

City of Quincy, Massachusetts Bicycle Parking Plan

*Department of Planning and Community
Development*

In collaboration with the

Department of Public Works

Mayor Thomas P. Koch

Acknowledgements

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INTRODOCUTION

WHY IS BICYCLING GOOD FOR US?

While automobiles continue to remain the dominant mode of transportation, it is critical that we do not ignore the accommodation of alternative modes of transportation in Quincy. With the recent soar in energy costs and the recognition of the importance reducing CO₂ emissions, bicycling offers great promise for our City as a means to improve public health, reduce air pollution, and aid the local and regional economy. Bicycling can help to enhance the vitality, livability, and sustainability of our City.

Public Health Benefits

Physical activity tends to wane with our dependency on the automobile. This problem is exacerbated when our personal free time is eroded by hour spend stuck in vehicular congestion—Boston-area driver experiences an average of 25 hours of traffic congestion in 2003.¹ According to the Center for Disease Control², 54% of Massachusetts residents were either overweight or obese in 2004. Public Health experts all agree that incorporating bicycling into one's daily activities is good both the body—reducing the risks of heart disease—and the mind—reducing the amount stress.

Air Quality Benefits

As stated previously, over half of all automobile trips in the greater Boston area are less than five milers in length. When an

automobile is started cold, these short trips have a disproportionate effect on air quality. Poor air quality is a major public health concern, as it contributes to or exacerbates asthma, emphysema, lung, and heart disease. Trips less than five-miles can be accomplished by bicycle in 30 minutes. Depending on traffic and the availability of parking, bicycling may take less time than driving to the desired location.

Economic Benefits

Increased bicycle activity can provide significant economic benefits for Quincy's business and historic districts. Bicycling can be a generator of economic activity through bicycle tourism; two-wheeled tourists are a largely untapped market for visitors to our City's many historic and cultural treasures.

Also, there are also several benefits to employers whose employees cycle to work. People that cycle to work regularly are more productive and take less time off for sickness. When they don't have to fight traffic jams, cyclists arrive at work less frustrated and the morning exercise makes them more alert. With less staff driving cars to work, fewer parking spaces are required. Finally, organizations and businesses that encourage bicycling are perceived as environmentally aware and concerned employers.

BICYCLE TRAVEL IN QUINCY?

Quincy offers great potential for every-day bicycle travel. With our population density, traditional neighborhoods, downtown business district, extensive network of conservation roads, parkways, and public transportation routes, it should be possible for residents to travel without driving to

¹ 2005 Urban Mobility Report, Texas Transportation Institute

² Center for Disease Control Behavioral Risk Factor Surveillance System

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every destination. According to the Metropolitan Area Planning Council's (MAPC) 2007 Regional Bicycle plan, bicycling is a sensible mode of transportation in our region because:

- 64% of our trips, by any mode of transportation, are under five miles—an easy distance by bicycle;³
- 68% of us live within two miles of a transit station, to make connection for longer journeys (especially in Quincy where we have four rapid transit stations);⁴ and
- 31% of us live within one mile of a shared-use path.⁵

Our City has long recognized this potential, yet bicycling remains a marginal mode of transportation within Quincy and throughout the Boston region. Perhaps this is the case due to the lack of bicycle parking. Regional surveys conducted in 2005 by the Metropolitan Planning Organization indicate that one of the barriers to bicycle travel is the lack of secure, safe parking accommodations.

STUDY FRAMEWORK AND METHODS

The purpose of this study is to:

- raise awareness of the benefits of bicycling in Quincy;
- raise awareness of the current lack of acceptable bicycle parking accommodations;
- recommend locations for the provision of bicycle racks around Quincy; and

³Data from 2001 National Household Transportation Survey for Boston-Worcester-Lawrence Consolidated Metropolitan Statistical Area.

⁴ MAPC calculation based on the 2000 Census

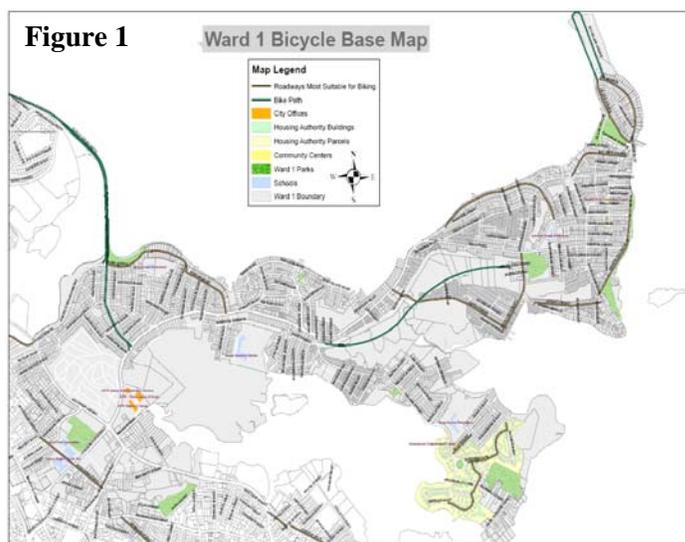
⁵ ibid

- explain how the City can acquire bicycle racks through the Boston region MPO/MAPC Bike Parking Program.

The crux of this study will focus on bicycling parking issues in Quincy. In April 2008, the Quincy Department of Planning and Community Development began the process of conducting a complete inventory of bicycle parking at libraries, City offices, community centers, Park and Recreation facilities, and the Housing Authority facility.

GIS Mapping

Staff mapped each of Quincy's six using ArcGIS software to help identify potential public locations. All six of the ward maps are located in Appendix 1. Figure 1 Below is an example of one of the base maps that was created.



Bicycle Rack Database

After the completion of the base maps, staff created a Microsoft Access database containing information on all locations to be studied for bicycle rack needs. Appendix 2 contains all of specification sheets for each location that was inventoried for this study.

EXISTING CONDITIONS

IS THERE ANY BICYCLE PARKING?

During March and April 2008, staff conducted a thorough inventory of parks, community centers, libraries and city offices. This inventory entailed taking pictures of each site, which yielded useful information about existing bicycle accommodations throughout the City. Staff observed that there are relatively few bike racks in the City, and those that are present at public locations are:

- Old, rusted, or otherwise damaged;
- Improperly placed in locations that are inconvenient or prone to theft; and/or
- Of an outmoded or insecure design.

Staff generally observed that the City of Quincy is lacking in acceptable parking for bicyclists. More importantly, however, staff noted that the Quincy Center District, our community centers and libraries, and our parks, playgrounds, and schools are particularly lacking appropriate bicycle accommodations.

Types of Racks in Use

The most prevalent type of bicycle rack in Quincy is the old “dish rack” design, as seen in Figure 2.

This style of rack is designed such that the bike’s front wheel is chained to the rack. Since most modern bikes have quick-release wheels, this is not a secure rack. Cyclists often end up mounting the bike on the rack

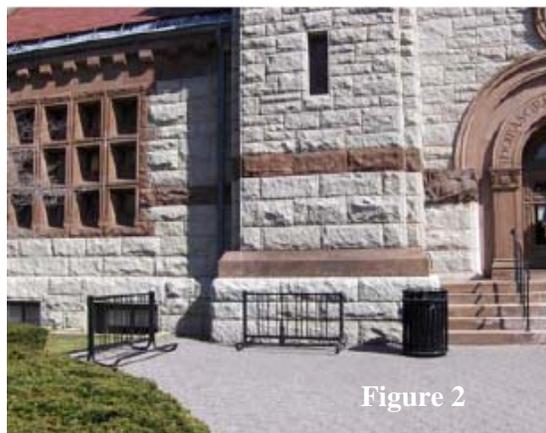


Figure 2

Improvised Bicycle Parking

Because of the lack of parking opportunities, staff noticed a prevalence of bicycles chained to signposts, lampposts, and fences. Cyclists often have to resort to utilizing these items to secure their bikes for lack of a better alternative. As a result, in Quincy Center the Police Department has



Figure 3

erected a sign to prohibit individuals from chaining the bicycles to the fence surrounding City Hall and the Quincy Center MBTA

station.

Quincy Center District

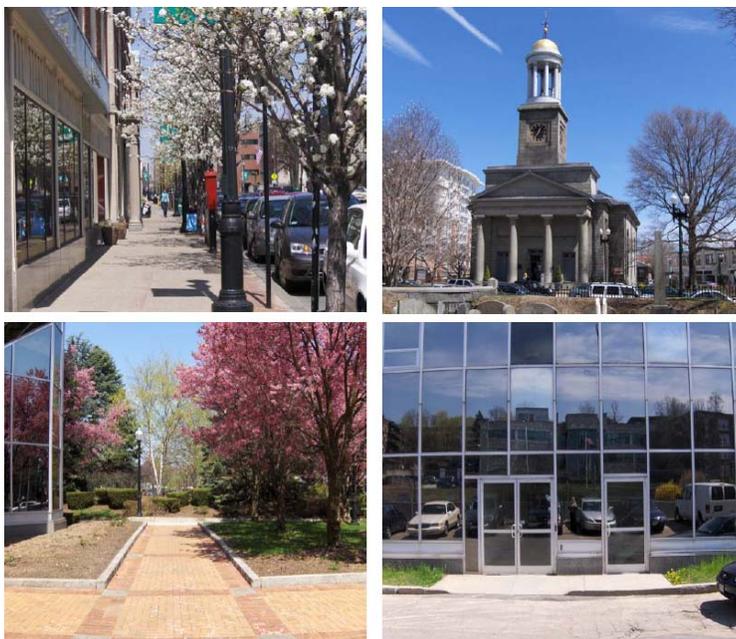
With the exception of the Quincy Center T station and the Thomas Crane Public Library, staff observed that bicycle parking within the Quincy Center District is lacking. Quincy Center boasts a unique mixture of land-uses—from coffee shops and restaurants to national historic treasures—all within walking distance from the MBTA station. Also, Quincy Center serves as the hub of civic activities for City with Old and New Quincy City Hall.

Despite the abundance of mixed-use activities concentrated in this area, there are little options for people choosing to bicycle in and around Quincy Center. Quincy Center is certainly in need of the installation of more bicycle racks. Furthermore, the installation of bicycle racks will compliment the City's revitalization efforts in Quincy Center.

Community Centers and Libraries

Quincy has several community center facilities and three library branches, many of which are lacking appropriate bicycle parking. Many of these facilities, especially the community centers, are located adjacent to densely populated neighborhoods. Staff witnessed the neighborhood children riding their bicycles to attend the various youth programs at the community centers and the libraries.

All three library branches have bicycle parking facilities, albeit the North Quincy Library and the Adams Shore branches have old, rusted, and outdated bicycle racks. The four most utilized community centers—Ward 2, Germantown, and Houghs Neck—all lack appropriate bicycle parking.



Germantown Neighborhood Center

Germantown Neighborhood Center (GNC) is located in the heart of the Germantown neighborhood across from the Snug Harbor Elementary School. This facility provides youth, family, and senior programming, and provides critical support services to families



frequent the GNC to take advantage of after school activities.

and individuals in need. Many youth who attend the Snug Harbor School

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During the site visit staff noticed an unsecured bicycle lying on the ground adjacent to the facility (see figure 7). Additionally, GNC staff expressed concerns that bicycles left unsecured outside the building are a theft risk—day and night.



Ward 2 Community Center/Fore River Clubhouse/BallField

This multi functional facility offers a variety of community programming for youths and seniors (see figure 8). Adjacent to this facility is a 7.2-acre park area comprised of two little league fields, a street hockey court,



a tennis court, a basketball court, and a football field. Both the ball field and the clubhouse are easily accessible by bicycle from the Quincy Point neighborhood, yet there are no bicycle racks at these two facilities

North Quincy Community Center

North Quincy Center, adjacent to the North Quincy Branch of the public library is the newest community facility. The center is now being utilized for a variety of community, family, and senior programs. In close proximity to the new community are

densely populated neighborhood, North Quincy High School, and Sacred Heart School.

During the site inventory, staff noticed neighborhood children riding their bikes to the library and the community center. The Community Center leader informed staff that the kids will just lay their bikes on the ground (See figure 9 above) because the existing bicycle are old, rusted, and non-functioning.



Houghs Neck Community Center

This community center, adjacent to the Manet Community Health Center, is located within the densely populated Houghs Neck neighborhood. The facility offers senior, youth, and family programs, and functions a food pantry.

Currently, this facility does not have any bicycle racks (see Figure 10).

During the site inventory, staff witnessed lots of neighborhood children riding their bikes to the center and then laying their bikes on the ground.



Thomas Crane Library-Adams Shore

The Adams Shore Branch is located right at the intersection of Sea Street and Palmer Street. This library serves both the Germantown and Houghs Neck neighborhood. During the



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inventory, staff noticed old, rusty bike racks in the rear of the building (see Figure 12). Not only were these racks in poor condition, their presence detracts from the unique architecture of the building.



Thomas Crane Library- Main Branch

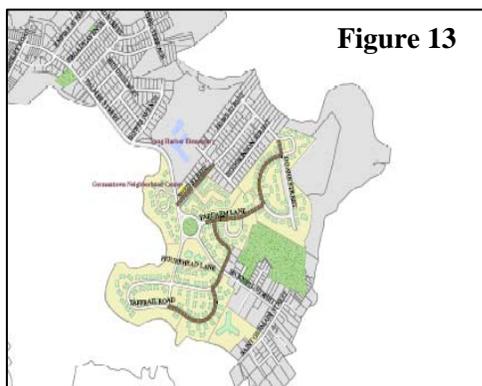
The Main Branch of the Thomas Crane Library is located in the heart of the Quincy Center District. Bicycle racks are located on in front of the side entrances, and they appeared to be in good condition.

Thomas Crane Library- North Quincy Branch

The North Quincy Branch of the library is adjacent to the North Quincy Community Center. As stated previously, new, functional bike racks are needed at this location.

Quincy Housing Authority

The Quincy Housing Authority has its main offices in the Germantown neighborhood, a cross from the Germantown Community Center. The vast majority of public



housing is concentrated within the Germantown neighborhood. Shaded yellow on the map is the entire area of the Housing Authority's complex. Staff noticed that most of the area, including the main offices lacks bicycle racks.

Park and Playground Facilities

Staff inventoried several park and playground facilities throughout the City. The facilities that were inventoried include: Lebreque Field, Brill Field, Fore River Field, the Merrymount Park complex, and Faxon Park.

All of these facilities are well utilized, especially the Merrymount Park complex and Faxon Park. Bicycle parking accommodations are not provided at any of these park/playground facilities. Facilities such as Lebreque Field, Fore River Field, and Brill Field are located within densely populated neighborhoods, conducive to bicycle travel.



Municipal Parking Facilities

Staff inventoried the City’s two municipal parking facilities—the Hancock Lot and the Ross Garage—to gauge the need for bicycle parking. Both lots are located within Quincy Center and are well utilized during the day and during the evening. These two lots have recently been targeted for redevelopment by the City as part of the downtown revitalization plan. A key component of this plan entails the disposition of both of these facilities to catalyze new, mixed-use development that is both viable and sustainable. It is anticipated that replacement-parking facilities will be incorporated into the redeveloped parcels; so thus, bicycle parking will continue to be necessary to serve the new uses.

Hancock Lot

The Hancock Lot (Figure 16) is located directly across the street from the Quincy District Courthouse. In addition to serving the Courthouse, this parking facility also serves the many retail uses that abut the parking lot. Currently, there are no accommodations for bike parking at this



Figure 16

facility.

Ross Garage

The Ross garage (Figure 17) is located in the heart of Quincy Center just before the Granite Street/Hancock Street intersection. Many employees of the Stop and Shop corporate headquarters have monthly passes to this garage, while patrons of the retail establishments utilize this garage for short term parking needs. Currently, there are no accommodations for bike parking at this garage.



Figure 17

RECOMMENDATIONS

SO, WHAT ARE THE NEXT STEPS?

It can be concluded from the existing conditions inventory that adequate, abundance bicycle parking is lacking in many of the City’s key public places. Many of the existing racks are very outdated and are in poor condition. To encourage bicycle travel to and from our civic spaces, there needs to be better, more accessible bicycle parking accommodations. If people have a safe and secure place to park their bicycle, they may be more apt to leave their cars behind.

Suggested Bicycle Rack Types

Post-and-ring Rack

Figure 18 below shows a “post-and-ring” rack. The post-and-ring rack is designed for narrow spaces such as sidewalks. It requires about as much space as a parking meter. The metal ring enables a bike to be chained securely, and provides two points of contact to the frame. This design is appropriate for business districts in Quincy. The post-and-ring rack is widely used in urban settings. The city of Toronto and the City of Cambridge have installed the post and ring design racks.



Inverted-U Rack

An “inverted-U” rack, also known as a hoop rack, is shown in Figure Y. There were no inverted-U racks located in Quincy. These

racks are firmly secured to the ground and allow two points of contact to the bike’s frame. They are space-efficient and not expensive. The inverted-U rack has become a de-facto standard design for parks and playgrounds.



Placement Guidelines and Standards

To maximize their utility, all the bicycle racks shall be installed in safe, accessible locations on the recommended sites. If a bicycle rack appears insecure, or is installed in an inappropriate location, cyclists will not utilize it.

When installing bicycle parking, it is important to consider the following:

- the location of the building entrance (s);
- the current and anticipated parking at the site; and
- the amount of time that bikes will be parked on the site.⁶

⁶ City of Cambridge, Massachusetts Bicycle Parking Guide

Safe Locations are:

- In well-lit spaces near pedestrian traffic that maximize visibility and minimize opportunities for vandalism.
- On a setback (if possible), far enough away from parking spaces or the street.
- Not obstructing nearby pedestrian traffic.

Accessible locations are:

- Between the road and/or path that cyclists use and the entrance of the building or space.
- Not on stairways or large curbs
- Close to the main entrance of the building and/or public space that the cyclists will be utilizing.
- Spacious enough to allow room for bikes of all shapes and sizes.

Bad bike parking installation

Figure 20 below⁷ shows a poorly installed bicycle rack. Notice that the inverted U racks is installed way too close to the security bollard.



⁷ Photo courtesy of the Association of Pedestrian and Bicycle Professionals

Good bike parking installation

Figure 21⁸ and Figure 22⁹ below are examples of good bike parking installation. Notice that the racks are properly spaced to maximize usage, and located close to the building they are intended to serve.



Suggested Bike Parking Locations in Quincy

All the public locations inventoried for this study would benefit tremendously from bicycle parking. Many of these spaces are located in densely populated neighborhoods and are heavily utilized. Appendix 3 outlines the list of locations and specifies the number of racks to be installed at each location. Note that this is not an exhaustive list of public locations; however, for the purpose of the inventory, staff narrowed

⁸ Photo courtesy of the Association of Pedestrian and Bicycle Professionals

⁹ Photo courtesy of the City of Cambridge, MA

down the list of public locations to those that are most utilized.

The MAPC Regional Bike Parking Program

The MAPC Regional Bike Parking Program presents a tremendous opportunity for Quincy to address the bike parking shortage at very little cost. MAPC, funded via the Boston MPO, administers a bicycle-parking program for its member communities. This program fully reimburses the City's investment in qualifying bicycle racks (See Appendix 4). The program imposes a ceiling on the amount that can be reimbursed to each community based on a formula determined by MAPC.

Participation in the program requires following these steps:

1. We submit a subscription form to MAPC. This is simply an agreement to conform to the procurement and reimbursement procedures established by MAPC for the program. An official must sign this with contractual authority for the City.
2. We finalize our determination of how many and what kind of bike racks we need, and identify a vendor from among the three who are participating. This presumes there is a consensus on the locations for rack deployments.
3. Before placing the order, we contact MAPC to verify that our order is fully qualified for reimbursement.
4. The purchase order is issued and sent to the vendor.
5. Upon receipt of the racks, the City of a private company installs them at the determined locations.
6. We file the proper paperwork with MAPC to receive reimbursement for the cost of the racks. This requires photographic evidence of installation.

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RECOMMENDED LOCATIONS

Location	Location Type	Address	Ward	Existing Racks	Condition	# of Racks	Type
Houghs Neck Community Center	Community Building	1193 Sea Street	1	no	n/a	2	Inverted U
Thomas Crane Library- Adams Shore	Public Library	519 Sea Street	1	yes	poor	3	Inverted U
Fore River Clubhouse/Field	Community Building/Park	14 Nevada Road	2	no	n/a	3	Inverted U
Faxon Park Playground	Park	Faxon Park Road	2	no	n/a	1	Inverted U
Quincy City Hall	City Offices	1305 Hancock Street	5	no	n/a	3	Inverted U
Thomas Crane Library- Main Branch	Public Library	40 Washington Street	5	yes	good	0	
Germantown Neighborhood Center	Community Building	353 Palmer Street	1	no	n/a	4	Inverted U
North Quincy Community Center	Community Building	381 Hancock Street	6	yes	poor	3	Inverted U
Housing Authority Complex	Public Housing Building	15 Bicknell Street	1	no	na	2	Inverted U
Lebreque Field	Park	Sea Street	1	no	n/a	1	Inverted U
Brill Field	Park	Houghs Neck	1	no	n/a	1	Inverted U
Merrymount Park Complex	Park	Merrymouth Parkway	5	no	n/a	4	Inverted U
Ross Garage	Public Parking Garage	Parkingway	5	no	n/a	4	Inverted U
Hancock Lot	Public Parking Lot	Dennis Ryan Way	5	no	n/a	3	Inverted U

Total = 34 Racks