

**Addendum to the
City of Radford
“2007 Pathways Master Plan”:**

**Pathways for Radford’s
Recommended Priorities for
Off-Road Trails,
Shared-Road Bike Corridors,
and
New Sidewalks**

DRAFT PROPOSAL

May 30, 2008

I. CDAC's "Pathways 2007 Master Plan"

The City of Radford commissioned Virginia Tech's Community Design Assistance Center (CDAC) to study Radford's pedestrian and bicycle facilities and propose how Radford should develop these in the future. That process was aided by suggestions from Pathways for Radford, a nonprofit citizen's group that has helped the City develop bikewalks and walkways since 1998. The final document is on the City's web site under the "publications" link: <http://www.radford.va.us/MasterPlan/2007Pathways/index.html>. Appendix A of this Addendum contains CDAC's summary map, and summaries of their recommendations for Bike facilities and sidewalks.

The City then asked Pathways for Radford to recommend what their priorities would be. This Addendum to the CDAC report gives Pathways for Radford's tentative recommendations. Final recommendations would be a result of more data-gathering, consultations with City officials, and public support.

We started with CDAC's map showing existing bike lanes, bike/walk trails, sidewalks, parks, proposed parks, institutional open space and cultural facilities. We superimposed on that map, the areas of highest and medium density in the city, and our proposals for priorities of bike corridors (shared-road and off-road), new sidewalks, and one pedestrian trail. In considering bike corridors, we generally limited ourselves to the streets recommended by CDAC, usually just combining them into corridors and suggesting priorities. On the other hand, we largely made our own analysis and proposals of streets needing sidewalks. The pedestrian trail we recommend is one described in the CDAC report.

Figure 1 is a summary map of all of Pathways for Radford's proposals for new sidewalks, bike corridors, and a pedestrian trail. That may be compared to the summary CDAC map found in Appendix A.

All recommendations assume that the involved intersections need to be checked for suitability for cyclists and pedestrians. For example, cyclists need to be able to trigger semaphores without riding onto a sidewalk, pedestrian crossing signals need to show the same signal in both directions, and that intersections may need to be redesigned to improve cyclist and pedestrian safety. Street designs for pedestrian and cyclist safety are readily available at http://safety.fhwa.dot.gov/PED_BIKE/ped/index.htm.

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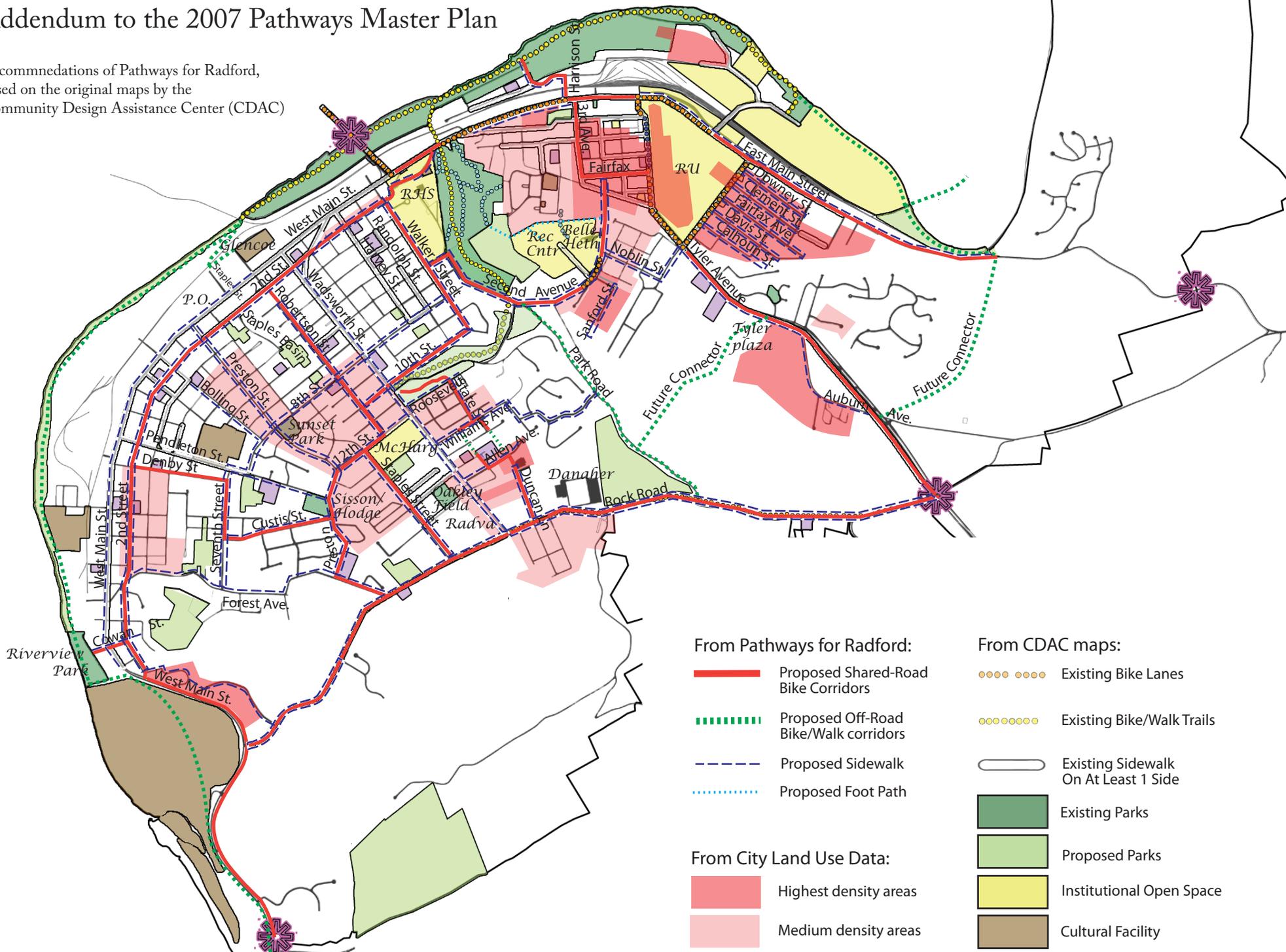


Figure 1. All sidewalks, bike corridors and trails proposed by Pathways for Radford.

I. Considerations for Setting Bike Facility Priorities

Our priorities were based on the following considerations and assumptions:

1. What is the purpose of bike access on Radford streets?

Bike corridors provide a number of functions:

- Alternative cross-town transportation
- Recreation
- Healthy exercise
- Economics - Attracting people to Radford to visit or live.

Our priorities give preference to cross-town transportation. Improved bike transportation will also make the network more useful for recreation, healthy exercise, and attracting people to Radford.

State and city bike plans recommend that for transportation purposes, priority should be given to:

- more direct routes with fewer turns.
- routes that are natural corridors between important destinations (e.g. residential areas with school, parks, library, commercial centers, and cultural areas).

2. Who are the bike facilities for? The literature distinguishes 3 types of cyclists:

- Group A – Confident, experienced adults will ride on roads with no shoulder in 55mph traffic.
- Group B - Less confident adults or teens will ride on roads with traffic if there are bike lanes.
- Group C - Children and least confident adults will usually limit cycling to the safest routes, such as neighborhood streets with little traffic and off-road bikeways.

Our priorities give preference to Group C. To get kids and many adults used to using bike transportation, we need to provide safe routes so parents will let them cycle. Also, facilities for Group C can be used by the other groups, whereas Group C folks can't use the facilities for the other two groups.

Thus, we give higher priority to corridors that we perceive (without measurement) to have wider lanes, less on-street parking, lower traffic volumes and speeds, and less truck traffic. Final priorities should be based on actual data, like that gathered by Rhode Island DOT's "Bicycle Route Suitability Report" (Appendix B).

3. What kind of street or road is it? AASHTO recommends that:

- Neighborhood streets with little traffic should not be designated as bikeways, unless they are part of a larger destination corridor. Thus, we have thought in terms of "corridors," not individual streets.
- Busy traffic corridors may not be the best choice for designated bike corridors. Thus, we have not recommended Wadsworth Street or much of Main Street, where parents are unlikely to want their children riding even with bike lanes. However, AASHTO

recommends that advanced cyclists should generally be allowed to use such major arteries for transportation even though they are not designated as bike routes.

- When a road should be a shared roadway or painted with bike lanes should be based on an analysis of road widths, parking, traffic volume, traffic speed, slopes, etc. See Rhode Island DOT's "Bicycle Route Suitability Report" (Appendix A) and King, M., 2002 *Bicycle Facility Selection: A Comparison of Approaches*, PBIC, University of North Carolina, Chapel Hill, NC. Since such an analysis was not done for the CDAC report nor this addendum, it is premature to distinguish between shared roads and roads with bike lanes until we have appropriate data. So for now, we will call them "bike corridors" and will assume they will have proper safety, signage, and maintenance features (http://www.sccrtc.org/bikes/AASHTO_1999_BikeBook.pdf) whether they eventually need bike lanes or not.
4. How difficult will it be to establish a corridor? Easily established corridors should not be ignored until after higher priority, but very expensive, projects are finished. Thus, we have considered off-road trails separately from shared-road facilities, and within each category, we have attempted to give higher priority to options that we perceive as more quickly accomplished than others – lower cost and lower potential for community conflict. Of course, these are guesses on our part, and discussion with city officials will be essential to understand the political and economic implications of various corridors.

II. Summary of Recommended Priorities for Bike Facilities

OFF-ROAD, BIKEWAY/WALKWAYS		
Priority	Corridor Name	Route
1	West Riverway	Bisset Park → Glencoe and Riverview Park → Exit 109 (Peterson Dr.)
2	East Riverway Extension	University Dr. → Pulaski Co. and East Main
2	South Riverway Extension	Wildwood Park → Park Rd. → Rock Rd.
3	Future E. Main-Tyler Ave connector	
3	Future Tyler Ave.-Park Road connector	
SHARED-ROAD CORRIDORS		
Priority	Corridor Name	Route
1	South Corridor	Rock Road from Wadsworth to Tyler
1	East Main St. Connectors	Memorial Bridge → River Street and Harrison St → Tyler Ave.
1	East-West Connector	Walker → 6 th St. → Scott → 2nd Ave. → Fairfax → Tyler and to 3 rd Ave. → E. Main
2	West Diagonal Corridor	Rock Road → Forest → Preston → 12 th St. → Robertson → 10 th St. → Walker → 2 nd St.
2	Northwest Corridor	East Main → Dalton Dr. → 2 nd St → West Main → Rock Rd.
2	Central N/S Corridor	2 nd St. → Robertson → 12 th St. → Staples → Rock Rd.
2	Sundell-Rock Road Connector	Wadsworth and Sundell → State → Williams → Gandy → Allen → Duncan Ln. → Rock Rd.
3	West End N/S Corridor	2 nd St. → Denby → 7 th St. → Custis → Preston
3	Riverway-E. main Connector	East Main St. → Harrison → West St. (or via an off-road trail) → Riverway at Dudley's Ferry
3	East End Loop	East Main from University Dr. → future connector road (or a parallel off-road trail) → Tyler from Rock Road to Jefferson

III. Explanations of Bike Routes and Priorities

A. Off-Road Bikeway/Walkways (Figure 2)

Riverway West Extension

How: Extend Riverway in Bisset Park under or around railroad bridge, along the river to Riverview Park, with connections to Mainstreet wherever possible, including a connection to Glencoe. Extend the trail from Riverview Park to city property at Peterson Drive under the interstate at Exit 109 using either the abandoned railway bed that parallels the west side of West Main Street or along the West Main right-of-way.

Pro: Economic potential to draw more recreation tourism to the city, more health, recreation opportunities for residents. A great safe cross-town transportation route for kids and adults. Connection of Glencoe to the Riverway. Connection to mountain bike trails on city property at exit 109.

Con: Expense. Need for easements across private land. Steep grades to connect trail to Main Street and Glencoe. Greater safety concerns from some of the community because some areas are more isolated than on the current Riverway.

Riverway East Extension

How: Extend Riverway from University Drive, over Radford University land along the New River to the intersection of East Main with the future connector to Tyler Ave. A spur could use the unused railroad trestle to cross the river to Pulaski County.

Pro: Connections to housing developments in Pulaski. Possible connections to the New River Trail. More greenway miles make the whole system more attractive.

Con: Expense. Resistance from Pulaski County officials. Need easement over University land.

Riverway South Extension

How: Wildwood Park → Park Road → Rock Road. We prefer this be an off-road bike/walk trail, rather than road with bike lanes and sidewalks. because it would be more attractive and more likely to be used by Class C cyclists and pedestrians as a recreational greenway if an off-road trail, rather than bike lanes.

Pro: This would complete a north-south greenway through the center of Radford. It would be an attractive, level ride that could connect Bisset Park and Wildwood Park to a possible park at the corner of Park Road and Rock Road. As an off-road trail it would be attractive to Level C cyclists, pedestrians and other recreational users.

Con: Expense. Private land easements needed.

Future East Main-Tyler Avenue-Park Road Connectors

These connectors could employ shared roadways and sidewalks or an off-road bike/walkway for pedestrians and cyclists. We would like the latter to be seriously considered in the development of these areas of Radford. Off-road routes should probably not parallel the roadway, because the dense commercial/residential development planned would involve many driveways and access roads, which make a parallel trail hazardous. Off-road routes may also follow contours, making cycling easier and more attractive than on a roadway build for cars. On the other hand, off-road trails may be less convenient than roads with sidewalks and shared roadways for transportation between residences and businesses.

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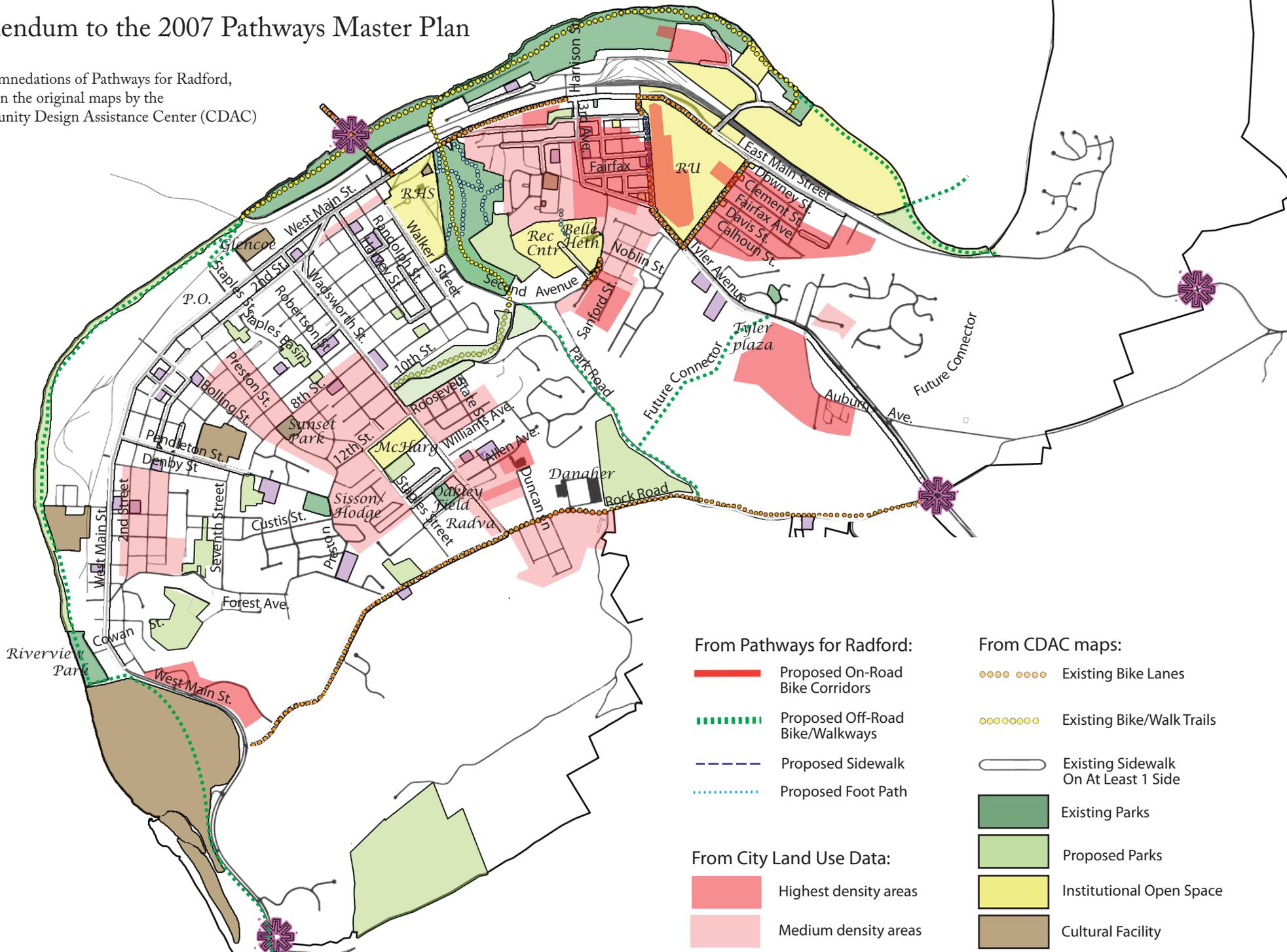


Figure 2. Off-road bike/walkways recommended by Pathways for Radford.

B. Shared-Road Bike Facilities – Priority 1 (Figure 3)

Southern Corridor: Rock Road

How: Make sure lane width meets AASHTO specifications in all places (there are a number of places where bike lanes are too narrow). Identify the bike lanes with painted bicycle symbols in the lanes.

Pro: It's almost finished! Cheap to complete. Rock Road is used in the Wilderness Ride and for the 76 TransAmerica Bike Route, and by many higher level bicyclers.

Con: The route is probably not for B or C level cyclists.

East Main Street Connectors

How: From Harrison St. → Tyler Ave.: Identify this as a shared roadway by painting on each block bike symbols and "Share the road" in the center of each vehicle lane. From River Street → Memorial Bridge: Extend bike lanes or identify each lane as a shared roadway with bike symbols and "Share the road."

Pro: It's not good to have fragments of streets designated as bike routes. This would connect existing fragments. But the main reason for high priority is safety. Motorists need know that cyclists have a right to the roadway. Cyclists need to know they should occupy the center of the lanes to avoid opening doors of parked cars. The section from River Street to Memorial bridge is particularly hazardous for cyclists, especially if they wish to continue west past Memorial bridge. The intersection at Wildwood Park Drive needs to allow cyclists exiting Wildwood to trip the light and know when it is safe to enter Main Street.

Con: These will not serve B or C level cyclists.

East-West Connector: Sixth St. to Third Ave.

How: Walker St → 6th St. → Scott St. → 2nd Ave. → Fairfax → Tyler Ave and to 3rd Ave. to E. Main. CDAC recommends bike lanes on east and west Fairfax and through RU. We think the Fairfax segment east of the University has lower priority, because fewer children will be using that section.

Pro: This is an important corridor between the two halves of the city, which currently is very dangerous for bike and pedestrian traffic. A bike corridor would provide safer bike transportation from Middle and High Schools to the Recreation Center and Radford University and east commercial center. It intersects the Riverway, and thus provides access to Wildwood and Bisset Parks from both east and west sides of the city. Part of 2nd Ave. already has bike lanes. Second and third avenues are already have high priority for the city and some planning has been done.

Con: The expense of widening Second Ave.

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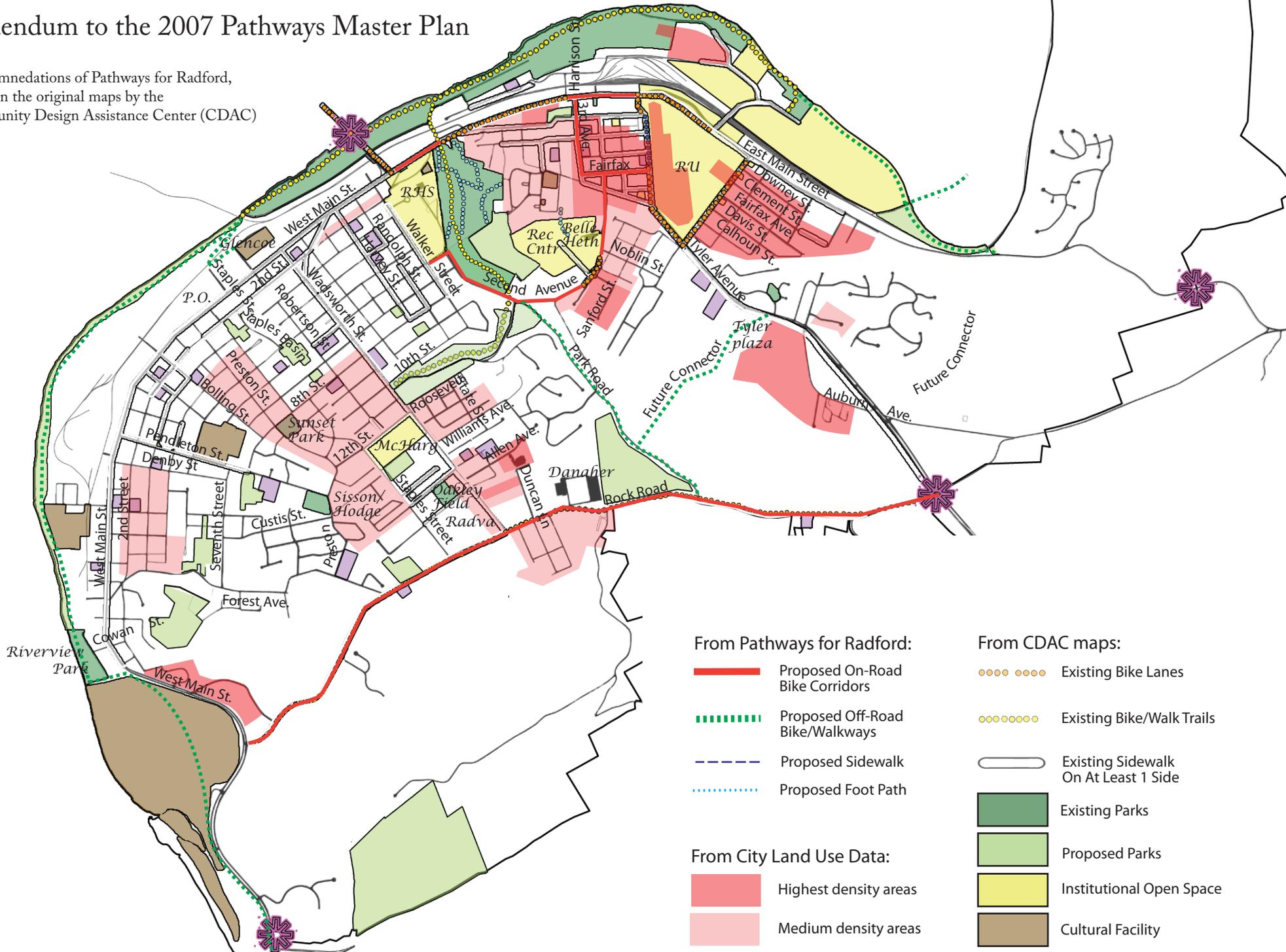


Figure 3. Recommended priority 1 shared-road bike corridors.

C. Shared-Road Bike Facilities – Priority 2 (Figure 4)

Diagonal West Corridor: Preston to Walker

How: Rock Road → Forest Ave → Preston → 12th St. → Robertson St. → 10th St. → Walker St. → 2nd Street.

Pro: Provides a long, more or less diagonal corridor through the west half for the city, connecting the bike lanes on Rock Road to the 2nd Street corridor and to the current bike/walkway at 10th Street. Directly connects residential areas on both sides of Wadsworth to McHarg Elementary, the Middle School and High School. By connecting to the existing Riverway it allows a safe route to major parks, ball fields, commercial area, and RU. It is relatively flat (for Radford). There seems to be little parking on these roads currently.

Con: Resistance from some residents. More turns than on other corridors – signage will be critical.

Northwest Corridor: Dalton Dr. to Second St. to W. Main

How: East Main St. → Dalton Dr. → 2nd St → West Main St. → Rock Road. Modify all of Second Ave and Dalton Drive for bike lanes or shared roadway. Make a connection between Highland and West Main. Add bike lanes to West Main between 2nd St. and Rock Road. Modify intersections for safety, especially Wadsworth, Arlington, and Walker.

Pro: A long corridor with little traffic for east-west transportation. Proximity to Main Street allows people to readily access businesses, etc along the way. Many churches are along the route or within a block. Dalton Drive connects to the existing Riverway, allowing access to Wildwood, Bisset, ball fields, and RU Dedmon Center without going onto Main Street. CDAC gave the Second St.-Dalton Dr. route their highest priority. We include the section on West Main in order to complete the connection with Rock Road and a loop around the city. This part of west main has wide double lanes and shoulder—probably room for bike lanes. Though traffic is fast and has truck traffic, it is low volume. Bike lanes would make it quite safe for A and B level cyclists by eliminating the temptation to pass cyclists in the same lane.

Con: Safety of some intersection crossings. Resistance from some residents if parking is affected.

Central North-South Corridor: Robertson to Staples

How: Connect 2nd St. and Robertson St. with a one block bike/walk trail on city right-of-way → 12th St. → Staples St. → Rock Road.

Pro: A complete, fairly straight, north-south corridor through the middle of the west end. Streets have relatively low volume traffic. It would intersect with the proposed diagonal Preston to Walker corridor. It would provide access to McHarg School and to the existing Riverway, just 1 block away on 10th. Robertson could be continued across Main St. to Glencoe. If the Staple Street basin is developed as a park as CDAC suggests, Robertson St. could provide access via 7th or 8th Streets or via Glencoe.

Con: Resistance from some residents.

Sundell to Rock Road Connector

How: Wadsworth and Sundell → State St. → Williams Ave. → Gandy St. → Allen Ave. → Duncan Lane → Rock Road. Make a nature park out of the woods between Sundell and Roosevelt. Build a trail from 10th and Wadsworth through that park to State Street. Put signage on State and Williams Ave. Connect Williams Ave. to Allen Ave. via

Gandy St. and across Pine Valley land or via the Clay St. right-of-way. Connect Allen Ave to Duncan Lane, which connects to Rock Road. Put signage on streets.

Pro: The route would provide a safe route to McHarg School and to the Riverway (and beyond) for residents in this area of town, avoiding busy Wadsworth Street. Cyclists could access the center of town while avoiding Wadsworth Street, which would probably be undesirable for class C cyclists, even if it had bike lanes. Serves low-income families. Connects to other bike/walkways. Fairly lengthy corridor. City owns land on which trails could be built. It could help create a couple pocket parks, which are needed in this sector of town.

Con: Some owners along the route will fear trash, vandalism and other horrors from trail users. Need to get community buy-in. Pine Valley Recreation Club would probably fight a trail across its land unless owners see an advantage for their children. Some on-street parking to deal with.

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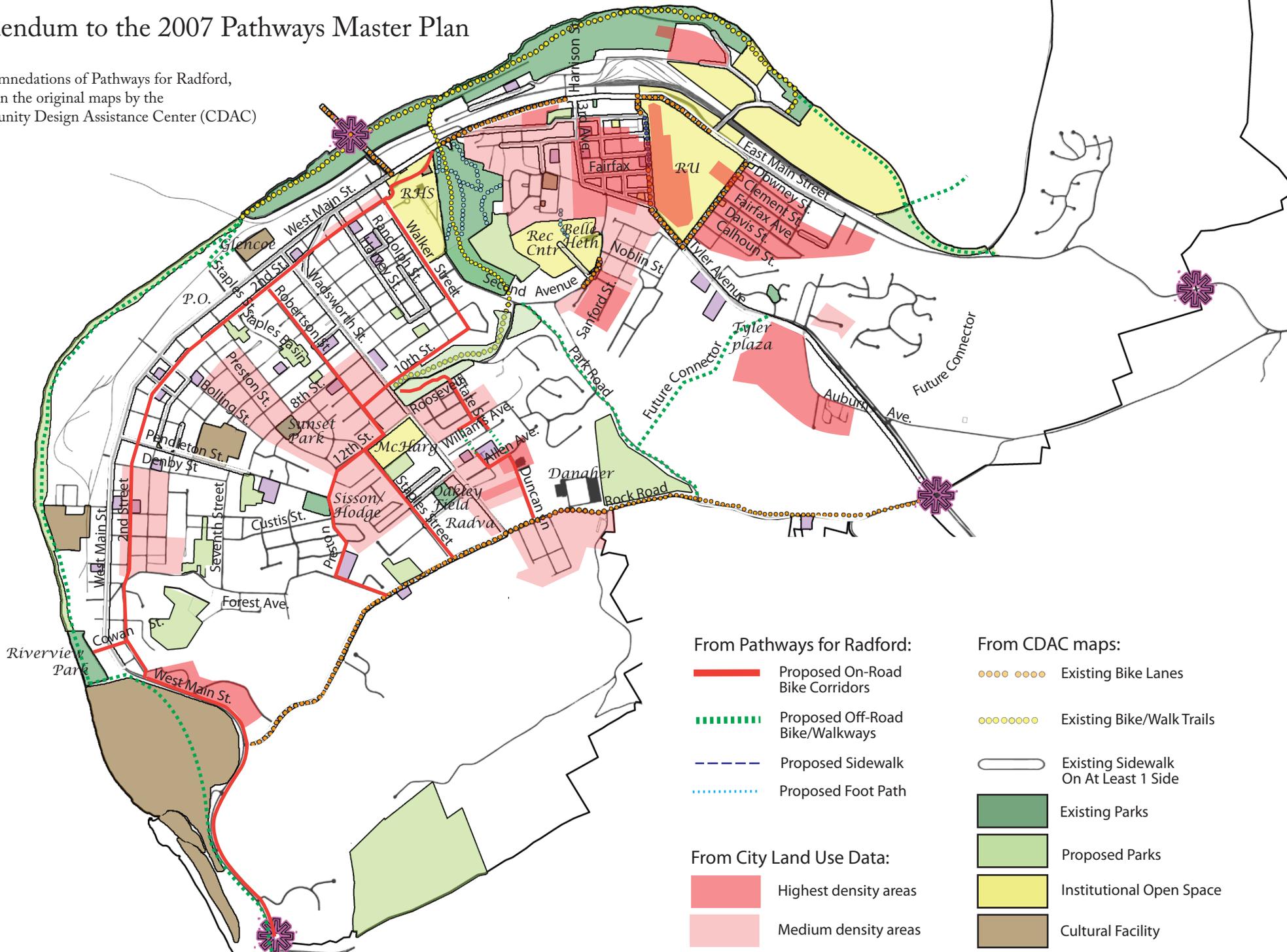


Figure 4. Recommended priority 2 shared-road bike corridors.

D. Shared-Road Bike Facilities – Priority 3 (Figure 5)

West End North-South Corridor: Denby to Custis

How: 2nd St. → Denby St. → 7th St. → Custis St. → Preston St. Note: CDAC recommended Pendleton instead of Denby, but we thought Denby might be a better alternative due to less traffic.

Pro: Would provide a north-south connector at the west end of town. We recommend this instead of the Forest Avenue Corridor recommended by CDAC because it is less hilly and less trafficked than Forest Ave. We felt Forest Avenue, while better as a more direct route and further west, would be more expensive to make safe for cyclists. Even then, the long uphill grade would make north to south travel undesirable on Forest.

Con: Custis has lots of on-street parking.

East Main to Riverway Connector

How: East Main St. → Harrison → West St. (or via an off-road trail) → Riverway at Dudley's Ferry

Pro: There needs to be a more direct connection between the east-end retail district and the bikeway/walkway.

Con: Cyclists from the Riverway would be entering West St. on a blind curve. We may need to install speed bumps on West Street, straighten West Street, or construct an alternate bike-walk route that avoids West Street.

East End Loop

How: Extend corridor on East Main from University Drive → future connector road (or off-road multi-use greenway) → Tyler Ave. from Rock Rd to Jefferson St.

Pro: Would make a complete loop around the University and, via Rock Road, around the city. Bike lanes would make it safer for cyclists on E. Main. It would provide safe bike commuting to RU and downtown for current and future housing developments in the east end. New River Trail may connect Radford to the Huckleberry Trail by this route. The East main-Tyler Ave. connector is planned for completion in 2013, according to the city Comprehensive Plan 2030. The Tyler Avenue section would become assessable to B level cyclists. Currently, cyclists are at risk as motorists try to squeeze past cyclists in the same lane, rather than change lanes to pass. Future connectors off Tyler to East Main and to Park Road will increase the need for safe access to those connectors via Tyler Ave.

Con: This loop would probably not be for children, but allow for B level cyclists. East Main has a turning lane at Jefferson and some on-street parking to deal with.

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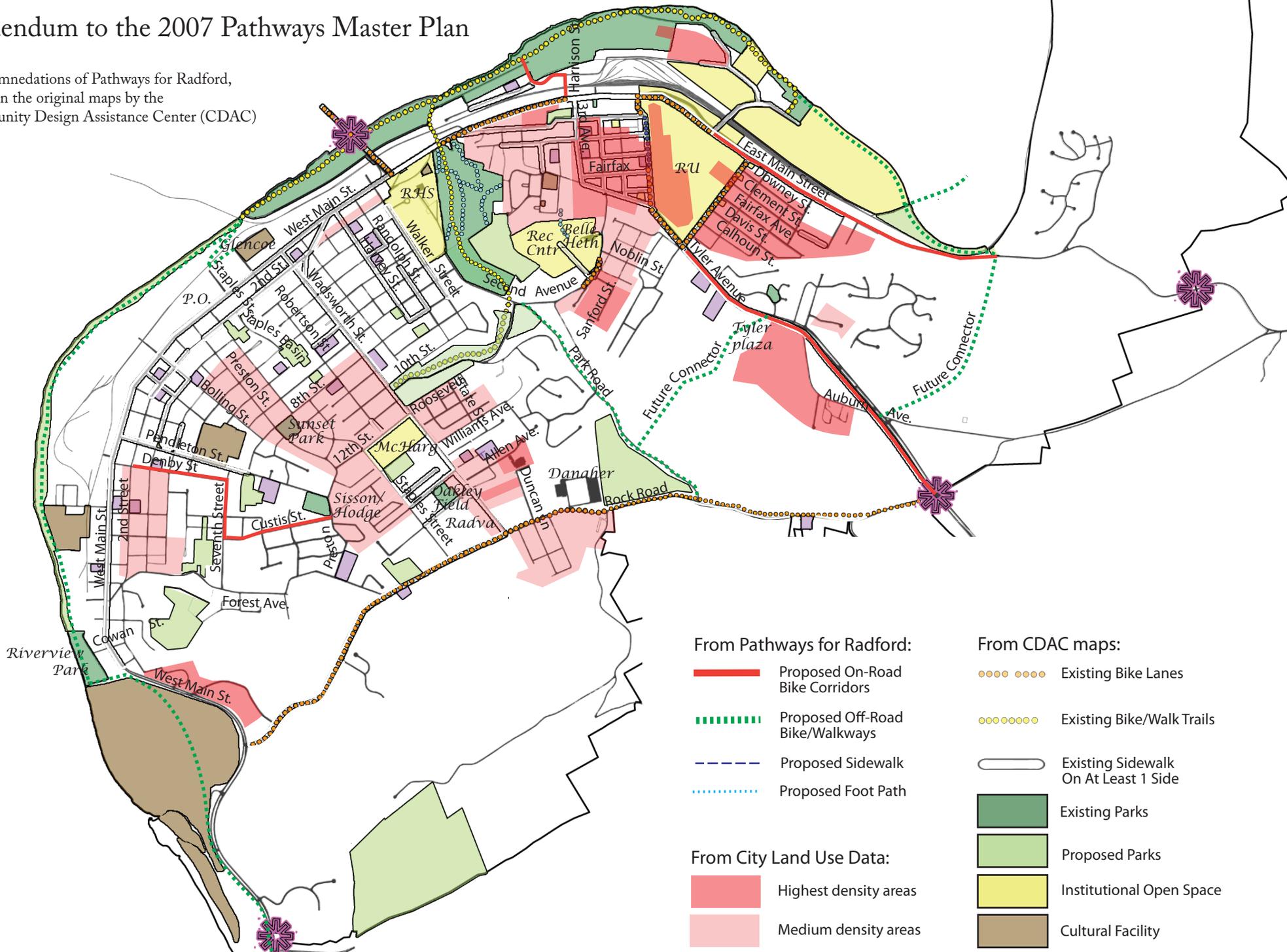


Figure 5. Recommended priority 3 shared-road bike corridors.

E. Other Corridors Considered (Figure 6)

For now, we defer ranking the following possible corridors. After some of higher priority corridors have been built, the City can reassess whether these are needed.

Tyler Ave. - Park Road Connector

How: Preferably an off-road multiuse trail paralleling the planned connector from Tyler Ave. → Park Rd. (also preferably off-road multiuse).

Pro: Would create a corridor for people in the east end to get to Wildwood, Bisset, High School and library. If Park Road and the two future connectors are built as off-road greenways, Radford could have a family-friendly mostly greenway loop of about an 8 miles in the east end (except for a section on Tyler Ave). If the old landfill at the corner of Park and Rock Road is developed as a recreational facility, this route would be a direct connector for University students and others in the east end.

Con: Construction of the road not planned to begin until 2012.

Forest Avenue Corridor

How: Forest Ave connects 2nd St. to Rock Road.

Pro: It's a corridor with no turn-offs. It connects north and south parts of the far west end. It's an attractive route. It's quite wide and has little parking.

Con: North to south is uphill most of the way. As a desirable motorist route, it probably has more traffic than a residential street. Because of higher vehicular speeds, it may need bike lanes and thus might be more expensive than the proposed Denby-Custis route. Even with bike lanes, it may not be attractive to Level C cyclists because of the grade and perhaps the traffic.

7th or 8th Street Corridor

How: The figure shows several alternatives. The 8th Street route was shown the CDAC report. We don't know if the 7th street route was considered. The 7th street route seems to me to be straighter, with less traffic and a more attractive route to ride. 8th street between Robertson and Taylor is narrow and has parking on one side that may be essential for residents. The 8th St route would allow crossing at the semaphore on Wadsworth, and would not need a trail through the cemetery between Bolling and Pendleton, or a half-block connector trail between Randolph and Harvey streets.

Pro: Provides an east-west corridor through the west end about mid-way between the Second Street corridor and the Rock Road corridor.

Con: Probably more difficulties than with the Diagonal West (Preston-10th-Walker) corridor and may not be necessary once the latter is established. 8th is a busy street that is very narrow in spots. 7th would need more connecting trails (and folks might strongly object to using a cemetery road or skirting the edge of the cemetery). For both alternatives, CDAC recommends building a trail between Forest Ave and Custis, perhaps to avoid the steep grade at the west end of 7th St.

Bolling-Preston Corridor

How: 2nd St. → Bolling St. → 3rd St. → Preston St. → 7th or 8th St Corridor.

Pro: Like the Pendleton corridor, this splits the distance between the Robertson Corridor and the Forest Ave. Corridor.

Con: Besides connecting the 2nd St and 8th (or 7th) Street corridor, this doesn't connect much. It is essentially 6 blocks long, but because of turns to avoid hills, takes 8 blocks of pedaling. Preston may have somewhat heavy traffic.

Staples Street Basin Park and Trail.

How: Bike lanes or shared roadway on Staples St north from Railroad or Unruh Dr.

(Glencoe) to W. Main. Bike/walkway following Staples St right of way to 7th St, 8th St, or 12th St. (Staples South).

Pro: Connect the future Riverway near Glencoe to residential areas West of Wadsworth.

Creates a new pocket park. City needs to work on storm water in this valley and could make a park and trail in the process. If the expense could be justified by storm sewer renovation, Staples Street could become a nice straight north-south route that is part greenway.

Con: It's a steep valley on all sides except the north end, so getting to and from this corridor to streets on either side would be difficult for most cyclists. The steepness of the valley may create a sense of isolation that would be attractive to some and fearful to others. A transportation function may not be strong, especially if the proposed Central Corridor (Robertson-12th-Staples) is approved.

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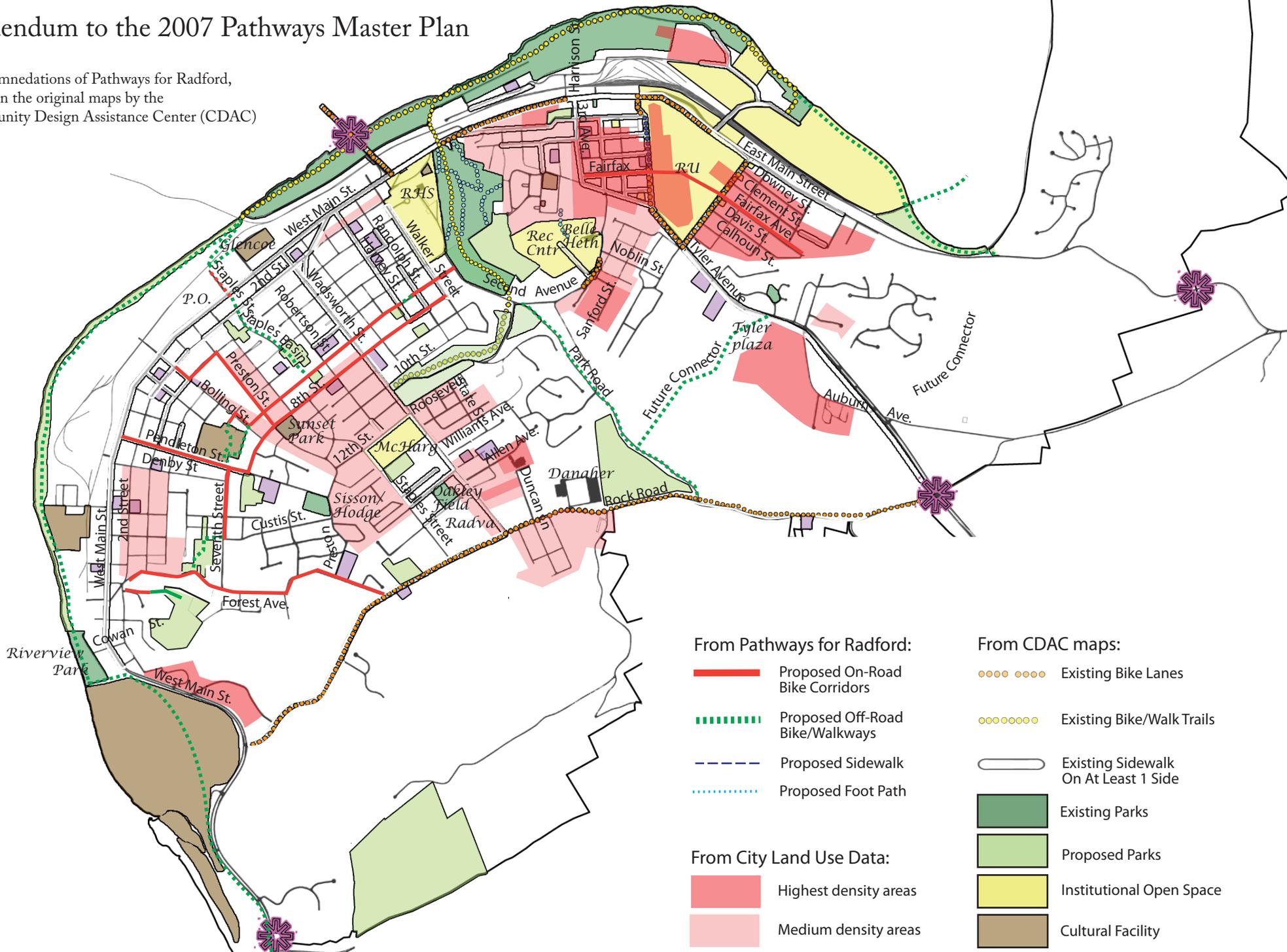


Figure 6. Other possible shared-road bike corridors.

IV. Considerations for Sidewalk Priorities

The following are considered important criteria for deciding where and how to build sidewalks¹:

1. Traffic speed and street classification. Arterial streets should take precedence because they generally have higher pedestrian use and have greater need to separate pedestrians from motor vehicles.
2. Pedestrian destinations and directness. Higher priority within about a half mile radius from schools, commercial areas, recreation areas, work places, transit stops, etc. The more direct the route, the higher the potential pedestrian use.
3. Areas of greater source of pedestrians, such as neighborhoods with higher densities, especially of children or elderly, and low vehicle ownership, such as retirement communities, subsidized housing projects.
4. Missing links and connectors in walking networks.
5. Vehicle/pedestrian crash data. <http://www.walkinginfo.org/facts/pbcats/about.cfm> gives the tools for analyzing crashes to provide the necessary information; information generally not included in crash reports.
6. Pedestrian/cyclist safety surveys can suggest areas where accidents are waiting to happen. (See review and data in Schneider, R. J., et al. 2004 An accident waiting to happen: a spatial approach to proactive pedestrian planning. *Accident Analysis and Prevention* 36:193-211)
7. Counts of pedestrians, motorists, and cyclists. However, pedestrian counts initially will underestimate need, because people do not walk when there are inadequate pedestrian facilities.
8. Neighborhood priorities.

What follows is a first attempt to identify priorities using the first 4 criteria in order to show the kind of analysis that could be performed. We do not have information about the other criteria to be able to include them in this preliminary analysis. At this point, scoring is based on best guesses, and is only intended to promote discussion. Clearly, more data and discussions with city staff are needed before a final plan is drafted. Pathways for Radford could help the city collect some of the data.

¹FHWA Course on Bicycle and Pedestrian Transportation Lesson 3 Bicycle and Pedestrian Planning Overview.

http://safety.fhwa.dot.gov/ped_bike/univcourse/pdf/swless03.pdf

FHWA 2002. *The Pedestrian Facilities User Guide—Providing Safety and Mobility*

http://www.walkinginfo.org/pedsafe/pedsafe_downloads.cfm

Huntsville, Alabama “Sidewalk Improvement Plan for 2007-2011”

<http://www.hsvcity.com/planning/SidewalkImprovementPlan2006.pdf>

V. Summary of Sidewalk Priority Recommendations

Notes about the following table:

The table is a summary. To see what assumptions and information went into the numbers, see Appendix C (current sidewalks on some Radford streets, a description of various possible bike destinations in Radford, and a more detailed version of this table)

Streets are not included if a) they already have reasonable pedestrian facilities (e.g. Jefferson, Sundell, George St., W. side of RU campus), or b) they are too small or local to be in the competition for high sidewalk priority.

It is assumed that new streets, such as the future connectors between Main, Tyler and Park Road will have sidewalks on both sides, or a separate bike/walkway.

Street Rank. 3=primary arterial streets; 2=secondary arterial streets; 1=longer neighborhood streets.

Pedestrian Destinations. These are areas that pedestrians are likely to walk to, with greater priority for child destinations. Circles with $\frac{1}{4}$ mile radii were drawn around each major pedestrian destination and the major streets falling in that area were listed. Each number is the sum of all destination priorities (3=schools, 2=recreation, 1=retail & industry) and the street's proximity to each (2=contiguous, 1=within $\frac{1}{4}$ mile). See Appendix C for all the destinations and numbers.

Pedestrian Sources. This gives higher priority to areas of higher population density and higher concentrations of children. Each is the sum of its priorities (2=higher child area; 1=low child area) and densities (2= street goes through or along side a highest density area, 1= street goes through or along side a medium density area only). No points for streets passing only through a low density areas.

Sidewalks Now. Priority is given to streets with little or no sidewalk on either side. 2=little or no sidewalks on either side of the street; 1=sidewalk on only on one side of the street. See Appendix C file for detailed descriptions of current sidewalks on the streets considered for this report.

Total Points. This is the sum of the Street Rank, Pedestrian Destinations, and Pedestrian Sources, multiplied by the Sidewalks Now score in each row. Multiplying tends to increase the priority of streets that have little or no current sidewalks.

Comments. This column mentions some other considerations that may justify, raise, or lower a street's priority. Where we have adjusted a street's priority, we have put a plus or minus sign by the total points and highlighted the text.

PRIORITY ONE SIDEWALKS						
Street	A Street Rank	B Pedestrian Destinations	C Pedestrian Sources	D Side- walks Now	TOTAL PTS (A+B+C) x D	Comments
Scott/Park/Second Avenue	3	12	5.5	2	41	Spotty sidewalks not set back from road. Important connector from schools to Rec center. Proposed bike route.
Robertson Street	2	11	3	2	32	Direct route to McHarg school. Proposed bike route.
Staples St.	2	10	3.5	2	31	Essential school access for trailer park kids, but no sidewalk on trailer park side of street.
Preston Street	2	10	3	2	30	A major route to McHarg from West and north. Proposed bike route.
12th Street – from Staples to Preston	2	10	3	2	30	Important school access for kids from west end. Proposed bike route.
Noblin & Hammett Streets	2	7	6	2	30	Busy route for traffic from west end to RU & Tyler. School route to Belle Heth and RU
8th Street Or 7th Street	2	9-10	3	2	28-30	8th St. has more traffic, currently less walkable than 7 th St. Closer to Riverway & Sunset Park.
east 2nd St. - from Arlington to Walker	1	9	3	2	26	School route. 2 nd St is a proposed bike corridor.
Allen Ave	0	5	7	2	24	School route for Willowwoods kids, unless a preferred route through Radford Village is built.
10th St – from Walker to Robertson	2	8	2	2	24	Connector to Riverway. Proposed bike route
south Wadsworth – from 8th to Rock Rd	3	13	7	1	23	Sidewalk needs to be set back from busy road to be a safe route to school.
Pendleton St. – from 8th to Preston	2	9	0	2	22	Major route to McHarg school.
Williams Ave	1	7	3	2	22	School route. Connector to Park Road. Possible bike/walk connector.
Sandord Street	0	7	4	2	22	Narrow street with lots of cars. A school route for kids from large apt complex.
Walker Street	2	10	0	2	20 +	Much foot and car traffic on football days. Proposed bike route.

Addendum to the 2007 Pathways Master Plan

Recommendations of Pathways for Radford, based on the original maps by the Community Design Assistance Center (CDAC)

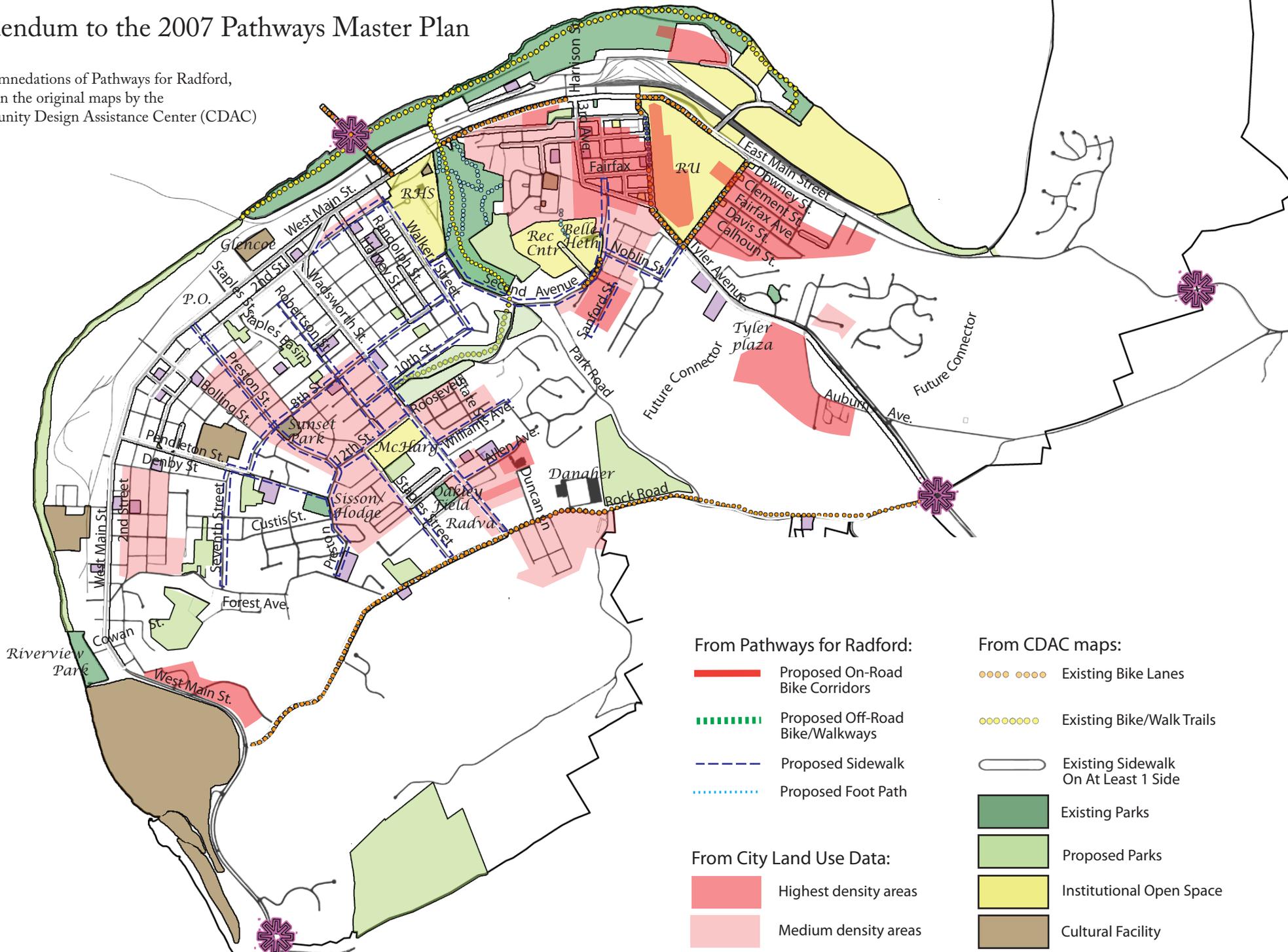


Figure 7. Recommended priority 1 new sidewalks.

PRIORITY TWO SIDEWALKS						
Street	A Street Rank	B Pedestrian Destinations Priority + proximity	C Pedestrian Sources Priority+ density	D Side- walks Now	TOT PTS (A+B+C) x D	Comments
Roosevelt St. or Pershing St.	0	7	3	2	20	Possible school routes in a kid-dense area.
mid Main St. - S side from Harrison to Grove	3	14	2	1	19	Pedestrians commonly using south side bike lane as a sidewalk shows need. Sidewalk possible near Grove?
west 2nd St. - from West Main to Page	1	5	3	2	18	Proposed bike corridor.
east Rock Road – from Wadsworth to Tyler	3	3	3	2	18	Residential areas are on south side of the road. More development planned.
East of RU campus	1	4	3	2	16	Large high density area. Student traffic during class changes and nights.
east Main St. – from Tyler to Highland apts.	3	11	3	1	17	Paths show need for sidewalk.
Auburn Ave – Tyler to Tyler loop	1	2	4	2	14	Large high density area. Would provide pedestrian access to Tyler Ave.
State Street	0	3	3.5	2	13	Possible Riverway connector and school route for communities E of Wadsworth.
Harrison St.-West St.	1	5	0	2	12	Connector from downtown to Riverway Has commercial value.

Addendum to the 2007 Pathways Master Plan

Recommendations of Pathways for Radford, based on the original maps by the Community Design Assistance Center (CDAC)

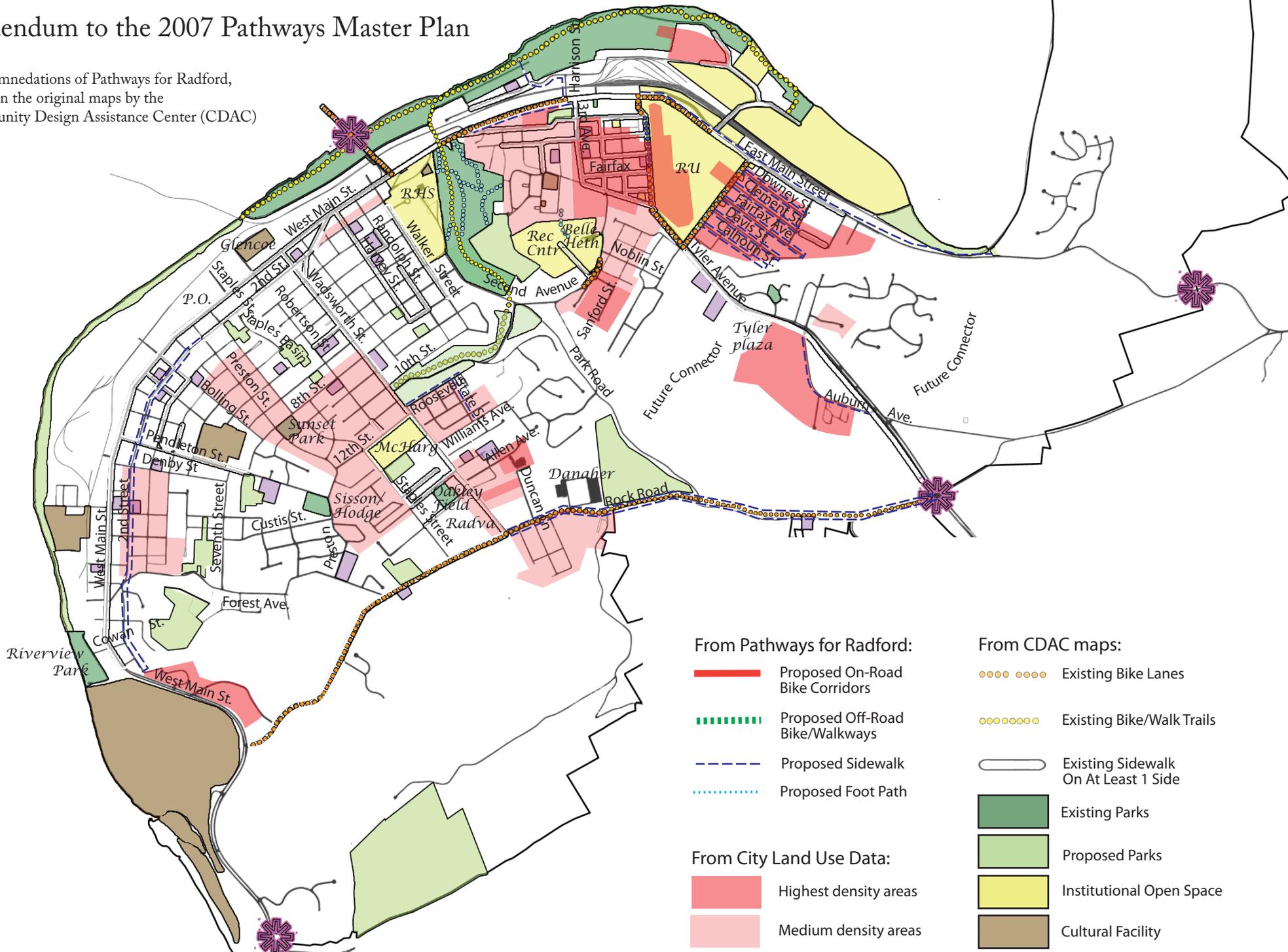


Figure 8. Recommended priority 2 new sidewalks.

PRIORITY THREE SIDEWALKS						
Street	A Street Rank	B Pedestrian Destinations Priority + proximity	C Pedestrian Sources Priority+ density	D Side- walks Now	TOT PTS (A+B+C) x D	Comments
Tyler Avenue – west side from Hammett to Auburn	3	8	0	1	11	For residents south of Tyler to walk to Tyler Plaza without crossing Tyler twice. Use demonstrates need.
Dalton Drive S side from RHS to Main St.	3	11	0	1	14 -	A busy street along a school. A connector to Wildwood and Riverway. But current sidewalks may be adequate.
Park Road from 2nd Ave. to Rock Rd.	3	3	0	2	12 -	Extension of Riverway greenway preferred over street with sidewalks.
Custis Street	1	3	0	2	8 +	School route. Much within ½ mile of McHarg. Proposed bike route.
Jeffries St	1	0	4	2	10	Only ½ mi. to Riverview Park, but direct access needed to Midkiff Ln.
Forest Avenue	2	0	3	2	10	Faily busy thoroughfare. Attractive for walking.
Cowan St.	0	4	0	2	8 +	The only route to Riverview Park.
mid Rock Road - N side, Inglewood to Wadsworth	3	6	3	1	12 -	Needed if people would walk to school and work from west end.
mid 2nd Street – S side from Carter to Arlington	1	7	0	1	8	Proposed bike corridor. Should have sidewalks on both sides if the rest of 2nd St. does.
PEDESTRIAN TRAIL (A dirt or gravel path; not a sidewalk)						
Wildwood to 2nd Ave. Trail	NA	12	5	NA	17	See following text.

Wildwood to Second Avenue Trail

How: Extend the dirt trail in Wildwood over a small piece of private property to the Recreation Center, then extend the trail over School Board property past Bell Heth School to Second Ave.

Pro: It would give students in High and Middle Schools access through Wildwood to the Recreation Center. Would tie the Recreation Center to the park and allow more WW activities to start/finish in the Recreation Center. It would connect the existing trail from 4th Ave. and thus provide a route to the Recreation Center for people from 3rd Ave to 9th Ave. Unpaved trail would be relatively cheap to build.

Con: Easements from a private landowner and the School Board. Worry about safety of children in the big bad woods.

Addendum to the 2007 Pathways Master Plan

Recommendations of Pathways for Radford, based on the original maps by the Community Design Assistance Center (CDAC)

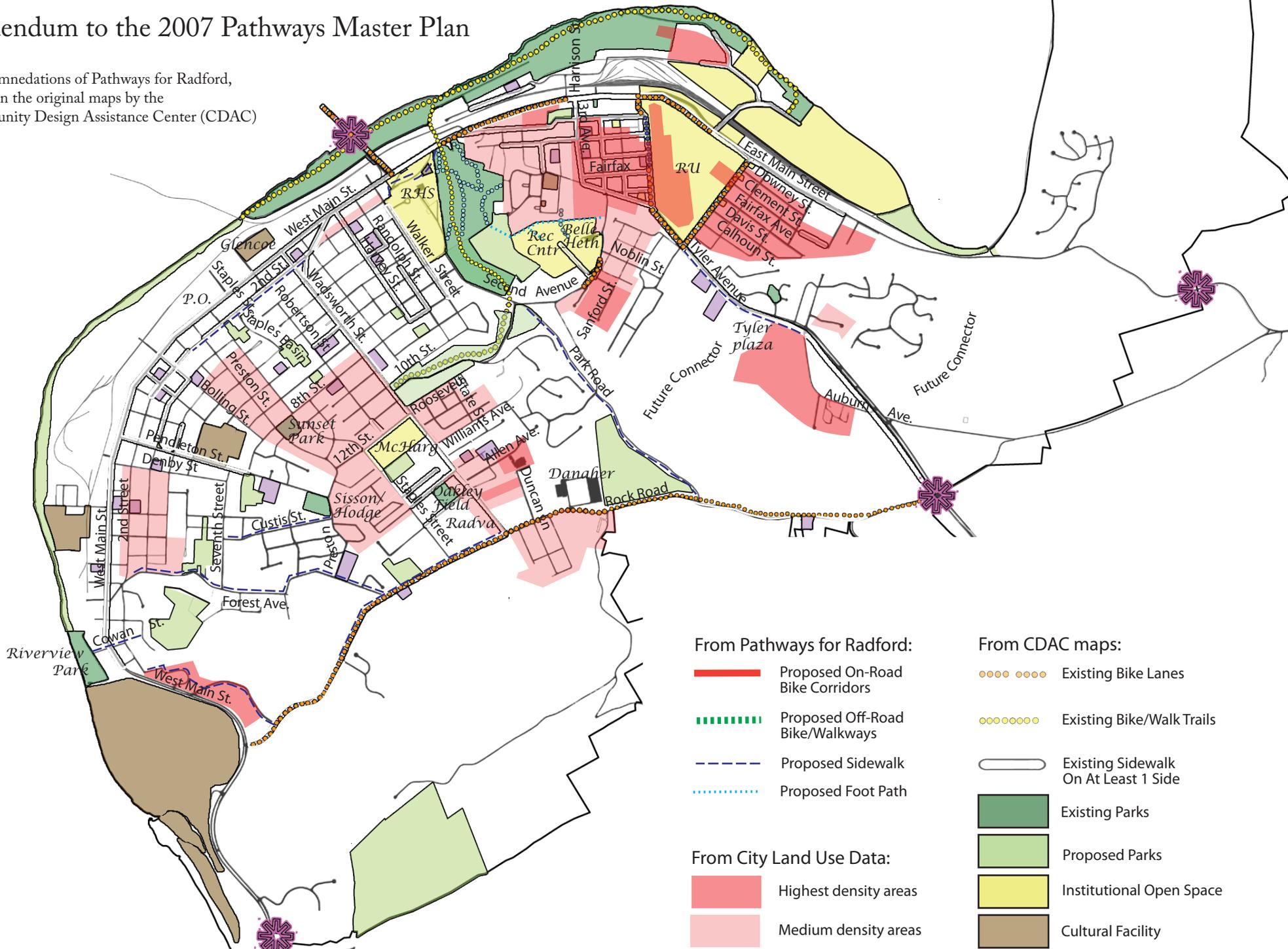


Figure 9. Recommended priority 3 new sidewalks and pedestrian trail.

OTHER SIDEWALKS CONSIDERED						
Street	A Street Rank	B Pedestrian Destinations	C Pedestrian Sources	D Side- walks Now	TOTAL PTS (A+B+C) x D	Comments
Bolling Street	1	7	3	2	22 -	Not a high priority if sidewalks put on Preston.
West Main St. - from Robertson to Highland	3	9	0	1	12 -	Sidewalk needed on N side of street?
north Wadsworth - from Main to 8th	3	5	0	1	8	
Duncan Lane	0	4	0	2	8	Not sure sidewalk to Rock Rd. is needed.
west Rock Road - from W. Main to Inglewood Dr.	3	0	0	2	6	Route for folks on Jeffries St, to work, parks, schools in the west end.

Appendix A. Summaries CDAC's "2007 Pathways Master Plan" Recommendations

The Community Design Assistance Center team divided Radford into 7 sections, as shown in the following map (red inset on the right) and summarized here:

Section 1. The far eastern end of Radford.

Section 2. The neighborhoods of College Park and Haven Heights.

Section 3. Includes the entire Radford University campus, three neighborhoods adjacent to the campus, and frontage along the New River stretching from Veterans' Park to the convergence of the railroad lines and the New River below High Meadows.

Section 4. Downtown business district, Plan A neighborhood, Bisset and Wildwood Parks, Monroe Terrace, Radford Village, Dudley's Landing, and the Route 11/Memorial Bridge gateway.

Section 5. The west corner of the City including Riverview Park, the Wadsworth Street Green Corridor, Westview Cemetery and the Staples Street drainage basin.

Section 6. Bounded by Rock Road to the south and the neighborhoods of Section Five to the north and west.

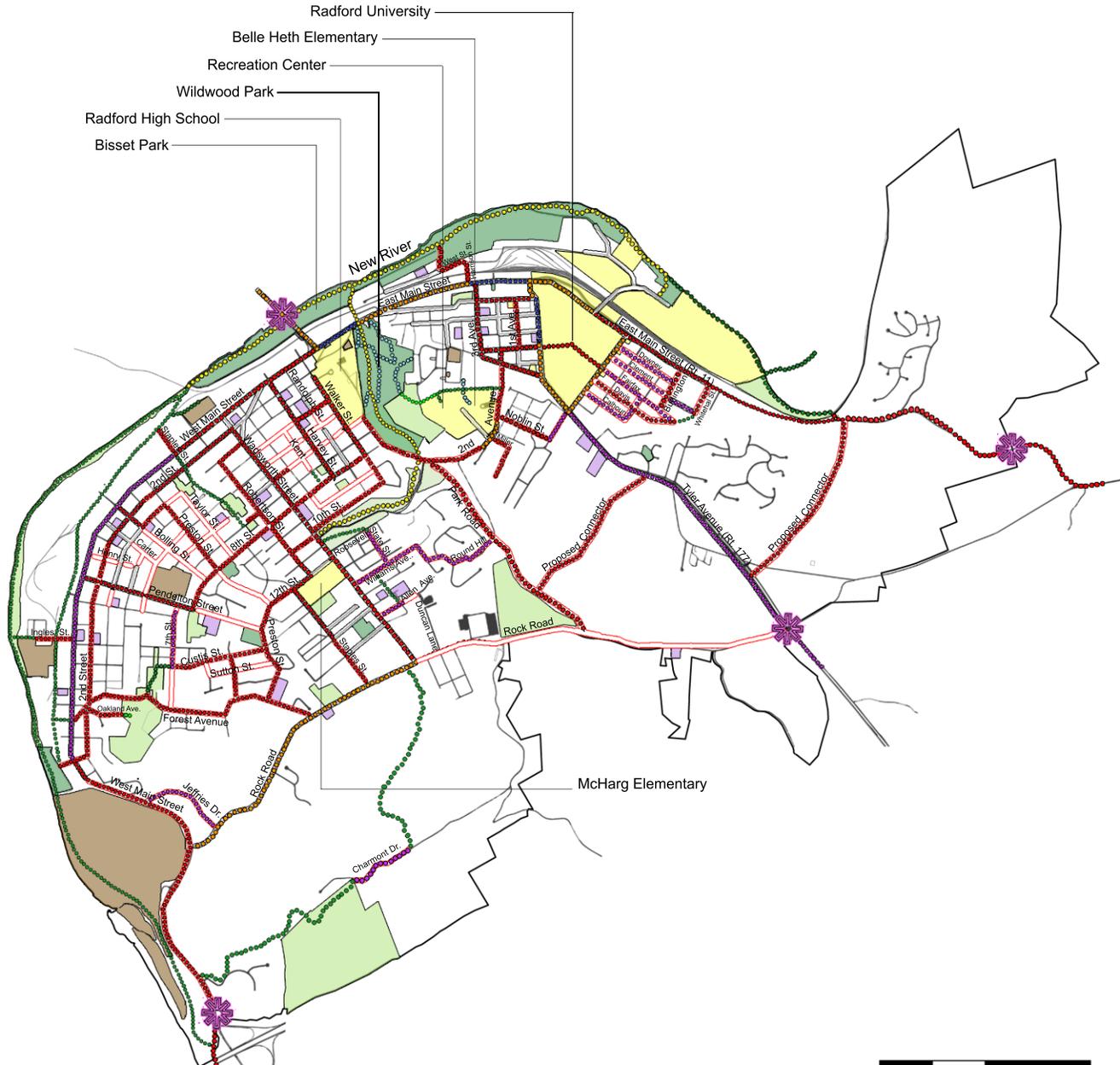
Section 7. The gateway of Route 232 (West Main Street) which is a major entry into the City of Radford from I81 exit 109.

CDAC made most recommendations by city section, but they did identify some recommendations as their highest overall priorities.

1. CDAC Bike Facility Recommendations. Within each list, 1 is the highest priority.

Overall Highest Priority Recommendations p. 13 (All in Radford's Section 5):

1. Staples Street basin. They are unclear about exactly what is the highest priority, but it sounds like
 - Create a new park in the basin.
 - Create trail through the basin.
 - Connect the basin trail to current Riverway at 10th and Wadsworth with bike lanes and sidewalks on streets (from their map, it looks like 7th St → Robertson → 10th St.)
 - Eventually connect the basin trail to the Riverway via Staples St → RR right-of-way → future trail extension along the New River (See priority 3).
2. Bike lanes and sidewalks along Second St from Cowan St. → Dalton Dr. → E. Main St. (they show bike lanes already between Wadsworth and E. Main—true??)
3. Extend Riverway from Bissett to Riverview Park.



Radford, Virginia 2007 Pathways Master Plan

Overall City:
Existing and Potential
Pathways



Legend:

- Existing Park
 - Proposed Park
 - Cultural Facility
 - Church
 - Institutional Open Space
 - Gateway
-
- | | Existing | Proposed |
|------------------------|--|--|
| Bike Lanes | | |
| Shared Roadway | | |
| Trails | | |
| Natural Surface Trails | | |
| Sidewalks* | | |

* Existing sidewalks may be on one or both sides of the street. Proposed sidewalks are intended to be on both sides of the street



This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

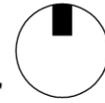


Figure 10. CDAC's overall summary of proposed bike and pedestrian facilities

Section 1 Priorities p. 12

1. Bike lanes on Rt. 11 from East main toward Christiansburg, to connect to a possible New River Valley Bikeway route.

Section 2 Priorities p. 19

1. Make Tyler Ave a shared roadway from Jefferson St to Rock Road.
2. Put sidewalks on Rock road from Wadsworth St. to Tyler Ave.
3. Put bike lanes and sidewalks on Park Road from 2nd Street to Rock Road.

Section 3 Priorities p. 21

1. Put bike lanes all along West Fairfax St. and through Radford University campus. Make East Fairfax a shared roadway (their map shows bike lanes on Davis, but not Fairfax – why?)
2. Put sidewalks on Hammett and Noblin streets. Make Hammett a shared roadway and put bike lanes on Noblin (Why the difference?)
3. Put sidewalks on streets east of RU. They don't say which are most important.

Section 3 Priorities p. 25

1. Put bike lanes and sidewalks on Scott St/2nd Ave. from 6th St to Lawrence.
2. Put bike lanes and sidewalks all along 8th Street from Walker to Pendleton (See also section 5 & 6 recommendations)
3. Put bike lanes on 3rd Ave between E. Main St and 2nd Ave. (would have to connect via Lawrence or Fairfax)

Section 5 Priorities p. 27

1. Extend the Riverway from Bisset Park around the RR trestle and to Riverview Park.
2. Put bike lanes and sidewalks on 2nd St. from Cowan St to Dalton Drive to E. Main St.
3. Convert Staples Street Drainage Basin into usable open space and make trail connections to the Riverway [presumably at each end].
4. Their recommendation "Implementing bike lanes and sidewalks from Eight Street to Seventh Street" makes little sense to me, but they may mean two things:
 - a) Put bike lanes and sidewalks on 7th to connect a trail in the Staples Drainage Basin via Robertson St and 10th St to the current Riverway terminus at 10th and Wadsworth.
 - b) Put bike lanes and sidewalks on 8th St. from Walker St. to Pendleton St. (a recommendation in sections 4 and 6).

Section 6 Priorities p. 30

1. Put sidewalks along rock Road from Wadsworth St. to Tyler Ave.
2. Put sidewalks and bike lanes on Forest Ave. from 2nd St. to Rock Road.
3. Put bike lanes along Wadsworth St.
4. Put sidewalks and bike lanes from Forest Ave. to the Riverway at Wadsworth via Preston St → 12th St. → Robertson St. → 10th St.

Section 7 Priorities p. 32

1. Put bike lanes and sidewalks on W. Main from Highland Ave. to city's industrial park at Rock road.
2. Designate Jeffries Drive as a shared roadway.

2. CDAC Sidewalk Recommendations These were unranked in the report, so are not given numbers here.

Overall Highest Priority Recommendation

Sidewalks and bike lanes to extend the length of Second Avenue. This provides a backbone for the western portion of the city.

Section 1 Priorities – None.

Section 2 Priorities

- Sidewalks on Rock Road from Park Road to Tyler Avenue, making the Rock Road Green Corridor a long walkable and bikeable option for users.

-Bike lanes and sidewalks on Park Road. These additions would provide connections to Rock Road and Second Street, and ultimately the Radford Recreation Center.

Section 3 Priorities

- Sidewalks and bike lanes on Noblin Street and Hamett Avenue is a vital step, linking Radford University to Second Avenue and the Radford Recreation Center.

- Developing sidewalks on streets east of Radford University, because this area has a high volume of pedestrian traffic due to its proximity to downtown Radford and Radford University.

- Converting the abandoned railroad trestle over the New River into a walkable connection to nearby Pulaski County residential communities and the River's recreational opportunities.

Section 4 Priorities

- Connecting Second Avenue and the Radford Recreation Center with sidewalks.

- Sidewalks on the Eighth Street could serve as the pathway backbone for these neighborhoods. These bike lanes and sidewalks could link a significant portion of the City to the overall pathways network.

Section 5 Priorities

- Bike lanes and sidewalks along the length of Second Street provide walkers and bikers with the ability to walk or bike along a road with significantly less traffic volume than Main Street and help to link neighborhoods and important corridors to the Recreation Center and to the southern portions of Wildwood Park.

- Converting the Staples Street Drainage Basin into usable open space while creating connections to The Riverway. Based on proposals put forth by the 2006 Open Space Master Plan, this corridor could be converted into a park space similar in nature to Wildwood Park. A proposed natural surface trail along this corridor would begin to link the neighborhoods around the Staples Street drainage basin and the proposed extension of The Riverway.

- Extend bike lanes and sidewalks described in Section 4 from Eighth Street to Seventh Street to Forest Ave.

Section 6 Priorities

- Sidewalks along Rock Road, which is likely to become the focus of future development opportunities in the City of Radford.
- Sidewalks on Forest Avenue from Main Street to Rock Road, the best street to link rock road and Main Street.
- Sidewalks on Preston Street to Twelfth Street between Wadsworth Street and Forest Avenue to link major destination points Sunset Park and Sisson Park to the overall pathways network.

Section 7 Priorities

- Sidewalks on West Main Street.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Rhode Island Department of Transportation
ENGINEERING DIVISION
Two Capitol Hill, Rm. 226
Providence, RI 02903-1124
PHONE 401-222-2023
FAX 401-222-3006; TDD 401-222-4971

Date: November 8, 2005

TAC 0054

To: All Consultants

Subject: DPM 920.06 - Bicycle Routes Share the Roads Signs
Attachment: Bicycle Route Suitability Report, Revision 2
Revised: 11/08/05

Attached for your use is the revised Bicycle Route Suitability Report. Effective November 8, 2005, all Designers will use the attached report when reviewing the suitability of a route for use by bicyclists.

As the Department continues its DPM review process, different DPMs will be issued upon their completion. Once a DPM is released, a copy of it will be posted on the Department's website, <http://www.ridot.us/PMP>. As a reminder, the DPMs may not be issued in sequential order. Therefore, we recommend a working binder be maintained until the entire Design Policy Memo and Procedures Manual is completed.

If you have any questions or require additional information, please contact this office or RIDOT Project Manager. Questions/comments may also be directed to RIDOTDesign@dot.state.ri.us. Electronic copies of all recently released Design Policy Memo's, To All Consultants letters, and attachments may be found on the Department's website <http://www.ridot.us/PMP>.

Sincerely,

Kazem Farhoumand, P.E.
Deputy Chief Engineer

Attachment



STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
BICYCLE ROUTE SUITABILITY REPORT

PROJECT: _____

CONSULTANT: _____ REVIEW DATE: _____

ROUTE NAME & NUMBER: _____ CITY/TOWN: _____

ROADWAY LIMITS: _____

Technical Paper No. 130 Roadway Classification _____

"Guide to Cycling in the Ocean State 2003" Roadway Designation _____

The State Highway noted above is being considered for signage as a "Signed Shared Roadway" in accordance with the criteria set forth in RIDOT DPM No. 920.06. The following information is to be provided to the Deputy Chief Engineer of the Design Section for consideration:

ITEM NO.	DESCRIPTION	COMMENT NO. (SEE ENDNOTES)
1	Posted Speed Limit	
2	85 th Percentile Speed (Radar speed study)	
3	Average Annual Daily Traffic (AADT) Volume	
4	Percent Truck Traffic Volume	
5	Number of Travel Lanes	
6	Width of Travel Lanes	
7	Width of Shoulders	
8	Delineation of Centerline & Shoulders	
9	Sidewalk	
10	Curbing	
11	On-Street Parking	

920.06A-1

Created: 5/26/04 Revised: 11/08/05

DPM Attachment

Electronic copies of all Design Policy Memos and attachments may be found at
<http://www.ridot.us/PMP>



ITEM NO.	DESCRIPTION		COMMENT NO. (SEE ENDNOTES)
12	Frequency of Curb Cuts	Moderate	
		Heavy	
		Commercial	
		Residential	
13	Horizontal Alignment Constraints		
14	Vertical Alignment Constraints		
15	Intersections & Corresponding Stopping Sight Distances		
16	Stop Controls Along Roadway		
17	General Roadway Conditions	Surface	
		Potholes	
		Cracking	
		Catch Basin Types	
		Sand & Debris	
18	Are all grates bicycle-safe? (If no, please indicate which ones)	Yes: _____	No: _____
18A	Total Number of Grates: _____		
18B	Location of Grates (list): _____		
19	Off-Road Obstacles	Mailboxes, signs	
		Poles	
		Outcrops	
		Hanging Limbs	

920.06A-2

Created: 5/26/04 Revised: 11/08/05

DPM Attachment

Electronic copies of all Design Policy Memos and attachments may be found at

<http://www.ridot.us/PMP>



ITEM NO.	DESCRIPTION		COMMENT NO. (SEE ENDNOTES)
20	Facilities List on Roadway	Parks	
		Schools	
		Recreational Fields	
		Historical Districts	
		Commercial Establishments	
21	Expected Bike User Type	A – Advanced	
		B – Basic	
		C – Children	
22	Location of nearest Bike Route/Path as potential link		
23	Additional Observations		
24	Accident History (Provide Crash Data for the previous three years according to type, location, injury, roadway surface and time)		

COMMENTS

(Expand/Delete as needed)

920.06A-3

Created: 5/26/04 Revised: 11/08/05

DPM Attachment

Electronic copies of all Design Policy Memos and attachments may be found at
<http://www.ridot.us/PMP>



Based on the information contained in the above "Bicycle Route Suitability Report", the reviewing engineer:

Recommends ()

Does not recommend ()

designation of this roadway as a Rhode Island Bicycle Route

Reviewing Engineer:	Date:
Approved Deputy Chief Engineer:	Date:
Approved Chief Engineer:	Date:

920.06A-4

Created: 5/26/04 Revised: 11/08/05

DPM Attachment

Electronic copies of all Design Policy Memos and attachments may be found at
<http://www.ridot.us/PMP>



APPENDIX C: MORE INFORMATION ON SIDEWALKS

Current condition of sidewalks on some Radford Streets

Arlington

Sidewalks on both sides from Main to Kent Street.

North side: Sidewalks only from Kent to Wadsworth. Not set back from street.

Auburn Ave. No sidewalks.

Bolling St.

West side: Sidewalks present from 1st to 3rd only.

East side: No sidewalks.

Dalton Drive

South side. Sidewalk present from Walker to Dehaven.

North side. Sidewalk present from DeHaven to Main.

Eight Street. No sidewalks, except for 1 block, Randolph to Harvey.

Forest Avenue. No sidewalks, except a half block by a church on Preston.

Hammett Street. No sidewalks.

Jefferson Street. Has good sidewalks on both sides all the way.

Main Street.

South side: Sidewalks present from Highland Ave in the west to Whitehall St, except for a gap between Wildwood Park Drive and Harrison Street. Pedestrians in the bike lane indicate a need for a sidewalk in that gap.

North side: Less extensive - from Robertson St. to Tyler Ave. only. Student oriented businesses and Dedmon Center on this side create a need from Tyler to past Macados.

Miller Street. Sidewalks present on both sides.

Noblin Street. No sidewalks.

Park Road. No sidewalks.

Pendleton Street

West side: Sidewalks present from 1st to 8th.

East side: No sidewalks.

Preston St. No sidewalks.

Robertson St.

East side: Sidewalk present only between 11th and 12th streets.

West side: No sidewalks.

Rock Road

South side: Good sidewalks from Smith Ave. to Inglewood Drive.
North side: Sidewalk only on part of one block at Wadsworth.

Sanford Street. Has a short segment of sidewalk on one side.

Second Avenue

West side: Sidewalks present from Lawrence to Windstream Court, except for a gap between Belle Heth School and Noblin Street. Not set back from street.
East side: Sidewalks present from Noblin to Windstream Court.

Second Street

North side: Sidewalks present from Carter to Arlington
South side: Sidewalks present only at churches on Ingles and from Page to Carter Streets.

Seventh Street. No sidewalks.

Seventeenth Street.

North side. Sidewalks present from Wadsworth to Staples.
South side. No sidewalks.

Sixteenth Street. Sidewalks on both sides Wadsworth to Staples.

Staples Street south.

East side. Sidewalks present from 16th to 12th.
West side. No sidewalks.

Sundell Drive. None needed because of Riverway.

Tenth Street from Walker to Wadsworth. No sidewalks.

Twelfth Street

South side. Sidewalk present from Wadsworth to Staples only.
North side. None

Tyler Avenue

East side. Sidewalks complete from Main to Rock Road.
West side. Sidewalks complete, except from Jefferson to Auburn Ave.

Wadsworth Street

West side: Sidewalks from Rock Road to West Main. From 8th to Main the sidewalks are nicely set back from the road. The same is recommended for sidewalks from 8th to Rock Road.
East side: Sidewalks only present at the church between 8th and 9th and at the entrance to the Heather Glen housing development.

Walker Street. Sidewalk present only on west side from about 3rd to 8th.

Pedestrian Destinations

These are areas that may attract pedestrians and therefore may have higher need for pedestrian access. Scoring gives greater weight to destinations more likely used by children (e.g. schools) and to streets that are closer to the pedestrian destinations. For example, Second Avenue gets 3 points for servicing Belle Heth School, plus 2 points for going right past the school entrance, for a total of 5 points.

Streets are not listed if a) already have good pedestrian facilities (e.g. Jefferson, Sundell, central length of Main St), or b) too small or local to be in the competition for high sidewalk priority.

Score	Destination	Streets that go through or right beside the area Score = 2	Streets within ¼ mile Score = 1	Streets within ½ mile
3	McHarg School	12th St. Staples	12th from Staples to Preston Robertson Wadsworth South 10th St.	Preston Pendleton Custis 8th St. State
3	Belle Heth School	2nd Avenue	Noblin Miller & Sanford	Streets N to Grove Hammett Grandview & Madison Park Rd.
3	Dalton/RHS	Dalton Dr. Walker to 5th St.	2nd St. Randolph	S on Walker to 9th St. S to 2nd Ave. W on 2 nd St to Wadsworth E to Grove and sidewalk gap on East Main 8th St. to Kent
3	RU	East Main Tyler	W to 1-2 blocks of Grove, Downey, Clement, & Fairfax	E to Whitehall St. To Tyler plaza Hammett, Noblin, Madison, Grandview 2nd Ave. W to 5th Ave.
2	Public Library	DeHaven Dr. East Main	Walker to 4th St. 2nd St. Grove	Walker to 8th St. 2nd St. to Kent. 2nd Avenue Grove & Downy to 5th Ave.
2	Rec. Center	George St.	2nd Ave. Miller St. (Sanford v. close) Noblin	N to Grove E to Hammett and Madison Park Sundell W to Walker bw 10th and 6th
2	Wildwood Park	East Main Dalton Dr. Scott & Park 2nd Ave.	E. to Grove, Monroe St.& Lawrence S. to Park Rd. W to Walker and Randolph	E. to Fairfax & Noblin S to Park Rd. W to Harvey
2	Oakley Field	17th St.	Wadsworth E to Allen, Russel, Sheppard & Williams	N to 10th St. E. to State St Round Hill and Duncan lane S to Martin, Fletcher, and

			S to Rock Rd. W to Staples N to 14th	Smith W to Preston & Forest
2	Sunset park	8th St Preston	N to 5th St. S to 12th W to Pendleton & Bolling	N to 2nd St. E to Berkeley S to Staples, Preston W to Denby, 7th, Custis
2	Sisson Park/Joe Hodge Field	Preston Pendleton	E to 12th S to Chesley, 10th W to most of Custis,	N & W to 7th St. E to Staples & Wadsworth S to Rock Rd. & Forest
2	Riverview Park	Cowan St River St.	West Main 2nd St.	N to Custis E to Forest
2	Glencoe	Robertson	2nd St. Wadsworth	E to Arlington and Randolph S to 6th St W to Preston
2	Riverway/Du dley's ferry	River St.	West St. Harrison St. East Main St.	3rd Ave. Tyler Ave. Dalton Dr.
1	E Main Retail	East Main	Tyler Ave S to Grove, Downey, Clement	E just short of Jefferson S to Lawrence & 2nd Ave.
1	W Main Retail	West Main	E to Dalton Dr. S to 2nd St from Walker to Wadsworth Arlington Randolph	E to Grove S to 7th W to Robertson Staples, Preston
1	Tyler Plaza	Tyler	Future connector	N to Calhoun, Davis, Fairfax, & Clement E. to Auburn Ave. W to Hammet, Noblin, & Madison Grandview almost to 2nd Ave.
1	Post Office	West Main	2nd St. from Bolling to Robertson Preston	E to Arlington, Wadsworth S to 7th St W to Henry St.
1	W Main Industry	West Main	2nd St. from Custis to Bolling Pendleton and Denby to 4th St.	E to Preston and Staples SE. to 7th St S to Forest & nearly to Cowan
1	Radva & Thermasteel	17th St. Rock Road	Wadsworth Allen Ave Duncan Ln. Smith Ave. & Fletcher Staples	N to 12th St & Roosevelt S to Fletcher & Martin E to Forest Ave.
1	Danaher motion	Rock Road	Duncan Ln. Fletcher & Martin Lovely Mt	E to Park Rd & Future connector W to Wadsworth N to Allen & Williams

Detailed Priority Table for Sidewalks

Notes:

Streets are not included if a) already have reasonable pedestrian facilities (e.g. Jefferson, Sundell, George St., W. side of RU campus), or b) too small or local to be in the competition for high sidewalk priority.

It is assumed that new streets, such as the future connectors between Main, Tyler and Park Road will have sidewalks on both sides or a separate bike/walkway.

Street Rank. 3=primary arterial streets; 2=secondary arterial streets; 1=longer neighborhood streets.

Pedestrian Destinations. These are areas that pedestrians are likely to walk to, with greater priority for child destinations. Circles with ¼ mile radii were drawn around each major pedestrian destination and the major streets falling in that area were listed. Each number represents a destination and is the sum of the destination's rank (3=schools, 2=recreation, 1=retail & industry) and the proximity of the street to that destination (2=contiguous, 1=within ¼ mile). See "Destinations&Streets.doc" file for more details.

Pedestrian source density. Higher density residential areas, with higher priority for areas of children. Each number represents a source and is the sum of its priority (2=higher child area; 1=low child area) and its density (2=through or along side a highest density area, 1=only through or along side a medium density area). No points for passing only through a low density area.

Current Sidewalks. Priority given to streets with little or no sidewalk on either side. 2=no sidewalks on either side of street; 1=sidewalk on at least one side of street. See "CurrentStreets.doc" file for detailed descriptions of sidewalks.

Total Points. The sum of the Street Rank, Pedestrian destination score, and Pedestrian Sources score, multiplies by the Current sidewalk score. This gives greatest weight to streets that have little or no current sidewalk.

Comments. This column mentions so other considerations that may raise or lower a street's priority. Where where priority has been altered, we have highlighted the text and put plus or minus sign by the total points.

Street	A Street Rank	B Pedestrian Destinations Priority + proximity	C Pedestrian Sources Priority+density	D Side- walks Now	TOT PTS (A+B+C) x D	Comments
Scott/Park/Second Avenue	3	Belle Heth 3+2 Rec Center 2+1 Wildwood 2+2 Totl=12	High density, 2 blocks: 1.5+2 Medium density, 4 blocks: 1+1 Totl=5.5	2	41	Spotty sidewalks not set back from road. Important connector from schools to Rec center. Proposed bike

						route.
Robertson Street	2	McHarg 3+1 Glencoe 2+2 Riverway 2+1 Totl=11	Medium density, 5 blocks: 2+1 Tot=3	2	32	Direct route to McHarg school. Proposed bike route.
Staples St.	2	McHarg 3+2 Oakley Field 2+1 Radva/Thermasteel 1+1 Totl=10	Medium to high density, 5 blocks: 2+1.5 Totl=3.5	2	31	Essential school access for trailer park kids, but no sidewalk on trailer park side of street.
Preston Street	2	Sunset Park 2+2 Sisson/Hodge 2+2 Post Office 1+1 Totl=10	Medium density, 13 blocks: 2+1 Totl=3	2	30	A major route to MchHarg from West and north. Proposed bike route.
12th Street – from Staples to Preston	2	McHarg 3+1 Sunset Park 2+1 Sisson/Hodge 2+1 Totl=10	Medium density, 1 block: 2+1 Totl=3	2	30	Important school access for kids from west end. Proposed bike route.
Noblin & Hammett Streets	2	Belle Heth 3+1 Rec Center 2+1 Totl=7	High density 1 block: 1+2 Medium density 2 blocks: 2+1 Totl=6	2	30	Busy short cut for traffic from west end to RU and Tyler. School route to Belle Heth and RU
8th Street Or 7th Street	2	Wildwood 2+1 Sunset Park 2+2 (2+1 for 7th st.) Riverway 2+1 Totl=9-10	Medium density, 2-5 blocks: 2+1 Totl=3	2	28-30	8th St. has more traffic, currently less walkable than 7 th St. Closer to Riverway and Sunset Park.
east 2nd St. - from Arlington to Walker	1	Library 2+1 Mid&HighSchools 3+1 W Main Retail 1+1 Totl=9	Medium density, 3 blocks: 2+1 Tot=3	2	26	School route. 2 nd St is a proposed bike corridor.
Allen Ave	0	Oakley Field 2+1 Radva/Thermasteel 1+1 Totl=5	High density, 2 blocks: 2+2 Medium density, 2 blocks: 2+1 Totl=7	2	24	School route for Willowwoods kids, unless a preferred route through Radford Village is built.
10th St – from Walker to Robertson	2	McHarg 3+1 Riverway 2+2 Totl=8	Medium density, 1 block: 1+1 Totl=2	2	24	Connector to Riverway system. Proposed bike route
south Wadsworth	3	McHarg 3+1	High density, 1	1	23	Sidewalk

– from 8th to Rock Rd		Oakley Field 2+1 Riverway 2+2 Radva/Thermasteel 1+1 Totl=13	block: 2+2 Medium density, 10 blocks: 2+1 Totl=7			needs to be set back from busy road to be a safe route to school.
Pendleton St. – from 8th to Preston	2	Sunset Park 2+1 Sisson/Hodge 2+2 West Main industry 1+1 Totl=9	Totl=0	2	22	Major route to McHarg school.
Williams Ave	1	McHarg 3+1 Oakley Field 2+1 Totl=7	Medium density, 4 blocks: 2+1 Totl=3	2	22	School route. Connector to Park Road. Possible bike/walk connector.
Sandord Street	0	Belle Heth 3+1 Rec Center 2+1 Totl=7	High density, 2 blocks: 2+2 Totl=4	2	22	Narrow street with lots of cars. A school route for kids from large apt complex.
Walker Street	2	Mid & High Schools 3+2 Wildwood 2+1 W Main Retail 1+1 Totl=10	Totl=0	2	20 +	Much foot and car traffic on football days. Proposed bike route.
Roosevelt St. or Pershing St.	0	McHarg 3+1 Riverway 2+1 Totl=7	Medium to high density, 3 blocks: 2+1 Totl=3	2	20	Possible school routes in a kid-dense area.
mid Main St. - S side from Harrison to Grove	3	Library 2+2 Wildwood 2+2 Riverway 2+1 E. Main Retail 1+2 Totl=14	Medium density 1+1 Totl=2	1	19	Pedestrians commonly using south side bike lane as a sidewalk shows need. Sidewalk possible bw River St. and Grove?
west 2nd St. - from West Main to Page	1	Riverview Pk 2+1 West Main industry 1+1 Totl=5	Medium density, 5 blocks: 2+1 Totl=3	2	18	Proposed bike corridor.
east Rock Road – from Wadsworth to Tyler	3	Danaher 1+2 Totl=3	Medium density, about 6 blocks: 2+1 Totl=3	2	18	Residential areas are on south side of the road. More development planned.
East of RU campus (one or more of these: Calhoun, Davis, Fairfax, Clement, Downey)	1	RU 3+1 Totl=4	High density, many blocks: 1+2 Totl=3	2	16	Large high density area. Student traffic during class

						changes and nights.
east Main St. – from Tyler to Highland apts	3	RU 3+2 E. Main Retail 1+2 Riverway 2+1 Totl=11	High density, 7 blocks: 1+2 Totl=3	1	17	Paths show need for sidewalk.
Auburn Ave – Tyler to Tyler loop	1	Tyler Plaza 1+1 Totl=2	High density, about 12 blocks 2+2 Totl=4	2	14	Large high density area. Would provide pedestrian access to Tyler Ave.
State Street	0	Riverway 2+1 Totl=3	Medium to high density, 3 blocks 2+1.5 Totl=3.5	2	13	Possible Riverway connector and school route for communities E of Wadsworth.
Harrison St.-West St.	1	Riverway, Dudley's Ferry 2+1 East Main retail 1+1 Tot=5	Totl=0	2	12	Connector from downtown to Riverway Has commercial value.
Tyler Avenue – west side from Hammett to Auburn	3	RU 3+2 Tyler Plaza 1+2 Totl=8	Totl=0	1	11	For residents on west side of Tyler to walk to Tyler Plaza without crossing Tyler twice. Use demonstrates need.
Dalton Drive S side from RHS to Main St.	3	Mid&HighSchools 3+2 Wildwood/Riverway 2+2 W Main Retail 1+1 Totl=11	Totl=0	1	14 -	A busy street along a school. A connector to Wildwood and Riverway. But current sidewalks may be adequate.
Park Road from 2nd Ave. to Rock Rd.	3	Wildwood 2+1 Totl=3	Totl=0	2	12 -	Extension of Riverway greenway preferred over street with sidewalks.
Custis Street	1	Sisson/Hodge 2+1 Totl=3	Totl=0	2	8 +	School route. Much within ½ mile of McHarg. Proposed bike route.
Jeffries St	1		High density, about 6 blocks: 2+2 Totl=4	2	10	Only ½ mi. to Riverview Park, but direct access

						needed to Midkiff Ln.
Forest Avenue	2	Totl=0	Medium density, 4 blocks: 2+1 Totl=3	2	10	
Cowan St.	0	Riverview 2+2 Totl=4	Totl=0	2	8 +	The only route to Riverview Park.
mid Rock Road - N side from Inglewood to Wadsworth	3	Oakley Field 2+1 Thermasteel 1+2 Totl=6	Medium density, 6 blks: 2+1 Totl=3	1	12 -	Needed if people would walk to school and work from west end.
mid 2nd Street – S side from Carter to Arlington	1	Glencoe 2+1 W Main Retail 1+1 Post Office 1+1 Totl=7	Totl=0	1	8	Proposed bike corridor. Should have sidewalks on both sides if the rest of 2nd St. does.
Bolling Street	1	Sunset Park 2+1 Post Office 1+1 West Main industry 1+1 Totl=7	Medium density, 5 blocks: 2+1 Totl=3	2	22 -	Not high priority if sidewalks put on Preston.
west Main St. - from Robertson to Highland	3	Riverview 2+1 Post Office 1+2 West Main industry 1+2 Totl= 9	Totl=0	1	12	Sidewalk needed on N side of street?
north Wadsworth – from Main to 8th	3	Glencoe 2+1 W Main Retail 1+1 Totl=5	Totl=0	1	8	
Duncan Lane	0	Radva/Thermasteel 1+1 Danaher 1+1 Totl=4	Currently no connection to high density of Allen Ave or Heather Glen Totl=0	2	8	Not sure if sidewalk to Rock Rd. is needed.
west Rock Road - from W. Main to Inglewood Dr.	3	Totl=0	Totl=0	2	6	Route for folks on Jeffries St. to work, parks, schools in the west end.
Pedestrian Trail						
Recreation Center Trail (A dirt or gravel path; not a sidewalk)	NA	Belle Heth 3+1 Rec Center 2+2 Wildwood Park 2+2 Totl=12	High density 1+2 Medium density 1+1 Totl= 5	NA	17	Route between WW and Rec Center. Route to Rec Center for people from 3rd Ave to 9th Ave.