2008 System-Wide Bicycle-Parking Inventory Report

Division of Capital & Strategic Planning

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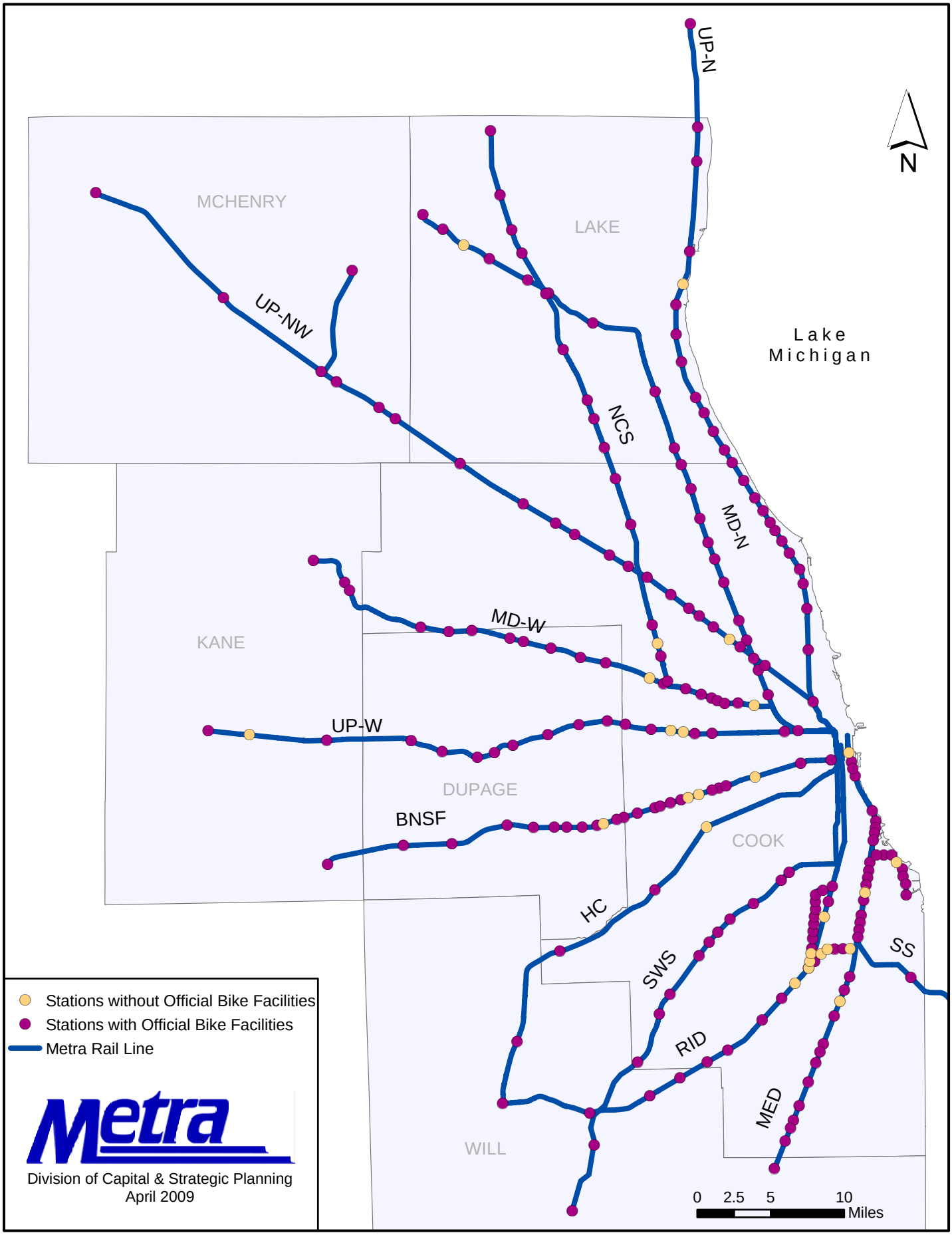
547 West Jackson Blvd., Chicago, IL 60661

Metra Stations with Official Bicycle-Parking Facilities



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FOREWORD

Many of the bicycle-parking facilities at Metra stations have been installed by local municipalities, who might make investments in bicycle parking either with or without Metra's assistance. Metra has been fully supportive of communities in this regard, and is always willing to cooperate with our host communities in providing commuter amenities. Metra's involvement with installing much of the bicycle parking that exists today primarily has been as part of the rehabilitation of older stations. Bicycle facilities are among a number of ancillary amenities that are commonly included in station projects (other elements are benches, windbreaks, vending machines, etc.). This approach will continue as older stations are renewed and new stations are added to our system.

This report presents results of a system-wide inventory of the existing supply and utilization of bicycle-parking facilities at Metra stations, and is presented as an update to the first comprehensive bicycle-parking inventory conducted in 2003. The information contained herein provides a thorough assessment of both the quality and quantity of what is available for bicycle users at Metra stations. The increasingly uncertain nature of consumer fuel prices underscores the importance and timeliness of this assessment. It is important, however, that the reader understand that the publication of this information should not be interpreted as the beginning of a new Metra program to substantially increase our investment in bicycle-parking facilities or aggressively seek state or federal funding for substantial bicycle-parking expansion. It is simply an inventory.

I. INTRODUCTION

In collaboration with the League of Illinois Bicyclists and the Active Transportation Alliance (formerly known as the Chicagoland Bicycle Federation) Metra conducted a comprehensive inventory of bicycle-parking facilities and bicycle utilization at all of its non-downtown stations[1] in September and October 2008. The 2008 inventory is an update to Metra's first comprehensive system-wide bicycle facility and use inventory conducted in September 2003. Metra conducted a less comprehensive bicycle-parking inventory in 1998 at all but 25 non-downtown stations.

Metra has a thorough understanding of automobile parking for access to its stations, conducting system-wide inventories on an annual basis and fostering intense cooperation with local communities. Both the 2003 bicycle-parking inventory and the 2008 follow-up inventory represent Metra's desire to extend its understanding of automobile parking access to bicycle parking access. Since 2003 Metra has opened a net total of nine new rail stations and inaugurated its Bikes on Trains program.

This report follows a similar structure to the 2003 inventory report with a few key changes: analysis of changes in bike-parking capacity and utilization over time is expanded; unless noted otherwise, all data from Hegewisch Station (South Shore Line) is presented separately from Metra data; and downtown Chicago Metra stations are no longer included.[2] After brief discussions of the **purpose** and **summary results** of the inventory, the remainder of this document contains the following sections:

- A Primer on Bicycle-Parking Facilities and Their Use
- Bicycle-Parking Inventory Results
- Summary of Findings and Recommendations

a. Purpose

There are four main research questions to this project:

1. Are there enough facilities –racks and lockers– and where are more needed to satisfy demand?
2. Are the existing facilities of adequate quality, and are some of the bicycle-parking racks used at Metra stations marginally placed, marginally designed, and/or not working properly?
3. How many stations without bike-parking facilities in 2003 have since had bike racks installed?
4. How have bicycle-parking capacity and utilization changed since 1998 and 2003?

After addressing the inventory results at the system-wide level, analyses later in the report will examine bike-parking capacity and bike utilization at the county level and the rail-line level. These analyses will also more closely examine *good* and *marginal* official bicycle parking, informal bicycle parking, the specific type of bicycle-parking facility, the use of bicycle lockers, the number of all bicycles and abandoned bicycles. Appendices A, B, and C provide a breakdown of the inventory results at the station level.

[1] The fall 2008 inventory excluded downtown stations (Millennium Station, Van Buren St. Station, La Salle Street Station, Union Station, and Ogilvie Transportation Center), non-revenue stations (67th St., 51st St. Yard , and Keeler), and Ravinia Park.

[2] An attempt was made in the 2003 inventory to differentiate bikes belonging to Metra riders parked at downtown Chicago stations from those belonging to non-riders. However, despite taking three observations within 24 hours at each downtown facility, the 2003 results were still inconclusive.

b. Summary Results

Table 1 shows the overall bike-parking capacity and utilization at all Metra Stations outside of downtown Chicago. Capacity and utilization at official parking spaces are broken down by quality, either *good* or *marginal*. Except for marginal official capacity, all categories depicted in Table 1 increased between 2003 and 2008.

Table 1
System-wide Summary of Bicycle Spaces and Utilization

	Number of Bicycle Spaces		Number of Bicycles Parked		Percent Utilization	
Facility Type	**2008**	**2003**	**2008**	**2003**	**2008**	**2003**
Official: Total Usable	5,340	3,956	2,754	1,845	52%	47%
Good	*4,186*	*2,546*	*2,018*	*1,212*	*48%*	*48%*
Marginal	*1,154*	*1,410*	*736*	*633*	*64%*	*45%*
Unofficial (Informal)	n/a	n/a	504	276	n/a	n/a
TOTAL	**5,340**	**3,956**	**3,258**	**2,121**	**61%**	**54%**
Official Unusable	331	167	n/a	n/a	n/a	n/a

Hegewisch Station (South Shore) not included.

Table 2 examines some basic characteristics of bicycle capacity and use at Metra stations in 2003 and 2008. Note both the increase in percentage of stations with official facilities (rack and/or lockers) and percentage of stations with abandoned bikes from 2003 to 2008.

Table 2
Features of Non-Downtown Chicago Stations

Feature	Number of Stations	Percent of Stations*	Percent of Stations, 2003**
Racks and/or Lockers	**206**	**89%**	**72%**
No official facilities	**26**	**11%**	**28%**
More bicycles than total usable spaces	31	13%	13%
Unofficially parked bicycles	89	38%	39%
Abandoned bicycles	67	29%	20%

**Percent of 232 stations outside of downtown Chicago counted in 2008.*
***Percent of 223 stations outside of downtown Chicago counted in 2003.*
Hegewisch Station (South Shore) not included.

Throughout this report, Hegewisch Station (South Shore Line) data are not included unless specified. The omission of Hegewisch data may result in slight differences between 2003 inventory results presented in this report and those published in the *2003 System-Wide Bicycle-Parking Inventory Report*. Except where indicated, 2003 inventory data calculations are based on a total of 223 non-Downtown Chicago stations and 2008 inventory data calculations are based on a total of 232 non-Downtown Chicago stations. This variation in station count is due to a net gain of nine new Metra stations between 2003 and 2008. Also, Metra typically counts Joliet and Clybourn as two stations each because both stations serve two lines on separate platforms (this would result in 234 non-Downtown stations or 239 total stations). A bicyclist would find this distinction irrelevant; thus, these stations were each counted only once for this inventory.

II. A PRIMER ON BICYCLE-PARKING FACILITIES AND THEIR USE

Some of the bicycle-parking facilities used at Metra stations (and elsewhere in North America) are marginally placed, marginally designed, and/or do not work properly. Often, this is because the people responsible for installing and maintaining racks and lockers do not understand how and why bicyclists use them.

The following are the main purposes of bicycle-parking facilities – racks and lockers:

Security:

- Prevent theft and vandalism of bicycles
- Protect bicycles from damage from other objects or weather

Efficiency:

- Prevent parked bicycles from obstructing pedestrian and vehicular traffic, etc.
- Confine large numbers of bicycles to a small space

Bicyclists do not use facilities that are too far from the platforms or that do not provide security. Bicycles get locked to all kinds of objects. Parking meters are favorites, because they are very difficult to cut or remove. Low-traffic locations provide thieves the opportunity to use their tools without interruption. If it is too hard to dislodge a whole bicycle, a thief may steal just the wheels, or other parts. Sometimes a thief will destroy a rack, or signpost, instead of the lock to get a bike quickly. (The technology war between better lock and rack designs, and more sophisticated destruction techniques, is never-ending.)

a. Racks

There are wide varieties of both good and marginal designs of racks. A few rack design types, such as Schoolyard, Continuous Curve, and increasingly, Inverted-U, are very popular at Metra stations. In the data collection phase of this inventory, the design (Type Code) of each parking facility was recorded. Subsequently, in the analysis phase, each design was classified as *good* or *marginal*. Examples of both *good* and *marginal* racks are shown in Figure 1, next page.

Use of almost all bicycle racks is designed to be free and first-come/first-served. As with automobile parking, the bicyclist is responsible for supplying the lock(s) to deter theft. Throughout the City of Chicago, there are examples of well-designed bicycle parking, installed by the Chicago Department of Transportation (CDOT). In recent years, CDOT has primarily switched to inverted "U" racks made of square tubing, which, unlike round tubing, cannot be defeated with a plumber's pipe cutter. Covered facilities can make use more pleasant in bad weather.

b. Lockers and BikeLids®

Many bicyclists prefer lockers for security against vandalism and theft of components. Many lockers are completely covered and opaque (i.e. no windows or holes), so neither thieves nor facility operators and enforcement staff can see what, if anything, is inside. Obviously, this is both an advantage and a disadvantage.

Many, but not all, bicycle lockers have built-in locks. Because built-in locks require advance arrangements regarding keys between the bicyclists and the operators, these lockers are generally leased on a long-term basis. At Metra stations, leased bicycle lockers are often under-utilized, for reasons similar to those causing under-use of permit automobile parking. Unfortunately, unlike automobile permit parking spaces or airline seats, locker leases cannot easily be "over-sold." Also, some older lockers have fallen into disrepair due to age or vandalism, and replacement parts may be difficult or costly

to obtain. Communities have also expressed concerns that lockers could pose a security threat by providing a hiding place for criminals or suspicious packages, or perhaps an unsafe shelter for homeless persons.

Some parking providers have come to prefer lockers that require the user to supply a lock, such as the BikeLid®, because they are not as prone to the under-utilization issues. However, a single bicyclist can still "hog" a lock-less locker, by always leaving her/his own lock on it, even when it is empty. A facility operator can, with some effort, deter this "hogging" behavior by cutting off the locks on all empty lockers. Figure 2 shows examples of BikeLids® and conventional bike lockers.

Figure 1: Examples of *Good* and *Marginal* Racks

Good Racks

Continuous-Curve Rack

Inverted-U Rack

Marginal Racks

Wheel Loop

Schoolyard Rack

Figure 2: BikeLids® and Conventional Bike Lockers

III. BICYCLE-PARKING INVENTORY RESULTS

This section presents capacity and use of bicycle-parking facilities by facility type, by Metra rail line, and by county. Interpretations and conclusions are drawn where appropriate. Appendices A and B array a summary of bicycle-parking inventory data by station and by line (supply and use of bicycle parking, respectively). Percent utilization rates of each facility, station, and line are also shown.

As revealed in Table 3, bicycle-parking facilities are a relatively common element at Metra's outlying stations. Eighty-nine percent of the 232 non-downtown stations inventoried have formal bicycle-parking facilities, an increase of 17% over 2003. In all, there was a net gain of 45 stations with official facilities between 2008 and 2003, including nine of the twelve new stations opened during that time (48 stations gained bike facilities and three stations lost facilities—see Appendices D-1 and D-2). All twelve stations with bicycle lockers also have racks. Thirteen percent of the stations were observed having more bicycles parked than usable parking spaces, about the same as in 2003. Approximately the same percentage of stations in both 2003 and 2008 had informally parked bikes, but the total number of informally parked bikes nearly doubled system-wide (see Table 1, page 2). Finally, abandoned bikes were observed at 29% of all stations, an increase of 9% in five years. Some changes in bicycle-parking features at Metra stations from 2003 to 2008 are attributable to station openings and consolidations: Since 2003 twelve new stations were opened and three existing stations were closed.[3]

Table 3
Features of Non-Downtown Chicago Stations

Feature	Number of Stations	Percent of Stations*	Percent of Stations, 2003**
Racks	206	89%	72%
Lockers	12	5%	6%
No official facilities	26	11%	28%
More bicycles than total usable spaces	31	13%	13%
Unofficially parked bicycles	89	38%	39%
Abandoned bicycles	67	29%	20%

**Percent of 232 stations outside of downtown Chicago counted in 2008.*
***Percent of 223 stations outside of downtown Chicago counted in 2003.*
Hegewisch Station (South Shore) not included.

a. Facility Supply – Capacity and Classification

Distribution of Total Official Usable Spaces at Stations: According to the fall 2008 inventory, there were a total of 5,340 official usable parking spaces, representing an increase of 1,384 spaces from 2003 (see Table 1, page 2). Table 4, next page, summarizes the distribution of stations by range of official usable spaces per station. When the range of bicycle-parking spaces per station is compared to the average weekday boardings per station,[4] it is clear that bicycle-parking capacity is correlated with ridership, which

[3] Stations opened since 2003 include: Palos Heights (SWS), Laraway Rd./New Lenox (SWS), Manhattan (SWS), La Fox (UP-W), Elburn (UP-W), Grand/Cicero (MD-W), Pingree Rd./Crystal Lake (UP-NW), Prairie Crossing/Libertyville (MD-N), Belmont Ave./Franklin Park (NCS), Schiller Park (NCS), Rosemont (NCS), and Washington St./Grayslake (NCS). Stations consolidated into new or adjacent stations since 2003 include: Clyde (BNSF), Hermosa (MD-W), and Cragin (MD-W).

[4] *Fall 2006 Commuter Rail System Station Boarding/Alighting Count*; data include South Shore boardings at stations shared with the Electric District, but not at Hegewisch Station.

is appropriate. Despite a system-wide net increase of nine stations, the total number of stations lacking official bike parking decreased from 62 to 26 between 2003 and 2008 (see Appendix D-1 Stations with New Bike-Parking Facilities Since 2003). Figure 3, page 8, shows the spatial distribution of official bicycle-parking spaces by number of bike spaces at each station.

Table 4
Distribution of Total Official Usable Spaces at Stations

Bike Spaces per Station	Number of Stations	Percent of Total Stations	Average Boardings per Station*	Percent of Stations, 2003**
0	26	11%	210	28%
1-10	78	34%	331	23%
11-25	59	25%	596	25%
26+	69	30%	1,289	25%
TOTAL	**232**	**100%**	**670**	**100%**

* Fall 2006 Commuter Rail System Station Boarding/Alighting Count*; data include South Shore boardings at stations shared with the Electric District, but not at Hegewisch Station.*

***Based on 223 non-downtown stations counted in 2003, Hegewisch Station (South Shore) excluded.*

Summary by Facility Type: As part of the analysis of the bicycle-parking inventory, it was important to classify each facility type by its quality and utility. The objective was to at least differentiate stations equipped with substandard facilities from stations with facilities judged as minimally acceptable. An experienced bicyclist may choose a secure "informal" parking facility over a *marginal* "official" facility.

There are 29 different types of official facilities that were observed during the inventory. Note that a few models having very similar characteristics were treated as one facility type. Appendices G-5 and H-1 include photos of known "official" facilities; Appendix C breaks down capacity by general facility type and station.

To classify the quality and utility of bicycle-parking facilities, the following factors were considered:

1. Does the design of vertical elements of a rack limit capacity?
2. Can the wheel of a bike be damaged by using the parking facility?
3. Does the facility allow a bike to be locked to its frame?
4. Does the facility allow bikes to be locked in a secure way?
5. Are elements of the facility prone to breakage?

These factors were used in judging facilities as *good* or *marginal*, results of which are presented in Appendices E-1 and E-2. Facilities are grouped into these two classifications, and ordered by the number of usable spaces. The following elements are included for each:

- photograph or illustration of the facility type
- number of total usable and broken/unusable spaces
- total number of facilities observed[5]
- number of stations that have this facility type
- examples of specific stations that have this facility
- explanation of why facilities were rated as *marginal*

[5] Multiple identical racks installed in the same location at a station are considered to be one facility.

Of the 29 facility types observed, twenty were considered *good* and nine were *marginal*. The most common facility was the Continuous Curve, or Wave Rack (Type Code "C"), which is considered a *good* bicycle-parking facility (2,765 spaces at 114 stations). The second most common is the Schoolyard Rack (Type Code "S"), which was judged *marginal* (923 spaces at 48 stations). From 2003 to 2008 the total number of *good* usable spaces increased by 1,640, while the total number of *marginal* usable spaces decreased by 256 for a net increase of 1,384 usable spaces.

Most of the racks that are classified as *marginal* in Appendix E-2, when used as originally designed, permit the securing of only one wheel, and not the frame of a bicycle. This leaves the rest of the bicycle vulnerable both to falling over and to theft of its frame and second wheel. Therefore, many a sophisticated cyclist will only use a Schoolyard ("S") or other marginal rack by locking the bicycle frame parallel to the rack, blocking the rack's wheel slots, or to the rack's end posts.

Table 5 summarizes the number of facilities and spaces by quality class. Over 78% of the usable spaces observed in 2008 were *good*, compared with just over 64% in 2003. Note that some *good* facilities have unusable spaces. This is due to damaged or poorly placed facilities.

Table 5
System Official Bicycle-Parking Capacity

Type of Facility	Facility Types	Facilities*	Usable Spaces	Unusable Spaces
Good	20	365	4,186	204
Marginal	9	101	1,154	127
TOTAL	**29**	**466**	**5,340**	**331**

Hegewisch Station (South Shore) not included.
**Multiple identical racks in the same location at a station are counted as one facility.*

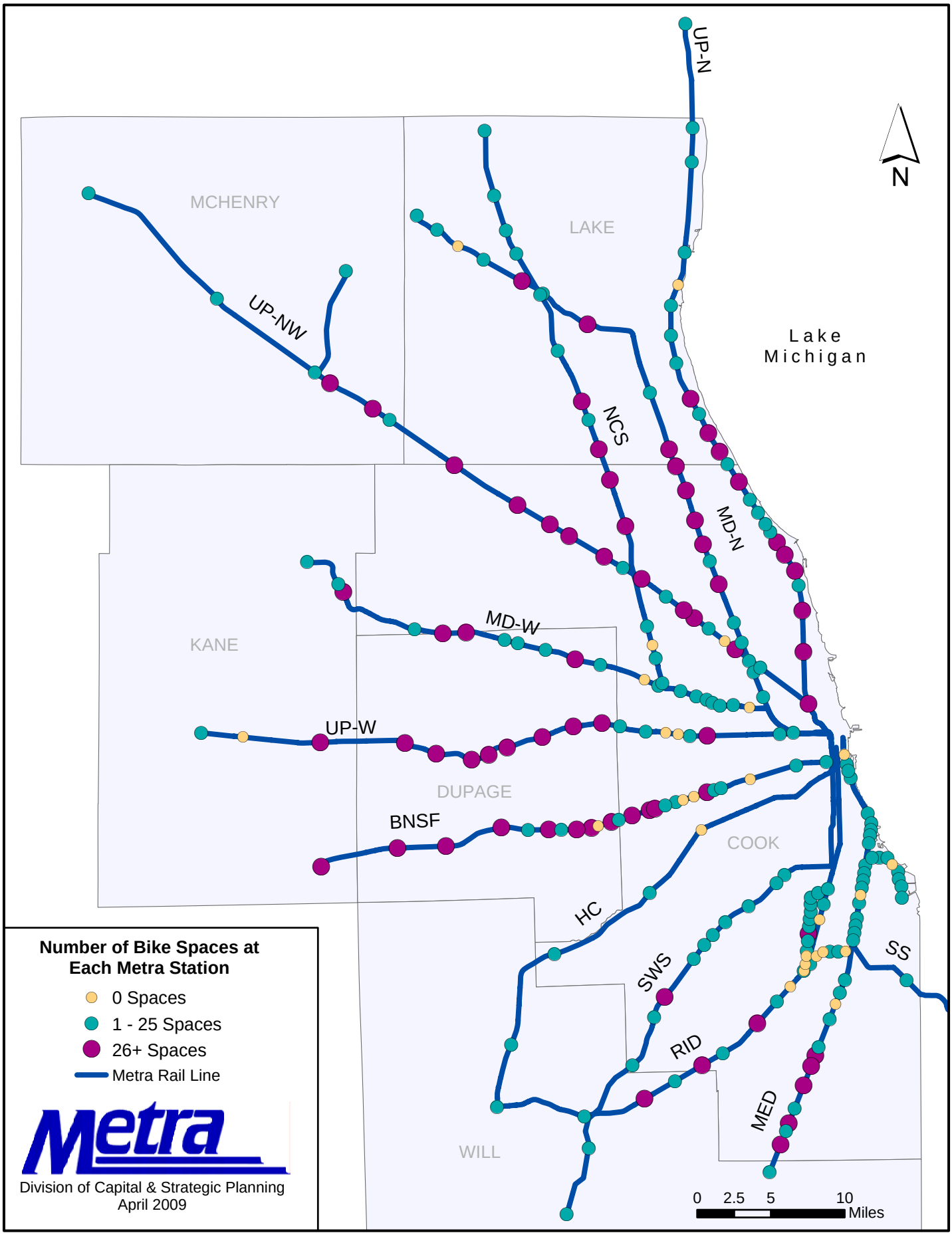
Distribution of Total *Good* Usable Spaces at Stations: Table 6 summarizes the distribution of stations by range of official *good* usable spaces per station. It is evident that the number of *good* bicycle-parking spaces is also correlated with ridership. As shown below, 54 stations had only *marginal* or no bicycle parking spaces available. Fifty-four stations had more than 25 *good* official usable spaces. Mirroring the results for all usable spaces shown in Table 5, above, Table 6 reveals that a lower percentage of stations lacked *good* official spaces in 2008 than in 2003.

Table 6
Distribution of Total *Good* Usable Spaces

Bike Spaces per Station	Number of Stations	Percent of Total Stations	Average Boardings per Station*	Percent of Stations, 2003**
0	54	23%	377	40%
1-10	75	32%	439	26%
11-25	49	21%	590	22%
26+	54	23%	1,357	12%
TOTAL	**232**	**100%**	**670**	**100%**

* Fall 2006 Commuter Rail System Station Boarding/Alighting Count*; data include South Shore boardings at stations shared with the Electric District, but not at Hegewisch Station.*
***Based on 223 non-downtown stations counted in 2003, Hegewisch Station (South Shore) excluded.*

Figure 3: Number of Official Bicycle-Parking Spaces



Additional Facility Characteristics: Table 7 shows a summary of additional official facility characteristics found at Metra's non-downtown stations. Thirty percent of the stations had covered facilities and 93% of the stations had facilities that were secured to the ground (racks bolted down or set in concrete). Almost all of the stations had facilities located on an improved surface (cement, asphalt, brick, etc.). Six percent of the stations had bicycle lockers, while 28% of the stations had at least one rack made of square tubing. The percentages of stations shown in Table 7 were calculated based on a total of 206 stations outside of downtown Chicago with official bike-parking facilities. Parking facility characteristics in 2003 were calculated based on a total of 163 non-downtown stations with official parking facilities.

Table 7
Additional Bicycle-Parking Facility Characteristics

Feature	Stations		Percent, 2003**
	Number	Percent*	
Covered	62	30%	37%
Secured to ground	192	93%	94%
On improved surface (cement, asphalt, brick)	202	98%	98%
On gravel surface	2	1%	7%
On dirt, mulch, or grass	13	6%	21%
Lockers	12	6%	8%
Racks made of square tubing	58	28%	20%

**Percent of the 206 stations outside of downtown Chicago with official bicycle-parking facilities in 2008.*
***Percent of the 163 stations outside of downtown Chicago with official bicycle-parking facilities in 2003. Hegewisch Station (South Shore) not included.*

Top Ten Stations without Bicycle-Parking Facilities (by Highest Ridership): There were 26 stations identified without official bicycle-parking facilities in 2008, down from 62 stations in 2003. Table 8, next page, shows the top ten stations by weekday rail passenger boardings that do not have official bicycle-parking facilities.[6] 147th St. is the only station on this list that also appeared on the same list in 2003. Kensington (115th St.), Harvey, Vermont St. (Blue Island), 91st St., Gresham, National St., Worth, and South Shore Stations have all had bicycle-parking facilities installed since 2003.[7] Including the 147th St. Station, seven of the top ten stations by weekday boardings without bicycle facilities in 2008 also did not have facilities in 2003. Of the other three stations in Table 8: Blue Island had previously been grouped with Vermont St./Blue Island, the racks counted in 2003 at Riverside were deemed to not be intended for Metra riders, and La Fox had not yet opened.

[6] *Fall 2006 Commuter Rail System Station Boarding/Alighting Count*; data include South Shore boardings at stations shared with the Electric District, but not at Hegewisch Station.
[7] University Park Station was incorrectly identified in 2003 as not having bike-parking facilities.

Table 8
Top Ten Stations without Bicycle-Parking Facilities (by Highest Ridership)

Station	Line	Weekday Boardings, 2006*	Bikes Parked at Unofficial Facilities
147th St.	Elec-ML	1,255	0
Museum Campus**	Elec-ML/So Shore	583	0
Riverside	BNSF	416	19
Blue Island	Elec-BI	324	2
West Hinsdale	BNSF	323	0
La Fox	UP-W	261	1
Cicero	BNSF	246	0
Washington Hts.	RI-Main	219	0
Windsor Park	Elec-SC	192	0
North Chicago	UP-N	191	0

* Fall 2006 Commuter Rail System Station Boarding/Alighting Count*; data include South Shore boardings at Museum Campus.*

***Station name was changed from Roosevelt Rd. in early 2009.*

Greatest Changes in Capacity by Station, 2003 to 2008: Total official usable bike-parking capacity increased by 1,384 spaces system-wide between 2003 and 2008. During this time span usable capacity increased at 147 stations, fell at 41 stations, and remained unchanged at 32 stations.[8] The top eleven stations by increase in usable capacity are shown in Table 9. These 11 stations account for 541 of the total new spaces system-wide, and represent 916 out of the system total of 5,340 official usable spaces counted in 2008. Capacity utilization at two of these stations, Ravenswood and Clybourn, was above 100%.

Table 9
Top Eleven Stations by Increase in Bicycle Parking Capacity, 2003 - 2008

Station	Line	Total Capacity, 2003	Total Capacity, 2008	Change in Capacity, 2003-2008	Bikes Parked, 2008
Ravenswood	UP-N	28	**97**	+69	**123**
Deerfield	Milw-N	38	105	+67	40
143rd St.	SWS	0	61	+61	7
Stone Ave.	BNSF	53	114	+61	57
Naperville	BNSF	111	161	+50	151
National St.	Milw-W	0	46	+46	6
Glen/N. Glenview	Milw-N	8	49	+41	14
Clybourn	UP-N/ UP-NW	16	**54**	+38	**74**
Homewood	Elec-ML	40	77	+37	27
Vernon Hills	NCS	18	54	+36	18
Wilmette	UP-N	63	99	+36	77

[8] Totals exclude the twelve stations opened and the three stations closed between 2003 and 2008.

Table 10 shows the top ten stations by decrease in total usable capacity between 2003 and 2008. Bike use at five of these stations, Crystal Lake, Riverside, Main St., Evanston, Kenilworth, and Matteson, was at or above capacity in 2008.[9]

Table 10
Top Ten Stations by Decrease in Bicycle Parking Capacity, 2003 - 2008

Station	Line	Total Capacity, 2003	Total Capacity, 2008	Change in Capacity, 2003-2008	Bikes Parked, 2008
Crystal Lake	UP-NW	71	**14**	-57	**38**
Riverside	BNSF	20	**0**	-20	**19**
Main St., Evanston	UP-N	26	**7**	-19	**15**
Kenilworth	UP-N	40	**21**	-19	**27**
Summit	Heritage	18	0	-18	0
Highwood	UP-N	28	10	-18	7
Arlington Hghts.	UP-NW	136	119	-17	102
Richton Park	Elec-ML	52	36	-16	7
Matteson	Elec-ML	19	**5**	-14	**5**
Fort Sheridan	UP-N	40	27	-13	5

b. Facility Utilization – Parked Bicycles

Distribution of Total Bicycles Parked at Stations: During the fall 2008 inventory, 3,258 parked bicycles were observed system-wide, representing an increase of 54% from the 2,121 bikes counted in 2003 (see Table 1, page 2). Overall bicycle-parking facility utilization in 2008 was 61%, up from 54% in 2003.[10] The summary on Table 11, next page, provides a distribution of stations by range of total bicycles parked per station. In addition to bicycles parked at official and informal facilities, the count also included operable motorcycles/scooters and abandoned bicycles that were using a bicycle-parking space. There were 70 stations where no bicycles whatsoever were parked. There were 41 stations with 26 or more bicycles parked in either official or informal facilities. Observed bicycle utilization at Metra stations appears to be correlated with total weekday rail ridership.

[9] Capacity at the Crystal Lake Station may have been affected by construction in the station vicinity as observed on November 20, 2008; two "inverted-U" racks near the Main St., Evanston Station counted in 2003 (total capacity: 12 spaces) were determined by Metra staff to "belong" exclusively to the nearby Main Station, CTA Purple Line, and were not counted in 2008; racks counted in 2003 at Riverside were deemed to not be intended for Metra riders.
[10] Utilization is the ratio of all bikes (all recently used and abandoned bikes at both official and informal spaces, leased lockers, and motorized vehicles at official facilities) to all official usable spaces.

Table 11
Distribution of Bicycles Parked Per Station

Bikes Parked per Station	Number of Stations	Percent of Total Stations	Average Boardings per Station*	Percent of Stations, 2003**
0	70	30%	262	30%
1-10	82	35%	485	44%
11-25	39	17%	892	15%
26+	41	18%	1,524	11%
TOTAL	**232**	**100%**	**670**	**100%**

Fall 2006 Commuter Rail System Station Boarding/Alighting Count; data include South Shore boardings at stations shared with the Electric District, but not at Hegewisch Station.*

***Based on 223 non-downtown stations counted in 2003, Hegewisch Station (South Shore) excluded.*

Summary of Top Ten Stations By Number of Bicycles: Table 12 provides a summary of the top ten stations by number of bicycles parked. These ten stations represent about 29% of the system's total number of bicycles parked. Six stations, Naperville, Arlington Hts., LaGrange Rd., Route 59, Oak Park, and Downers Grove, Main St., were among the top ten stations by bicycle utilization in both 2003 and 2008. Bike use at three of the stations listed in Table 12 was at or above capacity. In 2008, the largest number of bicycles, 151, was parked at the Naperville Station, representing an increase of roughly 45% since 2003. Interestingly, marginal usable spaces were found at only three of these stations.

Table 12
Top Ten Stations by Number of Bicycles Parked

Station	Line	Total Number of Bikes	Total Usable Spaces	% Use of Usable Spaces	Rank in 2003	Capacity by Quality (Spaces)		
						Good Usable	Marginal Usable	Broken/ Unusable
Naperville	BNSF	151	161	94%	1	150	11	10
Ravenswood	UP-N	123	97	127%	35	97	0	0
Arlington Hghts.	UP-NW	102	119	86%	3	119	0	0
Elmhurst	UP-W	99	100	99%	17	70	30	14
LaGrange Rd.	BNSF	88	88	100%	2	10	78	13
Route 59	BNSF	82	97	85%	6	97	0	18
Oak Park	UP-W	80	98	82%	5	98	0	3
Wilmette	UP-N	77	99	78%	16	99	0	0
Downers Grove, Main St.	BNSF	74	90	82%	4	90	0	0
Clybourn	UP-N/ UP-NW	74	54	137%	26	54	0	0

Table 13, next page, illustrates how capacity and utilization have changed in various ways from 2003 to 2008 at the top ten stations by number of bikes parked, as listed in Table 12. At six of the ten stations, Naperville, LaGrange Rd., Route 59, Oak Park, Wilmette, and Downers Grove, Main St., changes in total bikes parked from 2003 to 2008 were closely matched by changes in total usable spaces. At Ravenswood, Elmhurst, and Clybourn, increases in numbers of bikes parked from 2003 to 2008 exceeded corresponding increases in usable capacity. At Arlington Hts. Station an increase in bikes parked was met

by a *decrease* in parking capacity. Of the top ten stations, only LaGrange Rd. saw a decrease in bikes used between 2003 and 2008 and only Clybourn saw a decrease in capacity utilization. Decreases in both capacity and utilization at LaGrange Rd. may be attributable to corresponding increases in capacity (from 53 to 114 spaces) and utilization (from 48 to 57 bikes parked) at the adjacent Stone Ave. Station, less than one-half mile away. The decrease in percent of capacity utilization at Clybourn is attributable to the recent installation of many more racks

Table 13

Top Ten Stations by Number of Bicycles Parked, Change from 2003 to 2008

		Change from 2003 - 2008		
Station	**Line**	**Bikes**	**Spaces**	**% Use**
Naperville	BNSF	47	50	0%
Ravenswood	UP-N	104	69	59%
Arlington Hghts.	UP-NW	18	-17	24%
Elmhurst	UP-W	63	25	51%
LaGrange Rd.	BNSF	-6	-8	2%
Route 59	BNSF	30	32	5%
Oak Park	UP-W	21	23	3%
Wilmette	UP-N	40	36	19%
Downers Grove, Main St.	BNSF	2	0	2%
Clybourn	UP-N/ UP-NW	50	38	-13%

Summary of Stations with the Highest Percent Utilization of All Usable Spaces: Figure 4, page 15, provides the spatial distribution of the percent of bicycle-parking used at each station. Total bicycle utilization at 35 stations was at or above total usable capacity in 2008. Five additional stations had informally parked bikes and no official bike-parking facilities present, for a total of 40 stations with insufficient total bike-parking capacity. Although the number of stations with informally parked bikes and no official facilities decreased from 19 in 2003 to 5 in 2008, the number of stations with official facilities at or above capacity rose from 14 to 35. Forty-nine stations with official bike-parking facilities had no bikes parked in 2008.

Table 14, next page, highlights the top ten stations at which bike usage exceeds total usable capacity. Even though capacity was increased at Ravenswood, Clybourn, and Central St., Evanston, bike use increased even more. At Lake Forest, Crystal Lake, Riverside, Golf, Waukegan, Central St, Evanston, and Woodstock capacity fell from 2003 to 2008, even as usage increased. Both capacity and usage fell at Main St., Evanston.[9]

Stations with Informally Parked Bikes: Informally parked bikes were found at 89 stations, five of which had no official bike-parking facilities. At 31%, or 27, of these stations, there was insufficient capacity to hold all of the parked bicycles. At 9%, or 8, of these stations, total bike use was equal to total useful capacity. At the remaining 54 stations bicyclists may have been parking informally due to marginal-quality racks or other reasons such as location, visibility, proximity to station, etc. Total bike use at 49 of the 68 stations with both *good* facilities and informally parked bikes was at or above total *good* capacity.

At many stations, some cyclists choose to park informally even though there are still some *good* official facilities with available parking capacity. Of the 68 stations with both informally parked bikes and *good* official facilities available, only at six stations were all *good* facilities at or above capacity. This means

bikes were informally parked at 62 stations system-wide that still had *good* capacity available, underscoring the role that rack placement location plays in facility effectiveness.

Table 14
Top Ten Stations by Usage Exceeding Capacity in 2008

		Bikes Above/Below Total Capacity		Total Bikes Parked			Total Usable Spaces		
Station	**Line**	**2008**	**2003**	**2008**	**2003**	**Change**	**2008**	**2003**	**Change**
Ravenswood	UP-N	+26	-9	123	19	+104	97	28	+69
Lake Forest	UP-N	+25	-12	42	16	+26	17	28	-11
Crystal Lake	UP-NW	+24	-41	38	30	+8	14	71	-57
Clybourn	UP-NW	+20	+8	74	24	+50	54	16	+38
Riverside	BNSF	+19	-5	19	15	+4	0	20	-20
Golf	MD-N	+16	-13	25	7	+18	9	20	-11
Waukegan	UP-N	+10	-1	15	9	+6	5	10	-5
Central St., Evanston	UP-N	+10	-15	62	27	+35	52	42	+10
Woodstock	UP-NW	+8	+2	15	13	+2	7	11	-4
Main St., Evanston	UP-N	+8	+0	15	26	-11	7	26	-19

Greatest Changes in Utilization by Station, 2003 to 2008: System-wide, total bicycle utilization increased by 1,137 bikes from 2003 to 2008. Overall, bike utilization increased at 121 stations, fell at 37 stations, and remained unchanged at 62 stations.[11] Table 15 shows the top ten stations by increase in bike utilization from 2003 to 2008. Total bike utilization at these stations increased by 501 bikes between the two surveys. Six of these stations, Ravenswood, Elmhurst, Clybourn, Naperville, Wilmette, and Route 59, were also amongst the top ten stations by number of bikes parked (see Table 12, pg. 12).

Table 15
Top Ten Stations by Increase in Total Bicycle Utilization, 2003 - 2008

Station	**Line**	**Total Bikes Parked, 2003**	**Total Bikes Parked, 2008**	**Change in Use, 2003-2008**
Ravenswood	UP-N	19	123	104
Elmhurst	UP-W	36	99	63
Clybourn	UP-N/ UP-NW	24	74	50
Naperville	BNSF	104	151	47
Wilmette	UP-N	37	77	40
Central St., Evanston	UP-N	27	62	35
Deerfield	Milw-N	6	40	34
Route 59	BNSF	52	82	30
Flossmoor	Elec-ML	19	46	27
Lake Forest	UP-N	16	42	26

[11] Totals exclude the twelve stations opened and the three stations closed between 2003 and 2008.

Figure 4: Bicycle-Parking Usage Percentage

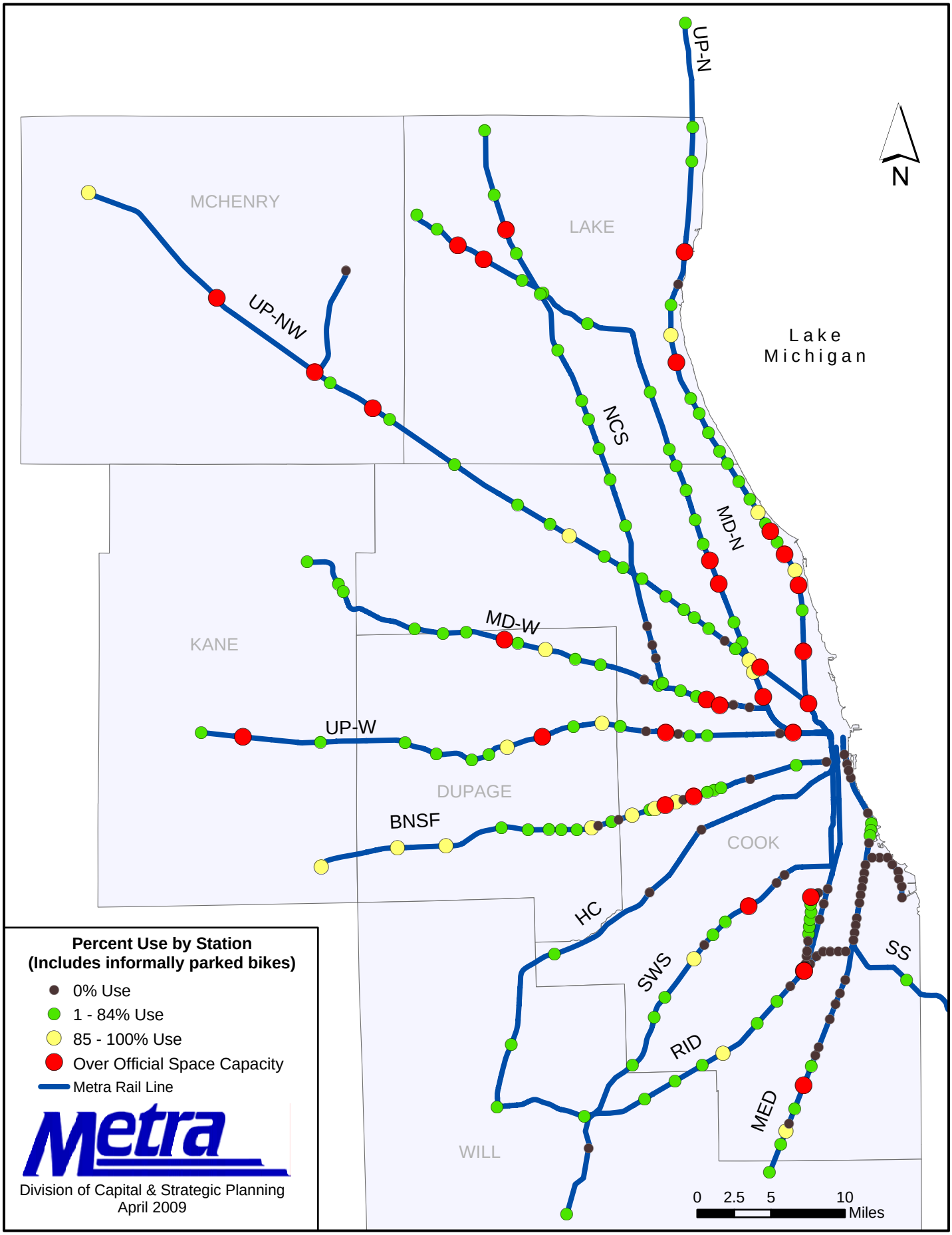


Table 16 outlines the top eleven stations with the greatest decrease in bike use between 2003 and 2008. Please note: racks at Jefferson Park were marked for removal when inventoried, possibly discouraging bike use. Of the 37 total stations with decreased bike utilization, 13 stations lost just one bike each.

Table 16
Top Eleven Stations by Decrease in Total Bicycle Utilization, 2003 - 2008

Station	Line	Total Bikes Parked, 2003	Total Bikes Parked, 2008	Change in Use, 2003-2008
Jefferson Park	UP-NW	38	21	-17
Main St., Evanston*	UP-N	26	15	-11
Bartlett	Milw-W	20	10	-10
Northbrook	Milw-N	47	37	-10
Matteson	Elec-ML	13	5	-8
Grayslake	Milw-N	21	13	-8
Bensenville	Milw-W	13	6	-7
Schaumburg	Milw-W	49	42	-7
59th St.	Elec-ML	7	1	-6
LaGrange Rd.	BNSF	94	88	-6
Hubbard Woods	UP-N	7	1	-6

**Two "inverted-U" racks near the Main St., Evanston Station counted in 2003 (total use: 10 bikes) were determined by Metra staff to exclusively serve the nearby Main St. Station, CTA Purple Line, and were not counted in 2008.*

Locker Use: Some riders who bike to a station prefer to use lockers, which offer improved protection from inclement weather, theft, and vandalism compared to conventional bike racks. Most lockers have built-in locks, so a key and locker usually are leased to a single person for an extended period. To manage demand for lockers and to cover some of the associated maintenance costs, "host" communities typically charge a key deposit and/or an annual fee. In all, twelve communities manage locker facilities at twelve Metra stations outside downtown Chicago. Three communities, Oak Park, Villa Park, and Park Forest (Matteson Station) currently maintain waiting lists for bicycle lockers.[12] Six communities post contact information on signs near lockers for interested bicyclists. Six communities provide locker information on their websites and three communities periodically include locker information in their newsletters. Conventional bicycle lockers have been used more often in the past; however; BikeLids® have recently become more popular for a few reasons that will be discussed later in this section.

Table 17, next page, provides a summary of conventional bicycle locker capacity, use, and rental terms. There are a total of 114 bicycle locker spaces system-wide, representing just over 2% of the 5,340 total official "usable" bicycle-parking spaces. Five of the lockers are rectangular and completely enclosed (shown as type "LR" in Appendices G-4 and G-5), all of which are at the Oak Park Station. The remaining 109 lockers are "recti-triangular" because they consist of two triangular lockers in a single rectangular box (shown as type "LZ" in Appendices G-4 and G-5). Eleven stations have these types of lockers. Since 2003, the four lockers at Bensenville Station have been removed, and have not been replaced by new racks. Fifteen lockers counted in 2003 are now unusable due to damage or disrepair at the Matteson (Park Forest), West Chicago, and Franklin Park Stations.

Determination of locker utilization in the field is hampered by the nature of the facilities. One cannot see into conventional lockers with opaque doors in order to count bikes inside. Also, seemingly empty lockers (observable if they have mesh doors or sides) may be spoken for by a lessee. Inventory personnel

[12] The lockers at Oak Park are available to Metra, Pace, and CTA customers.

did perform a "headcount" of the locker facilities, including an estimate of utilization wherever possible, but final utilization data, based on the number of lockers leased, were collected by calling the "host" communities which own and maintain the bicycle lockers. All leased lockers were considered to be in use, regardless of whether or not bicycles were present. The communities also provided details concerning lease terms and waiting lists.

Lockers at six of the twelve stations with bicycle lockers were 100% leased. The overall lease rate was 81%, or 92 of 114 total usable lockers. Locker utilization at the six remaining stations ranged from 0% at New Lenox to 91% at West Chicago. It is important to note that the "host" communities do not "overlease" bicycle lockers unlike the way many communities oversell automobile permit parking spaces. Although a bicycle locker on a particular day may not be occupied, one must assume that it is used since a leased locker is not available to anyone else.

The "host" communities all charge a one-time deposit for the lockers, ranging between $10 and $35. Almost all the deposits are returned upon return of the locker key. Four communities, Park Forest, Villa Park, River Grove, and Schaumburg, charge no additional fees. The eight other communities also charge an annual fee, varying between $10 and $75. Since 2003 Lombard, Franklin Park, Wood Dale, and Schaumburg have either increased fees or otherwise changed the pricing structure. Fees for lockers in all other communities have not changed.

Table 17
Locations of Conventional Bicycle Lockers

Station	Line	Type of Facility	Usable Spaces	Spaces Used (Leased)	% Rented or Used	Leasing Municipality*	Cost to Lease Locker	Number on Waiting List
Matteson	Elec-ML	LZ1	5	5	100%	Park Forest	$15 key deposit	4
New Lenox	RI-Main	LZ1	6	0	0%	New Lenox	$10 refundable deposit/ $25 annual fee	0
Route 59	BNSF	LZ1	8	8	100%	Aurora	$25/yr., $25 deposit	0
Route 59	BNSF	LZ1	10	10	100%	Naperville	$24/yr., $30 deposit	0
Aurora	BNSF	LZ1	8	8	100%	Aurora	$25/yr.; $25 deposit	0
Oak Park	UP-W	LR	5	5	100%	Oak Park	$75/yr./$25 refundable key deposit	3
Villa Park	UP-W	LZ1	6	6	100%	Villa Park	$25 refundable key deposit	0
Lombard	UP-W	LZ1	14	14	100%	Lombard	$35 refundable key deposit, $30/yr.	0
West Chicago	UP-W	LZ1	11	10	91%	West Chicago	$10 annual fee, $10 deposit	0
River Grove	Milw-W	LZ	6	3	50%	River Grove	$10 refundable key deposit	0
Franklin Park	Milw-W	LZ	5	1	20%	Franklin Park	$20 refundable key deposit, $60/yr.	0
Wood Dale	Milw-W	LZ	10	5	50%	Wood Dale	$10 non-refundable deposit/ $25 annual fee	0
Schaumburg	Milw-W	LZ	20	17	85%	Schaumburg	$25 refundable deposit	0
TOTAL			**114**	**92**	**81%**			**7**

**Municipalities were contacted in November and December 2008 and April 2009 for cost and leasing information.*

BikeLids®: Representatives from some communities expressed concerns about the potential security risks of unlocked bicycle lockers, particularly with people hiding inside or placing suspicious packages inside. Some communities also found difficulties with locker maintenance, especially with lock mechanisms. An alternative covered facility that has been placed at some Metra stations is called a BikeLid®, which is a dome, open at the bottom, that covers a bicycle like a rigid tent. It accommodates the cyclist's personal bicycle lock; and its use is usually free. Two bikes can fit inside each BikeLid®; however, the units can only be secured with a single lock and are thus each assigned a capacity of one for this survey.[13] Unfortunately, each BikeLid® occupies a 40" x 89" footprint; so installation of the units is not an option at some stations with limited space.

Table 18 provides a summary of BikeLid® use for the system. Since 2003, eight BikeLids® have been installed at Pingree Rd. and Vermont St., Blue Island and four were removed from Western Ave. (MD-W/MD-N/NCS). The Western Ave. BikeLids® have been replaced by nine inverted "U" racks (capacity: 18). A total of 22 BikeLids® were found at six stations system-wide, 15 of which, or 68% of the total, were in use by 16 bicyclists (one BikeLid® was "double-parked").

Table 18: BikeLid® Locations

Station	Line	Usable Spaces	Bikes Parked	% Use
Vermont St., Blue Island	RI-Main/Branch	2	3*	150%
95th St., Beverly Hills	RI-Branch	4	3	75%
111th St., Morgan Park	RI-Branch	4	2	50%
Big Timber Road	Milw-W	4	1	25%
Pingree Road	UP-NW	6	5	83%
Forest Glen	Milw-N	2	2	100%
TOTAL		**22**	**16**	**73%**

**Two bikes were observed sharing a single BikeLid® at Vermont St., Blue Island Station.*

Metra has installed signage along with the BikeLids®, providing the policies of use. These signs attempt to prevent abuse of the BikeLids® by warning users that their bikes may be removed if left overnight. An example of this signage is in Figure 5, below.

Figure 5: Metra BikeLid® Signage

[13] i.e., once each unit is occupied and locked by a single bicyclist it is no longer available for use by other bicyclists.

Abandoned Bicycles: Table 19 summarizes abandoned bicycles parked at Metra stations outside downtown Chicago. Based on the 2008 Bicycle-Parking Inventory, there were 175 abandoned bicycles parked at 67 stations, representing just over 5% of all bikes parked system-wide. Although the total number of abandoned bikes and stations with abandoned bikes increased from 2003 to 2008 (increases of 57 bikes and 22 stations, respectively), the proportion of abandoned bikes to all bikes parked decreased slightly. The largest number of abandoned bicycles was found at the LaGrange Rd. Station (13 bicycles). Twenty-three stations were found to have one abandoned bicycle each. There were no abandoned bikes found at 165 stations.

Abandoned bicycles are a problem. They not only waste bike-parking capacity, but they can also deter bicyclists from parking at the facilities – especially if parts of the bike have been vandalized or stolen. These bikes can generally be identified by their condition (missing parts, overly rusted, flat tires, old leaves under tires), but keeping in mind that some owners daily remove parts of a bike (e.g., seat) to prevent theft.

Table 19
Distribution of Abandoned Bicycles Parked

Abandoned Bikes Parked per Station	Number of Stations	Number of Abandoned Bikes	% of Total Stations	% of Total, 2003*
10-13	1	13	<1%	1%
7-9	1	7	<1%	1%
4-6	15	67	6%	2%
1-3	50	88	22%	16%
TOTAL	**67**	**175**	**29%**	**20%**

**Based on 223 non-downtown stations counted in 2003, Hegewisch Station (South Shore) excluded.*

c. Summary Results

According to the fall 2008 bicycle-parking inventory, there were a total of 5,340 usable official parking spaces at Metra's 232 non-downtown stations, with 4,186 spaces classified as *good*. Capacity utilization of all official usable bicycle-parking facilities was 61%. This certainly indicates that system-wide, bicycle-parking facilities are rather well utilized. The inventory found a total of 3,258 bicycles parked at Metra stations.[14] The 2008 bicycle-parking inventory is a follow-up of both the 1998 and the 2003 bicycle-parking inventories. Although the data gathering and analysis methodologies have been refined from survey to survey, resulting in potential inconsistencies, comparison of all three surveys provides insight into how bike-parking capacity and, especially, bike usage at Metra stations has grown between 1998 and 2008.

1998 Bicycle-Parking Inventory: A basic bicycle-parking inventory was conducted in August 1998, concurrent with the system-wide vehicular parking count at the 198 non-downtown stations with automobile parking.[14] Some stations on both Electric Branches and the Rock Island Main Line were inventoried in October 1997. For each station, the 1998 bicycle-parking inventory included the total numbers of parking spaces, bicycle lockers, bikes parked at racks, and bikes parked informally. There was no breakdown by facility quality or type, no assessment of abandoned bikes, no determination of unusable capacity, and no analysis of facility placement. In total, 1,025 bikes were found at 116 stations.

[14] Excludes Hegewisch Station (South Shore Line).

867 bikes were parked at 3,797 official spaces while the remaining 158 bikes were parked informally. Sixteen stations were either at or above official capacity or had informally parked bikes without official parking available. Overall capacity utilization in 1998 was 27%.

2003 Bicycle-Parking Inventory: The 2003 inventory was conducted in September 2003 at 223 non-downtown stations and at all five downtown stations.[14] The rigorous methodology developed for the 2003 inventory improved upon the 1998 inventory and was carried forward largely intact to the 2008 inventory, except for minor variations in capacity determination of certain types of racks and elimination of downtown stations from the inventory. The 2003 inventory found a total of 2,121 bikes parked at 157 of the 223 non-downtown stations. Of these bikes, 1,845 were parked at the 3,956 official spaces and 276 were parked at informal facilities. Including stations with informally parked bikes and no official capacity, bike use at 33 stations was at or above capacity in 2003. Overall system-wide capacity utilization of official bike-parking facilities at non-downtown stations was 54%, roughly double the capacity utilization reported in the 1998 inventory.

Capacity and Utilization Changes From 2003 to 2008: Both capacity and use of bicycle-parking facilities grew significantly between 2003 and 2008. Thirty-nine stations without official facilities in 2003 have since had bike racks installed. Additionally, nine of the twelve stations opened between 2003 and 2008 also have official facilities (see Appendix D-1). However, three stations with parking facilities in 2003, 91st St. (Elec), Summit (HC), and Riverside (BNSF), were found in 2008 to have no official parking capacity (see Appendix D-2).

220 stations are common to both the 2003 and 2008 bike-parking inventories. At these stations, total bike-parking capacity increased by 32%, total bike usage increased by 52%, and overall capacity utilization increased by 8%. Table 20 presents an analysis of these stations grouped by net change in capacity. The official capacity observed in the 2008 inventory at 159 of these stations is within ±10 spaces of that observed in 2003, with capacity utilization up 10% and total bike use up 37%. At the 14 stations that lost more than ten official spaces between 2003 and 2008, capacity utilization increased from 43% to 98%. At the 47 stations where total capacity increased more than ten spaces between 2003 and 2008, capacity utilization fell during the same period, but total bicycle use increased by 79%. Please note that some variance in bike-parking capacity between 2003 and 2008 inventory data at certain stations is due to refinement of the capacity determination process and not as a result of any physical changes.

Table 20
Comparison of Bicycles and Official Usable Spaces, 2003 vs. 2008*

	# of	2003			2008			% Change	
Change in Spaces	**Stations**	**Capacity**	**Use**	**% Use**	**Capacity**	**Use**	**% Use**	**Capacity**	**Use**
Increase in more than 10	47	1,248	827	66%	2,440	1,480	61%	96%	79%
Between -10 and +10	159	2,128	1,044	49%	2,438	1,429	59%	15%	37%
Decrease in more than 10	14	580	250	43%	326	319	98%	-44%	28%
TOTAL	**220**	**3,956**	**2,121**	**54%**	**5,204**	**3,228**	**62%**	**+32%**	**+52%**

**Based on 220 stations counted both in 2003 and 2008 (12 stations opened and 3 stations closed since 2003 not included above).*
As previously stated, 61%, or 3,258 bikes, of the 5,340 spaces were used in 2008.
Hegewisch Station (South Shore) not included.

Summary by Metra Rail Line: Although data was collected at the facility level, it is useful to review results at more aggregate levels. Table 21 compares the supply and use of bicycle parking by rail line between 2003 and 2008. As in the 2003 inventory, the BNSF Railway had the highest supply of usable bicycle parking of all the Metra lines in the 2008 inventory, followed by the Union Pacific Northwest Line. The Union Pacific North Line had the highest capacity utilization of the system in 2008; however, the BNSF exhibited the highest overall bicycle use. As was the case in 2003, there were fewer bicycles parked at Heritage Corridor stations than at any other line in 2008, but total bike use increased on every line, including the Heritage Corridor. Also, every line except the Heritage Corridor gained bike-parking capacity since 2003.

All but four lines, the Electric, the SouthWest Service, the Milwaukee District West, and the North Central Service, saw increases in capacity utilization from 2003 to 2008. Notably, capacity utilization at Union Pacific North Line stations nearly doubled.

Table 21
Comparison of Spaces and Utilization by Rail Line, 2003 vs. 2008

	2003			2008			
Line	**Usable Spaces**	**Bikes Parked**	**Percent Use**	**Usable Spaces**	**Bikes Parked**	**Percent Use**	**Weekday Boardings, 2006***
Electric District**	349	86	25%	495	109	22%	22,733
Rock Island District	198	64	32%	332	125	38%	18,463
SouthWest Service	45	13	29%	179	36	20%	4,484
Heritage Corridor	50	2	4%	37	4	11%	1,094
BNSF Railway	840	577	69%	1,010	777	77%	28,828
Union Pacific West	519	352	68%	672	512	76%	13,270
Milwaukee District West	238	153	64%	387	203	52%	12,829
Union Pacific Northwest	618	356	58%	733	489	67%	20,038
Milwaukee District North	349	187	54%	559	356	64%	14,046
North Central Service	137	52	38%	280	98	35%	3,006
Union Pacific North	613	279	46%	657	549	84%	16,645
Total w/o SS	**3,956**	**2,121**	**54%**	**5,340**	**3,258**	**61%**	**155,436**
Hegewisch (South Shore)	11	2	18%	9	4	44%	1,449
TOTAL	**3,967**	**2,123**	**54%**	**5,349**	**3,262**	**61%**	**156,885**

**Fall 2006 Commuter Rail System Station Boarding/Alighting Count*
***Electric District stations include South Shore boardings.*

Summary by County: Table 22, next page, compares the supply and use of bicycle parking by county between 2003 and 2008. The data are based on the location of bike parking facilities at each station.[15] Suburban Cook County had, by far, the most parking spaces of all the counties in the region, just as in 2003. McHenry is the only county that lost bike-parking capacity in between the two inventories. Bike-parking capacity observed in 2008 at the Cary and Crystal Lake Stations may have been temporarily

[15] Schaumburg and Hanover Park Stations are nominally in DuPage County, but some of the bike-parking facilities are located in Cook County; the summary by county has been adjusted accordingly.

reduced due to station rehabilitation projects. Also, the bike-parking capacity of some types of facilities, particularly Schoolyard and Continuous Curve types, may have been overestimated in the 2003 inventory. Outside of McHenry County, all other Illinois counties in the region gained significant capacity, while Kenosha, WI remained constant.

Without exception, all counties saw increased total bike use. As was the case in 2003, there were more total bikes parked in Suburban Cook County in 2008 than any other area. All counties, except for Kane and Will, saw increases in capacity utilization of usable facilities, despite increases in bike-parking capacity (increased capacity utilization in McHenry County is attributable to simultaneous increases in bike use and decreases in parking capacity). McHenry County led the region in capacity utilization at 89% of total usable capacity, followed by DuPage County at 77%. Kane County, which had the highest regional capacity utilization in 2003, fell to third place with 59%. Will County had the lowest capacity utilization in 2008, which dropped to 26% from 47% in 2003. The decrease in percent use in Will County is due to an increase in bike-parking capacity and not a decrease in bike use.

Table 22
Comparison of Spaces and Utilization by County, 2003 vs. 2008

	2003			2008			
County	**Usable Spaces**	**Bikes Parked**	**Percent Use**	**Usable Spaces**	**Bikes Parked**	**Percent Use**	**Weekday Boardings, 2006***
Chicago Cook**	381	156	41%	691	393	57%	25,872
Suburban Cook	1,854	1,005	54%	2,360	1,335	57%	65,958
DuPage	984	632	64%	1,219	937	77%	32,879
Kane	91	69	76%	187	110	59%	6,279
Lake	434	171	39%	603	332	55%	13,426
McHenry	139	60	43%	116	103	89%	4,192
Will	51	24	47%	141	37	26%	6,399
Kenosha, WI	22	4	18%	22	11	50%	431
Total w/o SS	**3,956**	**2,121**	**54%**	**5,340**	**3,258**	**61%**	**155,436**
Chicago Cook (Hegewisch)	11	2	18%	9	4	44%	1,449
TOTAL	**3,967**	**2,123**	**54%**	**5,349**	**3,262**	**61%**	**156,885**

**Fall 2006 Commuter Rail System Station Boarding/Alighting Count*

***Chicago Cook includes South Shore boardings at Electric District stations.*

IV. SUMMARY OF FINDINGS AND RECOMMENDATIONS

This report has attempted to answer the four main research questions to this project:

1. Are there enough facilities – racks and lockers, and where are more needed to satisfy demand?
2. Are the existing facilities of adequate quality, and are some of the bicycle-parking racks used at Metra stations marginally placed, marginally designed, and/or not working properly?
3. How many stations without bike-parking facilities in 2003 have since had bike racks installed?
4. How have bicycle-parking capacity and utilization changed over the last ten years?

The report examined capacity and use at the system-wide, rail line, and county levels. Basic Comparisons were made between the 1998, 2003, and 2008 inventories and in-depth comparisons of capacity and utilization were made between the 2003 and 2008 inventories. Analysis also closely examined *good* and *marginal* bicycle-parking facility types, informal bicycle parking, the use of bicycle lockers, and the numbers of all observed bicycles and abandoned bicycles. As before, each unique facility at every station was identified and catalogued. The inventory process also allowed Metra to work collaboratively with the League of Illinois Bicyclists (LIB) and the Active Transportation Alliance (ATA).

The following are a list of recommendations:

Installation and Funding

- As new facilities are installed, only *good* types should be used.
- Communities should be encouraged to continue active involvement in the provision of bicycle-parking facilities, while working closely with Metra to determine the best locations (i.e., attractive to bicyclists, yet do not inhibit station access). Metra plans to continue its approach of installing bicycle parking facilities as part of station rehabilitation projects. The resources provided through these and other means should particularly address:
    - Adding bicycle parking at stations where demand exceeds available capacity,
    - Adding bicycle parking at high ridership stations with no current facilities, and
    - Replacing *marginal* facilities.

Analysis

- As a next step, stations with the highest numbers of informal bicycle parkers, which also have official bicycle-parking facilities, should be further analyzed to assess the location and design of the formal facilities.
- Stations with highest utilization of bicycle-parking facilities should be studied to learn how bicycle use might be promoted and increased to similar levels at other stations.
- Poorly placed existing bike-parking facilities, such as those impeding the access of ADA riders, should be examined with the Metra Engineering Department.

Removal of Abandoned Bikes

- As indicated on Table 19, page 19, abandoned bicycles exist throughout the system. Local authorities should be encouraged to monitor bicycle-parking facilities to prevent abandoned bicycles from occupying facilities that could otherwise be used by active bicyclists.

Acknowledgements

Metra would like to thank staff and volunteers from the League of Illinois Bicyclists and the Active Transportation Alliance for their time, energy, and other resources used in collecting data for the Fall 2008 System-Wide Bicycle-Parking Inventory. Metra would also like to thank the communities in which we serve as well as our partner railroads for their cooperation with this effort.

2008 System-Wide Bicycle-Parking Inventory Report: Appendices

Division of Capital & Strategic Planning

August 2009

547 West Jackson Blvd., Chicago, IL 60661

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APPENDIX A: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Supply of Bicycle Parking by Station

			Facility Characteristics								Capacity			
Sta Code	Station	Line	Total Facilities	Official Facilites	Covered	Secured to Ground	Improved Surface	Gravel Surface	Un-improved Surface	Facilities with Square Tubing	Total Cap	Good Usable Cap	Marginal Usable Cap	Broken/ Unusable Cap
1091	Stony Island	Elec-SC	1	1	0	1	1	0	0	1	4	4	0	0
1097	Bryn Mawr	Elec-SC	3	3	0	3	3	0	0	2	11	4	7	0
1103	South Shore	Elec-SC	1	1	0	1	1	0	0	1	4	4	0	0
1109	Windsor Park	Elec-SC	0	0	0	0	0	0	0	0	0	0	0	0
1115	79th St.	Elec-SC	1	1	0	1	1	0	0	1	4	4	0	0
1120	83rd St.	Elec-SC	1	1	0	1	1	0	0	1	4	4	0	0
1125	87th St.	Elec-SC	1	1	0	1	1	0	0	1	2	2	0	0
1130	93rd St.	Elec-SC	2	2	0	2	2	0	0	2	6	6	0	0
	Total Elec-SC		**10**	**10**	**0**	**10**	**10**	**0**	**0**	**9**	**35**	**28**	**7**	**0**
4156	State Street	Elec-BI	0	0	0	0	0	0	0	0	0	0	0	0
4160	Stewart Ridge	Elec-BI	1	1	0	1	1	0	0	1	2	2	0	0
4167	West Pullman	Elec-BI	1	1	0	1	1	0	0	1	2	2	0	0
4170	Racine Ave.	Elec-BI	0	0	0	0	0	0	0	0	0	0	0	0
4179	Ashland Ave.	Elec-BI	0	0	0	0	0	0	0	0	0	0	0	0
4184	Burr Oak	Elec-BI	1	1	0	1	1	0	0	0	9	9	0	0
4189	Blue Island	Elec-BI	1	0	0	0	0	1	0	0	0	0	0	0
	Total Elec-BI		**4**	**3**	**0**	**3**	**3**	**1**	**0**	**2**	**13**	**13**	**0**	**0**
5014	Museum Campus*	Elec-ML/So Shore	0	0	0	0	0	0	0	0	0	0	0	0
5022	18th St.	Elec-ML	1	1	0	1	1	0	0	1	2	2	0	0
5027	McCormick Place	Elec-ML/So Shore	1	1	0	0	1	0	0	1	12	12	0	0
5032	27th St.	Elec-ML	1	1	0	1	1	0	0	1	4	4	0	0
5059	47th St.	Elec-ML	2	2	1	2	2	0	0	2	4	4	0	0
5065	53rd St.	Elec-ML	4	3	2	4	4	0	0	1	16	16	0	0
5070	56th St.	Elec-ML/So Shore	5	5	2	4	5	0	0	5	20	20	0	0
5074	59th St.	Elec-ML	2	2	2	2	2	0	0	0	12	12	0	0
5079	63rd St.	Elec-ML/So Shore	3	3	2	3	3	0	0	2	11	11	0	0
5093	75th St.	Elec-ML	1	1	0	1	1	0	0	1	4	4	0	0
5100	79th St.	Elec-ML	1	1	1	1	1	0	0	1	4	4	0	0
5104	83rd St.	Elec-ML	1	1	1	1	1	0	0	0	7	7	0	0
5109	87th St.	Elec-ML	1	1	0	1	1	0	0	1	4	4	0	0
5114	91st St.	Elec-ML	0	0	0	0	0	0	0	0	0	0	0	0
5120	95th St.	Elec-ML	1	1	1	1	1	0	0	1	4	4	0	0
5130	103rd St.	Elec-ML	2	2	1	2	2	0	0	2	4	4	0	0
5135	107th St.	Elec-ML	1	1	0	1	1	0	0	1	4	4	0	0
5140	111th St.	Elec-ML	1	1	1	1	1	0	0	1	4	4	0	0
5145	Kensington	Elec-ML/So Shore	1	1	1	1	1	0	0	1	4	4	0	0
5173	Riverdale	Elec-ML	1	1	1	1	1	0	0	0	7	7	0	0
5182	Ivanhoe	Elec-ML	2	2	0	2	2	0	0	0	21	21	0	0
5190	147th St.	Elec-ML	0	0	0	0	0	0	0	0	0	0	0	0
5200	Harvey	Elec-ML	1	1	0	1	1	0	0	0	9	9	0	0
5223	Hazel Crest	Elec-ML	1	1	0	1	1	0	0	0	8	8	0	0
5228	Calumet	Elec-ML	3	3	0	3	3	0	0	0	31	31	0	0
5235	Homewood	Elec-ML	4	4	0	3	3	0	0	0	77	65	12	0
5249	Flossmoor	Elec-ML	3	3	0	0	0	0	0	0	44	0	44	0
5266	Olympia Fields	Elec-ML	2	1	0	1	1	0	0	0	11	0	11	0
5276	211th St.	Elec-ML	2	2	2	2	2	0	0	0	56	56	0	0
5282	Matteson	Elec-ML	2	2	1	2	2	0	0	0	5	5	0	8
5293	Richton Park	Elec-ML	2	2	1	1	2	0	0	0	36	14	22	0
5315	University Park	Elec-ML	2	2	2	2	2	0	0	0	22	0	22	0
	Total Elec-ML		**54**	**52**	**22**	**46**	**49**	**0**	**0**	**22**	**447**	**336**	**111**	**8**
6098	Gresham	RI-Main	1	1	1	1	1	0	0	0	7	7	0	0
6109	Longwood	RI-Main	1	1	0	1	1	0	0	0	2	2	0	3
6120	Washington Hts.	RI-Main	0	0	0	0	0	0	0	0	0	0	0	0
6157	Vermont St.	RI-Main/RI-Branch	4	1	0	4	1	3	0	0	2	2	0	0
6172	Robbins	RI-Main	0	0	0	0	0	0	0	0	0	0	0	0
6184	Midlothian	RI-Main	1	1	0	1	1	0	0	0	24	24	0	15
6204	Oak Forest	RI-Main	1	1	0	1	1	0	0	0	31	0	31	0
6235	Tinley Park	RI-Main	3	2	0	3	3	0	0	1	24	0	24	12
6251	80th Ave.	RI-Main	3	3	0	3	3	0	0	0	48	18	30	0
6275	Hickory Creek	RI-Main	1	1	0	1	1	0	0	0	9	9	0	0
6296	Mokena	RI-Main	3	2	0	3	3	0	0	0	36	14	22	0
6340	New Lenox	RI-Main	3	2	0	3	2	0	0	0	18	6	12	0
6402	Joliet	RI-Main/ Heritage	2	2	0	1	1	0	0	0	18	9	9	0
	Total RI-Main		**23**	**17**	**1**	**22**	**18**	**3**	**0**	**1**	**219**	**91**	**128**	**30**

APPENDIX A: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Supply of Bicycle Parking by Station

			Facility Characteristics								Capacity			
Sta Code	Station	Line	Total Facilities	Official Facilites	Covered	Secured to Ground	Improved Surface	Gravel Surface	Un-improved Surface	Facilities with Square Tubing	Total Cap	Good Usable Cap	Marginal Usable Cap	Broken/ Unusable Cap
7106	Brainerd	RI-Branch	2	2	0	2	2	0	0	0	12	12	0	6
7113	91st St.	RI-Branch	2	1	1	2	2	0	0	1	6	6	0	0
7117	95th St.	RI-Branch	4	4	0	4	4	0	0	0	20	20	0	6
7123	99th St.	RI-Branch	5	3	0	5	5	0	0	1	21	21	0	0
7128	103rd St.	RI-Branch	2	2	0	2	2	0	0	1	9	9	0	0
7133	107th St.	RI-Branch	3	1	0	3	1	0	2	2	7	7	0	0
7138	111th St.	RI-Branch	4	4	0	4	4	0	0	0	30	30	0	0
7143	115th St.	RI-Branch	1	1	0	1	1	0	0	1	4	4	0	0
7148	119th St.	RI-Branch	1	1	0	1	1	0	0	1	4	4	0	0
7152	123rd St.	RI-Branch	0	0	0	0	0	0	0	0	0	0	0	0
7158	Prairie St.	RI-Branch	0	0	0	0	0	0	0	0	0	0	0	0
	Total RI-Branch		**24**	**19**	**1**	**24**	**22**	**0**	**2**	**7**	**113**	**113**	**0**	**12**
8112	Wrightwood	SWS	1	1	0	0	1	0	0	0	4	0	4	0
8126	Ashburn	SWS	1	1	0	1	1	0	0	0	15	15	0	0
8152	Oak Lawn	SWS	1	1	0	1	1	0	0	0	9	9	0	0
8168	Chicago Ridge	SWS	1	1	0	1	1	0	0	0	9	9	0	0
8182	Worth	SWS	2	1	0	1	2	0	0	0	5	0	5	1
8192	Palos Heights	SWS	1	1	0	1	1	0	0	0	14	14	0	0
8203	Palos Park	SWS	2	1	0	2	2	0	0	0	4	0	4	0
8236	143rd St.	SWS	4	4	0	4	4	0	0	1	61	61	0	0
8248	153rd St.	SWS	3	3	2	3	3	0	0	0	22	14	8	0
8289	179th St.	SWS	1	1	1	1	1	0	0	0	8	0	8	0
8358	Laraway Rd.	SWS	2	2	2	2	2	0	0	0	8	8	0	0
8408	Manhattan	SWS	1	1	0	1	1	0	0	0	20	0	20	2
	Total SWS		**20**	**18**	**5**	**18**	**20**	**0**	**0**	**1**	**179**	**130**	**49**	**3**
9119	Summit	Heritage	0	0	0	0	0	0	0	0	0	0	0	0
9175	Willow Springs	Heritage	1	1	0	1	1	0	0	0	20	20	0	0
9253	Lemont	Heritage	1	1	0	1	1	0	0	0	7	7	0	0
9329	Lockport	Heritage	2	1	1	2	2	0	0	1	10	10	0	0
6402	Joliet	RI-Main/ Heritage	***See Rock Island Data***											
	Total Heritage		**4**	**3**	**1**	**4**	**4**	**0**	**0**	**1**	**37**	**37**	**0**	**0**
10018	Halsted St.	BNSF	1	1	1	1	1	0	0	1	2	2	0	0
10038	Western Ave.	BNSF	1	1	1	1	1	0	0	1	4	4	0	0
10070	Cicero	BNSF	0	0	0	0	0	0	0	0	0	0	0	0
10091	LaVergne	BNSF	1	1	0	1	1	0	0	0	19	19	0	0
10096	Berwyn	BNSF	3	2	0	3	1	0	2	1	14	8	6	5
10101	Harlem Ave.	BNSF	2	2	0	2	2	0	0	0	31	31	0	15
10111	Riverside	BNSF	4	0	2	4	4	0	0	4	0	0	0	0
10118	Zoo Stop	BNSF	0	0	0	0	0	0	0	0	0	0	0	0
10123	Brookfield	BNSF	8	2	0	7	7	0	1	0	17	11	6	1
10131	Congress Park	BNSF	1	1	0	1	1	0	0	0	3	0	3	2
10138	LaGrange Rd.	BNSF	11	7	3	11	10	0	1	0	88	10	78	13
10142	Stone Ave.	BNSF	7	6	2	5	7	0	0	0	114	65	49	6
10155	Western Springs	BNSF	8	6	1	7	8	0	0	0	73	34	39	4
10164	Highlands	BNSF	2	2	0	2	2	0	0	0	9	0	9	6
10169	Hinsdale	BNSF	7	5	0	6	4	0	3	1	59	32	27	7
10178	West Hinsdale	BNSF	0	0	0	0	0	0	0	0	0	0	0	0
10183	Clarendon Hills	BNSF	5	2	4	5	5	0	0	2	38	38	0	4
10195	Westmont	BNSF	6	4	1	6	5	0	1	3	65	57	8	0
10204	Fairview Ave.	BNSF	4	2	0	4	2	0	2	2	16	16	0	2
10212	Main St.	BNSF	7	3	0	7	5	0	2	1	90	90	0	0
10226	Belmont	BNSF	5	2	0	4	2	0	3	3	16	5	11	3
10245	Lisle	BNSF	2	2	0	2	2	0	0	2	60	60	0	0
10285	Naperville	BNSF	21	13	11	20	16	0	5	5	161	150	11	10
10316	Route 59	BNSF	11	10	4	11	11	0	0	0	97	97	0	18
10380	Aurora	BNSF	6	3	1	6	5	0	1	1	34	8	26	0
	Total BNSF		**123**	**77**	**31**	**116**	**102**	**0**	**21**	**27**	**1,010**	**737**	**273**	**96**
11036	Kedzie	UP-W	1	1	1	1	1	0	0	1	4	4	0	0
11085	Oak Park	UP-W	11	10	4	11	11	0	0	0	98	98	0	3
11097	River Forest	UP-W	3	3	0	3	3	0	0	2	21	21	0	0
11105	Maywood	UP-W	0	0	0	0	0	0	0	0	0	0	0	0
11113	Melrose Park	UP-W	1	0	0	1	1	0	0	0	0	0	0	0
11126	Bellwood	UP-W	1	1	0	1	1	0	0	1	10	10	0	0
11143	Berkeley	UP-W	1	1	0	1	1	0	0	0	7	7	0	4
11157	Elmhurst	UP-W	11	5	0	10	10	0	1	4	100	70	30	14
11178	Villa Park	UP-W	3	3	1	3	3	0	0	0	47	47	0	6
11199	Lombard	UP-W	13	8	2	13	13	0	0	1	53	53	0	12
11224	Glen Ellyn	UP-W	12	4	0	12	9	0	3	4	56	27	29	18
11238	College Ave.	UP-W	7	4	0	6	4	0	3	2	45	26	19	0
11250	Wheaton	UP-W	10	6	0	8	8	1	1	4	85	27	58	0

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11275	Winfield	UP-W	4	3	0	3	3	0	1	0	40	18	22	5
11300	West Chicago	UP-W	4	4	2	3	3	0	1	0	30	18	12	9
11355	Geneva	UP-W	7	5	0	5	5	0	2	0	65	45	20	9
11409	La Fox	UP-W	1	0	0	1	0	0	1	1	0	0	0	0
11436	Elburn	UP-W	1	1	0	1	1	0	0	0	11	11	0	0
	Total UP-W		**91**	**59**	**10**	**83**	**77**	**1**	**13**	**20**	**672**	**482**	**190**	**80**
12029	Western Ave.	Milw-W/ Milw-N/NCS	7	4	2	7	7	0	0	1	22	22	0	0
12065	Grand/Cicero	Milw-W	0	0	0	0	0	0	0	0	0	0	0	0
12077	Hanson Park	Milw-W	1	1	0	1	1	0	0	1	2	2	0	0
12086	Galewood	Milw-W	3	1	1	3	3	0	0	1	2	2	0	0
12091	Mars	Milw-W	1	1	0	1	1	0	0	1	2	2	0	0
12095	Mont Clare	Milw-W	5	1	1	5	5	0	0	1	2	2	0	0
12102	Elmwood Park	Milw-W	2	1	0	1	1	0	1	0	6	0	6	0
12114	River Grove	Milw-W/NCS	2	2	0	2	2	0	0	0	19	19	0	0
12132	Franklin Park	Milw-W	3	2	1	3	2	0	1	0	18	18	0	1
12140	Mannheim	Milw-W	0	0	0	0	0	0	0	0	0	0	0	0
12172	Bensenville	Milw-W	2	2	0	2	2	0	0	0	18	18	0	0
12191	Wood Dale	Milw-W	2	2	1	2	1	0	1	0	38	38	0	0
12210	Itasca	Milw-W	6	2	1	6	6	0	0	0	15	15	0	3
12230	Medinah	Milw-W	1	1	0	1	1	0	0	0	11	11	0	0
12239	Roselle	Milw-W	7	4	3	7	5	1	1	2	22	22	0	0
12265	Schaumburg	Milw-W	3	3	3	3	3	0	0	0	76	76	0	0
12284	Hanover Park	Milw-W	5	3	0	5	5	0	0	0	39	39	0	0
12301	Bartlett	Milw-W	4	2	0	4	4	0	0	0	18	10	8	0
12360	National St.	Milw-W	1	1	0	1	1	0	0	0	46	46	0	0
12366	Elgin	Milw-W	1	1	0	1	1	0	0	0	14	14	0	0
12398	Big Timber	Milw-W	2	2	1	2	2	0	0	0	17	17	0	0
	Total Milw-W		**58**	**36**	**14**	**57**	**53**	**1**	**4**	**7**	**387**	**373**	**14**	**4**
13029	Clybourn	UP-N/ UP-NW	13	8	4	13	12	0	1	8	54	54	0	0
13070	Irving Park	UP-NW	4	2	0	4	4	0	0	2	4	4	0	0
13091	Jefferson Park	UP-NW	6	3	3	6	5	0	1	2	48	48	0	0
13101	Gladstone Park	UP-NW	0	0	0	0	0	0	0	0	0	0	0	0
13114	Norwood Park	UP-NW	1	1	0	1	1	0	0	0	7	7	0	0
13126	Edison Park	UP-NW	5	3	0	5	3	0	2	1	41	41	0	0
13135	Park Ridge	UP-NW	4	4	3	4	4	0	0	0	32	32	0	0
13150	Dee Road	UP-NW	1	1	0	1	1	0	0	0	12	12	0	1
13171	Des Plaines	UP-NW	4	3	0	4	3	0	1	0	45	45	0	0
13186	Cumberland	UP-NW	2	2	0	2	2	0	0	0	14	14	0	0
13200	Mount Prospect	UP-NW	6	4	0	6	5	0	1	2	126	126	0	0
13228	Arlington Hghts.	UP-NW	5	4	2	5	5	0	0	0	119	119	0	0
13244	Arlington Park	UP-NW	1	1	0	1	1	0	0	0	50	50	0	0
13268	Palatine	UP-NW	4	1	0	4	3	0	1	1	35	35	0	0
13319	Barrington	UP-NW	3	3	1	3	3	0	0	0	30	30	0	0
13373	Fox River Grove	UP-NW	1	1	0	1	1	0	0	0	10	0	10	1
13386	Cary	UP-NW	3	2	0	1	3	0	0	1	30	0	30	0
13417	Pingree Rd.	UP-NW	6	6	0	6	6	0	0	0	42	42	0	0
13432	Crystal Lake	UP-NW	2	2	0	2	2	0	0	0	14	4	10	0
13516	Woodstock	UP-NW	4	1	0	3	2	2	0	2	7	0	7	6
13631	Harvard	UP-NW	2	1	0	2	2	0	0	0	5	5	0	0
14506	McHenry	UP-NW/ McHenry	1	1	1	1	1	0	0	0	8	0	8	0
	Total UP-NW		**78**	**54**	**14**	**75**	**69**	**2**	**7**	**19**	**733**	**668**	**65**	**8**
12029	Western Ave.	Milw-W/ Milw-N/NCS	***See Milwaukee-West Data***											
15064	Healy	Milw-N	3	2	2	3	3	0	0	2	4	4	0	0
15082	Grayland	Milw-N	3	1	1	3	3	0	0	1	2	2	0	0
15090	Mayfair	Milw-N	2	1	0	2	2	0	0	0	7	7	0	0
15102	Forest Glen	Milw-N	3	3	3	3	3	0	0	1	10	10	0	0
15116	Edgebrook	Milw-N	11	2	0	11	11	0	0	0	25	25	0	0
15143	Morton Grove	Milw-N	12	3	0	12	3	0	9	0	33	14	19	12
15162	Golf	Milw-N	2	1	2	2	2	0	0	0	9	0	9	8
15174	Glenview	Milw-N	8	5	1	8	6	0	2	1	68	35	33	0
15188	Glen/N. Glenview	Milw-N	3	3	1	3	3	0	0	0	49	49	0	6
15211	Northbrook	Milw-N	10	6	0	9	7	2	0	0	73	73	0	0
15230	Lake Cook	Milw-N	1	1	0	1	1	0	0	0	26	26	0	0
15242	Deerfield	Milw-N	8	5	0	7	7	0	1	0	105	77	28	14
15280	Lake Forest	Milw-N	2	2	2	2	2	0	0	1	13	13	0	3
15355	Libertyville	Milw-N	3	3	0	3	3	0	0	1	38	38	0	12
15392	Prairie Crossing	Milw-N	2	1	0	2	2	0	0	1	14	14	0	0
15410	Grayslake	Milw-N	6	3	0	6	4	0	2	0	42	42	0	0

APPENDIX A: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Supply of Bicycle Parking by Station

			Facility Characteristics								Capacity			
Sta Code	**Station**	**Line**	**Total Facilities**	**Official Facilites**	**Covered**	**Secured to Ground**	**Improved Surface**	**Gravel Surface**	**Un-improved Surface**	**Facilities with Square Tubing**	**Total Cap**	**Good Usable Cap**	**Marginal Usable Cap**	**Broken/ Unusable Cap**
15440	Round Lake	Milw-N	6	2	0	6	5	0	1	3	18	0	18	6
15460	Long Lake	Milw-N	4	0	0	4	4	0	0	0	0	0	0	0
15478	Ingleside	Milw-N	2	2	0	2	2	0	0	0	10	10	0	0
15495	Fox Lake	Milw-N	2	1	1	2	1	0	1	0	13	13	0	0
	Total Milw-N		**93**	**47**	**13**	**91**	**74**	**2**	**16**	**11**	**559**	**452**	**107**	**61**
12029	Western Ave.	Milw-W/ Milw-N/NCS	***See Milwaukee-West Data***											
12114	River Grove	Milw-W/NCS	***See Milwaukee-West Data***											
16130	Belmont Ave.	NCS	1	1	0	1	1	0	0	0	11	11	0	0
16148	Schiller Park	NCS	1	1	0	1	1	0	0	0	9	9	0	0
16156	Rosemont	NCS	0	0	0	0	0	0	0	0	0	0	0	0
16171	O'Hare	NCS	1	1	0	1	1	0	0	0	7	7	0	0
16240	Prospect Hghts.	NCS	2	2	0	2	2	0	0	0	36	36	0	0
16272	Wheeling	NCS	2	2	0	1	2	0	0	0	43	0	43	1
16295	Buffalo Grove	NCS	3	3	0	3	3	0	0	0	34	22	12	2
16316	Prairie View	NCS	2	2	0	2	2	0	0	0	18	18	0	0
16330	Vernon Hills	NCS	4	4	0	4	4	0	0	0	54	54	0	3
16369	Mundelein	NCS	1	1	0	1	1	0	0	0	22	22	0	0
16407	Prairie Crossing	NCS	1	1	0	1	1	0	0	0	9	9	0	0
16439	Grayslake	NCS	1	1	0	1	1	0	0	0	7	7	0	0
16459	Round Lake Beach	NCS	5	1	0	5	2	0	3	1	12	12	0	0
16482	Lake Villa	NCS	2	1	0	2	2	0	0	0	9	0	9	2
16528	Antioch	NCS	1	1	0	1	1	0	0	0	9	9	0	0
	Total NCS		**27**	**22**	**0**	**26**	**24**	**0**	**3**	**1**	**280**	**216**	**64**	**8**
13029	Clybourn	UP-N/ UP-NW	***See Union Pacific-Northwest Data***											
17065	Ravenswood	UP-N	11	8	3	11	10	0	1	4	97	97	0	0
17094	Rogers Park	UP-N	8	7	4	8	8	0	0	3	49	49	0	0
17110	Main St.	UP-N	2	1	0	2	2	0	0	0	7	7	0	0
17120	Davis St.	UP-N	4	2	0	4	4	0	0	0	41	41	0	0
17133	Central St.	UP-N	6	2	0	6	5	0	1	0	52	52	0	0
17144	Wilmette	UP-N	3	1	1	3	2	0	1	0	99	99	0	0
17152	Kenilworth	UP-N	2	1	1	1	1	0	1	1	21	0	21	1
17158	Indian Hill	UP-N	2	1	1	1	2	0	0	0	11	0	11	0
17166	Winnetka	UP-N	4	2	0	4	4	0	0	0	21	21	0	2
17177	Hubbard Woods	UP-N	3	3	0	2	3	0	0	0	23	6	17	3
17192	Glencoe	UP-N	3	3	3	0	3	0	0	0	37	0	37	4
17205	Braeside	UP-N	2	1	0	2	1	0	1	0	14	14	0	0
17215	Ravinia	UP-N	3	3	1	2	1	0	2	0	32	21	11	0
17230	Highland Park	UP-N	3	3	0	3	3	0	0	0	32	32	0	0
17245	Highwood	UP-N	2	1	0	2	2	0	0	1	10	10	0	0
17257	Fort Sheridan	UP-N	2	2	0	2	1	0	1	0	27	27	0	0
17283	Lake Forest	UP-N	5	2	4	3	5	0	0	0	17	0	17	5
17302	Lake Bluff	UP-N	1	1	0	0	1	0	0	0	21	0	21	0
17322	Great Lakes	UP-N	1	1	0	1	1	0	0	0	7	7	0	0
17332	North Chicago	UP-N	0	0	0	0	0	0	0	0	0	0	0	0
17359	Waukegan	UP-N	3	1	0	2	2	0	1	0	5	0	5	6
17421	Zion	UP-N	2	1	0	1	1	1	0	1	7	0	7	0
17445	Winthrop Harbor	UP-N	1	1	0	1	1	0	0	0	5	5	0	0
17516	Kenosha	UP-N	3	1	0	3	1	1	1	0	22	22	0	0
	Total UP-N		**76**	**49**	**18**	**64**	**64**	**2**	**10**	**10**	**657**	**510**	**147**	**21**
	System Total w/o So Shore		**685**	**466**	**130**	**639**	**589**	**12**	**76**	**138**	**5,340**	**4,186**	**1,154**	**331**
3190	Hegewisch	So Shore	2	1	0	2	2	0	0	0	9	9	0	0
	SYSTEM TOTAL		**687**	**467**	**130**	**641**	**591**	**12**	**76**	**138**	**5,349**	**4,195**	**1,154**	**331**

**Station name was changed from Roosevelt Rd. in early 2009.*

APPENDIX B: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Bicycle Utilization by Station

**includes all bikes, lockers & motorized cyles/scooters*

Sta Code	Station	Line	Locked Lockers	Bikes Recently Used	Bikes Abandoned	Motorcycles, Motorized Scooters in Official Spaces	Bikes in Unofficial Spaces	Bikes in Official Spaces*	% Use per Official Space	Primary Municipality	Alternate Municipality
1091	Stony Island	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1097	Bryn Mawr	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1103	South Shore	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1109	Windsor Park	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1115	79th St.	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1120	83rd St.	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1125	87th St.	Elec-SC	0	0	0	0	0	0	0%	Chicago	
1130	93rd St.	Elec-SC	0	0	0	0	0	0	0%	Chicago	
	Total Elec-SC		**0**	**0**	**0**	**0**	**0**	**0**	**0%**		
4156	State Street	Elec-BI	0	0	0	0	0	0	0%	Chicago	
4160	Stewart Ridge	Elec-BI	0	0	0	0	0	0	0%	Chicago	
4167	West Pullman	Elec-BI	0	0	0	0	0	0	0%	Chicago	
4170	Racine Ave.	Elec-BI	0	0	0	0	0	0	0%	Chicago	
4179	Ashland Ave.	Elec-BI	0	0	0	0	0	0	0%	Calumet Park	Chicago
4184	Burr Oak	Elec-BI	0	0	0	0	0	0	0%	Blue Island	Calumet Park
4189	Blue Island	Elec-BI	0	2	0	0	2	0	NULL	Blue Island	
	Total Elec-BI		**0**	**2**	**0**	**0**	**2**	**0**	**15%**		
5014	Museum Campus**	Elec-ML/So Shore	0	0	0	0	0	0	0%	Chicago	
5022	18th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5027	McCormick Place	Elec-ML/So Shore	0	0	0	0	0	0	0%	Chicago	
5032	27th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5059	47th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5065	53rd St.	Elec-ML	0	3	1	0	1	3	25%	Chicago	
5070	56th St.	Elec-ML/So Shore	0	11	0	0	0	11	55%	Chicago	
5074	59th St.	Elec-ML	0	1	0	0	0	1	8%	Chicago	
5079	63rd St.	Elec-ML/So Shore	0	0	0	0	0	0	0%	Chicago	
5093	75th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5100	79th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5104	83rd St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5109	87th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5114	91st St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5120	95th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5130	103rd St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5135	107th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5140	111th St.	Elec-ML	0	0	0	0	0	0	0%	Chicago	
5145	Kensington	Elec-ML/So Shore	0	0	0	0	0	0	0%	Chicago	
5173	Riverdale	Elec-ML	0	0	0	0	0	0	0%	Riverdale	
5182	Ivanhoe	Elec-ML	0	0	0	0	0	0	0%	Riverdale	
5190	147th St.	Elec-ML	0	0	0	0	0	0	0%	Harvey	
5200	Harvey	Elec-ML	0	0	0	0	0	0	0%	Harvey	
5223	Hazel Crest	Elec-ML	0	0	0	0	0	0	0%	Hazel Crest	East Hazel Crest
5228	Calumet	Elec-ML	0	0	0	0	0	0	0%	East Hazel Crest	Homewood
5235	Homewood	Elec-ML	0	27	0	0	0	27	35%	Homewood	
5249	Flossmoor	Elec-ML	0	45	0	1	0	46	105%	Flossmoor	
5266	Olympia Fields	Elec-ML	0	4	0	0	1	3	36%	Olympia Fields	
5276	211th St.	Elec-ML	0	0	0	0	0	0	0%	Olympia Fields	Park Forest Matteson
5282	Matteson	Elec-ML	5	0	0	0	0	5	100%	Matteson	
5293	Richton Park	Elec-ML	0	6	1	0	0	7	19%	Richton Park	
5315	University Park	Elec-ML	0	0	2	0	0	2	9%	University Park	
	Total Elec-ML		**5**	**97**	**4**	**1**	**2**	**105**	**24%**		
6098	Gresham	RI-Main	0	0	0	0	0	0	0%	Chicago	
6109	Longwood	RI-Main	0	0	0	0	0	0	0%	Chicago	
6120	Washington Hts.	RI-Main	0	0	0	0	0	0	0%	Chicago	
6157	Vermont St.	RI-Main/RI-Branch	0	6	0	0	3	3	300%	Blue Island	
6172	Robbins	RI-Main	0	0	0	0	0	0	0%	Robbins	
6184	Midlothian	RI-Main	0	8	0	0	0	8	33%	Midlothian	
6204	Oak Forest	RI-Main	0	2	1	0	0	3	10%	Oak Forest	
6235	Tinley Park	RI-Main	0	20	2	0	1	21	92%	Tinley Park	
6251	80th Ave.	RI-Main	0	20	0	0	0	20	42%	Tinley Park	
6275	Hickory Creek	RI-Main	0	5	0	0	0	5	56%	Mokena	
6296	Mokena	RI-Main	0	15	1	0	1	15	44%	Mokena	
6340	New Lenox	RI-Main	0	9	0	0	1	8	50%	New Lenox	
6402	Joliet	RI-Main/ Heritage	0	3	0	0	0	3	17%	Joliet	
	Total RI-Main		**0**	**88**	**4**	**0**	**6**	**86**	**42%**		
7106	Brainerd	RI-Branch	0	0	0	0	0	0	0%	Chicago	
7113	91st St.	RI-Branch	0	10	0	0	5	5	167%	Chicago	
7117	95th St.	RI-Branch	0	4	1	0	0	5	25%	Chicago	
7123	99th St.	RI-Branch	0	10	0	0	2	8	48%	Chicago	
7128	103rd St.	RI-Branch	0	2	0	0	0	2	22%	Chicago	
7133	107th St.	RI-Branch	0	3	0	0	3	0	43%	Chicago	
7138	111th St.	RI-Branch	0	3	0	0	0	3	10%	Chicago	
7143	115th St.	RI-Branch	0	0	0	0	0	0	0%	Chicago	
7148	119th St.	RI-Branch	0	0	0	0	0	0	0%	Blue Island	Chicago
7152	123rd St.	RI-Branch	0	0	0	0	0	0	0%	Blue Island	
7158	Prairie St.	RI-Branch	0	0	0	0	0	0	0%	Blue Island	
	Total RI-Branch		**0**	**32**	**1**	**0**	**10**	**23**	**29%**		

APPENDIX B: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Bicycle Utilization by Station

**includes all bikes, lockers & motorized cyles/scooters*

Sta Code	Station	Line	Locked Lockers	Bikes Recently Used	Bikes Abandoned	Motorcycles, Motorized Scooters in Official Spaces	Bikes in Unofficial Spaces	Bikes in Official Spaces*	% Use per Official Space	Primary Municipality	Alternate Municipality
8112	Wrightwood	SWS	0	0	0	0	0	0	0%	Chicago	
8126	Ashburn	SWS	0	0	0	0	0	0	0%	Chicago	
8152	Oak Lawn	SWS	0	13	0	0	0	13	144%	Oak Lawn	
8168	Chicago Ridge	SWS	0	3	0	0	0	3	33%	Chicago Ridge	
8182	Worth	SWS	0	2	0	0	1	1	40%	Worth	
8192	Palos Heights	SWS	0	0	0	0	0	0	0%	Palos Heights	
8203	Palos Park	SWS	0	4	0	0	1	3	100%	Palos Park	
8236	143rd St.	SWS	0	7	0	0	0	7	11%	Orland Park	
8248	153rd St.	SWS	0	1	0	0	0	1	5%	Orland Park	
8289	179th St.	SWS	0	5	0	0	0	5	63%	Orland Park	
8358	Laraway Rd.	SWS	0	0	0	0	0	0	0%	New Lenox	
8408	Manhattan	SWS	0	1	0	0	0	1	5%	Manhattan	
	Total SWS		**0**	**36**	**0**	**0**	**2**	**34**	**20%**		
9119	Summit	Heritage	0	0	0	0	0	0	0%	Summit	
9175	Willow Springs	Heritage	0	0	0	0	0	0	0%	Willow Springs	
9253	Lemont	Heritage	0	3	0	0	0	3	43%	Lemont	
9329	Lockport	Heritage	0	1	0	0	1	0	10%	Lockport	
6402	Joliet	RI-Main/ Heritage	***See Rock Island Data***								
	Total Heritage		**0**	**4**	**0**	**0**	**1**	**3**	**11%**		
10018	Halsted St.	BNSF	0	0	0	0	0	0	0%	Chicago	
10038	Western Ave.	BNSF	0	0	1	0	0	1	25%	Chicago	
10070	Cicero	BNSF	0	0	0	0	0	0	0%	Cicero	
10091	LaVergne	BNSF	0	1	0	0	0	1	5%	Berwyn	
10096	Berwyn	BNSF	0	6	0	0	1	5	43%	Berwyn	
10101	Harlem Ave.	BNSF	0	6	1	0	0	7	23%	Berwyn	Riverside
10111	Riverside	BNSF	0	16	3	0	19	0	NULL	Riverside	
10118	Zoo Stop	BNSF	0	0	0	0	0	0	0%	Brookfield	
10123	Brookfield	BNSF	0	15	2	0	11	6	100%	Brookfield	
10131	Congress Park	BNSF	0	4	0	0	0	4	133%	Brookfield	
10138	LaGrange Rd.	BNSF	0	74	13	1	6	82	100%	LaGrange	
10142	Stone Ave.	BNSF	0	51	5	1	5	52	50%	LaGrange	
10155	Western Springs	BNSF	0	59	3	0	4	58	85%	Western Springs	
10164	Highlands	BNSF	0	0	0	0	0	0	0%	Hinsdale	
10169	Hinsdale	BNSF	0	40	3	1	4	40	75%	Hinsdale	
10178	West Hinsdale	BNSF	0	0	0	0	0	0	0%	Hinsdale	
10183	Clarendon Hills	BNSF	0	32	2	1	11	24	92%	Clarendon Hills	
10195	Westmont	BNSF	0	34	3	0	2	35	57%	Westmont	
10204	Fairview Ave.	BNSF	0	11	1	0	2	10	75%	Downers Grove	
10212	Main St.	BNSF	0	69	5	0	16	58	82%	Downers Grove	
10226	Belmont	BNSF	0	13	0	0	10	3	81%	Downers Grove	
10245	Lisle	BNSF	0	32	3	1	0	36	60%	Lisle	
10285	Naperville	BNSF	0	147	4	0	29	122	94%	Naperville	
10316	Route 59	BNSF	18	57	3	4	2	80	85%	Aurora	Naperville
10380	Aurora	BNSF	8	20	3	0	4	27	91%	Aurora	
	Total BNSF		**26**	**687**	**55**	**9**	**126**	**651**	**77%**		
11036	Kedzie	UP-W	0	0	0	0	0	0	0%	Chicago	
11085	Oak Park	UP-W	5	72	3	0	8	72	82%	Oak Park	
11097	River Forest	UP-W	0	6	0	0	0	6	29%	River Forest	
11105	Maywood	UP-W	0	0	0	0	0	0	0%	Maywood	
11113	Melrose Park	UP-W	0	0	1	0	1	0	NULL	Melrose Park	Maywood
11126	Bellwood	UP-W	0	0	0	0	0	0	0%	Bellwood	
11143	Berkeley	UP-W	0	2	0	0	0	2	29%	Berkeley	
11157	Elmhurst	UP-W	0	97	2	0	29	70	99%	Elmhurst	
11178	Villa Park	UP-W	6	17	1	4	0	28	60%	Villa Park	
11199	Lombard	UP-W	14	37	4	0	11	44	104%	Lombard	
11224	Glen Ellyn	UP-W	0	52	2	2	22	34	100%	Glen Ellyn	
11238	College Ave.	UP-W	0	29	2	0	4	27	69%	Wheaton	
11250	Wheaton	UP-W	0	48	6	1	11	44	65%	Wheaton	
11275	Winfield	UP-W	0	15	2	0	1	16	42%	Winfield	
11300	West Chicago	UP-W	10	6	4	0	0	20	68%	West Chicago	
11355	Geneva	UP-W	0	51	2	1	4	50	83%	Geneva	
11409	La Fox	UP-W	0	1	0	0	1	0	NULL	unincorporated	
11436	Elburn	UP-W	0	7	0	0	0	7	64%	Elburn	
	Total UP-W		**35**	**440**	**29**	**8**	**92**	**420**	**76%**		
12029	Western Ave.	Milw-W/ Milw-N/NCS	0	26	0	0	14	12	118%	Chicago	
12065	Grand/Cicero	Milw-W	0	0	0	0	0	0	0%	Chicago	
12077	Hanson Park	Milw-W	0	0	0	0	0	0	0%	Chicago	
12086	Galewood	Milw-W	0	2	1	0	2	1	150%	Chicago	
12091	Mars	Milw-W	0	0	0	0	0	0	0%	Chicago	
12095	Mont Clare	Milw-W	0	5	0	0	4	1	250%	Chicago	
12102	Elmwood Park	Milw-W	0	3	0	0	1	2	49%	Elmwood Park	
12114	River Grove	Milw-W/NCS	3	1	0	0	0	4	21%	River Grove	
12132	Franklin Park	Milw-W	1	7	0	0	1	7	44%	Franklin Park	
12140	Mannheim	Milw-W	0	0	0	0	0	0	0%	Franklin Park	
12172	Bensenville	Milw-W	0	6	0	0	0	6	33%	Bensenville	
12191	Wood Dale	Milw-W	5	19	2	0	0	26	68%	Wood Dale	
12210	Itasca	Milw-W	0	15	0	0	12	3	100%	Itasca	
12230	Medinah	Milw-W	0	1	1	0	0	2	18%	unincorporated	
12239	Roselle	Milw-W	0	24	0	1	6	19	114%	Roselle	
12265	Schaumburg	Milw-W	17	24	1	0	0	42	55%	Roselle	Schaumburg
12284	Hanover Park	Milw-W	0	11	0	0	2	9	28%	Hanover Park	
12301	Bartlett	Milw-W	0	10	0	0	2	8	56%	Bartlett	

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Bicycle Utilization by Station

**includes all bikes, lockers & motorized cyles/scooters*

Sta Code	Station	Line	Locked Lockers	Bikes Recently Used	Bikes Abandoned	Motorcycles, Motorized Scooters in Official Spaces	Bikes in Unofficial Spaces	Bikes in Official Spaces*	% Use per Official Space	Primary Municipality	Alternate Municipality
12360	National St.	Milw-W	0	6	0	0	0	6	13%	Elgin	
12366	Elgin	Milw-W	0	8	0	0	0	8	57%	Elgin	
12398	Big Timber	Milw-W	0	3	0	0	0	3	18%	Elgin	
	Total Milw-W		**26**	**171**	**5**	**1**	**44**	**159**	**52%**		
13029	Clybourn	UP-N/ UP-NW	0	70	4	0	10	64	137%	Chicago	
13070	Irving Park	UP-NW	0	5	1	0	2	4	150%	Chicago	
13091	Jefferson Park	UP-NW	0	21	0	0	3	18	44%	Chicago	
13101	Gladstone Park	UP-NW	0	0	0	0	0	0	0%	Chicago	
13114	Norwood Park	UP-NW	0	5	0	0	0	5	71%	Chicago	
13126	Edison Park	UP-NW	0	9	0	0	2	7	22%	Chicago	
13135	Park Ridge	UP-NW	0	14	0	1	0	15	47%	Park Ridge	
13150	Dee Road	UP-NW	0	6	0	0	0	6	50%	Park Ridge	
13171	Des Plaines	UP-NW	0	19	0	0	1	18	42%	Des Plaines	
13186	Cumberland	UP-NW	0	10	0	0	0	10	71%	Des Plaines	
13200	Mount Prospect	UP-NW	0	64	0	0	3	61	51%	Mount Prospect	
13228	Arlington Hghts.	UP-NW	0	98	4	0	1	101	86%	Arlington Heights	
13244	Arlington Park	UP-NW	0	16	1	0	0	17	34%	Arlington Heights	
13268	Palatine	UP-NW	0	25	0	0	4	21	71%	Palatine	
13319	Barrington	UP-NW	0	13	0	0	0	13	43%	Barrington	
13373	Fox River Grove	UP-NW	0	2	1	0	0	3	30%	Fox River Grove	
13386	Cary	UP-NW	0	36	0	0	3	33	120%	Cary	
13417	Pingree Rd.	UP-NW	0	4	2	0	0	6	14%	Crystal Lake	
13432	Crystal Lake	UP-NW	0	35	3	0	0	38	271%	Crystal Lake	
13516	Woodstock	UP-NW	0	13	2	0	13	2	225%	Woodstock	
13631	Harvard	UP-NW	0	5	0	0	2	3	100%	Harvard	
14506	McHenry	UP-NW/ McHenry	0	0	0	0	0	0	0%	McHenry	
	Total UP-NW		**0**	**470**	**18**	**1**	**44**	**445**	**67%**		
12029	Western Ave.	Milw-W/ Milw-N/NCS	***See Milwaukee-West Data***								
15064	Healy	Milw-N	0	9	0	0	1	8	225%	Chicago	
15082	Grayland	Milw-N	0	2	0	0	2	0	100%	Chicago	
15090	Mayfair	Milw-N	0	7	0	0	2	5	100%	Chicago	
15102	Forest Glen	Milw-N	0	5	0	0	0	5	50%	Chicago	
15116	Edgebrook	Milw-N	0	19	1	0	9	11	80%	Chicago	
15143	Morton Grove	Milw-N	0	30	3	1	17	17	103%	Morton Grove	
15162	Golf	Milw-N	0	25	0	0	6	19	278%	Golf	Glenview
15174	Glenview	Milw-N	0	53	0	0	3	50	78%	Glenview	
15188	Glen/N. Glenview	Milw-N	0	14	0	0	0	14	29%	Glenview	
15211	Northbrook	Milw-N	0	32	5	0	5	32	51%	Northbrook	
15230	Lake Cook	Milw-N	0	7	5	0	0	12	46%	Deerfield	
15242	Deerfield	Milw-N	0	38	1	1	4	36	38%	Deerfield	
15280	Lake Forest	Milw-N	0	5	2	0	0	7	54%	Lake Forest	
15355	Libertyville	Milw-N	0	27	0	1	0	28	74%	Libertyville	
15392	Prairie Crossing	Milw-N	0	11	0	0	1	10	79%	Libertyville	
15410	Grayslake	Milw-N	0	12	0	1	3	10	31%	Grayslake	
15440	Round Lake	Milw-N	0	24	0	0	8	16	133%	Round Lake	
15460	Long Lake	Milw-N	0	4	0	0	4	0	NULL	unincorporated	
15478	Ingleside	Milw-N	0	7	0	0	0	7	70%	Fox Lake	
15495	Fox Lake	Milw-N	0	4	0	0	1	3	31%	Fox Lake	
	Total Milw-N		**0**	**335**	**17**	**4**	**66**	**290**	**64%**		
12029	Western Ave.	Milw-W/ Milw-N/NCS	***See Milwaukee-West Data***								
12114	River Grove	Milw-W/NCS	***See Milwaukee-West Data***								
16130	Belmont Ave.	NCS	0	1	0	0	0	1	9%	Franklin Park	
16148	Schiller Park	NCS	0	0	0	0	0	0	0%	Schiller Park	
16156	Rosemont	NCS	0	0	0	0	0	0	0%	Rosemont	
16171	O'Hare	NCS	0	0	0	0	0	0	0%	Chicago	Rosemont
16240	Prospect Hghts.	NCS	0	3	0	0	0	3	8%	Prospect Heights	Mount Prospect
16272	Wheeling	NCS	0	13	4	0	0	17	40%	Wheeling	
16295	Buffalo Grove	NCS	0	13	0	1	0	14	42%	Buffalo Grove	
16316	Prairie View	NCS	0	7	0	0	0	7	39%	unincorporated	
16330	Vernon Hills	NCS	0	18	0	0	0	18	33%	Vernon Hills	
16369	Mundelein	NCS	0	7	1	0	0	8	36%	Mundelein	
16407	Prairie Crossing	NCS	0	1	0	0	0	1	11%	Libertyville	
16439	Grayslake	NCS	0	3	0	0	0	3	43%	Grayslake	
16459	Round Lake Beach	NCS	0	17	1	0	7	11	150%	Round Lake Beach	
16482	Lake Villa	NCS	0	6	0	0	2	4	67%	Lake Villa	
16528	Antioch	NCS	0	2	0	0	0	2	22%	Antioch	
	Total NCS		**0**	**91**	**6**	**1**	**9**	**89**	**35%**		
13029	Clybourn	UP-N/ UP-NW	***See Union Pacific-Northwest Data***								
17065	Ravenswood	UP-N	0	119	2	2	30	93	127%	Chicago	
17094	Rogers Park	UP-N	0	26	2	0	2	26	57%	Chicago	
17110	Main St.	UP-N	0	15	0	0	8	7	214%	Evanston	
17120	Davis St.	UP-N	0	32	7	0	17	22	95%	Evanston	
17133	Central St.	UP-N	0	57	5	0	9	53	119%	Evanston	
17144	Wilmette	UP-N	0	62	4	11	3	74	78%	Wilmette	
17152	Kenilworth	UP-N	0	23	4	0	1	26	129%	Kenilworth	
17158	Indian Hill	UP-N	0	4	1	0	1	4	45%	Winnetka	
17166	Winnetka	UP-N	0	19	0	0	4	15	90%	Winnetka	
17177	Hubbard Woods	UP-N	0	1	0	0	0	1	4%	Winnetka	
17192	Glencoe	UP-N	0	20	4	1	0	25	68%	Glencoe	
17205	Braeside	UP-N	0	7	0	0	1	6	50%	Highland Park	
17215	Ravinia	UP-N	0	3	0	0	0	3	9%	Highland Park	

APPENDIX B: Fall 2008 Bicycle-Parking Inventory for Stations Outside Downtown Chicago

Bicycle Utilization by Station

**includes all bikes, lockers & motorized cyles/scooters*

Sta Code	Station	Line	Locked Lockers	Bikes Recently Used	Bikes Abandoned	Motorcycles, Motorized Scooters in Official Spaces	Bikes in Unofficial Spaces	Bikes in Official Spaces*	% Use per Official Space	Primary Municipality	Alternate Municipality
17230	Highland Park	UP-N	0	10	2	1	0	13	41%	Highland Park	
17245	Highwood	UP-N	0	6	1	0	2	5	70%	Highwood	
17257	Fort Sheridan	UP-N	0	5	0	0	0	5	19%	Highwood	Lake Forest Highland Park
17283	Lake Forest	UP-N	0	39	3	0	12	30	247%	Lake Forest	
17302	Lake Bluff	UP-N	0	20	0	0	0	20	95%	Lake Bluff	
17322	Great Lakes	UP-N	0	1	0	0	0	1	14%	unincorporated	
17332	North Chicago	UP-N	0	0	0	0	0	0	0%	North Chicago	
17359	Waukegan	UP-N	0	15	0	0	7	8	300%	Waukegan	
17421	Zion	UP-N	0	3	0	0	1	2	43%	Zion	
17445	Winthrop Harbor	UP-N	0	1	0	0	0	1	20%	Winthrop Harbor	
17516	Kenosha	UP-N	0	10	1	0	2	9	50%	Kenosha, Wisc	
	Total UP-N		**0**	**498**	**36**	**15**	**100**	**449**	**84%**		
	System Total w/o So Shore		**92**	**2,951**	**175**	**40**	**504**	**2,754**	**61%**		
3190	Hegewisch	So Shore	0	4	0	0	1	3	44%	Chicago	
	SYSTEM TOTAL		**92**	**2,955**	**175**	**40**	**505**	**2,757**	**61%**		

***Station name was changed from Roosevelt Rd. in early 2009.*

APPENDIX C: Capacity by Facility Type and Station

			Good Facilities												*Marginal* Facilities				
Sta Code	**Station**	**Line**	Bollard	Continuous Curve	BikeLid®	Bike Bank	Fence-Type (parallel)	Suspended Helix	Suspended Loop	Suspended Triangle	Locker	Inverted Ring	Inverted "U"	Semi-Vertical	Fence-Type (perpendicular)	Double Post	Schoolyard	Wheel Loop	"Toast" Type
1091	Stony Island	Elec-SC											4						
1097	Bryn Mawr	Elec-SC											4				7		
1103	South Shore	Elec-SC											4						
1109	Windsor Park	Elec-SC																	
1115	79th St.	Elec-SC											4						
1120	83rd St.	Elec-SC											4						
1125	87th St.	Elec-SC											2						
1130	93rd St.	Elec-SC											6						
4156	State Street	Elec-BI																	
4160	Stewart Ridge	Elec-BI											2						
4167	West Pullman	Elec-BI											2						
4170	Racine Ave.	Elec-BI																	
4179	Ashland Ave.	Elec-BI																	
4184	Burr Oak	Elec-BI		9															
4189	Blue Island	Elec-BI																	
5014	Museum Campus*	Elec-ML																	
5022	18th St.	Elec-ML											2						
5027	McCormick Place	Elec-ML											12						
5032	27th St.	Elec-ML											4						
5059	47th St.	Elec-ML											4						
5065	53rd St.	Elec-ML		14									2						
5070	56th St.	Elec-ML											20						
5074	59th St.	Elec-ML		12															
5079	63rd St.	Elec-ML		7									4						
5093	75th St.	Elec-ML											4						
5100	79th St.	Elec-ML											4						
5104	83rd St.	Elec-ML		7															
5109	87th St.	Elec-ML											4						
5114	91st St.	Elec-ML																	
5120	95th St.	Elec-ML											4						
5130	103rd St.	Elec-ML											4						
5135	107th St.	Elec-ML											4						
5140	111th St.	Elec-ML											4						
5145	Kensington	Elec-ML											4						
5173	Riverdale	Elec-ML		7															
5182	Ivanhoe	Elec-ML		21															
5190	147th St.	Elec-ML																	
5200	Harvey	Elec-ML		9															
5223	Hazel Crest	Elec-ML											8						
5228	Calumet	Elec-ML		31															
5235	Homewood	Elec-ML		65															12
5249	Flossmoor	Elec-ML															44		
5266	Olympia Fields	Elec-ML															11		
5276	211th St.	Elec-ML		56															
5282	Matteson	Elec-ML									5								
5293	Richton Park	Elec-ML		14													22		
5315	University Park	Elec-ML															22		
6098	Gresham	RI-Main		7															
6109	Longwood	RI-Main		2															
6120	Washington Hts.	RI-Main																	

APPENDIX C: Capacity by Facility Type and Station

			Good Facilities												*Marginal* Facilities				
Sta Code	**Station**	**Line**	Bollard	Continuous Curve	BikeLid®	Bike Bank	Fence-Type (parallel)	Suspended Helix	Suspended Loop	Suspended Triangle	Locker	Inverted Ring	Inverted "U"	Semi-Vertical	Fence-Type (perpendicular)	Double Post	Schoolyard	Wheel Loop	"Toast" Type
6157	Vermont St.	RI-Main/RI-Branch			2														
6172	Robbins	RI-Main																	
6184	Midlothian	RI-Main		24															
6204	Oak Forest	RI-Main															31		
6235	Tinley Park	RI-Main													24				
6251	80th Ave.	RI-Main		18													30		
6275	Hickory Creek	RI-Main		9															
6296	Mokena	RI-Main		14													22		
6340	New Lenox	RI-Main									6						12		
6402	Joliet	RI-Main/ Heritage		9													9		
7106	Brainerd	RI-Branch		12															
7113	91st St.	RI-Branch											6						
7117	95th St.	RI-Branch		14	4								2						
7123	99th St.	RI-Branch		15									6						
7128	103rd St.	RI-Branch		7									2						
7133	107th St.	RI-Branch		7															
7138	111th St.	RI-Branch		22	4								4						
7143	115th St.	RI-Branch											4						
7148	119th St.	RI-Branch											4						
7152	123rd St.	RI-Branch																	
7158	Prairie St.	RI-Branch																	
8112	Wrightwood	SWS														4			
8126	Ashburn	SWS		15															
8152	Oak Lawn	SWS								9									
8168	Chicago Ridge	SWS		9															
8182	Worth	SWS															5		
8192	Palos Heights	SWS		14															
8203	Palos Park	SWS														4			
8236	143rd St.	SWS		9									52						
8248	153rd St.	SWS		14												8			
8289	179th St.	SWS														8			
8358	Laraway Rd.	SWS											8						
8408	Manhattan	SWS															20		
9119	Summit	Heritage																	
9175	Willow Springs	Heritage											20						
9253	Lemont	Heritage		7															
9329	Lockport	Heritage											10						
10018	Halsted St.	BNSF											2						
10038	Western Ave.	BNSF											4						
10070	Cicero	BNSF																	
10091	LaVergne	BNSF		19															
10096	Berwyn	BNSF		8													6		
10101	Harlem Ave.	BNSF		31															
10111	Riverside	BNSF																	
10118	Zoo Stop	BNSF																	
10123	Brookfield	BNSF	11														6		
10131	Congress Park	BNSF															3		
10138	LaGrange Rd.	BNSF											10				78		
10142	Stone Ave.	BNSF		27									38				49		
10155	Western Springs	BNSF		34													39		

APPENDIX C: Capacity by Facility Type and Station

Sta Code	Station	Line	*Good* Facilities												*Marginal* Facilities				
			Bollard	Continuous Curve	BikeLid®	Bike Bank	Fence-Type (parallel)	Suspended Helix	Suspended Loop	Suspended Triangle	Locker	Inverted Ring	Inverted "U"	Semi-Vertical	Fence-Type (perpendicular)	Double Post	Schoolyard	Wheel Loop	"Toast" Type
10164	Highlands	BNSF															9		
10169	Hinsdale	BNSF											32				27		
10178	West Hinsdale	BNSF																	
10183	Clarendon Hills	BNSF		38															
10195	Westmont	BNSF							15				42					8	
10204	Fairview Ave.	BNSF		14		2													
10212	Main St.	BNSF	2					88											
10226	Belmont	BNSF				5											11		
10245	Lisle	BNSF	60																
10285	Naperville	BNSF		150													11		
10316	Route 59	BNSF		79							18								
10380	Aurora	BNSF									8						26		
11036	Kedzie	UP-W											4						
11085	Oak Park	UP-W		69							5	10	14						
11097	River Forest	UP-W		11			10												
11105	Maywood	UP-W																	
11113	Melrose Park	UP-W																	
11126	Bellwood	UP-W		10															
11143	Berkeley	UP-W		7															
11157	Elmhurst	UP-W		54										16	30				
11178	Villa Park	UP-W		41							6								
11199	Lombard	UP-W		13			8				14		18						
11224	Glen Ellyn	UP-W		27											10		19		
11238	College Ave.	UP-W		26											8		11		
11250	Wheaton	UP-W		27											4		54		
11275	Winfield	UP-W		18													22		
11300	West Chicago	UP-W		7							11						12		
11355	Geneva	UP-W		45													20		
11409	La Fox	UP-W																	
11436	Elburn	UP-W		11															
12029	Western Ave.	Milw-W/ Milw-N/NCS											22						
12065	Grand/Cicero	Milw-W																	
12077	Hanson Park	Milw-W											2						
12086	Galewood	Milw-W											2						
12091	Mars	Milw-W											2						
12095	Mont Clare	Milw-W											2						
12102	Elmwood Park	Milw-W															6		
12114	River Grove	Milw-W/NCS		13							6								
12132	Franklin Park	Milw-W		13							5								
12140	Mannheim	Milw-W																	
12172	Bensenville	Milw-W		18															
12191	Wood Dale	Milw-W		28							10								
12210	Itasca	Milw-W		15															
12230	Medinah	Milw-W		11															
12239	Roselle	Milw-W				22													
12265	Schaumburg	Milw-W				56					20								
12284	Hanover Park	Milw-W		39															
12301	Bartlett	Milw-W				10									8				
12360	National St.	Milw-W											46						
12366	Elgin	Milw-W		14															

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			Good Facilities												*Marginal* Facilities				
Sta Code	**Station**	**Line**	Bollard	Continuous Curve	BikeLid®	Bike Bank	Fence-Type (parallel)	Suspended Helix	Suspended Loop	Suspended Triangle	Locker	Inverted Ring	Inverted "U"	Semi-Vertical	Fence-Type (perpendicular)	Double Post	Schoolyard	Wheel Loop	"Toast" Type
12398	Big Timber	Milw-W		13	4														
13029	Clybourn	UP-N/ UP-NW		28									26						
13070	Irving Park	UP-NW											4						
13091	Jefferson Park	UP-NW		36									12						
13101	Gladstone Park	UP-NW																	
13114	Norwood Park	UP-NW		7															
13126	Edison Park	UP-NW		41															
13135	Park Ridge	UP-NW		24		8													
13150	Dee Road	UP-NW		12															
13171	Des Plaines	UP-NW		45															
13186	Cumberland	UP-NW		14															
13200	Mount Prospect	UP-NW		126															
13228	Arlington Hghts.	UP-NW		29						90									
13244	Arlington Park	UP-NW								50									
13268	Palatine	UP-NW		35															
13319	Barrington	UP-NW		10									20						
13373	Fox River Grove	UP-NW															10		
13386	Cary	UP-NW															30		
13417	Pingree Rd.	UP-NW		36	6														
13432	Crystal Lake	UP-NW				4									10				
13516	Woodstock	UP-NW															7		
13631	Harvard	UP-NW		5															
14506	McHenry	UP-NW/ McHenry																	8
15064	Healy	Milw-N											4						
15082	Grayland	Milw-N											2						
15090	Mayfair	Milw-N		7															
15102	Forest Glen	Milw-N			2								8						
15116	Edgebrook	Milw-N		21									4						
15143	Morton Grove	Milw-N		14													11	8	
15162	Golf	Milw-N															9		
15174	Glenview	Milw-N		35													33		
15188	Glen/N. Glenview	Milw-N		49															
15211	Northbrook	Milw-N		63									10						
15230	Lake Cook	Milw-N		26															
15242	Deerfield	Milw-N		77													16	12	
15280	Lake Forest	Milw-N		13															
15355	Libertyville	Milw-N		38															
15392	Prairie Crossing	Milw-N		14															
15410	Grayslake	Milw-N		42															
15440	Round Lake	Milw-N													8			10	
15460	Long Lake	Milw-N																	
15478	Ingleside	Milw-N		10															
15495	Fox Lake	Milw-N		13															
16130	Belmont Ave.	NCS		11															
16148	Schiller Park	NCS		9															
16156	Rosemont	NCS																	
16171	O'Hare	NCS		7															
16240	Prospect Hghts.	NCS		36															
16272	Wheeling	NCS															43		
16295	Buffalo Grove	NCS				22											12		

APPENDIX C: Capacity by Facility Type and Station

Sta Code	Station	Line	*Good* Facilities												*Marginal* Facilities				
			Bollard	Continuous Curve	BikeLid®	Bike Bank	Fence-Type (parallel)	Suspended Helix	Suspended Loop	Suspended Triangle	Locker	Inverted Ring	Inverted "U"	Semi-Vertical	Fence-Type (perpendicular)	Double Post	Schoolyard	Wheel Loop	"Toast" Type
16316	Prairie View	NCS		18															
16330	Vernon Hills	NCS		54															
16369	Mundelein	NCS		22															
16407	Prairie Crossing	NCS		9															
16439	Grayslake	NCS		7															
16459	Round Lake Beach	NCS											12						
16482	Lake Villa	NCS															9		
16528	Antioch	NCS		9															
17065	Ravenswood	UP-N		39									58						
17094	Rogers Park	UP-N		19									30						
17110	Main St.	UP-N		7															
17120	Davis St.	UP-N		41															
17133	Central St.	UP-N							12				40						
17144	Wilmette	UP-N		99															
17152	Kenilworth	UP-N															21		
17158	Indian Hill	UP-N															11		
17166	Winnetka	UP-N	2						19										
17177	Hubbard Woods	UP-N		6													17		
17192	Glencoe	UP-N															37		
17205	Braeside	UP-N		14															
17215	Ravinia	UP-N		21													11		
17230	Highland Park	UP-N		32															
17245	Highwood	UP-N		10															
17257	Fort Sheridan	UP-N		27															
17283	Lake Forest	UP-N															17		
17302	Lake Bluff	UP-N															21		
17322	Great Lakes	UP-N		7															
17332	North Chicago	UP-N																	
17359	Waukegan	UP-N															5		
17421	Zion	UP-N															7		
17445	Winthrop Harbor	UP-N		5															
17516	Kenosha	UP-N	22																
	TOTAL CAPACITY BY FACILITY		97	2,789	22	129	18	88	46	149	114	10	708	16	102	24	970	38	20
	TOTAL STATIONS BY FACILITY		5	114	6	8	2	1	3	3	12	1	64	1	8	4	49	4	2
	TOTAL GOOD CAPACITY		4,186																
	TOTAL MARGINAL CAPACITY		1,154																
TOTAL CAPACITY (System w/o South Shore)			**5,340**																
3190	Hegewisch	So Shore		9															
TOTAL CAPACITY (System w/o South Shore)			**5,349**																

**Station name was changed from Roosevelt Rd. in early 2009.*

APPENDIX D-1
Stations with New Bike-Parking Facilities since 2003

Station	Line	Total Capacity, 2008	Total Bikes Parked, 2008	Total Bikes Parked, 2003
Stony Island	Elec-SC	4	0	0
South Shore	Elec-SC	4	0	0
79th St.	Elec-SC	4	0	0
87th St.	Elec-SC	2	0	0
Stewart Ridge	Elec-BI	2	0	0
West Pullman	Elec-BI	2	0	0
Burr Oak	Elec-BI	9	0	0
18th St.	Elec-ML	2	0	0
McCormick Place	Elec-ML/So Shore	12	0	0
27th St.	Elec-ML	4	0	0
107th St.	Elec-ML	4	0	0
Kensington	Elec-ML/So Shore	4	0	0
Harvey	Elec-ML	9	0	1
University Park	Elec-ML	22	2	1
Gresham	RI-Main	7	0	0
Vermont St.	RI-Main/RI-Branch	2	6	1
91st St.	RI-Branch	6	10	3
115th St.	RI-Branch	4	0	0
119th St.	RI-Branch	4	0	0
Wrightwood	SWS	4	0	1
Ashburn	SWS	15	0	0
Worth	SWS	5	2	2
Palos Heights	SWS	14	0	n/a
Laraway Rd.	SWS	8	0	n/a
Manhattan	SWS	20	1	n/a
Western Ave.	BNSF	4	1	0
Congress Park	BNSF	3	4	0
Kedzie	UP-W	4	0	0
Elburn	UP-W	11	7	n/a
Hanson Park	Milw-W	2	0	0
Galewood	Milw-W	2	3	1
Mars	Milw-W	2	0	0
Mont Clare	Milw-W	2	5	1
Elmwood Park	Milw-W	6	3	3
National St.	Milw-W	46	6	1
Dee Road	UP-NW	12	6	7
Pingree Rd.	UP-NW	42	6	n/a
Harvard	UP-NW	5	5	1
McHenry	UP-NW/ McHenry	8	0	1
Grayland	Milw-N	2	2	1
Prairie Crossing	Milw-N	14	11	n/a
Belmont Ave.	NCS	11	1	n/a
Schiller Park	NCS	9	0	n/a
O'Hare	NCS	7	0	0
Grayslake	NCS	7	3	n/a
Zion	UP-N	7	3	1

"n/a" = Stations opened since 2003.

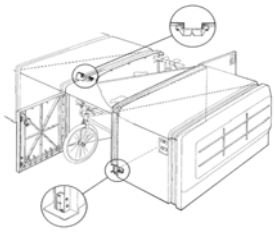
APPENDIX D-2

Stations with Official Bike-Parking Facilities in 2003, but not in 2008

Station	Line	Total Capacity, 2003	Total Bikes Parked, 2008	Total Bikes Parked, 2003
91st St.	Elec-ML	2	0	0
Summit	Heritage	18	0	1
Riverside	BNSF	20	19	15

APPENDIX E-1

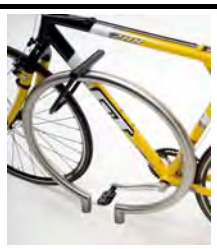
Analysis of Good Facilities

Photo	Code	Description
	**C** rack	**Continuous Curve, Wave, Serpentine** Varied spacing of verticals can impact capacity, particularly if only one side of rack is usable. Racks are secure, allowing frames and wheels to be locked, but not ideal–they do not properly support bicycle frames. Usable Spaces: **2,765** Facilities: **204** Non-Usable: **168** Stations: **114**
	**U** rack	**Inverted "U"** Verticals typically spaced 30" apart. Available with square or round tubing. Type most commonly installed by Chicago Dept. of Transportation. Usable Spaces: **648** Facilities: **97** Non-Usable: **0** Stations: **61**
	**JT, JT1** rack	**Suspended Triangular Loop (Coat Hanger)** Limited to Arlington Heights and Oak Lawn Stations. Usable Spaces: **149** Facilities: **4** Non-Usable: **0** Stations: **3**
	**E, E1** rack	**Moveable "T" with Three Prongs (e.g., Saris "Bike Bank")** Stations include Matteson, Schaumburg, and Buffalo Grove. Available as single- and double-sided racks. Although secure when operable, moving parts are vulnerable to rust and vandalism. Usable Spaces: **129** Facilities: **14** Non-Usable: **10** Stations: **9**
	**LZ, LZ1** locker	**"Recti-Triangular"** Two triangular lockers in a single rectangular box, with doors at each end. Stations include Route 59, Lombard, and Wood Dale. Usable Spaces: **109** Facilities: **14** Non-Usable: **15** Stations: **11**
	**HSS2** rack	**Horizontal Helix Suspended Square (e.g., Madrax "Genesis")** Limited to Downers Grove, Main St. Station. Usable Spaces: **88** Facilities: **2** Non-Usable: **0** Stations: **1**

Analysis of Good Facilities

Photo	Code	Description
	**BT** rack	**Tilted Bollard/Post-and-Ring (e.g., Creative Pipe "Lightning Bolt LR")** Limited to Lisle Station. Usable Spaces: **60** Facilities: **2** Non-Usable: **0** Stations: **1**
	**UM** rack	**Inverted "U" Multiple** Capacity varies. Limited to McCormick Place and LaGrange, Stone Ave. Stations. Usable Spaces: **50** Facilities: **3** Non-Usable: **0** Stations: **2**
	**JC, JC3** rack	**Suspended Circular Loop** Limited to Central St., Evanston, and Winnetka Stations. Usable Spaces: **31** Facilities: **2** Non-Usable: **2** Stations: **2**
	**B** rack	**Standard Bollard/Post-And-Ring** Limited to Winnetka, Kenosha, and Downers Grove, Main St. Stations. Usable Spaces: **26** Facilities: **3** Non-Usable: **0** Stations: **3**
	**CI1** rack	**Continuous-Curve Irregular (e.g., Function First "Bike Rib II")** Limited to Naperville and Route 59 Stations. Usable Spaces: **24** Facilities: **2** Non-Usable: **0** Stations: **2**
	**D, D1** lid	**BikeLid®** Large facility type (3'-7" x 8'). Limited to Vermont St. (RI-ML), 111th St. (RI-Bev), Big Timber Road, Pingree Road, and Forest Glen Stations. Usable Spaces: **22** Facilities: **8** Non-Usable: **0** Stations: **6**

Analysis of Good Facilities

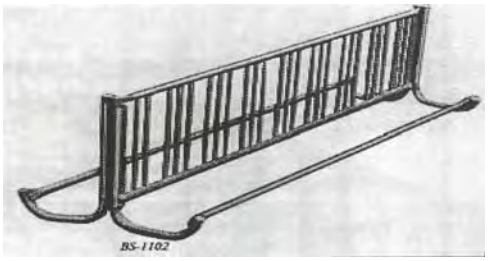
Photo	Code	Description
	**VS** rack	**Semi-Vertical** Limited to Elmhurst Station. Usable Spaces: **16** Facilities: **1** Non-Usable: **0** Stations: **1**
	**JH5** rack	**Suspended Helical Loop (High Density)** Limited to Westmont Station. Usable Spaces: **15** Facilities: **1** Non-Usable: **0** Stations: **1**
	**B3** rack	**Unusual Bollard/Post-And-Ring (e.g., Madrax "Keyrac")** Limited to Brookfield Station. Usable Spaces: **11** Facilities: **1** Non-Usable: **1** Stations: **1**
	**UI2** rack	**Inverted "U" Irregular (e.g., Landscapeforms "Bola")** Similar in function to "U" rack. Limited to LaGrange Road Station. Usable Spaces: **10** Facilities: **2** Non-Usable: **8** Stations: **1**
	**G** rack	**Fence-Style Rack (Bikes Parked Parallel to Rack)** More secure than "GS" rack as bikes are intended to be locked parallel to rack, allowing frames and wheels to be secured. Limited to River Forest Station. Usable Spaces: **10** Facilities: **2** Non-Usable: **0** Stations: **1**
	**R2** rack	**Raised Single Large Ring (e.g., Landscapeforms "Ring")** Limited to Oak Park, Marion St. Station. Usable Spaces: **10** Facilities: **1** Non-Usable: **0** Stations: **1**

Analysis of Good Facilities

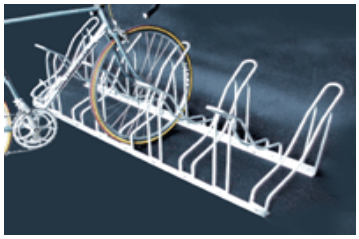
Photo	Code	Description
	**G3** rack	**Fence-Style (Bikes Parked Parallel to Rack)** Similar in function to "U" rack. Limited to Lombard Station. Usable Spaces: **8** Facilities: **1** Non-Usable: **0** Stations: **1**
	**LR** locker	**Rectangular (Completely Enclosed)** One rectangular locker in a single box, with a door at one end. Limited to Oak Park, Marion St. Station. Usable Spaces: **5** Facilities: **1** Non-Usable: **0** Stations: **1**

APPENDIX E-2

Analysis of Marginal Facilities

Photo	Code	Description
	**S** rack	**Schoolyard/Comb Typical Rack** Not very secure. When used as designed, only the wheel, but not the bike frame, can be locked to the rack. Thin verticals are easily bent. Many bicyclists park parallel to rack to better secure bikes, blocking capacity. Examples include Joliet, Berwyn, and Glencoe Stations. Usable Spaces: **923** Facilities: **75** Non-Usable: **95** Stations: **48**
	**GS** rack	**Fence-Style (Bikes Parked Perpendicular to Rack)** Not very secure. Function and shortcomings similar to "S" type racks. Examples include Tinley Park, Elmhurst, and Round Lake Stations. Usable Spaces: **71** Facilities: **9** Non-Usable: **18** Stations: **7**
	**WL** rack	**Ground Loop in Long Post** Not very secure. When used as designed, only the wheel, but not the bike frame, can be locked to the rack. Loops are often spaced too close together and are easily bent or broken. Limited to Westmont, Morton Grove, Deerfield, and Round Lake Stations. Usable Spaces: **38** Facilities: **4** Non-Usable: **12** Stations: **4**
	**GS1, GS2** rack	**Fence-Style (Bikes Parked Perpendicular to Rack) (e.g., Creative Pipe "Cyclone")** Not very secure. Function and shortcomings similar to "S" type racks. Rack designs include wheel holding crossbars at the bottom. Limited to Elmhurst and Bartlett Stations. Usable Spaces: **31** Facilities: **3** Non-Usable: **2** Stations: **2**
	**SL1** rack	**Schoolyard/Comb w/ Loops (e.g., Creative Pipe "Typhoon")** Not very secure. Shortcomings similar to "S" type racks. Limited to Wheaton Station. Usable Spaces: **25** Facilities: **1** Non-Usable: **0** Stations: **1**
	**PC1** rack	**Double Post With Crossbar (e.g., Landscapeforms "Pi")** Frame not well supported; may not easily accommodate atypical frame designs. Limited to Wrightwood, Palos Park, Orland Park, 153rd St., and Orland Park, 179th St. Stations. Usable Spaces: **24** Facilities: **5** Non-Usable: **0** Stations: **4**

Analysis of Marginal Facilities

Photo	Code	Description
	**SC1** rack	**Schoolyard with Curve** Not very secure. Shortcomings similar to "S" type racks. Limited to University Park Station. Usable Spaces: **22** Facilities: **2** Non-Usable: **0** Stations: **1**
	**WT, WT1** rack	**Wheel-Holder "Toast" Rack (e.g., Huntco "Angler")** Not very secure. Only the wheel, but not the bike frame, can be locked to the rack. Limited to Homewood and McHenry Stations. Usable Spaces: **20** Facilities: **2** Non-Usable: **0** Stations: **2**

APPENDIX F
DATA COLLECTION METHODOLOGY

Generally, the inventory methodology followed that of 2003 inventory, except no data were collected for the five downtown Chicago stations. The inventory methodology was designed to collect every conceivably useful piece of information. Some of the collected information not presented in this report was used for post-inventory field verification of facilities at certain stations.

a. Data Collection

A single data collection process was used at all non-downtown Metra stations. Each station was surveyed once on designated days (limited to Tuesdays, Wednesdays, and Thursdays) in September and October 2008, when the weather was still favorable for bicycling and most people were back from summer vacations. Bicycle counts were limited to the time period of maximum parking usage – from 9 a.m. to 3 p.m.; this period was extended from 7:30 a.m. to 5:15 p.m. for stations on Metra's Heritage Corridor as the line has no midday service.

At a training session held at the Naperville Metra station, data collectors were provided with pre-printed coding sheets and station area maps for data recording (Appendices G-1 and G-2), detailed instructions (Appendix G-3), and a Bicycle-Parking Facility Types and Codes document and Photo Album (Appendices G-4 and G-5) for reference. Collectors were also provided with a sample coding sheet and a 2003 Bicycle-Parking Inventory facility-level reference chart.

Data collectors were instructed to survey the station area to define the measurement area. In general, they looked for bicycles that intuitively appeared to be parked only for purposes of riding to a Metra train station. At some stations, facilities may be shared by Metra riders and local business patrons or Pace/CTA riders. Usually, bicycle parking is within a couple hundred feet of the station platform (on either or both sides of the tracks), but this could extend up to 750 feet at certain stations. Some stations had different types of bicycle-parking facilities scattered throughout the station area. In the "General Notes" part of the data sheet, data collectors noted any nearby significant destinations or events aside from the station that might be attracting parked bicycles. Facility access and placement were also evaluated. Photographs were also taken to document important aspects of the bicycle parking in a station area.

Each "official" and "informal" bicycle-parking facility was assigned a unique number on the coding sheet, which was also marked on the station-area map at the appropriate location. "Official" refers to bike-parking facilities, such as racks and lockers, intended primarily or solely for use by bicyclists. "Informal" (or "unofficial") refers to improvised bike parking at parking meters, trees, fences, signs, or any other structure not intended for bicycle-parking use. Most types of known "official" facilities are contained in the Bicycle-Parking Facility Types and Codes Photo Album (Appendix G-5). Examples of some of the most common types of "informal" facilities are contained in Appendix H-2. Both "official" and "informal" facility types are listed in the Bicycle-Parking Facility Types and Codes document (Appendix G-4).

Bicycles in active use and abandoned bicycles were identified and counted separately. Motorcycles, motorized scooters, or any other motorized vehicle parked at "official" facilities were also identified and counted separately. Locker capacity and estimated usage were recorded in the field, but final locker utilization was obtained by phoning the municipalities responsible for leasing them to bicyclists.

b. Validation and Data Checking

Completed Bicycle-Parking Inventory Coding Sheets and station-area maps with corresponding facility numbers to show locations of facilities were collected from the field surveyors, and then computer-processed by Metra's Office of Planning & Analysis staff. Data were checked and verified for accuracy by data collectors. Staff also cross-checked key variables and totals for consistency and accuracy. Data were also checked against the 2003 inventory results. These cross-checks produced a list of 46 stations which were then field-checked by Metra staff in October and November 2008. Except where existing facilities were missed in the September 2008 inventory, field-checks were limited to capacity adjustments. The field-checks served to reclassify facility type codes, adjust length measurements, or verify blocked capacity. In many cases, the field-checks confirmed data recorded in the initial survey.

c. Data Collection Issues

The volunteer data collectors were asked to exercise judgment when deciding which bike-parking facilities at each station to include in the inventory. The decision of whether or not to include certain facilities in the inventory may not have been easily apparent to data collectors. Metra staff used the validation and data checking process to refine the raw data as much as possible; however, some erroneous data may have been missed by this process. Perhaps, past survey data can be better used by data collectors during future bicycle-parking inventories in order to decide whether or not to include certain ambiguous bike-parking facilities.

Also, classification of fence-style bicycle racks proved to be problematic. Some official fence-style racks may have been erroneously classified as mere fences (informal facility). On the other hand, some fences may have been misclassified as official facilities. Of course, these types of racks are designed to look like fences. Part of the post-inventory data analysis included dividing fence-style racks into two general categories—those intended for parallel parking and those intended for perpendicular parking (see Appendix H-1). Staff/volunteer training for future inventories should focus more attention on the finer points of fence-style racks.

APPENDIX G-1

2008 BICYCLE-PARKING INVENTORY CODING SHEET

Metra Line: _____ Station Name: _____ Sheet #: 1 of ____

Inventory Date: _____ Station Code: _____ Weather: _____

Field Person: _____ Time: _____

Facility #	Facility characteristics										Usage: # of …				Bike Parking & Signage Location & Condition Notes (Please place facility number on the respective station parking map and note with the word, "SIGN," on the same map the locations of any bike parking signage that is available.)
	Official Facility (Y/N)	Type Code	Covered Facility (Y/N)	Secured to Ground (Y/N)	Surface Type (IM/GR/DG)	Lock Provided (Y/N)	Made of Square Tubing (Y/N)	Length of Facility (ft./in.)	Capacity # bikes		Locked Lockers	Bicycles Recently Used	Bicycles Abandoned	Motor-cycles, Motor Scooters, etc.	
									Usable	Broken/ Unusable/ Blocked					

General Notes:

Facility Type Codes:
Please refer to Bicycle Parking Facilities and Codes document and Bicycle Parking Types and Codes Photo Album.

☐ **Check box if additional notes are on back**

Weather Codes

R	–Raining	*W*	–Rained/Will rain sometime 6 AM-6 PM today
S	–Sunny/Cloudy	*C*	–Cold (below ~50 degrees F)

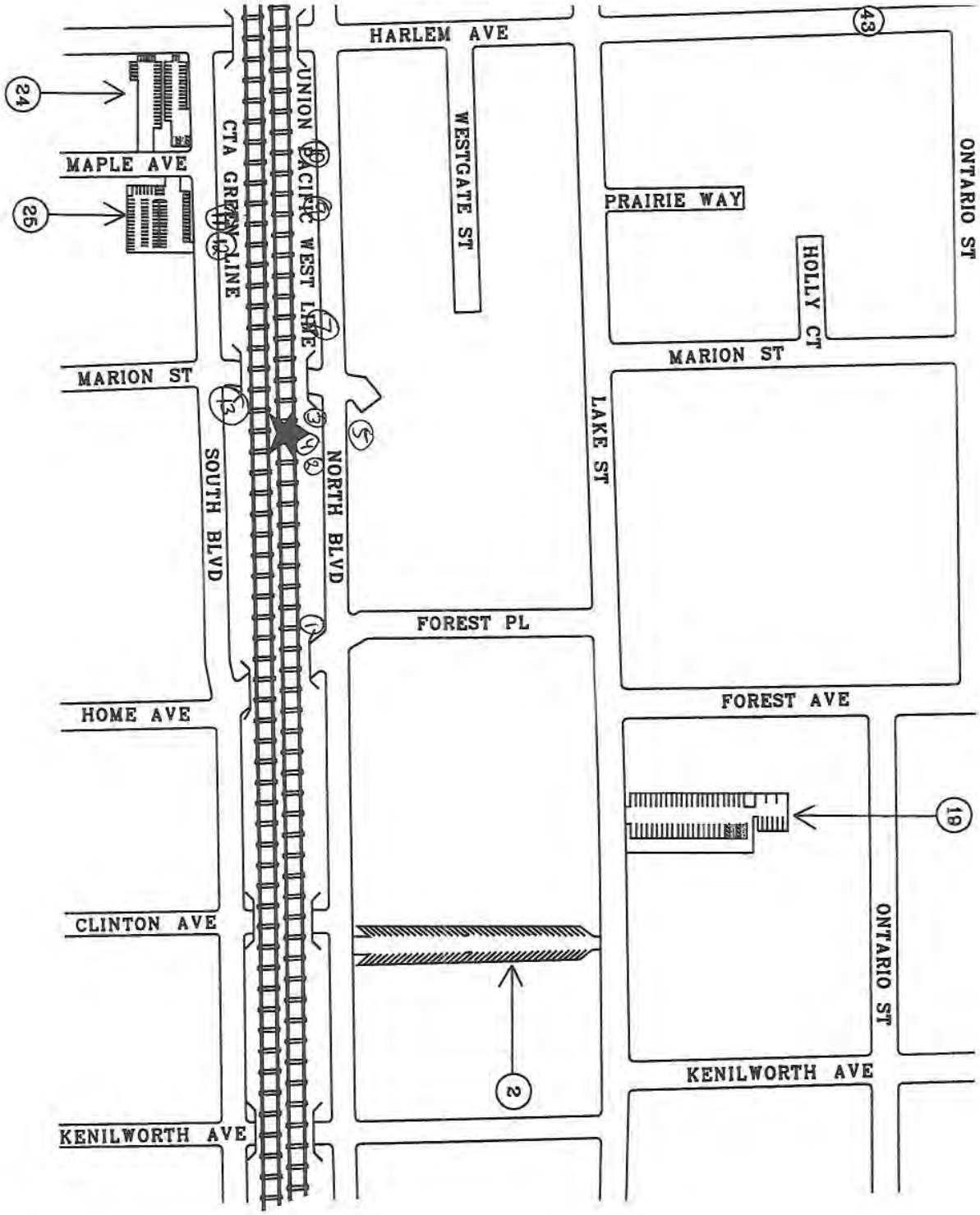
Surface Types

IM	–Asphalt, Brick or Concrete
GR	–Gravel
DG	–Dirt, Mulch, or Grass

Other

Y	–Yes
N	–No

APPENDIX G-2
STATION AREA MAP (SAMPLE MARKED-UP)



OAK PARK
(11085)

LOT*	SURF	CAP	HC	FEE	METHO
2	PAVED	66	2	M	$ .25/1
19	PAVED	49	2	M	$ .25/1
24	PAVED	49	2	M	$ .25/1
25	PAVED	60		P	$ 100.0
TOTAL		226	6		

APPENDIX G-3
METRA STATION BICYCLE-PARKING INVENTORY INSTRUCTIONS
SEPTEMBER 2008

Thanks for participating in the bicycle-parking inventory being conducted by Metra, the League of Illinois Bicyclists, and the Chicagoland Bicycle Federation. The purpose of this inventory is to evaluate the capacity, utilization, and quality of bicycle parking facilities at each of Metra's outlying train stations.

Note: you will be working around an active railroad, often operating with frequent freight service in addition to Metra passenger service. **Do not under any circumstances cross the yellow line at the platform edge, walk or stand within 15 feet of any tracks, or cross the tracks at any point other than a designated pedestrian crossing. You should expect a train to move in either direction on any track at any time. Also, you may not begin a station inventory on any line without the proper Right-of-Entry agreement for that line.**

For each Metra station assigned to you, your tasks include:

- Determination of bicycle parking area around station
- Identification of all bicycle parking facilities within the bicycle parking area
- Classification of all bicycle parking facilities by location, type, capacity, condition, and quality
- Count of bicycles parked at each official and unofficial parking facility
- Collection of useful and supportive evidence, including notes and photographs

To complete the above tasks you will need the following field tools and documents:

Tools

Provided by Counter:

- Tape measure
- Camera
- Clipboard
- Pencils
- Copy of appropriate Right-of-Entry form

Data Recording / *Reference*

Provided by Metra:

- Bicycle-Parking Inventory Coding Sheets (Pre-labeled and Blank)
- Appropriate Station Area Maps
- 2008 RTA system map
- Sample Bicycle-Parking Inventory Coding Sheet
- Bicycle-Parking Facilities and Codes document
- Bicycle Parking Types and Codes Photo Album
- 2003 Bicycle Parking Facility/Capacity Reference

The inventory will begin on September 10, 2008, continuing through the rest of the month. Data collection should only be scheduled on Tuesdays, Wednesdays, and Thursdays, on days with favorable weather. It would not be fair to conduct inventories on rainy days, Mondays, or Fridays as bike utilization on those days could be atypical. Ideally, all data should be collected before October 1. Station inventories should start after 9:00 AM and conclude by 3:00 PM to capture peak facility utilization, with the exception of the Heritage Corridor Line (could start after 7:30AM and end as late as 5:15PM). Please consult your station inventory schedule (see Ed Barsotti). In general, stations will be inventoried on one particular (assigned) commuter rail line at a time. Should you complete the scheduled stations for a particular day early (before 3:00 PM), you can proceed to other stations that are assigned to you.

Inventory Procedures

For each assigned station you will fill out a Bicycle Parking Coding Sheet and a Station Area Map (you will have one preprinted Station Area Map and Coding Sheet per station). You may use additional (blank) Coding Sheets at each station, if necessary (numbered *x of x*), but do not enter data for more than one station on a single sheet. You will fill out at least one Coding Sheet for every assigned station, whether or not bicycles or bicycle parking facilities are present.

Begin each station inventory by filling out the following information on the header of a pre-labeled Coding Sheet (station code and name should match corresponding Station Area Map):

- Your name
- Inventory date and time
- Sheet number
- Weather (R if raining, S if sunny/cloudy, W if rained or will rain sometime between 6 a.m. and 6 p.m. today, and C if cold – below 50 degrees Fahrenheit)
- Station Code, Station Name, and Metra Line if blank sheet used

Next, define the measurement area around the station containing all "official" and "unofficial" bicycle parking facilities that may be used by Metra riders. Record the boundaries on the Station Area Map, drawing a rectangle or other polygon. Most commuter bicycle parking is within a couple hundred feet of either side of the platform, but the range could extend up to 750 feet for certain stations. A wide variety of bicycle facility types may be scattered throughout the station area. Don't forget to look on the station platforms, as well, even if they are elevated or depressed. In the "General/Additional Notes" section on the bottom of the coding sheet record any data or information relevant to bicycle parking in the area, including:

- Significant destinations and attractions (schools, shopping, festivals, libraries, etc.)
- Construction at or near station (station building or platform, parking lot, road, sidewalk, etc.)
- Information discovered in the field concerning bike parking (e.g., planned removal, replacement, improvement, or expansion of parking facilities)
- Any other event or circumstance that attracts additional bike riders or reduces parking capacity
- Shared transit facilities (CTA "L" station or bus turnaround—especially Oak Park (UP-W), Jefferson Park and Irving Park (UP-NW), and Davis St. and Main St. (Evanston)(UP-N)).

Identify each "official" and "unofficial" parking facility within the measurement area, assigning each a unique facility number (1,2,3,…). "Official" refers to all facilities such as racks and bike lockers intended specifically for bicycle parking (see Bicycle Parking Types and Codes Photo Album). "Unofficial" refers to any improvised bicycle parking (parking meters, fences, railings, signs, etc). All "official" facilities in the measurement area will be included in the survey, but "unofficial" facilities only include those in use (i.e., *potential* use/capacity is not considered). "Unofficial" facilities may be more spread out than "official" facilities; exercise judgment in grouping "unofficial" facilities into geographical areas.

Mark each facility on the Station Area Map by facility number. Each grouping of identical parking facilities should have just one facility number; different types of facilities in the same location or the same type of facility in multiple locations should each have a unique facility number. Each facility number will correspond to a row on the Bicycle-Parking Inventory Coding Sheet, with the number marked in the "Facility #" column. See the next section for additional details about completing the Coding Sheet. On the Coding Sheet you will record the type, characteristics, capacity, observed usage, and any other relevant information about all parking facilities. Photograph any unusual or questionable aspects of bicycle parking around the station area, including new or unidentifiable rack types, racks with indeterminate capacity, or cases of atypical parking patterns (e.g., extensive use of "unofficial" parking facilities (trees, fences, signs, etc.) while "official" parking capacity at designated racks is available). Please note the facility number and a description (station, location, etc.) on each photograph.

Filling out the Bicycle-Parking Inventory Coding Sheet, by Column

Facility #

- Mark the Station Area Map with numbers (1, 2, 3, …) corresponding to the locations of each "official" and "unofficial" bike-parking facility. Each number marked on the map will correspond to a row on the Bicycle-Parking Inventory Coding Sheet, with the number being marked in the "Facility #" column. Facility numbers "start over" at each station.
- Each facility number may only be assigned to a single location; however, if a single location at a station has several different types of racks/lockers/facilities, then each type needs its own row and separate facility number in the list.

Official Facility (Y/N)

- For the corresponding facility, please mark Y (yes) if the facility is official/formal. Please mark N (no) if the facility is unofficial/informal.
- "Official" refers to facilities intended for bicycle parking such as the lockers and racks shown in the Photo Album. Use a single facility number for each grouping of *identical* bike parking facilities; use a different facility number for each different type.
- "Unofficial" parking refers to any improvised bike parking (e.g., parking meters, trees, fences, signs, etc.). This may be more spread out. Use your judgment in grouping these into geographical areas. Use a separate facility number for each different type of unofficial parking.

Type Code

- Please refer to Bicycle-Parking Facilities and Codes document and Bicycle-Parking Types and Codes Photo Album for a list, explanation, and graphics of facility types and codes.
- For each facility (by facility number), identify the matching facility in the Photo Album and mark the code in the appropriate box.
- If the *exact* parking facility type (with a number suffix) cannot be found in the Bicycle Parking Types and Codes Photo Album, then use the broader category (e.g. "LT" – triangular lockers, "U" – inverted "U's").
- You may encounter a new type of parking facility neither specifically nor broadly identifiable from the Bicycle-Parking Types and Codes Photo Album. If you come across such a facility, photograph and describe the facility in detail so that this type may be added to the final report and photo album. For each new facility:
    - Assign a facility number
    - Photograph the facility (numbered with facility number)
    - Describe the facility (station, location, etc.)
    - Mark facility location on map
    - Note facility as "official" or "unofficial"
    - Complete entire row on coding (for all new (unidentifiable) facilities: Type Code = "O")
    - Return numbered photograph(s) of each new facility types with completed Bicycle-Parking Inventory Coding Sheets (any format OK, but digital preferred).

Covered Facility (Y/N)

- For each facility, mark Y (yes) or N (no) if the facility is covered by a canopy, viaduct, or other type of shelter from weather conditions.

Secured to Ground (Y/N)

- For each facility, mark Y (yes) or N (no) if the facility is secured to the ground and cannot be easily carried away.

Surface Type (IM/GR/DG)

- There are three types of codes to enter for this column (for each facility). Mark "IM" if the bicycle-parking facility is located on an asphalt, brick, or concrete surface. Please mark "GR" if the facility is located on a gravel surface. Please mark "DG" if the facility is located on dirt, mulch, or grass.

Made of Square Tubing (Y/N)

- For each facility, mark Y (yes) if the facility is made of square tubing (cannot be cut with a pipe cutter; relevant for inverted-U and continuous curve), or N (no) if not.

Length of Each Rack (ft./in.)

- Use a tape measure to measure and record the length of certain official bicycle-parking facilities, particularly those in which capacity is a function of facility length. This is especially important for schoolyard/comb, continuous curve, horizontal helix, spiral, suspended loop, and fence-type racks. For facilities with multiple (identical) racks, only include measurement of one rack.

# of Racks at Facility

- Multiple, identical racks at the same location are assigned a single facility number. Count and record the number of identical racks at each facility. If in doubt, assign multiple facility numbers.

# of Vertical Bars on Each Rack

- For all inverted "U" multiple, continuous curve, schoolyard, fence-style, horizontal helix, spiral, suspended loop, and wheel holder "toast" racks count the number of vertical bars/elements of each rack. For multiple (identical) racks at a single facility include total for only one rack. Write "n/a" for other rack types.

Capacity # of Bikes

- For the "Usable" column, count and record the number of usable spaces (not broken and access is not blocked) that each facility provides, including bicycle lockers. Write "n/a" for informal ("unofficial") facilities because the capacity of informal facilities is indeterminate.
- For many types of racks, field assessment of parking capacity is difficult. If capacity is indeterminate, note the measurements of spacing and total length on the coding sheet and photograph the rack to allow later analysis of total capacity.
- Remember that bicycles can be, and often are, locked to the end-posts of suspended-loop, schoolyard, and other long racks. So, each end-post that can be used should be counted as a space.
- Count and write the number of unusable spaces (broken, access is blocked) that the facility could provide in the "Broken/Unusable/Blocked" column.
- Note that some schoolyard, continuous-curve, and other long racks can only be fully utilized if there is access from both sides. If a continuous-curve rack with tightly-spaced "waves" is located against a wall, it might not be possible to squeeze one bike into every "slot" or nominal space. In this situation, almost half of the nominal spaces are blocked by the wall.
- Schoolyard/comb and similar racks: Schoolyard-type racks are not well designed for security, so determination of capacity is ambiguous. Therefore, follow the following simple standardized counting procedure, and be sure to measure and record the length of each rack.
    - If the there is plenty of room all around a schoolyard rack, and it has sufficient vertical bars, assume that one bike can be accommodated for every foot of length of the rack. This assumes that, on each side of the rack, the bikes can be as little as two feet apart. In principle, a 12-foot schoolyard rack could accommodate 6 bikes on each side, a total of 12 bikes, plus 1 extra bike on the end for a final total of 13 bikes.
    - If a schoolyard rack is close to and parallel to a wall, there is room for bikes only on one side. A 12-foot schoolyard rack against a wall could only accommodate 7 bikes.
    - If some of the vertical bars are broken or missing, count that part of the rack's capacity as "unusable" rather than "usable".

  This procedure assumes that a schoolyard rack can and will be used as designed—that is, with each bike only touching the rack via one wheel. (In some low-crime parts of the region, some cyclists do actually use schoolyard racks this way. However, it is understood that many sophisticated cyclists reduce the capacity of schoolyard racks by locking their bikes transversely or over the rack's top bar, because, when used as designed, these racks do not provide good security. Other cyclists prefer

informal facilities to schoolyard racks. For these reasons, the 2003 inventory report classified schoolyard rack spaces as "marginal" rather than "good".)

Usage: # of …

- Count and record the number of utilized spaces in each "official" and "unofficial" facility.
- For the "Locked Lockers" column, utilized lockers could be determined by counting the number of occupied lockers. If you cannot see the inside of the locker, mark with a "?." Metra staff will call communities with bicycle lockers at their host stations to determine if the lockers are utilized and/or leased, the costs to lease the lockers, and if there is a waiting list for them.
- Count and record the number of bicycles that occupy (recently) each facility in the "Bicycles Recently Used" column. Be sure to include all "unofficially" parked bikes.
- Count and record the number of abandoned bicycles that occupy each facility in the "Abandoned" column. Abandoned bicycles can generally be identified by their condition (missing parts, overly rusted, flat tires, old leaves under tires), but keep in mind that some owners ride "beaters" or daily remove parts of a bike (e.g., seat) to prevent theft. Note any bicycles with slashed tires in the notes column (see next section).
- Count and record the number of motorcycles and motor scooters that use each facility in the "Motorcycles, Motor Scooters, etc." column. Only include motor vehicles parked at *bicycle* facilities (don't count motor vehicles parked at designated motorcycle parking facilities).

Bike Parking and Signage Location & Condition Notes

- Note the locations of the facilities and any signage directing bicyclists to bicycle parking in this column. Please also write the word, "SIGN," on the same Station Area Map the locations of any bike parking signage that directs bicyclists to bicycle parking in the station area. If there is multiple signage directing bicyclists to different facilities, please note on the map with the use of arrows which signs direct bicyclists to which facilities. Some examples include the following: next to the outbound platform, west side of depot, north side of a major street that is adjacent to the station or intersects with the station, and signage on the east side of the depot.
- If there are other factors that lead to a perception of insecurity of the bike parking, also note these in the column. For example, please note any bicycles with slashed tires here.
- Some examples of other helpful notes to record in this column would include broken racks or locks and missing locker doors.
- If you need additional note space, use the General/Additional Notes section at the bottom or check the box at the bottom of the Code Sheet and use the back—be sure to include the facility number.

Finally, while it is not part of the inventory data sheet, take this opportunity to briefly look at the surrounding conditions that may affect the number of people biking to the station. Is a bike-unfriendly roadway the only way to access the station? Is there a nearby bike path? Are there barriers such as busy roads without stoplights or median areas for crossing? Within the station area, is it tough to get to the bike parking? Are any bike parking facilities blocking ADA or pedestrian access to the station or platform? With your "bike planning eyes on," look for possible ways to improve bicycle access, and note these separately.

Please return completed Code Sheets, Station Area Maps, photographs, and any other notes to Ed Barsotti (League of Illinois Bicyclists), Carolyn Helmke (Chicago Bicycle Federation), or Jonathan Tremper (Metra). Thanks again for helping in this valuable effort!

APPENDIX G-4
BICYCLE-PARKING FACILITY TYPES AND CODES

OFFICIAL/FORMAL FACILITIES

L **Locker**
- **LT** **locker, triangular** (completely enclosed; multiple models and brands)
- **LZ** **locker, "recti-triangular"** [I invented this term.] (Two triangular lockers in a single rectangular box. The tell-tale sign is two doors – one at each end of the rectangular box).
- **LR** **locker, rectangular** (completely enclosed; multiple models and brands)
- **LRV, LZV, LTV** **locker** with window, screen, or perforations (for **visibility inside**; multiple models and brands)

D **Lid**/Rocker (open bottom)
- **D1** *BikeLid Systems* "Bike Lid"

U **Inverted U** (many models and brands; capacity = 2)
- **UI** **irregular** inverted U (capacity = 1 or 2, depending on design)
- **UM** **multiple** inverted Us connected by steel rails (multiple models/brands; capacity = multiple of 2)

I. **UIM** **irregular multiple**
- **UT** **tilted** inverted U (e.g., *Creative Pipe* "Campus Rack")

C **Continuous-curve/**wave/serpentine (many models and brands; e.g. "Ribbon" brand; capacity >= 4)
- **CI** **irregular** intervals

H **Horizontal helix** (multiple models and brands)
- **HS** **suspended helix** – supported only at ends
- **HSS** **suspended squared horizontal helix** (e.g., *Madrax* "Genesis")
- **HG** helix w/ each loop or intermediate "feet" touching **ground**

B **Bollard/Post-and-ring** (many models and brands; capacity usually = 2)
- **BM** parking-**meter** post-and-ring adapter
- **BT** **tilted** post-and-ring (capacity = 1 per post; e.g., *Creative Pipe* "Lightning Bolt"

R **Single large ring** anchored in ground (e.g., *Creative Pipe* "Horseshoe")

J **Suspended loop** (don't forget that end-posts as well as loops can also be used for locking bikes, so capacity = number-of-loops plus 2)
- **JT** suspended **triangular** loops/coat-hanger (e.g., *Madrax* "Triton", *Creative Pipe* "Sidewinder", *Cora* "Expo" models)

JC suspended **circular** loop (e.g., *Bike-Up* "Ring Rack", *Bike Security Racks* "Bike-Multi-Hoop", *Creative Pipe* "Twister" brands)
JH suspended **helical** loop (single helix forms multiple loops)
JR suspended **rectangular** loop (e.g., *Creative Pipe* "Hurricane")
JO suspended loop: **other** shape

V **Vertical** racks (multiple models and brands)
VS **semi-vertical** (tilted) racks (multiple models and brands)
VW **vertical wall-mount**
VF **vertical free-standing**

E **Moveable straight "T" with 3 prongs (horizontal "E"** shape), which locks wheels and frame to a stationary "T" (e.g., *Huntco*, *Bike Security Racks* "Bike-Press" brands)
E1 *Graber Saris* "Bike Bank"
ED **"droopy"** T (E.g., *Huntco* brand)

P **Peculiar post**-type racks
PF **"F"**-shape chainstay post (low post w/ 2 flat horizontal prongs to lock rear wheel and chainstays)
PFW **"F"**-shape chainstay post, with separate front-**wheel** enclosure
PL post w/ seat-tube **loops** (post w/ 2 closely-spaced vertical loops)
PD **downtube** post (post w/ 2 flat angled prongs to lock downtube (diagonal frame tube) of bicycle
PS post-and-**swing-arm** (post w/ arm that swings out for locking to bike frame)
PH post w/ **horizontal** loops (post w/ 2 opposed horizontal loops)
PC double post with **crossbar** (e.g., *Landscapeforms* "Pi")
PW **wooden** post (difficult to place locks in holes, reducing the usability of the facility)

K **Encasing** rack (e.g., *Bike Parking* "CrankCase")

S **Schoolyard**/comb rack
SB schoolyard rack with **bench**
SL schoolyard rack with **loops** (e.g., *Creative Pipe* "Typhoon")
SC schoolyard rack with **curved** vertical elements

G **Fence-style** rack

W **Wheel-**holder
WT wheel-holder **"toast"** rack (e.g., *Huntco* "Angler" model)
WP **post** wheel-holder
WU **unusual** wheel-holder
WL ground loop in **long** post
… …

O **Other** rack (RECORD DETAILS (you must bring a camera!!!)

INFORMAL FACILITIES

M Parking **meter**
F **Fence**/Railing
X **Signpost**
Y **Lamp/Utility Post**
Z Parking-fee coin **box**, salt **box**, etc.
Q **Trash can**
T **Tree**
N **Depot Structure** (locked to part of depot structure or other building, i.e. depot, poles, drainpipes)
I **Freestanding** (not locked to anything else, except perhaps another bike)
A **Phone Booth**
AB **Bench**

NOTES ON CAPACITY DETERMINATION

The capacity of many facilities, such as lockers, vertical, moveable "T"s, encasing, and wheel-holder racks, is self-evident. Capacity of schoolyard/comb, continuous curve, and fence-style racks is more ambiguous. The following notes are intended as field guidelines, not as rigid determinations:

Schoolyard/Comb Racks (Type "S")
Assuming adequate rack clearance, capacity is generally a function of rack length alone; however, vertical bar spacing can affect parking capacity. For each rack, record the total length and the number of vertical bars. Be sure to note if the vertical bar spacing is regular or irregular (e.g., groups of 3 bars). Field calculation: Capacity = Total Length in feet, plus 1. The capacity of an 8' rack is thus 9. This assumes 2' spacing between bikes on each side of the rack, beginning on one end-post, plus an extra bike on the other end-post. If one side is blocked by a wall, shrubs, etc., Capacity = Half the Total Length in feet, plus 1 (round up for odd lengths).

Continuous Curve/Wave/Serpentine Racks (Type "C")
The capacity of Continuous Curve racks is a function of the number of vertical bars. Capacity = Total Number of Vertical Bars, plus 1. This allows for parking at either end and in each space between the verticals. A narrowly spaced rack (<18" between verticals) requires access to both sides for full capacity. If one side is blocked: Capacity = ½ Total Number of Verticals, plus 2.

APPENDIX G-5
BICYCLE-PARKING FACILITY TYPES AND CODES – PHOTO ALBUM

METRA STATION BICYCLE-PARKING INVENTORY

2008

INDEX

LT_ Triangular Lockers

LT1 triangular: *BikeGard*

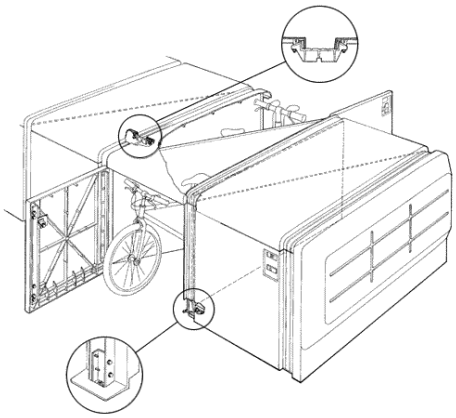
LT2 triangular plastic:
Creative Pipe "Guardian"

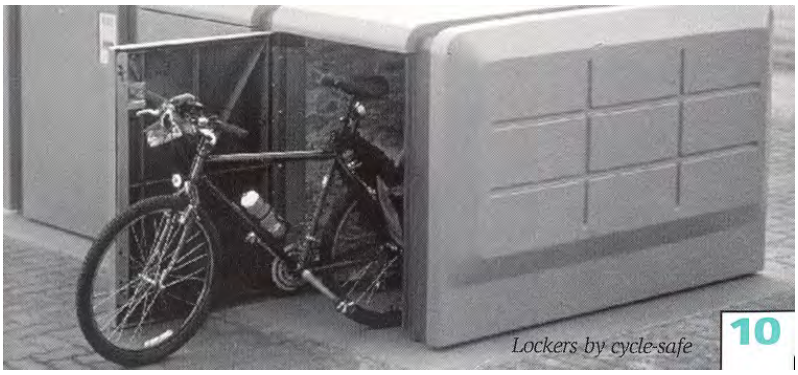
LTV3 triangular steel perforated:
Bikeparking "Bike*to*Work-Metal"

LTV4 triangular steel perforated

LT5 triangular plastic:
Bikeparking "Bike*to*Work-Poly"

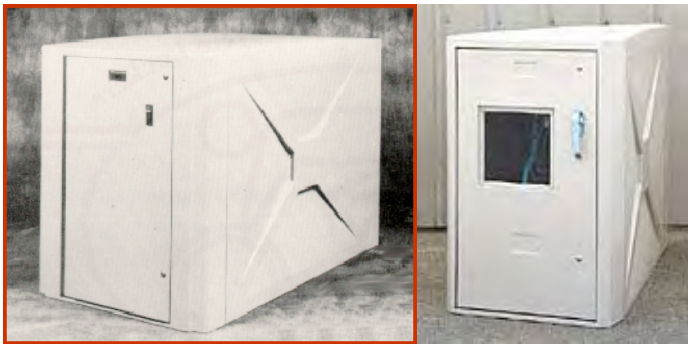
LZ "Recti-Triangular" Lockers (2 triangular lockers in one rectangular box)





LZ1 recti-triangular composite: *Cycle-Safe*

LZ2 recti-triangular steel:
Sunshine U-Lok "Secura"



LZ3, LZV3 recti-triangular fiberglass:
American Bicycle Security "Bike-Shell"

LR Rectangular Lockers

LR typical rectangular

LR1 rectangular steel:
Madrax "Dura-Locker"

LRV2 rectangular steel perforated: *Creative Pipe*

LR3 rectangular aluminum: *Cora*

D Lids

D1 lid: *BikeLid Systems* "BikeLid"

U INVERTED "U"

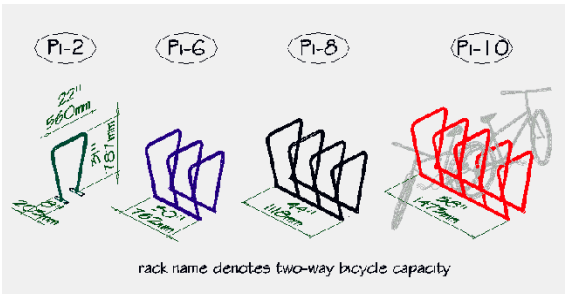
U inverted "U" typical

UM inverted "U" multiple typical

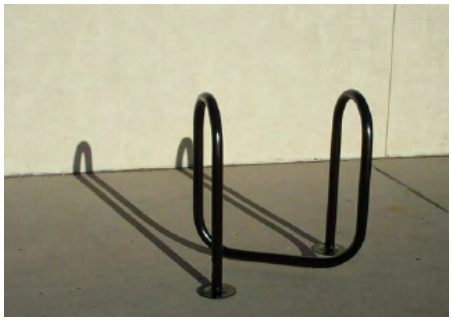
UI1 inverted "U" irregular (capacity = 1): *Dero* "Swerve" and *American Bicycle Security* "Swerve"

UI2 inverted "U" irregular: *Landscapeforms* "Bola"

UM2 inverted "U" multiple: *Sunshine U-LOK* "ARCH-LOK"



UI3, UIM3 inverted "U" irregular single and multiple: *Dobra* "Pi"



UIM4 inverted "U" irregular multiple: *Function First* "Bike Rib III"

UIM5 inverted "U" multiple irregular: *Creative Pipe* "Enforcer"

UIM6 inverted U multiple irregular:
Landscapeforms "Flo"

UT6 inverted U tilted:
Creative Pipe "Campus Rack"

C CONTINUOUS-CURVE

C continuous-curve typical

Note that the particular continuous-curve rack in the above photo has tightly-spaced "waves", so that it is only possible to make full use of the "slots" or nominal spaces by accessing the rack from both sides. However, because access to one side of this particular rack is blocked by the wall, it is not possible to squeeze a bike into all of the nominal spaces at the same time. Therefore, almost half of the nominal spaces are unusable.

"Wave" racks do not fully support bicycle frames when used as designed, increasing the chances that bikes will fall down. To prevent this, some bicyclists park their bikes parallel to the rack, greatly reducing parking capacity.

CI1 continuous-curve irregular: Function First "Bike Rib II"/ Huntco "HR Series"

H HORIZONTAL HELIX

HS Suspended Helix

HS1 horizontal helix suspended: *Madrax* "Circa"

HSS2 horizontal helix suspended square: *Madrax* "Genesis"

HG Grounded Helix

HG1 grounded helix: *Dero* "Helix" (slightly suspended by "feet")

HG2 grounded helix: *Dobra* "Boa"

B BOLLARD/POST-AND-RING

B standard bollard/post-and-ring

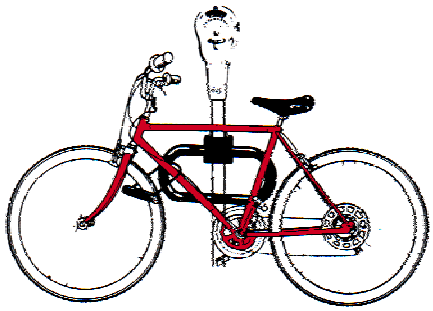
B1 standard bollard/post-and-ring:
Dero “Bike Hitch”

B2 unusual bollard/post-and-ring:
Just Rite “2 Bike Parking Rack”

B3 unusual bollard/post-and-ring:
Madrax “Keyrac” (looks like the key for opening a sardine can)

B4 unusual bollard/post-and-ring:
Function First “Bike Rib II”

BM Parking-Meter Bollard/Post-and-Ring Adaptor



BM1 parking-meter post-and-ring adapter:
Sunshine U-LOK “OVAL-LOK” (used in Iowa City)

BT Tilted Bollard/Post-and-Ring

BT2 tilted post-and-ring: *Creative Metalworks* "LR" and *Creative Pipe* "Lightning Bolt LR"

R Single Large Ring

R1 single large ring: *Creative Pipe* "Horseshoe

R2 raised single large ring: *Landscapeforms* "Ring"

J SUSPENDED LOOP

Remember that bicycles can be, and often are, locked to the end-posts of suspended-loop racks. So, each end-post that can be used should be counted as a space.

JT Suspended Triangular Loop (Coat Hanger)

JT1 suspended triangular loop: *Cora* "Expo"

JT2 suspended triangular loop: *Madrax* "Triton"

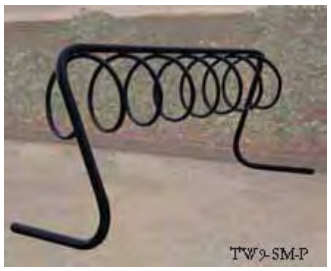
JT3 suspended triangular loop w/ horizontal zigzag bars: *Creative Pipe* "Sidewinder"

JC Suspended Circular Loop

JC1 suspended circular loop: *Bike Security Racks* "Bike-Multi-Hoop: Futura"

JC2 suspended circular loop: *Bike-Up* "Ring Rack"

JH Suspended Helical Loop



JH3 suspended helical loop: *Creative Pipe* "Twister"

JH4 suspended helical loop: *Creative Pipe* "Vortex"

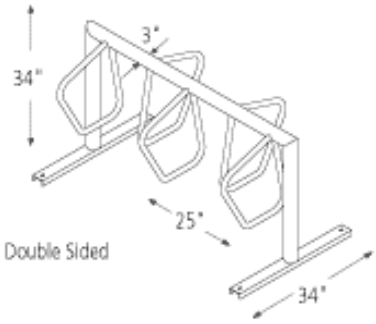
JH5 suspended helical loop (straight end verticals): Westmont Station (*note: more loops per foot*)

JR Suspended Rectangular Loop

JR1 suspended rectangular loop: *Creative Pipe* "Hurricane"

JO Suspended Loop, Other Shape

JO1 suspended loop, other shape: *Dero* "Campus"



JO2 suspended loop, other shape, double sided: *Dero* "Campus"

V VERTICAL

VS Semi Vertical

VS semi vertical

VW Vertical Wall-Mount

VW1 vertical wall-mount:
Bicycle Parking Systems "Bike-Up"

VW2 vertical wall-mount:
Creative Pipe "Wall Hook"

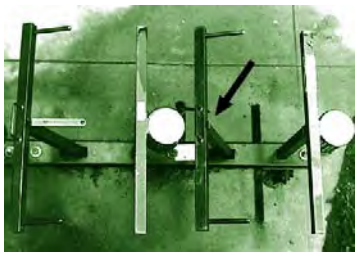
VW3 vertical wall-mount:
Bikeparking "WallHook"

VW4 vertical wall-mount:
Bicycle Parking Systems "Maximin"

VF Vertical Free-Standing

VF1 vertical free-standing:
Bicycle Parking Systems "Maximin X"

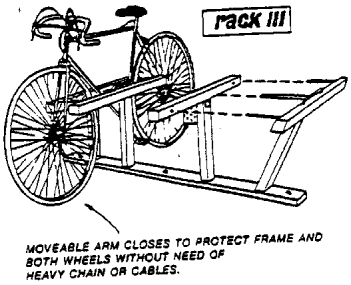
E MOVEABLE "T" WITH THREE PRONGS



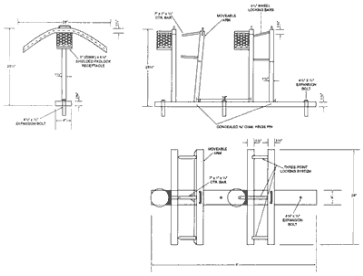
E moveable straight T with 3 prongs

E1 moveable straight T with 3 prongs:
Graber Saris "Bike Bank"

E2 moveable straight T with 3 prongs: *Bicycle Security Products* "Bike Press"

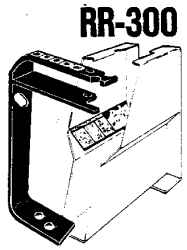


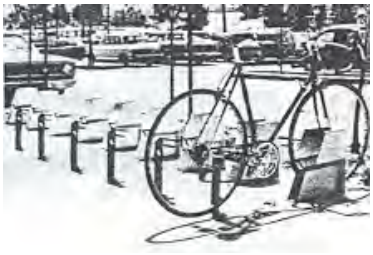
E3 moveable straight T with 3 prongs: *Sunshine U-LOK* "Rack III" (probably no longer made)



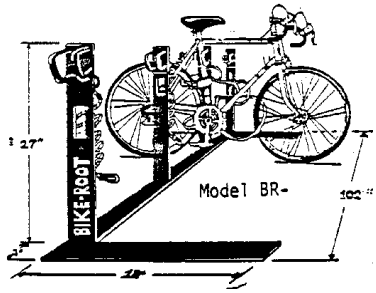
ED4 moveable "droopy" T with 3 prongs: *Huntco* "Commuter Bike Rack"

P PECULIAR POST-TYPE RACKS



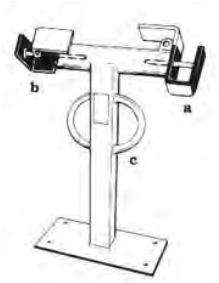


PF1, PFW1 "F"-shape chainstay post w/ (optional) front wheel cover: *Rally Rack*



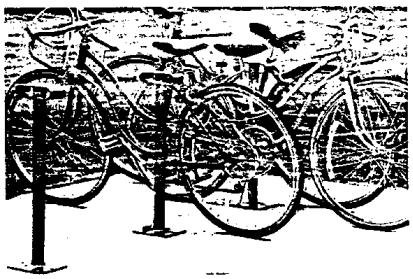
PL1 post w/ seat-tube loops: *Bike Security Racks* "Bike Root"

PD1 downtube post: *Madrax* "Pedrac"



PD2 downtube post:
Sunshine U-LOK "U-LOK II"

PS1 post-and-swing-arm:
Bike Track "Little Parker"



PH1 post w/ horizontal loops: *Bicycle Parking Systems* "Cycle Guard" (probably no longer made)

PC1 double post with crossbar: *Landscapeforms* "Pi"

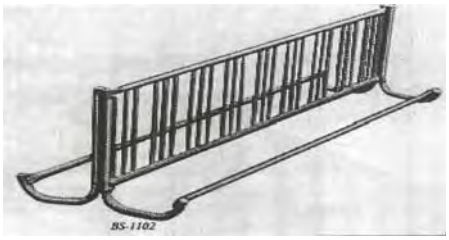
PW wooden post (difficult to place locks in holes, thus these racks are rather unusable)

K ENCASING RACK

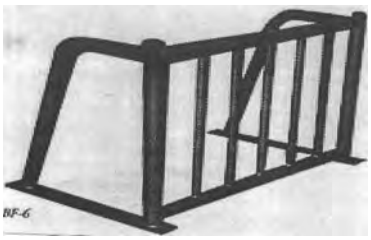

K1 crank-and chainstay enclosure: *Bike Parking* "CrankCase"

S SCHOOLYARD/COMB

S Schoolyard/Comb Typical








S schoolyard/comb various typical

SB Schoolyard/Comb w/ Bench

SB schoolyard/comb mini w/ bench: *Madrax* "Bike Bench"

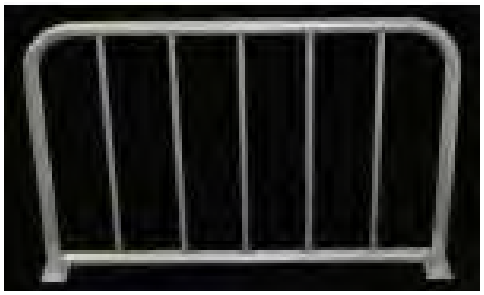
SL Schoolyard/Comb w/ Loops

SL1 schoolyard/comb irregular w/ loops:
Creative Pipe " Typhoon"

SC Schoolyard with Curve

SC1 Schoolyard with Curve: University Park Station

G FENCE STYLE



G fence-style, typical

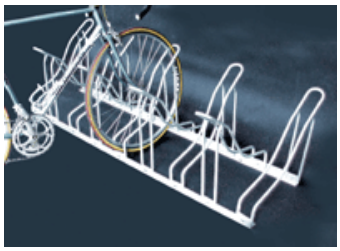
G1 fence-style: *Madrax* "Classic"

G2 fence-style: Naperville Station

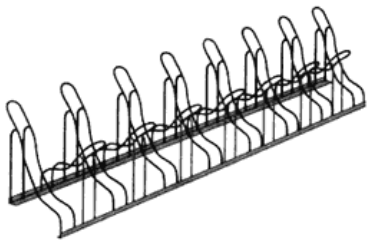
G3 fence-style: Lombard Station

W WHEEL-HOLDER RACKS

WT Wheel-Holder "Toast"

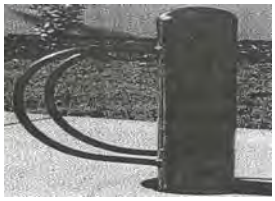


WT typical "toast" wheel-holder



WT1 wheel-holder "toast": *Huntco* "Angler

WP Post Wheel-Holder



WP wheel-holder post

WL Ground Loop in Long Post

WL Ground loop in long post

WU Unusual Wheel-Holder

WU Unusual wheel-holder

APPENDIX H-1
Bicycle-Parking Facility Types and Codes:
Post-Inventory Additions and Changes

DD Double Decker



DD1 Double Decker: *Bikeparking* "DoubleDecker"

Twelve Double Decker racks were installed in front of the Milwaukee Ave. entrance of the combined Metra/CTA Jefferson Park Station in late October or early November 2008. Each rack has a capacity of ten bikes. These racks replaced the existing "inverted-U" (type "U") and "continuous-curve" (type "C") racks. The Double Decker racks were not included in the 2008 bike-parking inventory.

JC Suspended Circular Loop

JC3 suspended circular loop: *Maglin* "MBR 300 Series"

Similar to type "JC2" racks, three "JC3" racks were installed at Winnetka, replacing a schoolyard (type "S") rack.

Classification of fence-style bike racks is problematic—some are difficult to distinguish from actual fences. These racks should only be classified as official facilities if bike parking appears to be the primary or sole function. After completion of data collection for the inventory, fence-style racks were divided into two general types: those intended for parallel parking (type "G") and those intended for perpendicular parking (type "GS").

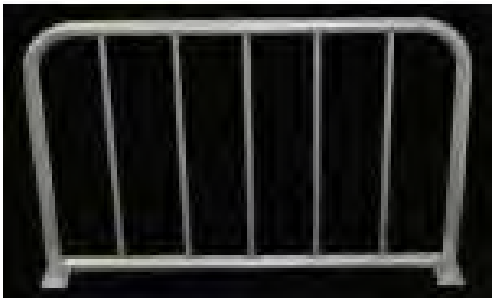
G Fence-Style (bikes parallel to rack)

G fence-style: River Forest Station

G3 fence-style: Lombard Station

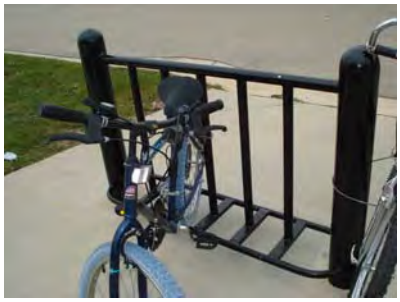
Type "G" racks are considered "good" because they are functionally similar to inverted-"U" racks. Racks should be classified as type "G" only if they are *clearly* intended for parallel parking.

GS Fence-Style (bikes perpendicular to rack)



GS fence-style, typical

GS1 fence-style: *Creative Pipe* "Cyclone" (Elmhurst Station)



GS2 fence-style: *Patterson-Williams* "Cambridge" (Bartlett Station)

GS3 fence-style: *Madrax* "Classic"

Type "GS" racks are considered "marginal" because they function as schoolyard-type racks. Although not present on all "GS"-type racks, wheel holders on GS1 and GS2 racks force bicyclists to park perpendicular to the racks. Some "fancier" schoolyard racks (e.g., Woodstock) could be reclassified as "GS" racks.

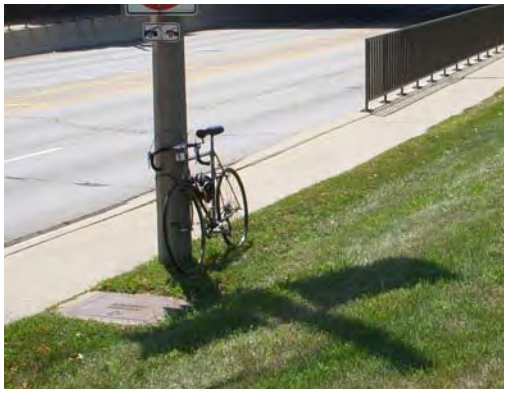
APPENDIX H-2
Examples of Some Informal Facilities

M Parking meter

F Fence/Railing

X Signpost

Y Lamp/Utility Post



Z Parking-fee coin box, salt box, etc.

N **Depot Structure** (locked to part of depot structure or other building, i.e. gas meter, poles, drainpipes)

NOT PICTURED:

Q **Trash can**
T **Tree**
I **Freestanding (not locked to anything else, except perhaps another bike)**
A **Phone Booth**
AB **Bench**