DMMC In Depth
Bicycle Parking: Recommended facility types and site planning best practices

A DMMC In Depth *is a guide that informs mayors and managers about a priority issue in a summarized fashion. Like a DMMC White Paper, it is meant to help members better understand an issue, solve a problem, or make a decision.*

Communities in DuPage County are increasingly interested in expanding opportunities for nonmotorized modes of transportation, especially bicycling and walking. This is evidenced by the growing number of communities and their residents: seeking out and receiving *Bicycle Friendly Community* designations (e.g., City of Elmhurst, City of Naperville, Village of Schaumburg, City of Warrenville and Village of Winfield); adopting *Complete Streets* policies (e.g., Village of Lemont, Village of Lombard and Village of Bensenville); and developing and implementing active transportation plans (e.g., Village of Downers Grove, Village of Glen Ellyn [draft], Wayne Township and City of Wheaton).

An effective strategy for municipalities to both accommodate existing and encourage additional bicycling within their communities is to provide bicycle parking. Adequate bicycle parking provides a safe and convenient place for riders to park or store their bicycles along or at the end of trips. This article summarizes characteristics of bicycle facilities and best practices for siting them. The article also refers to specific grant opportunities communities can use to provide bicycle parking.

Selecting and siting bicycle parking facilities

There are three major categories of bicycle parking: racks, sheltered racks and lockers. The challenge for municipalities is choosing the proper locations, types, designs and quantities of facilities to accommodate both the short- and long-term parking needs of riders while minimizing costs.

Selecting locations for short- and long-term bicycle parking

Overall, public bicycle parking should be located in or near popular destinations such as commercial and downtown business districts, transit stops, parking garages, schools and areas with higher density residential and/or employment. *Short-term bicycle parking*—defined here as unsheltered, unenclosed bike racks with an intended parking duration of less than two hours—are designed for riders who prioritize convenience, proximity to destination as well as ease of use. Ideally, racks should be highly visible and no more than 50 feet from the entrance it serves.

Cities with considerable bicycle activity and limited sidewalk space can

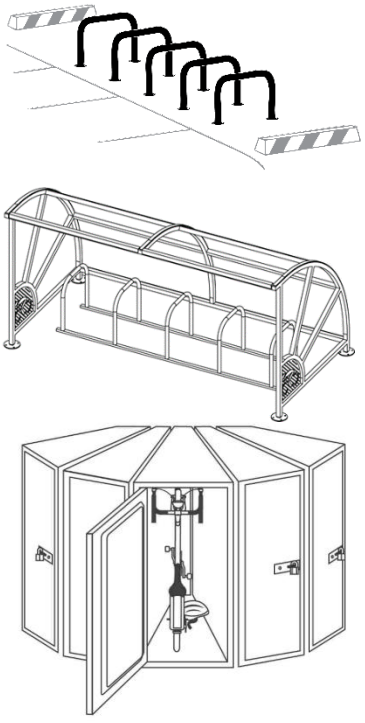

Figure 1. (top) corral of bicycle racks; (middle) sheltered bicycle rack; (bottom) bicycle storage locker. Sources: APBP, DMMC

place bike parking in on-street *bike corrals* located adjacent to the curb in spaces that may be unsuitable for or otherwise converted from automobile parking. Figure 1 (top) shows how a single converted auto parking space can fit ten bicycles; two bicycles per inverted U rack.

Long-term bicycle parking—sheltered racks and bicycle storage lockers—can provide additional security for employees, residents, public transit users and others who wish to leave their bicycles unmonitored for extended periods of time. Users of long-term parking are typically willing to sacrifice convenience and public visibility in exchange for increased security and weather protection. The security and safety of all bicycle parking can be improved by placing facilities in well-lit and well-traveled areas that do not compromise aesthetics and the mobility of others. When locating on public sidewalks, selection criteria should include minimum width of sidewalk, proximity to buildings, street furniture and vegetation.

Design and quantity of bicycle parking

Both short- and long-term parking can take a variety of forms, ranging from a single bicycle rack to a cluster of bike lockers at a transit center. Bicycle racks should be both U-lock compatible and allow for two points of contact with the bicycle. Recommended designs include the post and ring, inverted U and A-style racks (Figure 2 top), whereas the so-called toast, wave and comb style designs provide inferior protection from theft (Figure 2 bottom). Additional security features such as tamper-proof mounting and active surveillance can also reduce property loss.

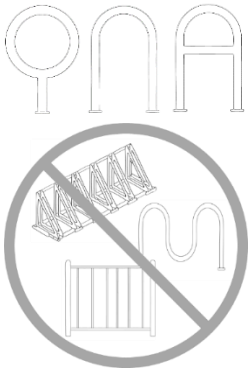

Figure 2. Recommended (top) and not recommended (bottom) bicycle rack designs. Source: DMMC

Determining the optimal number of bicycle parking spaces can pose a considerable challenge for communities. A good first step is to identify where bike parking is presently inadequate. When no bike racks are provided, people improvise and lock their bicycles to anything that seems secure such as fences and lampposts. Communities may also develop a bicycle parking ordinance that clearly indicates how many bicycle parking spaces are required, either as a function of the type of development or as a percentage of the required off-street auto parking. The Association of Pedestrian and Bicycle Professionals provides recommendations for bike parking requirements in various contexts. Lastly, because demand for bike parking is dynamic, communities can develop and maintain an online tool that residents can use to help identify where parking allocations should be changed over time.

Funding bicycle parking

The average cost for bicycle parking ranges considerably from $125 per rack to $1,500 per bicycle locker. The Surface Transportation Program (STP), Safe Routes to School and Illinois Transportation Enhancement Program are just a few of several grant opportunities that can be used to fund public bicycle parking. Further, communities may receive assistance from CMAP's Local Technical Assistance (LTA) program to develop a bicycle transportation plan.

Additional resources

- Active Transportation Alliance's planning and engineering staff can assist with bicycle planning
- Association of Pedestrian and Bicycle Professionals' (APBP) *Essentials of Bike Parking* (2015)

Founded in 1962, the DuPage Mayors and Managers Conference (DMMC) is a council of municipal governments representing over 1,000,000 people. A coalition of cities and villages, the Conference works to voice municipal concerns on local, regional, state, and national issues. It also serves its members and the region by fostering intergovernmental cooperation. The Conference is a not-for-profit organization supported by membership dues and grants.