## 2013 Gray Maine Bicycle-Pedestrian Plan







## Acknowledgements

Prepared For:

This plan was prepared by the Greater Portland Council of Governments in cooperation with the Gray, Maine Bicycle Pedestrian Committee and the Town of Gray, Maine.

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## Introduction

Gray is very dependent on the automobile. We use our cars to drive our kids to school and to friends' houses; to commute to work; to buy groceries and to get to the bank. Every day, thousands of cars stream through the village area and the by-pass as people move from one place to another.

It wasn't always this way. At one time, Gray was a small town where sidewalks and quiet roads provided access to schools, recreation, shopping, and public transit. Over the decades, more people have moved here to enjoy the rural setting and to take advantage of the cheaper land costs, spurring rapid growth. Since everyone was driving anyway, the focus was on building more roads, with sidewalks not even considered.

This has proven to be a costly approach for Gray. Roads are expensive to maintain- needing plowing in the winter and repair in the warmer months. Rushing cars and few sidewalks make walking or biking to school unpleasant- even unsafe- so we spend more on school buses. As a society, we're becoming less fit as distances are measured from the couch to the car in the driveway, rather than to destinations further away. We're also less likely to know our neighbors, as we wave to them from speeding cars rather than stopping to chat during a neighborhood stroll. And car exhaust contributes to air pollution and global warming.

This plan is aimed at making Gray a safer and more attractive place to walk and bike. Clearly, cars are here to stay, and no one is proposing to eliminate or restrict them. But we recognize that walking and biking, which have long taken a "back seat" to road construction, are also important and growing forms of transportation. Increasingly, towns that invest in walkable neighborhoods are seen as more attractive by both home buyers and businesses.

A study performed by the Urban Land Institute (1999) determined that buyers are willing to pay an average of \$20,000 more for a home in a walkable community<sup>i</sup>. A more recent study conducted by the Brookings Institute (2012), measured consumer demand in suburban caroriented communities versus walkable ones in the Washington D.C. area. It found a significant shift in demand toward walkable communities, regardless of whether the buyer was considering residential, commercial, or business properties.<sup>ii</sup>

## **The Planning Process**

Gray Community Endowment (GCE), a nonprofit with a mission to help make Gray a healthy, vibrant, and sustainable community, formed the Gray Bike-Pedestrian Planning Committee in April 2012. The Town of Gray was a key partner, supplying meeting space and the support of the Gray Recreation Department Director. Other members of the committee include residents, a Gray-New Gloucester High School student who rides her bike to school, and a cyclist who regularly commutes to work in Gray from Raymond. Greater Portland Council of Governments staff also attended meetings and provided vital administrative support and planning expertise to the group.

The group held monthly meetings, conducted a walking tour of the village area, and surveyed major roadways leading out from the village area. The committee also conducted a comprehensive resident survey to gauge interest and priorities related to expanding access to biking and walking in Gray. Survey results supported many of the conclusions and recommendations of this report.

The committee developed three long-range goals:

- To encourage ongoing advocacy for more federal, state, and local transportation investment in bicycle/ pedestrian facilities within the town of Gray.
- To coordinate with other interested organizations, planning efforts, and town and State
  officials to provide guidance and feedback regarding location, safety and design of bicycle
  and pedestrian ("bike-ped") facilities in Gray. Looking ahead and "piggybacking" on other
  planned infrastructure improvements can help reduce the cost of bicycle-pedestrian
  friendly projects.
- To increase the quantity and quality of bicycle-pedestrian facilities in Gray: including sidewalks, trails, crosswalks, bike lanes, and signage.

This plan provides the town of Gray with an overarching strategy to maintain, improve and expand its bicycle and pedestrian access within and outside its village center. It lists areas with deficient or nonexistent sidewalks, and recommends funding options to help cover the cost of infrastructure investments. It provides an inventory and map of Gray's existing sidewalks; including location, condition (poor, fair, good, excellent), material (asphalt or concrete), width, and approximate length of sidewalk segments (feet and miles). An analysis of existing conditions, a list of priority recommendations for infrastructure improvements, and an implementation strategy are also outlined.

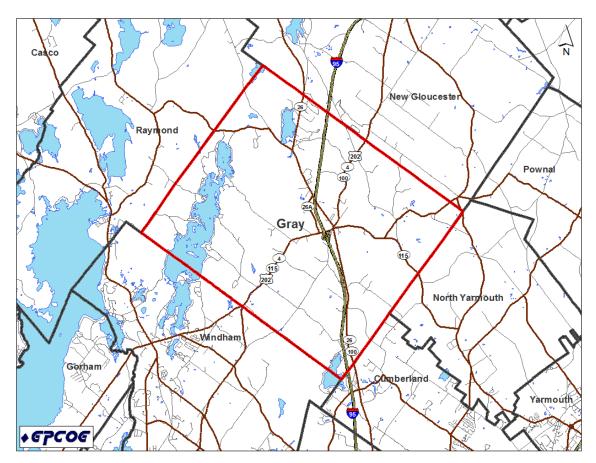
Adoption of this plan is a starting point. Plan implementation is expected to take several years. Some parts of the plan may be able to be funded and implemented as stand-alone projects, but others will need to be part of larger capital or infrastructure improvement projects. For example, it may make sense to wait to do significant bike-ped improvements along Route 26 north of the bypass until planned roadway reconstruction is undertaken.

## The Community

Gray's population is increasing, both in size and age. According to the most recent US Census and American Community Survey (ACS) results, between 2000 and 2010 Gray's population grew from 6,820 to 7,761, and the average age of its residents increased from 37 to 45 years old. In 2010 approximately 47% of Gray's population was over the age of 65, and about 15% under the age of 14. Therefore, over 60% of the population is less likely to have access to a vehicle, may be close to retirement age and/or living on a fixed income.

Gray's median income is \$62,664, but 25% of households have incomes of \$35,000 or less. Examining this statistic as it relates to the cost of vehicle ownership is particularly significant. According to AAA's 2012 Annual "Your Driving Costs" Report, the overall cost of vehicle ownership increased 1.9% this year alone, rising to 59.6 cents per mile, or \$8,946 per year (based upon 15,000 miles of annual driving). This represents about 25% of a \$35,000 annual income. For these lower income households, the combined cost of housing and transportation can consume well over half of their incomes.

Gray's location makes it a desirable location for residential and commercial development. It is located at the crossroads of several major state routes; 26, 100, 115, 202, 4 and US Route 95 (exit 63). It is conveniently located an easy commute halfway between the Portland and Lewiston/Auburn metropolitan areas. As seen in the following map, it is bordered by Windham to the southwest, Cumberland and North Yarmouth to the southeast, New Gloucester to the north, and Raymond to the northwest and west. While it is home to a typical New England village center it also boasts significant recreational opportunities including a golf course, trails, conservation lands, lakes, and the Maine Wildlife Park. It has several lakes, including Crystal Lake, most of Little Sebago Lake, and parts of Forest Lake and Notched Pond.



Gray is home to the Maine Department of Inland Fisheries and Wildlife as well as a weather forecast office for NOAA's National Weather Service. It is also home to Enercon Technologies, a national technology company located at the junction of Route 115/202 and Route 26A.

Gray is also a gateway to the western lakes and mountains of Maine. Route 26 takes travelers from Portland through Gray, New Gloucester, Oxford County, and Bethel, and close to New Hampshire's White Mountains. Recently, the completion of the Oxford Casino has resulted in a significant increase in daily traffic along Route 26 through Gray.

Many Gray residents have observed that passenger car and tractor trailer traffic are exiting I-95 at the Gray and Auburn exits, and traveling along Route 100, in order to avoid the tolls in New Gloucester. This issue was exacerbated by Maine Turnpike Authority's 2012 toll increase. Route 100 leads straight through Gray village and the added traffic, especially the tractor trailers, worsens an already difficult traffic pattern. Traffic congestion is a significant issue that presents challenges to the economic development initiatives in the village.



Main Street Intersection

#### Existing Infrastructure

Although there are currently sidewalks in much of the village area in Gray, they vary considerably in quality. Sidewalks along Route 202 (Main Street) have different conditions, width, and material. From the central intersection of Routes 115/26/202/100 along the east side of Main Street to Brown Street, and then extending down Route 26 to Gray Plaza, the existing four foot wide asphalt sidewalk is rated fair.<sup>iii</sup> Continuing along Route 202 from Brown Street to the Pennell Complex, the sidewalks were rebuilt in the summer of 2012 and are now five feet wide and made of brick. These are very attractive and in excellent condition. On the west side of Main Street, the sidewalk from Brown Street to the Subway Restaurant is rated fair with a varying width of approximately 2-4 feet, and from Subway north to the American Legion is rated generally good with about 5 feet in width. The sidewalk opposite the Pennell Complex is constructed of asphalt. Sidewalks along Route 26 are also asphalt and rated in fair condition, varying in width from about two and a half to five feet.

Gray currently has no integrated, town-wide bikeway network. Paved shoulders on major roadways vary greatly in width and condition. Shoulders of varying condition exist along Route

100/26 (Old Portland Road), Route 115 (Yarmouth Road), and Route 202/100 (Lewiston Road). The map on page 21 of this report shows the location and general condition of existing roadway shoulders. Simply adding should to streets without paved shoulders or expanding the width of existing shoulders along some roads might significantly improve the safety of cyclists and walkers. Currently, many streets outside the village area are rural and have minimal shoulders.

Gray has a significant number of trails that offer an array of recreational uses including walking, running, hiking, mountain biking, cross-country skiing, horseback riding and snowmachine and ATV use. The Gray Snow Wolves maintain a network of marked, interconnected snowmachine trails throughout Gray which are used in the off-season by ATVs and also walkers, runners and cyclists. There are miles of other private trails for use by non-motorized activities with landowner permission.

The Libby Hill Forest Trails, located adjacent to the MSAD 15 school complex off Libby Hill Road, offers unparalleled year-round recreational opportunities to residents of Gray and surrounding communities. Free and open to the public, Libby Hill offers over five miles of groomed Nordic ski trails and several miles of back country trails. The Gray-New Gloucester Patriots cross-country running and Nordic ski teams train on the trails and host regional meets. Libby Hill provides interconnections and links to other snowmachine trails, which links it to other parts of the town such as Wilkie's Beach, Little Sebago Lake, and trails in south Gray.

## **Synergy: Other Planning Initiatives**

There are many new planning and economic development initiatives currently underway in Gray, making this an ideal time to consider bicycle-pedestrian improvements. Several of these projects are located in or near the village, and include discussion of bicycle-pedestrian access. The following is a list of past and current planning efforts conducted by the town of Gray:

## 2003 Gray Comprehensive Plan

The Gray Comprehensive Plan was originally adopted in 1991. It was updated and adopted by the Gray Town Council in August of 2003, but this was not approved by the State Planning Office.

http://www.graymaine.org/Pages/GrayME\_Plan/toc

## 2006 Gray Village Master Plan (GPCOG)

In 2006, the Town of Gray conducted a master planning process for its village that included a detailed set of challenges, goals and objectives. The plan focused on pedestrian improvements in five focus areas in the village, including Route 100 (north and south), Gray Plaza, Route 115 east, and Route 202/4 west. Specific locations cited for sidewalk upgrades were Route 100 through Gray Plaza, both sides of Route 100 to the Pennell Institute, both sides of Route 26 to Gray Park, and both sides of Route 115 East from the Village to Brown Street. Other general locations cited for improvements included a realignment of crosswalks along Route 100 in front of Pennell and installation of a crossing adjacent to the new Post Office, as well as the need for

improvements to pedestrian signals at the intersection in front of the Fire Station. The plan also noted the need for an inventory of all the trails throughout town and the need to establish connections from existing trails to the village. Finally, it cited the need for striped bike lanes on both sides of all roads in the village.

http://www.pactsplan.org/documents/GrayVillageReport.Nov06.pdf

#### 2010 HUD Regional Planning Grant Pilot Project-ongoing (GPCOG, USM, SMRPC)

A Department of Housing and Urban Development Sustainable Communities Grant was awarded to GPCOG and its partners in 2010. This initiative, called Sustain Southern Maine, selected nine towns in York and Cumberland Counties to serve as pilot planning projects. Gray is one of the communities that volunteered to participate in the process. The town focused the planning on the village area; recommendations included increasing residential development in the village, adding or upgrading sidewalks, and reducing tractor-trailer traffic in order to create a more bike-ped friendly environment.

http://sustainsouthernmaine.org/

#### 2011 Monument Square Master Plan

The focus of this study was to determine potential build out options for the former post office and town hall parcels, and the disposition of Stimson Hall, all owned by the Town of Gray. The analysis concluded that lack of parking was a major obstacle to the redevelopment of the properties. To improve marketability of both the town-owned and adjacent privately owned properties, the report recommended that the old post office and town hall be demolished, and shared parking and septic systems be explored with abutters.

http://www.graymaine.org/Pages/MonumentSquare/MonumentSquareIndex

#### 2012 Hancock Triangle Block

The Hancock Block, also known as "The Triangle", contains several parcels just off the intersection of four state routes. It includes several well-maintained homes as well as a few properties in disrepair. The town received a CDBG grant in 2012 to create a redevelopment plan for this block.

#### **Survey**

As part of the public participation process, the Gray Bicycle/Pedestrian Committee, with assistance from GPCOG staff, conducted a resident survey. The Committee distributed an electronic version of the survey using Survey Monkey software, and paper versions were left at the Gray Public Library, the Pennell Complex, and Fiddlehead. The survey link was also emailed directly to respondents via several other organizations. In total, 80 people responded to the survey. A copy of the survey can be found in the appendix of this document.

A quick summary of the survey results reveals a few major themes. In general, most respondents said they have access to a bike and currently use pedestrian and bicycle

infrastructure for recreation and exercise, but would like to increase these facilities and make them safer for all levels of users.

Forty-one percent of survey respondents stated they walk or jog a few times per week, while another 20.5% stated they walk or jog a few times a month. Bicycle frequency was a bit less, with 37.5% of respondents reporting they bike a few times a week, 6.5% stating a few times per month, and 41.3% bike only a few times a year.

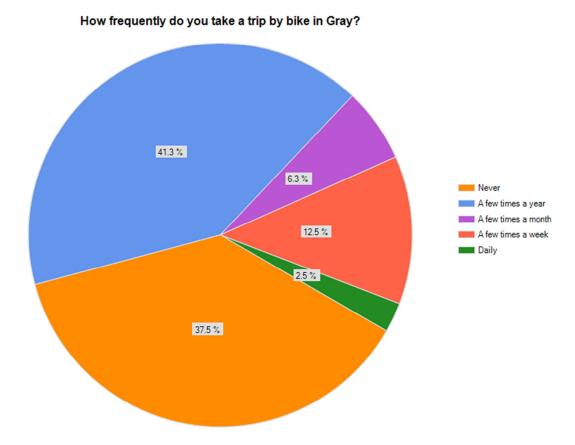
Over eighty percent of respondents stated they walk or jog primarily for exercise, and over sixty five percent stated pleasure as a major reason. Approximately 10% stated they walk or jog to perform shopping and errands. The results for bicycling were similar, with 62% citing exercise as the major incentive to bicycle, over 40% biking for pleasure, and about 30% stating they bike to accomplish shopping or errands.

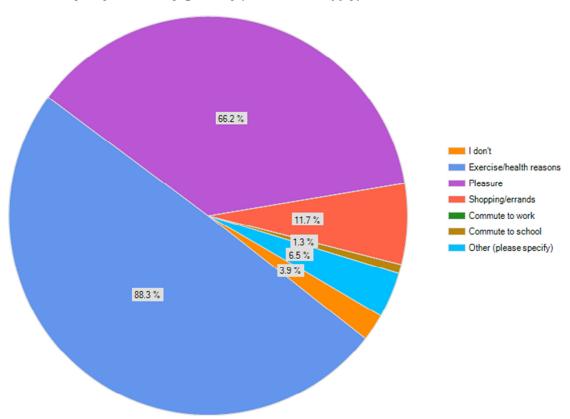
The reasons people cited for not walking or jogging related primarily to lack of safe or adequate infrastructure, traffic congestion and excessive traffic speed. Specifically, lack of sidewalks, or poor condition of sidewalks ranked highest at 60%. Traffic ranked second with almost 50%.

When asked to prioritize a list of potential bicycle/pedestrian improvements, 61% of respondents stated they ranked bike paths and shoulders to major roadways as the most important upgrade. Connectivity among major recreation resources such as the Pennell Complex, schools (both Russell and the complex on Libby Hill Road) the library, and popular trail areas such Libby Hill, the old Interurban behind Gray Plaza, Crystal Lake, and May Meadow Woods was identified as a top priority among respondents. In particular, connecting these resources to the Village was often identified. Specific areas of concern mentioned were the intersection along North Raymond Road and Shaker Road, Route 115 at the hill, and the expansion of the sidewalk along Libby Hill Road.

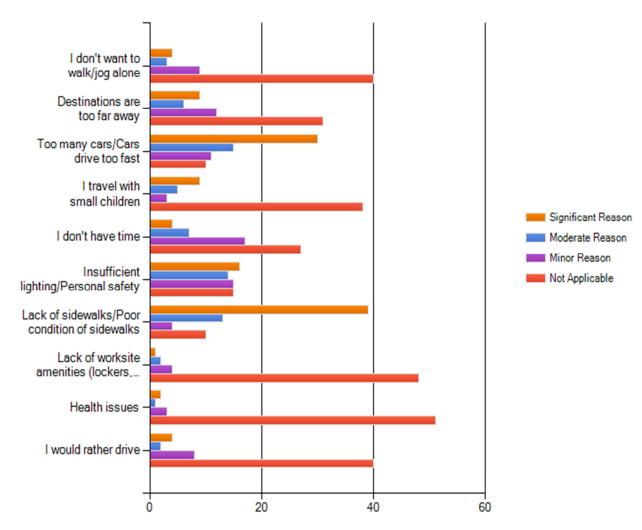
Respondents identified Libby Hill, Morgan Meadow/ Moose Meadow, Pumpkin Hill, the Interurban, and trails behind Ramsdell Road as popular off-road trails. The following pie charts below display a sampling of the more remarkable survey results. The survey used is located in the Appendix of this report.







Why do you walk or jog in Gray (check all that apply)



#### What prevents you from walking or jogging more often in Gray?

## **Safe Routes to School Surveys**

In addition to the survey conducted by the Gray Bicycle Pedestrian Committee, the Maine Safe Routes to School Program conducted two National Safe Routes to School Walking and Biking Surveys at the Gray-New Gloucester Middle School. One survey was designed for parent feedback and the other for student feedback. Both surveys resulted in similar responses.

Although the number of respondents participating in the survey was small in comparison to the total number of students attending the middle school, it is clear that general safety concerns and distance from school were the major impediments to walking and biking to school cited by both parents and students in the surveys. Although parents responded "neutral" on many of the survey questions, the comments section of the survey reiterated these concerns. Students expressed interest in walking or biking to school primarily for the independence to visit friends and avoid the bus.

As the school district covers two towns, a percentage of children may live too far away to make walking/biking to school practical, but the survey results suggest that many students would attempt it if it was safer to do so. Of families living within one mile of school, 100% had children that asked to walk or bike to school, but only those within a quarter mile actually did so.

## **Land Use Tools**

Making changes to local land use ordinances is an effective long-term approach to improving bicycle pedestrian infrastructure in any community. This reduces the cost of pedestrian infrastructure to local municipalities and the MaineDOT by shifting some of the burden associated with growth to the developer. Examples of Gray's current Land Use Policy language pertaining to pedestrian and bicycle circulation is listed below:

#### Gray Business Transitional (BT) District Standards and Design Guidelines

These design guidelines regulate the Business Transitional (BT) zoning district, located on Shaker Road at the end of the new Route 26 bypass. They supplement the Gray Land Use Ordinance Performance Standards and are described as mandatory standards. The purpose of these standards is to promote economic development while encouraging mixed use neighborhood character, and they include language regarding how access management standards, siting and coordination of buildings, pathways, parking lots, internal roadways, walkways, landscaping, lighting, signage and other site features should be planned, designed, and coordinated to meet the District's design goals. There is a specific section on bicycle and pedestrian standards that dictate future improvements on Route 26 "should include improved facilities for advanced cyclists." Additionally, it states that internal sidewalks should be provided, extending along the length of a façade, and sidewalks, and "planted esplanades" should be provided within or near the right-of-way on all commercial uses where appropriate, to encourage safe pedestrian and bicycle movement parallel to Route 26 and along interior access roads to encourage safe pedestrian access. Although these guidelines encourage the construction and maintenance of pedestrian and bicycle infrastructure, the language of this document could be strengthened to improve bike and pedestrian access.

#### Gray Village Center Design Guidelines

These guidelines are structured in a similar style to the BT District Guidelines, and are intended to regulate the Village Center (VC) District located in the center of Gray. Unlike the BT standards, this document references the goal of increasing pedestrian activity and ties this concept to economic development. Once again, however, although the introduction states the requirements in this document are mandatory, it notes that it is a flexible document that is intended to "provide a context for coordinated discussions of design issues in advance of formal site plan review procedures." Ultimately, these guidelines will be difficult to implement without a supportive applicant engaged in the development review process, and municipal official ready to enforce the requirements consistently. Furthermore, there is little mention of accommodation for bicycle and pedestrian needs.

#### Gray Comprehensive Plan

The Gray Comprehensive Plan was approved by the Town Council in 2003, although it did not receive State Planning Office approval. There is only a brief section discussing existing conditions of both bikeways and sidewalks (Sections 6.1, 6.2). The plan recommends that "urban roads in new subdivisions should be constructed to a width of 36 feet with vertical curbing included on both sides (a width of 30 feet if vertical curbing is on one side); have sidewalks constructed to a 5-foot width on at least one side of the road; and have buffers of 3.5 feet between the road and sidewalk to provide for pedestrian safety." The Plan further states that urban roads in established areas should be widened to include a 6-8 foot shoulder for pedestrian and bicycle use (when there is no sidewalk), with 4 inch wide white edge-of-travel marking per M.U.T.C.D. (Manual on Uniform Traffic Control Devices) criteria. The plan asks for the same shoulders width "when practical" along rural roads as well. Unfortunately, most of this language is directed towards new development and does not address the significant problem of existing infrastructure lacking pedestrian and bicycle amenities, or ongoing maintenance of existing infrastructure.

#### Gray Land Use Ordinance

The Site Plan Review section of the Gray Land Use Ordinance is focused primarily on ensuring safe vehicular access to the site. However, pedestrian concerns are mentioned in Section 402.10.9C. *Pedestrian Access, as follows:* 

The site plan must provide for a system of pedestrian ways within the development appropriate to the type and scale of development. This system must connect the major building entrances/exits with parking areas and with existing sidewalks, if they exist or are planned in the vicinity of the project. The pedestrian network may be located either in the street right-of-way or outside of the right-of-way in open space or recreation areas. The system must be designed to link the project with residential, recreational, and commercial facilities, schools, bus stops, and existing sidewalks in the neighborhood or, when appropriate, to connect with amenities such as parks or open space on or adjacent to the site.

Additional language is located in 402.10.13, Site Design Standards for Site Plan Review, Section F Sidewalks:

Where an existing or planned public sidewalk is interrupted by a proposed project driveway, the sidewalk material must continue to be maintained across the driveway, or the driveway must be painted to distinguish it as a sidewalk. Further, if street trees exist on an adjacent property, street trees must be planted, in a like manner, on the new site.

It is unclear to what extent this ordinance language is carried out, as the economic downturn of the last several years limited real estate development. Implementation of this type of ordinance language is always challenging, and requires a champion on the staff, the Board, or by the public to ensure it is considered during the development review process.

## **Recommendations**

This is the first bicycle pedestrian plan produced for the Town of Gray. It is the first step in a long-range, multi-faceted approach to improving bicycle and pedestrian access in the town. The plan and its recommendations are intended to generate a productive and continually evolving discussion amongst the town government and residents. Furthermore, it identifies specific locations where new infrastructure, or the enhancement of existing infrastructure, could improve pedestrian and bicycle access and connectivity among areas where pedestrian activity is expected, such as schools, recreation areas and the village. Some of the recommendations could be done right away, and some should be incorporated into the town or the state's capital improvement plan. Others may require a public-private partnership to complete.

Although the maps in the appendices of this report highlight the tremendous potential for establishing a comprehensive sidewalk, bikeway and trail network in Gray, currently there are several important connections still absent. For example, although Route 26 has sidewalks along a portion of the roadway from the Village and heading north along Shaker Road, the condition of this infrastructure is fair, at best, and does not extend from the Village to the school complex. Not only are there several missing segments, but the existing sidewalks are narrow, with many curb cuts and insufficient crosswalks and signage. Additionally, the shoulders where bicyclists tend to ride are in poor condition and were not repaved at the same thickness as the vehicle lanes, creating a variation in pavement surface levels.

Another major corridor, Route 115/202, has only a short segment of sidewalk heading East on Route 115 on Yarmouth Road which is recommended to be expanded up the hill to the retirement village. Additionally, there is a large parcel located just beyond the overpass of Interstate 95, referred to as "Area 3" in the Gray Comprehensive Plan, that has been designated a growth area for the Town that has no sidewalk to access it. No plans have been discussed by the Town to connect pedestrians or bicyclists to this area if it is developed.

Other notable locations where inadequate existing bicycle and pedestrian infrastructure should be addressed include Hancock Road from 115 leading to the library. As this facility will be expanded in 2013 to serve as more of a community center, the need for sidewalks to keep pedestrians safe is more urgent. Route 26 connecting the town center to the new post office, and North Raymond Road between Route 26 and Wilkie's Beach at Crystal Lake also need new bike-pedestrian infrastructure to accommodate high foot traffic

There will be many opportunities to address bicycle and pedestrian infrastructure issues as redevelopment or new development occurs in the Town. Additionally, there are several other local planning projects that appear to be moving forward in the short term, and where there may be an opportunity for integration of bicycle and pedestrian infrastructure improvements. Three such projects are the redevelopment of the Monument Square parcel, the new Pennell Park behind the town hall, and the Maine DOT/Town of Gray collaborative planning effort for Route 26. The recommendations and community-wide priorities are listed in the Appendices.

Note, these recommendations are not prioritized so they may be implemented as opportunities present themselves.

## **Gray Bicycle/Pedestrian Priority Recommendations**

Pr	oposed Sidewalk Links for Construction	Length (mi.)	Length (ft.)
а.	<u>Russell School</u> -at Gray Park Rd. (from Route 26/Shaker Rd. intersection to Russell School entrance- east side of Gray Park Road)	0.04	208
b.	Hancock St from the intersection of Yarmouth Rd. to existing the sidewalk along the east side of Hancock St.	0.13	675
с.	<u>Schools</u> -Libby Hill Rd. from existing sidewalk on north side of Libby Hill Road to Middle School .	0.28	1,503
d.	<u>Schools</u> - along Libby Hill Rd. from the intersection of Shaker Rd. extending to the Middle School along the south side.	0.4	2,038
е.	<u>Hannaford</u> – from the short existing sidewalk adjacent to Hannaford entrance, extending north on Shaker Rd. to Fairview Ave east side	0.39	2,086
f.	Hannaford/Schools- extending from Route 26/Shaker Rd. at Libby Hill Rd. to the intersection with Fairview Ave along west side)	0.42	2,238
g.	Post Office- Shaker Rd. (from Post Office to Yarmouth Rd. intersection - west side)	0.43	2,304
h.	<u>Route 115/Yarmouth Rd.</u> -from the intersection of Hancock St. to just past Beehive Dr. along the south side.	0.13	698
i.	<u>Route 115/Yarmouth Rd.</u> –along the north side of Yarmouth Rd. from Rt. 26 to the intersection with Brown St.	0.15	797
j.	<u>Route 115/Yarmouth Rd</u> – along Yarmouth Rd. (from Shaker Rd. to Hancock St south side)	0.14	754
k.	North Raymond Road- sidewalk and/ or expanded shoulders beginning at the intersection of Shaker Road/Route 26 and extending along North Raymond Road to the intersection with Mayberry Road. Extend shoulders along N. Raymond to create safer access to Egypt Road intersection is preferred. (This stretch of road is especially busy during the summer when people are using Wilkie's Beach).		

## Proposed Crosswalks and Pedestrian Signage

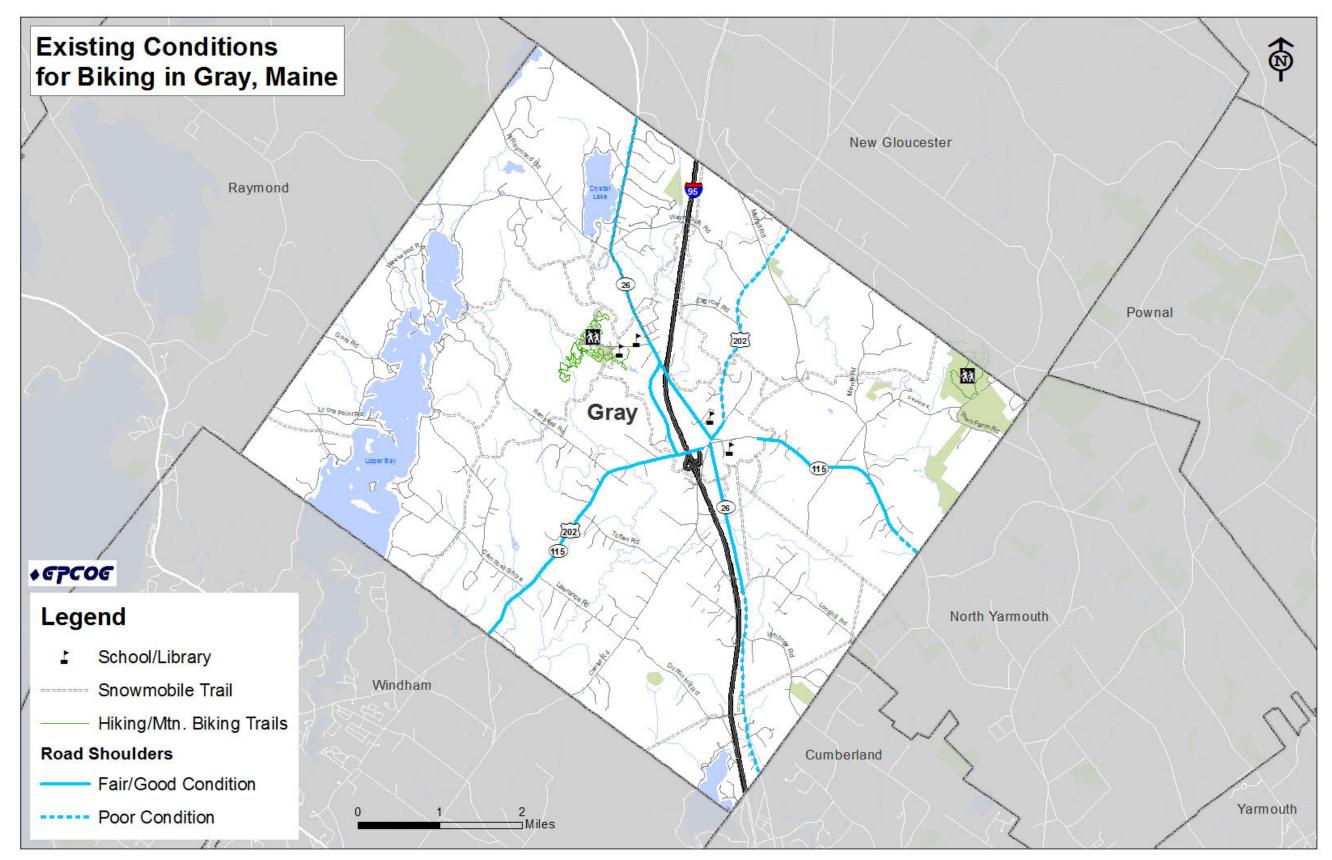
а.	Library Area- Create crosswalk across Route 115/202 to Hancock Street
	to provide safer access to Library.
b.	Dry Mills- Install a crosswalk across Rt. 26 connecting Weymouth Road
	to the convenience store.
с.	Schools/Libby Hill Recreation/Hannaford Area- Install a signalized
	crosswalk across Rt. 26 adjacent to Pine Drive to insure safer access to
	pedestrians using trail to reach schools and Libby Hill.

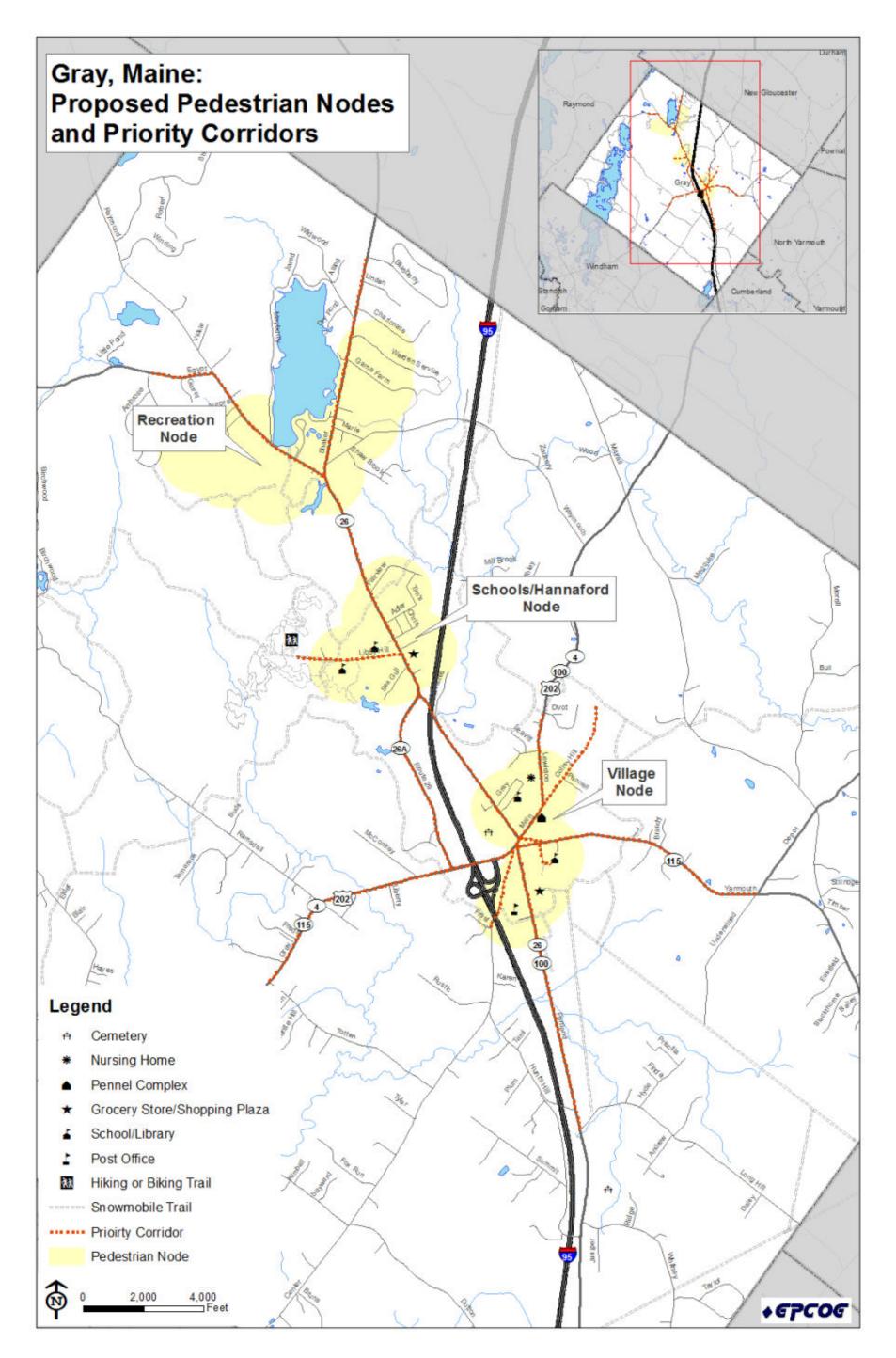
#### **Town-wide Recommendations**

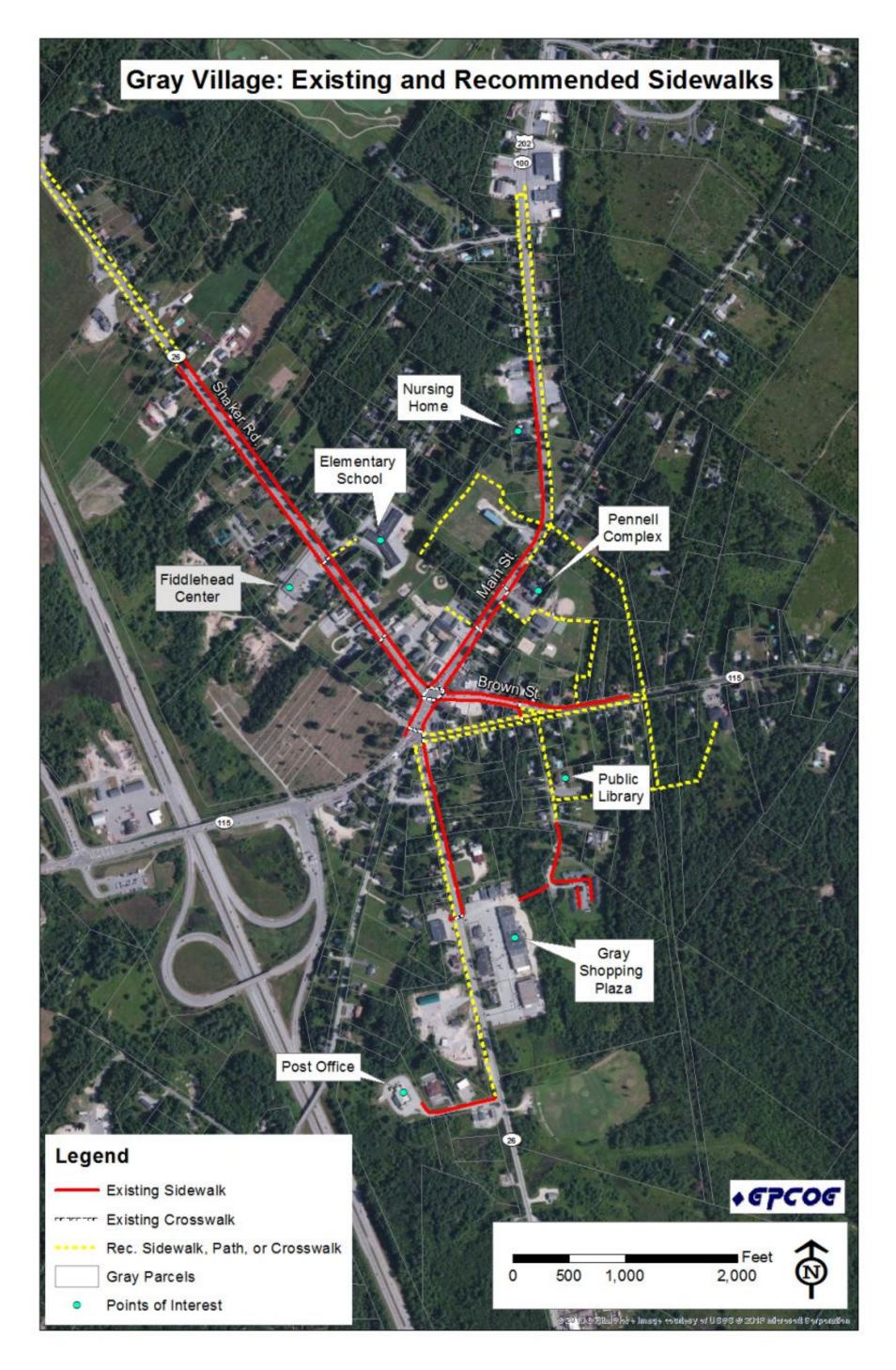
- *a.* Create a village area loop trail connecting Pennell Complex, Library, Fiddlehead, and the Cemetery parcels.
- **b.** Work with MDOT and the Bicycle Coalition of Maine to evaluate the possibility of locating bike shared lane arrows within the village area where expanding the existing shoulders on roadway is unlikely or impossible due to ROW constraints.
- *c.* Coordinate with town staff to insure bicycle and pedestrian elements are incorporated whenever possible into large development projects (Monument Square Development, Route 26 Corridor Study). When Route 26 is rebuilt/resurfaced, extend the pavement to the outside edge of each shoulder, as the varied height of the current roadway poses hazards for bicyclists.
- *d.* Discourage tractor-trailer traffic (other than local traffic) through Gray village and consider possible traffic calming and other devices. Work with Maine Turnpike Authority to study truck traffic exiting the turnpike through Gray in order to avoid the New Gloucester tolls.
- *e.* Continue efforts to develop maps for public use that depict more specific recommendations for walking and cycling routes throughout Town.
- f. Add bicycle racks to areas throughout town such as schools, The library, Pennell, and Park n' Ride. Include a requirement for these facilities in development review
   Provide bicycle education, enforcement, and encouragement programs through local and state
  - partnerships, and coordination with organizations like the Bicycle Coalition of Maine, and National Off-Road Bike Association (NORBA).
- *g.* Establish a "branding" plan to create a town-wide network of trail/off road connections and wayfinding signage program that link to existing and proposed sidewalks, linking major landmarks, recreation areas, and downtown. Add signage to off road trails where possible.
- *h.* Consider adding "edible" landscaping, and other educational enhancement activities where appropriate along trail network
- *i.* Review and amend existing development policies, such as Site Plan and Subdivision Regulations, to support the appropriate and responsible design of bike/ped infrastructure. Examine possibility for more innovative policies such as Complete Streets Policies, TIFS or impact fees.
- *j.* Form an ongoing Bike/Ped Committee to coordinate with development review and master planning activities underway in the Village (Hancock Block, Monument Square, Sustain Southern Maine and possible Route 26 improvements).
- k. "Area 3" –if the parcel identified as "Area 3" in the Comprehensive Plan is developed, explore the feasibility of constructing a new sidewalk and bike lane from the edge of Ramsdell Road to the entrance of existing Village Center sidewalk infrastructure.

# **Appendices**

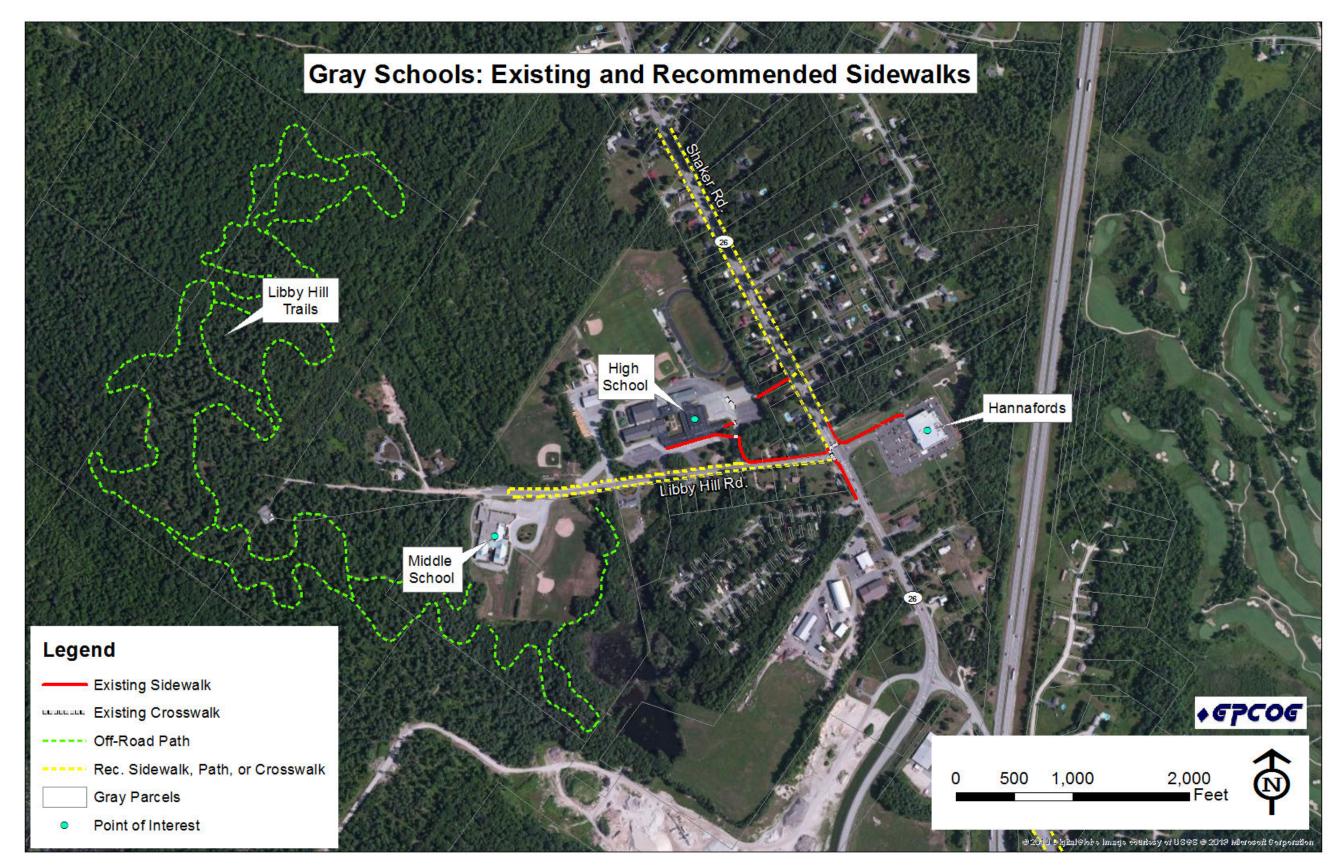
## Appendix A: Inventory Maps- Existing Bicycling Conditions / Road Shoulders



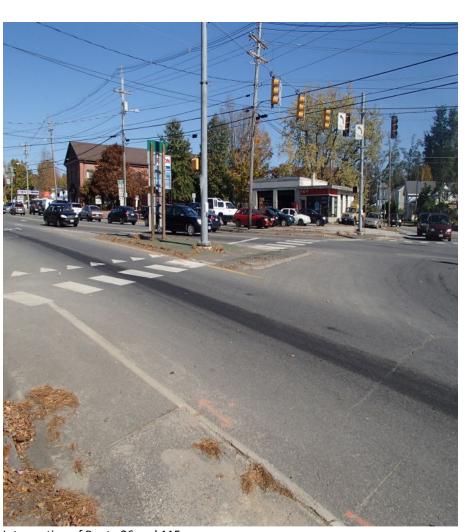




## Appendix D: Schools/Hannaford Area



## **Appendix E: Photos**





Intersection of Route 26 and 115

Main Street by Subway



## **Appendix E: Photos**

The following photos illustrate examples of high- and low-quality sidewalk and crosswalk construction within the town of Gray.



Main Street Sidewalk near Exxon Station- the light pole limits usability

The sidewalk adjacent to the Gray Historical Society was recently reconstructed and is in good shape

The sidewalk in front of the Gray Historical Society is narrow and uneven

New stamped crosswalk along Main Street provides excellent visibility and surface.



Is narrow and cracked, with no sidewalk across Rte. 100

near the new Post Office

for pedestrians or bikers

was recently constructed and is in good shape.





New sidewalk adjacent to Pennell Complex provides an attractive and high quality surface

Pennell Complex new brick sidewalk and crosswalk Another view of the crosswalk to Pennell Complex offers a clear visual signal to motorists and walkers, improving safety.





An existing sidewalk adjacent to Pennell is narrow, crumbling, and needs re-surfacing.





Libby Hill Rd. and Route 26 crosswalk was recently constructed but the sidewalks don't extend to the G-NG Middle School, limiting safety.



Another view of the Libby Hill and Route 26 crosswalk.



The Hannaford/Libby Hill Intersection; the traffic lights and crosswalk offer some safety for pedestrians, but the striping must be re-applied annually.

## **Appendix E: Photos**



This sidewalk on Shaker Road (Route 26) is narrow, cracked, and lacks accessibility features.



The Yarmouth Road (Route 115) sidewalk is narrow and uneven in places, and does not extend very far outside of the village center.



A view of the new sidewalk at Hannaford Plaza that gives pedestrians a safe place to walk off of the roadway.

MPROVING ACCESS TO WALKING, JOGGING, AND BIKING IN GRAY. THE INTENT OF THE SURVEY IS TO SOLICIT PUBLIC FEEDBACK FOR A TOWN-WIDE BICYCLE PEDESTRIAN PLAN. 1. Where in Gray do you live? (please use general information such as street name, closest intersection, or neighborhood) 2. In the space below, please identify your favorite areas or streets in Gray to walk, jog, or bike. 3. Which areas or streets in Gray are worst for walking, jogging, or biking? (please describe below) 4. Where in Gray would you like to see bicycle or pedestrian improvements bike lanes, crosswalks, improved signage, etc.? (please describe below)	Gray Bicycle and Pedestrian Survey
intersection, or neighborhood)	THIS SURVEY, SPONSORED BY THE GRAY COMMUNITY ENDOWMENT, WAS CREATED BY A GROUP OF VOLUNTEERS INTERESTED IN IMPROVING ACCESS TO WALKING, JOGGING, AND BIKING IN GRAY. THE INTENT OF THE SURVEY IS TO SOLICIT PUBLIC FEEDBACK FOR A TOWN-WIDE BICYCLE PEDESTRIAN PLAN.
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bike.  3. Which areas or streets in Gray are worst for walking, jogging, or biking? (please describe below)  4. Where in Gray would you like to see bicycle or pedestrian improvements bike lanes, crosswalks, improved signage, etc.? (please describe below)  5. Do you have access to a bicycle?  Ves No  6. How frequently do you take a trip by bike in Gray?  Never A few times a work	Intersection, or neighborhood)
bike.  3. Which areas or streets in Gray are worst for walking, jogging, or biking? (please describe below)  4. Where in Gray would you like to see bicycle or pedestrian improvements bike lanes, crosswalks, improved signage, etc.? (please describe below)  5. Do you have access to a bicycle?  Ves No  6. How frequently do you take a trip by bike in Gray?  Never A few times a year A few times a month A few times a week	
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crosswalks, improved signage, etc.? (please describe below)	3. Which areas or streets in Gray are worst for walking, jogging, or biking? (please describe below)
crosswalks, improved signage, etc.? (please describe below)	
crosswalks, improved signage, etc.? (please describe below)	
<ul> <li>Yes</li> <li>No</li> <li>6. How frequently do you take a trip by bike in Gray?</li> <li>Never</li> <li>A few times a year</li> <li>A few times a month</li> <li>A few times a week</li> </ul>	4. Where in Gray would you like to see bicycle or pedestrian improvements bike lanes, crosswalks, improved signage, etc.? (please describe below)
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<ul> <li>Never</li> <li>A few times a year</li> <li>A few times a month</li> <li>A few times a week</li> </ul>	C No
<ul> <li>Never</li> <li>A few times a year</li> <li>A few times a month</li> <li>A few times a week</li> </ul>	6. How frequently do you take a trip by bike in Gray?
<ul> <li>A few times a month</li> <li>A few times a week</li> </ul>	
C A few times a week	C A few times a year
	A few times a month
Daily	C A few times a week
	C Daily

7.1	Why do you bike in Gray? (check all that apply)
	l don't
	Exercise/health reasons
	Pleasure
	Shopping/errands
	Commute to work
	Commute to school
	Other (please specify)

## 8. What prevents you from biking more often in Gray?

don't have access to a picycle	Significant Reason	Moderate Reason	Minor Reason	Not Applicable
	C	C	C	C
Destinations are too far away	C	C	C	С
Foo many cars/Cars drive oo fast	C	C	0	C
travel with small children	C	С	C	C
Roads too narrow/Lack of vike lanes, sidewalks, or signage	C	C	C	0
don't have time	C	C	C	C
nsufficient ighting/personal safety	С	C	C	C
ack of bike parking	C	C	C	C
Lack of worksite amenities lockers, showers, dressing rooms)	C	C	C	0
Health issues	C	C	C	C
would rather drive	C	C	C	С
ther (please specify)				

).	How often do you walk or jog in Gray?
5	Never
3	A few times a year
1	A few times a month
	A few times a week
1	Daily
	Why do you walk or jog in Gray (check all that apply) I don't
	I don't
	Exercise/health reasons
	Pleasure
	Shopping/errands
	Commute to work
	Commute to work Commute to school

## 12. What prevents you from walking or jogging more often in Gray?

	Significant Reason	Moderate Reason	Minor Reason	Not Applicable
l don't want to walk/jog alone	<u> </u>	C	C	C
Destinations are too far away	C	C	C	C
Too many cars/Cars drive too fast	C	C	C	C
I travel with small children	C	C	C	C
I don't have time	C	C	C	C
Insufficient lighting/Personal safety	C	0	C	C
Lack of sidewalks/Poor condition of sidewalks	C	C	C	C
Lack of worksite amenities (lockers, showers, dressing rooms)	0	C	C	C
Health issues	C	C	C	C
I would rather drive	C	C	C	C
Other (please specify)				
1		1		

I don't walk					
C Less than 10 minutes					
C 10-30 minutes					
C 31-60 minutes					
S1-00 minutes					
Other (please specify)					
4. Do you walk, jog				200	
lescribe which ones	you use, and	for what pur	pose, in the cor	nment box belo	ow.
		2			
5. From the list of po	18	cts and initiat	tives below, ple	ase give us you	ır opinion o
heir relative level of					
Additional paths in the	Very Important	Important	Somewhat Important	Not at all Important	No Opinion
village area to make it safer and more attractive to walk or bike					
Extension of the sidewalk	C	C	C	C	0
on Libby Hill Rd. from the High School to the Middle School (no sidewalk					
currently exists)	100	100	100	100	
Bike lanes on major roads	C	9	C	C	C
Established routes, or "neighborhood byways," that use signage to connect key areas in town using local streets with less traffic	C	C	C	C	C
Improved signage alerting motorists to the presence of walkers and bikers	C	C	C	C	C
More crosswalks and improved road crossings	C	C	C	C	С
Expanding and strengthening linkages between existing trail networks to make it easier to travel around Gray off-road	C	C	C	C	C
Bicycle and pedestrian safety training	C	С	С	C	C
Other (please specify)					

	, what is the most important change that would encourage you to walk,
jog or bike more ir	- Gray?
17. What is your a	ge?
C Less than 18	
C 18-24	
C 25-34	
35-44	
6 45-54	
55-64	
65+	
18. What is your g	ender?
G Male	
C Female	
jogging or biking i	T Gray.
20 Would you like	more information about Gray's Bike/Bad Advascey Committee? If so
1.70	more information about Gray's Bike/Ped Advocacy Committee? If so, ur name and email address.
Name	
Email Address	
	HE TIME TO COMPLETE THIS SURVEY! YOUR FEEDBACK WILL HELP WITH THE CREATION OF A BICYCLE WILL BE USED TO IMPROVE THE BIKING AND WALKING ENVIRONMENT FOR ALL USERS AND SKILL LEVELS IN

## Appendix G: Sidewalk Data Tables

Existing Sidewalks	Condition	Width	Length (mi.)	Length (ft.)	Material
Brown St. (Yarmouth Rd. intersection to McDonalds - north side)	Fair	48 in.	0.09	469	Asphalt
Brown St. (McDonalds to Main St. intersection - north side)	Good	50-52 in.	0.05	246	Asphalt
Brown St. (south side)	Good	50-52 in.	0.10	525	Asphalt
Hancock St. (east side)	Good	56 in.	0.14	765	Asphalt
Hannaford (parcel)	Good	58 in.	0.11	572	Asphalt
High School to Spruce Dr.	Off-Road Path	NA	0.04	223	Dirt
Libby Hill Rd. (north side)	Good	58 in.	0.13	686	Asphalt
Main St. (American Legion to Subway - west side)	Good	58 in.	0.35	1,844	Asphalt
Main St. (Subway to Shaker Rd. intersection - west)	Fair	26-51 in.	0.09	485	Asphalt
Main St. (intersection of Shaker Rd. to Cemetery Rd west side)	Excellent	38-102 in.	0.04	190	Brick
Main St. (Historical Society parcel - west side)	Poor	56 in.	0.01	49	Asphalt
Main St. (Pennell Complex parcel - east side)	Poor	44-52 in.	0.04	196	Asphalt
Main St. (McDonalds to Pennell Complex - east side)	Excellent	60 in.	0.14	760	Brick
Main St. (Yarmouth Rd. to Brown St east side)	Fair	29-59 in.	0.05	241	Asphalt
Paved path between Gray Plaza and Hancock St.	Poor	42 in.	0.04	202	Asphalt
Rt. 26/100 (Gray Plaza to Yarmouth Rd. intersection - east side)	Fair	42-55 in.	0.21	1,132	Asphalt
Shaker Rd. (Libby Hill Rd. to Maplewood Dr west side)	Good	58 in.	0.05	268	Asphalt
Shaker Rd. (Main St. to end of sidewalk - south side)	Fair	50 in.	0.50	2,639	Asphalt
Shaker Rd. (Gray Park Rd. to end of sidewalk - north side)	Fair	29-78 in.	0.50	2,656	Asphalt
Turnpike Acres (Rt. 26 to Post Office)	Fair	38-42 in.	0.10	517	Asphalt
Yarmouth Rd. (Brown St. to Beehive Dr north side)	Fair	42-49 in.	0.09	487	Asphalt
Totals	NA	NA	2.78	14,683	NA

<sup>ii</sup> Leinberger, Christopher B. "Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C." Brookings, SERIES: <u>Walkable Urbanism</u> | Number 16 (<u>http://www.brookings.edu/research/papers/2012/05/25-walkable-places-leinberger</u>).

<sup>iii</sup>Sidewalk rating scale is based on the following characteristics: Excellent- newly constructed sidewalk Good-no defects need repair, no impassable sections Fair- some repairable defects, no impassable sections Poor- many defects, needs repair

<sup>&</sup>lt;sup>i</sup> Ryan, Bill (2003) "Economic Benefits of A Walkable Community" Let's Talk Business Issue 83. June 2003. (<u>http://www.uwex.edu/ces/cced/downtowns/ltb/lets/0703ltb.html</u>).