Section 4:
The Action Plan

As stated in Section 1 of this document, the Alachua Countywide Bicycle Master Plan has four Goals:

1. To provide a safe and convenient **On-Road Bicycle network** within Alachua County.
2. To create a **network of Off-Road Trails** within Alachua County.
3. To **enhance the Safety** of bicyclists within Alachua County.
4. To increase bicycle travel in Alachua County through **Mode Shift** initiatives.

As has been articulated in the analysis of existing conditions and trends, and through the public's input at the community workshops, it is evident that maintaining the status quo will not satisfy the Goals or Objectives of the Community. Thus an Action Plan has been prepared to proactively pursue the *Plan's* Goals and achieve the Objectives. This Action Plan calls for four **initiatives**:

- On-Road Bicycle Facilities
- Off-Road Trails
- Bicycle Safety
- Mode Shift

The following sections detail each of these initiatives.

4.1 On-Road Bicycle Network

The goal of the On-Road Bicycle Network initiative is the incorporation of bicycle facilities into new and existing roads. As the vast majority of bicyclists' travel origins, destinations, and routes coincide with those of the motor vehicle network, an enhanced, integrated, and interconnected *on-road* facility system is a clear solution. The physical network for this system includes all of the collector and arterial roadways in the *Gainesville Metropolitan Transportation Area 2020 Transportation Plan* network as well as the local roads added to the study network by the *Plan's* Steering Committee. Local roads that function as good bicycle facilities due to low speeds and light traffic volumes were not part of this *Plan's* study network, but are certainly an important part of the overall bicycle system.

Implementation

Implementation of the On-Road Bicycle Network initiative occurs through two means: programmed improvements and retrofits. Programmed improvements include funded roadway modifications or funded new road construction. The network segments *programmed* for bicycle facility construction are by definition "funded projects"; hence they do not require supplemental funding (e.g. enhancement or retrofit funding). Therefore, these segments are not addressed *in this Plan from an allocation of funds or a prioritization standpoint*. However, all other roads in the Plan network, those not programmed for improvements, are candidates for retrofit construction. These retrofit candidates are the focus of the On-Road Bicycle Network priorities.

4.2 The Off-Road Trails Network

The goal of the Off-Road Trails Network initiative is the development of a trail network that connects with the existing and pro-

posed on-road bicycle facilities, expands the existing trails network, and provides connectivity to the trails network adjoining Alachua County. An interconnected network of trails and on-road bicycle facilities is an important part of developing a multi-modal transportation system and reducing travel time and distance for bicyclists, while at the same time increasing their level of safety and/or comfort. The study network of trails consists of existing trails and potential trail corridors situated along rights-of-way that are potentially available for trail development (e.g., utility corridors, abandoned railroad beds, etc.). Thus, right-of-way acquisition costs associated with these trail corridors are minimized.

Implementation

The Off-Road Trails initiative will be implemented along the same means as the On-Road Bicycle Network initiative – through programmed improvements and retrofit construction. As in the On-Road Bicycle Initiative, trails *programmed* for construction are by definition "funded projects"; and hence do not require supplemental funding. Therefore, the Off-Road Trails are not address *from an allocation of funds or a prioritization standpoint*. Those trail corridors identified in this *Plan* that are not programmed are retrofit candidates and are hence the focus of the Off-Road Trails initiative.

4.3 Prioritization Process

The minimum projected funding available for new construction through the Year 2020 is $4.2 million total for both on-road facilities and trails. Trail projects may compete equally with on-road bicycle facilities for funding from the base $4.2 million. The $4.2 million does not include any additional funds that can be allocated through the Safety or Enhancements Programs of the FDOT, construction or reconstruction of roadways, Recreational Trails funding, or from other

grants and partnerships. The cumulative cost to complete all of the retrofit construction (both on-road facilities and off-road facilities) for the entire study network is approximately $81 million. It is therefore apparent that the limited amounts of funding available for retrofit construction (5% of the current need) must be allocated to those retrofit candidates that will best serve the Alachua County community. In order to accomplish this task, an objective prioritization methodology and process is needed. The methodology selected for prioritizing the candidate retrofit study network segments is a Benefit-Cost ratio (or specifically an index). Benefit-Cost ratios are tools classically used in infrastructure investment planning and programming. They provide an indication of the relative value of improving a transportation facility with respect to other (candidate) transportation facilities. The Benefit-Cost ratio and its constituent terms follow:

Commercial developments are prime destinations for bicycle trips and are accounted for in the Latent Demand analysis.

$$\text{Benefit-Cost} = \frac{(0.4)\Delta\text{Bicycle QOS} + (0.4)\text{Demand} + (0.2)\text{Public Input}}{\text{Cost per Mile}}$$

Where:

- "ΔBicycle QOS" is the difference between the Plan's *target* bicycle quality of service grade of "B" (or 2.5 numerically) for non-state roads and "C" (or 3.5 numerically) for state roads and each road segment's *existing* bicycle quality of service grade. A somewhat different approach was taken for calculating the "ΔBicycle QOS" for trails. A trail (would likely) pro-

vide a bicycling environment similar to bicycle quality of service grade "A" (or 1.5 numerically) due to the lack of motor vehicle traffic interaction. There were two different steps taken in establishing an existing bicycle level of service grade for potential trails. If a trail is within 1/4 mile of a roadway segment (or segments) that meet or exceed the QOS standard(s), and the trail parallels the road segment (or segments) for at least 80% of its length, then the adjacent roadway's bicycle level of service was used in calculating the "ΔBicycle QOS". However, if the adjacent roadway's bicycle level of service was less than a bicycle LOS "A/B/C", then an existing bicycle LOS of "F" (6.5 numerically) was used in calculating the "ΔBicycle QOS",

- "Demand" is the potential bicycle activity along a particular road segment or trail, as assessed by the *Latent Demand Method,*

- "Public Input" is the number of votes a particular road segment or trail received during the second Community Workshop plus roadways and/or trails that have previously been identified as planned/prioritized though are unfunded, and

- "Cost", which is the particular roadway segment's bicycle facility construction cost (per mile) illustrated in Table 7. The facilities for each network segment were selected using the Facility Selection & Cost Decision Tree, illustrated in Figure 7. This selection tree illustrates the decisions that are programmed into the prioritizaiton database. These decisions ultimately result in the selection of a recommended bicycle facility, each of which has an associated unit cost (per mile), and where

- "0.4", "0.4", and "0.2" are the respective weightings assigned to the terms in the numerator. The "ΔBicycle QOS" score and the *Latent Demand Score* were each weighted as 40% of the

Table 7 Facility Construction & R/W Acquisition Costs

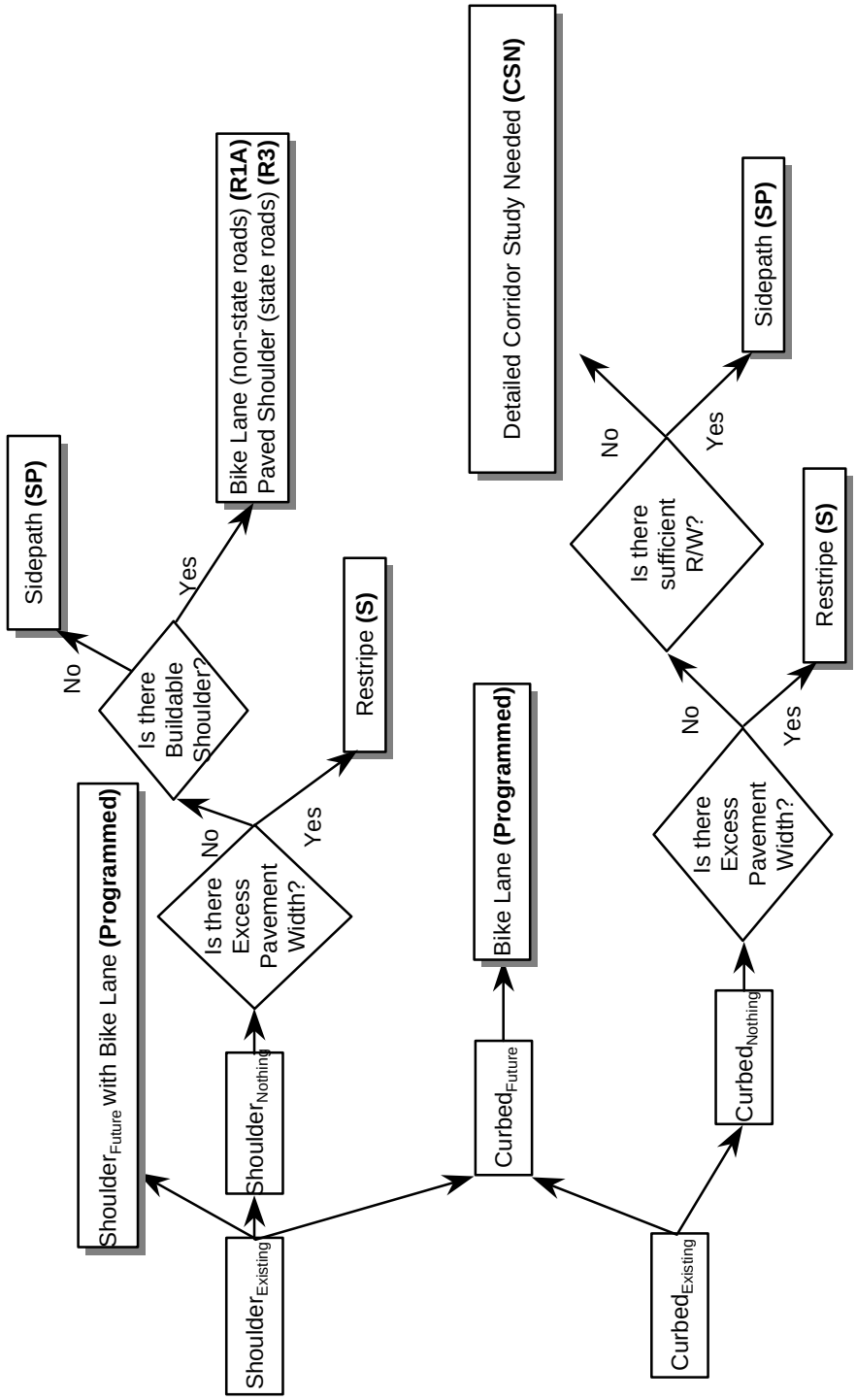
Facility Type	Cost
Bike Lane (Open Shoulder Cross-Section: R1A)	$109,000/mi
Paved Shoulder (Open Shoulder Cross-Section: R3)	$102,000/mi
Restriping (In conjunction with Roadway Resurface: S)*	$1%/mi
Trail/Sidepath (12 foot paved facility: SP)**	$138,000/mi
Urban Right-of-Way Cost***	N/A
Suburban Right-of-Way Cost	$1/sq. ft.
Rural Right-of-Way Cost	$0.15/sq. ft.

*Since restriping is only performed in conjunction with resurfacing projects, the added incremental cost to restripe for bikeways is considered negligible.
Restriping a roadway to create bike lanes adds roughly 1% to the total resurfacing cost. One dollar was used in the cost-benefit ratio to represent the minimal cost of restriping.
** Sidepath is within a roadway corridor ROW; Trails are within their own ROW
*** Urban ROW is often constrained and limited due to adjoining land development. The cost of acquiring ROW is dependent upon the value of the entire property. The development patterns change from roadway to roadway. Thus, an urban ROW cost could not be established on a network wide basis. The availability of urban ROW can be estimated during a Detailed Corridor Study.

total benefit value. The remaining 20% of the benefit value was used for Public Input. The cost portion of the benefit-cost ratio was the only factor in the denominator, thus represents 100% of the denominator. [The *Plan's* Steering Committee arrived at these weightings through consensus.]

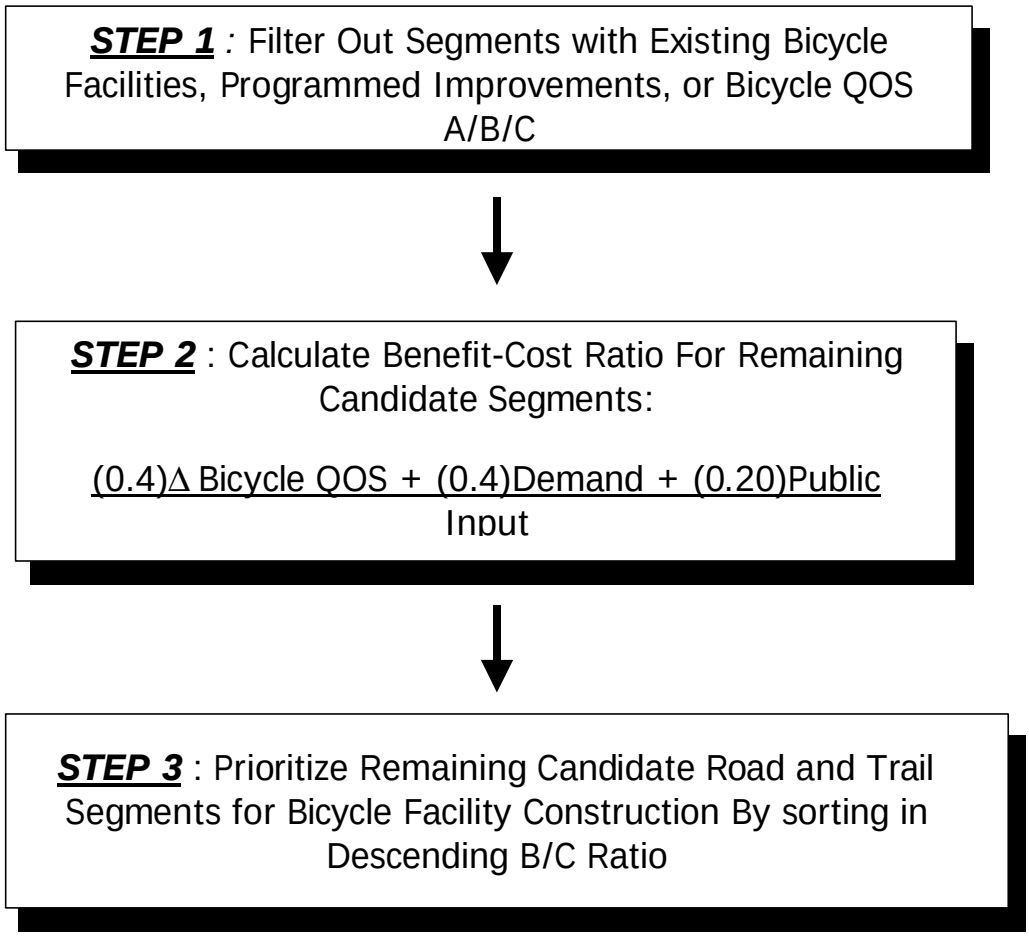
The individual terms of the Benefit-Cost index are the ranking criteria evaluation methods. Those in the numerator (ΔBicycle QOS, Demand, and Public Input) are the "benefits"; the denominator is the "cost".

Figure 7 Bicycle Facility Selection & Cost Decision Tree



This Benefit-Cost ratio was employed in a three-step prioritization process, illustrated in Figure 8. The first step was to "filter out" roadways and trail segments that currently have bicycle facilities (i.e. bike lanes, paved shoulders, trail); those that are programmed for improvements; those that currently have a bicycle level of service of "A" or "B" (or "C" for state roads); and those roads that fall under the purview of the UF Master Plan. By filtering out these roads, the County, MTPO, and the local jurisdictions will be able to extend the bicycle network in the most cost effective way. The remaining roads are the retrofit candidates.

Figure 8 – Project Filtering, Prioritization, and Selection Process



The second step in the prioritization process involved calculating the Benefit-Cost ratio for each candidate roadway and trail segment.

The third and final step in the prioritization process, subsequent to calculating the Benefit-Cost ratio for each roadway and trail segment, was to rank the roadway and trail segments in descending Benefit-Cost Ratio. The resulting prioritization list (needs ranking) is included in Appendix "B" & "C". The prioritization list in Appendix "B" is sorted by descending Benefit-Cost Ratio, while the list in Appendix "C" is sorted alphabetically as an aid to locating network segments of particular interest to the reader. This prioritization list represents the final *needs* ranking, but not necessarily the final *order* in which bicycle facilities for roadways or trails will be programmed for construction. This final needs ranking provides an objective and rational basis for County, MTPO, and local jurisdiction staff to select roadway and trail segment candidates for bicycle retrofit improvements.

The results of the above described prioritization process have been graphically portrayed on the Prioritization Maps found at the end of this document (see Maps 4A and 4B). In addition to depicting existing bicycle facilities (bike lanes, paved shoulders, and trails), the maps also depict programmed roads and trails, those roads that meet or exceed the target levels of service ("B" or "C"), and roads that fall under the purview of the UF Campus Master Plan. Finally, the map shows two other categories of network segments, Priority I, II, and III road and trails, and "Detailed Corridor Study Needed" roads. The Priority I, II and III groups were established based upon the results of the Benefit-Cost analysis while "Detailed Corridor Study Needed" roads were derived from the Facility Selection and Cost Decision Tree (Figure 7). A description of these two final categories follows:

Priority I – These are study segments that have the highest priority for retrofit construction. The reasons for the high rankings are typically a combination of poor bicycling conditions, high latent demand, high votes, and low cost. The high ranking for trails are due to poor bicycling conditions on parallel roadways, the absence of existing bicycle facilities , high latent demand, high votes, and low cost.

Priority II – These segments represent the second tier of retrofit candidates - latent demand is somewhat lower, and/or bicycle conditions were generally not as poor as those in the Priority I category. The majority of rural trails are in this priority grouping.

Priority III (Long-Term Route Network) – These segments are a lower priority for a variety of reasons: they may have relatively better bicycling conditions (but not achieve the performance standards) combined with low latent demand; or they may be costly to implement. Potential trails adjacent to roadways with good bicycling conditions and/or existing bicycle facilities typically fall within this category. While the network segments in this group may be the furthest away in terms of implementation, many of these routes still provide important connections within the bicycle route network, and thus should be improved when opportunities arise.

Detailed Corridor Study Needed – As shown in the Facility Selection Tree (Figure 7), one of the recommended facilities is termed "CSN" (Detailed Corridor Study Needed). Roadway segments with this designation are constrained due to unavailability of right-of-way. Therefore, a detailed corridor-level study is needed to assess how bicyclists can be accommodated within the general corridor area. The study level of detail needed for these corridors is beyond the network level analyses used in developing this *Plan*. A significant

number of these form important corridors and represent critical gaps in the bicycle network. Therefore, in accordance with Objective 1.7 of this *Plan*, it is recommended that funding be allocated towards performing these detailed corridor studies to further expand Alachua County's bicycle network. Table 8 lists the majority of roadway corridors classified as Detailed Corridor Study Needed. A prioritized list of all these roadway segments is in Appendix D. Detailed corridor study roadways were evaluated and are prioritized based on the benefit portion *only* of the benefit-cost ratio.

Table 8 Corridor Study Needed Roadways*

Roadway	From	To
8th Ave NW	SR 26 (Newberry Rd)	22nd Street NW
16th Ave NW	43rd Street NW	NW 6th Street (SR 20)
NW 6th Street (SR 20)	N 39th Ave (SR 222)	Depot Ave
SR 26/University Ave	22nd Street NW	Waldo Rd (SR 24)
Archer Road (SR 24)	Interstate 75	NW 13th Street (US 441)
NW 13th Street (US 441)	23rd Avenue N	Archer Road
NW 34th St (SR 121)	16th Ave NW	Archer Road
8th Ave NW	Main Street	25th Street NE
Tower Road (75th St SW)	SW 8th Ave	SW 46th Blvd
S 16th Avenue (SR 226)	Archer Road	Main Street
10th Street NW	8th Ave NW	8th Ave SW
SR 26/Newberry Ave	Tower Road (75th St SW)	8th Ave NW
Waldo Rd (SR 24)	SR 26/University Ave	N 39th Ave (SR 222)

* This table combines the roadway segments of several CSN roadways into one CSN corridor. Not all Corridor Study Needed roadways are shown. For the complete list of CSN roadways and the combined roadway segments, see Appendix D.

The preceding prioritization methodology and process has been developed to expand the physical bicycle network within Alachua County. However, to ensure that the County's residents and visitors can effectively use the network, a variety of support programs are needed to enhance safety and precipitate a mode shift. These include: enhanced bicycle education for all age levels; motorist education; incentives to employers who maintain programs that encourage bicycle commuting; and continued and enhanced distribution of bicycle route maps to the general public. The following sections detail these programs.

4.4 Safety Improvement

The importance of improved educational outreach is reflected in the fact that 77% of all crashes in Alachua County involving bicyclists were due to failure to yield the right-of-way. While physical improvements are being addressed through the construction of on-road and off-road bicycle facilities, attitudes and associated behaviors of bicyclists and motorists must be changed to improve bicycle safety, and attitudes and behaviors are oftentimes more difficult to change than the physical environment. Properly designed education and enforcement programs can positively influence them. Such programs form the basis of the safety improvements presented below.

Bicycle safety lessons, like these at Mebane Middle School, reinforce safe behavior through practice.

Bicycle/Traffic Safety Education

There are several educational programs that have been in existence for

a number of years. These programs should be continued. The Florida Bicyclist Training Program was established in 1984 to educate elementary and middle school children on bicycle safety. In the early 1990's the School Board of Alachua County, the City of Gainesville, and the Safe Kids Coalition partnered to bring the *In-school On-bike Safety Education Program* to Alachua County elementary and middle schools. Equipment was purchased and several teacher training seminars were held. The *In-school On-bike Program* curriculum continues to be taught in Alachua County public schools through the Driver's Education Program and physical education classes.

Additionally, a similar bicycle education program for adults has been in place for several years. *Effective Cycling* is an in-depth course that provides adults with information regarding bicycle safety, operation, and maintenance. This has been an effective program that should be continued.

The University of Florida Police Department's Bicycle Safety Education Program promotes greater awareness of the rights and responsibilities associated with the operation of bicycles in the greater campus traffic mix. The goal of the program is to provide students, faculty, and staff of the university community with a desirable combination of education, encouragement and enforcement necessary to gain voluntary acceptance and compliance with bicycle safety standards and the law. An important part of the program is the inclusion of bicycle safety issues and laws in the UF Student Guide that is given to incoming students during orientation. The guide can be obtained from the UF website at: *http://www.dso.ufl.edu/STG/Traffic_Safety.html*

Bicycle Traffic Safety School

In conjunction with the Alachua County Traffic Court, the University of Florida Police Department's Community Services Division conducts Bicycle Traffic Safety School twice a week. This portion of the program allows bicyclists who violate traffic laws while on the university campus the opportunity to attend a safety school in lieu of paying the assessed fine.

A variety of methods of promoting cycling should be pursued.

The school is designed to provide an educational alternative to the payment of traffic fines, thus creating an incentive to learn more about safe bicycling. The school is also available to anyone interested in obtaining a greater awareness of the rights and responsibilities associated with the operation of bicycles in the campus traffic mix. Expansion of the program to include mandatory attendance for all motorists and bicyclists involved in accidents in and around the UF campus may be another way to promote education of bicycle safety issues. Furthermore, first time offenders for motor vehicle violations and those receiving parking tickets should also be allowed to have their fees waived or reduced in exchange for attending the bicycle training session.

Law Enforcement Training

The Florida Department of Transportation (FDOT) offers local training courses to educate law enforcement personnel on bicycle safety and the importance of enforcing traffic violations relating to the safety of bicyclists. These courses can also be used to instruct officers on

properly filling out crash reports involving bicyclists. Properly completed bicycle crash forms can assist in the development of effective countermeasures for reducing bicycle crashes. A local sponsor would be needed to assist FDOT.

Cops-on-Bikes

The crash analysis conducted for this Plan indicates that 77% of all crashes involving bicyclists occurred because either the motorist or the bicyclists failed to yield the right-of-way. Law enforcement agencies should increase the enforcement of existing laws to help improve bicyclists' safety. The initiation of a *Cops on Bikes Program* could increase safety conditions for bicyclists. Since 310 (55%) of all crashes occurred within 1 mile of the University of Florida Campus, the program could be concentrated within this area to improve safety conditions for bicyclists and increase both bicyclists and motorists knowledge of existing laws and safe operating procedures. The *Cops-on-Bikes Program* would allow for the greater enforcement of existing laws as they relate to yielding right-of-way.

Public Relations Campaign

Resistance to enforcing bicycle traffic violations often results from the negative image such enforcement has in the community (e.g., "Why don't the police spend their time catching criminals rather than hassling me for not crossing the street at the intersection.") Public relations efforts would help to 1) inform the community regarding bicycle safety, and 2) inform the community of the importance of the involvement of law enforcement in both educating bicyclists and motorists as well as issuing citations for traffic safety violations.

An important part of the public relations effort would be to distribute information brochures that describe bicycle violations. A brochure of

"Safe Ways to School" maps will help students choose safe bicycling route.

violations could be issued to bicyclists riding in an unsafe manner. Brochures are available from the FDOT and can also be downloaded from the FDOT website at: *http://www.dot.state.fl.us/safety/ped_bike/brochures/ped_bike_brochures_bicycle.htm.*

Improve Driver Education Curriculum, Handbook and Examinations

More extensive and better information on developing skills to help motorists more effectively share the road should be built into the drivers education curriculum (as well as into re-education programs, such as defensive driving courses) and the licensing process. A strong lobbying effort, and potentially grantsmanship efforts, would be needed.

Develop and Distribute Bicycle Safety Public Information

Bicycle safety information should not be limited to the development and distribution of brochures, but should also utilize various media to reach a diverse audience. Billboards, radio announcements, advertisements in newspapers, and public service announcements can be utilized. Information/education should target avoidance of prevalent types of crashes; along with high-risk groups and frequent crash locations. The City of Gainesville's *Bicycle/Pedestrian Program* and Bicycle/Pedestrian Advisory Board have funded "Share the Road" media campaigns and participated in community safety fairs and bicycle safety rodeos. These efforts should be maintained and expanded.

Provision of Emergency Phones

Providing emergency phones along identified bicycle routes/trails and roadways of particular importance to bicyclists (i.e. commuter routes, roads near schools, recreation centers and other trip attractors) will help to increase safety. Solar powered phones, tied into a central source, such as the local police department, would be appropriate in some areas. Phones equipped with area lighting are appropriate in areas without streetlights.

Increased Law Enforcement and Crash Reporting Efforts

Increasing police patrols along identified bicyclists routes/trails and roadways of particular importance to bicyclists (i.e., commuter routes, roads near schools, recreation centers and other trip attractors), especially in isolated areas and areas perceived as dangerous, would help to increase cyclist safety and security. Additionally, increased data gathering efforts and accuracy on police accident reports would help to focus future safety improvement efforts.

Create Parent/Neighborhood Safety Programs

These programs could be created by schools to provide such services as bicyclist pools; block mothers; neighborhood watches, bicyclist patrols; parent information and safety centers through hospitals and clinics, and Safe Kids Coalitions. This effort should also include the development and distribution of “Safe Ways to School” Maps. Such maps were developed by the City of Gainesville in the 1990’s. They should be updated and promoted in cooperation with the School Board of Alachua County. Schools and parent groups could work together to review and discuss maps to be used to help students choose safe bicycling routes to school.

Research/Lobby for Increased Funding Opportunities

Current financial resources limit bicycle safety efforts. Funds are needed for both staff and materials to implement the numerous programs recommended throughout this document, as well as for increased research to assist in program development. This program would provide staff time to research financial opportunities and secure funds for appropriate implementing agencies and organizations.

Commuter Center

Designed as a one-stop location for commuters to obtain information about all transportation alternatives to the single occupant vehicle, the center would include information pertaining to ridesharing, bus schedules, bicycling, walking, transportation maps and general information on transportation events and projects. Road sharing and other pedestrian awareness and safety information would also be distributed through the Center. The Center should include installation of oversized personal lockers and showers.

4.5 Mode Shift Initiative

The purpose of this initiative is to facilitate a change (or shift) in Alachua County's residents' selection of transportation method (mode). This "mode shift" can only occur as the current impediments to bicycling are removed. Removal of these impediments will be accomplished through a variety of strategies ranging from capital outlay projects such as bicycle facility construction to relatively low cost local government policy changes such as the requirement of bicycle and pedestrian connections in new residential subdivisions and changes in existing parking policies.

Bicycle Routes

The City of Gainesville, in conjunction with the Bicycle/Pedestrian Advisory Board has identified a number of routes within and surrounding downtown Gainesville to be included in a bicycle route system. The proposed bicycle route system is made up of a combination of local roadways and roadways that are a part of this Plan's study network, including several roadways identified as Detailed Corridor Studies Needed.

A bicycle route system is defined as a "system of bikeways designated by the jurisdiction having authority with appropriate directional and information route markers, with or without specific bicycle route numbers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways" (AASHTO, 1999). By this definition, a bicycle route system can include streets with bicycle lanes, wide curb lanes, and shared roadways. Very often, they are designated on secondary roadways that provide an alternative to major thoroughfares and are bicycle compatible due to the lower speeds and volumes of automobiles (i.e., better quality of service).

The AASHTO guide for the *Development of Bicycle Facilities* lists four reasons for designating signed bicycle routes: (1) the route provides continuity to other bicycle facilities such as bike lanes and shared use paths; (2) the road is a common route for bicyclists through a high demand corridor; (3) in rural areas, the route is preferred for bicycling due to low motor vehicle traffic volume or paved shoulder availability; and (4) the route extends along local neighborhood streets and collectors that lead to an internal neighborhood destination such as a park, school or commercial district. Table 9 on the following

page indicates the roadways identified for the downtown bicycle route network.

Signage

The bicycle route system would be identified with a unique sign developed exclusively for this purpose. The sign satisfies guidelines in the *Manual on Uniform Traffic Control Devices* and heeds the AASHTO recommendation that bicycle route signage include destination information.

The signs would be located along the bicycle route at the approach and departure side of major intersections, particularly those where bicycle routes intersect and turn options are available within the bicycle route system.

Directional information will be more general on the periphery of the bicycle route system, indicating destinations such as “Downtown”, “UF” or the terminating street for the bicycle route. Closer to the final destinations, directional information will become more specific, but will generally identify a few key locations such as “Downtown Plaza”, “Depot Trail Hub”, and “Gainesville-Hawthorne Rail-Trail”.

Implementation and Costs

The bicycle route system would be implemented by the City of Gainesville Public Works Department. Estimated cost for sign fabrication is $20 each including the primary sign and sub-plate. The Public Works Department will strive to place these signs on existing posts in order to reduce sign clutter and installation costs. However, where signposts are necessary, the unit cost is estimated to be $10 each. Implementation is expected to take about six to nine months to complete.

Based on an estimate of 231 signs and 160 signposts necessary for the initial installation of the bicycle route system, the total materials cost is anticipated to be approximately $6,300.

Table 9 Downtown Bicycle Routes

Roadway	Facility	# of Signs
SW 11 St. (Depot Ave.-SW 8 Ave.)	Shared	4
SW 8 Ave. (SW 11 St.-SW 12 St.)	Shared	2
SW/NW 12 St. (SW 8 Ave.-NW 16 Ave.)	Bikelane/Shared	22
SW 6 St. (SW 16 Ave.-Depot Ave.)	Shared	4
SW/NW3 St. (Depot Ave.-NW 16 Ave.)	Shared	15
S. Main St. (SW 16 Ave.-Depot Ave.)	Bikelane	4
S/N Main St. (Depot Ave.-N. 8 Ave.)	Shared/Bikelane	16
NE 1 St. (E. University Ave.-NE 8 Ave.)	Shared	10
NE 2 St. (NE 3 Ave.-NE 5 Ave.)	Shared	3
SE/NE 3 St. (Depot Ave.-NE 2 Ave.)	Shared	13
NE Boulevard (E. Univ. Ave.-NE 5 Ave.)	Shared	6
SE/NE 9 St. (SE 12 Ave.-NE 23 Ave.)	Shared/Bikelane	30
Williston Road (SE 16 Ave.-E. Univ. Ave.)	Bikelane	14
SE/NE 15 St. (SE 35 Ave.-NE 8 Ave.)	Shared	20
SE 16 Ave. (S. Main St.-Williston Rd.)	Paved Shoulder	6
SW/SE 2 Ave. (SW 13 St.-Williston Rd.)	Bikelane	22
NW/NE 3 Ave. (NW 12 St.-NE 5 St.)	Shared	10
NE 5 Ave. (NE 2 St.-Waldo Rd.)	Shared	14
SE 4 Ave. (SE 9 St.-Williston Rd.)	Bikelane	6
SE 3 Ave. (Williston Rd.-Hawthorne Rd.)	Bikelane	10

Land Development Regulations

Land Development Regulations should address the provision of bicycle amenities in all nonresidential developments. A key component to an effective mode shift will be missing if bicycle amenities are not required for all nonresidential developments. Bicycle amenities are an area where the private sector can have a strong impact on effecting a mode shift by providing such amenities as bicycle parking, showers and lockers, etc.

The provision of bicycle amenities strongly influences commuter levels.

Bicycle Facilities in New Subdivision Collector Roads

As publicly funded efforts toward establishing a more balanced transportation system increase, complimentary participation by the private sector in the incorporation of bicycle facilities in new land development is essential to making the overall effort successful. With the prevalence of mixed-use developments combining both residential and commercial land uses, the incorporation of bike lanes in new subdivision collector roads continues to be one of the most effective ways the private sector participates in a mode-shift effort. Bike lanes internal to subdivisions serve dual purposes; they connect the primary generators of bicycle trips (residences) with the external collector and arterial road network, and they provide the primary conduit for internal trips. These internal trips not only include Home-Based Recreation and Social trips, but more importantly, they include neighborhood level Home-Based Shopping trips to the fringe or nodal commercial development, a typical feature in today's planned unit

developments. Additionally, Objective 1.5 and 2.4 of this *Plan* recommends that on- and off-road bicycle connectivity to adjacent land uses be provided.

Bicycle Amenities

An effective form of participation by the private sector is the incorporation of bicycle amenities into their development plans. Such amenities may include trees (for shade), bike racks, and transit stops, among others. With these amenities, bicycle travel is more convenient, safe and secure. Providing amenities also strongly influences bicycle commuting levels without which the return on public investment in on- and off-road facilities will not be realized. Amending and adding to the Alachua County and each Cities land development codes to include bicycle amenity requirements furthers the area-wide implementation of a balanced transportation system.

Provide and Maintain Bike Lanes and Paved Shoulders

If the potential for bicycle travel is to be realized, better facilities must be available. In addition to initial construction, bicycle facilities must be regularly maintained. Repairing cracked and uneven bike lanes and paved shoulders, and removing debris are all needed to maintain a pleasant and safe bicycling environment.

Mix Land Uses and Shorter Trip Lengths

A commonly voiced reason for not bicycling for the home-to-work trip is that transportation is needed during the workday for either job or personal reasons. One viable solution, as articulated in the recently adopted *Livable Communities Reinvestment Plan,* is the focusing, or aggregating, of commercial development in an urban form whereby distances are short. This would allow the bicycle mode to be a more viable transportation choice for daytime trips. The *Livable*

Communities Reinvestment Plan focuses on the creation of activity centers and village-style development through public policy efforts such as comprehensive land use, growth management and public transit planning initiatives, which could bring about the needed mixing of uses.

Parking Policies

Alachua County and the City of Gainesville should develop Transportation Demand Management policies such as requiring larger employers, including government agencies, to offer single-occupant vehicle trip reduction incentives, such as subsidized transit passes or parking cash-out policies for their employees.

Alachua County and the City of Gainesville should also consider adopting policies that provide for no net increase in parking for existing County and City government facilities. In addition, the MTPO, Alachua County, and the City of Gainesville should work with the University of Florida on restricting the number of available parking spaces on the University of Florida campus. Restricting the number of parking spaces will encourage students, faculty, and staff to seek other means of transportation.

Alachua County and the City of Gainesville should also consider revising their Land Development Regulations to convert minimum car parking requirements to maximum car parking requirements. Reducing the number of available parking spaces will encourage individuals to seek alternative modes of transportation such as bicycling.

Employee Flextime

The opportunity to work flextime hours would allow employees to consider alternate travel-to-work times, thus affording them the op-

portunity to avoid peak traffic volumes. This in turn could encourage a mode shift to bicycling due to an increased perception of safety. Furthermore, it would allow bicyclists to take advantage of cooler morning and evening temperatures.

Distribute Bicycle Facility Maps

Continued distribution of a bicycle map to the general public will increase the awareness of available bicycle routes, hence their potential for both utilitarian and recreational use. Continued distribution will help booster Alachua County's reputation as a bicycle friendly community through safety and educational program information printed on the map. The Bicycle facility map should be made available on-line for viewing and downloading.

Shower and Lockers at Workplaces

Bicycle commuters face the additional impediment of a lack of showers and lockers at their work places. The provision of showers and lockers at workplaces should be encouraged and perhaps stipulated through Alachua County and the individual municipalities' land development regulations. Accordingly, incentives should be offered, possibly in the form of Floor-to-Area Ratio (FAR) increases, transportation impact fee reductions, building area exemptions, or traffic impact analysis reductions for equitable concurrency evaluations.

4.6 Funding Sources

There are numerous existing and potential funding sources for implementing the recommended facility improvements and programs identified in this *Plan*. They include:

TEA-21 Surface Transportation Program (STP)

Fund Source: Federal

Contact: Marlie Sanderson AICP, Gainesville Urbanized Area MTPO, (352) 955-2200

The Surface Transportation Program is a flexible federal funding program. STP funds may be used for the construction of bicycle facilities on all categories of roads and for non-construction bicycle safety projects such as brochures, educational programs, and route maps. Bicycle trails can also be funded through the Surface Transportation Program.

Ten percent of Florida's annual STP funds must be set-aside for Transportation Activities. There are specific criteria that proposed bicycle facilities must meet in order to receive enhancement funds.

1) The facilities must meet or exceed standard provisions for the safe accommodation of non-motorized users on or along roadways. 2) The facility must meet the most recently approved planning and design requirements of the American Association of State Highway Transportation Officials Guide to Bicycle Facilities, FDOT's Florida Safety Plan, and the Americans with Disabilities Act Architectural Guidelines. 3) Facilities called for in state or federal guidelines are not eligible for enhancement funding, but should be included in roadway projects. Enhancement funds can be used to complement such facilities, link existing facilities, and otherwise help complete a comprehensive system. 4) The facilities must be available and accessible to the general public. 5) The application must include a written commitment from a public agency for the maintenance and operation of the proposed facility. 6) The facility must be supported by a local or regional plan, where applicable.

The 2020 Transportation Plan set aside roughly $3.7 over the next 20 years for roadways and trails identified as top priorities in this

Plan. Funds allocated in the 2020 Plan come from State and Federal sources, primarily the Federal Surface Transportation Program. The prioritization ranking of roadways and trails for construction is established in the Cost-Feasible Section of the *2020 Transportation Plan.*

TEA-21 Transportation Enhancement Funding

Fund Source: Federal

Contact: Marlie Sanderson AICP, Gainesville Urbanized Area MTPO, (352) 955-2200

The Transportation Enhancement Program is a flexible federal funding program that specifically targets provisions for bicycle infrastructure. Enhancement funds may be used for the construction of bicycle facilities on all categories of roads and for various bicycle safety and education programs and projects. The conversion of former railroad corridors into bicycle paths is also something that can be funded through the Transportation Enhancement Program.

Transit enhancements is a new program enacted as part of TEA-21. Transit enhancement funding can be used to construct bicycle facilities to access transit service. In addition, the transit funding can also be used for the construction of bicycle parking facilities at transit stops and for installing bike racks on buses.

Impact Fees and Bicycle Concurrency

Potential Fund Source: Alachua County and its Jurisdictions

Under 163.3202 F.S. each county and municipality is encouraged to use innovative land development regulations including impact fees. Currently, Alachua County and the City of Gainesville do not collect impact fees. However, it is possible in the foreseeable future that an

Impact Fee Ordinance may be adopted. The Impact Fee Ordinance should include language that allows a rational percentage of the revenues to be used for bicycle "capacity" improvements.

Target bicycle LOS standards are being adopted in this *Plan*. These targets can be used for concurrency purposes. If a development degrades the LOS of an existing bicycle facility below the target bicycle LOS standard, they should be required to mitigate that impact by constructing improved bicycle facilities or by paying a fee in-lieu of constructing the facilities. The City of Gainesville could require development within the Transportation Concurrency Exception Area to provide bicycle facilities or contribute to a bicycle improvement fund, in exchange for not being required to meet automobile concurrency requirements.

State Safety Grant Program

Fund Source: State
Contact: Andrea Atran, FDOT Community Traffic Safety Team, at (800) 207-8236

Bicyclist safety remains a priority area for the Florida Intrastate Highway System and all state roadways. The safety funds can be used to conduct safety studies as well as the reconstruction of roadways to enhance bicyclists' safety.

Section 402 Highway Safety Grant Program

Fund Source: Federal
Contact: Pat Pieratte, FDOT State Safety Office, at (850) 410-4929

Bicyclist safety remains a priority area for highway safety program funding under the Section 402 State and Community Highway Safety

Grant Program. Section 402 funds are primarily for program activities and research, but can be used for capital projects also. The National Highway Traffic Safety Administration (NHTSA) and the Federal Highway Administration (FHWA) jointly administer projects initiated under the bicyclist safety priority area. Florida's Highway Safety Office receives Section 402 funds and allocates them to state agencies and local governments. The State submits a highway safety plan to NHTSA that serves as the application for a Section 402 grant. This plan identifies highway safety problems and countermeasures to address them. Florida's Highway Safety Plan must be submitted to the NHTSA Regional Administrator for Region IV by August 1 for the next fiscal year's funding consideration.

Recreational Trails Program

Fund Source: State

Contact: Alexandra Weiss, Florida Departement of Environmental Protection Office of Greenways & Trails, at (850) 488-3701

The Recreational Trails Program is a competitive program which provides grants for projects that provide, renovate or maintain recreational trails, trailhead and trailside facilities. The RTP funding is allocated as part of TEA-21. The program requires that a local government pursuing program funding must provide some level of matching funds. The maximum amount of funding per project is $80,000. The program provide grant opportunities once a year.

Greenways and Trails Acquisition Program

Fund Source: State

Contact: Cindy Radford, FDEP Office of Greenways & Trails, at (850) 488-3701

The Greenways and Trails Acquisition Program is a component of Florida Forever, the successor to Preservation 2000. The Greenways & Trails Acquisition Program receives 1.5 percent of the Florida Forever annual distribution. Communities can apply to the program to receive funding to acquire land for greenways and trails projects.

Florida Communities Trust

Fund Source: State
Contact: Florida Department of Community Affairs (850) 922-2207

A Component of Florida Forever, the Florida Communities Trust program provides grant and loan assistance to local governments for the acquisition of conservation and outdoor recreation lands that are needed to implement local government comprehensive plans. A portion of the funds are earmarked for acquisition related to recreational trails.

Suburban Mobility Initiatives Program (FTA)

Fund Source: Federal
Contact: Joseph Goodman, FTA (202) 366-0231

This program was established in response to a need to develop solutions to suburban mobility problems. The objective of the program is to provide assistance to suburban public agencies and nonprofit private organizations in their efforts to reduce dependence on the use of single occupant vehicles in suburban areas. The program provides funding, technical assistance, and support for local activities.

Regional Mobility Program (FTA)

Fund Source: Federal
Contact: Edward Thomas, FTA (202) 366-4984.

This program provides technical assistance, develops planning methods, and conducts outreach, research, demonstrations, and project evaluations that assist local communities in improving regional transportation mobility through relatively low-cost, innovative management strategies.

Community Development Block Grants

Fund Source: Federal
Contact: Susan Cook, State CDBG Program Officer, and (850) 487-3644

Under Title I of the Housing and Community Development Act of 1974 (Public Law 93-383), grants are awarded to communities to carry out a wide range of community development activities. These activities may include construction of public facilities and improvements. In addition, funds may be used for public services within certain limits and for activities relating to energy conservation and renewable energy resources.

CDBG funds are generally available to jurisdictions with a population with 51 percent low or moderate income. Eighty percent of the CDBG funds go directly from the federal government to urban areas and twenty percent go to the state, which distributes it to smaller jurisdictions of less than 50,000 population, using a competitive application process.

Florida Recreation Development & Assistance Program

Fund Source: State

Contact: FDEP, Division of Recreation and Parks, Bureau of Design and Recreation Services, at (850) 488-7896.

The Florida Recreation Development and Assistance Program is a competitive program which provides grants for acquisition or development of land for public outdoor recreation use.

Seed Grant Program

Fund Source: State

Contact: Mark Lippert, FDEP Office of Greenways & Trails, at (850) 488-3701.

The seed grant program provides funding for the planning of trails and the addition of amenities to existing or planned trails. The grants are a maximum of $5,000 per project.

Nature Tourism / Heritage Tourism Grant Program

Fund Source: Visit Florida

Contact: Phobe Williams, Visit Florida, at (850) 410-5607.

Visit Florida is a non-profit corperation developed to promote tourism within Florida. The tourism grant program provides three different funding levels with differing requirements. The grant money is for marketing efforts aimed at promoting tourism and heritage activities including recreational trails and bicycle routes.

American Greenways Awards Program

Fund Source: The Conservation Fund

Contact: Leigh Anne McDonald, Amercian Greenways Coordinator , at (703) 526-6300.

The American Greenways Awards Program is a program started by The Conservation Fund. The Fund works with private companies such as DuPont and Kodak to provide funding for greenway development and enhancement. The maximum grant is $2,500 per project. The Fund works with different orginizations to provide funding for different greenway projects. The Conservation Fund should be contacted on a periodic basis as new grants are awared on a continuous basis.

Bikes Belong Grant

Fund Source: BikesBelong Coalition, Ltd.
Contact: BikeBelong Coalition, at (617) 734-2800.

The Bikes Belong Coalition is sponsored by members of the American Bicycle Industry. Their goal is to increase bicycling activity nation wide. Bikes Belong awards grants of up to $10,000. The primary focus of the grant is for the planning and construction of bicycle facilities and off-road trails.

Private & Non-Profit Grants

Fund Source: Private Business & Non-Profit Orginizations
Contact: Theo Petritsch, FDOT Pedestrian/Bicycle Coordinator, State Safety Office, at (850) 410-4927.

A number of private companies and trust funds often sponsor grants for recreational improvements including bicycle trails. DuPont and Kodak are examples of two corporations who have previously provided grants for the development of bicycle and

pedestrian trails. The Conservation Fund and the National Rails-to-Trails Association are examples of two non-profit orginaztaions that often provide grant funds for greenways and trails. These grants are often offered on a competitive basis. The grants can become available at any time and the requirements and funding available differ from grant to grant.

$^{9}/_{10}$ Cent ($0.009) Gas Tax

Fund Source: County

Under 336.021 F.S. any county in the state may impose a one-cent gas tax upon every gallon of motor fuel and special fuel sold in the County. The purpose of this tax is for "paying the costs and expenses of establishing, operating, and maintaining a transportation system and related facilities, and the cost of acquisition, construction, reconstruction, and maintenance of roads and streets." Counties are authorized to spend funds received under this section in conjunction with state or federal funds in joint projects.

Local Option Gas Tax

Fund Source: County

Under 336.025 F.S. a county may impose a local option gas tax that totals between one and eleven cents, in addition to the "$^{9}/_{10}$ Cent Gas Tax" described above. Funds received under this section may only be used for transportation expenditures, including bike lanes.

Local Assessments For Bikepath/Sidewalk Construction And Special Assessments On Builders and Contractors

Fund Source: Local

Under 170.01 F.S. any municipality is authorized to provide for the construction or reconstruction of sidewalks and streets. Special assessments will be levied only on the benefited real property based on the special benefit that the property is receiving from the improvement. The assessment can only be levied when the improvements funded by the special assessment provide a benefit, which is different from benefits provided by the community as a whole.

Municipal Service Benefit Unit

Fund Source: Local

Under 125.01 F.S. any County is authorized to establish municipal service taxing or benefit units within which may be provided "essential facilities and municipal services (including sidewalks and transportation) from funds derived from service charges, special assessments, or taxes within such unit only."

Low Interest Loans to Commercial Property Owners

Fund Source: Local

Under 163.370 F.S., authorizing community redevelopment agencies, local governments may make low-interest loans for the purpose of construction or reconstruction of streets, including bike lanes along those streets.

Local Government Infrastructure Surtax

Fund Source: Local

Under 212.055 F.S. each county may levy a discretionary sales surtax of 0.5 percent or 1.0 percent. The proceeds shall be expended to finance, plan, and construct infrastructure.

Appendix "A"

Appendix "B"

Appendix "C"

Appendix “D”