

A REGIONAL BICYCLE AND PEDESTRIAN PLAN

for the

Central New Hampshire Regional Planning Commission

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Prepared by the

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TABLE OF CONTENTS

Page #

Acronyms

Definitions

I. Introduction

II. Goals

III. Existing Conditions

IV. Transportation Demand Management

V. Safety and Enforcement .

VI. The Needs of Cyclists as Transportation Users

VII. Recommended Regional Bicycle and Pedestrian System

VIII. Funding Bicycle and Pedestrian Projects

IX. Planning and Implementation at the Local Level

X. Conclusions

Proposed CNHRPC Bicycle Network

Appendix A New Hampshire Office of State Planning 1996 Bike Survey

Appendix B NH B.I.K.E.S. Material

Appendix C New Hampshire State Laws Regulating Bicycles and Pedestrians

Appendix D TEA 21 and TE Project Summaries

Appendix E Roadway Schematics

Appendix F Bibliography

Appendix G Contacts for More Information

Appendix H Bicycle Friendly Planning Regulation Checklist

Acronyms

- B.I.K.E.S.** - Bicycling Includes Keeping Educated and Safe
- CNHRPC** - Central New Hampshire Regional Planning Commission
- CMAQ** - Congestion Mitigation Air Quality
- FHWA** - Federal Highway Administration
- GACIT** - Governors Advisory Commission on Intermodal Transportation
- ISTEA** - Intermodal Surface Transportation Efficiency Act
- LRSTP** - Long Range Statewide Transportation Plan
- MPO** - Metropolitan Planning Organization
- NHDRED** - New Hampshire Department of Resources and Economic Development
- NHDOT** - New Hampshire Department of Transportation
- NHOSP** - New Hampshire Office of State Planning
- RPC** - Regional Planning Commission
- STIP** - Statewide Transportation Improvement Program
- STP** - Surface Transportation Program
- TDM** - Transportation Demand Management
- TE** - Transportation Enhancement
- TEA 21** - Transportation Equity Act for the 21st Century
- TIP** - Transportation Improvement Program

Definitions

BICYCLE - a vehicle having two tandem wheels, propelled solely by human power, upon which any person or persons may ride.

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

BICYCLE PATH - a bikeway physically separated from motorized traffic by an open space or barrier, and either within the highway right-of-way or within an independent right-of-way.

BICYCLE ROUTE - a segment of a system of bikeways designated by the jurisdiction having authority, with or without a specific bicycle route number.

BIKEWAY - any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycle or are to be shared with other modes of transportation.

HIGHWAY - a general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

INTERMODAL - pertaining to or suitable for transportation involving more than one form of carrier.

NON-MOTORIZED MODES OF TRANSPORTATION - modes of transportation utilizing physical human power. Examples are bicycles, walking, skateboards, roller-blades, and the like.

PEDESTRIAN - any person traveling by foot or wheelchair.

RIGHT-OF-WAY - a general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

ROADWAY - the portion of a highway, including shoulders, for vehicle use.

SCOOTER - a small-wheeled motorcycle with a protective front shield curving back to form a support for the feet.

SHARED ROADWAY - any roadway upon which a bicycle lane is not designated and that may be legally used by bicycles, regardless of whether such facility is specifically designated as a bikeway.

STATE BICYCLE ROUTE SYSTEM - network of existing roads and other special facilities to serve the needs of inter-regional bicycle trips.

TRANSPORTATION DEMAND MANAGEMENT - any action or set of actions aimed at influencing people's travel behavior in such a way that alternative mobility options are presented and/or traffic congestion is reduced.

I. Introduction

As the public's concern over air quality, traffic congestion and other environmental issues increases, and there is an increased societal emphasis on personal fitness, the need and desire for a well-maintained and safe bicycle and pedestrian route system will continually grow. One purpose of this Plan is to provide information that will assist communities in identifying and implementing bicycle and pedestrian projects in the Central New Hampshire Region. A second purpose of this Plan is to recommend a Regional Bicycle and Pedestrian System for the Central New Hampshire Region that will enable and encourage regional bicycle and pedestrian travel, for recreation and as a mode of transportation.

The New Hampshire Department of Transportation (NHDOT) published a statewide bicycle and pedestrian plan in the late 1970's, which was subsequently updated in January 1995 and again in May 2000. This statewide plan is a very useful resource for base information on such topics as funding resources, safety concerns, bicycle path standards, and other associated issues. It was developed to serve bicycle travel desires to major inter-regional destinations. It is the role of the Regional Planning Commissions to identify other suitable road networks to serve intra-regional bicycle travel. Whereas the statewide system connects cities, towns, and major tourist destinations, the regional system will ultimately connect towns to each other and to the statewide system.

The Regional Planning Commission's goal in designing this bicycle and pedestrian plan is to help promote a safe and useful bicycle/pedestrian network that encourages intermodal transportation in the Region. Intended to supplement the New Hampshire Statewide Bicycle and Pedestrian Plan, this Central New Hampshire Regional Planning Commission (CNHRPC) Bicycle and Pedestrian Plan is an update to our March 1999 plan.

II. Goals

1. Encourage the planning and development of a safe and accessible regional bicycle/pedestrian route system for recreational and commuting purposes.
2. Establish a continuous, coordinated non-motorized transportation network that will increase the incidence of bicycling and walking.
3. Reduce the number of bicycle and pedestrian accidents, injuries, and fatalities, particularly those that involve motorists.
4. Create a traveling environment in which bicycling and walking are attractive alternatives.
5. Promote public awareness and acceptance of bicycling and walking as a transportation mode for all destination-oriented trip purposes.

6. Encourage organizations with the appropriate interests or authority to improve traffic safety education and enforcement.
7. Integrate the consideration of the needs of pedestrians and bicyclists with other travel modes into the regular routines and programs of all agencies involved in the transportation planning process.
8. Recommend the development of a system that promotes the use of non-motorized modes of transportation that do not pollute the environment.
9. Help communities in the planning, implementation, and evaluation of local bicycle and pedestrian plans and projects.

III. Existing Conditions

With the exception of the City of Concord, most of the local routes linking communities together, in this region, are 24 to 26 foot wide roads, with dirt shoulders that range from one to three feet wide. Sidewalks and wider shoulders are virtually non-existent on roads in the non-urbanized areas. State roads in the region typically have some width of paved shoulders available, although they vary greatly from roadway to roadway.

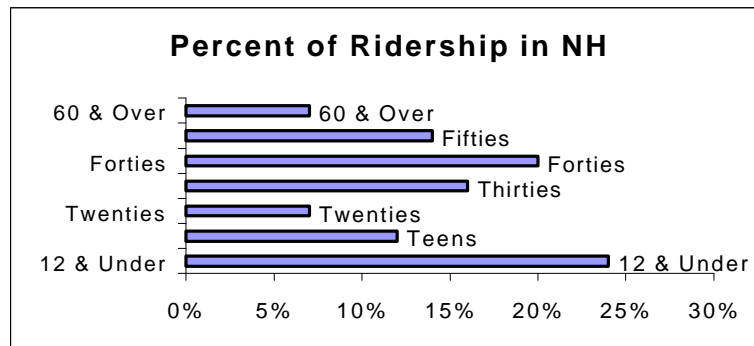
Data, related to how often bicycle or pedestrian travel is used in place of motor vehicles for commuting purposes, is not readily available. The Central New Hampshire Regional Planning Commission (CNHRPC) has not undertaken an analysis of the existence or the potential desire for bicycle or pedestrian commuting in the region. The 1990 Census offers some information regarding bicycle and pedestrian travel, however, it has several weaknesses that contribute to an underreporting of bicycle and pedestrian travel. These weaknesses include the fact that the data was collected during the last week of March, which due to the weather in New Hampshire is not the most popular time to be bicycling or walking great distances. The Census also asked for the most often used means of travel, not taking into account occasional use. Finally, the Census did not collect data pertaining to any "recreational" travel by bicycle or foot. Regardless of its shortcomings, the 1990 Census data is still one of the only available sources of information, until the release of the new 2000 Census data, which should begin to be available in April 2001.

The data collected in a 1996 New Hampshire Office of State Planning (NHOSP) survey contains some of the most current data available regarding bicycle usage. See Appendix A for a copy of the 1996 NH OSP Survey. The survey was distributed to a very small population that was scattered statewide, and consequently, is not representative of the state's population as a whole. Two key points of interest generated by the survey are the percentage of ridership by age group and the most recommended improvements to the current bicycle route systems. The ridership by age group is displayed in Chart 1, which shows that two age groups, those "Twelve and Under" and people in their "Forties," account for 44% of bicycle ridership. The two most recommended

improvements to the existing bicycle system generated by the survey are the desire to see the widening of shoulders and making local town bicycle routes.

Table 1 and Table 2, show the 1990 Census data for "Means of Transportation to Work" and "Travel Time to Work" for Merrimack County. As seen in Table 1, less than 0.5 percent of the working population, 16 years old and older, commutes using a bicycle, while nearly 4 percent walk. The low percentages of bicycle and pedestrian commuting is somewhat expected in this region, as many towns are spread out and there are limited "bicycle friendly" routes connecting them. A factor contributing to the low number of bicycle and pedestrian commuting is the lack of a supporting infrastructure - like showers, lockers, and secure bicycle parking/storage - at Park and Ride facilities and places of employment. Another factor limiting the use of bicycles and other non-motorized modes of transportation is the climate in New England, with its long cold winters and rainy springs. A large portion of those persons who reported they walk to work are residents of the City of Concord.

CHART 1



Source: 1996 NH Office of State Planning Bicycle Survey

TABLE 1
Means of Transportation to Work – Count of Workers 16 Years and Older

Type of Transportation	Merrimack County	Percent
Drove alone	47,459	78.5%
Car Pooled	7,473	12.4%
Public Transportation	355	0.6%
Motorcycle	60	0.1%
Bicycled	197	0.3%
Walked	2,306	3.8%
Other Means	218	0.4%
Worked at Home	2,378	3.9%
Total	60,446	100%

Source: 1990 US Census

TABLE 2
Travel Time to Work – Count of Persons 16 Years and Older

Travel Time (Minutes)	Merrimack County	Percent
Less than 5	2,730	4.7%
5-9	7,748	13.3%
10-14	9,122	15.7%
15-19	10,196	17.6%
20-24	8,495	14.6%
25-29	3,584	6.2%
Longer than 30	16,193	27.9%
Total	58,068	100%

Source: 1990 US Census

IV. Transportation Demand Management

Transportation Demand Management (TDM) is a method used to try to reduce the demand placed on the transportation system that currently exists, as well as reduce the demand for future systems to be built or expanded. One of the goals of TDM is to reduce the reliance on Single Occupancy Vehicle (SOV) transportation by providing effective and efficient alternatives that meet commuter needs. SOVs are imposing negative impacts on the aesthetic, environmental and human health of the region, state and across the country. TDM programs across the country demonstrate clearly the economic, environmental and community health benefits of reducing SOV travel.

An effective TDM program requires a multi-modal transportation system, including strong pedestrian and bicycle facilities and convenient transit services. There are three important ways in which increased bicycling and walking modes could play a greater role in TDM programs:

1. As a primary mode: using bicycles or walking as the major means of accessing a job site.
2. As feeder modes: using bicycles or walking to connect with other modes for longer trips
3. For circulation: using bicycles or walking to access other locations at an activity center

Some guidelines for implementing non-motorized modal options as part of a TDM program can include:

- Providing safe and convenient access, which includes providing secure bike storage at transfer points and readily marked and lighted sidewalks.
- Placing bicycle facilities as close as possible to the final destination of the cyclists.
- Network information should be available to those using non-motorized transportation.
- Encouraging developers and local officials to incorporate non-motorized modal considerations into site design criteria.

Cyclists can benefit significantly from expanded and improved bicycle parking. One of the primary methods employed by TDM is to increase the viability of bicycle transportation and secure bicycle parking. Bicycle parking should be sited wherever bicycle traffic is expected. High-priority locations include recreational destinations, schools and universities, places of employment, commercial districts, and shopping centers.

The implementation of bicycle parking improvements is the responsibility of not only the local governments, but businesses, schools, and commercial establishments. As access is improved to various destinations and bicycling is encouraged, bicycle parking will become an important component of local plans. Local governments can adopt regulations for the provision of bicycle parking, just as requirements for automobile parking are adopted.

Bicycle parking ordinances have been adopted by many cities throughout the country. Ordinances are often adopted as amendments to existing parking regulations. Most ordinances link bicycle parking requirements to land use and the amount of automobile parking required. Bicycle parking ordinances generally deal with new development, although existing property owners are encouraged to provide parking as well. Some communities also specify the general type of facilities for each use, installation and placement guidance, and maintenance requirements. The below table can be used as a reference for establishing local parking space ordinance requirements.

Bicycle Parking Space Requirements

Type of Establishments	Minimum Number of Bicycle Parking Spaces
Primary or Secondary School	10% of the number of students, plus 3% of the number of employees
College/University Classroom	6% of the number of students, plus 3% of the number of employees
Shopping Mall	5% of the number of automobile spaces
Commercial/Retail Street	1 space per 3,000 sq.ft. of commercial space
Sport/Recreational Center	12% of the number of automobile spaces
Office Building	10% of the number of automobile spaces
Government Building	10% of the number of automobile spaces
Movie Theater or Restaurant	5-10% of the number of automobile spaces
Manufacturing Plant	4% of the number of automobile spaces
Public Transit Station	20 spaces minimum
Multi-Unit Housing	1 space per 2 apartments
Other Land Uses	5-10% of the number of automobile spaces

Source: *Bicycle Facility Planning*, Suzan Anderson Pinof and Terri Mausser. APA

V. Safety and Enforcement

An integral part of promoting the use of bicycle and pedestrian transportation is teaching all involved how to share the roadways safely. This education should begin at the elementary school level and be continued and incorporated into driver education in high school. It is also important to publish and distribute brochures geared toward adult drivers, bicyclists, and pedestrians, so that they may also be aware of shared roadway safety and responsibilities.

Many police departments and school districts already have in place grade school bicycle and pedestrian education programs that promote safe bicycle and pedestrian practices. Safety programs sponsored by police departments can decrease auto related bicycle accidents. Downward fluctuations in accident statistics frequently correspond to police department safety campaigns. The New Hampshire B.I.K.E.S. (Bicycling Includes Keeping Educated and Safe) program, which was developed by the Injury Prevention Center at Dartmouth Medical School and is funded by the New Hampshire Department of Education, is supplied to every elementary school in the State. This program includes safe bicycling handouts for children and parents, an observational survey form, a bicycle-safety quiz, coupons for discounted helmets, and a curriculum for teachers. See Appendix B for information on the NH B.I.K.E.S. program.

The next step in the continuation of bicycle and pedestrian safety education should be at the high school level through driver education. Driver education classes provide one of the best forums for teaching new drivers how to share the roadways safely with bicyclists and pedestrians. The Department of Safety has expressed a willingness to promote bicycle and pedestrian safety by incorporating material into editions of the State driver's manual, as well as providing distribution areas in Motor Vehicle substations for any bicycle safety publications. Information

regarding shared roadways should be included in the New Hampshire Drivers Manual and should be integrated into driver licensing tests.

Enforcement of bicycle, pedestrian and motorist laws is essential in promoting a safe shared roadway system. However, these laws are often not enforced by local officials and not followed by bicyclists, pedestrians, or motorists. It is vital that local law enforcement officials take these laws seriously and begin to enforce them on a regular basis. While there are no helmet laws required by the State of New Hampshire, it is highly recommended by most bicycle advocacy groups and by the NH Department of Safety that all riders wear bicycle helmets at all times. Motorists and bicyclists must know the local laws and ordinances while driving or riding in different communities. Appendix C contains New Hampshire State laws regulating bicycles and pedestrians.

Reducing the number of hazards on roads and streets will also assist in reducing the number of bicycle accidents. This action requires that debris be removed regularly from the sides of the roads and shoulders and that chuckholes be repaired in a timely fashion. Storm grates with elongated slot openings that trap bicycle wheels would be replaced with a safer design or recessed behind the curb line. If replacement is impossible, grates should be painted with warning lines.

VI. The Needs of Cyclists as Transportation Users

Bicyclists have basic needs as people who travel using a transportation system. Bicycle literature in the last ten years has summarized cyclist requirements for bicycle systems and bicycle facilities with the words "fast, safe, attractive." Recently, others have added words such as "convenient" and "comfortable."

In 1994, the Bicycle Federation of America described the basic needs of cyclists as transportation users. They described these as 'Performance Criteria for Bicycle Networks,' in a publication prepared for the Federal Highway Administration. Their description provides the following requirements for cyclists, as transportation users.

Performance criteria define the important qualitative and quantitative variables to be considered in determining the desirability and effectiveness of a bicycle network. These can include:

- Accessibility** This is measured by the distance a bicycle facility is from a specified trip origin or destination, the ease by which this distance can be traveled by bicycle, and the extent to which all likely origins and destinations are served....No residential area or high priority destination (school, shopping center, business center, or park) should be denied reasonable access by bicycle.
- Directness** Studies have shown that most bicyclists will not use even the best bicycle network if it greatly increases the travel distance or trip time over that provided by less desirable alternatives. Therefore, even for [less skilled] bicyclists, routes should still be reasonably direct. The directness to comfort/perceived safety involved in this tradeoff will vary depending on the characteristics of the bicycle network (how desirable is it?), its more direct alternatives (how unpleasant are they?), and the typical user's needs (in a hurry?, business or pleasure trip?).
- Continuity** The proposed network should have as few missing links as possible. If gaps exist, they should not include traffic environments that are unpleasant or threatening to [less-skilled] riders, such as high volume or high-speed motor vehicle traffic with narrow outside lanes.
- Route Attractiveness** This can encompass such factors as separation from motor traffic, visual aesthetics, and the real or perceived threat to personal safety along the facility.
- Low Conflict** The route should present few conflicts between bicyclists and motor vehicle operators.

In addition to the Performance Criteria for Bicycle Networks from the Bicycle Federation of America, the following should be included as requirements for cyclists, as transportation users.

- Quality Networks** Quality networks that ensure the physical and personal safety of cyclists, provide a physically legible roadway space to reduce ambiguity and conflict regarding the use of the space by cyclists, other vehicles and pedestrians, and offer smooth, level, well-drained roadways.
- Well-Maintained Networks** Well-maintained networks that are free from gravel and debris, receive prompt and complete snow and ice removal, and are regularly remarked and re-stripped so that the bicycle network is legible to cyclists and motorists.

Secure, Convenient Parking	Secure and convenient parking as close to the door as possible - closer than automobile parking.
Weather-Protected Facilities	Weather-protected facilities and shelters at intersections where a wait can be greater than two minutes.

VII. Recommended Regional Bicycle and Pedestrian System

This section of the Plan presents a suggested bicycle and limited pedestrian route system for the Central New Hampshire Region. The route system is designed to provide the necessary linkages between communities and to the City of Concord, and address internal community routes on a limited basis. Central New Hampshire Regional Planning Commission staff can provide assistance in planning for and implementing local bicycle and pedestrian networks.

The following criteria should be looked at when developing a recommended regional bicycle and pedestrian system:

- Convenient access to major activity centers that include residential areas, employment centers, shopping destinations, public facilities, schools, parks, and/or areas of special populations;
- Critical safety concerns and hazardous conditions should be addressed and corrected to increase bicycle and pedestrian use;
- Linkages should be formed to other transit and intermodal centers; and
- Completion of existing and/or planned bicycle and pedestrian facilities.

Forming linkages between communities is the necessary next step required to promote the use of non-motorized modes of transportation on a regional scale. The Central New Hampshire Region is comprised of smaller, rural towns surrounding a large population center, the City of Concord. Typically, fair distances separate the centers of any two rural adjacent towns, which must be taken into account when a bicycle or pedestrian route system is planned.

Due to the low traffic volumes on many roadways in our region, separate bicycle and pedestrian paths are not widely recommended at this time. The maps included in this report show the proposed regional bicycle and pedestrian routes, as well as the existing state routes. The roadways recommended to be part of the bicycle and pedestrian route system will require varying levels of upgrades in order to make them safer for bicycle and pedestrian travel and may not be suitable for all levels of cycling ability. While traffic conditions, travel speeds,

and shoulder widths cause many of the routes described above to not be very suitable for pedestrian travel, in their entirety, often only individual sections of the routes may be suitable.

IIIX. Funding Bicycle and Pedestrian Projects

The Transportation Equity Act for the 21st Century (TEA 21) allows for the funding of bicycle/pedestrian projects through several Federal programs. A few of these funding sources include National Highway System, Surface Transportation Program, Congestion Mitigation and Air Quality program (CMAQ), Transportation Enhancement (TE), and the Bridge Program. See Appendix D for a summary of the various funding programs available.

These Federal funding programs are used to fund all aspects of transportation planning and the development of projects throughout the state. The funding available never meets the needs of all the potential projects, so for each program there is a rigorous application process. A detailed application is evaluated by special committees and by the Regional Planning Commission's (RPCs) Transportation Advisory Committee (TAC). Cities, towns, state agencies, private industry, and special interest groups can apply for funds. These applications are ranked according to specific criteria and they will or will not receive funding based on these rankings. Each application may be resubmitted in the next application cycle, as it was originally submitted or with adjustments. The resubmitted application *does not*, however, receive any priority over new applications.

For the TE process, the RPC submits applications and rankings to NHDOT, which submits them to the Transportation Enhancement Advisory Committee (TEAC). The TEAC is comprised of the Executive Council, the NHDOT, Division of Historical Resources, Regional Planning Commission and designees from the Governor, Speaker of the House, President of the Senate, Department of Resources & Economic Development (DRED) and the NH Municipal Association. This selection process is conducted every two years.

The TEAC conduct limited public hearings on all of the project applications. After the public hearings, members of the advisory committee rate and prioritize all of the projects and send a list of recommended projects within anticipated funding constraints to the Commissioner of the NHDOT. The Commissioner then sends a recommended list of projects to the Governor's Advisory Commission on Intermodal Transportation. (GACIT). GACIT holds extensive public hearings on the projects and once the projects are approved by GACIT, the Governor and Legislature approve the projects and they are then placed in the State's Ten Year Transportation Improvement Program (TIP).

Due to the intense competition for Federal and State funding and the nature of bicycle and pedestrian projects, it is recommended that some projects seek alternative funding from sources such as: public/private partnerships, public and private transportation providers, and civic groups.

Funding for bicycle/pedestrian education and safety programs may come from the US Department of Safety's Section 402 Funding program. In New Hampshire, the Highway Safety Agency administers these funds. Section 402 Funds may not be used for the purpose of construction. Programs that are typical recipients of these funds include: in-school safety programs, bicycle helmet promotions, pedestrian safety programs, and bicycle/pedestrian events promoting safety.

IX. Planning and Implementation at the Local Level

Planning for a bicycle/pedestrian network requires a different approach from that of motorized transportation planning. Bicyclists and pedestrians have different needs from those of motorists, including wider shoulders, curbed sidewalks, better traffic control at intersections, and stricter access management. Often, particularly in rural settings, roadways are designed solely with motor vehicles in mind. To better enable the incorporation of bicycle and pedestrian facilities into the design and construction of new and upgraded roadways, support must be shown in local communities for the need of such facilities. As a guide to bicycle and pedestrian planning in municipalities, these six planning steps should be followed:

1. Build community support
2. Survey the communities wants and needs
3. Identify potential problems and local conditions
4. Outline goals and objectives
5. Create a plan of action
6. Implementation of the plan

1. Building Community Support

Community support is the backbone of any local project. Building this support starts with contacting any groups or individuals that may have an interest in the project. Interested groups and individuals often include statewide bicycle associations and local bicycle groups, community beautification committees, schools that may be affected, businesses along the proposed routes, and homeowners near the proposed routes. Once these groups and individuals have shown an interest, they should be kept up-to-date on the progress of the

project. Also, a Bicycle and Pedestrian Advisory Committee may be established to help rally support and make recommendations for the plan. CNHRPC staff can assist in the establishment and facilitation of such a group.

2. Survey the Community's Wants and Needs

A community's future wants and needs are often observed through the use of a citizen interest survey. This survey would help gauge the interest of the community to different ideas, designs, and plans available. Detailed information about where the path should be located, the amount of people who plan to use the path, when they plan to use the path, how often they plan to use the path, and so on, can be gathered and quantified through the survey. This is all information that will help the designers in planning the appropriate path for the specific community needs.

Care must be taken when designing a community interest survey to ensure that the following guidelines are followed. It is helpful to keep these in mind when designing the survey:

1. Make the survey "user-friendly" so that it is not overwhelming.
2. Gear the language, terms, and technical information to the targeted audience.
3. Keep it as short and simple as possible.
4. Keep in mind what information you want to get out of the survey as you design the questions.
5. Design the questions with a neutral tone so that there is not a positive or negative slant to what is being asked.

3. Outline the Desired Goals and Objectives

Collectively, the Bicycle and Pedestrian Advisory Committee (if one is created), and the path designers should outline the goals and objectives of the plan. These may include designing a path that is suitable for bicycles, as well as pedestrians. If this is the goal, then the design of the route may include a curbed sidewalk portion paralleling a widened shoulder along the roadway. Another goal may be to link residential areas with a school or park, which may require different planning on the part of the route designers. As the goals and objectives are outlined, questions and problems, like those mentioned above, may come up and should be addressed as early in the planning process as possible.

4. Identify Potential Problems and Current Conditions

Working with town officials, the local Bicycle and Pedestrian Advisory Committee needs to identify potential problems with the proposed route and plan. A major part of planning for and identifying potential problems is cataloging what already exists along the proposed bike/pedestrian path. This involves locating where the path may intersect a road or cross a bridge, analyzing traffic flow and vehicular movement in and out of parking lots along the path, analyzing traffic volume data, as well as noting accident reports. Any public concerns about these types of problems should be recorded and researched to ensure that all information is taken into account. Again, CNHRPC staff can provide assistance in completing this task.

Once the current situation is analyzed, the designers can tailor the location and layout accordingly. If, for instance, a portion of the path runs along a roadway that has many driveways or businesses located along it, the planners may need to think about caution signs for the path users, as well as motorists. If a large hazard, like an intersection with a parking lot that serves a large store is found, perhaps the town or city will need to plan for walk signals or traffic lights to deal with the potentially hazardous traffic. See Appendix F for examples of roadway schematics for bike path and pedestrian walk way construction. Pedestrians and bicycle enthusiasts should be consulted to help in determining potential hazard spots along the path, as well as proposed solutions.

5. Create a Plan of Action

A plan of action consists of a timeline for the proposed project, the order of the steps that must be accomplished to complete the project, and who is responsible for each of the various steps. The plan of action serves as a guide for the entire implementation process.

The plan of action should be created by the designers, other city/town officials, the Bicycle and Pedestrian Advisory Committee, and any contracted construction firms. In a coordinated fashion, these groups need to set a timeline with specific steps and decide who is responsible for each step in the timeline. Items like the notification of homeowners and business owners, coordination with different agencies, and costs of construction all should be detailed and agreed to in the plan of action. Once the plan of action is created, implementation of the plan can begin.

6. Implementation

Implementation is when the plan of action is transferred from paper and theory to practice and action. The implementation of a plan is one of the most important and often overlooked steps by the public and elected officials. As much care, oversight, and attention as was given in the earlier planning stages needs to be again applied at the implementation phase.

A comprehensive set of recommendations on the implementation of bicycle and pedestrian facilities is found in the North Central Texas Council of Governments' Bicycle and Pedestrian Facilities Planning and Design Guidelines (NCTCOG 1995). As outlined in the publication, the following actions provide a framework to improve bicycle and pedestrian mobility:

Planning Policies

- Establish local development frameworks and planning processes to improve mobility for the purposeful movement of people and goods by the most efficient means possible.
- Assign a staff member, with responsibility for bicycle and pedestrian traffic, to coordinate elements of the community's planning, capital improvements programming, budgeting, and maintenance scheduling to ensure improved non-motorized mobility.
- Provide transportation opportunities for various types of bicyclists and pedestrians throughout the local transportation system.
- Establish land-use and community development goals compatible with bicycle and pedestrian traffic through the master plan.
- Establish right-of-way requirements that accommodate the complete bicycle route system, sidewalk, and multi-use pathway system through the local thoroughfare plan.
- Utilize local development, subdivision, and zoning ordinances to establish building orientation standards and other provisions that result in average trip lengths compatible with bicycle and pedestrian mobility.
- Maintain a local capital improvement plan that provides regular funding for the bicycle and pedestrian program to acquire right-of-way, to construct new facilities, to retrofit inadequate facilities, and to refurbish older facilities.
- Include funding for regular facility evaluation, maintenance, and repair, as well as funding to review development and zoning proposals for impact on bicycle and pedestrian mobility in the annual budgets for local staff, operations, and maintenance.

Bicycle Policies

- Link trip origins and destinations with on-street bikeways designed to serve transportation purposes.
- Build and maintain street surfaces to avoid pavement conditions unsafe for bicyclists.
- Accommodate bicycle acceleration, deceleration, and travel speeds in the installation, timing and operation of traffic detection devices and traffic signals.
- Establish a signed on-street bicycle route system over the street grid system to provide bicyclists with a higher level of service than alternate routes.
- Place bicycle route signs at intervals along the route system to identify streets suitable for bicycle traffic.
- Distribute a city/town bike map that communicates how to safely utilize the on-street bicycle route system.
- Build or retrofit arterials and collectors with wide curb lanes to accommodate bicyclists.
- Utilize structural traffic management facilities along specified on-street bicycle routes to improve bicycle and pedestrian mobility.
- Review sites of collision and/or bicyclists and pedestrian injuries to identify potential remedial design actions.
- Maintain bicycle routes and other on-street facilities to prevent deterioration or unsafe/impassable conditions.
- Provide off-street routes on separate rights-of-way for non-motorized transportation that improve bicycle and pedestrian travel times.

Pedestrian Policies

- Provide a complete network of pedestrian facilities, designed to accommodate all pedestrians, that services short trip mobility needs.
- Construct walking facilities to provide an adequate pedestrian level of service for all users.
- Construct sidewalks that meet or exceed the Americans with Disabilities Act standards.
- Provide street intersections that encourage safety and ease of crossings for pedestrians.
- Concentrate pedestrian improvements in pedestrian activity centers.
- Maintain pedestrian facilities to ensure the safety and functionality of the pedestrian transportation system.
- Provide specific access sites to schools and other important activity centers.

See Appendix H for a "Bicycle Friendly Planning and Regulation Checklist for Local Communities" that can help assist in the planning for a bicycle and pedestrian network at the local and/or regional level.

X. Conclusions

The aim of this Regional Bicycle and Pedestrian Plan is to aid in the development of a transportation system, for the Central New Hampshire Region, that promotes and accommodates the use of non-motorized modes of transportation. This plan will be incorporated into the Regional Transportation Plan and will become a guide for all relevant future recommendations and considerations made by the CNHRPC. The Plan will be updated at least every five years by the Regional Planning Commission. It is the responsibility of various state and local agencies, and of the CNHRPC that the recommendations made within this plan are given due consideration at different stages of the transportation planning and funding process. When these considerations are given, the development of such a transportation system for the CNHRPC Region becomes possible.

APPENDICES

Appendix A

New Hampshire Office of State Planning 1996 Bike Survey

Appendix B

NH B.I.K.E.S. Material

Appendix C

New Hampshire State Laws Regulating Bicycles and Pedestrians

§ 265:36 Crossing at Other Than Crosswalks

- I. Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right away to all vehicles upon the roadway.
- II. Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right of way to all vehicles upon the roadway.
- III. Between adjacent intersection at which traffic control signals are in operation pedestrians shall not cross at any place except in marked crosswalks.
- IV. No pedestrians shall cross a roadway intersection diagonally unless authorized by traffic-control devices; and, when authorized to cross diagonally, pedestrians shall cross only in accordance with the official traffic control devices pertaining to such crossing movements.

§ 265:35 Pedestrian's Right of Way in Crosswalks

- I. When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.
- II. No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard.
- III. Paragraph I shall not apply under the conditions stated in RSA 265:36.
- IV. Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicles.

§ 265:39 Pedestrians on Roadway

- I. Where sidewalks are provided it shall be unlawful for any pedestrian to walk along and upon any adjacent roadway.
- II. Where a sidewalk is not available, any pedestrian walking along and upon a way shall walk only on a shoulder, as far as practicable from the edge of the roadway. Where neither a sidewalk nor a shoulder is

available, any pedestrian walking along and upon a way shall walk as near as practicable to an outside edge of the roadway, and if on a two-way roadway, shall walk only on the left side of the roadway.

III. Except as otherwise provided in this chapter, any pedestrian upon a roadway shall yield the right of way to all vehicles upon the roadway.

§ 265:34 Pedestrians Subject to Traffic Signs and Regulations

A pedestrian shall obey the instructions of any traffic sign or regulation specifically applicable to him, unless otherwise directed by a police officer. Pedestrians shall be subject to traffic and pedestrian control signals as provided in RSA 265:9 unless required by local ordinance to comply strictly with such signals. At all other places, pedestrians shall be accorded the privileges and shall be subject to the restrictions of this chapter.

§ 265:143 Application of Motor Vehicle Laws to Bicycles

Every person propelling a vehicle by human power or riding a bicycle shall have all of the rights and be subject to all of the duties applicable to the driver of any other vehicle under the rules of the road, except as to regulations in this subdivision and except as to those provisions which by their nature can have no application.

§ 265:144 Riding on Bicycles

I. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached to the bicycle.

II. No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.

III. No person riding upon any bicycle, coaster, roller skates, skateboard, sled or toy vehicle shall attach the same or himself to any vehicle upon a roadway.

IV. No person operating a bicycle shall carry any package, bundle or article which prevents the driver from keeping at least one hand upon the handlebars.

V. Persons riding bicycles 2 or more abreast shall not impede the normal and reasonable movement of traffic and, on a laned roadway, shall ride within a single lane.

VI. Bicyclists intending to turn right or left shall not be required to give a continuous hand or arm signal if the hand is needed in the control or operation of the bicycle.

VII. A person propelling a bicycle may pass a slower-moving vehicle in the same lane provided such movement can be made with reasonable safety.

VIII. Any bicyclist shall stop upon demand of a peace officer and permit his bicycle to be inspected.

IX. No bicycle shall be operated unless the steering, brakes, tires and other required equipment are in safe condition.

§ 265:78 Competitive Bicycle or Moped Races

No person shall conduct or participate in any competitive bicycle or moped race on any class I, class III, or class III-a highway or on the state-maintained part of any class II highway, unless such race is sponsored by a recognized bicycle or moped organization and the sponsor of such race has obtained, prior to such race, the written approval of the commissioner and of the police department of each city, town or place in which such race is to be held. In the case of a competitive bicycle or moped race on a class III-a highway, the sponsor of the race shall also obtain the approval of the executive director of the fish and game department. The commissioner and the executive director of the fish and game department may require insurance, police coverage or other regulations to insure the safety and protection of the public, and the permit may exempt competitors from such requirements of this chapter relative to rules of the road as are not inconsistent with public safety.

§ 266:89 Sirens Prohibited

No bicycle or moped shall be equipped with a siren, nor shall any person on a bicycle or moped use a siren.

§ 266:88 Break Required

Every bicycle and moped shall be equipped with a break or breaks which will enable its driver to stop the bicycle or moped within 25 feet from a speed of 10 miles per hour on dry, level, clean pavement.

§ 266:86 Headlamp Required at Night

Every bicycle operated upon any way during darkness shall be equipped with a lamp emitting a white light visible from a distance of 300 feet in front of the bicycle and with a red reflector on the rear of a type approved by the director, which shall be visible from a distance of 300 feet to the rear when directly in front of the lawful upper beams of headlamp on a motor vehicle. A lamp emitting a red light visible from 300 feet to the rear may be used in addition to the red reflector. Every moped driven upon any way

during darkness shall be equipped with one headlamp which meets the specifications for headlamps established in RSA 266:31. Taillamps and stop lamps are required on mopeds.

§ 266:87 Pedal Reflectors Required

On or after August 23, 1983, no person shall sell a new bicycle or moped or pedal for use on a bicycle or moped either separately or as part of a new bicycle or moped, unless that pedal is equipped with a reflector of a type approved by the director, which conforms to 49 CFR 571.108 Table 2 and which is visible from the front and rear of the bicycle or moped from a distance of 200 feet during darkness.

§ 265:152 Bicycle Parking

- I. A person may park a bicycle on a sidewalk unless prohibited or restricted by an official traffic control device.
- II. A bicycle parked on a sidewalk shall not impede the normal and reasonable movement of pedestrian traffic or other traffic.
- III. A person shall not park a bicycle on a roadway in such a manner as to obstruct the movement of a legally parked motor vehicle.
- IV. In all other respects, bicycles parked on a way shall conform with provisions of law regulating the parking of vehicles.

§ 265:149 Ordinances and Bylaws

Any city or town shall have to make ordinances, bylaws or regulations respecting the use and equipment of bicycles, except mopeds as defined in RSA 259:57, on its ways, provided that any such ordinances, bylaws or regulations enacted with respect to such equipment shall be at least as stringent as the requirements of RSA 266:85-89. Any city or town may require that bicycles, except mopeds as defined in RSA 259:57, be licensed and may charge reasonable fees for such licensing.

§ 265:146 Permits

The mayor of a city, or selectmen of a town, may, in their discretion, upon any special occasion, grant permission to any persons to ride bicycles or mopeds, at any rate of speed, for a time not exceeding one day upon specified portions of the public ways of such city or town, and may annex such other reasonable conditions to such permits as they may deem proper.

§ 265:145 Clinging to Vehicles Prohibited

No person riding a motorcycle, bicycle, moped, coaster, sled, skateboard, or toy vehicle, or wearing roller skates, shall hold fast to or hitch onto any streetcar, or any other vehicle moving upon a way.

§ 259:100 Sidewalk

"Sidewalk," as used in the provisions of this title relative to bicycles, shall mean all sidewalks laid out as such by a city, town or village district, or reserved by custom for the use of pedestrians, that are within the compact part of a city, village or district. It shall not include crosswalks, nor footpaths outside the compact part of towns and cities that are worn only by travel and not improved by towns or cities or the abutters, not any paths that are built for the exclusive use of bicyclists.

§ 259:6 Bicycle

"Bicycle" shall mean every pedaled vehicle propelled solely by human power upon which any person may ride, except child's tricycles and similar devices.

§ 259:92 Roadway

"Roadway" shall mean that portion of a improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk, berm or shoulder even though such sidewalk, berm or shoulder is used by persons riding bicycles or other human powered vehicles. In the even a way includes 2 or more separate roadways, the term "roadway" as used herein shall refer to any such roadway separately but not to all such roadways collectively.

§ 259:65 Motor-driven Cycle

"Motor-driven cycle" shall mean any motorcycle or motor scooter with a motor which produces not to exceed 5 horse-power, and any bicycle with motor attached, but not including mopeds.

§ 259:122 Vehicle

"Vehicle" shall mean:

I. Except as provided in paragraphs II and III, every mechanical device in, upon or by which any person or property is or may be transported or drawn upon a way, excepting devices used exclusively upon stationary rails or tracks;

II. [Repealed]

III. When used in the provisions of RSA 264, the same as paragraph I of this section, but not including bicycles and mopeds

§ Application of Chapter to Bicycles

No preceding provisions of this chapter shall apply to bicycles nor to equipment for use on bicycles unless a provision has been made specifically applicable to bicycles or their equipment.

§ 265:150 Penalty

Any person violating the provisions of RSA 265:145 or any ordinance, bylaw, or rule made under the provisions of RSA 265:149, shall be deprived of his bicycle or moped by the law enforcement agents until such provisions and requirements have been complied with.

§ 265:153 Penalty

Any person violating the provisions of this subdivision or of any ordinance, bylaw or rule made under the provisions of this subdivision shall be guilty of a violation.

§ 265:151 Limitation of Prosecution

Prosecutions under this subdivision shall be instituted within 60 days from the time the offense was committed.

Appendix D

TEA-21 and TE Program Summaries

TEA-21 Summary

Bicycle Transportation and Pedestrian Walkways

Program Purpose

The Bicycle Transportation and Pedestrian Walkways provisions of Section 217 of Title 23, as amended by TEA-21, describe how federal-aid funds may be used for bicycle and pedestrian projects. These projects are broadly eligible for all of the major funding programs where they compete with other transportation projects for available funding at the State level.

Eligible Use of Funds

Bicycle and pedestrian projects are eligible for NHS, STP (including Transportation Enhancements, and Sections 130 and 152), CMAQ, Federal Lands, Scenic Byways, and Recreational Trails funds.

TEA-21 amends the eligibility of certain projects for Federal-aid funding including:

- National Highway System funds may now be used for pedestrian walkways [1202(a)(1)].
- National Highway System Funds for bicycle and pedestrian projects may now be used for projects within Interstate corridors [1202(a)(2)].
- Expands eligible uses of STP safety funds to include bicycle improvements. In addition, Hazard Elimination (part of STP safety setaside) funds can now be used for pedestrian and bicyclist public pathways and trails and facilities; traffic calming projects are specifically mentioned as eligible activities [1401].

Program Features

Provides additional information and guidance on a wide range of planning, policy and safety issues affecting bicycling and walking, including:

- Bicyclists and pedestrians shall be given due consideration in State and MPO long-range transportation plans [1202(a)(3)].

- Bicycle and pedestrian projects shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use is not permitted [1202(a)(3)].
- Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians [1202(a)(3)].
- Bicycle safety issues must now be addressed in carrying out railway-highway crossing hazard elimination projects under 23 USC Sections 130 and 152 [1202(d), 1401].
- FHWA shall, within 18 months, develop guidance on the various approaches to accommodating bicycles and pedestrian travel, including making recommendations on amending and updating AASHTO design standards for streets and highways [1202(b)].
- The Secretary shall not approve any project or take any regulatory action that will sever an existing major nonmotorized route or adversely affect the safety of nonmotorized traffic and light motorcycles, unless a reasonable alternative route exists or is established [1202(c)].
- FHWA is authorized to develop a national bicycle safety education curriculum [1202(e)].

Transportation Enhancement (TE) Program

Background Information

The Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) stipulated that 10% of a Surface Transportation Program (STP) must be set aside for enhancement activities. The 1998 Transportation Equity Act (TEA-21) has continued this funding mechanism with an expanded eligibility and higher funding level. The funds available at the state level are provided in an 80/20 match. For any project 80% of the funds will be provided by Federal monies and 20% of the cost must be supplied by the municipality or organization. In New Hampshire, the Transportation Enhancement Program is biennial.

Eligibility

- Facilities for bicyclists and pedestrians
- Safety and education activities for bicyclists and pedestrians
- Acquisition of scenic easements and scenic or historic sites
- Scenic or historic highway programs

- Landscaping and other scenic highway programs
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures or facilities
- Preservation of abandoned railway corridors
- Control and removal of outdoor advertising
- Archaeological planning and research
- Some types of environmental mitigation
- Establishment of transportation museums

Appendix E

Roadway Schematics

Appendix F

Bibliography

A Bikeway and Pedestrian Master Plan. Southern NH Regional Planning Commission. 1993.

A Regional Bicycle and Pedestrian Plan. Central NH Regional Planning Commission. March 1999

A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility. Institute of Transportation Engineers, Washington D.C. 1998

Bicycle and Pedestrian Planning Under ISTEA. Federal Highway Administration. 1994.

CNHRPC Traffic Volume Report. Central NH Regional Planning Commission. 1999.

Creating Bicycle Transportation Networks: A Guide Book. University of Minnesota, Center for Transportation Studies. 1996.

New Hampshire Statewide Bicycle and Pedestrian Plan. NH Department of Transportation. 1995.

New Hampshire Statewide Bicycle and Pedestrian Plan. NH Department of Transportation, Bureau of Transportation Planning. May 2000.

NRPC Region Bicycle and Pedestrian Plan. Nashua Regional Planning Commission. 1995.

Salem/Plaistow/Windham Metropolitan Planning Organization Bicycle and Pedestrian Plan. Rockingham Planning Commission. 1994.

Appendix G

Contacts For More Information

STATE AND FEDERAL AGENCIES

NH Department of Transportation
Bureau of Transportation Planning
John O. Morton Building
PO Box 483
Concord, NH 03302-0483
(603) 271-3344

Federal Highway Administration
Bicycle/Pedestrian Program Office
400 7th St., SW
Washington, DC 20590
(202) 366-5006

NH Department of Safety
Division of Motor Vehicles
James H. Hayes Building
10 Hazen Drive
Concord, NH 03305
(603) 271-2251

National Highway Traffic Safety Administration
400 7th St., SW
Washington, DC 20590
(202) 366-2121

National Highway Traffic Safety Administration
Region 1 Office
Transportation Systems Center
Kendall Square, Code 903
Cambridge, MA 02142
(617) 494-3427

NH Dept. of Safety
Division of Motor Vehicles
James H. Hayes Building
10 Hazen Drive
Concord, NH 03305
(603) 271-2251

NH Office of State Planning
2 ½ Beacon Street
Concord, NH 03301
(603) 271-2155

Federal Highway Administration
NH Division Office
279 Pleasant Street
Room 204
Concord, NH 03301
(603) 225-1605

REGIONAL PLANNING COMMISSIONS

Central New Hampshire Regional Planning
Commission
12 Cross Street
Penacook, NH 03303
(603) 753-9374
www.cnhrpc.org

Lakes Region Planning Commission
Humiston Building, 103 Main Street, Suite 3
Meredith, NH 03253
(603) 279-8171
www.LakesRPC.org

Nashua Regional Planning Commission
115 Main Street
PO Box 847
Nashua, NH 03061
(603) 883-0366
www.nrpc.org

North Country Council
107 Glessner Road
Bethlehem, NH 03574
(603) 444-6303
www.ncc.org

Rockingham Planning Commission
156 Water Street
Exeter, NH 03833
(603) 778-0885
www.rpc.org

Southern NH Planning Commission
438 Dubuque Street
Manchester, NH 03102
(603) 669-4664
www.snhrpc.org

Southwest Region Planning Commission
20 Central Square, 2nd Floor
Keene, NH 03431
(603) 357-0557
www.swrpc.org

Strafford Regional Planning Commission
259 Country Farm Road, Unit 1
Dover, NH 03820
(603) 742-2523
www.strafford.org

Upper Valley Lake Sunapee Regional Planning
Comm.
77 Bank Street
Lebanon, NH 03766
(603) 448-1680

MUNICIPAL PLANNING IN THE REGION

City of Concord
Planning Department
41 Green Street
Concord, NH 03301
(603) 225-8515

Town of Pembroke
Director of Planning & Development
311 Pembroke Street
Pembroke, NH 03275
(603) 485-4747

Town of Bow
Director of Planning and Economic Development
10 Grandview Road
Bow, NH 03304
(603) 225-3008

BICYCLING ORGANIZATIONS

Granite State Wheelmen
2 Townsend Ave.
Salem, NH 03079-9926
(603) 898-9926
www.granitestatewheelmen.org

Bicycling/Pedestrian Federation of America
1506 21st St., NW, Suite 200
Washington, DC 20036
(202) 463-6622
www.bikefed.org

League of American Bicyclists
1612 K ST., NW, Suite 401
Washington, DC 20006
(202) 822-1333
www.bikeleague.org

Adventure Cycling Association
150 E. Pine Street
PO Box 8308
Missoula, MT 59807-8308
(406) 721-1776

League of American Bicyclists
190 W. Ostend Street, Suite 120
Baltimore, MD 21230-3755
(410) 539-3399

National Bicycle and Pedestrian Clearinghouse
15006 21st Street, NW, Suite 210
Washington, DC 200036
(202) 463-8405

OTHER ORGANIZATIONS

Dartmouth-Hitchcock Injury Prevention Center
Dartmouth Medical School
Hanover, NH 03755
(603) 650-1780

American Automobile Association
2 Capitol Plaza
Main Street
Concord, NH 03301-4911

National Safe Kids Campaign
111 Michigan Avenue, NW
Washington, DC 20010
(202) 884-4993

National Safety Council
Public Relations Department
1121 Spring Lake Drive
Itasca, IL 60143-3201
(708) 775-2307

Appendix H

Bicycle Friendly Planning and Regulation Checklist for Local Communities

Planning	Strategies	Implementor
Local Bicycle Plan	<ul style="list-style-type: none"> • Make bicycle plan an interdepartmental effort; establish mechanism to ensure coordination. • Basic plan elements include: needs assessment; facility projects and a hazard removal program; education and enforcement programs; and a funding and implementation strategy. • Refer to the AASHTO Guide for Development of Bicycle Facilities for approach and standards, or to equivalent state guidelines. 	Local Government: multiple departments
Inter-local Agreements	<ul style="list-style-type: none"> • Develop interjurisdictional agreements as needed for acquisition, development and maintenance.. 	Local government
Master Plans	<ul style="list-style-type: none"> • Incorporate affirmative policies for bicycle use. • Adopt a local bicycle plan or element, including policies and programmed projects. • Modify local street standards to accommodate shared bicycle/motor vehicle use. • Include ordinances that encourage: mixed use; cluster zoning combined with more open space; dedication of rights of way for trails; and interconnected street patterns. 	Local government: planning department
Capital Improvement Plans	<ul style="list-style-type: none"> • Incorporate bicycle projects and establish schedule for implementation. 	Local government: multiple departments
Site Design Review	<ul style="list-style-type: none"> • Establish a method to amend site designs to improve non-motorized access to and between sites 	Local government: planning department

<p>Transportation Plans</p>	<ul style="list-style-type: none"> • Identify local roads in local jurisdiction for preferential development of bicycle facilities. • Adopt policy to make all roads safer for shared use. • Tie in bicycle improvements with highway or city street capital improvement plan. • Review all proposed road maintenance and improvement plans for opportunities to incorporate bicycle-friendly design. • Develop uniform signage to identify bicycle facilities and educate motorists of potential bicycle use on road. 	<p>Local government: public works departments</p>
<p>Parks, Open Space, and Recreation Plans</p>	<ul style="list-style-type: none"> • Incorporate trails and greenway plans as part of Master Plan. • Encourage and use alternative methods of open space, greenway acquisition, including nonprofit purchase and financing options, conservation easements, transfer of title options. • Consider using payments in lieu of parkland dedication for bicycle facilities. • Adopt a corridor/greenway element that included bicycle access. • Work with adjoining parks and recreation agencies and communities to plan coordinated facilities. 	<p>Local governments: parks and recreation departments</p>
<p>Zoning</p>	<ul style="list-style-type: none"> • Zone for cluster development, mixed use, and open space preservation. • For strip development, consolidate road access but encourage interconnections between developments to encourage pedestrian and bicycle access. • Develop a bicycle parking ordinance. • Examine roadway standards and change to allow traffic calming and interconnected, narrower, slower roads and paths. • Review ordinances that ban bicycles from roadway or shoulder areas-most are not warranted. 	<p>Local government: planning department</p>

Local Traffic Planning Efforts	<ul style="list-style-type: none"> • Consider traffic calming but maintain maximum access for pedestrians and bicyclists. • Consider traffic-free zones as well as bicycle boulevards and other preferential treatments. • Establish a hazard reporting system for bicyclists and pedestrians. • Establish a regular maintenance program for bicycle facilities and shoulders used by bicycles. • Allow bicycle access to shopping centers. 	Local government: planning department
School Access Plans	<ul style="list-style-type: none"> • Ensure safe routes for bicyclists and pedestrians. • Provide adequate bicycle parking. • Provide bicycle safety education. 	Local government: planning department; school officials and parents
Private Development	<ul style="list-style-type: none"> • Consider bicycle access incentives such as showers and lockers at employment locations. • Provide bicycle access and parking. • Provide public access to bicycle facilities whenever possible. • Connect bicycle facilities to adjacent developments. 	Development companies; private businesses

Source: "Bicycle Facility Planning" Suzan Anderson Pinsof and Terri Musser. APA.

A REGIONAL BICYCLE AND PEDESTRIAN PLAN



for the

Central New Hampshire Regional Planning
Commission

