings at intersections	8
Total # of markings	147
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$9,555.00</i>
# of signs (after major intersections)	8
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,600.00</i>
<b>Total cost</b>	<b>\$101,635.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$116,880.25</b>





**Project Cutsheet A3**

<b>Project Segment Road</b>	<b>Lynn Rd.</b>
<i>From</i>	Creedmoor Rd.
<i>To</i>	Sandy Forks Rd.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2.7
<i>Feet</i>	14,600
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$23,360.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$52,560.00</i>
# of bicycle symbol markings per 250 ft	116.8
# of bicycle symbol markings at intersections	5
Total # of markings	122
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$7,930.00</i>
# of signs (after major intersections)	5
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,000.00</i>
<b>Total cost</b>	<b>\$84,850.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$97,577.50</b>

**Project Cutsheet A4**

<b>Project Segment Road</b>	<b>Spring Forest Rd.</b>
<i>From</i>	Sandy Forks Rd.
<i>To</i>	Atlantic Ave.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2.5
<i>Feet</i>	13,100
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$20,960.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$47,160.00</i>
# of bicycle symbol markings per 250 ft	104.8
# of bicycle symbol markings at intersections	4
Total # of markings	109
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$7,085.00</i>
# of signs (after major intersections)	4
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$800.00</i>
<b>Total cost</b>	<b>\$76,005.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$87,405.75</b>

**Project Cutsheet A5**

<b>Project Segment Road</b>	<b>Creedmoor Rd.</b>
<i>From</i>	Lynn Rd.
<i>To</i>	I-540
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2.7
<i>Feet</i>	14,400
Number of Lanes	4
# of 4 inch stripes to remove	2
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$11,520.00</i>
# of 4 inch stripes to stripe	4
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$34,560.00</i>
# of bicycle symbol markings per 250 ft	115.2
# of bicycle symbol markings at intersections	8
Total # of markings	123
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$7,995.00</i>
# of signs (after major intersections)	8
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,600.00</i>
<b>Total cost</b>	<b>\$55,675.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$64,026.25</b>





**Project Cutsheet B1**

<b>Project Segment Road</b>		<b>Durant Rd.</b>
<i>From</i>		Falls of Neuse Rd.
<i>To</i>		Capital Blvd.
<i>Facility Type</i>		Bicycle Lane
<i>Method</i>		Restripe
<i>Miles</i>		2.5
<i>Feet</i>		13,400
Number of Lanes		5
# of 4 inch stripes to remove		4
\$/foot*		\$0.40
<i>Subtotal</i>		<i>\$21,440.00</i>
# of 4 inch stripes to stripe		6
\$/foot		\$0.60
<i>Subtotal</i>		<i>\$48,240.00</i>
# of bicycle symbol markings per 250 ft		107.2
# of bicycle symbol markings at intersections		2
Total # of markings		109
\$/marking		\$65.00
<i>Subtotal</i>		<i>\$7,085.00</i>
# of signs (after major intersections)		2
\$/sign		\$200.00
<i>Subtotal</i>		<i>\$400.00</i>
<b>Total cost</b>		<b>\$77,165.00</b>
% Contingency		0.15
<b>Grand Total</b>		<b>\$88,739.75</b>

**Project Cutsheet B2**

<b>Project Segment Road</b>		<b>E. Millbrook Rd. (part 1)</b>	<b>E. Millbrook Rd. (part 2)</b>
<i>From</i>		Falls of Neuse Rd.	Hoyle Dr.
<i>To</i>		Hoyle Dr.	Capital Blvd.
<i>Facility Type</i>		Bicycle Lane	Bicycle Lane
<i>Method</i>		Restripe	Restripe
<i>Miles</i>		1.3	0.6
<i>Feet</i>		7,000	3,200
Number of Lanes		5	4
# of 4 inch stripes to remove		4	2
\$/foot*		\$0.40	\$0.40
<i>Subtotal</i>		<i>\$11,200.00</i>	<i>\$2,560.00</i>
# of 4 inch stripes to stripe		6	4
\$/foot		\$0.60	\$0.60
<i>Subtotal</i>		<i>\$25,200.00</i>	<i>\$7,680.00</i>
# of bicycle symbol markings per 250 ft		56	25.6
# of bicycle symbol markings at intersections		5	3
Total # of markings		61	29
\$/marking		\$65.00	\$65.00
<i>Subtotal</i>		<i>\$3,965.00</i>	<i>\$1,885.00</i>
# of signs (after major intersections)		5	3
\$/sign		\$200.00	\$200.00
<i>Subtotal</i>		<i>\$1,000.00</i>	<i>\$600.00</i>
<b>Total cost</b>		<b>\$41,365.00</b>	<b>\$12,725.00</b>
% Contingency		0.15	0.15
<b>Grand Total</b>		<b>\$47,569.75</b>	<b>\$14,633.75</b>
			<b>\$62,203.50</b>

**Project Cutsheet B3**

<b>Project Segment Road</b>		<b>Fairview Rd.</b>
<i>From</i>		Glenwood Ave.
<i>To</i>		Capital Blvd.
<i>Facility Type</i>		Sharrow
<i>Method</i>		Stripe
<i>Miles</i>		0.6
<i>Feet</i>		3,000
Number of Lanes		2
# of 4 inch stripes to remove		0
\$/foot*		\$0.40
<i>Subtotal</i>		<i>\$0.00</i>
# of 4 inch stripes to stripe		0
\$/foot		\$0.60
<i>Subtotal</i>		<i>\$0.00</i>
# of bicycle symbol markings per 250 ft		24
# of bicycle symbol markings at intersections		2
Total # of markings		26
\$/marking		\$65.00
<i>Subtotal</i>		<i>\$1,690.00</i>
# of signs (after major intersections)		2
\$/sign		\$200.00
<i>Subtotal</i>		<i>\$400.00</i>
<b>Total cost</b>		<b>\$2,090.00</b>
% Contingency		0.15
<b>Grand Total</b>		<b>\$2,403.50</b>





**Project Cutsheet B4**

<b>Project Segment Road</b>	<b>Wakefield Plantation Rd.</b>
<i>From</i>	Falls of Neuse Rd.
<i>To</i>	NC 98
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Stripe
<i>Miles</i>	1.7
<i>Feet</i>	9,200
Number of Lanes	2
# of 4 inch stripes to remove	0
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$0.00</i>
# of 4 inch stripes to stripe	2
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$11,040.00</i>
# of bicycle symbol markings per 250 ft	73.6
# of bicycle symbol markings at intersections	4
Total # of markings	78
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$5,070.00</i>
# of signs (after major intersections)	4
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$800.00</i>
<b>Total cost</b>	<b>\$16,910.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$19,446.50</b>

**Project Cutsheet B5**

<b>Project Segment Road</b>	<b>Wolfpack Lane/Bush St.</b>
<i>From</i>	St. Albans Dr.
<i>To</i>	Atlantic Ave.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Stripe
<i>Miles</i>	0.8
<i>Feet</i>	4,400
Number of Lanes	2
# of 4 inch stripes to remove	0
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$0.00</i>
# of 4 inch stripes to stripe	2
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$5,280.00</i>
# of bicycle symbol markings per 250 ft	35.2
# of bicycle symbol markings at intersections	4
Total # of markings	39
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$2,535.00</i>
# of signs (after major intersections)	4
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$800.00</i>
<b>Total cost</b>	<b>\$8,615.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$9,907.25</b>

**Project Cutsheet C1**

<b>Project Segment Road</b>	<b>Peace St. (part 1)</b>	<b>Peace St. (part 2)</b>	<b>N. Boundary St. (part 3)</b>
<i>From</i>	St. Marys St.	Glenwood Ave.	N. Person St.
<i>To</i>	Glenwood Ave.	N. Person St.	Watauga St.
<i>Facility Type</i>	Bicycle Lane	Bicycle Lane	Sharrow
<i>Method</i>	Restripe	Road Diet	Stripe
<i>Miles</i>	0.2	0.8	0.3
<i>Feet</i>	1,200	3,900	1,700
Number of Lanes	3	4	2
# of 4 inch stripes to remove	2	4	0
\$/foot*	\$0.40	\$0.40	\$0.40
<i>Subtotal</i>	<i>\$960.00</i>	<i>\$6,240.00</i>	<i>\$0.00</i>
# of 4 inch stripes to stripe	4	4	0
\$/foot	\$0.60	\$0.60	\$0.60
<i>Subtotal</i>	<i>\$2,880.00</i>	<i>\$9,360.00</i>	<i>\$0.00</i>
# of bicycle symbol markings per 250 ft	9.6	31.2	13.6
# of bicycle symbol markings at intersections	4	6	4
Total # of markings	14	37	18
\$/marking	\$65.00	\$65.00	\$65.00
<i>Subtotal</i>	<i>\$910.00</i>	<i>\$2,405.00</i>	<i>\$1,170.00</i>
# of signs (after major intersections)	4	6	4
\$/sign	\$200.00	\$200.00	\$200.00
<i>Subtotal</i>	<i>\$800.00</i>	<i>\$1,200.00</i>	<i>\$800.00</i>
<b>Total cost</b>	<b>\$5,550.00</b>	<b>\$19,205.00</b>	<b>\$1,970.00</b>
% Contingency	0.15	0.15	0.15
<b>Grand Total</b>	<b>\$6,382.50</b>	<b>\$22,085.75</b>	<b>\$2,265.50</b>
			<b>\$30,733.75</b>





**Project Cutsheet C2**

<b>Project Segment Road</b>	<b>Hargett St. (two-way) (part 1)</b>	<b>Hargett St. (one-way)(part 2)</b>	<b>Hargett St. (two-way) (part 3)</b>	
<i>From</i>	St. Marys St.	S. West St.	S. East St.	
<i>To</i>	S. West St.	S. East St.	S. Tarboro St.	
<i>Facility Type</i>	Sharrow	Sharrow	Sharrow	
<i>Method</i>	Stripe	Stripe	Stripe	
<i>Miles</i>	0.2	0.8	0.6	
<i>Feet</i>	1,300	4,000	3,000	
Number of Lanes	2	2	2	
# of 4 inch stripes to remove	0	0	0	
\$/foot*	\$0.40	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of 4 inch stripes to stripe	0	0	0	
\$/foot	\$0.60	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of bicycle symbol markings per 250 ft	10.4	16	24	
# of bicycle symbol markings at intersections	2	7	6	
Total # of markings	12	23	30	
\$/marking	\$65.00	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$780.00</i>	<i>\$1,495.00</i>	<i>\$1,950.00</i>	
# of signs (after major intersections)	2	7	6	
\$/sign	\$200.00	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$400.00</i>	<i>\$1,400.00</i>	<i>\$1,200.00</i>	
<b>Total cost</b>	<b>\$1,180.00</b>	<b>\$2,895.00</b>	<b>\$3,150.00</b>	
% Contingency	0.15	0.15	0.15	
<b>Grand Total</b>	<b>\$1,357.00</b>	<b>\$3,329.25</b>	<b>\$3,622.50</b>	<b>\$8,308.75</b>

**Project Cutsheet C3**

<b>Project Segment Road</b>	<b>Lenoir St. (one-way)(part 1)</b>	<b>Lenoir St. (two-way)(part2)</b>	
<i>From</i>	S. Dawson St.	S. East St.	
<i>To</i>	S. East St.	S. Tarboro St.	
<i>Facility Type</i>	Sharrow	Sharrow	
<i>Method</i>	Stripe	Stripe	
<i>Miles</i>	0.6	0.6	
<i>Feet</i>	3,300	3,300	
Number of Lanes	2	2	
# of 4 inch stripes to remove	0	0	
\$/foot*	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of 4 inch stripes to stripe	0	0	
\$/foot	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of bicycle symbol markings per 250 ft	13.2	26.4	
# of bicycle symbol markings at intersections	6	6	
Total # of markings	19	32	
\$/marking	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$1,235.00</i>	<i>\$2,080.00</i>	
# of signs (after major intersections)	6	6	
\$/sign	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$1,200.00</i>	<i>\$1,200.00</i>	
<b>Total cost</b>	<b>\$2,435.00</b>	<b>\$3,280.00</b>	
% Contingency	0.15	0.15	
<b>Grand Total</b>	<b>\$2,800.25</b>	<b>\$3,772.00</b>	<b>\$6,572.25</b>

**Project Cutsheet C4**

<b>Project Segment Road</b>	<b>S. State St. (part 1)</b>	<b>S. State St. (part 2)</b>	
<i>From</i>	Bunche Dr.	Bragg St.	
<i>To</i>	Bragg St.	MLK Blvd.	
<i>Facility Type</i>	Bicycle Lane	Sharrow	
<i>Method</i>	Stripe	Stripe	
<i>Miles</i>	0.9	0.2	
<i>Feet</i>	4,800	800	
Number of Lanes	2	2	
# of 4 inch stripes to remove	0	0	
\$/foot*	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of 4 inch stripes to stripe	2	0	
\$/foot	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$5,760.00</i>	<i>\$0.00</i>	
# of bicycle symbol markings per 250 ft	38.4	6.4	
# of bicycle symbol markings at intersections	4	2	
Total # of markings	42	8	
\$/marking	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$2,730.00</i>	<i>\$520.00</i>	
# of signs (after major intersections)	4	2	
\$/sign	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$800.00</i>	<i>\$400.00</i>	
<b>Total cost</b>	<b>\$9,290.00</b>	<b>\$920.00</b>	
% Contingency	0.15	0.15	
<b>Grand Total</b>	<b>\$10,683.50</b>	<b>\$1,058.00</b>	<b>\$11,741.50</b>





**Project Cutsheet C5**

<b>Project Segment Road</b>	<b>Wilmington St. (one-way) (part1)</b>	<b>Salisbury St. (one-way) (part 2)</b>	
<i>From</i>	MLK Blvd	MLK Blvd	
<i>To</i>	Peace St.	Peace St.	
<i>Facility Type</i>	Bicycle Lane	Bicycle Lane	
<i>Method</i>	Restripe	Restripe	
<i>Miles</i>	1.3	1.3	
<i>Feet</i>	6,700	7,000	
Number of Lanes	2	3	
# of 4 inch stripes to remove	1	1	
\$/foot*	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$2,680.00</i>	<i>\$2,800.00</i>	
# of 4 inch stripes to stripe	1	1	
\$/foot	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$4,020.00</i>	<i>\$4,200.00</i>	
# of bicycle symbol markings per 250 ft	26.8	28	
# of bicycle symbol markings at intersections	8	8	
Total # of markings	35	36	
\$/marking	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$2,275.00</i>	<i>\$2,340.00</i>	
# of signs (after major intersections)	8	8	
\$/sign	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$1,600.00</i>	<i>\$1,600.00</i>	
<b>Total cost</b>	<b>\$10,575.00</b>	<b>\$10,940.00</b>	
% Contingency	0.15	0.15	
<b>Grand Total</b>	<b>\$12,161.25</b>	<b>\$12,581.00</b>	<b>\$24,742.25</b>

**Project Cutsheet D1**

<b>Project Segment Road</b>	<b>Clark Ave./Everett Ave. (part 1)</b>	<b>Clark Ave. (part 2)</b>	
<i>From</i>	Faircloth St.	Horne St.	
<i>To</i>	Horne St.	St. Marys St.	
<i>Facility Type</i>	Sharrow	Bicycle Lane	
<i>Method</i>	Stripe	Restripe	
<i>Miles</i>	1.1	0.9	
<i>Feet</i>	5,800	4,700	
Number of Lanes	2	3	
# of 4 inch stripes to remove	0	2	
\$/foot*	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$3,760.00</i>	
# of 4 inch stripes to stripe	0	4	
\$/foot	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$11,280.00</i>	
# of bicycle symbol markings per 250 ft	46.4	37.6	
# of bicycle symbol markings at intersections	10	6	
Total # of markings	56	44	
\$/marking	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$3,640.00</i>	<i>\$2,860.00</i>	
# of signs (after major intersections)	10	6	
\$/sign	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$2,000.00</i>	<i>\$1,200.00</i>	
<b>Total cost</b>	<b>\$5,640.00</b>	<b>\$19,100.00</b>	
% Contingency	0.15	0.15	
<b>Grand Total</b>	<b>\$6,486.00</b>	<b>\$21,965.00</b>	<b>\$28,451.00</b>

**Project Cutsheet D2**

<b>Project Segment Road</b>	<b>Avent Ferry Rd.</b>
<i>From</i>	Crest Rd.
<i>To</i>	Western Blvd.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	0.8
<i>Feet</i>	4,280
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$6,848.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$15,408.00</i>
# of bicycle symbol markings per 250 ft	34.24
# of bicycle symbol markings at intersections	6
Total # of markings	40
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$2,600.00</i>
# of signs (after major intersections)	6
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,200.00</i>
<b>Total cost</b>	<b>\$26,056.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$29,964.40</b>





**Project Cutsheet D3**

Project Segment Road	Dixie Trail (part 1)	Dixie Trail (part 2)	Lake Boone Trail (part 3)
From	Hillsborough St.	Wade Ave.	Dixie Trail
To	Wade Ave.	Lake Boone Trail	Ridge Road
Facility Type	Bicycle Lane	Bicycle Lane	Bicycle Lane
Method	Restripe	Restripe	Road Diet
Miles	0.8	0.9	0.3
Feet	4,400	4,900	1,500
Number of Lanes	2	3	4
# of 4 inch stripes to remove	2	2	4
\$/foot*	\$0.40	\$0.40	\$0.40
Subtotal	\$3,520.00	\$3,920.00	\$2,400.00
# of 4 inch stripes to stripe	4	4	4
\$/foot	\$0.60	\$0.60	\$0.60
Subtotal	\$10,560.00	\$11,760.00	\$3,600.00
# of bicycle symbol markings per 250 ft	35.2	39.2	12
# of bicycle symbol markings at intersections	4	4	2
Total # of markings	39	43	14
\$/marking	\$65.00	\$65.00	\$65.00
Subtotal	\$2,535.00	\$2,795.00	\$910.00
# of signs (after major intersections)	4	4	2
\$/sign	\$200.00	\$200.00	\$200.00
Subtotal	\$800.00	\$800.00	\$400.00
<b>Total cost</b>	<b>\$17,415.00</b>	<b>\$19,275.00</b>	<b>\$7,310.00</b>
% Contingency	0.15	0.15	0.15
<b>Grand Total</b>	<b>\$20,027.25</b>	<b>\$22,166.25</b>	<b>\$8,406.50</b>

**\$50,600.00**

**Project Cutsheet D4**

Project Segment Road	Cabarrus St. (part 1)	Cabarrus St. (part 2)
From	Western Blvd.	Kinsey St.
To	Kinsey St.	S. East St.
Facility Type	Sharrow	Bicycle Lane
Method	Stripe	Restripe
Miles	0.4	0.8
Feet	2,050	4,400
Number of Lanes	2	2
# of 4 inch stripes to remove	0	1
\$/foot*	\$0.40	\$0.40
Subtotal	\$0.00	\$1,760.00
# of 4 inch stripes to stripe	0	2
\$/foot	\$0.60	\$0.60
Subtotal	\$0.00	\$5,280.00
# of bicycle symbol markings per 250 ft	8.2	17.6
# of bicycle symbol markings at intersections	5	16
Total # of markings	13	34
\$/marking	\$65.00	\$65.00
Subtotal	\$845.00	\$2,210.00
# of signs (after major intersections)	5	16
\$/sign	\$200.00	\$200.00
Subtotal	\$1,000.00	\$3,200.00
<b>Total cost</b>	<b>\$1,845.00</b>	<b>\$12,450.00</b>
% Contingency	0.15	0.15
<b>Grand Total</b>	<b>\$2,121.75</b>	<b>\$14,317.50</b>

**\$16,439.25**

**Project Cutsheet D5**

Project Segment Road	Oberlin Rd. (part 1)	Oberlin Rd. (part 2)	Oberlin Rd. (part 3)	Oberlin Rd. (part 4)
From	Hillsborough St.	Clark Ave.	Bedford Ave.	Greenway Ave.
To	Clark Ave.	Bedford Ave.	Greenway Ave.	Glenwood Ave.
Facility Type	Bicycle Lane	Sharrow	Bicycle Lane	Bicycle Lane
Method	Stripe	Stripe	Restripe	Restripe
Miles	0.3	0.3	1.5	0.2
Feet	1,500	1,600	7,800	1,300
Number of Lanes	2	5	2	3
# of 4 inch stripes to remove	0	0	2	2
\$/foot*	\$0.40	\$0.40	\$0.40	\$0.40
Subtotal	\$0.00	\$0.00	\$6,240.00	\$1,040.00
# of 4 inch stripes to stripe	2	0	4	4
\$/foot	\$0.60	\$0.60	\$0.60	\$0.60
Subtotal	\$1,800.00	\$0.00	\$18,720.00	\$3,120.00
# of bicycle symbol markings per 250 ft	12	12.8	62.4	10.4
# of bicycle symbol markings at intersections	2	2	6	2
Total # of markings	14	15	68	12
\$/marking	\$65.00	\$65.00	\$65.00	\$65.00
Subtotal	\$910.00	\$975.00	\$4,420.00	\$780.00
# of signs (after major intersections)	2	2	6	2
\$/sign	\$200.00	\$200.00	\$200.00	\$200.00
Subtotal	\$400.00	\$400.00	\$1,200.00	\$400.00
<b>Total cost</b>	<b>\$3,110.00</b>	<b>\$1,375.00</b>	<b>\$30,580.00</b>	<b>\$5,340.00</b>
% Contingency	0.15	0.15	0.15	0.15
<b>Grand Total</b>	<b>\$3,576.50</b>	<b>\$1,581.25</b>	<b>\$35,167.00</b>	<b>\$6,141.00</b>

**\$46,465.75**





**Project Cutsheet E1**

<b>Project Segment Road</b>	<b>St. Marys St. (part 1)</b>	<b>Lassiter Mill Rd. (part 2)</b>	<b>Lassiter Mill Rd. (part 3)</b>	<b>Lassiter Mill Rd. (part 4)</b>	
<i>From</i>	Glenwood Ave.	White Oak Rd.	Greenway	I-440	
<i>To</i>	White Oak Rd.	Greenway	I-440	Camelot Dr.	
<i>Facility Type</i>	Bicycle Lane	Bicycle Lane	Bicycle Lane	Bicycle Lane	
<i>Method</i>	Stripe	Restripe	Stripe	Road Diet	
<i>Miles</i>	0.6	0.1	0.9	0.5	
<i>Feet</i>	3,400	500	5,000	2,500	
Number of Lanes	2	3	2	5	
# of 4 inch stripes to remove	0	2	0	0	
\$/foot*	\$0.40	\$0.40	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$400.00</i>	<i>\$0.00</i>	<i>\$0.00</i>	
# of 4 inch stripes to stripe	2	4	2	2	
\$/foot	\$0.60	\$0.60	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$4,080.00</i>	<i>\$1,200.00</i>	<i>\$6,000.00</i>	<i>\$3,000.00</i>	
# of bicycle symbol markings per 250 ft	27.2	4	40	20	
# of bicycle symbol markings at intersections	2	2	2	4	
Total # of markings	29	6	42	24	
\$/marking	\$65.00	\$65.00	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$1,885.00</i>	<i>\$390.00</i>	<i>\$2,730.00</i>	<i>\$1,560.00</i>	
# of signs (after major intersections)	2	2	2	4	
\$/sign	\$200.00	\$200.00	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$400.00</i>	<i>\$400.00</i>	<i>\$400.00</i>	<i>\$800.00</i>	
<b>Total cost</b>	<b>\$6,365.00</b>	<b>\$2,390.00</b>	<b>\$9,130.00</b>	<b>\$5,360.00</b>	
% Contingency	0.15	0.15	0.15	0.15	
<b>Grand Total</b>	<b>\$7,319.75</b>	<b>\$2,748.50</b>	<b>\$10,499.50</b>	<b>\$6,164.00</b>	<b>\$26,731.75</b>

**Project Cutsheet E2**

<b>Project Segment Road</b>	<b>Edwards Mill Rd./Creedmoor Rd.</b>
<i>From</i>	Blue Ridge Rd.
<i>To</i>	Glenwood Ave.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2
<i>Feet</i>	10,400
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$16,640.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$37,440.00</i>
# of bicycle symbol markings per 250 ft	83.2
# of bicycle symbol markings at intersections	7
Total # of markings	90
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$5,850.00</i>
# of signs (after major intersections)	7
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,400.00</i>
<b>Total cost</b>	<b>\$61,330.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$70,529.50</b>

**Project Cutsheet E3**

<b>Project Segment Road</b>	<b>W. Millbrook Rd.</b>
<i>From</i>	Glenwood Ave.
<i>To</i>	North Hills Dr.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	3.4
<i>Feet</i>	18,100
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$28,960.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$65,160.00</i>
# of bicycle symbol markings per 250 ft	144.8
# of bicycle symbol markings at intersections	7
Total # of markings	152
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$9,880.00</i>
# of signs (after major intersections)	7
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,400.00</i>
<b>Total cost</b>	<b>\$105,400.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$121,210.00</b>





**Project Cutsheet E4**

<b>Project Segment Road</b>	<b>Glen Eden Dr.</b>	<b>Glen Eden Dr.</b>	
<i>From</i>	Glenwood Ave.	Blue Ridge Rd.	
<i>To</i>	Blue Ridge Rd.	Edwards Mill Rd.	
<i>Facility Type</i>	Bicycle Lane	Bicycle Lane	
<i>Method</i>	Stripe	Road Diet	
<i>Miles</i>	1.6	0.5	
<i>Feet</i>	8,500	2,500	
Number of Lanes	2	4	
# of 4 inch stripes to remove	0	4	
\$/foot*	\$0.40	\$0.40	
<i>Subtotal</i>	<i>\$0.00</i>	<i>\$4,000.00</i>	
# of 4 inch stripes to stripe	2	4	
\$/foot	\$0.60	\$0.60	
<i>Subtotal</i>	<i>\$10,200.00</i>	<i>\$6,000.00</i>	
# of bicycle symbol markings per 250 ft	68	20	
# of bicycle symbol markings at intersections	4	2	
Total # of markings	72	22	
\$/marking	\$65.00	\$65.00	
<i>Subtotal</i>	<i>\$4,680.00</i>	<i>\$1,430.00</i>	
# of signs (after major intersections)	4	2	
\$/sign	\$200.00	\$200.00	
<i>Subtotal</i>	<i>\$800.00</i>	<i>\$400.00</i>	
<b>Total cost</b>	<b>\$15,680.00</b>	<b>\$11,830.00</b>	
% Contingency	0.15	0.15	
<b>Grand Total</b>	<b>\$18,032.00</b>	<b>\$13,604.50</b>	<b>\$31,636.50</b>

**Project Cutsheet E5**

<b>Project Segment Road</b>	<b>Lynn Rd.</b>
<i>From</i>	Creedmoor Rd.
<i>To</i>	Glenwood Ave.
<i>Facility Type</i>	Bicycle Lane
<i>Method</i>	Restripe
<i>Miles</i>	2.5
<i>Feet</i>	13,300
Number of Lanes	5
# of 4 inch stripes to remove	4
\$/foot*	\$0.40
<i>Subtotal</i>	<i>\$21,280.00</i>
# of 4 inch stripes to stripe	6
\$/foot	\$0.60
<i>Subtotal</i>	<i>\$47,880.00</i>
# of bicycle symbol markings per 250 ft	106.4
# of bicycle symbol markings at intersections	6
Total # of markings	112
\$/marking	\$65.00
<i>Subtotal</i>	<i>\$7,280.00</i>
# of signs (after major intersections)	6
\$/sign	\$200.00
<i>Subtotal</i>	<i>\$1,200.00</i>
<b>Total cost</b>	<b>\$77,640.00</b>
% Contingency	0.15
<b>Grand Total</b>	<b>\$89,286.00</b>






**APPENDIX D OUTLINE:**

Overview  
 High Priority Funding Options  
 State Funding Sources  
 Funding Allocated by Federal Agencies  
 Local Funding Sources  
 Other Local Options

# APPENDIX D: FUNDING RESOURCES

## OVERVIEW

The purpose of this appendix is to define and describe possible funding sources that could be used to support the planning, design and development of bicycle improvements.

Implementing the recommendations of this plan will require a strong level of local support and commitment through a variety of local funding mechanisms. Perhaps most important is the addition of bicycle and greenway recommendations from this Plan into the City's annual budget. These improvements should become a high priority and be supported through portions of the funding currently used for public safety, streets, parks and recreation, planning, Powell Bill funds, community development, travel and tourism, downtown, and local bonds.

The City should also seek a combination of funding sources that include local, state, federal, and private money. Fortunately, the benefits of bicycling and protected greenways are many and varied. This allows programs in Raleigh to access money earmarked for a variety of purposes including water quality, hazard mitigation, recreation, air quality, alternate transportation, wildlife protection, community health, and economic development. Competition is almost always stiff for state and federal funds, so it becomes imperative that local governments work together to create multi-jurisdictional partnerships and to develop their own local sources of funding. These sources can then be used to leverage outside assistance.

For the past two decades, a variety of funding has been used throughout North Carolina to support the planning, design and construction of urban and rural bicycle and greenway projects. The largest single source of funding for these projects has come from the Surface Transportation Act, first the Intermodal Surface Transportation Efficiency Act (ISTEA) in the early to mid 1990's; then its successor, Transportation Equity Act for the Twenty-First Century (TEA-21) through the early part of 2002; and now the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The North Carolina Department of Transportation manages and distributes the majority of federal funds that are derived from the Act to support the development of bicycle/trail development.





The majority of federal funding is distributed to states in the form of block grants and is then distributed throughout a given state for specific projects. State funding programs in North Carolina also support the creation of greenways. North Carolina has developed a broad array of funding sources that address land acquisition, green infrastructure development, and trail facility development.

Additionally, there are many things that the City of Raleigh can do to establish their own funding for bicycle and greenway initiatives. For the most part, it takes money to get money. For Raleigh, it will be necessary to create a local funding program through one of the methods that is defined within this report. Financing will be needed to administer the continued planning and implementation process, acquire parcels or easements, and manage and maintain facilities.

This appendix is organized by first addressing the state sources of funding, then addresses separate federal and local government funding sources. It is by no means an exhaustive list as there are many other funding sources available that should be researched and pursued as well. Creative planning and consistent monitoring of funding options will likely turn up new opportunities not listed here.

### **HIGH PRIORITY FUNDING OPTIONS**

While there are a number of funding sources provided in the following pages, these sources should be the highest priority in order to achieve successful implementation. It is critical for local government to step up given the competitiveness and finite availability associated with most funding sources. Details about the following sources are found later in this appendix.

- Local Capital Improvements Program (CIP)
- Local Bond
- Local Fees
- State Transportation Improvement Program (TIP)
- State Powell Bill Funds
- State Safe Routes to School Program
- State Health and Wellness Trust Fund (HWTF)
- Private Sources

### **STATE FUNDING SOURCES**

The most direct source of public-sector funding for the City of Raleigh will come from state agencies in North Carolina. Generally, these funds are made available to local governments based on grant-in-aid formulas. The single most important key to obtaining state grant funding is for local governments to have adopted plans for greenway, open space, bicycle, pedestrian or trail systems in place prior to making an application for funding.





Unfortunately, there is no direct correlation between any of the programs listed and a constant stream of funding for greenway or trail projects and all projects are funded on the basis of grant applications. There is no specific set aside amount that is allocated for greenway and trail development within a given program. Funding is based solely on need and the need has to be expressed and submitted in the form of a grant application. Finally, all of these programs are geared to address needs across the entire state, so all of the programs are competitive and must allocate funding with the needs of the entire state in mind.

*The Powell Bill Program* is an annual state allocation to municipalities for use in street system maintenance and construction activities. There is considerable local control over Powell Bill Funds (it is not a grant application process). In the past, the State allocated a considerable portion of these revenues for construction purposes. However, budgetary constraints since 2001 have led to a shift of new Powell Bill funds to cover maintenance and operations activities. Both the Powell Bill reserves and the 2000 Transportation Bond funds are limited funding sources that will eventually be depleted.

In North Carolina, the *Department of Transportation, Division of Bicycle and Pedestrian Transportation (DBPT)* has been the single largest source of funding for bicycle and greenway projects, including non-construction projects such as brochures, maps, and public safety information for more than a decade. DBPT offers several programs in support of bicycle facility development. The following information is from NCDOT's interactive web site ([www.ncdot.org](http://www.ncdot.org)). Contact the NCDOT, Division of Bicycle and Pedestrian Transportation at (919) 807-2804 for more information.

North Carolina programs are listed below. A good starting website with links to many of the following programs is [http://www.enr.state.nc.us/html/tax\\_credits.html](http://www.enr.state.nc.us/html/tax_credits.html).

### ***Funding Opportunities Through NCDOT:***

Bicycle and Pedestrian Independent Projects Funded Through the Transportation Improvement Program (TIP):

In North Carolina, the *Department of Transportation, Division of Bicycle and Pedestrian Transportation (DBPT)* manages the Transportation Improvement Program (TIP) selection process for bicycle projects. Projects programmed into the TIP by the DBPT are independent projects – those which are not related to a scheduled highway project. Incidental projects – those related to a scheduled highway project – are handled through other funding sources described in this section.



DBPT has an annual budget of \$6 million. Eighty percent of these funds are from STP-Enhancement funds, while the State Highway Trust provides the remaining 20 percent of the funding.

A total of \$5.3 million dollars of TIP funding is available for funding various bicycle-independent projects, including the construction of multi-use trails, the striping of bicycle lanes, and the construction of paved shoulders, among other facilities. Prospective applicants are encouraged to contact the DBPT regarding funding assistance for bicycle projects. For a detailed description of the TIP project selection process, visit: [http://www.ncdot.org/transit/bicycle/funding/funding\\_TIP.html](http://www.ncdot.org/transit/bicycle/funding/funding_TIP.html). Another \$500,000 of the division's funding is available for miscellaneous projects.

*Incidental Projects* – Bicycle accommodations such as bike lanes, widened paved shoulders, and bicycle-safe bridge design are frequently included as incidental features of highway projects. In addition, bicycle-safe drainage grates are a standard feature of all highway construction. Most bicycle safety accommodations built by NCDOT are included as part of scheduled highway improvement projects funded with a combination of National Highway System funds and State Highway Trust Funds.

*Governor's Highway Safety Program (GHSP)* – The mission of the GHSP is to promote highway safety awareness and reduce the number of traffic crashes in the state of North Carolina through the planning and execution of safety programs. GHSP funding is provided through an annual program, upon approval of specific project requests. Amounts of GHSP funds vary from year to year, according to the specific amounts requested. Communities may apply for a GHSP grant to be used as seed money to start a program to enhance highway safety. Once a grant is awarded, funding is provided on a reimbursement basis. Evidence of reductions in crashes, injuries, and fatalities is required. For information on applying for GHSP funding, visit: [www.ncdot.org/programs/ghsp/](http://www.ncdot.org/programs/ghsp/).

### ***Funding Available Through North Carolina Metropolitan Planning Organizations (MPOs)***

MPOs in North Carolina which are located in air quality nonattainment or maintenance areas have the authority to program Congestion Mitigation Air Quality (CMAQ) funds. CMAQ funding is intended for projects that reduce transportation related emissions. Some NC MPOs have chosen to use the CMAQ funding for bicycle projects. Local governments in air quality nonattainment or maintenance area should contact their MPO for information on CMAQ funding opportunities for bicycle facilities.





### ***Transportation Enhancement Call for Projects, EU, NCDOT***

The Enhancement Unit administers a portion of the enhancement funding set-aside through the Call for Projects process. In North Carolina the Enhancement Program is a federally funded cost reimbursement program with a focus upon improving the transportation experience in and through local North Carolina communities either culturally, aesthetically, or environmentally. The program seeks to encourage diverse modes of travel, increase benefits to communities and to encourage citizen involvement. This is accomplished through the following twelve qualifying activities:

1. Bicycle and Pedestrian Facilities
2. Bicycle and Pedestrian Safety
3. Acquisition of Scenic Easements, Scenic or Historic Sites
4. Scenic or Historic Highway Programs  
(including tourist or welcome centers)
5. Landscaping and other Scenic Beautification
6. Historic Preservation
7. Rehabilitation of Historic Transportation Facilities
8. Preservation of Abandoned Rail Corridors
9. Control of Outdoor Advertising
10. Archaeological Planning and Research
11. Environmental Mitigation
12. Transportation Museums

Funds are allocated based on an equity formula approved by the Board of Transportation. The formula is applied at the county level and aggregated to the regional level. Available fund amount varies. In previous Calls, the funds available ranged from \$10 million to \$22 million.

The Call process takes place on even numbered years or as specified by the Secretary of Transportation. The next Call is anticipated to take place in 2008, barring financial constraints related to federal recisions resulting from the war on terror and Hurricane Katrina. For more information, visit: [www.ncdot.org/financial/fiscal/Enhancement/](http://www.ncdot.org/financial/fiscal/Enhancement/)

### ***Safe Routes to School Program, managed by NCDOT, DBPT***

The NCDOT Safe Routes to School Program is a federally funded program that was initiated by the passing of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, which establishes a national SRTS program to distribute funding and institutional support to implement SRTS programs in states and communities across the country. SRTS programs facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. The Division of Bicycle and Pedestrian Transportation at NCDOT is charged with disseminating SRTS funding.





The state of North Carolina has been allocated \$15 million in Safe Routes to School funding for fiscal years 2005 through 2009 for infrastructure or non-infrastructure projects. All proposed projects must relate to increasing walking or biking to and from an elementary or middle school. An example of a non-infrastructure project is an education or encouragement program to improve rates of walking and biking to school. An example of an infrastructure project is construction of sidewalks around a school. Infrastructure improvements under this program must be made within 2 miles of an elementary or middle school. The state requires the completion of a competitive application to apply for funding. For more information, visit [www.ncdot.org/programs/safeRoutes/](http://www.ncdot.org/programs/safeRoutes/) or contact Leza Mundt at DBPT/NCDOT, (919) 807-0774.

### ***Small Cities Community Development Block Grants***

State level funds are allocated through the NC Department of Commerce, Division of Community Assistance to be used to promote economic development and to serve low-income and moderate-income neighborhoods. Greenways that are part of a community's economic development plans may qualify for assistance under this program. Recreational areas that serve to improve the quality of life in lower income areas may also qualify. Approximately \$50 million is available statewide to fund a variety of projects. For more information, visit [www.hud.gov/offices/cpd/communitydevelopment/programs/stateadmin/](http://www.hud.gov/offices/cpd/communitydevelopment/programs/stateadmin/) or call 919-733-2853.

### ***North Carolina Health and Wellness Trust Fund***

The NC Health and Wellness Trust Fund was created by the General Assembly as one of 3 entities to invest North Carolina's portion of the Tobacco Master Settlement Agreement. HWTF receives one-fourth of the state's tobacco settlement funds, which are paid in annual installments over a 25-year period.

*Fit Together*, a partnership of the NC Health and Wellness Trust Fund (HWTF) and Blue Cross and Blue Shield of North Carolina (BCBSNC) announces the establishment of *Fit Community*, a designation and grant program that recognizes and rewards North Carolina communities' efforts to support physical activity and healthy eating initiatives, as well as tobacco-free school environments. *Fit Community* is one component of the jointly sponsored *Fit Together* initiative, a statewide prevention campaign designed to raise awareness about obesity and to equip individuals, families and communities with the tools they need to address this important issue.





All North Carolina municipalities and counties are eligible to apply for a *Fit Community* designation, which will be awarded to those that have excelled in supporting the following:

- physical activity in the community, schools, and workplaces
- healthy eating in the community, schools, workplaces
- tobacco use prevention efforts in schools

Designations will be valid for two years, and designated communities may have the opportunity to reapply for subsequent two-year extensions. The benefits of being a *Fit Community* include:

- Heightened statewide attention that can help bolster local community development and/or economic investment initiatives (highway signage and a plaque for the Mayor's or County Commission Chair's office will be provided)
- Reinvigoration of a community's sense of civic pride (each *Fit Community* will serve as a model for other communities that are trying to achieve similar goals)
- Use of the *Fit Community* designation logo for promotional and communication purposes. The application for *Fit Community* designation is available on the Fit Together Web site: [www.FitTogetherNC.org/FitCommunity.aspx](http://www.FitTogetherNC.org/FitCommunity.aspx).

*Fit Community* grants are designed to support innovative strategies that help a community meet its goal to becoming a *Fit Community*. Eight to nine, two-year grants of up to \$30,000 annually will be awarded to applicants that have a demonstrated need, proven capacity, and opportunity for positive change in addressing physical activity and/or healthy eating. For more information, visit: [www.healthwellnc.com/](http://www.healthwellnc.com/)

### ***Eat Smart, Move More NC Community Grants***

The Eat Smart, Move More (ESMM) NC Community Grants program provides funding to local communities to implement strategies that advance the goals and objectives of the ESMM NC Plan. These goals include increasing physical activity opportunities and increasing the number of citizens who get the recommended amount of physical activity. Administered by the Physical Activity and Nutrition branch of the Division of Public Health, the program awards \$10,000 - 20,000 to local communities each year. Interested applicants must submit a letter of intent in late June and an application in mid-July. For more information, visit: <http://www.eatsmartmovemorenc.com/funding/index.html>.





## FUNDING ALLOCATED BY FEDERAL AGENCIES

### *The Community Development Block Grant (HUD-CDBG)*

The U.S. Department of Housing and Urban Development (HUD) offers financial grants to communities for neighborhood revitalization, economic development, and improvements to community facilities and services, especially in low and moderate income areas. Several communities have used HUD funds to develop greenways, including the Boulding Branch Greenway in High Point, North Carolina. Grants from this program range from \$50,000 to \$200,000 and are either made to municipalities or non-profits. There is no formal application process. For more information, visit: [www.hud.gov/offices/cpd/communitydevelopment/programs/](http://www.hud.gov/offices/cpd/communitydevelopment/programs/).

### *Public Lands Highways Discretionary Fund*

The Federal Highway Administration administers discretionary funding for projects that will reduce congestion and improve air quality. The FHWA issues a call for projects to disseminate this funding. The FHWA estimates that the PLHD funding for the 2007 call will be \$85 million. In the past, Congress has earmarked a portion of the total available funding for projects. For information on how to apply, visit: <http://www.fhwa.dot.gov/discretionary/>

## LOCAL FUNDING SOURCES

Municipalities often plan for the funding of pedestrian facilities or improvements through development of Capital Improvement Programs (CIP). In Raleigh, for example, the greenways system has been developed over many years through a dedicated source of annual funding that has ranged from \$100,000 to \$500,000, administered through the Recreation and Parks Department. CIPs should include all types of capital improvements (water, sewer, buildings, streets, etc.) versus programs for single purposes. This allows municipal decision-makers to balance all capital needs. Typical capital funding mechanisms include the following: capital reserve fund, capital improvement projects, municipal service district, taxes, fees, and bonds. Each of these categories are described below.

### *Capital Reserve Fund*

Municipalities have statutory authority to create capital reserve funds for any capital purpose, including bicycle-related improvements. The reserve fund must be created through ordinance or resolution that states the purpose of the fund, the duration of the fund, the approximate amount of the fund, and the source of revenue for the fund. Sources of revenue can include general fund allocations, fund balance allocations, grants and donations for the specified use.





### *Capital Projects*

Bicycle facility recommendations within this plan (listed by street and cross streets in Appendix B) should be incorporated into any street-related Capital Improvement Project (CIP) for the City of Raleigh. Also, several of the recommended improvements will require standalone CIP funding

### *Municipal Service District*

Municipalities have statutory authority to establish municipal service districts, to levy a property tax in the district additional to the citywide property tax, and to use the proceeds to provide services in the district. Downtown revitalization projects are one of the eligible uses of service districts.

### *Installment Purchase Financing*

As an alternative to debt financing of capital improvements, communities can execute installment/ lease purchase contracts for improvements. This type of financing is typically used for relatively small projects that the seller or a financial institution is willing to finance or when up-front funds are unavailable. In a lease purchase contract the community leases the property or improvement from the seller or financial institution. The lease is paid in installments that include principal, interest, and associated costs. Upon completion of the lease period, the community owns the property or improvement. While lease purchase contracts are similar to a bond, this arrangement allows the community to acquire the property or improvement without issuing debt. These instruments, however, are more costly than issuing debt.

### *Taxes*

Many communities have raised money through self-imposed increases in taxes and bonds. For example, Pinellas County residents in Florida voted to adopt a one-cent sales tax increase, which provided an additional \$5 million for the development of the overwhelmingly popular Pinellas Trail. Sales taxes have also been used in Allegheny County, Pennsylvania, and in Boulder, Colorado to fund open space projects. A gas tax is another method used by some municipalities to fund public improvements. A number of taxes provide direct or indirect funding for the operations of local governments. Some of them are:

#### *Sales Tax*

In North Carolina, the state has authorized a sales tax at the state and county levels. Local governments that choose to exercise the local option sales tax (all counties currently do), use the tax revenues to provide funding for a wide variety of projects and activities. Any increase in the sales tax, even if applying to a single county, must gain approval of the state legislature. In 1998, Mecklenburg County was granted authority to institute a one-half cent sales tax increase for mass transit.



### ***Property Tax***

Property taxes generally support a significant portion of a municipality's activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance greenway system acquisitions. Because of limits imposed on tax rates, use of property taxes to fund greenways could limit the municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden. In other parts of the country, this mechanism has been popular with voters as long as the increase is restricted to parks and open space. Note, other public agencies compete vigorously for these funds, and taxpayers are generally concerned about high property tax rates.

### ***Excise Taxes***

Excise taxes are taxes on specific goods and services. These taxes require special legislation and the use of the funds generated through the tax are limited to specific uses. Examples include lodging, food, and beverage taxes that generate funds for promotion of tourism, and the gas tax that generates revenues for transportation related activities.

### ***Occupancy Tax***

The NC General Assembly may grant municipalities the authority to levy occupancy tax on hotel and motel rooms. The act granting the taxing authority limits the use of the proceeds, usually for tourism-promotion purposes.

### ***Exactions***

Exactions are similar to impact fees in that they provide facilities to growing communities. The difference is that through exactions it can be established that it is the responsibility of the developer to build the greenway or pedestrian facility that crosses through the property, or adjacent to the property being developed.

### ***Bonds and Loans***

Bonds have been a very popular way for communities across the country to finance their pedestrian and greenway projects. A number of bond options are listed below. Contracting with a private consultant to assist with this program may be advisable. Since bonds rely on the support of the voting population, an education and awareness program should be implemented prior to any vote. Billings, Montana used the issuance of a bond in the amount of \$599,000 to provide the matching funds for several of their TEA-21 enhancement dollars. Austin, Texas has also used bond issues to fund a portion of their bicycle and trail system.





### ***Revenue Bonds***

Revenue bonds are bonds that are secured by a pledge of the revenues from a certain local government activity. The entity issuing bonds, pledges to generate sufficient revenue annually to cover the program's operating costs, plus meet the annual debt service requirements (principal and interest payment). Revenue bonds are not constrained by the debt ceilings of general obligation bonds, but they are generally more expensive than general obligation bonds.

### ***General Obligation Bonds***

Cities, counties, and service districts generally are able to issue general obligation (G.O.) bonds that are secured by the full faith and credit of the entity. In this case, the local government issuing the bonds pledges to raise its property taxes, or use any other sources of revenue, to generate sufficient revenues to make the debt service payments on the bonds. A general obligation pledge is stronger than a revenue pledge, and thus may carry a lower interest rate than a revenue bond. Frequently, when local governments issue G.O. bonds for public enterprise improvements, the public enterprise will make the debt service payments on the G.O. bonds with revenues generated through the public entity's rates and charges. However, if those rate revenues are insufficient to make the debt payment, the local government is obligated to raise taxes or use other sources of revenue to make the payments. G.O. bonds distribute the costs of land acquisition and greenway development and make funds available for immediate purchases and projects. Voter approval is required.

### ***Special Assessment Bonds***

Special assessment bonds are secured by a lien on the property that benefits by the improvements funded with the special assessment bond proceeds. Debt service payments on these bonds are funded through annual assessments to the property owners in the assessment area.

### ***State Revolving Fund (SRF) Loans***

Initially funded with federal and state money, and continued by funds generated by repayment of earlier loans, State Revolving Funds (SRFs) provide low interest loans for local governments to fund water pollution control and water supply related projects including many watershed management activities. These loans typically require a revenue pledge, like a revenue bond, but carry a below market interest rate and limited term for debt repayment (20 years).



## **OTHER LOCAL OPTIONS**

### ***Facility Maintenance Districts***

Facility Maintenance Districts (FMDs) can be created to pay for the costs of on-going maintenance of public facilities and landscaping within the areas of the City where improvements have been concentrated and where their benefits most directly benefit business and institutional property owners. An FMD is needed in order to assure a sustainable maintenance program. Fees may be based upon the length of lot frontage along streets where improvements have been installed, or upon other factors such as the size of the parcel. The program supported by the FMD should include regular maintenance of streetscape of off road trail improvements. The municipality can initiate public outreach efforts to merchants, the Chamber of Commerce, and property owners. In these meetings, City staff will discuss the proposed apportionment and allocation methodology and will explore implementation strategies.

The municipality can manage maintenance responsibilities either through its own staff or through private contractors.

### ***Partnerships***

Another method of funding facilities is to partner with public agencies and private companies and organizations. Partnerships engender a spirit of cooperation, civic pride and community participation. The key to the involvement of private partners is to make a compelling argument for their participation. Very specific routes that make critical connections to place of business would be targeted for private partners' monetary support following a successful master planning effort. Potential partners include major employers which are located along or accessible to pedestrian facilities such as multi-use paths or greenways. Name recognition for corporate partnerships would be accomplished through signage trail heads or interpretive signage along greenway systems. Utilities often make good partners and many trails now share corridors with them. Money raised from providing an easement to utilities can help defray the costs of maintenance. It is important to have a lawyer review the legal agreement and verify ownership of the subsurface, surface or air rights in order to enter into an agreement.



**APPENDIX E OUTLINE:**

CAMPO 2030 LRTP  
Wake County Transportation Plan  
CAMPO Bicycle and Pedestrian Plan  
CORE Pedestrian -Bicycle-Green Space Plan  
Raleigh Parks Plan

# APPENDIX E: RELATED PLANNING EFFORTS

## *CAMPO 2030 Long Range Transportation Plan*

The Capital Area Metropolitan Planning Organization (CAMPO) 2030 Long Range Transportation Plan (LRTP) is an update to the 2025 LRTP, corrected to reflect more recent projections of socio-economic data to 2030. It includes a summary of the socio-economic forecasts and the travel forecasts resulting from them, maps and tables showing roadway, transit, and incidental bicycle improvement projects recommended for completion by 2010, 2020, and 2030, and additional detailed information about the socio-economic data and revenue forecasts.

One component of the CAMPO LRTP is the Capital Area Congestion Management System which, among other efforts, includes a Bicycle and Pedestrian Support program. This program aims to execute the Transportation Advisory Committee-adopted Bicycle and Pedestrian Plan of 2003 under the leadership of local citizens and planners in the Capital Area Bike and Pedestrian Stakeholders Group (BPSG). The BPSG meets monthly to identify regional bicyclist and pedestrian needs and to promote bike safety and education. They have also served as a stakeholder in the drafting of the Wake County UDO.

The Bike Element of the LRTP discusses bicycle facility projects, funding sources, and safety measures. It recommends the installation of bicycle facilities through incidental projects along 325 miles of road in the MPO area. To underline the importance of bike facilities in the transportation system, the element included the necessary funding for these projects in the cost estimates of the parent road projects. A primary source of funding is annual TIP requests for bike and pedestrian accommodations submitted by the Capital Area BPSG. Additional funding for bike and pedestrian projects can hopefully be secured so that a fixed percentage of CAMPO's annual expenditures will be available for projects that cannot be completed in tandem with road projects and/or fail to receive TIP monies. Another funding source is the CAMPO-approved portion of STP-DA funding to be allocated towards bicycle, pedestrian, and transit projects. Beginning in FY 2006, \$750,000 has been dispersed annually on a merit-based system between alternative transportation projects to facilitate an increase in multi-modal interconnectivity. Lastly, and with respect to improving safety, CAMPO hopes to work with NCDOT in the future to improve the capability of the Traffic Engineering Accident Analysis System (TEAAS) crash report system so that safety concerns for bicycles and pedestrians can be easily identified and addressed.





## *Wake County Transportation Plan*

The Wake County Transportation Plan built on the 2025 CAMPO Plan of 2002. Originally envisioned as a collector street plan, it came to encompass thoroughfares, public transit, bicycle, and pedestrian needs in unincorporated areas of the county.

As part of the plan's development, five citizen advisory groups from different areas of Wake County were formed as sources of on-the-ground knowledge of transportation issues. Members of these groups envisioned a future Wake County transportation system that is multimodal and includes interconnected bicycle and pedestrian networks.

The Pedestrian and Bicycle Element recognizes that special transportation facilities are needed to serve residents who do not own vehicles and bicyclists of varying ability. It also highlights the three state bicycle highways that originate in or pass through Wake County: the Cape Fear Run, the Carolina Connection, and the Mountains to Sea Route. Lastly, the element identifies the four E's of successful bicycle and pedestrian planning- engineering, education, encouragement, and enforcement.

The Bicycle Plan in the Pedestrian and Bicycle Element is intended to complement the county's open space and greenways plan by providing access to the county's many roadside destinations without the use of an automobile. It specifies several types of facilities, including wide outside lanes, multi-use paths, paved shoulders, and signed routes to provide safe opportunities for transportation and recreation for child, basic, and advanced cyclists. In addition, the bicycle plan recognizes that gravel from unpaved surfaces can minimize the safe cycling area, damage bikes, and create dangerous conditions for cyclists. It recommends regular road maintenance that includes the removal of gravel and other loose materials from roadway surfaces, as well as paving minor roads a minimum of 200 feet from the nearest intersection with major roads.

The Implementation section of the plan is based on seven objectives agreed upon jointly with the Wake County Growth Management Task Force of 2001. The five of these relevant to Raleigh bike planning, and their associated strategies, are as follows:

- *Create and Maintain a Safe, Efficient, and Effective Transportation System*
  - Study the feasibility of developing a new capital improvement program to reduce the backlog of unfunded projects to build sidewalks and bike paths that serve community facilities frequented by children, the elderly, and other citizens with limited access to a personal vehicle. The "Safe Routes to Schools" program should consider funding levels that would complete at least one major





school-area improvement each year.

– Coordinate with NCDOT to develop a “Community Access Road Safety” program in which existing state secondary rural roads would be eligible for safety-oriented widening to allow for left turn-only lanes at driveways and intersections. These roads would be striped for two wide lanes between intersections, enhancing safety for bicyclists and drivers alike. Eligibility and prioritization would consider crash history, bicycle network routes, environmental impact costs, and availability of right-of-way.

- *Complete regional thoroughfares*
  - Prepare a map showing interconnected greenway, sidewalk, and bikeway plans for Wake County and all municipalities with adopted plans. Present the map to the NCDOT Highway Administrator with a request to design all future segments of the I-540 Outer Loop to include suitable facilities to link existing and future greenways, sidewalks, and bikeways across or beneath the new freeway.
- *Interconnect local collector roads*
  - The transportation plan identifies a system of planned interconnected local roads (collector streets) that are designed to include sidewalk on at least one side and shared use with bicycles. The recommended width of collector streets is 34 feet that could be striped to provide a four-foot wide bicycle lane on both sides of the roadway, leaving 21 feet of pavement for two-way travel. This design will maintain reasonable average speeds consistent with neighborhood quality of life while providing multiple outlet connections to more than one thoroughfare. The cost of right-of-way and construction of the collector streets should be borne by the new homeowners. The cost of right-of-way, construction, and maintenance of the sidewalk should be borne by the new homeowners.
  - Coordinate with NCDOT to prepare a sample two-party sidewalk/multiuse pathway maintenance agreement that is intended for developers and homeowners where no homeowners association exists.
- *Encourage mixed-use developments*
  - Submit a list of bicycle and pedestrian improvements eligible for funding through the state’s bicycle program and the federal enhancements program.
- *Provide access and connections to open space system*
  - Create opportunities for greenway and trail development.





The Wake County Transportation Plan concludes with cost estimates for the various county transportation projects above and beyond those described in the CAMPO plan. Existing revenues will be insufficient to cover these costs; therefore new revenues will be needed. Since state law does not allow counties to build, own, operate, or maintain roads, enabling legislation is needed in order to increase revenue for transportation in Wake County to implement the many recommendations in this plan.

### *CAMPO Bicycle and Pedestrian Plan*

The CAMPO Bicycle and Pedestrian Plan was created in response to a paradigm shift in transportation design to accommodate pedestrians and bicyclists as well as motor vehicles. Specifically, it aims to make bicycle and pedestrian travel throughout the metropolitan area convenient, efficient, viable, and safe. Accordingly, the goals of the CAMPO Bicycle and Pedestrian Plan are:

- To ensure compliance with Federal regulations and requirements of state and local authorities
- To promote the transportation benefits of bicycle and pedestrian travel, including improvements to air quality and health
- To make travel by bicycling and walking efficient and viable by ensuring connections to usable venues by bicyclists and pedestrians. Those areas that are most likely to benefit from improvements to this element of the transportation system include residential or commercial zones that have or are planned to have transit access, mixed use development, and/or school and recreation facilities.

The plan intends to guide governments and agencies within the MPO to meet these goals by maximizing the use and availability of local infrastructure. To this end, it enumerates a series of directives they can use to frame local policies:

- Establish bicycle and pedestrian access as a fundamental means of travel in regional transportation planning
- Implement bicycle and pedestrian-friendly elements within existing and future land use, travel demand management and clean air policies
- Identify all potential funding opportunities to implement bicycle and pedestrian transportation
- Encourage safe and efficient bicycle\pedestrian travel
- Promote an integrated, seamless, interconnected transportation network through bicycle and pedestrian planning
- Promote and implement education and encouragement plans aimed at youth, motorists, and sedentary populations
- Promote education and law enforcement

Additionally, the plan provides multiple strategies under each directive by which the policy can be enacted.





Lastly, the CAMPO Bicycle and Pedestrian Plan details a series of actions to be spearheaded by a Bicycle/Pedestrian Advisory Committee. These actions are categorized by the aforementioned four E's of bicycle and pedestrian design- engineering, enforcement, education, and encouragement.

***Center of the Region Enterprise (CORE) Pedestrian-Bicycle-Green Space Plan (ca. April 22, 2005)***

The CORE Pedestrian-Bicycle-Green Space Plan was developed, not as a statement of policy in and of itself, but as a tool to help Triangle communities coordinate their respective alternative transportation and green space policies. It focuses on the resources within and immediately surrounding a 60-square mile area roughly bounded by Umstead Park/Harrison Avenue on the east, Chatham Street/High House Road on the south, NC 55 on the west, and Lawson Street/Angier Avenue/US 70 on the north. Although this area does not include central Raleigh, it does include trail systems and green spaces in the northwest portion of the city.

The CORE plan summarizes in text, maps, and tables a variety of data and analysis of pedestrian, bicycle, and green space conditions of the focus area. These include:

- Existing and planned facilities
- Opportunities and barriers
- Local development policies
- Green space and trails
- Project prioritization
- Project cost estimates
- Project benefits

This information can enable communities to fit their respective projects in with those of their neighbors. By linking new pedestrian, bicycle, and green space facilities to those in the 60-square mile center of the region, Raleigh and other Triangle communities can create a safe and useful regional travel network between popular destinations. In this way, jurisdictions can increase the value of these facilities for their constituents and maximize the benefits of their public investments.





### *Raleigh Parks Plan (ca. May 2004)*

The Raleigh Parks Plan was recently updated to continue the original vision of the city as providing parks and open space for all citizens. It serves as a framework for city park planners to use in developing programming, maintenance, and development of the park system through 2025. The primary goals of the plan, with bicycle facility-relevant objectives cited for each, include:

- *Provide park and open space opportunities to all residents.*
  - Develop recreational facilities that are within close proximity of all residents. (proximity is only as close as it is accessible)
- *Provide a diverse, well-balanced, well-maintained range of recreational facilities.*
  - Develop park and recreational facilities that provide a wide range of recreational opportunities and that offer varied experiences to residents within close proximity to their home.
  - Encourage effective and citizen-responsive use of City recreational facilities and programs.
  - Capitalize on the value of park and recreation facilities to improve the overall aesthetic character of the City and as a means of promoting livability
- *Optimize the appreciation, use and stewardship of Raleigh’s historic, cultural and natural resource heritage.*
  - Develop and maintain parks and greenways using nationally-accepted sustainable design principles and best management practices.

(The following three goals are not specifically bike-relevant, but they could still apply to bike planning):

- *Provide the opportunity for community involvement.*
- *Encourage inter- and intragovernmental collaboration.*
- *Encourage private recreation initiatives to supplement public facilities.*

Citizens and Parks and Recreation staff provided both qualitative and quantitative data that were analyzed to determine the park needs of the city. These needs as well as the goals of the Raleigh Parks Plan were addressed in the following recommendations:

- Place a priority on land acquisition
- Provide a balanced dedicated usage of parkland
- Provide an equitable distribution of facilities across the community
- Plan for flexibility
- Incorporate universal design
- Develop new/upgraded parks
- Utilize Recommended Facilities Per Park





- Utilize Facility Space Guidelines
- Enhance Access to and Awareness of Raleigh's Recreation Opportunities
- Improving the Aesthetic Character of the City and Promoting Livability
- Encourage Stewardship of Parklands and Awareness of Ecological Principles
- Promote, Preserve and Ensure Protection of Raleigh's Cultural and Historic Resources
- Provide Environmental Education Opportunities
- Encourage Public Involvement
- Utilize School Parks
- Collaborate and Partner with other Communities and Agencies
- Collaborate with Non-Profit Groups, Athletic Clubs and the Private Sector

Implementation of the plan is broken up into three time stages: short-range (1-2 years), medium-range (1-10 years), and long-range (1-20 years). Actions relevant to the Raleigh Bicycle Plan are:

#### *Short-range*

- Adopt the Parks Plan
- Adopt Greenway Corridor Modification
- Implement revised Fee structure
- Identify strategies that enable protection of natural resources through environmental stewardship and sustainable design practices
- Develop strategy and acquire land for new Neighborhood Parks to achieve the goal of one-mile service area coverage throughout the ETJ and in keeping with population growth

#### *Medium-range*

- Continue reinvesting in existing parks to maintain facilities
- Develop multi-use trails within greenways to expand recreational opportunities and to create a complete trail system

#### *Long-range*

- Utilize the Parks Plan, Master Plan and System Integration Plan process in all new park planning efforts
- Utilize the development of new park facilities and upgrading of existing facilities to enhance the aesthetic character of the City and to promote livability
- Continue reinvesting in existing parks to maintain facilities
- Continue acquiring land for Neighborhood Parks to reach the ultimate goal of one-half mile service areas
- Develop Neighborhood Parks to achieve the goal of one-half mile service area coverage throughout the ETJ
- Develop new parks in a manner that ensures universal access to recreation facilities





**APPENDIX F OUTLINE:**

Overview  
 Study Scope and Approach  
 BLOS Regression Equation  
 BLOS Grades  
 BLOS Model Data  
 BLOS Table Summary  
 BLOS Maps

# APPENDIX F: BICYCLE LEVEL OF SERVICE (BLOS) ANALYSIS

## OVERVIEW

One of this study's major tasks was the development of a special indicator to monitor the quality of bicycle travel conditions along City's arterial and collector streets. The study team selected the Bicycle Level of Service (BLOS)<sup>1</sup> model as the quality of service indicator. The BLOS model (version 2.0) was applied for analyzing the City of Raleigh's arterial and collector roadways only. The BLOS model was developed through a national research project for arterial and collector streets. The BLOS model has been applied in many jurisdictions to measure and monitor bicycle travel conditions.

The Bicycle Level of Service Model is based on the proven research documented in Transportation Research Record 1578 published by the Transportation Research Board of the National Academy of Sciences. It was developed with a background of over 150,000 miles of evaluated urban, suburban, and rural roads and streets across North America. Many urban planning agencies and state highway departments are using this established method of evaluating their roadway networks. The Virginia Department of Transportation is using the Bicycle LOS Model in both the Richmond and Northern Virginia regions.

The model has also been applied in Anchorage AK, Baltimore MD, Birmingham AL, Buffalo NY, Gainesville FL, Greensboro NC, Houston TX, Lexington KY, Philadelphia PA, Sacramento CA, Springfield MA, Tampa FL, Washington, DC, Winston-Salem NC, and by the Delaware Department of Transportation (DelDOT), Florida Department of Transportation (FDOT), New York State Department of Transportation (NYDOT), Maryland Department of Transportation (MDOT) and many others. Widespread application of the original form of the BLOS Model has provided several refinements. Application of the BLOS Model in the metropolitan area of Philadelphia resulted in the final definition of the three effective width cases for evaluating roadways with on-street parking.

Application of the BLOS Model in the rural areas surrounding the greater Buffalo region resulted in refinements to the "low traffic volume roadway width adjustment". A 1997 statistical enhancement to the Model (during statewide application in Delaware) resulted in better quantification of the effects of high speed truck traffic [see the  $SPT(1+10.38HV)^2$  term]. As a result, Version 2.0 has the highest correlation coefficient ( $R^2 = 0.77$ ) of any form of the Bicycle LOS Model.

<sup>1</sup> Landis, Bruce W. et.al. "Real-Time Human Perceptions: Toward a Bicycle Level of Service" Transportation Research Record 1578, Transportation Research Board, Washington, DC 1997





## STUDY SCOPE AND APPROACH

The study took on the task of developing Bicycle Level of Service (BLOS) for the first time in the City of Raleigh. The consultant team was responsible for compiling and verifying input data for the entire City of Raleigh network of arterial and collector streets, developing a GIS-based database to store input data, computing BLOS scores, and preparing BLOS maps to document problem areas and to identify opportunities for improvements.

The BLOS analysis utilized GIS as the main database platform and focused on utilizing existing data resources in the City and avoided new data collection. The City intends to commit resources in the future to improve BLOS input data. The BLOS results helped determine locations needing bicycle improvements and assisted in the preparation of the bicycle suitability map.

The BLOS model (version 2.0) was applied for analyzing the City of Raleigh's arterial and collector roadways only. The BLOS model is not applicable for freeways.

The following data sets were obtained and utilized in the BLOS model (Version 2.0):

- Street center lines with attribute data
- Historical Annual Average Daily Traffic (AADT) Counts
- Pavement Condition Data for State-maintained roadways
- Pavement Condition Data for City-maintained roadways
- Triangle Regional Model (TRM) databases
- City of Raleigh Peak Hour Intersection Counts
- City of Raleigh Parking maps

In addition, the Consultant team used aerial maps and Google Street views to verify geometric and other attribute data needed for the BLOS model. The results of the BLOS analysis were mapped to document current bicycle travel conditions and to identify causes of poor conditions.

## BLOS REGRESSION EQUATION

Bicycle Level of Service (BLOS) was developed as a linear regression model by transportation researchers. The BLOS regression equation (version 2.0) provides a discomfort and inconvenience score for bicycle travel by taking into account four prevailing roadway and traffic conditions:

1. Peak traffic flow in the outside lane
2. Speed of traffic and percent of heavy traffic
3. Pavement surface condition
4. Pavement width available for bicycling

The first three variables are impact scores and reflect perceived challenges to bicycling. The fourth variable is a benefit score and reflects perceived opportunities to bicycling.





The BLOS regression equation is presented below (colored text in the equation corresponds to the descriptions that follow):

$$\begin{aligned} \text{BLOS} = & 0.507 \times \ln(\text{Vol15}/\text{Ln}) \\ & + 0.199 \times \text{SPt} (1 + 10.38\text{HV})^2 \\ & + 7.066 \times (1/\text{PR5})^2 - 0.005 \times (\text{We})^2 \\ & + 0.76 \end{aligned}$$

Where,

**Vol15** Directional traffic volume during peak 15-minute time period

$$= (\text{ADT} \times \text{D} \times \text{Kd}) / (4 \times \text{PHF})$$

Where,

ADT = Average daily traffic

D = Directional factor

Kd = Peak to Daily factor

PHF = Peak hour factor (1.0 assumed)

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**Ln** Number of directional through lanes

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**SPt** Effective Speed Limit

$$= 1.1199 \times \ln(\text{SPp} - 20) + 0.8103$$

Where,

SPp = posted speed limit

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**HV** Percentage of heavy vehicles

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**PR5** Pavement condition rating based on FHWA's 5-point scale

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**We** Average effective width of outside through lane

$$= \text{Wv} - (10 \text{ ft} \times \% \text{ OSPA}), \text{ for } \text{WI} = 0$$

$$= \text{Wv} + \text{WI} (1 - 2 \times \% \text{ OSPA}), \text{ for } \text{WI} > 0 \text{ and } \text{Wps} = 0$$

$$= \text{Wv} + \text{WI} - 2 (10 \times \% \text{ OSPA}), \text{ for } \text{WI} > 0 \text{ and } \text{Wps} > 0 \text{ and has a bike lane}$$

Where,

Wv = Effective width as a function of traffic volume

= Wt if ADT > 4,000 vehicles per day

= Wt (2 - 0.00025 x ADT) if ADT ≤ 4,000 vehicles per day and the street is undivided and unstriped

Wt = total width of outside lane (and shoulder) pavement

WI = width of paving between the outside lane stripe and the edge of pavement

OSPA = percentage of segment with occupied on-street parking

Wps = width of pavement striped for on-street parking





The first part of the BLOS equation measures the impacts of peak hour vehicular traffic flow on bicyclists. Roads with high traffic volume on the outside lane would receive high BLOS score, indicating low suitability for bicycle travel. The second part of the BLOS equation measures the impacts of speed of travel and percent of heavy traffic (buses and trucks) on bicycle travel environment. Roads with high posted speed limit and high number of trucks and buses would receive high BLOS score, indicating low suitability for bicycle travel. Similarly, the third part of the BLOS equation measures the impact of pavement surface condition on bicycle ride quality and assigns high BLOS score for roadways with deteriorated pavements. These first three parts of the BLOS score and a constant term are added together to compute the raw BLOS score. The final BLOS score is computed by subtracting the benefits score (fourth term in the BLOS equation) based on pavement width available for bicycling from the raw score. Roadways with striped bike lanes, wide outside lanes, paved shoulders, or low on-street parking volumes would receive discounts from the raw BLOS score, resulting in low BLOS values or good level of service.

### BLOS GRADES

Bicycle Level of Service (BLOS) was developed as a linear regression model by transportation researchers. The BLOS regression equation (version 2.0) provides a discomfort and inconvenience score for bicycle travel by taking into account four prevailing roadway and traffic conditions:

The BLOS scale uses six letter grades, A through F, to describe the quality of a roadway segment for bicycle travel from best to worst conditions based on user perception. This is depicted in Table F.1.

**Table F.1 Bicycle Level of Service Definition**

BLOS Grade	BLOS Score	Description
A	≤1.5	Excellent bicycle environment
B	1.5 - 2.5	Good bicycle environment
C	2.5 - 3.5	Fair bicycle environment (acceptable to experienced and novice bicyclists)
D	3.5 - 4.5	Poor environment (acceptable to experienced bicyclists)
E	4.5 - 5.5	Deficient environment (Unacceptable to experienced and novice bicyclists)
F	> 5.5	Unsafe environment (Unsuitable for any bicycle travel)

In urban areas like the City of Raleigh, it is desirable to have a long range target of achieving BLOS C or better on bicycle network routes. This high service standard would ensure that bicycling is a viable, efficient and safe mode of travel for work, recreational and school trips.





## BLOS MODEL DATA

Table F.2 depicts the data sources and methodology used to prepare input data for the BLOS model application for the City of Raleigh's arterial and collector streets.

**Table F.2 BLOS Input Data Sources and Analysis Approach**

Input Data	Data Source Methodology
Average Daily Traffic (ADT)	<ul style="list-style-type: none"> <li>•2005 ADT point shapefile from Capital Area Metropolitan Organization (CAMPO)</li> <li>•Averaged multiple data points for each network segment</li> <li>•Estimated missing ADT data using City of Raleigh's peak hour intersection traffic counts (2005-2007)</li> </ul>
Posted Speed Limit	<ul style="list-style-type: none"> <li>•Started with CAMPO shapefile data</li> <li>•Verified/Corrected based on Google Streetview</li> </ul>
Number of Through lanes	<ul style="list-style-type: none"> <li>•Started with CAMPO shapefile data</li> <li>•Verified/Corrected based on Google Streetview</li> </ul>
Pavement Condition Rating	<ul style="list-style-type: none"> <li>•2006 NCDOT Pavement Rating Data (100-point scale)</li> <li>•Raleigh Pavement Rating Data (100-point scale)</li> <li>•Linear conversion from 100-point scale to 5-point FHWA scale</li> <li>•Estimated weighted average rating for multiple data points</li> </ul>
Peak Hour Traffic Distribution Factors (K,D)	<ul style="list-style-type: none"> <li>•Estimated from the baseline Triangle Regional Model (TRM)</li> <li>•Checked reasonableness against Raleigh peak hour intersection counts</li> <li>•Averaged for multiple data points</li> </ul>
Heavy Vehicles (%HV)	<ul style="list-style-type: none"> <li>•Estimated from the baseline TRM</li> <li>•Checked reasonableness against Raleigh peak hour intersection counts</li> <li>•Averaged for multiple data points</li> </ul>
Peak Hour Factor (PHF)	<ul style="list-style-type: none"> <li>•Typical value of 0.92 was used for all study area arterials and collectors</li> </ul>
Total Width of Outside Lane (Wt) and Width of Paving between the Outside Lane Stripe and the Edge of Pavement (WI)	<ul style="list-style-type: none"> <li>•Aerials</li> </ul>
Percentage of Segment with Occupied On-Street Parking	<ul style="list-style-type: none"> <li>•Raleigh parking zone maps</li> <li>•Aerials</li> </ul>





## BLOS TABLE SUMMARY

**Table F.3 Raleigh Bicycle Level of Service (BLOS) Summary for Study Network Roadways**

BLOS Grade	Miles	% Measured Miles	Segments
A	3.0	0.7%	11
B	14.0	3.3%	11
C	30.5	7.2%	34
D	198.5	46.7%	129
E	138.5	32.6%	106
F	40.5	9.5%	27
No Grade*	184.2	N/A	131
<b>Total</b>	<b>425.0</b>	<b>100.0%</b>	<b>449</b>

\*Segments with no grade include controlled access highways, interstates, and certain roadways lacking sufficient data at the time of this study.

## BLOS MAPS

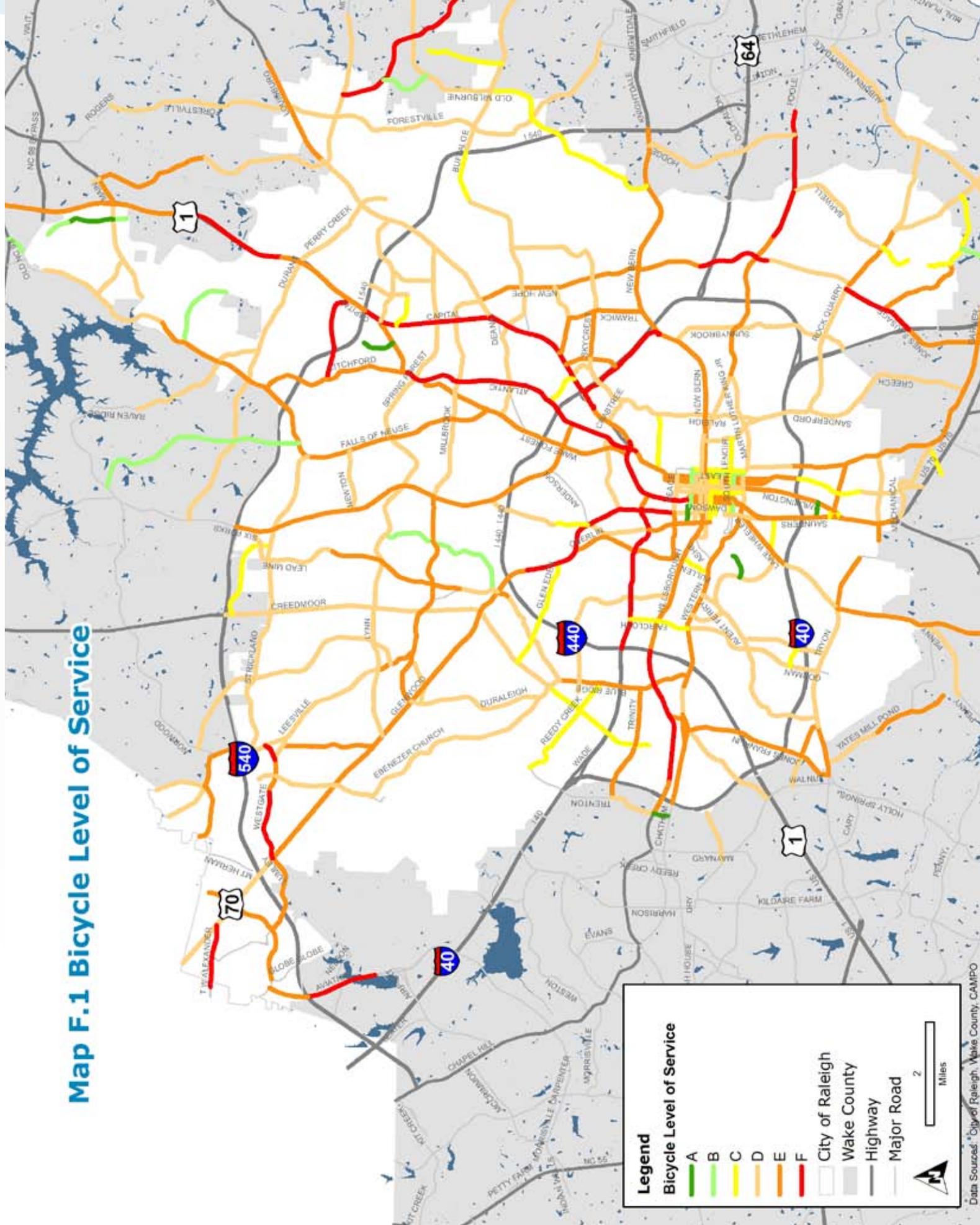
Map F.1 shows the Bicycle Level of Service (BLOS) for the arterial and collector streets that are within the City of Raleigh’s jurisdiction. The map shows each roadway segment analyzed in the study with six color codes to reflect letter grades A (best) through F (worst). It should be noted that the freeways are not rated in the BLOS model as they are not eligible for bicycle travel.

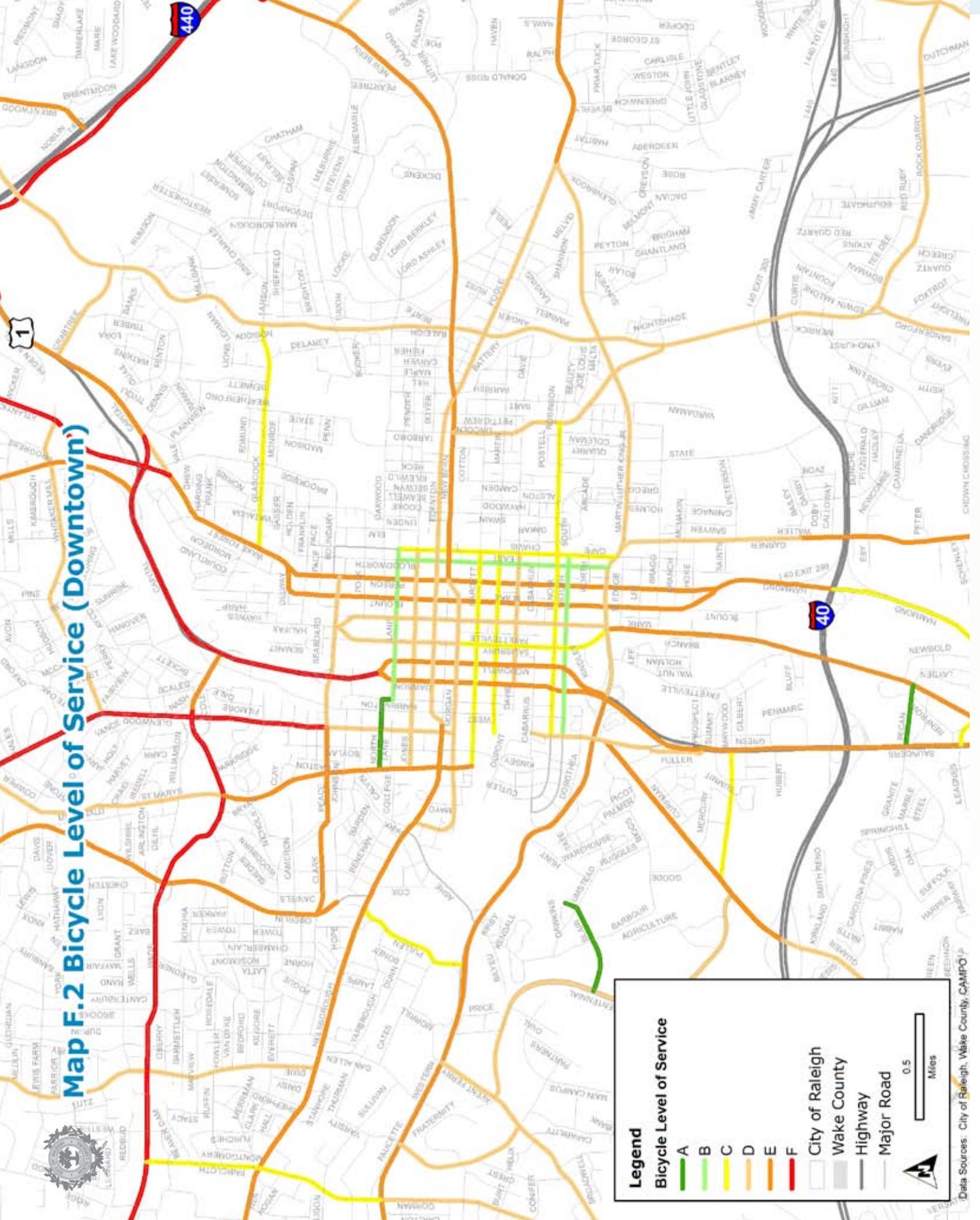
The BLOS map shows that a majority of the principal arterials in the City of Raleigh are currently at LOS E and F due to heavy traffic volumes and lack of bicycle accommodation along the travel lanes due to built-up environment. It also shows that many collector streets in the City of Raleigh are at LOS D due to heavy traffic volumes and lack of bicycle accommodation along the travel lanes.

Map F.2 shows the BLOS for a zoomed area of Downtown Raleigh.



**Map F.1 Bicycle Level of Service**





**APPENDIX G OUTLINE:**

Overview  
Destinations in Raleigh  
Conclusion  
Bicycle Facilities Chart

# APPENDIX G: ANALYSIS OF BICYCLE ACCOMMODATIONS AT DESTINATIONS

## OVERVIEW

The design of a successful bicycle plan relies on an integrated set of connections between major nodes and destinations. However, in order for these connections to function properly, the destinations need to include programs and facilities that encourage and accommodate for bicycle use.

CLH Design, P.A. completed a study to examine some of the major destinations in Raleigh and determine both the strengths and weaknesses of these areas. Facilities examined ranged from bicycle parking, storage facilities, and showers. Other amenities such as water fountains, bicycle maps, and roadway conditions were also examined. Overall trends of these areas will be examined. Finally, three precedent studies of ideal bicycle environments were also researched. These environments include a campus, a workplace, and an entire community.

## DESTINATIONS IN RALEIGH

- North Carolina State University
- Shaw University
- Peace College
- Saint Augustine's College
- Meredith College
- Wake Technical Community College
- Cameron Village
- Ridgeway Shopping Center
- North Hills Shopping Center
- Crabtree Valley Mall
- Wake Medical Center
- Downtown Raleigh Districts
- Raleigh Museums
- Pullen Park
- Raleigh Convention Center
- Raleigh Bicycle Transportation Plan 2008





## North Carolina State University

NCSU is the largest university in North Carolina and has the most extensive bicycle facilities of the destinations studied. Site visits and discussions with NCSU’s transportation planner, Torsha Bhattacharya, revealed the following findings.

*Bicycle Facility features include:*

- 120+ Bicycle parking racks with plans to add more
- Presence of “sharrows,” or “share the road arrows” to educate motorists of the presence of bicyclists, and to safe riding and positioning in the lane
- Covered parking, storage lockers, and shower facilities at the Engineering Building II on Centennial Campus
- Numerous campus bicycle clubs that conduct biking and repair workshops, including BUG (Bicycle User Group) an organization that encourages ridership, safety, and campus improvements
- Covered bicycle racks in the plans for the new parking decks
- A bicycle sharing program, currently in its pilot stage

NCSU is currently in early stages of its revised Master Plan, which does include strengthened connections for pedestrians and bicyclists. Other improvements may include additional bicycle lockers and shower facilities, increased motorist awareness, and a campus bicycle map readily available to the public.

## Peace College Saint Augustine’s College Shaw University

Peace College, Saint Augustine’s College, and Shaw University are small, private colleges. All three are located in or nearby the Downtown Raleigh core and had very few, if any, bicycle facilities.

Shaw University currently does not have any bicycle facilities. Shaw facilities manager, Darryl Daniels, stated that very few students commuted to school via bicycle. Most students who lived downtown or in the adjacent dormitories walked to class. Others who were not within walking distance used public transportation. With increasing ridership and increasing downtown residents, Daniels did feel that bicycle facilities needed to be integrated into the campus plan. The inclusion of bike racks will be discussed at Shaw’s upcoming planning meetings.

Saint Augustine’s College also does not have any bicycle facilities. In fact, bicycles are not allowed on campus. Similar reasons were cited – students live close by and walk to campus. Peace College also does not have a significant number of students who use bicycles, according to Cheryl Brown, facilities Director.



*Bicycle rack in front of Gold Hall*



*“Sharrow” on an NCSU campus road*



*Peace College campus path*



*Bicycle racks in front of the pool area, Peace College*





Bicycle racks in front of residence hall, Meredith College



Greenway trail head, Meredith College

They do have a few bicycle racks near the gym and pool area, and have plans to add more. Showers are available in the gym. A new library being constructed on campus will include new bicycle racks. Despite a culture of bicycles not being very apparent, Brown states that there are a number of students who take bike trips together, and also a number of faculty who commute on bicycle.

### **Meredith College**

Meredith is an historic private college located in West Raleigh. According to Aaron Schettler, Grounds Manager with Meredith College Facility Services, the campus has three bicycle rack areas with about six bicycles on average during the semester. These are located near the residence halls. Schettler also indicated that there is a new LEED-rated project under construction on campus which will include additional bicycle facilities.

Meredith is situated along the popular Reedy Creek Greenway Trail which connects to the NC Art Museum and other Raleigh destinations. While Meredith may not typically see a significant number of students using bicycles on campus, this greenway trail brings in a large volume of bicyclists from other parts of the Triangle.

### **Wake Tech Health Sciences Campus/ Wake Med Main Campus Wake Tech North Campus**

Mostly due its location, beyond I-540, near busy roads, and low-density development, Wake Tech North Campus sees very little bicycle use. Wake Med Main Campus and Wake Tech Health Sciences campus, although located closer to Raleigh's center, also sees very little bicycle use. Lee Bullock, Wake Tech Assistant Facilities Manager, indicated that the Health Sciences campus has only about five regular bicycle riders per semester. A few bicycle racks were found around these campuses, but no other facilities. Similarly, one bicycle rack was found at the Wake Med Main campus. No bicyclists were seen at either campus during the time of observation.



Bicycle parking at Wake Med



Fig. G.8: Bicycle rack at Wake Tech Main Campus





### **Cameron Village**

Cameron Village, situated near Downtown Raleigh, North Carolina State University, Broughton High School, and dense historical neighborhoods, has a number of attractive destinations, ranging, from restaurants, coffee shops, a grocery store, salons, and clothing stores. Because of this, it is a major destination for bicyclists in Raleigh.

During Cameron Village’s most recent renovations, numerous bicycle racks were added. You can find these bicycle racks at almost every major intersection in the Cameron Village area. With a consistent style and color, they serve as a unifying element in the landscape. With narrower streets and slower traffic than the surrounding context, Cameron Village offers a pleasant biking atmosphere.



*Friends resting at Cameron Village after a long ride*

### **Ridgeway Shopping Center**

Observations at Ridgeway Shopping Center revealed a significant number of bicyclists. One of the main draws of this area appears to be the presence of All Star Bike - a full-service bicycle shop. All Star Bike shop carries maps and also has information about local bicycle organizations. Next door, Whole Foods also attracts a significant number of bicyclists throughout the day. Ridgeway has a minimal amount of facilities - two sets of bicycle racks. They do, however, appear to be sufficient for this complex.



*Bicycle racks in front of Whole Foods*

### **North Hills Mall**

North Hills is an outdoor mall and mixed-use development just outside Raleigh’s beltline. Although North Hills Mall offers a pedestrian friendly environment, there were not a significant amount of bicyclists seen in the area. A few bicycle racks were observed in the main shopping area. Two of them are strategically located in front of establishments that would most likely attract bicyclists – REI Outdoor Equipment and Gold’s Gym.



*Bicycle racks near All Star Bike Shop*



*Bicycle rack outside REI*



*Bus stop and bike rack at North Mills Mall*





### *Crabtree Valley Mall*

While Crabtree is surrounded by high-speed traffic and very wide roads, it is also adjacent to a greenway trail. The scenic Crabtree-Oak Park Trail runs through the west edge of the site, funneling in a significant number of bicyclists. Bicycle racks are situated not too far from this trail around the parking garages. Those found within the parking garages are covered.

### *Raleigh Downtown Core*

Many of the bicyclists you will find downtown are not commuting to work, but rather they are already at work. The Downtown Raleigh Ambassadors, employed by the city, can be found biking the streets offering helpful information to pedestrians. Raleigh Police officers can also be found travelling around on bicycle. During the evenings and weekends, Raleigh Rickshaw Service provides a unique and fun transportation alternative.



*Downtown Raleigh*

Groups of bicyclists can often be found congregating at local hot spots, such as the Raleigh Times Bar or Helios Café further north on Glenwood Ave. Others can be found weaving through the downtown streets, sometimes in groups of ten or more. Downtown areas that are higher in pedestrian activity (Moore Square, Fayetteville St districts) have a greater number of bicyclists than those higher in vehicular activity (Nash Square area, Government Complex area).



*Bicycle parked at local hot spot in downtown Raleigh*

Bike parking racks can be found at some of the parking garages downtown. Many riders lock up their bicycles to tree grates or poles although this practice is discouraged by the city; there are currently no other public bicycle facilities such as storage areas. Stationary maps for downtown wayfinding can be found, but they do not offer bike or greenway maps. Major destinations such as the Raleigh Convention Center, set to open this fall, have plans to add facilities to accommodate bicyclists. According to Barclay Williams, Assistant to the Director of the Convention Center, there will be bicycle racks around the exterior of the building, as well as showers available to employees and clients.



*Bicyclists on Wilmington Street*





### Raleigh Museums

The North Carolina Art Museum off Blue Ridge Road includes a 164-acre outdoor park. Its extensive trail system meanders through large outdoor sculptures, natural woodlands, and flowing creeks. The paved trails are very popular with bicyclists and pedestrians alike. The museum’s trails connect to the Reedy Creek Greenway System which connects to West Raleigh, Meredith College, and North Carolina State University. Reedy Creek Trail markers with maps are located at the main entrance to the museum as well as other strategic points in the art park.

Tia Herring, Museum Park Manager, stated that the museum has artist-designed bicycle racks in the outdoor sculpture park, as well as typical bicycle racks near the museum entrances. In addition to this, showers are available to museum staff. The Art Museum is also currently undergoing extensive renovations. When the construction is completed in 2009, they plan on adding additional bicycle facilities.

The museums located in downtown include the Museum of Natural Sciences, the NC History Museum, and Marbles Children’s Museum. While a number of bicyclists were observed in the surrounding area, there were no bicycle facilities found at these museums. Bicycles are sometimes seen locked up to railings near the entrance to the museums.

### Pullen Park

Since its founding in 1887, Pullen Park has been a popular Raleigh destination, offering a quiet and scenic retreat for residents and visitors. Its beautiful walking paths weave through lush vegetation and over arched bridges. With a peaceful lake, a historical carousel, a children’s train, and many areas for activity and interaction, the park comes alive with people.

In the main areas of the park, signs indicate that you must walk your bike through the park due to the narrow paths and small children in the area. Larger parks in the area, such as Umstead State Park, are well-designed for bicyclists looking to take short or long rides. Pullen Park does offer some accommodations, though. Visitors coming to the park on bicycle can lock them up at the bicycle rack near the main east entrance. Water fountains are also available nearby.



*Paved trail at outdoor park*



*Railings at NCMNH often used as racks*



*NC Museum of Natural Sciences*



*Scenic lake at Pullen Park*



*Bicycle rack at east entrance*





*Bicycle rack at Cameron Village*

### Conclusion

Some of the destinations observed serve as good examples of places in Raleigh that offer facilities for bicyclists. These include North Carolina State University, Cameron Village, and North Carolina Museum of Art.

All of these destinations offer bicycle racks, maps, and other amenities on site, such as showers and drinking fountains. Destinations such as Ridgeway Shopping Center and Downtown Raleigh continue to draw bicycle riders despite a low number of bicycle facilities.

One of the destinations observed with apparent deficiencies in the facilities offered to bicyclists was downtown Raleigh, where many people resort to securing their bikes to tree grates or light poles due to insufficient and/or convenient bicycle racks. Other destinations, such as Shaw and Peace College, could clearly benefit from additional facilities and resources. Additionally, the North Carolina Museum of Art, Crabtree Mall, and Meredith College may have varied facilities, however all of them experience a large volume of bicyclists due to their adjacency to the Raleigh Greenway System. The chart on the following pages shows a summary of the destinations and their facilities.

With healthier and active lifestyles emerging and increasing bicycle awareness, the number of Raleigh bicyclists will only continue to grow. The representatives and employees interviewed who are in charge of bicycle facility planning at the observed destinations recognize this and are eager to improve their facilities to accommodate for this need.



*Bicycle locked up to a tree on Hargett St.*



*Bicycle racks at NCSU Brickyard*



*Art Museum trail sign*





Table G.1 Bicycle Facilities and Amenities at Destinations

DESTINATION	BIKE RACKS	PROGRAMS/ CLUBS	SHOWERS	STORAGE/ LOCKERS	DRINKING FOUNTAINS	BIKE MAP	OBSERVED RIDERSHIP*
NCSU	✓	✓	✓	✓	✓	✓ (At transport. Office)	Moderate- High
PEACE COLLEGE	✓	✓	✓				Low
SAINT AUGUSTINE'S COLLEGE							N/A
SHAW UNIVERSITY	Planned						N/A
MEREDITH COLLEGE	✓					✓	Moderate- High (on adjacent greenway)
WAKE TECH (HEALTH SCIENCES & NORTH CAMPUS)	✓						Low
NCSU	✓	✓	✓	✓	✓	✓ (At transport. Office)	Moderate- High
PEACE COLLEGE	✓	✓	✓				Low
SAINT AUGUSTINE'S COLLEGE							N/A
SHAW UNIVERSITY	Planned						N/A
MEREDITH COLLEGE	✓					✓	Moderate- High (on adjacent greenway)
WAKE TECH (HEALTH SCIENCES & NORTH CAMPUS)	✓						Low





Table G.1 Bicycle Facilities and Amenities at Destinations (continued)

DESTINATION	BIKE RACKS	PROGRAMS/ CLUBS	SHOWERS	STORAGE/ LOCKERS	DRINKING FOUNTAINS	BIKE MAP	OBSERVED RIDERSHIP*
CONVENTION CENTER (UNDER CONSTRUCTION)	Planned		For employee/ client use				N/A
DOWNTOWN RALEIGH CORE	✓	✓				✓	Varies: Low - High

\*The site visits occurred from May - June 2008 at a time when the colleges were in summer session with low attendance. The site visits also occurred during a time when many of the afternoons were unseasonably hot (near 100 degrees) which kept many people indoors.







**APPENDIX H OUTLINE:**  
Glossary Terms

## APPENDIX H: GLOSSARY

**AASHTO** – American Association of State Highway and Transportation Officials: a nonprofit, nonpartisan association representing highway and transportation departments of all transportation modes in the 50 states, the District of Columbia and Puerto Rico.

**“A” Cyclist** – a term generally used to describe experienced or advanced bicyclists that are comfortable in all cycling environments, even busy roadways that lack bicycle facilities. “A” Cyclists will typically bicycle in any condition, whether hospitable or not.

**ADA** – American Disabilities Act of 1991: The Act gives civil rights protections to individuals with disabilities including equal opportunities in public accommodations, employment, transportation, state and local government services, and telecommunications.

**Advance Stop lines** - applies to a stop line placed prior to a crosswalk or bicycle box, to either prevent motor vehicle encroachment, or to improve visibility. It plays an important safety role especially in multi-lane roads.

**Alternative Transportation Network** – a connected system for travel using transportation other than private cars, such as walking, bicycling, rollerblading, carpooling and transit

**Arterial Connections** – interconnected corridors designed to accommodate a large volume of through traffic

**Bargain Sale** – the sale of a property at less than the fair market value. The difference between a bargain sale price and fair market value often qualifies as a tax-deductible charitable contribution. Commonly used to acquire land or easements for greenways or multi-use paths.

**“B” Cyclist** – a term generally used to describe intermediate level cyclists, who bicycle for reasons ranging from recreation and fitness riding to commuting. “B” cyclists typically prefer on-street bicycle facilities, such as bicycle lanes and paved shoulder.

**Bicycle** – Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. The term “bicycle” in this document also includes three and four-wheeled human-powered vehicles, but not tricycles for children.



**Bicycle Activated Detector Loop** – sensors installed in the roadway at intersections that trigger a change in a traffic signal. They allow cyclists to remain in the travel lane and avoid maneuvering to the side of the road to trigger a push button.

**Bicycle Box** – a box painted on a roadway at an intersection that allows bicyclists to move to the front of the line in traffic. Generally a bicycle lane allows cyclists to pass stopped motor vehicle traffic and enter the bicycle box. The bicycle box is located between the intersection and front of the motor vehicle stop line. Bicycle Boxes increase awareness of cyclists in the roadway environment and provide the opportunity to cross intersections before motor vehicles.

**Bicycle Facilities** – a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling. Examples include, but are not limited to bicycle parking/storage facilities, roadways with sharrow markings, bicycle lanes, paved shoulders, sidepaths, and greenways.

**Bicycle Friendly Community** – a program established by the League of American Bicyclists that recognizes and awards municipalities who encourage bicycling and make significant strides in creating a bicycle friendly environment.

**Bicycle Lane** - a portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.

**Bridge Culvert** – a sewer or drain crossing used for the transference of surface water from a bridge

**Buffer (See also Screening)** - A strip of land with natural or planted vegetation, located between a structure or use and a side or rear property line, intended to spatially separate and visually obstruct the view of two adjacent land uses or properties from one another. A buffer area may include any required screening for the site.

**Bulb-out** - extended pavement to narrow roadway, or pinch through fare, or provide space for bus stop, bench, etc. Commonly used as a traffic calming measure.

**Capital Area Metropolitan Planning Organization (CAMPO)** - CAMPO is the MPO comprised of municipalities within Wake County and is responsible for multi-modal transportation planning and coordination between the municipalities. The Capital Area MPO serves as the coordinating agency between local governments, NCDOT, and FHWA.





"C" Cyclist – a term generally used to describe beginner, juvenile or elderly cyclists who are not comfortable bicycling in an environment with significant motor vehicle traffic. Typically "C" cyclists prefer to cycle on shared-use paths, greenways, and calm neighborhood streets.

Collector Streets – a public road designed to flow traffic from small neighborhood streets and connect to larger thoroughfares

Concurrent Signal Timing - motorists running parallel to a crosswalk are allowed to turn into and through the crosswalk (left or right) after yielding to bicyclists or pedestrians

Condemnation - the taking of private property for public use, with adequate compensation to the owner, under the right of eminent domain

Connectivity - the logical and physical interconnection of functionally related points so that people can move among them

Conservation Easement - a legally binding agreement not to develop part of a property, but to leave it "natural" permanently or for some designated very long period of time regardless of ownership transfer

Consultant - Certified professionals such as engineers, planners, arborists, biologists, foresters and horticulturists that are approved by the Planning Director.

Corridor - a spatial link between two or more significant locations

Crosswalk - a designated point on a road at which some means are employed to assist pedestrians who wish to cross a roadway or intersection. They are designed to keep pedestrians together where they can be seen by motorists, and where they can cross most safely with the flow of vehicular traffic.

Curb Cut – interruption in the curb, as for a driveway

Curb Extension - a section of sidewalk at an intersection or mid-block crossing that reduces the crossing width for pedestrians and is intended to slow the speed of traffic and increase driver awareness

Curb ramp - a ramp leading smoothly down from a sidewalk, greenway or multi-use path to an intersecting street, rather than abruptly ending with a curb

Development - The carrying out of any building activity, the making of any material change in the use or appearance of any structure or land, or the subdividing of land into two or more parcels.



**Driveway Apron** – the section of a driveway between a sidewalk or greenway and the curb

**Eminent Domain** – the acquisition of property by the government which is deemed to be necessary for the completion of a public project from an owner that is unwilling to negotiate a price for its sale.

**EPA** – Environmental Protection Agency

**Fee Simple Purchase** – an outright purchase of the land by municipality

**FHWA** – Federal Highway Administration

**First Right of Refusal** - the right specified in an agreement to have the first opportunity to purchase or lease a given property before it is offered to others

**Fitness Trail** - a pathway upon which users jog or walk from station to station to perform various exercise tasks

**Greenway** - a linear path or open space, often composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas specifically designed for pedestrian and bicycle use. Greenways provide an off-street component to the bicycle network.

**High Volume Artery** – an important transportation corridor that is used by large traffic levels

**Hydrologic Resources** – stream and sewer corridors and buffer zones that can be used to facilitate the building of greenways

**Incentive Zoning** - a system by which zoning incentives are provided to developers on the condition that specific physical, social, or cultural benefits are provided to the community

**Intersection** - an area where two or more pathways or roadways join together

**ISTEA** – Intermodal Surface Transportation Efficiency Act of 1991

**Leaseback** - the process of selling a property and also entering into a lease to continue using that property

**Linear Stream Corridor** - generally consists of the stream channel, floodplain, and transitional upland fringe aligned linearly





## LRTP – Long Range Transportation Plan

Median - a median is a barrier, constructed of concrete, asphalt, or landscaping, that separates two directions of traffic

Mixed Use Area – a term used to describe a specific area that poses a combination of different land use types, such as residential, commercial, and recreation

Mode Share - a term used to describe percentage splits in transportation options

MPO – Metropolitan Planning Organization

MUTCD – Manual of Uniform Traffic Control Devices: National standards guidebook on signage and pavement marking for roadways

Municipal Boundary – the limit of municipal jurisdiction

Nature Trail - a marked trail designed to lead people through a natural environment, which highlights and protects resources

NCDOT – North Carolina Department of Transportation

Negotiated dedications - a local government may ask a landowner to enter into negotiations for certain parcels of land that are deemed beneficial to the protection and preservation of specific parcel of land

Off-road Trail – paths or trails in areas not served by the street system, such as parks and greenbelt corridors. Off-street paths are intended to serve both recreational uses and other trips, and may accommodate other non-motorized travel modes, such as bicycles in addition to walking.

On-street Bicycle Facility – any bicycle facility that is constructed or marked on a roadway, such as a shared roadway, signed route, wide outside lane, bicycle lane, or paved shoulder

Open Space - empty or vacant land which is set aside for public or private use and will not be developed. The space may be used for passive or active recreation, or may be reserved to protect or buffer natural areas.

Overlay Zone - a zone or district created by the local legislature for the purpose of conserving natural resources or promoting certain types of development. Overlay zones are imposed over existing zoning districts and contain provisions that are applicable in addition to those contained in the zoning law.



**Pedestrian** - a person on foot or a person on roller skates, roller blades, child's tricycle, non-motorized wheelchair, skateboard, or other non-powered vehicles (excluding bicycles)

**Planned Unit Development (PUD)** - a project or subdivision that includes common property that is owned and maintained by a homeowners' association for the benefit and use of the individual PUD unit owners

**Pocket Park** - a small area accessible to the general public that is often of primarily environmental, rather than recreational, importance; they can be urban, suburban or rural and often feature as part of urban regeneration plans in inner-city areas to provide areas where wild life can establish a foothold.

**Preservation Easement** – a voluntary legal agreement that protects historic, archaeological, or cultural resources on a property. The easement provides assurance to the property owner that intrinsic values will be preserved through subsequent ownership. In addition, the owner may obtain substantial tax benefits.

**Public Access Easement** – a voluntary legal agreement which grants a municipality a perpetual right-of-way and easement for public access and public benefit

**Quality of Life** - a measure of the standard of living which considers non-financial factors such as health, functional status and social opportunities that are influenced by disease, injury, treatment or social and political policy

**Retrofit** - the redesign and reconstruction of an existing facility or subsystem to incorporate new technology, to meet new requirements, or to otherwise provide performance not foreseen in the original design

**Road Diet** – reconfiguring or reducing the number or width of motorized vehicle lanes to provide room to integrate a bicycle facility into a roadway. Commonly used on 4 lane roads with moderate motorized traffic volumes. Generally roadways are reconfigured to include a center turn lane, two 5' bicycle lanes and two motor vehicle travel lanes on either side.

**Roundabout** - traffic calming device at which traffic streams circularly around a central island after first yielding to the circulating traffic

**ROW (right of way)** - an easement held by the local jurisdiction over land owned by the adjacent property owners that allows the jurisdiction to exercise control over the surface and above and below the ground of the right-of-way; usually designated for passage





RTOR – Right turn on red

Safe Routes to School (SRTS) – a federal program that provides funding to encourage and facilitate the planning and implementation of bicycle and pedestrian projects near schools.

SAFETEA - Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003:

SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

Sharrow – painted roadway marking that alerts motorists that bicyclists are present and frequently use the roadway. Traditionally used in 35 MPH settings with wide curb lanes. To officially appear in the MUTCD in 2009.

Shoulder - The portion of the roadway contiguous with the traveled way for the accommodation of stopped vehicles, for emergency use, and for lateral support of sub-base, base, and surface courses. Paved shoulders can be used for bicycle travel as well.

Shared Roadway – A roadway that is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes of 14-feet to 15-feet, or road with paved shoulders. Generally lower speed roadways that are located in residential or compact urban environments.

Shared Use Path (Multi Use Path/Sidepath) - A paved path, typically 10-foot wide, physically separated from motorized vehicular traffic by an open space or landscaped barrier and located either within the highway right-of-way (often termed “side path”) or within an independent right-of-way (often termed “greenway” or “multi-use path”). Shared use paths may be used by bicyclists, pedestrians, skaters, motorized and non-motorized wheelchair users, joggers, and other non-motorized users. In some cases shared use paths also accommodate equestrians.

Sidewalk - an improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete, but can be made with asphalt, bricks, stone, wood, and other materials.

Signed/Shared Roadway (signed bike route) – A shared roadway that has been designated by signing as a preferred route for bicycle use with either a “Share the Road” or “Bike Route” sign.

Thoroughfare - Any street on the adopted thoroughfare plan or any street which is an extension of any street on the thoroughfare plan and which extends into the area not covered by the thoroughfare plan.



TND (traditional neighborhood development) - an area of land developed in a planned fashion for a compatible mixture of residential units for various income levels and nonresidential commercial and workplace uses, with a high priority placed on access to open spaces and alternative forms of transportation

Traffic Calming - a range of measures that reduce the impact of vehicular traffic on residents, pedestrians and cyclists - most commonly on residential streets, but also now on commercial streets

Trip Attractor - a location which, because of what it contains, generates itself as a destination for people

