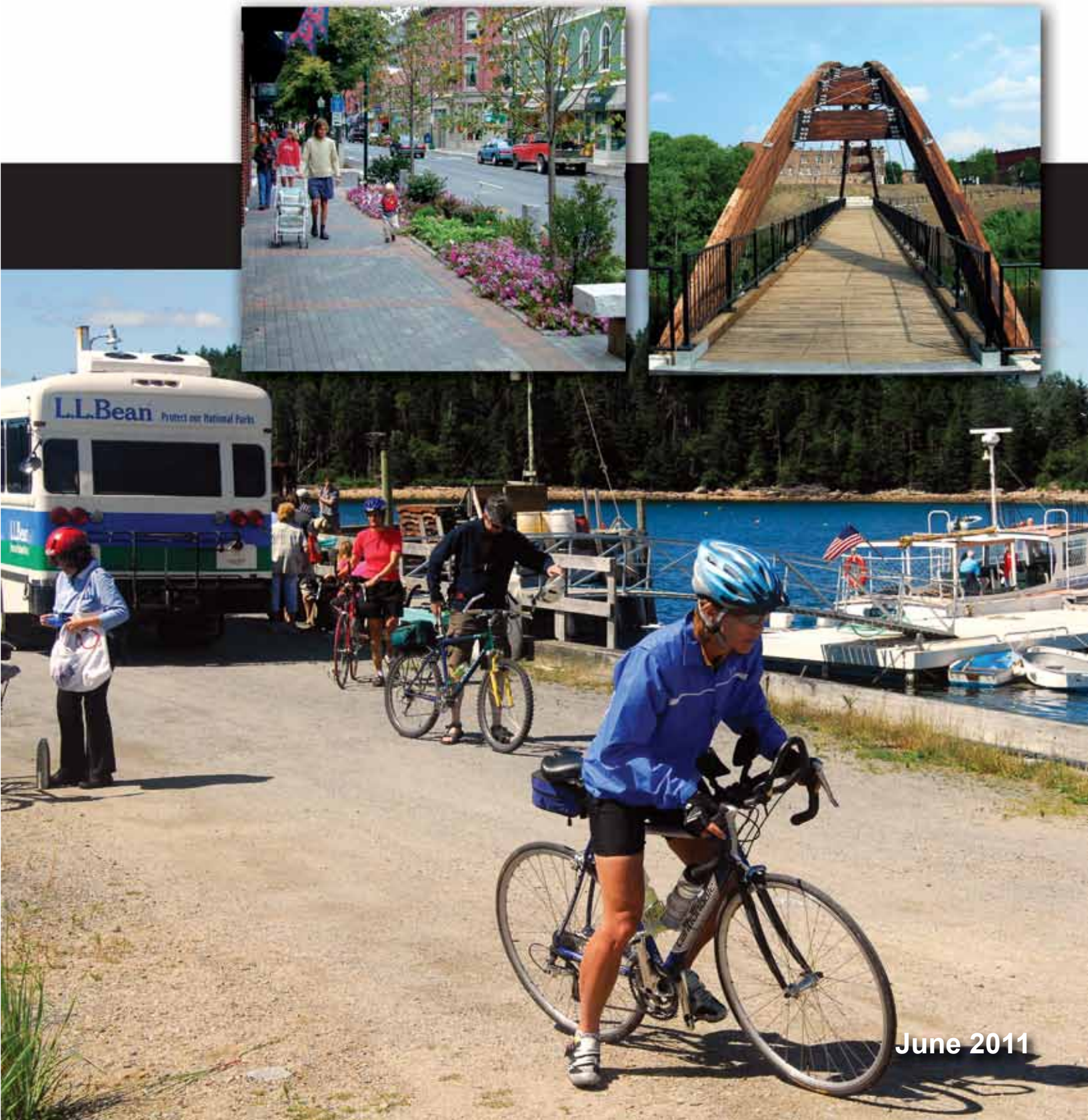
Improving Maine's Quality of Place
Through Integrated Bicycle and Pedestrian Connections



June 2011

Improving Maine's Quality of Place
Through Integrated Bicycle and Pedestrian Connections

A resource document on how Maine will continue to connect its Quality Places through integrated connections for bicyclists and pedestrians

Maine Department of Transportation
Maine State Planning Office
Maine Department of Conservation
Maine Center for Disease Control and Prevention

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Introduction

Report Overview

The Maine Department of Transportation (MaineDOT), in coordination with the Maine Department of Conservation (MaineDOC) and the State Planning Office (SPO), present this report which is intended to outline a statewide plan for creating an integrated system of bicycle and pedestrian connections through sidewalks, bike lanes or shoulders, safe street crossings, signage, and multi-use trail development. The intent of this plan is to document the processes and strategies that Maine State Agencies, in coordination with municipalities, bicycle and pedestrian advocacy groups, planners, land trusts, and others are doing to create an interconnected transportation system that links and connects communities, neighborhoods, parks, business areas, and all of Maine's Quality Places.

This interconnected system will include a road system accessible to bicyclists and pedestrians with paved road shoulders in rural areas; shoulders, sidewalks and pedestrian friendly street crossings and intersections in more developed areas; and off-road trail connections where feasible.

These connections are made, and will continue to be made, with a combination of road construction projects, stand alone sidewalk and trail projects, intersection improvements, planning initiatives, feasibility studies, policy improvements, collaboration, and encouragement and educational activities.

This statewide plan outlines state and local processes, as well as policy and funding strategies necessary to move all communities forward in improving quality of place through bicycle and pedestrian connections.

Background

In December 2007, the Governor's Council on Maine's Quality of Place issued a set of recommendations to strengthen Maine's economic and social vibrancy by promoting the state's scenic beauty and livable communities. This Quality of Place Plan included the development of a statewide network of mixed-use trails. As envisioned by the Council, pedestrian and bicycling trails would play two roles in the community development and revitalization component of the Quality of Place strategy. First, trail networks would serve to link pedestrian origins and destinations within the built environment. Second, these networks would provide access between the built environment and adjacent open spaces. In this capacity, pedestrian and bicycle trails facilitate non-motorized transportation and recreation in and between existing quality places. Another role of trail networks envisioned by the Council is that of the trail as a destination. In effect, the trail becomes a new quality place that attracts cyclists, walkers, joggers, in-line skaters, and others solely for the purpose of using the trail. In both cases, trails may enhance the overall experience of Maine's quality places for community residents and visitors.

Direction for the Creation of Report

The following paragraphs and recommendations are from the first report of the Governor's Council on Maine's Quality of Place:

Maine's Quality of Place depends on both its rural and urban places. Indeed, the two are inextricably connected. An important part of Maine's heritage is its built environment –historic homes, commercial edifices, factories, civic buildings, schools, libraries, grange halls, opera houses and theaters, and other public gathering places. This special built environment is the "flip side" to Maine's special natural landscapes. The two together help define a community's "place."

Pedestrian access to and among Maine's quality places is central to asset-based development. Trail projects like those along Portland's Back Cove and along the Kennebec River and the Downeast Sunrise Trail enhance the quality of life of residents and visitors, alike. The Council recommends:

- Development of physical links between downtowns and greenways by planning and constructing parks, bridges, trails, and river walks over streams, canals, or railroad beds, to be accomplished through existing policies and programs including the Land for Maine's Future Program, the MaineDOT, downtown revitalization efforts, and the myriad of volunteer groups involved.
- That the Maine Departments of Transportation and Conservation, in coordination with local and regional trail groups, identify and plan a statewide system of multiuse trails in the organized portions of the state, from Kittery to Fort Kent, from Eastport to Bethel, and report its plan to the next Legislature. The plan should include recommendations for maintaining and marketing the system that would not only link rural trails, but would also provide access through sidewalks, urban trails, bikeways, and greenways to downtown shops, restaurants, and cultural attractions.

"People, Places, Prosperity" December 4, 2007
(1st Report of the Governor's Council on Maine's Quality of Place)

Kennebec Rail Trail

Report Purpose

The purpose of this report is to outline the processes involved in efficiently and effectively advancing the creation of pedestrian and bicycling opportunities in the state of Maine. As recommended by the Council, this report focuses specifically on facilities for bicyclists, pedestrians, and other human-powered means of transportation. The terms trail and trail network within this report encompass a wide range of infrastructure, all relating to bicycling and walking as integrated transportation modes. This report summarizes some of the key planning strategies, policies, funding options, and strategies used and recommended in Maine for the development of an integrated network of bicycle and pedestrian facilities.

This report does not attempt to document every bicycle and pedestrian facility in Maine. The goals outlined by the Quality Place Council are stated such that every community will be linked, both within and between, with bicycle and pedestrian connections through sidewalks, safe street crossings, road shoulders for bicycling and walking, and off-road trails.

Trails in general can include sidewalks, bicycle lanes, designated paths, equestrian paths, snowmobile trails, all terrain vehicle (ATV) trails, hiking paths, water trails, and multi-use trails that may include any number of non-motorized or motorized uses.

Belfast Foot Bridge

Quality of Place discussions nationwide focus on quality places as including compact village areas, urban parks, vibrant downtowns, and quality community environments that foster walking and biking between origins and destinations. In addition, the Quality of Place language repeatedly emphasizes the establishment of trail networks that connect rural areas and greenways to the built environment. The recommendation includes sidewalks, urban trails, bikeways, and green ways as components of these trail networks.

Portland Downtown

Although the original Council's recommendations call for the extensive development of multi-use trails in the construction of statewide trail networks, this report does not map out proposed routes for connected multi-use trails running the length or breadth of Maine. Instead, it focuses on the development of networks consisting of a combination of bicycle and pedestrian facilities, as well as off-road connections where feasible. These include: shared roadways, safe crossings, signed routes, marked bicycle lanes or striped shoulders, sidewalks, and bicycle and pedestrian off-road trails. While multi-use paths may be an important component of a given trail network, the American Association of State Highway and Transportation Officials' Guide for the Development of Bicycle Facilities advises that these facilities should serve a supplementary role to the larger system of pedestrian and cycling facilities (p33).

Challenges in Creating Long Distance Off Road Trails

Developing long distance, off-road bicycle and pedestrian trails away from road right of ways, railroads, or utility corridors

Many discussions in the planning arena have focused on whether it is feasible to create an off-road bicycle and pedestrian trail system similar to the arterial road system that crisscrosses the state. The acquisition and development of the states road system was developed on horse and buggy roads that have been established between communities since their inception, or through eminent domain proceedings and right of way acquisition processes, and tremendous amounts of public investment.

The challenges of creating long distance off-road bicycle and pedestrian connections, or "arterial trail systems" are enormous. The focus on creating off-road, long distance bicycle and pedestrian trails in Maine has focused on railroad corridors, utility corridors, or in the case of the Brunswick Bike Path, the States existing Right of Way. Most of the existing long distance multi-use trails (including those allowing ATVs) have been converted on old railroad beds. Creating long distance bicycle and pedestrian connections that are not associated with a road right-of-way or railroad corridor is not feasible in any reasonable amount of time. Hence, planners are almost always limited to creating the long distance bicycle and pedestrian trail connections on a railroad bed, or along existing road rights of way, usually in incremental stages. It would be a disservice to focus this report on desired off-road long distance connections between communities that are infeasible in the foreseeable future. All the non-rail corridor off-road walking and biking facilities under development are much shorter in length, and are local efforts that include years of working with multiple landowners for permission, outlining the transportation benefit, public support, and developing funding strategies.

The recommendation from this report is to focus efforts on the long distance off-road trails already planned and to assist local governments in identifying and creating bicycle and pedestrian connections where they are most needed. The three long distance off-road trails already identified and in planning and design (Trails of Statewide Significance) will take many years to complete under current funding estimates based on historical funding levels.

As directed by the Council, this report focuses on creating integrated bicycle and pedestrian connections on the transportation system through sidewalks, safe crossings, paved shoulders, bike lanes, and targeted off-road trail connections.

Bicycle and Pedestrian Friendly Environment

Definition of a Bicycle and Pedestrian Friendly Environment

A bicycle and pedestrian friendly environment is a place where people have the opportunity to walk and bike in a safe and inviting place. A pedestrian friendly environment has some or all of the following characteristics:

- sidewalks
- shoulders
- bike lanes
- safe visible street crossings
- parks and open spaces
- an appealing atmosphere, and
- desirable destinations.

A bike and pedestrian friendly environment provides a safe and comfortable way for bicyclists and pedestrians to navigate around the community and to destinations.

Starting in 2007, a group of state agencies including the Maine Center for Disease Control, Maine Department of Transportation, the Maine State Planning Office, and the Maine Department of Conservation established a working group that meets monthly to increase collaboration on state efforts at creating walkable and bikable communities. This workgroup has defined Active Community Environments (ACEs) as places where people of all ages and abilities have the opportunity to live, work and play in a safe and inviting place which enables physically active recreation and transportation, particularly walking and biking. These places:

- Support and promote physical activity for ALL people
- Have sidewalks, safe roads for biking, multi-use paths and trails, parks, community gardens, and other open spaces and facilities for recreation
- Have quality connections between residences, markets, workplaces, neighborhoods, schools, medical facilities, downtowns and/or village centers

Benefits of Bicycle and Pedestrian Improvements and Connections

Bicycle and pedestrian connections, including sidewalks in village areas, improve Maine's quality of life (and place), improve safety, reduce the need for congestion relief measures, relieve individuals' transportation costs, attract economic development and tourism, lead to healthier lifestyles, and reduce air, water and soil pollution.

The benefits of creating bicycling and walking connections are varied. They provide safety benefits to individuals who engage in walking or bicycling and indirect benefits to the larger community. Not only do walking, bicycling, and being active benefit the health of individuals - such activities contribute positively to the health, social cohesiveness, safety, economic vitality and quality of entire communities and regions.

Transportation Equity & Access

The most important reason to improve connections for walking and bicycling is simply to provide safe transportation system access for all users.

- All citizens at one point or another rely on the transportation system to be safe for walking or wheelchairs.
- Children, teenagers, and the elderly often have no other way to get to a destination without a safe place to walk or bike.
- Many people that face financial difficulties and cannot afford a car are reliant on safe access for walking and biking to work or to get groceries.
- People with disabilities such as visual impairments or the need to be in a wheelchair are reliant on a safe pedestrian and transportation system to get to destinations.

Economic

Compact Walkable communities have consistently shown that they are a benefit to the economy at large. They foster economic development and tourism. If a community has a walkable vibrant village area, people often will make the time to visit a restaurant or move to the community.

- Reduced transportation costs - for congestion relief measures such as intersection improvements, road widenings, and bypasses.
- Increased tourist dollars - Tourism generates roughly $10 billion in sales of goods and services annually generating $429 million of tax revenues and supporting more than 140,000 jobs in the State. Sightseeing, Scenic Byways and walking are among the top activities about which visitors request more information from the Office of Tourism. Visitors come and stay longer to explore walkable villages, and pedestrian and biking trails.
- Reduced healthcare costs- Inactivity is a leading cause of obesity and the related health care costs. People who live in walkable communities have more opportunity for physical activity as part of their daily lives.
- Increased housing values

Health
The benefits of walking and bicycling on physical and mental health are well documented. Creating walkable communities encourages people of all ages to be more active, thereby reducing obesity and chronic disease.

Social
Walkable communities encourage people to take walks together and socialize with neighbors and community members. Walking offers stress relief, is often a component of treatment for depression, and increases peoples' chance of meeting and greeting other people on the street, which can lead to a greater sense of community.

Safety
For many people, walking is the only option. Providing a safe place to walk is essential for these users of the transportation system. In Maine, a pedestrian is hit by a motor vehicle on average once a day. More than 90 percent of these pedestrian crashes involve injury or death to the pedestrian.

Environmental
Walking and biking for transportation – and the subsequent reduction of traffic congestion – has several critical environmental benefits including a reduction in fuel consumption and the related air and water pollution. Compact walkable communities reduce the need to develop out in the countryside, thereby saving open spaces and travel times.

Quality of Place
Walking and biking facilities create "Quality Places."

Options for Making Bicycling and Pedestrian Connection Improvements

Options for improving the bicycle and pedestrian environment in a community include policy, planning, education and outreach, and infrastructure improvements. Sidewalks, bike lanes, safe street crossings, bike racks, and other infrastructure improvements provide benefits to those who walk and bike, thereby increasing the likelihood that people in the community will choose to walk or bike. Each of these infrastructure options requires a process involving widespread coordination and public support.

Infrastructure Options and Benefits — **Figure 1**

Option	Benefits
Sidewalks	Are critical in built up areas to provide a separate, safe place for walkers and people in wheelchairs.
Street crossings	Pedestrian friendly street crossings are critical to a walkable community environment. They improve driver visibility of pedestrians and give the pedestrian a comfort level to make walking a part of daily life. Specific infrastructure includes ADA compliant curb ramps, sidewalks, and pedestrian countdown signals.
Signage	Proper signage raises awareness that it is a pedestrian environment and provides guidance to pedestrians, bicyclists, and drivers alike.
Signalization	It is imperative that signalized intersections in village areas provide pedestrians the time to cross safely. Pedestrian countdown signals indicate the time remaining for pedestrians to cross the street safely.
Shoulders/Bike Lanes	Shoulders are critical for motor vehicle, bicycle and pedestrian safety in areas without sidewalks. Bike lanes are critical in built-up areas and many intersections to enhance the safety and mobility of bicyclists.
Street furniture	Provides a place to rest and promotes social interaction and an increased sense of community.
Off-Road Bicycle and Pedestrian Facilities	Provides connections between neighborhoods, schools, businesses, and village centers. These facilities are often more direct and provide an invaluable community space. Where feasible, they are important to increase the safety and comfort of pedestrians and bicyclists.

Bike-Ped Connections and Needs Assessments

Needs Assessment

Every village and community in Maine has bicycle and pedestrian connection needs including sidewalks, potential off-road bicycle and pedestrian trail connections, highway shoulders, bike lanes, improved signage, and crossing improvements. Municipalities, planning agencies, citizens, and community groups identify bicycle and pedestrian needs through the development of comprehensive plans, transportation plans, village planning efforts, bicycle and pedestrian plans, site walks, and through public meetings.

To illustrate the extent of the public's need for bicycle and pedestrian improvements, the following is a sample list of municipal requests in 2008 for bike and pedestrian improvements or studies to the MaineDOT.

Requests for bike-ped improvements or studies in 2008 **Figure 2**

- Auburn, trail near lake auburn
- Augusta, sidewalk rehabilitation
- Bangor, sidewalks
- Bar Harbor, sidewalks
- Belfast, waterfront Bicycle and Pedestrian Trail
- Belfast, waterfront walkway
- Berwick, sidewalks
- Biddeford, waterfront trails
- Bowdoinham, sidewalks
- Brewer, Waterfront Trail
- Bridgton, pedestrian bridges
- Brunswick to Bath (Extension of Brunswick Bike Path)
- Brunswick, multi-use trail
- Calais to Eastport, Roosevelt International Trail
- Caribou, sidewalks
- China, sidewalks
- Damariscotta, sidewalks
- Ellsworth, sidewalks, bike and pedestrian trail
- Fryeburg, sidewalks
- Gardiner, Cobbosseecontee Trail connecting Route 126 with Downtown Gardiner and Kennebec River Rail Trail

Requests for bike-ped improvements or studies in 2008

Figure 2 (Cont.)

- Gardiner, Richmond, Bowdoinham, Topsham, continue the Kennebec River Rail Trail
- Gardiner, sidewalks
- Hallowell, bicycle and pedestrian trail improvements
- Harpswell, bike and pedestrian trail
- Kennebunk, bike lanes and sidewalks
- Lewiston, Downtown Riverfront Trail and Sidewalks
- Lisbon, bicycle and pedestrian trail
- Lisbon, Riverfront Trail connecting village areas
- Machias, sidewalks connecting to school
- Old Orchard Beach, sidewalks
- Orono, Bike and Pedestrian Trail
- Portland, sidewalks, bike lanes, Bayside Trail, and other multi-use trails
- Presque Isle, Downtown crossing improvements
- Readfield, sidewalks
- Rockland, sidewalks and ADA improvements
- Rumford, sidewalks
- Saco, sidewalks and trails
- Scarborough, Old Orchard Beach, Kennebunk, Arundel, Saco, Eastern Trail
- Skowhegan, Riverfront Bicycle and Pedestrian Trail
- South Portland, sidewalks and trails
- Stockton Springs, sidewalks in village area and up to school
- Topsham, Bicycle and Pedestrian Trail
- Waterville, Pedestrian bridge ADA improvements
- Waterville, sidewalks, bike lanes, and trails
- Westbrook, Junior High School to Downtown Trail
- Westbrook, Windham, Brownfield, Fryeburg, Mountain Division Trail
- Winslow, flashing school lights and crossing improvements

Before applying for funds and assistance, these municipalities have identified the needs, developed public support, developed cost estimates, outlined the importance to the transportation system, and evaluated the feasibility of making the improvements. In addition to the requests that go into MaineDOT, there are countless examples of bicycle and pedestrian improvements identified and addressed at the local level including site plan review process, other funding sources, and the creation of street standards throughout the state. The needs for bicycling and pedestrian improvements are identified at the local level, often with state assistance, in communities throughout Maine as shown below:

Long Distance Bicycle and Pedestrian Trails Under Development

MaineDOT, MaineDOC, municipalities, and bicycle and pedestrian trail advocacy groups have been actively working on the planning and development of a core system of long distance multiuse trails connecting communities and greenways. The MaineDOT Trails of Statewide Significance (some sections have been built) include the 85 mile Calais Branch Corridor connecting Ellsworth to Pembroke (near Calais), the 50 mile Mountain Division Corridor connecting Portland to Fryeburg, the 57 mile Eastern Trail connecting Kittery to Portland, and the East Coast Greenway, with a vision of connecting Key West, Florida with Calais, Maine.

In partnership with major trail groups, municipalities, regional planners, and other state agencies, MaineDOT is helping to develop three major long distance Trails of Statewide Significance. All three of the long distance multi-use trails currently under planning and development in Maine are along rail corridors, either reserved by MaineDOT for future rail use, or an abandoned corridor that has been converted to a gas line corridor. These long distance trail efforts are completed incrementally, because of lack of funding and the need to engineer and receive environmental approvals.

The Calais Branch Corridor

This 85-mile, multi-use trail connecting Ellsworth to Pembroke (near Calais) is under construction, with the trail currently open for permitted uses from Whitneyville to Ayers Junctions. The trail remains closed for continuing construction west of Whitneyville. This corridor is owned by MaineDOT for future rail development, and is being created and managed in partnership with the Department of Conservation. The corridor is being rehabilitated to accommodate future rail and will also allow ATVs because of its rural location.

Photo Courtesy of Scott Ramsey, Director ORV Division, DOC

The Mountain Division

The vision for this MaineDOT owned rail corridor is to create a Rail with Trail, nearly 50 miles long from Portland to Fryeburg. Currently, 5.7 miles have been built in Windham, Gorham and Standish, with another 5 miles to be constructed in Fryeburg in 2010.

Eastern Trail

The 57-mile Eastern Trail, which is part of the East Coast Greenway, is envisioned to connect Kittery to Portland. This bicycle and pedestrian trail runs along the abandoned historic Eastern Railroad Corridor, now converted to a gas line owned by Unitil Corporation, who has been an invaluable partner. Sections in South Portland, Scarborough and Old Orchard Beach have already been constructed. The section connecting Biddeford, Arundel and Kennebunk, as well as the section connecting Saco to Old Orchard Beach, are both under construction and expected to be completed by late 2011.

East Coast Greenway Long Distance Trail/Bike Route

The East Coast Greenway (ECG) is the nation's most ambitious long-distance urban trail project. By connecting existing and planned shared-use trails, a continuous, traffic-free route is being formed, serving self-powered users of all abilities and ages. The Greenway links Calais, Maine, at the Canadian border with Key West, Florida—a distance of more than 3,000 miles.

In Maine, though many off-road sections have been built, an interim on-road route has been identified connecting Kittery to Calais and is listed on the ECG website and in the MaineDOT Explore Maine by Bike book. The section between Kittery and Portland has been signed as ECG, as are trails in South Portland, Brunswick, and Augusta. The current travel route across Maine was developed by MaineDOT and the East Coast Greenway Alliance (ECGA) in concert with each town through which it passes. Cue sheets have been created and are provided on the ECG website (www.greenway.org).

Maine contains the second longest section of the East Coast Greenway on its nearly 3,000-mile route from the Canadian border to Florida. The Maine spine route, which will total nearly 400 miles, is characterized by major trail projects on the northern and southern ends of the route, with several major gap areas in between, interspersed with a smattering of local and multi-town projects. Starting at the Canadian border, travelers will use the Calais Waterfront Bicycle and Pedestrian Trail before setting out toward the Down East Sunrise Trail. Work has begun on the 87-mile Down East Sunrise Trail between Ellsworth and Calais. The route from Bangor to Waterville is principally on-road, as little potential off-road routing has been identified. The ECG from Waterville to Portland is marked by local trails (some complete, some under development) and significant stretches of on-road routing. These trails include the Kennebec River Rail Trail, Lisbon Trail, Topsham Trail, and Beth Condon Memorial Pathway. Portland can be traversed almost entirely off-road, leading travelers to the South Portland Greenbelt. The South Portland Greenbelt is the northernmost part of the Eastern Trail, which is nearly 20% complete on its route to Kittery.

Existing Bicycle and Pedestrian Connections

Most communities in Maine have sidewalk systems and shoulder networks. A recent MaineDOT analysis has shown that 39% of the state's roads currently have paved shoulders. In addition to these sidewalk and shoulder systems, there are also off-road bicycle and pedestrian facilities that serve to connect communities, neighborhoods, and village areas. Most of these have been developed after extensive local planning efforts to identify corridors, work with landowners for easements or permission, and finally to work through municipal government to either fund the project or to approve the local match requirements and apply to the funding programs elsewhere in this report. The need to complete connection in communities throughout the state will continue to be addressed.

The Kennebec River Rail Trail - A Completed Long-Distance Trail

In partnership with the Friends of the Kennebec River Rail Trail and local municipalities, MaineDOT has recently completed the Kennebec River Rail Trail (7 miles), connecting Augusta, Hallowell, Farmingdale and Gardiner along the MaineDOT owned Rail Corridor. This trail is one of the most heavily used in the state, because of its proximity and connectedness of the four downtown areas.

Existing Off-Road Bicycle and Pedestrian Trails

Bicycle/Pedestrian Paths
(10-12 feet wide, paved or compact gravel, ADA compliant)

- Androscoggin River Bicycle and Pedestrian Path (Brunswick)
- Bethel Pathway (Bethel)
- Calais Waterfront Walkway (Calais)
- East End and Bay Side Bike and Pedestrian Trail (Portland)
- Eastern Trail (South Portland, Scarborough, Old Orchard Beach)
- I-295 Connector Pedestrian and Bicycle Trail (Portland)
- Kennebec River Rail Trail (Augusta, Hallowell, Farmingdale, Gardiner)
- Lisbon Trails (Paper Mill Trail and Ricker Farm Trail--Lisbon)
- Maine Mountain Division Rail Trail (Windham, Gorham, Standish)
- Portland Trails (Portland and South Portland)
- Presque Isle Bike/Walkway (Presque Isle)
- Sipayik Trail (Perry)
- South Portland Greenbelt Walkway (South Portland)
- The Riverfront Park Bikeway (Lewiston and Auburn)
- University of Maine Bike Path (Old Town to Orono)

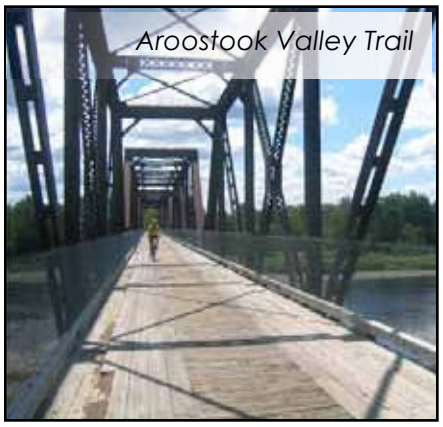
Androscoggin River Path

Bethel Pathway

Riverfront Parkway

Multi-Use Trails Shared with ATVs
(10-12 feet wide, compact gravel)

- Aroostook Valley Trail (Presque Isle, Washburn, New Sweden, Caribou—25 miles)
- Bangor and Aroostook Trail (Caribou, Washburn, Stockholm, Van Buren—50 miles)
- Bingham-Solon Trail (9 miles)
- Down East Sunrise Trail (Ayers Junction to Ellsworth—85 miles)
- Four Season Adventure Trail (Newport to Dover-Foxcroft—29 miles)
- Heritage Trail (Ft. Kent, St. John, and St. Francis—15 miles)
- Katahdin Iron Works Multi-Use Trail (Brownville Junction—4.6 miles)
- Mapleton to Washburn Trail (6 miles)
- Medford to Lagrange Trail (14 miles)
- Patten-Sherman Multi-Use Trail (6 miles)
- Southern Bangor and Aroostook Trail (Houlton to Phair—42 miles)
- Whistle Stop Trail (Jay to Farmington—15 miles)


Aroostook Valley Trail

Bangor & Aroostook Trail

Heritage Trail

Four Season Adventure Trail

Medford to Lagrange

Whistle Stop Trail

Photos courtesy of Rails to Trails Conservancy

Transit

Public transit plays an important role in the daily lives of Maine citizens by connecting them to jobs, health care services, social services, schools and other destinations. Public transit systems in Maine have evolved over a period of years to serve local needs. In general, these systems are supported by well established partnerships between federal, state and local governments. There are nine regional transit systems receiving MaineDOT funding support that serve rural areas of the state. Service frequency varies, but most communities are served at least once per week. There are 13 Fixed Route systems in the more urbanized areas. All the Fixed Route systems buses are required to have bike racks. It is urgent that transit stops are ADA accessible and have safe and efficient pedestrian connections to the stops from neighborhoods and pedestrian generators.

State, Local and Federal Laws, Regulations and Policies

Whether the intent is to fix a section of sidewalk system or to improve pedestrian and bike connections in communities, there is a planning process involved. To improve the overall environment for walking and bicycling, the stage must be set and implemented through planning processes – much of them guided by existing laws, regulations, and policies. This section outlines the planning processes at the state and local level that can help foster improved connectedness for walking and biking.

The Maine State Planning Office (SPO), MaineDOT and others are working closely together to encourage quality planning of communities. For example, the recently updated transportation section within the SPO comprehensive planning process now includes a section that requires communities to evaluate pedestrian and bicycle (as well as other modes) needs and deficiencies, and to develop strategies to improve conditions. In addition to an improved transportation system, benefits of good planning can be seen in improvements in the economy, transportation, social atmosphere, tourism, open space preservation, and quality of life.

The Growth Management Act

Title 30-A, MRSA, Chapter 187

Adopted in 1988 and amended several times since, the Growth Management Act and its implementing rule establishes statewide goals and guidelines for preparing municipal and multi-municipal comprehensive plans. These plans provide the legal basis for local zoning and other land use ordinances. At the core of a town's Comprehensive Plan is a Future Land Use Plan, which is meant to ensure orderly growth and development in the community and region.

The transportation element of the Comprehensive Plan can serve as a community's Transportation Plan. The transportation element and the Future Land Use Plan are intended to work in sync, with land use policies designed to reduce pressures on the transportation system and to create choices in how people move about a neighborhood, the community and region.

The Growth Management Act (30-A MRSA §4312 et seq.) seeks to encourage orderly growth and development in appropriate areas of each community in the state, while at the same time protecting the State's rural character, making efficient use of public services and preventing development sprawl. Attainment of these goals is promoted through local adoption of comprehensive land use plans which, among other things, designate growth areas and rural areas. Over the past 20 years, the State Planning Office has provided financial and technical assistance to Maine communities supporting the development and updating of local comprehensive plans. MaineDOT also supports transportation planning efforts. Other state programs and policies have also aligned to support the Act's goals and the local plans developed pursuant to the Act. Considerable attention and effort on the part of both state agencies and cities and towns has been focused on planning and

investment in locally designated growth areas. These are areas where the State encourages new schools and sewer extensions, state offices and town offices, sidewalks and bike lanes—all aimed at creating new or maintaining existing, compact, walkable and bikeable village, town and city centers.

SPO Planning Requirements Chapter 208

This chapter, which became effective in September 2007, establishes the criteria the State Planning Office uses to review community comprehensive plans for consistency with the goals and guidelines of the Growth Management Act. A finding of comprehensive plan consistency, which lasts for 12 years, provides a community with legal support for its land use ordinances and preferred status for its applications for various state grants. Under the Rule, a consistent comprehensive plan is expected to identify deficiencies in the bicycle and pedestrian network and to recommend strategies to address those deficiencies. The same language is part of the Sensible Transportation Policy Act (STPA) requirements for Transportation Plans.

Comprehensive Plan – Comprehensive plans are intended to incorporate all aspects of planning, transportation, economic development, environmental, housing, public participation, etc., and to provide a roadmap or guidance on how to reach the communities' goals in each area. Including the importance of bicycling and walking in all or some of the various sections of a comprehensive plan will help ensure that the municipality is improving the connectivity needs for bicyclists and pedestrians.

Transportation Section of Community Comprehensive Plan -The transportation section of a community's comprehensive plan is where the goals and objectives of a community's transportation network are detailed. Bicycle and pedestrian needs are mentioned throughout many comprehensive plans, but are addressed mostly in the transportation section. The transportation section includes an analysis of all transportation needs. This section should include an inventory and evaluation of bicycle and pedestrian connection deficiencies as well as strategies to address identified deficiencies. Timeframes and potential funding sources should also be included.

Sensible Transportation Policy Act (STPA) and Chapter 208 Integration

Title 23, MRSA, Section 73

In 1991 Maine voters adopted the STPA to help reduce demands on the highway system. In 2003 and 2007, the State Legislature amended the Act to mandate a better connection between transportation and land use planning – and, specifically, between the STPA and the State's Growth Management Act. The 2003 amendment required the MaineDOT to adopt a rule in coordination with the State Planning Office that links transportation and land use planning processes. The 2007 amendment provided for incentives to adopt local and regional community transportation plans that employ land use strategies to reduce pressure on state transportation. The common goals of the two laws include facilitating orderly growth and development, promoting economic development, reducing impacts on natural and cultural resources, and providing better solutions to transportation problems.

Most importantly, both laws recognize that transportation and land use patterns operate at a regional scale, and both encourage inter-community planning, financing, and regulation.

When transportation mobility needs arise, the Sensible Transportation Policy Act (as well as federal law) requires an evaluation of a full range of alternatives before choosing to expand the capacity of the highway system. It gives preference to options like managing traffic and providing public transportation if those options are available and feasible. It requires the integration of land use planning with transportation planning, and promotes energy efficiency. In addition, the STPA directs decision-makers to take into account the transportation needs of both urban and rural areas, and of people of different ages and means.

Although in place since 1991, the STPA and its implementing rule now affect communities much more directly than in the past. First, its rule has become the guiding document for the transportation section of local comprehensive plans. It sets the standards for the strategies that constitute an acceptable transportation section. Second, as directed by the Legislature, MaineDOT has created incentives for community transportation planning. If a community enacts an approved transportation plan, the law allows the community's transportation needs, including bicycle and pedestrian facilities, to be given priority for funding. To be given preference for transportation improvements by MaineDOT, a municipality, on its own or preferably with neighboring communities, must adopt a Community Transportation Plan that clearly plans for development, especially where it impacts state transportation corridors.

The intent of the updated Chapter 208 requirements relating to the communities transportation plan (related to STPA) is intended to encourage sound transportation planning and to protect the integrity of regional transportation systems and thereby prevent or reduce the need for costly future capacity or retrofitting expenditures associated with unmanaged development along State transportation corridors.

To receive the benefits of the Chapter 208 incentives, the land use strategies that are part of the plan must reduce the need to make costly transportation improvements – now and in the future – and must be incorporated into local ordinances. The Community Transportation Plan can stand alone, be part of a community's own Comprehensive Plan, or be part of a multi-municipal Comprehensive Plan adopted under the Growth Management Act.

MaineDOT has developed a rule supporting Chapter 208, which outlines procedures necessary for applicants for the MaineDOT Quality Community Program (described later in this document) to receive bonus points for approving and adopting relevant ordinances related to the policies outlined in an approved Community Transportation Plan that encourages sound transportation planning pursuant to the transportation section of the State Planning Office or the Sensible Transportation Policy Act.
Chapter 208 requirements: An applicant to MaineDOT Quality Community Program (which funds bicycle and pedestrian and other Quality Community investments) will receive bonus points if the community successfully obtains the following:

- Approved Adopted Community Transportation Plan, and
- Adopted Ordinances that incorporate Land Use Development Strategies as outlined in Plan,
- Adopted Plan and Ordinances have met objectives outlined in STPA.

- An applicant will receive collaboration bonus points if the community is partnered with one or more communities, and all communities involved are on MaineDOT's list of communities that have accomplished the bullets above.

If a community develops an approved transportation plan, in response to the Sensible Transportation Policy Act (STPA) described below and Chapter 208, and also implements ordinances that support the plan, it will have a better chance of receiving state and federal funding assistance for transportation improvements, including sidewalks and bicycle and pedestrian facilities.

One of the related major goals of the Maine State Planning Office (SPO), MaineDOT and the Sensible Transportation Planning Act (STPA) is to work with communities to improve transportation planning by encouraging interconnected streets and sidewalks in growth areas. This reduces development pressures on the state's roadway system, which is designed for mobility, and improves quality of life. If communities grow outward on the transportation system, the result is congestion and loss of the vibrant community villages that we all enjoy.

MaineDOT has created a STPA Handbook, which provides the information needed to prepare a Community Transportation Plan, whether stand-alone or as an element of a Comprehensive Plan – consistent with the State's Sensible Transportation Policy Act and rule, and the transportation element of the State's Growth Management Program. To order the STPA Handbook, please call 207-624-3272 or go to www.maine.gov/mdot/planning-documents/stpa/index.htm.

DEP Site Location Rule

Since the early 1970s, the Site Location of Development Act has required that large development projects be reviewed by the Department of Environmental Protection (DEP). In 2009, the DEP released its first, informal public draft of possible revisions to the rules that guide its reviews. The draft revisions include provisions to minimize travel distances, increase the interconnectivity of new streets and assure that most new projects include sidewalks, accommodate bicycles and, where available, accommodate public transit and multi-modal transportation. The draft provisions, if eventually adopted, will improve bicycle and pedestrian connections.

In Chapter 375, a new Section 18 was proposed, and titled "Mobility and Connectivity". In part, this section:

- Provides for minimization in the use of cul-de-sacs, in order to minimize travel distances and increase connectivity. Where cul-de-sacs are used, vehicular access easements to a public road or adjacent property must be retained, unless otherwise approved by the department. A retained vehicular easement must contain a walkway or bike path.
- Continuous internal sidewalks are required and must connect to public sidewalks or rights-of-way that are adjacent to the development. There are additional specific standards concerning internal walkways.
- Internal circulation must accommodate public transit and multi-modal transportation if available.
- Internal circulation must accommodate bicycles.

MaineDOT Traffic Movement Permit

Traffic Movement Permits are required for developments that reach the thresholds described in Title 23 § 704 A. Any development that generates over 100 Passenger Car Equivalents (PCE) during the peak hour of operation, needs to obtain a permit from MaineDOT. The purpose of the permit is to ensure that the development is not going to degrade the operations of the roadway network. If the development is found to potentially degrade the system, the Department can require the development to mitigate the problem. The mitigation can be in the form of actual construction of turn lanes, extra through lanes, traffic signals, widened shoulders, sidewalks, bike lanes, construction of park and ride facilities, etc. All modal needs are identified and action taken on a case by case basis.

Federal and State Laws and Policies

As the road system is improved, bicycle and pedestrian connections are improved as well. Road shoulders and sidewalks should be built where feasible and warranted as part of all road improvement projects (other than routine paving and maintenance projects). In many cases, a shoulder will provide access for bicyclists and pedestrians. In more built up areas, sidewalks are also necessary. Federal and state policies help ensure that bicycle and pedestrian access is accommodated with improvements. The following is an overview of the federal and state laws and policies that are the basis for improvements as part of road improvement projects.

Federal Law Title 23 Sec 217

Federal law and state policies are designed to ensure that bicycle and pedestrian facilities are incorporated into all transportation improvements where warranted, excluding routine maintenance activities such as simple paving projects.

Federal Law, Title 23, Section 217 states: "Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation projects, except where bicycle and pedestrian use are not permitted."

Further design guidance by U.S. Department of Transportation indicates that "Due consideration of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities. The decision not to accommodate [bicyclists and pedestrians] should be the exception rather than the rule. There must be exceptional circumstances for denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling."

The current intent of congressional legislation, federal policy, and design guidance is that bicyclists and pedestrians should be accommodated, where warranted and feasible, in the design of new and improved transportation facilities.

Further, the decision not to accommodate bicyclists or pedestrians should be due to exceptional circumstances. In exceptional circumstances in which certain intersection users cannot be accommodated, engineers should prepare detailed documentation explaining why a user group could not be accommodated.

Americans with Disability Act (ADA)

The ADA law is intended to ensure that all public facilities are constructed to be accessible to all people. No qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any public entity. 28CFR35.130(a)

ADA Transition Plan

There are also requirements that public agencies with more than 50 employees make an ADA transition plan. 28 CFR §35.150(d). (9-12-06) The ADA requires that the transition plan include a schedule for providing access features, including curb ramps for walkways. 28 CFR§35.150(d)(2). The schedule should first provide for pedestrian access upgrades to State and local government offices and facilities, transportation, places of public accommodation, and employers, followed by walkways serving other areas. 28 CFR §35.150(d)(2). The transition plan should accomplish the following four tasks:

- Identify physical obstacles in the public agency's facilities that limit the accessibility of its programs or activities to individuals with disabilities;
- Describe in detail the methods that will be used to make the facilities accessible;
- Specify the schedule for taking the steps necessary to upgrade pedestrian access to meet ADA and Section 504 requirements in each year following the transition plan; and
- Indicate the official responsible for implementation of the plan. 28 CFR §35.150(d)(3). (9-12-06)

ADA New Construction

Each facility or part of a facility constructed by, on behalf of, or for the use of a public entity shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities, if the construction was commenced after January 26, 1992. 28CFR35.151(a)

ADA Alterations

Each facility or part of a facility altered by, on behalf of, or for the use of a public entity in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities, if the alteration was commenced after January 26, 1992. 28CFR35.151(b)

What Transportation Projects Must Meet ADA?

All projects for new construction that provide pedestrian facilities must incorporate accessible pedestrian features to the maximum extent technically feasible, without regard to cost. The development process should ensure accessibility requirements are incorporated in the project.

Projects that "alter" the usability of the roadway must incorporate accessible pedestrian improvements to existing pedestrian facilities. Alteration is a change to a public Right of Way that affects or could affect access, circulation, or use. Alteration projects include:

- Reconstruction
- Rehabilitation
- Certain Structural resurfacing projects
- Widening
- Major signal upgrades (signal installation, signal pole replacement/relocation, signal box replacement)

There are tremendous benefits when Maine communities meet ADA standards for transportation projects. All generations and abilities are able to add their lively participation to public activities and life – seniors, the disabled, and also families with young children.

Complete Streets

The term "Complete Streets" was developed in 2003. Complete streets are designed and operated to enable safe access for all users. Many agencies also use the term Context Sensitive Solutions (CSS) to describe many of the elements of Complete Streets. Complete Streets discussions are primarily focused on making sure the transportation system has safe access for all users of the transportation system. CSS discussions broaden that discussion to include historical and the surrounding environment is taken into account when improving roads. Complete Streets discussions are focused directly towards the goal that pedestrians, bicyclists, motorists and transit riders of all ages and abilities are able to safely move along and across a complete street.

Many states and cities have instituted policies, that are considered Complete Streets policies. These policies ensure that all projects will include bicycle and pedestrian access unless exceptional circumstances exist. In rural areas, a shoulder will accommodate all users. In village areas, sidewalks are also necessary. If there is not enough room due to constraints for a sidewalk and shoulder for bicyclists, the bicyclists may need to ride in the travel lane. In addition, where warranted, the needs of transit users are also taken into account when designing improvements.

Statewide Policies Relating to "Complete Streets"

The MaineDOT has many policies and programs that help make biking and walking an integrated element of Maine's transportation system. Providing safe access for bicyclists and pedestrians on the transportation system and improving village environments are essential to the quality of place and safe and efficient transportation in Maine. MaineDOT policies and federal law help ensure that facilities for pedestrians and bicyclists are considered for incorporation into all transportation decisions on the state highways, bridges, and in village areas.

MaineDOT works with communities throughout the state to enable walking and bicycling access and connections by creating well planned growth areas, sidewalks, shoulders, bike lanes, bicycle and pedestrian trails connecting communities, neighborhoods and schools.

Where warranted and feasible, all roadways, except those with legal prohibitions against cycling or walking should be built to accommodate pedestrians and bicyclists. This is done with shoulders and sidewalks, unless there are environmental or other constraints that make the improvements infeasible. Generally, bicycle and pedestrian facilities or networks should provide continuity and consistency for all users.

Local Planning Options

Local Ordinance Options

Create/Improve Ordinances

Ordinances that help improve the pedestrian and bicycling environment require pedestrian and bicycle facilities and compact growth areas. The strategies that communities use include ordinances, street design standards, site plan requirements, and working with developers to improve bicycle and pedestrian improvements as development occurs.

Design Standards for Large Developments

To improve connectivity, a community can create or improve design standards. Design standards are used by many communities to ensure that pedestrians and bicycling improvements are made including:

- Public sidewalks
- Internal walkways
- Pedestrian spaces
- Bicycle facilities
- Site furnishings
- Artwork

Example of bicycle and pedestrian related language for design standards and site plan approvals

Public Sidewalks and Pathways shall:

- Be provided along all sides of land abutting public streets.
- Be provided along full length of building with customer entrance.
- Be provided along any side of the building that is abutting a public road or public parking area.
- Be provided within or near the right of way on all commercial properties.
- Not conflict with landscaping, utilities, drainage structures, signs, etc.
- Be constructed to meet ADA standards, including delineation with visible and tactile methods.
- Be constructed to allow snow removal.
- Be continuous from the public road system to the customer entrance and all buildings.
- Be convenient and connect transit stops, street crossings, and entrances.
- Be a minimum of five feet wide.

- Be provided between abutting properties, and to wherever possible to connect to residential and business areas.
- Be included with the traffic mitigation improvements (through the traffic movement permit process) along the roads leading to and from the development.
- Include esplanades wherever possible.

Accommodating Bicyclists:

- New roadways shall be designed to accommodate bicycling traffic. This can be done with 5 foot wide paved shoulders, or a minimum of 10 foot wide shared use bicycle and pedestrian pathway.
- Bike racks shall be provided near entrances.

Sources: AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004; Cooks Corner Design Standards, Brunswick Department of Planning and Development; Maine State Planning Office; Federal Highway Administration, Maine Department of Transportation.

Other Local Planning Recommendations

While not a requirement for making improvements, plans and policies that support bicycling and walking as part of the overall transportation network are beneficial when applying for funding at the state and federal levels. Local communities throughout the state are planning for increased walking and bicycling access and connections - by creating well-planned growth areas, sidewalks, shoulders, crossing improvements, bicycle and pedestrian trails connecting communities, open spaces and parks, neighborhoods and schools.

Bicycle and Pedestrian Plan

Many communities have benefited from creating a town-wide or village-centered pedestrian and bicycling plan. Such plans detail pedestrian originating locations, schools, neighborhoods, connection needs, policy analysis and recommendations, prioritization of needed improvements, and suggested approaches for funding the improvements. MaineDOT helps support these planning efforts through the Regional Planning Councils, Metropolitan Planning Organizations, and municipal assistance. As outlined later in this report, DECD also provides funding for planning efforts.

School Travel Plan

A School Travel Plan is a written document that outlines a school community's intentions for making travel to and from school more safe and sustainable. This is accomplished by reducing individual car trips, increasing walking and bicycling, and by making the walking and bicycling environment safer. A school travel plan is the first step towards a successful Safe Routes to School program. These plans also help communities improve their chances for funding of infrastructure improvements.

School Travel Plans are created through a team-based process that identifies the barriers to active transportation and formulates a set of solutions to address them. The School Travel Plan is an important tool in improving student and community health, safety, traffic congestion and air quality. The Hancock County Planning Commission, in cooperation with

MaineDOT and Bicycle Coalition of Maine (BCM) has developed a model school travel plan to make it easier for communities and schools to develop a travel plan.

The model includes downloadable step-by-step directions and can be accessed at www.hcpcme.org/transportation/schooltravel/index.html.

Planning for Maintenance of the System

The maintenance of sidewalks, trails, and bike lanes are important for safety and mobility. Sidewalks and trails need to be kept ADA compliant, and cleared of snow in the winter to provide safe bicycling and pedestrian opportunities. It is the responsibility of the local municipality to ensure that snow is cleared from sidewalks and trails within its jurisdiction. Many municipalities require the individual landowners who abut the sidewalks to clear snow. This often leads to areas that are not cleared and pushes the pedestrians out into traffic. It is also important to ensure sidewalks are cleared of obtrusions that create safety problems for people with visual and other disabilities. If a sidewalk is allowed to deteriate to a point that it is unusable, pedestrians (especially wheelchair users) will be forced into the lanes of traffic.

Regional Planning Councils (RPCs)

The State's regional councils assist municipalities and MaineDOT in all of the planning processes described in this document, including comprehensive, transportation, village, bicycle and pedestrian planning, and ordinance development. They are instrumental in updating comprehensive plans and the transportation chapters of those plans and with ordinances and other actions - to better align land use decisions with the transportation system. These councils are MaineDOT's conduit for delivering transportation planning data to communities who are undertaking transportation chapters of comprehensive plans (or want to prepare a stand-alone transportation plan). Early in any planning processes, communities should contact the regional council for data and guidance.

RPCs are based throughout the state and draw on a very broad base of local knowledge, covering all aspects of regional and local planning. They are also familiar with changes in land use and demographics in neighboring towns that may affect your community. For locally oriented transportation/neighborhood and village planning, a Regional Council can provide invaluable assistance and should be considered a resource to assist with improving the community environment. A full list of the councils and contact information can be found in Appendix C.

Metropolitan Planning Organizations (MPOs)

For road improvements in more urbanized areas, a municipality is required to work with the appropriate MPO. They are federally designated planning organizations – subject to state DOT oversight - responsible for carrying out a continuous, comprehensive, and cooperative transportation planning process for urbanized areas with populations of 50,000 or more. They do the same transportation planning work, including the prioritization and funding of transportation projects, for the urbanized portions of federally defined metropolitan areas as MaineDOT does for the rest of the State. If a project need is within an MPO boundary, a municipality is required to work through their respective MPO regarding road improvements. Every two years, MPOs receive an allocation of funds from MaineDOT for planning and

to construct federally eligible projects. MPOs also take applications for specific bike and pedestrian planning needs and projects.

Contact Information

Androscoggin Transportation Resource Center (ATRC)
(4 Communities)Lewiston/Auburn area, ME (207)783-9186

Bangor Area Comprehensive Transportation System (BACTS)
(11Communities) Bangor, 800-339-6389 or 207-942-6389

Kittery Area Comprehensive Transportation System (KACTS)
(5 Communities) Sanford Area (207)324-2952

Portland Area Comprehensive Transportation System (PACTS)
(207)774-9891 (15 Communities)

Improving Connections Through Infrastructure Improvements

Bicycle and Pedestrian Improvements through Road Reconstruction Projects

Most bicycle and pedestrian improvement needs are identified along existing roadways. The road may have room for cars, but no safe place for pedestrians in areas near pedestrian generators. If it is determined that a sidewalk is needed along a roadway, the first step is to determine the road classification. This will help determine the options available for future improvements. It is important to determine the classification of the road and whether it is a state or local road. All roads in the state can fall into four classifications: Arterials, Major Collectors, Minor Collectors and Local Roads. The classification and location of the road also determines the agency or agencies that are responsible for improvements. Roads are under the jurisdiction of the city, town, state or Metropolitan Planning Organization (MPO).

A sidewalk, shoulder, bike lane, or crossing improvement can be planned as either part of a road project, or as a separate stand alone project. Once a need is identified along a particular road section, a good first step is to see if it can be done as part of an overall road improvement. For instance, perhaps the road is not built to modern day safety standards and there are serious drainage issues. The municipality may already have plans or may be working with MaineDOT or Metropolitan Planning Organizations (MPOs) to get the road fixed. One option would be to work through the transportation planning process to get the road in the budget for improvements, including the needed bicycle and/or pedestrian improvements.

It is important to determine whether the road is in need of improvements because of the potential for the sidewalk improvements to be made the next time the road is reconstructed or rehabilitated. This information can be found by contacting the local public works director or road commissioner. It is important to determine the road classification, which will determine the options a municipality has for future road improvements.

For MaineDOT road improvement project needs, municipalities have the opportunity to respond every other year (even numbered years) to the MaineDOT Municipal Request Packet. MaineDOT sends out the request for priorities to each municipality. This is an opportunity for a municipality to communicate to MaineDOT its priorities and needs for road improvements on state roads within its area. After a municipality prioritizes its needs and communicates them to MaineDOT, these needs must be prioritized by MaineDOT against other community needs throughout the state. MaineDOT then creates a two year budget that is financially constrained and includes projects for bridges, paving projects, maintenance needs, road improvements, transit, safety, and bicycle and pedestrian stand alone projects.

Arterial Highways and Major Collectors

Arterial Highways and Major Collectors provide for substantial through-traffic on corridors that connect local roads with major points of interest. MaineDOT is responsible for improving the state's Arterials and Major Collectors (unless the road is within an MPO boundary)

because they serve statewide needs. If the road is an Arterial or Major Collector, the municipality requests road improvements from MaineDOT or the appropriate MPO on a biennial basis (spring of even numbered years).

Minor Collectors

Minor Collectors link local roads with Arterial Highways and Major Collectors.
If the needed road improvement is on a Minor Collector, the municipality must apply to the state through the Rural Road Initiative Program (depending on funding approvals for the program), and be willing to contribute one third of the cost of the road improvement. If the project is selected, the state will fund the remaining two-thirds (up to a total project cost of $600,000). The Maine Legislature created the Rural Road Initiative (RRI) Program to allow MaineDOT to partner with communities to fund improvements on Minor Collector roadways.

Local Roads

Local Roads are found within communities and serve local needs. MaineDOT provides funding to municipalities for improvements to local roads. Local municipalities generally create a Capital Improvement Plan (CIP), which outlines which roads will be improved. Local municipalities often target funds towards roadway improvements, sidewalks, and crossing improvements.

Bike Lanes and Paved Shoulders

Bike lanes are vital to the safety of bicyclists. A bike lane provides available road space for preferential use by bicyclists. Bike lanes can increase a bicyclist's confidence that motorists will not stray into the bicyclist's travel lane. A bike lane helps make a bicyclists feel that he or she has a defined space on the road, and that motor vehicles are less likely to get too close. A bike lane also raises visibility of the bicyclists on the road system, which is vital to a bicyclist's safety. Bike lanes in communities encourage more bicycling, but also provides a safer bicycling environment. The lanes let road users know that bicyclists are a welcome, valid and important part of the transportation network.

In Maine, if a road has been built to modern safety standards, it likely has paved shoulders. In most cases access to the transportation system for bicyclists and pedestrians is provided by paved shoulders (i.e. shoulders that are paved beyond the outside of the lane). If the road does not have paved shoulders, bicyclists are required by law to ride within the travel lane, on the right side, except when turning left or going straight when a right turn lane exists.

When MaineDOT reconstructs roads, the MaineDOT shoulder policy determines whether a paved shoulder will be provided and how wide it will be. Shoulder width is largely determined by road classification and the level of traffic. A paved shoulder provides safer access to the roadway system for bicyclists and pedestrians, and is included where warranted.

In more urbanized areas, MaineDOT works with local municipalities and considers public input to determine if a shoulder is stenciled as an official "bike lane" along the roadway and at intersections on MaineDOT projects. On existing roadways, it is generally the decision and responsibility of a given municipality to create an official, marked "bike lane" in urban areas. These bike lanes should follow guidelines set out in the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Bicycle Facilities.

Stand Alone Bicycle and Pedestrian Projects

If a bicycle and a pedestrian connection need is identified and it is determined that the associated road is not scheduled for improvements, a community can work towards funding specifically for a bicycle and pedestrian connection. There are a variety of funding mechanisms that are used to create bicycle and pedestrian connections, including Capital Improvement Budgets, bonding, applying for funding assistance from state and federal grant programs, etc. The following is a summary of some of the funding opportunities that communities are using to improve connections for pedestrians and bicyclists.

MaineDOT Quality Community Program

MaineDOT funds bicycle and pedestrian improvements in communities throughout the state through its Quality Community Program. The program uses a variety of funding sources to provide funding assistance to communities to improve the quality of the community environment.

MaineDOT accepts applications every two years, (even numbered years in the spring). The program funds approximately $4 Million in federal funds per year in bicycle and pedestrian projects that meet the transportation purpose of connecting neighborhoods, schools, downtowns and village areas. Municipalities that apply to the Quality Community Program must show that the project serves a transportation purpose, has community support, is buildable and environmentally feasible, and will improve safety. The three primary funding mechanisms within the Quality Community Program, that fund bicycle and pedestrian projects in local communities, are Federal Transportation Enhancement, Safe Routes to School, and Scenic Byways.

Transportation Enhancement funding

Transportation Enhancement (TE) funding opportunities are available to help expand transportation choices and enhance the transportation experience through 12 eligible activities related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation, etc. TE projects must relate to surface transportation and must qualify under one or more of the 12 eligible categories. TE is a primary source of funding for bike and pedestrian stand alone projects in the United States and in Maine. There is a 20% local match requirement. For more information, contact Dan Stewart at 207-624-3252.

Safe Routes to School

Safe Routes to School Program funding is intended to provide resources for infrastructure improvements and activities to increase the number of students walking and bicycling to school and after school activities. Infrastructure improvements such as school zone lights, traffic calming and sidewalk improvements are intended to be part of a larger effort within communities to improve conditions and raise awareness of the benefits of walking and biking to school. The Safe Routes to School Program is the only program within the Quality Community Program that provides up to 100 percent funding for projects within 2 miles of an elementary or middle school. For more information, contact Dan Stewart at 207-624-3252.

Scenic Byway Funding

Maine has designated scenic byways throughout the state. Sidewalks and trails in village areas on scenic byways can be funded with Scenic Byway funding. This program accepts applications each year. Contact your Regional Planning Council or Fred Michaud at MaineDOT at 207-624-3279.

DECD Community Block Grants Community Development Block Grants (CDBG)

The Department of Economic and Community Development (DECD) offers grants to Maine communities to achieve community and economic development objectives. Each year the program provides approximately $12 million in funding to Maine communities through competitive applications. Eligible applicants are units of general local government. The goals of the program are to benefit low income persons, eliminating the influences of blight, and addressing urgent needs. In Auburn, Bangor, Lewiston, and Portland, these funds are apportioned directly, so these communities are not eligible to apply through the DECD. Communities often use this funding to improve the community environment - including sidewalks, streetscape improvements and trails. DECD also provides Community Planning Grants up to $10,000 (25% match required) for studies relating to community planning, downtown revitalization, trails, etc. Streetscape improvements that are eligible in this program include pocket parks, benches, street lighting, tree plantings, signage, traffic calming improvements, sidewalks and other approved techniques. This program has funded pedestrian improvements in communities throughout Maine. For more information on this program, contact Terry Ann Stevens at 207-624-9814 or email her at terry.stevens@maine.gov

Maine Department of Conservation (MaineDOC), Recreational Trails Program (RTP)

This program is administered by the MaineDOC and provides funding assistance for recreational trails in communities throughout the state. The program allows funding for both

motorized and non-motorized trails and requires 20 percent in matching funds. Applications are available in May or June of each year and are due in November. The program provides approximately $1 million per year for trail improvements. For more information on the program, contact Mick Rogers at 207-287-4962.

The levels of grants available include:

- Small Trail Development Grant – up to $10,000.00,
- Trail Development Grant – up to $30,000.00
- Motorized Bridge Grant – up to $100,000.00

Local Funding Options

Funding for bicycle and pedestrian improvements at the local level is vital to improving conditions within Maine communities. Most of the grant programs require a local match either with actual funding, or materials and labor. In addition, because grant funding is competitive and not nearly enough to make all the improvements necessary, local funding is imperative to improving bicycle and pedestrian connections. The following is a sample of some of the local funding options being used in Maine.

Capital Improvement Programs (CIP) and Projects - Many municipalities budget a portion of their yearly CIP budget to sidewalk improvements. Many of the roads that are improved through the CIP also include shoulders and sidewalks that benefit pedestrians and bicyclists.

Local Bonding

Many communities have used bonding as a way to make significant improvements to the sidewalk networks. Most often, bicycle and pedestrian groups work with town leaders to bring a potential bond to the voters for approval. Recent examples include:

- $1,000,000 Local Bond for sidewalks built in 2007 Topsham
- $500,000 Saco Eastern Trail bicycle and pedestrian connection
- $1,000,000 Houlton sidewalk rehabilitations.

Tax Increment Financing (TIF)

Maine TIF laws allow communities to capture incremental growth in property tax revenue, over a period of time, for reinvestment within the community. TIF revenues provide opportunities to fund local development projects, such as bicycle and pedestrian improvements within a district, and are great sources for local grant match. A recent example in Maine is the community of Gardiner, which applied successfully to the State of Maine's Department of Community and Economic Development to establish a downtown TIF district in 2002. Gardiner's downtown TIF funding has supported two major CDBG downtown revitalization grant projects as well as a waterfront redevelopment project. Gardiner also is using TIF revenue as local match for Preliminary Design Engineering on its Cobbossee Corridor Bike and Pedestrian Trail project in connection with a MaineDOT Transportation Enhancement Funding.

National Park Service Rivers and Trails Program

The Rivers, Trails and Conservation Assistance Program works with nonprofit organizations, community groups, tribes or tribal governments, and local, state, or federal government agencies to conserve rivers, preserve open spaces, and develop trails and greenways. In Maine, the majority of the work has been helping communities develop trails ranging from hand-built, natural-surface walking trails to paved shared-use paths. Rivers and Trails have worked on many of Maine's long distance trails that connect multiple communities for walking and biking. They have also assisted with many other trail projects, which connect places people want to access within communities. In many cases, project sponsors have long-term plans to connect these trails to adjacent communities. Rivers and Trails works with organizations, agencies, and coalitions who request assistance through a competitive process. The application deadline is August 1 each year. For more information on this program, call 725-4934.

Collaboration

State and Local Programs and Coordination Efforts

State and Federal Agencies, including the Maine Department of Transportation, Maine Department of Conservation, State Planning Office, Office of Tourism, Federal Highway Administration, Maine Bureau of Highway Safety, National Highway Traffic Safety Administration, Department of Health and Human Services, Department of Health, advocacy groups such as the Bicycle Coalition of Maine and GrowSmart Maine, land trusts, planners, municipalities, local trail groups, and others are all working hard to improve the built environment for walking and biking. This collaboration includes policy, law, and infrastructure improvements that promote and create quality community environments - including compact communities, and the bicycle and pedestrian connections that foster and connect quality places. The following is a list of related collaboration efforts at the state level:

Bicycle Coalition of Maine, Statewide Bicycle Advocacy Group

The Bicycle Coalition of Maine (BCM) is a statewide non-profit organization whose mission is making Maine a better place to bicycle. BCM pursues this mission through programs and events that promote education and public awareness of bicycling to Maine children and adults. BCM is under contract with the MaineDOT to assist with the implementation of the Statewide Bike Safety Education campaign, Safe Routes to School program, and the Share the Road media campaign.

Maine Department of Conservation Take it Outside Initiative

"Take It Outside" is an initiative led by Governor John E. Baldacci and supported by the Bureau of Parks and Lands, under the Maine Department of Conservation, to encourage Maine's children and families to reconnect with nature. The initiative is designed primarily to address growing concerns over childhood obesity and lower levels of youth engagement with the natural world. "Take It Outside" uses partnerships and collaborations to provide events and experiences that help introduce Maine citizens and guests to the joys of nature-based outdoor recreation. Creating community environments that promote active lifestyles with sidewalks, bike lanes, and trails is an important component of the "Take it Outside" initiative.

While "Take-It-Outside" is an initiative that promotes the use of parks and lands across the state, including remarkable assets in remote locations, it is first and foremost about getting people outside where they can enjoy the benefits of outdoor recreation. Bicycle and pedestrian routes, including those associated with transportation networks, are a great tool for linking people with the outdoors. Walking or biking to work, to school, to a park, or to a variety of other destinations can be a positive experience full of all of the benefits the Take-It-Outside initiative supports.

Healthy Maine Walks Coalition

The PAN Program also convenes the Healthy Maine Walks coalition, a group of state-level partners with the common interest of increasing walking in the state; the coalition promotes a nationally recognized Web site www.HealthyMaineWalks.org, which provides information on over 300 outdoor and indoor walking routes around the state.

Healthy Maine Partnerships (HMP's)

HMPs are State-funded coalitions focused on chronic disease and substance abuse prevention and health promotion at the local level. HMPs work in communities on policy (i.e. tobacco use restrictions) and environmental (i.e. assuring sidewalks are available) changes to make it easier for people to be more physically active, eat healthier diets, and live tobacco and substance abuse-free lives. They are especially good at bringing partners together to address these issues. HMPs include 28 State-funded coalitions throughout the state focused on health promotion at the local level.

One of the objectives of the HMP is also to increase the number of children and youth safely walking or biking to school and developing plans to safely connect youth to neighborhoods, schools, and recreation areas. Another goal of the PAN Program and the local HMPs is to increase the number of towns with sidewalks, bike paths, trails, and open facilities or other places for physical activity – as well as improving comprehensive town plans that include built environment design standards that foster physical activity. A list of the HMP's can be found in Appendix C.

Maine Center for Disease Control and Prevention (MaineCDC)

The MaineCDC seeks to improve healthy behaviors throughout the state in part through efforts to provide access to places for physical activity. The lead organization for this effort within the MaineCDC is the Physical Activity and Nutrition Program (PAN Program). An important component of the PAN Program's evidence-based work is to provide leadership to public health agencies interested in increasing physical activity levels - through improvements to the built environment and promotion of the facilities available.

Maine Department of Conservation SCORP

The Maine State Comprehensive Outdoor Recreation Plan (SCORP) is a plan produced every five years by MaineDOC to help Maine receive federal Land and Water Conservation Funds. Additionally, the Maine SCORP satisfies state legislative requirements and helps guide MaineDOC decision making.

Maine's SCORP identifies the demand for and supply of outdoor recreation areas and facilitiies, and discusses outdoor recreation issues of statewide importance based on public and focus group comment. The plan's Implementation Program suggests broad priorities for expenditure of Land and Water Conservation Fund dollars in Maine. The 2009-2014 SCORP document identifies non-motorized transportation features, such as walking and biking routes/paths, as an important element of community recreation opportunities. The pathways are recognized as resources in and of themselves while also serving as car-free connectors enabling people to get to local outdoor destinations without the need for motorized transportation. In this sense, they are an essential component of smart growth.

Local Bicycle and Pedestrian Groups

Many communities have bicycle and pedestrian groups that have successfully initiated the development of bicycle and pedestrian connections – transforming and defining community environments. A good example of a group that has been extremely successful is Portland Trails, which has been working for years on creating quality bicycle and pedestrian trail connections in the Portland region. Many land trusts throughout the state are also very involved in creating bicycle and pedestrian connections.

Marketing and Outreach Efforts

Bike and Pedestrian Safety Education Program

The Bicycle Coalition of Maine, in partnership with MaineDOT, has instituted a statewide Bike and Pedestrian Safety Education Program. The Bike and Pedestrian Safety Education program includes several components that all contribute towards a goal of increasing bicycle safety in Maine. The program includes a classroom education component geared towards 4th and 5th grade Maine students, an after-school bike club component geared towards middle school students, a bike safety and the law component for law enforcement officers and a bike commuter education program for adult bicycle commuters. This program reaches approximately 10,000 students per year in schools throughout the state. For more information on this program call 623-4511.

Maine Statewide Bicycle and Pedestrian Safety Campaigns

MaineDOT, in partnership with the Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA) and the Bicycle Coalition of Maine (BCM), conducts a safety campaign each year to raise awareness of safe travel and behavior for bicyclists, pedestrians and motorists. This campaign is created and distributed statewide via radio, television, print and the web.

Safe Routes to School Education/Encouragement Program

The Safe Routes to School program is a statewide effort to enable and encourage children to walk and bicycle to school. Specific programmatic elements focus on making walking and bicycling to school and after school activities safe and more appealing as well as facilitating the planning, development and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. There are two regional coordinators in Central and Southern Maine that work directly with schools and help facilitate walk and bike to school programs in schools throughout the state. For more information on this program, call 623-4511.

Go-Maine Bicycle Commuter Program

GO MAINE, in partnership with MaineDOT and the Bicycle Coalition of Maine, coordinates a statewide bicycle commuting program that reaches out to the public to educate and inform on the potential of the bicycle as a practical transportation option, and ultimately facilitate a real increase in bicycle commuting. Efforts focus on a variety of outreach and education targets and resources: employers and their wellness, fitness, human resources, facilities, community action, public relations, and marketing functions; local

bicycle retailers and riding groups; Healthy Maine Partnerships groups and connections; sustainability and environmental groups and connections; and local fitness centers. The outreach and education elements of this comprehensive bicycle commuting program include topic areas such as bicycle selection and orientation, bicycle accessories for safety and comfort, weather, route selection, bicycling safety and motor vehicle awareness, bicycle partners and bike partner matching, employer amenities for bicycle commuters (e.g. bike racks, showers), bicycle maintenance and repairs. Promotional campaigns utilizing a variety of media to generate awareness and reinforce the bicycle commuting message are also utilized by Go-Maine. The program offers a complete information package in partnership/coordination with local/on-site resources. The package of outreach and education tools includes bicycle commuting web pages, instructional videos, information pamphlets, Power Point presentations, on-site presentations and demonstrations, community and company rides, incentives, benefit data e.g. (environmental, physical, social health).

Outreach to Tourists

Maine's largest industry is tourism, generating 140,000 jobs and over $10 billion in annual sales of goods and services. The Maine Office of Tourism markets primarily to first time visitors in key market areas every year through print and television campaigns and directing interested parties to the State of Maine's Official tourism website www.visitmaine.com for travel planning. According to the latest research, sightseeing is the largest attraction of overnight travelers to Maine - far exceeding the national average. Travelers are most interested in seeing small towns and villages, the ocean, wilderness areas and scenic byways. Maine has a strong appeal to the "active" visitor who is most interested in going to the beach, swimming, walking, biking, and hiking. Maine attracts a number of nationally and internationally recognized Biking and Walking tour companies every year that explore our coastal routes, staying at inns and Bed and Breakfasts, eating local foods and experiencing our small towns and villages.

Explore Maine by Bike Tour Book and Web Site

MaineDOT has worked with municipalities and trail groups statewide to identify bike tours that are scenic and connect communities, parks, and open spaces. The Explore Maine by Bike Tour Book is one of the best bike tour booklets in the nation, and is made available through the Maine Tourism Association Visitor centers, bike shops, libraries, and town halls throughout the state. The tours can be found on line at www.exploremaine.org. Please call 624-3272 for a copy of the Explore Maine by Bike Tour Book.

Annual Conferences

Each Spring, MaineDOT, MaineDOC, SPO, and the MaineCDC present a statewide conference to educate planners, municipalities, advocates, and others on the importance of improving connections for walking and bicycling, the importance to active community environments, and the processes involved in making improvements. These conferences focus on the tools and processes available to improve community environments to create active lifestyles through bicycle and pedestrian connections. The goals of the conferences are to educate and inform people throughout the state on the processes and funding mechanisms that can be used to improve bicycle and pedestrian connections.

2009 Active Communities Conference, Freeport, Maine

Recommendations

State Strategy to Connect Maine Through Integrated Bicycle and Pedestrian Connections

Funding

- Pursue new and additional allocations of funding for transportation projects, which include the incorporation of bicycle and pedestrian improvements, as well as for stand-alone bicycle and pedestrian improvement projects.
- Fund bicycle lane creation efforts to create defined bike lanes in urban areas to improve bicycle safety and encourage more of the public to feel comfortable biking.
- Continue to fund education, encouragement, and safety programs
- Continue to educate municipalities, planners and advocates on the policies, processes, and funding opportunities available to improve conditions for bicycling and walking in their local communities through annual conferences, educational programming, presentations and media campaigns.
- Expand safety awareness campaigns including Share the Road campaigns for bicyclists and pedestrians, Bike Safety Education programming in schools, law enforcement training, Go-Maine Bicycle Commuter Programs, and Safe Routes to School travel plans and encouragement programs.
- Continue and expand State Agency coordination regarding planning processes, policy implementation, outreach efforts (including Take it Outside), and programming to ensure that all state agencies are working towards well-planned communities with safe and multi-modal transportation connections.
- Continue the Statewide Bicycle and Pedestrian Council, including representation from bicycle and pedestrian groups statewide, as a tool for improved communication and to receive policy and program guidance on state policies, programs and initiatives relating to bicycle and pedestrian issues.
- Foster collaboration and partnerships, including state and federal agencies, the private sector, health, safety, and planning professionals, major initiatives such as Take it Outside or Let's Go Portland - to improve coordination and partnerships with the myriad of groups working on improving conditions for walking and biking.
- Create a web page that provides information on the tools and resources available for communities and advocacy groups to identify deficiencies in the pedestrian and bicycling network and how to make improvements in creating safer connections.
- Market Maine as a walkable and bikable destination for tourists and residents alike. Coordinate efforts among state agencies including MaineDOC, Maine Office of Tourism, MaineDOT, and others to ensure marketing themes include walking and bicycling as an integral part of Maine's Quality of Place.

Policy and Planning

- Improve state and local policies and ordinances to ensure that bicycle and pedestrian connections are made whenever feasible as part of all road improvement projects, developments, site plan approvals, and traffic and environmental mitigation efforts. Encourage municipalities to direct development into compact growth areas with interconnected streets.
- Work with Regional Planning Councils, Metropolitan Planning Organizations, and municipalities to create bicycle and pedestrian/village plans in communities, village areas, and neighborhood schools.
- Work with municipalities to help ensure that the Growth Management Act and STPA Transportation Plan requirements are integrated into municipal comprehensive plans, and adopted into ordinances that support the plans.
- Assist in developing model ordinances that communities can use to implement strategies outlined in approved comprehensive plans.
- Develop and implement a Statewide ADA Transition Plan, as well as individual Transition Plans for municipalities. Provide funding opportunities and work with communities to ensure that all communities have an ADA transition plan in place that defines a timeline to ensure all public facilities (including sidewalks and crossings) are retrofitted or built to be ADA accessible.

General

- Work with private rail companies to acquire permission and easements allowing rail-with-trails along all rail corridors in the State where feasible and warranted.
- Work with communities and transit providers to ensure that transit options are available where warranted and that all transit stops are accessible for pedestrians and bicyclists.
- Encourage and enable the short-term completion of the three long distance multi-use trails of Statewide Significance including the Down East Sunrise Trail (87 miles), the Eastern Trail (57 miles), and the Mountain Division Trail (50 miles).
- Work with communities to ensure that existing and future bicycle and pedestrian facilities are maintained properly and snow is removed in the winter.
- Develop a bike signage plan to fully identify and sign long distance and commuter bicycle routes in communities throughout Maine.
- Develop a bicycle commuter plan that identifies bicycle commuter routes connecting neighborhoods, business areas and communities.

Closing Remarks

Greater investment in facilities and policies that improve connections for walking and biking in Maine have long-term and far-reaching benefits to Maine's quality of place. Connecting Maine for walking and biking involves the integration of policy development and implementation, public processes, strategic planning, deficiencies analysis, funding mechanisms, educational efforts, incentives, and state and local coordination.

This report hopes to serve individuals, groups, planners, state agencies and municipalities. It has outlined the most effective strategies and concrete steps that create critical bicycle and pedestrian connections within and between Maine's quality places - our towns, neighborhoods, schools, parks, open spaces, and vibrant community centers.

The Statewide Plan for connecting Maine for walking and biking is strongly based upon a community driven approach where needs and strategies are determined at the local level. Citizens and municipal officials work together to develop the plans and identify prioritized needs, and develop strategies to implement the plans and create quality community environments and connections that improve quality of life, safety, and create sustainable communities. Federal, state, and regional agencies help provide the guidance, policy direction, planning and funding assistance to help ensure Maine continues to fully connect its quality places for pedestrians and bicyclists.

Appendix A

Basic Eligibility For Quality Community Program Applications

Basic Eligibility For Quality Community Program Applications

Right-of-way: If applicable, complete information regarding the right-of-way situation should be provided. Due to the limited size of the budget, only projects that have already acquired R.O.W., or have shown that R.O.W. will (not may) be acquired should be considered for construction funding.

Match: If applicable, the applicant should have shown that the match has already been approved, or that match will be able to be secured before Fiscal 2010.

The ability to successfully build project in funding cycle: If there is strong doubt about the ability to successfully move the project through completion in the timeframe for the funding, construction funding should not be approved.

Environmental Benefit (Natural, Historic, Cultural, Social): The project applicant should have shown that there are no identified obstacles that will keep the project from being approved. (e.g. environmental permitting)

The Project applicant has other projects that have already been funded but will not be built before this funding cycle: If the applicant has already received federal/state funding for a project that will not likely to have been completed by the beginning of the funding cycle, the project should not be funded so as to distribute very limited resources more equitably. Project is not going to take the majority of the available funding: If a project estimate would take up too much of the total available funding any given funding cycle, the proposed project will not be considered, unless a portion of the project can be funded and still be considered a viable project.

Good Cost Estimate: It should be shown that the estimate, timeline and scope of work are practicable.

Community Support/Public Involvement: The project has been shown to have broad community support. As required by state and federal transportation planning processes, public involvement is essential in the development of transportation plans, projects and programs. Public involvement should include, to the extent possible, input from individuals who will be affected by the transportation plan and programs.

Important elements that should be outlined if applicable in applications to Quality Community Program

Transportation Value: Each project should serve a primarily transportation purpose, as opposed to a recreation purpose. A project serves a valid transportation purpose if it serves as a connection between origins and destinations, increases safety, or enhances the use of the transportation system and the transportation environment.

Positive Impact on Community: The project will have a measurable positive impact on the community.

Regional Impact: The project will have a measurable positive impact on a region: A project that will serve users from beyond a single municipality.

Demonstrated Need: A project that has demonstrated that it will serve an important function, and accomplish the stated purpose.

State Planning Goals/Economic/Tourism Benefit: A project that will enhance or enable a livable, compact community that has the potential to improve quality of life, thereby enhancing the economic vibrancy of a community or region. Wording requirements for comp plan successes.

Potential Safety Improvement: A project that addresses existing or potential safety problems or issues.

New Opportunities: The project has been shown to provide a new opportunity for public benefit.

Sensible Transportation Bonus: An applicant will receive bonus points if the community is on MaineDOT's approved list of communities that have successfully obtained the following:

- Approved Adopted Community Transportation Plan, and
- Adopted Ordinances that incorporate Land Use Development Strategies as outlined in Plan,
- Adopted Plan and Ordinances have met objectives outlined in STPA.

- An applicant will receive collaboration bonus points if the community is partnered with one or more communities, and all communities involved are on MaineDOT's approved list of communities.

Appendix B

Suggestions for Preparing for Funding Applications

Suggestions for Preparing for Funding Applications

- Make an evaluation of the factors that may be preventing safe walking and biking
- Make a list and prioritize improvements that would be helpful.
- Document how the project will improve the safety of pedestrian and bicyclists, and encourage an increase in walking and biking.
- Town/City support is vital. Communicate and document support from town leaders.
- Begin gathering letters of support from all involved and those that will be affected by the safer route.
- Work towards other funding (i.e. town) that can be directed towards the improvement (s)
- Take pictures of the areas of concern; develop a picture scenario for the application(s).
- Develop detailed cost estimates; include right of way acquisition (Public Works Directors are very helpful in this area).
- Is the road a town way or on the "state system"?
- If project is "on-road" is sufficient right-of-way currently available and what, if any, impact may the project have on abutting property owners?
- If a project is "off-road" determine property ownership and if easement or right of way is required for the project.
- Determine who will be responsible for winter and long-term maintenance.
- Show how the project will benefit the community. What neighborhoods and how many people will it benefit?
- If Safe Routes to School, identify an individual or individuals within your school or school district who will serve as a contact person to work closely with the MaineDOT Statewide Encouragement Program and help coordinate a school program designed to encourage kids to walk and bicycle to school. This person will work closely with the MaineDOT Statewide Encouragement Program, which will provide supporting materials.
- Build project support from parents, town officials, and area health officials, School Departments, Police Department and Public Works Departments.

Appendix C

Resource List

State-Level: Programs

Department of Transportation (www.maine.gov/mdot/): MaineDOT can provide technical assistance and funding to improve the quality of the community environment, including improving conditions for bicyclists and pedestrians. MaineDOT also manages the state's Safe

Routes to School Program (www.maine.gov/mdot/opt/srts.php), which works to enable and make it safer for kids to walk and bike to school and after school activities.

Physical Activity, Nutrition and Healthy Weight Program, Maine CDC (www.healthymainepartnerships.org/panp/): The PAN-HW Program assists communities and community organizations in creating places where it is easy to be physically active and eat nutritiously through information sharing, resource development and technical assistance.

Grants and Community Recreation Program, Department of Conservation (www.maine.gov/doc/parks/programs/community/): This program is available to assist cities and towns with organizing and structuring municipal parks and recreation boards, recreation programming, facility development and grant opportunities.

State Planning Office (www.maine.gov/spo/): The SPO provides planning assistance, policy development, program management, and technical assistance to build a sustainable future for Maine's communities, businesses, and residents. The Land Use Program (www.maine.gov/spo/landuse) advocates for sound land use planning.

Bicycle Coalition of Maine (www.bikemaine.org): BCM is a non-profit organization comprised of bicycle enthusiasts who want to make Maine a better place to bike for recreation, adventure, transportation, competition, fun and for better health. BCM also has a contract with MaineDOT to administer the Bicycle Safety Education and Safe Routes to School Programs.

GrowSmart Maine (www.growsmartmaine.org): GrowSmart Maine is a non-profit organization. GrowSmart Maine brings Maine people together to envision and create a more sustainable, prosperous future for our state.

Maine Downtown Center (www.mdf.org/mdc_overview.php): The Maine Development Foundation's Downtown Center serves as the state coordinator for the National Trust for Historic Preservation's Main Street program. We utilize the Main Street Four-Point Approach®, with the mission of advancing preservation-based economic development in Maine downtowns. We are a member of the Maine Downtown Coalition and are proud to work with 9 Main Street Maine and 17 Maine Downtown Network communities, representing every county in Maine.

Maine Department of Economic and Community Development (www.econdevmaine.com): The DECD offers grants to Maine communities to achieve community and economic development objectives and for community planning, downtown revitalization and trails studies.

National Park Service, Rivers, Trails and Conservation Assistance Program, Northeast Region Office (www.nps.gov/ncrc/programs/rtca/contactus/regions/northeast.html): The NPS Rivers & Trails program provides staff assistance to coalitions, organizations, and government at all levels to support community and regionally-based trail creation, land conservation, and river protection.

Healthy Maine Walks (www.healthymainewalks.org): The Healthy Maine Walks Web site provides a central location for towns and local groups to register walking routes, which makes it a great place to post information for community members and visitors.

State Level: Individuals

Dan Stewart: Dan is the Maine Department of Transportation's Statewide Bicycle and Pedestrian Quality Community Program Manager. Dan assists communities and individuals with understanding the processes involved in creating livable communities and improving conditions for pedestrians and bicyclists. Dan can provide information on the resources available at the local, state and federal level to improve the quality community environment. Bicycle and Pedestrian Program, Maine DOT, (207) 624-3252, Dan.Stewart@maine.gov

Darcy Whittemore: Darcy is the Program Manager for the Maine Safe Routes to School Program. She can provide assistance for encouragement, evaluation and infrastructure improvements in the development of local Safe Routes to School - Walk & Bike to School Programs. Bicycle Coalition of Maine, Safe Routes to School Program Manager, (207) 623-4511, saferoutes@bikemaine.org

Sarah Cushman: Sarah can provide technical assistance for evaluation, encouragement and infrastructure improvement activities in the development of local Safe Routes to School - Walk & Bike to School Programs. Safe Routes to School Planner for Southern Maine, Bicycle Coalition of Maine, (207) 841-7186, sarah@sarahcushman.com Sarah is also a board member of Portland Green Streets, a non-profit and creative grassroots effort to change transportation behavior in Greater Portland, Maine - away from the single-occupancy vehicle and toward walking, bicycling, using public transit, carpooling, and telecommuting - www.PortlandGreenStreets.org

Doug Beck: Doug can provide data and information on physical activity programs, can assist in locating informational resources and can provide technical assistance for those interested in conducting walking audits. Physical Activity, Nutrition and Healthy Weight Program, Maine CDC, (207) 287-5044, doug.beck@maine.gov

Mick Rogers: Mick can provide information to acquire funding through both the Recreational Trails Grant Program and the Land and Water Conservation Fund program. Department of Conservation, Grants and Community Recreation Program, (207) 287-4962, mick.rogers@maine.gov

Phil Carey: Phil can provide data and information on municipal comprehensive planning and municipal bicycle and pedestrian planning. Land Use Program, Maine State Planning Office, (207) 624-6216, phil.carey@maine.gov

Amy Root: Amy can provide data and information on physical activity rates and the relationship between physical activity and the built environment can assist in locating informational resources and can provide technical assistance for those interested in conducting walking and biking audits. Maine Nutrition Network, University of Southern Maine (207) 626-2500, aroot@usm.maine.edu

Jamar Croom: Jamar can provide data and information on physical activity rates, can assist in locating informational resources and can provide technical assistance for those interested in conducting walking and biking audits. Maine Nutrition Network, University of Southern Maine (207) 626-2500, jcroom@usm.maine.edu

David Carpenter: David can provide assistance with linking walking and biking programs to school curriculum objectives. Kids and Transportation Program of York County, (207) 324-2952, carpenter@katyc.org

Nan Cumming: Nan can provide technical assistance for those interested in conducting walking audits and those interested in organizing successful trails organizations. Portland Trails, (207) 775-2411, nan@trails.org

Jim Fisher: Jim can provide technical assistance for those interested in conducting walking audits. He is experienced in preparing bicycle, pedestrian and trail plans, health impact assessments and community health assessments. Jim also serves at the Safe Routes to School contact for Eastern Maine. Hancock County Planning Commission, (207) 667-7131, jfisher@hcpcme.org

Joan Walton: Joan can provide technical assistance for those interested in conducting walking audits. Androscoggin Valley Council of Governments, (207) 783-9186, jwalton@avcog.org

Jim Tasse: Jim is the Director of the Maine Bicycle and Pedestrian Safety Education Program, a program of the Bicycle Coalition of Maine and the Maine Department of Transportation. He can assist you with scheduling no-cost bicycle and pedestrian safety presentations for kids and adults, on-bike education events (including After School Bike Clubs and Bike Rodeos), presentations to local law enforcement, and general technical assistance on bicycle programming. Bicycle Coalition of Maine, (207) 623-4511, Jim@bikemaine.org, (http://www.bikemaine.org/what-we-do/education)

Nancy Grant: Nancy is the Executive Director of the Bicycle Coalition of Maine. She can help you with bicycling events, bicycle legislation, resources for bike advocacy and can connect you with other interested bicyclists and advocates in your area. Bicycle Coalition of Maine, (207) 623-4511, nancy@bikemaine.org

Roxanne Eflin: Roxanne is Senior Program Director of the Maine Development Foundation's Maine Downtown Center, which serves as the state coordinator for the National Trust for Historic Preservation's Main Street program. Roxanne can assist with preservation-based economic development in Maine downtowns. (207) 626-3117, reflin@mdf.org

Ryan Neale: Ryan is a Program Officer at Maine Development Foundation, and helps to staff the Maine Downtown Center, particularly the MDC's Green Downtowns program. 207-626-3119, rneale@mdf.org

Deborah Johnson: Deborah is Development Program Manager with the Department of Economic and Community Development, which offers grants to Maine communities to achieve community and economic development objectives. Department of Economic and Community Development, 207-624-9817, deborah.johnson@maine.gov

Burnham Martin: Burnham can support those wishing to create or improve trails including suggestions for organizing a committee and planning, funding, permitting, building, and managing all trails. He was a co-founder of the Healthy Maine Walks Coalition. NPS Rivers & Trails program, Maine field office, (207) 725-4934, Burnham_Martin@nps.gov

Julie Isbill: Julie can support those wishing to create or improve trails, and offer suggestions for organizing a committee and planning, funding, permitting, building, and managing trails. NPS Rivers & Trails Program, Maine field office, (207) 725-5028, Julie_Isbill@nps.gov

Local-Level Resources

These organizations are valuable resources to contact regarding project or planning ideas or for conducting village or walking audits. They are listed by county on the following pages.

Healthy Maine Partnerships (HMP) are a collaborative effort of the Maine Department of Health and Human Services, Maine Center for Disease Control and Prevention, Maine Office of Substance Abuse, and the Maine Department of Education, where communities, schools, hospitals, businesses, and volunteers are working together at the State and local level to make Maine a healthier place to live and work. The 28 local coalitions (or HMPs) cover all the communities in the state and are divided into eight Public Health Districts. The HMPs work on Tobacco Cessation, Chronic Disease, Physical Activity, Nutrition and Substance Abuse. They are especially good at bringing partners together to address these issues. www.healthymainepartnerships.org

Regional Planning Organizations (RPOs) are based throughout the state and draw on a very broad base of local knowledge, covering all aspects of regional and local planning. They are also familiar with changes in land use and demographics in neighboring towns that may affect your community. For locally oriented transportation/neighborhood and village planning, a Regional Council/Planning Commission can provide invaluable assistance and should be considered a resource to assist with improving the community environment. www.maine.gov/spo/landuse/techassist/regionalcouncillist.htm

Metropolitan Planning Organizations (MPOs) are federally designated planning organizations responsible for carrying out a continuous, comprehensive, and cooperative transportation planning process for urbanized areas with populations of 50,000 or more. www.maine.gov/mdot/planning-process-programs/mpo.php

Aroostook County

HMPs	RPO
Healthy Aroostook Carol Bell, Project Director PO Box 1116, 771 Main St Presque Isle, ME 04769 (207) 768-3056 x639 cbell@acap-me.org Power of Prevention Rachel Charette, Project Director 194 East Main Street Fort Kent, ME 04743 207-834-1944 rachel.charette@nmmc.org	Northern Maine Development Commission Robert Clark, Executive Director/ Denise Berube, Transportation Director/ Jay Kamm, Planner 11 West Presque Isle Road P.O. Box 779 Caribou, ME 04736 (207) 498-8736 (800) 427-8736 rclark@nmdc.org / dberube@nmdc.org jkamm@nmdc.org

Androscoggin County

HMP	RPO
Healthy Androscoggin Stephen Johndro, Executive Director 300 Main Street Lewiston, ME 04240 207-795-5990 johnrst@cmhc.org	Androscoggin Valley Council of Governments Robert Thompson, Executive Director/ Joan Walton, Planner 125 Manley Road Auburn, ME 04210 (207) 783-9186 thompson@avcog.org / jwalton@avcog.org **MPO** Androscoggin Transportation Resource Center (ATRC) Jennifer Williams, Director 125 Manley Road Auburn, ME 04210 (207) 783-9186 jwilliams@avcog.org

Cumberland County

HMPs	RPO
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Washington County

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York County

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National Web Sites of Interest

- Active Living by Design (www.activelivingbydesign.org)
- American Planning Association (www.planning.org)
- Design for Health (www.designforhealth.net)
- National Center for Safe Routes to School (www.saferoutesinfo.org)
- National Center for Bicycling and Walking (www.bikewalk.org)
- National Complete the Streets Coalition (www.completestreets.org)
- National Park Service, Rivers, Trails and Conservation Assistance Program, Northeast Region Office (www.nps.gov/ncrc/programs/rtca/contactus/regions/northeast.html)
- Walkable Communities (www.walkable.org)

Appendix D

Bicycle and Pedestrian Village Planning Options

Bicycle and Pedestrian Village Planning Suggestions

- Begin a municipal Bicycle & Pedestrian Planning Effort with a vision statement, goals, objectives and strategies. The strategies should be short and long-term, and should identify responsible parties and time frames for implementation. The plan should address deficiencies in the bicycle and pedestrian environment and strategies to address those deficiencies. The plan should contain visual enhancement features such as maps, graphs and photographs.
- Develop a local or regional pedestrian and bicycle plan.
- Work to improve ordinances to foster compact, walkable communities to help reduce development pressures on transportation corridors. Conduct efforts on improving ordinances and site design standards.
- Evaluate pedestrian and bicycling deficiencies in a community; develop strategies to address those deficiencies.
- Coordinate public meetings or committees regarding walkable community development.
- Give presentations on how to improve the pedestrian environment, improve the quality of place, improve safety, the transportation processes involved in making improvements, as well as the funding and ordinance options.
- Undertake walkability audits in built up village areas.
- Develop recommended options for improving pedestrian and bicycle safety in the study area.
- Develop school travel plan(s) that addresses physical limitations such as sidewalks and cross walks, safe access across school property, as well as an outreach program to encourage more students to walk or bike to school
- Scope out a viability of building a multi-purpose trail along a corridor that connects municipalities.
- Identify pedestrian and bicycle generators including neighborhoods, schools, businesses, new visitor center and recreational areas.
- Develop potential off-road connections where feasible connecting pedestrian generators.
- Create a (use Ellsworth Model) GIS level mapping system showing with pictures, and tables deficiencies and proposed strategies to address deficiencies.
- Public Meetings and Seminars on processes and options available to improve the community environment.
- Create a bicycle and pedestrian committee.

Deliverables

- Agendas, meeting notes, and meeting materials documenting the planning process.
- Monthly status reports
- Maps of study area highlighting deficiencies and proposed improvements.
- List of recommended short term and long term solutions
- Bicycle and Pedestrian Plan
- Adopted ordinances at local level that foster compact development and include bicycle and pedestrian
- Public Meetings agendas and meeting notes

Appendix E

Example Language of Pedestrian and Bicycle Land Use Ordinance Provisions

Example Language of Pedestrian and Bicycle Land Use Ordinance Provisions

Developed by Mid Coast Regional Planning Commission (Rockland) with support from the Maine Department of Transportation and the Federal Highway Administration.

Many communities throughout the State do not adequately regulate for the provision of safe pedestrian and bicycle facilities and land uses. Each of the provisions in this compilation should be reviewed and compared with your municipality's existing ordinances. Some of these provisions may be appropriate for your community and could be integrated into existing land use/zoning, site plan review and subdivision ordinances.

Walkways, sidewalks, bike paths and bike facilities promote health, reduce dependence on automobiles, and provide for increased recreational opportunities. Through the comprehensive planning process, citizens can identify and prioritize their community's pedestrian and bicycle needs. To augment this effort with more detailed inventory, analysis and recommendations, some communities also draft a municipal pedestrian and bicycle plan. Please contact us for more information and assistance with planning and with ordinance provisions.

Ordinance Purposes

The purposes of these ordinance provisions are to:

- Create a safe, attractive, pedestrian-friendly environment where the risk of pedestrian injuries or fatalities is minimized through the application of appropriate development standards; and where residents of all ages have increased opportunities to interact with neighbors.
- Enhance adequate pedestrian and bicycle standards for the review of development plans.
- Ensure that each approved development accommodates the safe and convenient movement of vehicles, bicycles, pedestrians, and transit throughout the proposed development, and to and from surrounding areas; create a healthful built environment in which individuals have opportunities to incorporate physical activity, such as walking, into their daily routine.
- Implement the municipal pedestrian and bicycle plan and/or the municipal comprehensive plan

Pedestrian Facilities and Land Uses

New development, new roads, or municipally defined substantial renovations and rehabilitations of buildings or roads shall provide safe and convenient facilities for pedestrians that are reasonably free from hazards and adequately separated from vehicular traffic and shall provide a reasonable and direct route of travel between destinations.

- **Curb Cuts and Ramps**: Curb cuts and ramps shall be placed at safe locations including intersections, and midblock if such placement would promote enhanced convenience for the physically disabled, bicyclists, and people pushing strollers or carts. The location and design of curb cuts and ramps shall

meet the requirements of the [applicable building code] and the Americans With Disabilities Act, and shall avoid crossing or directing traffic through loading areas, drive-in lanes, and solid waste storage and collection areas.

- **Lighting**: Pedestrian facilities shall be designed with security considerations including street lighting. To provide clear visibility of pedestrians approaching intersection crosswalks at night, the approaches and all street corners should be well illuminated. All intersection lighting should illuminate the crossing and waiting areas and/or create backlighting to make the pedestrian silhouette clearly visible on the approach.

- **New and Reconstructed Roads**: Pedestrian facilities shall be provided (where warranted) on any new or reconstructed roads in accordance with the American Association of State Highway and Transportation Officials (AASHTO) guidelines .

- **Separation of Pedestrians and Motor Vehicle Uses**: To the maximum extent feasible, site plans for proposed developments shall separate movement of pedestrians from movement of vehicles and bicycles, and protect bicyclists from conflicts with vehicles. Where complete separation of movement of pedestrians from movement of vehicles and bicycles is not possible, the site plan shall minimize potential hazards by using special paving, grade separations, pavement marking, signs, striping, bollards, median refuge areas, traffic calming features, landscaping, lighting, or other means to clearly delineate pedestrian areas for both day and night use.

- **Shared Uses**: Where pedestrians and bicyclists share walkways, the pedestrian/ bicycle system shall be designed to be wide enough to accommodate anticipated pedestrian and bicycle traffic volumes as well as provide sufficient space for those with physical disabilities. A shared bicycle/walkway shall have a minimum width of 8 feet (with 10 to 12 feet preferable) and shall comply with the American Association of State Highway and Transportation Officials (AASHTO) guidelines, as contained in AASHTO's Guide for Development of Bicycle Facilities, which are adopted by reference and which shall be on permanent file in the municipal planning department. The design of the walkway/sidewalk shall meet the requirements of the Americans with Disabilities Act standards.

Pedestrian Walkways (includes Sidewalks and Paths) and Pedestrian Access:

- **Circulation**: Pedestrian access points at property edges and to adjacent lots shall be coordinated with existing development to provide pedestrian circulation between developments.

- **Configuration**: Walkways shall provide pedestrian access through parking lots from street sidewalks to building entries. Walkways shall be located and aligned to directly and continuously connect areas or points of pedestrian origin and destination, and shall not be located and aligned solely based on the outline of a parking lot configuration unless such a configuration allows for direct pedestrian access.

- **Crossing Vehicular Driveways and Entrances**: Where the primary pedestrian access to the site crosses drive aisles or internal roadways, the pedestrian crossing shall emphasize and place priority on pedestrian access and safety. The material and layout shall be continuous as the pedestrian access crosses the driveway, with a break in continuity of the driveway paving and not in the pedestrian access way.

- **Crosswalks**: Intersections of sidewalks with streets shall be designed with clearly defined edges. Crosswalks shall be well lit and clearly marked with contrasting paving materials at the edges or with striping.

- **Easements and Right-of-Ways**: A 20-foot wide bicycle/pedestrian easement shall be provided to connect cul-de-sacs (dead end roads), or to pass through blocks in excess of 660 feet. Where needed for purposes of traffic safety or access to nearby schools, playgrounds, public parks, trails, shopping facilities, or other community facilities, new developments may be required to dedicate a public right of way for bicycles and pedestrians, not less than 20 feet in width. For purposes of this provision, nearby is defined as within 0.25 mile.

- **Entrances**: A walkway shall be provided between all new building entrances and to all streets adjacent to the development site, except for single-family detached residential units. The walkway shall provide a direct connection to existing public right-of-way and public walkways or transit stops. All non-residential buildings set back 100 feet or more from the public right-of-way shall provide for direct pedestrian access from the building to buildings on adjacent lots. Entrances used for loading and unloading freight are not subject to this standard.

- **Installation**: Walkways shall be installed in accordance with the municipal pedestrian and bicycle plan and/or the municipal comprehensive plan. Minimum width of all walkways shall be five feet with a five-foot planting strip (or 10 foot-wide sidewalks in designated high volume business districts) unless prohibited by documented environmental constraints.

- **Large Buildings**: A walkway shall be provided immediately adjacent to the exterior wall of a new building greater than 100 feet in length when the wall is located next to a street or parking lot. A pedestrian path shall also be provided along the entire length of the wall when the public entrance is located in that area. Exceptions to this standard include if the edge of the building is within 20 feet of a public walkway and the building entrance is connected to the public walkway by an on-site pedestrian facility; and/or, if the edge of the building is bordered by a perimeter of landscaping that does not exceed 30 feet in width and an on-site pedestrian facility is constructed at the edge of the landscaped area.

- **Lighting**: Pedestrian scale lighting fixtures no greater than 15 feet in height shall be provided along all walkways to provide ample lighting during nighttime hours when street lighting fixtures are deemed insufficient to adequately illuminate adjacent walkways.

- **Maintenance**: As appropriate, the walkways within a development shall be maintained by the property-owners or homeowners association. The municipality shall maintain walkways along municipal roads or roads for which

the municipality is responsible for maintenance. The municipality shall define winter maintenance responsibilities and provide notice of such responsibilities in the customary manner.

- **Multi-Family Developments**: Within multi-family residential development with three or more units, on-site pedestrian facilities shall be constructed with access: (A). From every unit to all other units within the residential development. (B). From every unit to all laundry, recreation and other community facilities in the residential development. (C). From every building located within 40 feet of a public or private street to the street right-of way line.

- **Treatments and Surfaces**: The entirety of the on-site pedestrian walkway system shall be marked and defined using pavement treatments, signs, striping, lighting, median refuge areas, and landscaping, as appropriate, and in consideration of those with physical disabilities. All on-site pedestrian walkways located in vehicle use areas shall be distinguished from driving surfaces by durable, low maintenance smooth surface materials to enhance pedestrian safety and comfort, as well as the attractiveness of the walkways.

- **Widths**: Walkways serving low volume residential uses shall be at least three feet in width. Where sidewalks are less than five feet in width, passing spaces sufficiently wide enough for wheelchair users to pass one another, or to turn around, shall be provided at intervals of 200 feet. Walkways serving mixed uses (commercial, civic, and residential) and higher volume residential uses (more than 20 residential units) shall be at least five feet in width.

Bicycle Facilities and Land Uses

Bicycle Lanes

- **Circulation**: Bicycle circulation shall be accommodated on roadways and/or on dedicated bicycle lanes, paths or routes. Where feasible, any existing bicycle routes shall be preserved and enhanced. Facilities for bicycle travel may include off-street bicycle paths (generally shared with pedestrians and other non-motorized users) and separate, striped, 4-foot bicycle lanes on streets. If a bicycle lane is combined with a lane for parking, the combined width shall be 14 feet.

- **New and Reconstructed Roads**: Bicycle lanes shall be provided on new or reconstructed roadways in accordance with the municipal pedestrian and bicycle plan and/or the municipal comprehensive plan. Restriping of roadways shall be considered when the roadway is scheduled for resurfacing allowing for a safe, dedicated space for bicycle travel. Where an existing route for bicyclists is present, it shall be maintained. Moreover, project records must support and document why bike facilities were not included—if they were not. If the right-of-way is constrained, reducing motor vehicle travel lane width to 10 or 11 feet, resulting in a traffic calming effect, or providing separate bicycle paths shall be considered.

Municipally Designated Bicycle Route

Installation of a municipally designated bicycle route may be required within residential developments that meet the following conditions:

- Low vehicle volumes.
- Not a transit or truck route.
- Roadway is parallel to a major arterial or a high-traffic collector street (within approximately 0.25 mile).
- Roadway is reasonably continuous.
- Very little commercial frontage.

The municipality may require the following treatments on a residential or local street that has been designated as a bicycle route to provide a safe and convenient circulation system for bicycles:

- Forced right-turns along a designated bicycle route or other locations to discourage non local motor vehicle traffic from using the roadway in question. A sign shall be placed at intersections indicating that cars must turn right, but bicyclists may proceed straight.
- STOP signs are positioned so that the designated bicycle route has the right of way in appropriate locations.
- Traffic calming measures, such as traffic circles or semi-diverters, in selected locations to ensure that motor vehicles do not divert to the designated bicycle route.
- Traffic control devices so that bicyclists on designated bicycle route can easily cross major streets and arterials.

Bicycle Parking Facilities and Uses shall meet the following standards

- **Bicycle Parking Spaces**: A minimum number of bicycle parking spaces as set forth in municipal ordinance shall be provided on site In making the determination, the municipality shall consider when appropriate, the number of dwelling units or lodging rooms, the number of students, the number of employees, and the number of motor vehicle parking spaces. (Typically: Parking lots or garages must provide not less than one bicycle parking space for every ten motor vehicle parking spaces, one bicycle parking space per residential unit, and for schools: one bicycle parking space for every ten students and staff).
- **Connection to Community Bikeway System**: Where the municipality has established an on-street or off-street bikeway that adjoins or abuts a site, the internal on-site bicycle system for the use shall connect to it.
- **Design**: Bicycle parking facilities shall be designed to allow the bicycle frame and both wheels to be securely locked to the parking structure with

the bicyclist's own locking device. The structure shall be of permanent construction such as heavy gauge tubular steel with angle bars permanently attached to the pavement. Each required bicycle parking space shall be accessible without removing another bicycle. Bicycle parking facilities shall be at least two feet in width and six feet in length, with additional back-out or maneuvering space of at least five feet.

- **Location**: Bicycle parking facilities including racks shall be located within 50 feet of building entrances. They shall not be located to impede pedestrian or automobile traffic flow or to cause damage to plant material from bicycle traffic. Bicycle parking may be located on the public sidewalk or within the public right-of-way where this still leaves a minimum of five feet between the parked bicycle(s) and building entrance(s) and does not conflict with pedestrian accessibility. Bicycle parking may be located inside a building on a floor that has an outdoor entrance open for use.
- **Public Facilities**: The municipality and other affected agencies shall provide bicycle-parking facilities at public facilities such as schools, town/city hall, transit stations, park-and-ride lots, recreation facilities, and libraries in accordance with ordinance standards.
- **Signage**: Where bicycle-parking facilities are not visible from public right(s)-of-way, sign(s) shall be provided to direct bicyclists to the parking.

Public Transit Access

- New Development Near Transit Shelters/Bus Stops: All new commercial, office, and industrial buildings on parcels within 600 feet of an existing or planned transit route, as designated by the transit operator, shall provide an entrance of the facade of a building nearest to and facing a designated transit street or route.
- Transit Improvements: Bus stops, pullouts, shelters, and on-street parking restrictions shall be provided at the time of development of new subdivisions of 20 lots or more, when such improvements are appropriate.
- Transit Routes: Where public transit service is available or planned, convenient access to transit stops shall be provided.
- Transit Shelters/Bus Stops: Where transit shelters are provided, they shall be placed in highly visible locations that promote security through surveillance, and shall be well illuminated.

Appendix F

Trails for Maine's Future Map

Three long distance bicycle and pedestrian connections currently under development in Maine.

GPCOG
TRAILS
for
MAINE'S FUTURE
Aroostook
Piscataquis
Somerset
Penobscot
Washington
Franklin
Hancock
Waldo
Oxford
Kennebec
Androscoggin
Knox
Lincoln
Sagadahoc
Cumberland
York
Calais
Machias
Ellsworth
DOWNEAST/SUNRISE TRAIL
Fryeburg
MOUNTAIN DIVISION TRAIL
Windham
South Portland
EASTERN TRAIL
Wells
Kittery
25 0 25 Kilometers
25 0 25 Miles
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