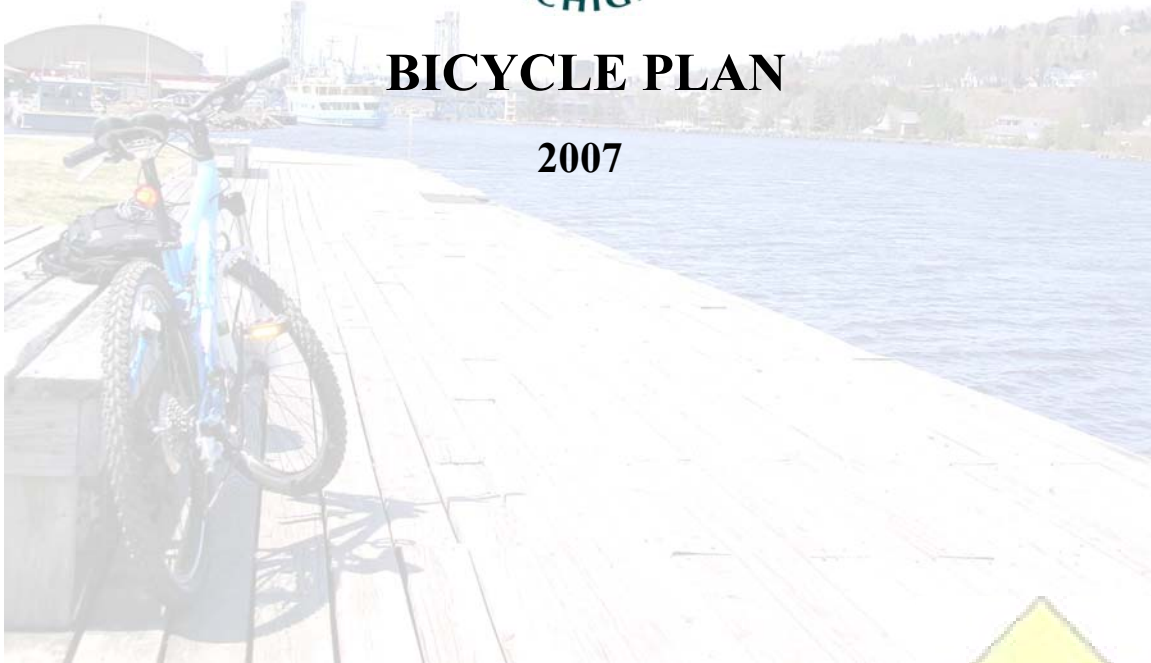




BICYCLE PLAN

2007



Vision: "To be a bicycle-friendly city where bicycling is an easy, safe, and convenient form of transportation and recreation for people of all ages and bicycling abilities."



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INTRODUCTION

In the summer of 2006, local citizens approached the City Council to improve cycling conditions within the City of Houghton. The City Council responded by forming an ad-hoc committee to study, review and make recommendations for improvements that would encourage bicycling within the City of Houghton. After review of the city's impediments to bicycling, it was decided that a bicycle plan was needed to thoroughly evaluate the bicycle 'friendliness' of the area. Following in the footsteps of the City of Houghton Walkability/Pedestrian Plan developed in 2002, this bicycle plan will build upon those efforts to further improve the ability of residents and visitors to travel around town under human power.

The City of Houghton is an active community with generous outdoor opportunities so providing safe, convenient access to recreation is important to the quality of life. Improvement of cycling conditions will only serve to further the community's quality of life by continuing its commitment to healthy living. The City of Houghton needs to promote bicycling because bicycling is easy, clean, healthy and energy efficient.

The vision of the City of Houghton is to create, through the assistance of this plan, a bicycle-friendly city where bicycling is an easy, safe and convenient form of transportation and recreation for people of all ages and bicycling abilities.

Recommendations of this plan will include:

- ✓ installation of signage;
- ✓ physical improvements to existing transportation facilities;
- ✓ development of new bicycle/pedestrian facilities;
- ✓ promotional and educational efforts to encourage safe bicycle use and improve awareness of bicycles within the city.

THE PLANNING PROCESS

The ad-hoc committee, Houghton Biking Task Force, included a diverse group of interested parties: the City Manager, representatives of the City Council, Police Department, MTU and local cycling advocates. Assistance was provided by the Western Upper Peninsula Planning & Development Region to draft the plan. The following individuals comprised the Houghton Biking Task Force:

Scott MacInnes, City Manager

Eric Peterson, Mayor

Craig Kurtz, City Council

Robert Megowen, City Council

John Donnelly, Chief of Police

Mike Abbott, Michigan Tech Director of Sports & Recreation

Dan Dalquist, Keweenaw Trekkers President

Ann West, Avid Commuter, Cycling Advocate

Heath Nunnemacher, Michigan Tech Cycling Club

Lori Hauswirth, Western U.P. Planning & Development Region

In addition to periodic meetings of the Houghton Biking Task Force, early in the planning process from January 16th to February 16th, 2006, an online bicycle survey was conducted to gauge the use patterns and preferred routes of bicycle commuters within the City of Houghton. The survey results helped when inventorying existing conditions as well as identifying high traffic routes and areas of concern for avid and recreational cyclists. More than 370 people responded to the survey, providing a great base for assessing the impediments to cycling and identifying facility improvement needs within the City. A summary of the Houghton Bike Commuting Survey results are included as Appendix A of this report.

It is anticipated that this plan will help guide future non-motorized improvements to coordinate with other larger transportation and public improvements. The creation and adoption of this bicycle plan will also help to acquire grants and matching funds for the

development of these facilities. The coordination of bicycle improvements with larger community improvement projects will also increase chances of receiving funding.

EXISTING BICYCLE USE AND FACILITIES

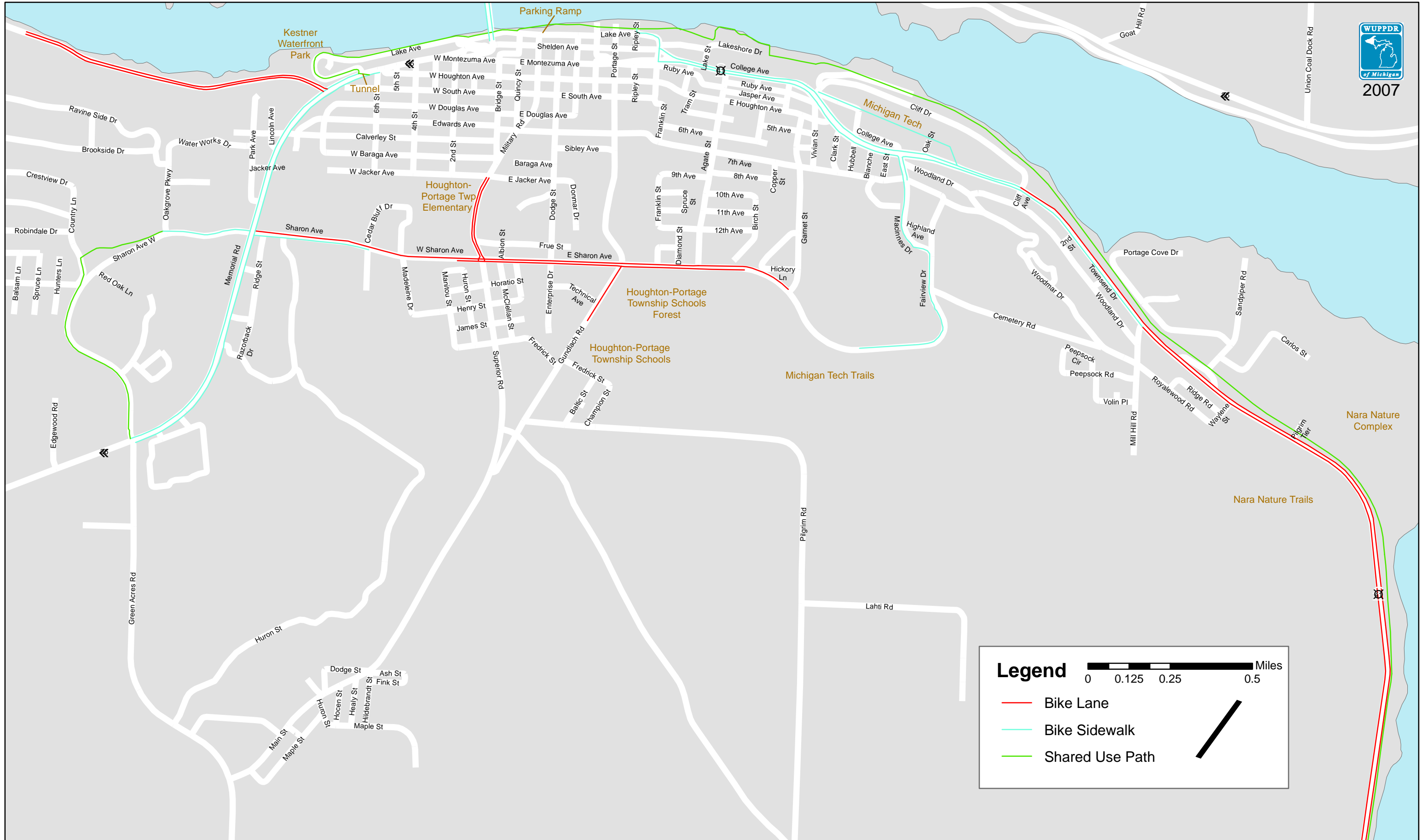
The City of Houghton is a challenging town for bicycle travel because of its hilly topography (including slopes in excess of 18%), winter conditions and inattentive drivers. Bicycling can be a great way for people to access the many parks, businesses and other facilities. However, bicycling within the City of Houghton presents a challenge as any north-south travel is impeded by the large hills. In order to address the impediments to bicycling, a thorough inventory of existing facilities and programs contributing to the bicycling environment must be reviewed.



Houghton's waterfront path.

In general, opportunities for bicycle travel within the City of Houghton rely on a disconnected system, including a main bike path, some wide shoulders and sidewalks joined by the haphazard use of miscellaneous streets. The current system is not bicycle friendly and is difficult to navigate for both residents and visitors. Bicycle use along the sidewalks in the downtown area is discouraged by “No Bicycle” signs and “No Bicycle” sidewalk paintings along Sheldon Ave. Figure 1 shows the existing bicycle network in the City of Houghton.

Fig. 1 - City of Houghton Existing Bicycle Network



Inventory of existing bicycle facilities

Waterfront Trail – Paved trail stretching from Kestner Waterfront Park on the west side of the City and following the waterfront to the Nara Park on the east, where it connects to the Houghton-Chassell DNR-owned rail trail. The trail was built starting in the mid-1980’s along an abandoned railroad grade, is 8 feet in width and approximately 3 miles long. The surface condition varies from good to poor as snowmobile use has taken a toll in some areas. Along its length, large concrete barriers serve to prevent motorized traffic but are not aesthetically pleasing. There are three sections of the trail that are poorly designated and confusing to navigate: portion between the Public Library and UPPCO office building; around the Super 8 Motel, and along the MTU campus where painted lines are no longer visible. A gated, gravel trail provides access to the Houghton Canal Road.



Concrete barriers along waterfront path.

Bike Shoulder, Sharon Avenue - A ~6 ft wide shoulder is provided along both sides for most of Sharon Avenue from M26 east to Garnet Street. A white stripe separates the shoulder from the traffic lane along Sharon. Gaps currently exist on the north side of Sharon from Evergreen Street to Enterprise Street, and the shoulders disappear near Garnet Street, where pedestrians/cyclists are forced to use the grass or the traffic lane. A sidewalk resumes on the north side of the road at the entrance to Michigan Tech’s SDC parking lot. Parking is allowed along the shoulder of Sharon Avenue, and cars occasionally impede bicycle traffic in the area near Agate Street. Overall, the



Shoulder deterioration along Sharon Ave.

condition of shoulder is fair as scattered sections have edge deterioration and debris also builds up in the low sections along the route.

Sharon Avenue Bike Path- A paved pathway is installed along the north edge of W. Sharon to the M-26 /Festival Foods intersection. Along its length the pathway is either elevated next to the road or separated from the roadway with a grass buffer. The pathway provides good access to the neighborhoods adjacent to W. Sharon Avenue.

US 41 Bike Shoulder - A bike shoulder is provided along US41 as you head east from town beginning at the west end of MTU’s campus.

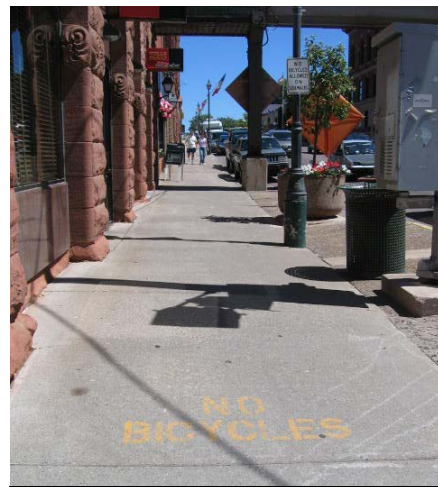
Off-road Trail Systems include the MTU trails, which connect to the Nara Nature Park & Trails on the east end of the City and to the Houghton School Forest on Gundlach Road. There are an estimated 20 miles of trails available within the City.

Bicycle Parking – Bicycle racks are currently available throughout the MTU campus, local K-12 schools, a few miscellaneous businesses and public locations. There are very few bike racks available in the downtown area or along the waterfront where bicyclists use signposts and other vertical objects to secure their bikes.



Typical bicycle rack at Michigan Tech.

Signage – Limited signage and directional signage for bicycles are currently installed in the City. “No Bicycles Allowed” signs in downtown Houghton do not present a bicycle-friendly community. The Portage Lift Bridge allows bicyclists on the sidewalks but users are required to “Walk Your Bicycles” as per the present signage.



"No Bicycles" in downtown Houghton.

BICYCLE RIDERS AND BICYCLE USE IN THE CITY

There are basically three types of bicycle riders to address when considering facility needs. Although a typical rider needs only 40 inches of operating space, a bicyclist's skills, confidence and preferences will dictate where they chose to ride. The most **Advanced** or experienced riders use the bicycles just like a motor vehicle and are comfortable with motor vehicle traffic. **Basic** or less confident adult riders prefer to avoid traffic and use shared-use paths, designated bike lanes or wide shoulders. **Children** want to ride to key destinations within a community with and without parents but are best suited by residential streets and well designated shared use paths.

Bicycle use in the City of Houghton is mixed between avid commuters and recreational riders. Children also account for a fair amount of bicycle traffic within the City, mainly in neighborhoods and along the waterfront path. The Michigan Tech campus and downtown area generate the largest amount of bicycle commuting traffic. Bicycle use tends to decrease away from these key areas.

As per the survey in the City of Houghton, bicycle users tend to gravitate to sidewalks in high-traffic areas where they feel safer than in the traffic lane. Along College Avenue this is common because of the high population of students combined with poor pavement and catch basins in the traffic lanes contributing to the danger and discomfort of riders. Along Montezuma and Shelden Avenues, the speed of traffic, number of intersections to negotiate, and on-street parking are a deterrent to cyclists. The use of the waterfront path along this stretch is avoided because of the steep climb up to Cliff Drive/MTU Campus. Bicycle use during winter months is more limited and changes commuting habits due to the large amount of snowfall and cold weather. It is important to consider winter use however, because according to the survey, 20% of respondents (54 of 269) commuted all year round.

The overall recommendation of this plan is to consider bicycling and other forms of non-motorized transportation when planning any and all future improvements in the City of

Houghton. During the planning of streets and sidewalks, pathways, downtown improvements, business development, new residential areas and parks, bicycle facilities and connections to facilities should be considered.

Types of Bicycle Facilities

When determining how to best accommodate pedestrians/bicyclists traffic within the City of Houghton, factors to consider first are the types of users that are expected to use the facility and how to accommodate users based on conditions and costs. A number of facility types could accommodate the needs for linking facilities and destinations within the City:

Shared Roadway (no bikeway designation) – Cars, bicyclists and pedestrians share the same roadway; no special signage or extra lane exists.

Signed Shared Roadway – Cars, bicyclists and pedestrians share the same roadway but signage identifies it as a bicycle route, which creates more awareness that bicycles are present.



Bike Lane or Bicycle Lane - A wide shoulder is provided along a route that is designated as a bike lane. A bike lane is usually separated from the traffic lane by a wide white stripe, pavement markings and signage.

Shared Use Path (hard or natural surface) – Path separate from the roadway for bicyclists, pedestrians and other non-motorized use.

Additional things to consider when selecting a facility are continuity, parking, barriers, directness, accessibility, aesthetics, personal safety, limited stops, conflicts, maintenance, surface, traffic conditions and surface quality.

GOALS AND OBJECTIVES

In order to determine what facilities are needed in the City of Houghton, goals have been developed to provide long-term direction for this bicycle plan. The related objectives identified below serve to bridge the gap between goals and implementation. The goals and objectives will serve to guide bicycle improvements in the City.

Goal 1: Design, construct and maintain a system of bicycle facilities that provide safe and convenient opportunities for bicycling within the City of Houghton.

Obj – Establish a comprehensive and coordinated system with both north-south and east-west connections that serve a wide range of bicycling abilities.

Obj - Provide adequate facilities/bicycle racks for parking of bicycles on public properties and encourage private businesses to provide parking.

Obj – Encourage bicycle access to the downtown and waterfront through improved linkages and convenient bicycle parking.

Obj – Work with surrounding communities to improve bicycle access to and from the City.

Obj – Continually inspect, review and evaluate routes during all seasons to provide adequate maintenance of surface, markings and facilities; identify improvements as needed.

Goal 2: Improve the safety of bicyclists through education, promotional and law enforcement efforts.

Obj – Install additional signage in the form of “Share the Road,” “Bike Route,” etc. to create awareness of bicycles and pedestrians.

Obj – Educate cyclists and drivers on bicycle traffic laws through enforcement, information packets and awareness activities.

Obj – Provide bicycle maps on best routes within the City coordinated with route signage.

Obj – Encourage helmet use and safe bicycle use through rewards and education programs.

Obj – Pay special attention to enforcement of speed limits and other traffic laws along designated bicycle routes.

ACTION PLAN

The goals and objectives identified for the City of Houghton Bicycle Plan provide specific direction for improving conditions for cyclists. The next step is identifying actions to carry out the goals and objectives.

The following projects and programs have been identified to improve bicycling conditions in the City of Houghton. Recommendations have been grouped by type/area of improvement and include both short- and long-term projects. Figure 2 shows both the existing and proposed bicycle network improvements in the City.

East - West Routes

Waterfront Path

- Direct bicycle traffic to waterfront as feasible. Provide signage linking waterfront with key attractions (i.e. MTU, downtown, etc.)
- Pave snowmobile trail from end of City campground to Canal Road. Sign route through campground. Modify gate to allow passage of bicycles.
- Improve placement of or replace concrete barriers with more user-friendly and aesthetically pleasing alternatives such as signage only, removable bollards or increased enforcement.
- Explore benchcut trail beginning at Super 8 and other alternatives to ease transition to Michigan Tech campus from Houghton waterfront path.
- Clearly mark pathway through shared-use areas near library, Super 8 Motel and through Michigan Tech. Explore ways to route path nearest water.
- Repave surface in areas where condition is poor. Mark centerline and direction on path to reduce conflict. Consider widening path to 10' as funding is available.

College Ave/Shelden Ave

- Work with MDOT planners to identify best solution for incorporating bicycle traffic along College Avenue to reduce conflict with pedestrians. Bicycle lanes are the preferred solution in order to safely accommodate commuting cyclists and eliminate sidewalk conflicts.
- Continue to allow bicycle traffic on sidewalks between downtown and campus but don't encourage.
- Provide signage directing people to designated alternative East-West routes (i.e. Waterfront Path and Houghton Ave.).

Houghton Ave

- Evaluate and remove unnecessary stop signs, replace with yield as necessary to allow free movement.
- Install bicycle route signage along entire length and install signs directing to downtown.
- Provide clear, paved connection from M26 tunnel to Houghton Avenue designated bike route.

Seventh and Edwards Ave

- Install bicycle route signage along entire length of routes.
- Evaluate roadway and resurface as needed.

Sharon Ave

- Paint "BIKE LANE" or bike symbol and install signage on designated route. Consider increasing width of white separation line for clearer definition between traffic lane and shoulder.

- Extend bicycle lanes or sidewalk along Sharon Avenue to fill in gaps east of Garnet Avenue.
- Fill in bicycle lane gap near Madeleine Drive on south side of Sharon Avenue.
- Repair areas of broken pavement.
- Eliminate parking in bicycle lanes.

North – South Routes

- Install bicycle route signage along identified north-south routes including Bridge/Military Road, Portage Street, Agate Street, Garnet Street, MacInnes Drive
- Complete gap in sidewalk on Bridge Street/Military Road
- Cut sidewalk curbs along Memorial Drive/M26 to allow for better sidewalk bike route.
- Install bike racks on City buses to provide easier north-south access to less skilled riders.

Downtown Improvements

- Replace existing signage with bicycle friendly signage: “Walk Bike” instead of “No Bicycles on Sidewalk” and “No Bicycles”



A sample of bicycle friendly signage that could be used in Houghton.

- Install public bike racks and encourage private-business installation of bike racks. Bike racks in downtown should be near destinations, evenly spaced, in secure

locations and easily accessible. Develop alternative bike rack designs to complement aesthetics of area and to fit space available.

- Inquire about removal of “walk your bicycle” signs on Portage Lift Bridge. Consider change to “bikes yield to pedestrians.”



Downtown bicycle rack in Bozeman, MT.

- At south end of bridge, improve access from waterfront for northbound cyclists (walkway adjacent to Downtowner lot) and encourage bicycles to drop down to waterfront path when traveling south.

Razorback Drive Business Area

- Fill in gaps to provide continuous bike/pedestrian sidewalk along Ridge Street and Razorback Drive connecting to M26/Memorial Drive sidewalks.

Signage

- Sign all routes and include directional signage to destination areas.
- Use bicycle-friendly signage instead of “No Bicycle” signage use “Walk Your Bicycle” signage at parks, business areas, etc. where riding is not allowed.

Bicycle Racks

- Bicycle racks should be provided at all major destinations and park areas. Encourage private business and require new businesses to install racks for customers. Racks should be user friendly and fun (artsy and bright). Many newer designs allow for better securing of bicycle frames and wheels versus the old style racks that secure the front wheel only. Review proposed designs with Houghton Biking Task Force.

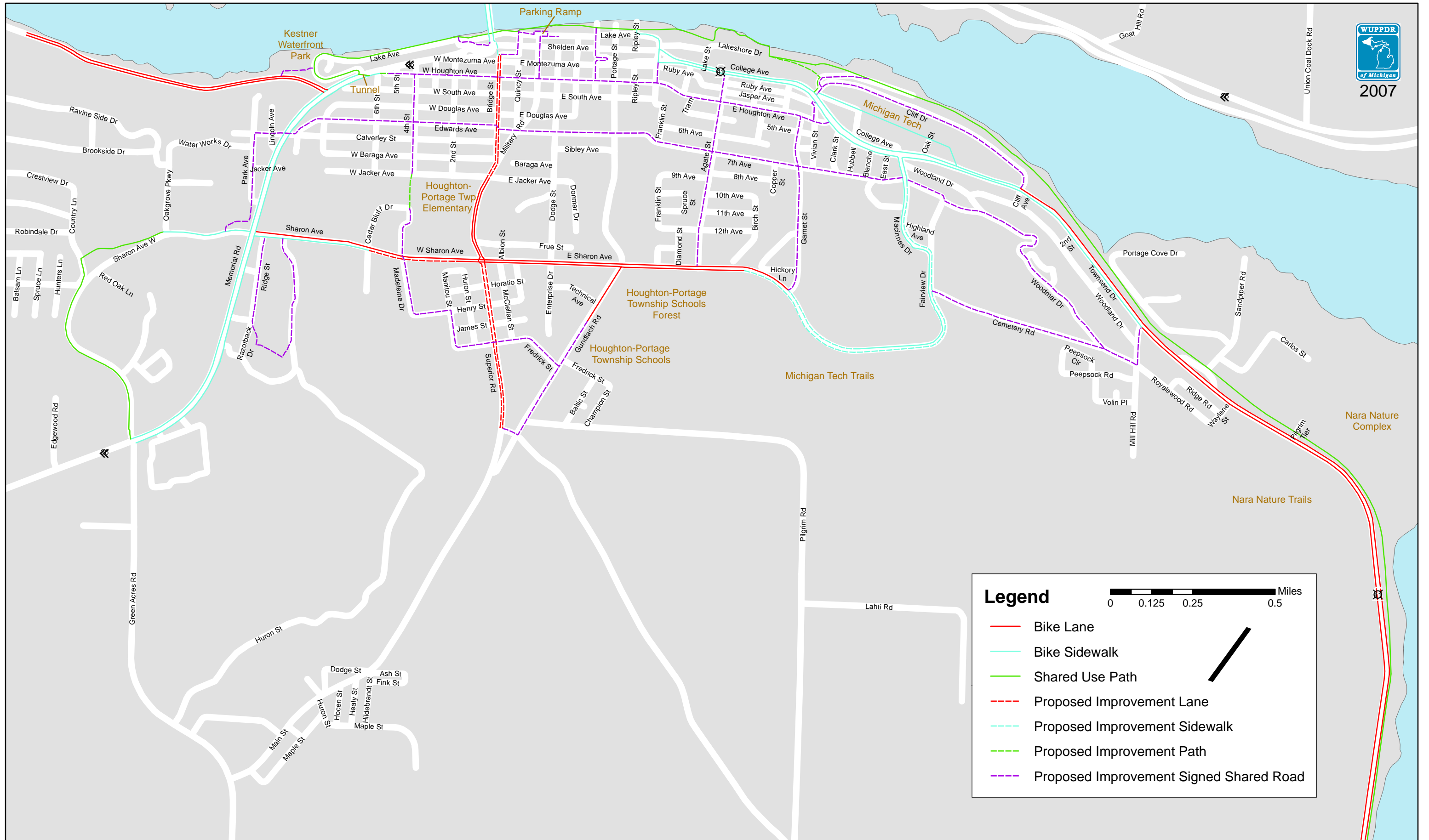


Artsy and fun bicycle rack option.

Education

- Produce map that can be made available to city residents, visitors and Michigan Tech students with route information. Include bicycle laws as well as riding tips. Map should be available both printed and in digital format on the City website.
- Work with local k-12 schools to establish and participate in Safe Routes to School Program.
- Seek opportunities to promote and reward safe cycling in the city. Programs may include: the continuation of free ice cream coupons distributed by the police department; annual bicycle rodeo for kids and families that teach safe riding and provide tips for negotiating the City; other.
- Work with other groups and agencies to promote special events such as the Ride of Silence to bring awareness to public.
- Install “Share the Road” signs at all main entrances to Houghton: US 41 near MTU, Canal Road, M26 near mall, Gundlach Road near high school, Superior Road in Hurontown, and Portage Bridge entrance to town

Fig. 2 - City of Houghton Existing and Proposed Bicycle Network



IMPLEMENTATION STRATEGY

1. Adoption of the Plan by the Houghton City Council. Plan should be adopted to provide credibility and establish support for the proposed bicycle improvements after review by Planning Commission and following public input opportunity.

Timeline: Fall 2007

2. Establish priority list of projects with costs and timeline for consideration by City Council. City Manager will work with the Houghton Biking Task Force to identify priorities. Reference the 2002 Walkability Plan and the Bicycle Plan when updating the City's Recreation Plan. *Timeline: Fall-Winter 2007 (Annual Update)*

3. Allocate funding in City of Houghton's annual budget. Specific project costs should be determined during the preparation of the annual capital improvement program on a project by project basis. Larger projects may be completed in conjunction with street improvement projects and based on funding availability. *Timeline: Annual*

4. Seek grant funds for improvements and education/safety programs as available. *Timeline: Ongoing*

5. Continue Houghton Biking Task Force to work with user groups and make recommendations to the City Council, move projects forward and ensure ongoing maintenance/sustainability of the system. Use committee to apply for "bicycle-friendly" community designations. *Timeline: Ongoing*

Potential Funding Sources

There are a variety of potential funding sources including local, state and federal programs that can be used for improvements. Most programs are competitive, and involve the completion of extensive applications and documentation of project need and benefits. This plan will provide the background for future grant applications. Potential funding sources¹ identified for City of Houghton bicycle improvements and programs are included in Appendix B.

¹ www.saferoutesmichigan.org

Summary of the Houghton Bike Commuting Survey

The Houghton Biking Task Force was assembled in Fall of 2006 to study and recommend ways to support and encourage bike commuting in the City of Houghton. From January 16 to February 16, 2007, the Task Force surveyed the community about their bike commuting habits and gathered information about bike commuter demographics, common bike commuter routes, and the current bike commuting environment

This document is a summary of the results of that survey along with a short analysis of the findings.

Background

For the purposes of the survey, a bike commuter was defined as someone who uses a bicycle for utilitarian (not recreational) travel. Communications about the survey encouraged the following audiences to respond:

1. Those who bike commute from, through, or to destinations in Houghton.
2. Those that don't bike commute, but would like to start.

296 bike commuters and 77 non-commuters filled out the survey for a total of 373 responses.

Results

Below is a summary of the responses to the survey questions. For the complete list of comments, see <http://cityofhoughton.com/news/3.pdf>.

1. How old are you?

35.4% (132 people) of those responding to the survey were 16 to 25 years old. 21.2% (79 people) were 26 to 35, 18.2% (68 people) were 36-45, 16.6% (63 people) were 46 to 55 and 8.3% (31) were 56 and older. A parent of one child responded on behalf of his/her son, representing .3% of the overall total.

2. Do you use a bike to commute to a destination? A bike commuter is someone who uses a bicycle for utilitarian, not recreational travel.

75% responded yes and 25% responded no with one person skipping the question.

3. If you answered no, please tell us why you don't use a bike to commute.

77 individuals responded to this questions and a summary of major themes is included in Figure 1. On the whole, personal safety/security was the primary cited reason, followed by a need for bike-friendly routes, problems with difficult terrain or long distance, and issues with traffic and/or parked cars. Riding across the Houghton Portage Lift Bridge is a concern and inconvenience, requiring planning and additional time, is a factor for many people. Several commented that the City should allow bikes on sidewalks and others offered that bikes shouldn't be allowed on the sidewalks. Given the survey was taken in February, snow was also mentioned as being a factor for not commuting at that point in time.

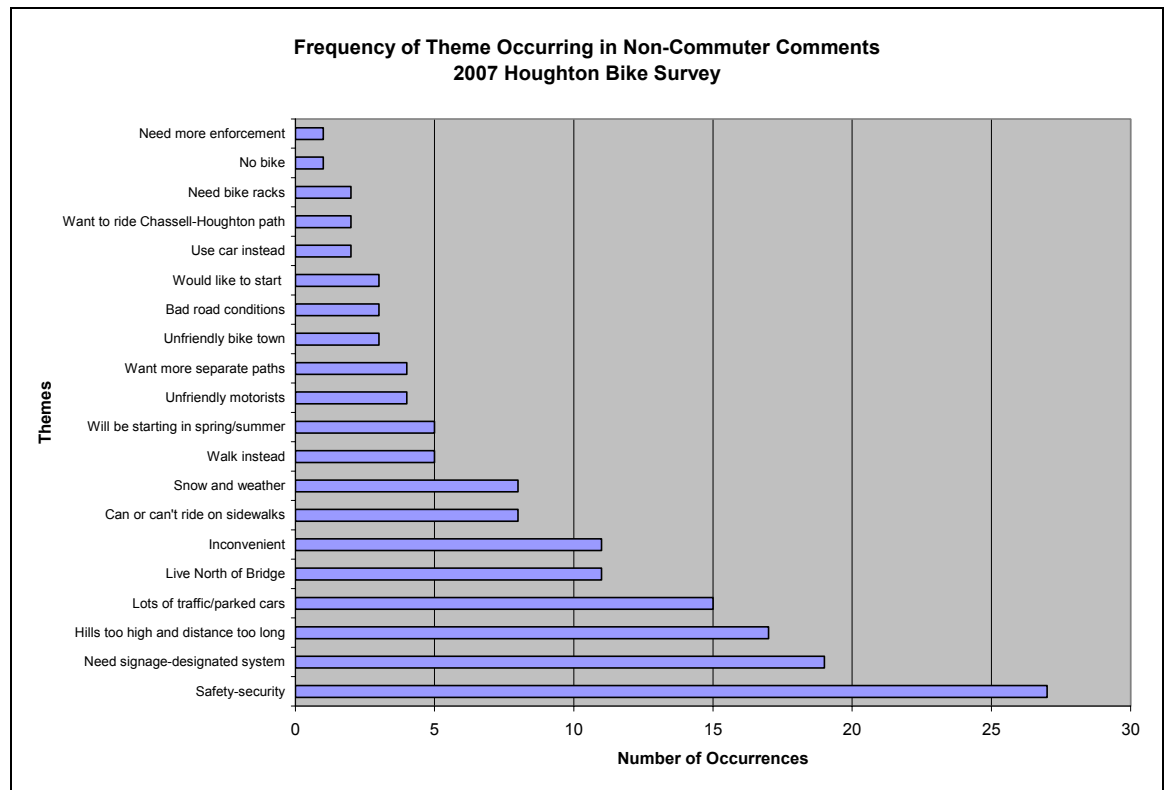


Table 1 Frequency of Theme Occurring in Non-Commuter Comments 2007 Houghton Bike Survey

4. What months of the year do you bike commute? (e.g. April to November, all year, etc).

Total respondents were 296 and 54 of these commuted all year round. The remaining individuals rode some variation of spring to fall.

5. Within your commuting season indicated above, roughly how many trips per week do you use a bike to commute to a destination? This could include riding to work, school, shopping areas, etc. Consider one round trip (such as from home to work and back again) as two trips.

27.5% (74 people) rode 1 to 4 trips per week indicating roughly 1 to 2 roundtrips. 29% (78 people) took 5 to 8 times per week, or 3 to 4 roundtrips, which might be considered a typical work/school week given one might need to drive one day per week to do errands. 26.8% (72 people) rode more than 10 trips per week which could indicate additional commuting beyond going to school or work and back.

6. Describe your most frequently used bike commuting route:

7. Describe the route used: (e.g. Ethel to Snowmobile trail to bridge to waterfront bike path to College Ave to MTU).

8. Describe your next most frequently used bike commuting route:

9. Describe the route used: (e.g. Ethel to Snowmobile trail to bridge to waterfront bike path to College Ave to MTU).

10. Describe your third most frequently used bike commuting route:

11. Describe the route used: (e.g. Ethel to Snowmobile trail to bridge to waterfront bike path to College Ave to MTU).

Questions 6 through 11 asked respondents to describe their top three most frequently used bike community route, including starting destination, ending destination, and percentage used. 241 people described their first route, 166 included a second route, and 88 included a third. For a map of the routes and frequency, refer to Figures 2 and 3. The two maps reflect the winter and spring/summer/fall most traveled routes. The width of the lines on the map corresponds to the frequency that the street/road was mentioned in the respondents' commuting routes.



Figure 1 All-Season Bike Commuting Map. Out of 296 respondents who indicating that they were bike commuters, 54 individuals ride consistently during the winter. This map reflects their routes.



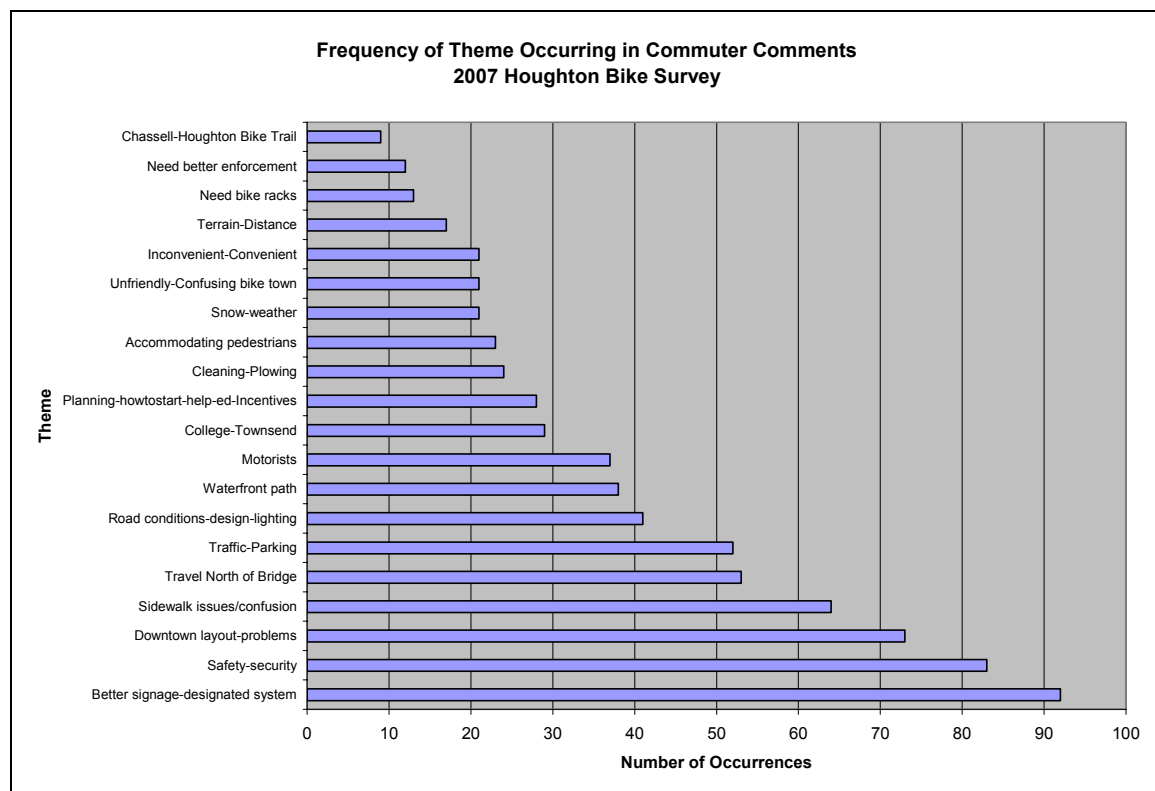
Figure 2 Warm-Season Bike Commuting Map. This map reflects the routes of the 296 bike commuters in the warm season, typically April to November.

12. How many times per week do you ride a bike just for recreation/fitness (e.g. road or mountain biking)?

44.2% (106 people) indicated they cycled for recreation or fitness rides 1 to 3 times per week in addition to commuting. 24.8% (86 individuals) rode 4 to 6 and 13.3% (32 people) rode more than 6 times per week for recreation. Only 6.7% said they didn't ride at all for recreation.

13. What do you like or dislike about your current bike commute? What would you like to see improved?

233 individuals responded to this question. For a summary of the primary themes, refer to figure 4. For a complete listing of the comments, see <http://cityofhoughton.com/news/3.pdf>.



Overall there were many comments about down town including safety issues with riding on Sheldon with the perceived fast traffic and parked cars, general lack of signage, bike-unfriendly stencils on the sidewalks, lack of bike racks, and layout and design for bikes. Many don't want to ride with pedestrians or cars. Some respondents indicated that they would shop downtown more, if it were more bike friendly. A handful didn't want to ride with cars at all and instead wanted a separate trail system, but most had no issues with this and instead wanted a clear place for bikes to travel. Most appreciated the waterfront path, but also didn't like dodging pedestrians or inline skaters, similar to the non-commuter comments.

Findings

Several findings became evident throughout the survey:

Safety and Security Safety and security are, understandably, high on individuals' lists of concerns. Comments ranged from needing separate bike-designated paths to feel safe to

one cyclist who thought that paths were dangerous because cyclists were lulled in to a false sense of security and are more unaware at street intersections. Safety is a complex issue and encompasses the individual's good decision making, equipment, biking skills, route taken and its maintained surface, motorists encountered along the way, and so on. Responsibility for safety is shared among several audiences including the rider, the motorist, law enforcement, biking advocates, and the City. Therefore, a shared approach is necessary to address critical safety issues.

Cycling Skills and Ability The survey respondents showed that Houghton must support a wide variety of cycling abilities as reflected by the variety of cycling frequency for commuting and recreation. In addition, several individuals indicated an interest in starting to ride, but a lack of motivation, biking skills, planning, time, terrain and distance, and equipment to start. This could be addressed in part by offering community classes on biking skills and publications on how to start commuting. In addition, the biking infrastructure should accommodate these diverse audiences with clearly marked travel ways.

Motorists A number of comments also mentioned rude motorists, fast traffic, and a general lack of awareness of bikes and biking laws that allow cyclists to ride in the road. Again, an education campaign and appropriate signage would assist in addressing this issue.

Designated Biking System The more frequent request was a well publicized and clearly signed and communicated bike route system. The waterfront path was seen as a good start, but some individuals were unclear whether bikes were even permitted, thinking that inline skaters and walkers were the only allowed users. The proposed system should accommodate safety concerns, variety of abilities, and routes for those who are uncomfortable riding with downtown traffic.

Terrain North-South routes and the accompanying hills were cited as a large impediment to commuting. Bike facilities may help, but the personal effort required to cycle up Agate Street, for instance, is daunting. A possible solution is to designate a gradual up-hill street (like Seventh Street) as a bike route, but any North-South route will be gravity challenged. One suggestion was to add bike racks to one or more of the city busses.

K12 Community The K12 community was virtually missing from the survey (only one parent responded for his/her child). The Task Force needs to address this critical group.

Conclusion

This survey provided the Houghton Biking Task Force with good background and suggestions for the development of a biking plan for the city. Several interesting themes emerged, including general confusion of who can use what sidewalk, path, or lane and need for better signage and education. Given the complex nature of safety, the plan must educate the variety of stakeholders on their share of the responsibility and include mechanisms for helping unsure cyclists gain the variety of skills, decision-making strategies, and confidence levels needed to maneuver through the proposed biking system. A sound education plan and bike system would go hand in hand towards addressing many of the voiced concerns.

BICYCLE FUNDING SOURCES

Transportation Enhancement Activities (TEA) -

"Provision of facilities for pedestrians and bicycles, pedestrian and bicycle safety education activities," and the "conversion of abandoned railway corridors to trails," are explicitly listed among the eligible activities under this category of funding. The Michigan Department of Transportation is responsible for administering the funds.

Anyone can sponsor a project, but they must apply through an eligible applicant. Eligible applicants include all governmental entities that receive fuel tax revenues. These include city and village road agencies, all county road commissions, public transit agencies, the Michigan Department of Transportation, and the Michigan Department of Natural Resources for qualifying rail/trail projects. Applications are accepted year-round and the projects require a 20% match. The average match in Michigan has been more than 30%.

SAFETEA-LU

The federal Safe Routes to School program was created by Section 1404 of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU), which was signed into public law (P.L. 109-59) on August 10, 2005.

A total of \$612 million was allocated to the states to be used from the year 2005 to 2009. Michigan will receive \$19.26 million to be allocated to the state as follows:

Year	Allocation
2005	\$1.0 million
2006	\$3.0 million
2007	\$4.0 million
2008	\$5.0 million
2009	\$6.26 million

Conservatively, it is estimated that after congressional and federal administration reductions, Michigan will have \$16 million for Safe Routes to School statewide. SR2S funding is 100 percent federal; no match is required.

Seventy percent (70%) of this funding must be used for infrastructure projects, 10% of this funding must be used for non-infrastructure projects and the remaining 20% can be used for either infrastructure or non-infrastructure. The funds allocated to the states will remain available until expended. Safe Routes to school is a 100% federally funded reimbursement program that does not require a local match.

Scenic Byways Program

Grant money can be used for the construction along (scenic) highways of facilities for the use of pedestrians and bicyclists. SAFETEA-LU authorizes the use of federal funds to identify and designate federal, state, and local scenic byways. These byways, typically back roads, are intended to showcase areas of great beauty and rich history. The City of Houghton is the starting point of the US41 Copper Country Trail National Byway.

Recreational Trails Program

The Recreational Trails Program is administered by the Michigan Department of Natural Resources and funds are used to renovate or develop recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Local units of government-sponsored projects can be considered for funding if they contribute to DNR program goals and they are located on DNR land. Applications must be developed as a joint application with a DNR division/bureau..

Section 10k of Michigan Public Act 51 of 1951

As amended, Michigan's transportation law (MCLA 247.660k) reserves 1% of state transportation funds for non-motorized transportation. However, any improvement in a road, street, or highway, which facilitates non-motorized transportation by the paving of unpaved road surfaces and shoulders, widening of lanes, or any other appropriate measure is considered a qualified non-motorized facility for the purposes of this section.

Michigan Natural Resource Trust Fund

The objective of the Trust Fund is to provide grants to local units of government and to the state for acquisition and development of lands and facilities for outdoor recreation or the protection of Michigan's significant natural resources. Applications are evaluated on established criteria such as resource protection, water access, and community recreation. At least a 25% match on either acquisition or development projects is required from local applicants. Recommendations are made by the Michigan Natural Resources Trust Fund Board (members are appointed by the Governor) to the State Legislature for final approval.

Recreation Improvement Fund

The Recreational Improvement Fund is administered by the Michigan Department of Natural Resources, and funds are used to renovate or develop recreational trails and trail-

related facilities for both non-motorized and motorized recreational trail uses. Local units of government-sponsored projects can be considered for funding if they contribute to DNR program goals and they are located on DNR land. Applications must be developed as a joint application with a DNR division/bureau.

Transportation Improvements Program (TIP) and Capital Improvements Program (CIP)

Non-motorized improvements, especially those located within road rights-of-ways, are most likely to be funded as incidental parts of larger transportation projects, and thus should qualify for the same transportation funds as the rest of the roadway construction or improvement project.

Parks and Recreation Budgets

Trailway funding can come from the budgets of willing agencies, which may include local and county parks and recreation departments, or the Michigan DNR Parks and Recreation Division.

Downtown Development Authorities

Downtown Development Authorities are formed to promote and fund investment in downtown areas. Districts are defined that qualify for TIF (Tax Increment Financing) and other special funding formulas.

Local businesses both benefit from and contribute to these authorities. The public infrastructure improvements that are part of downtown revitalization often include pedestrian facilities and amenities. Bicycle facilities, including bicycle parking and bikeway implementation could also be accomplished within these infrastructure improvements.

Millages, Bonds and Assessments

Local, county, or state millages and bond issues may be passed by voters or governing bodies. A number of Michigan communities have millages for park operations, maintenance, development, and land acquisition. This can be one of the most effective approaches for funding a greenway or local trailway system initiative.

American Greenways Dupont Awards Program

Administered by the Conservation Fund, in partnership with Dupont, and the National Geographic Society, this program provides grants of \$500 to \$2,500 to local greenways projects. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, hosting conferences, developing brochures, producing interpretive displays and audio-visual material, incorporating land trusts and building trails. Grants cannot be used for academic research, general institutional support, lobbying or political activities. The submission period for grant applications is September 1 to December 31. www.conservationfund.org

DALMAC Fund

Established in 1975 to promote bicycling in Michigan, the DALMAC Fund is administered by the Tri-County Bicycle Association and supported by proceeds from the DALMAC (Dick Allen Lansing to Mackinaw) bicycle tour. The Fund has supported safety and education programs, bicycle trail development, statewide bicycle organizations and route mapping projects. Applications must be submitted between January 1 and April 1. www.biketcba.org

Bikes Belong Grants Program

Connecting communities, one bike project at a time. The Bikes Belong Grants Program strives to put more people on bicycles more often by funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths, lanes, and routes, as well as bike parks, mountain bike trails, BMX facilities, and large-scale bicycle advocacy initiatives. www.bikesbelong.org

Land Trusts

National, state, regional, county, and local private land trusts (or conservancies) can purchase land for resale to public agencies, buy options to protect land temporarily, receive land donations, put together land deals, and provide technical assistance. As private entities, land trusts can often act more quickly than public agencies.

Businesses

Local businesses are frequent partners in the promotion of non-motorized transportation and trail projects. Public-spirited companies provide meeting rooms, provide small grants, donate copying or printing services on company equipment, or free or reduced-fee use of the company's special services. Local firms also sometimes promote bicycling and walking to work by hosting seminars and providing bicycle parking and other incentives.

"Friends" Groups and Other Organizations

The long-term success of many trail projects and non-motorized initiatives has been due to "friends" groups and advocacy organizations that follow a project through from inception to implementation. Friends groups can also provide a number of services including, physical labor as through "Adopt-a-Trail" maintenance or construction activities, fundraising, user education, promotion, and surveillance of the facility. Civic groups and school groups can play an important role in supports of non-motorized projects through advocacy, promotion, and hosting events. Local organizations often best understand local needs.

Community and Other Foundations

Private foundations are non-governmental, nonprofit organizations managed by trustees and directors, and established to maintain or aid charitable, educational, religious, or other activities serving the public good, primarily by making grants to other nonprofit organizations. The overwhelming majority of foundation grants are awarded to nonprofit organizations that qualify for "public charity" status under Section 501(c)(3) of the Internal Revenue Code.