

TO:	Board of Directors	DATE:	April 13, 2012
FROM:	Alex Clifford Chief Executive Officer		
SUBJECT:	Strategic Plan Update – DRAFT State of the System	n Report	
ACTION:	For Discussion		

## **RECOMMENDATION**

For Board discussion attached is the *DRAFT Metra State of the System Report*. This document presents an overview of Metra's commuter rail network, including existing infrastructure, operating conditions, and customer markets. These elements are provided to serve as a starting point for future discussions of strategic direction for the agency.

## BACKGROUND

Metra released the first edition of its *Future Agenda for Suburban Transportation (FAST)* plan in 1992. Since that time, Metra has worked to implement the ideas presented in the document, and significant results have been achieved. The North Central Service—the first new commuter rail line in the Chicago area in 70 years—opened in 1996, and was upgraded in 2006. Between 1992 and 2011, two lines have been extended and 28 new stations have been added throughout the system, and the Metra system now includes 241 stations over 11 rail lines. Over 120 bridges have been replaced, and improvements have been made to approximately 160 stations. One hundred-thirty-three stations have been made compliant based on the Americans with Disabilities Act (ADA), meaning that 91% of weekday boardings take place at ADA-accessible stations. These projects have helped us better serve existing customers, and attract new ones. In terms of ridership, Metra is the second-largest commuter rail system in the United States, providing 82.7 million rides per year in 2011.

### **DISCUSSION**

The chapters in the *DRAFT Metra State of the System Report* explore the Metra system on a line-byline basis. Chapters include historical information about each corridor as well as descriptions of the line's infrastructure, particular operating limitations, and service and station characteristics. Chapters include a demographic analysis of each fare zone in the corridor and discuss improvements that have been made to track and signal infrastructure, station facilities, and parking on each line. Past, present, and projected future ridership demand, including growing reverse commute and nondowntown markets, is examined. A discussion of Metra's Central Business District (CBD) market precedes the line-level chapters.

## NEXT STEPS

This report serves as the starting point for the Metra Strategic Plan. The key elements of the strategic plan will include establishing a mission and vision; goals and objectives; defining performance measures, strategies, and scenarios; scenario evaluation; and the development of a final plan. In the coming months, Metra staff will be working with the Board to develop several draft policy statements on various issues to serve as elements of the Strategic Plan. Outreach to the Metra Board, key stakeholders and the general public are all part of the overall plan.

### **ATTACHMENTS**

Attachment A: DRAFT Metra State of the System Report 3/30/2012.

Prepared by Lynnette Ciavarella, Senior Division Director, Strategic Capital Planning David Kralik, Department Head, Long Range Planning Attachment A



DRAFT 3/30/12

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# INTRODUCTION

This document presents an overview of Metra's commuter rail network, including existing infrastructure, operating conditions, and customer markets. These elements are provided to serve as a starting point for future discussions of strategic direction for the agency.

Metra released the first edition of its Future Agenda for Suburban Transportation (FAST) plan in 1992. Since that time, Metra has worked to implement the ideas presented in the document, and significant results have been achieved. The North Central Service—the first new commuter rail line in the Chicago area in 70 years—opened in 1996, and was upgraded in 2006. Between 1992 and 2011, two lines have been extended and 28 new stations have been added throughout the system, and the Metra system now includes 241 stations over 11 rail lines. Over 120 bridges have been replaced, and improvements have been made to approximately 160 stations. One hundred-thirty-three stations have been made compliant based on the Americans with Disabilities Act (ADA), meaning that 91% of weekday boardings take place at ADA-accessible stations. These projects have helped us better serve existing customers, and attract new ones. In terms of ridership, Metra is the second-largest commuter rail system in the United States, providing 82.7 million rides per year in 2011.

The following chapters explore the Metra system on a line-by-line basis. Chapters include historical information about each corridor as well as descriptions of the line's infrastructure, particular operating limitations, and service and station characteristics. Chapters include a demographic analysis of each fare zone in the corridor and discuss improvements that have been made to track and signal infrastructure, station facilities, and parking on each line. Past, present, and projected future ridership demand, including growing reverse commute and non-downtown markets, is examined. A discussion of Metra's Central Business District (CBD) market precedes the line-level chapters.

# **CENTRAL BUSINESS DISTRICT MARKET**

The Metra system is a hub and spoke system, with eleven lines serving five downtown stations: Chicago Union Station (CUS), Ogilvie Transportation Center (OTC), LaSalle Street Station, Millennium Station and Van Buren Street Station. The system is designed primarily to serve Metra's principal customer base: suburban residents who work in downtown Chicago. According to Metra's 2006 Origin-Destination Survey, 87% of all Metra boardings are destined for jobs in the Central Business District (CBD). Many of the destinations of Metra riders in the CBD fall within what is considered the heart of the CBD, an area generally south and east of the Chicago River, north of Congress Parkway and adjacent to Grant Park known as the Loop. Approximately 70% of Metra riders alighting at the CBD stations travel to a destination within the Loop area. Figure 1 shows the location of each of the CBD stations and percentage of total downtown riders' destinations by quarter section.

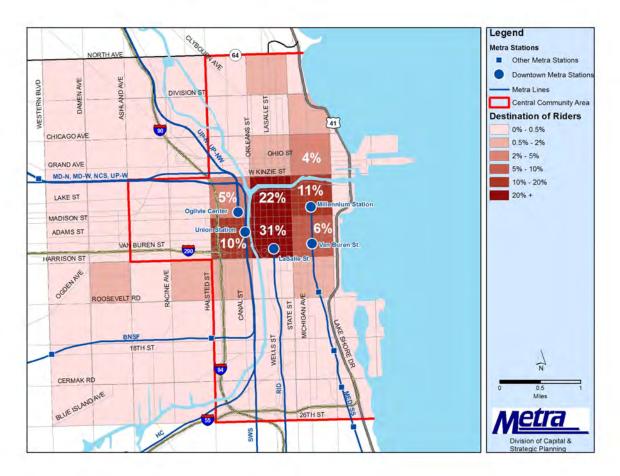


Figure 1: Destinations of Metra Riders Alighting at Downtown Terminals

The economy of the Loop and the CBD as a whole is vitally important to Metra. The CBD is the second largest central business district in the U.S. after New York's Midtown Manhattan. The CBD is a major center for financial, legal, government, and corporate services, the location of numerous Fortune 500 company headquarters and many of the region's civic, cultural, and educational activities.

Historically, employment levels have had a causal relationship to Metra ridership, specifically in the downtown marketshed. Since 87% of trips taken on Metra are for work, it is no

surprise that the health of the regional economy, especially in the CBD, can impact Metra ridership. Nearly 90% of Metra's AM boardings are destined for locations in the CBD. Despite the historic out-migration of office growth to the suburbs and despite a faltering economy, Chicago's CBD, already the second largest in the U.S., is still expected is to add nearly 165,000 jobs between 2010 and 2040. There will be a tremendous challenge in the future to facilitate travel from the downtown Metra stations to these additional jobs.

Most Metra riders traveling to the CBD are headed towards destinations in the heart of the Loop. Thirty-one percent of all riders are traveling to the quarter section (½ mile by ½ mile square) containing LaSalle Street station and bounded roughly by Madison Street on the north, Harrison Street on the south, the Chicago River on the west and State Street on the east. This area contains the bulk of the federal government, financial and business services jobs in the heart of the Loop.

The second largest destination for CBD bound Metra riders is the quarter section comprising the northern part of the Loop and bounded roughly by Kinzie Street on the north, Madison Street on the South, the Chicago River on the west and State Street on the east. Twentytwo percent of Metra riders travel to this area of the CBD. This quarter section contains much of the state and local government offices, as well as many legal services offices.

The third largest destination for CBD bound Metra riders is the quarter section containing Millennium Station and the Illinois Center business district. Bounded by Kinzie Street on the north, Madison Street on the south, State Street on the west and Field Blvd on the east, this quarter section draws 11% of Metra riders.

Other major concentrations of Metra riders are in the West Loop quarter sections defined by Kinzie Street on the north, Harrison Street on the south, Halsted Street on the west and the Chicago River on the east. This area is home to OTC and Union Station and has been an area of downtown office expansion in recent years. Approximately 15% of Metra riders travel to this area. Smaller concentrations of Metra riders travel to the areas along North Michigan Avenue and the Northwestern Memorial Hospital complex and the areas around the University of Illinois-Chicago and the Illinois Medical Center complex west of the CBD.

## **Downtown Stations**

In terms of passenger volume, Union Station is the largest station downtown (and in the Metra system), accounting for 43% of all alightings at the five CBD stations. Union Station serves six of the eleven Metra Lines as well as a number of Amtrak services. Union Station serves the Milwaukee District North and West Lines, the North Central Service, the Heritage Corridor, the SouthWest Service and the BNSF Railway Line. Union Station also serves the burgeoning West Loop office market that has developed west of the Chicago River and east of the Kennedy Expressway. Union Station is served by 15 CTA bus routes, the CTA Blue Line at Clinton Street, the Chicago River Water Taxi, and intercity buses.

OTC, located just three blocks north of Union Station, is second in terms of Metra alightings, with 29% of the total alightings in the CBD. OTC is the passenger terminal for all of Metra's Union Pacific services: the UP-North, UP-Northwest and UP-West Lines. Like Union Station, it also serves the burgeoning West Loop market. OTC is served by 13 CTA bus routes, the CTA Green Line at Clinton Street, and the Chicago River Water Taxi.

LaSalle Street Station serves as the terminal for the Rock Island District and has thirdhighest number of CBD alightings, with 14%. Its location, adjacent to the Chicago Stock Exchange and near the financial sector, places the station near the heart of the Loop. Given this location, LaSalle Street Station is the most well-connected to other transit services. It is served by 12 CTA bus routes, the CTA Brown, Pink, Purple and Orange Lines at LaSalle and Van Buren, and the CTA Blue Line at LaSalle Street. To further increase the multi-modal capabilities of this station, the City of Chicago recently completed construction of a bus transfer center adjacent to the LaSalle Street Station at Congress Parkway and Financial Place.

The Metra Electric District (MED) is the only Metra line that has two stations downtown: Millennium Station and Van Buren Street Station. Millennium Station is the terminal for the MED as well as the South Shore Line, an interurban line from Chicago to South Bend, Indiana. Previously known as the Randolph Street Station, in 2005, following the construction of Millennium Park, the station was completely rebuilt and renamed Millennium Station. It has the fourth-highest number of total alightings, representing 9% of Metra CBD alightings (not including South Shore trains). Its location underneath Millennium Park and adjacent to Michigan Avenue provides access to 16 CTA bus routes as well as Chicago's comprehensive pedestrian tunnel system. Consequently, Millennium Station has the highest share of riders who use transit to arrive at their final destination.

Van Buren Street Station is located just a few blocks south of Millennium Station, near Michigan Avenue and Van Buren Street. This station is the only downtown Metra station that is not a terminal station. Like Millennium Station, Van Buren Street Station serves both the MED and South Shore Lines and is well connected to the CTA bus system.

### Station Alightings/Mode of Egress

Most Metra riders alighting at the downtown stations walk to their final destinations. However, public transit is the second most popular mode of egress at each downtown station, accounting for a modal share between 11 and 15 percent. CTA buses are the biggest recipient of Metra riders due to close modal connectivity between buses and Metra stations downtown and a lack of direct connectivity between Metra stations and CTA L stations (with the exception of LaSalle Street Station). To accommodate Metra riders using CTA trains and buses, Metra and CTA offer the Link-Up pass, which provides Metra monthly pass holders unlimited access to CTA during peak periods for an additional \$45 a month. Table 1 shows the total alightings and mode of egress for passengers alighting at the CBD Metra stations.

Station Name	Total Alightings	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Picked Up	Transit (Bus/Rail)	Taxi	Private Shuttle	Other
LaSalle Street Station	16,394	79%	1%	1%	13%	3%	2%	1%
Millennium Station	11,102	78%	2%	1%	15%	2%	1%	1%
Ogilvie Transportation Center	34,328	78%	1%	1%	11%	4%	4%	1%
Union Station	49,992	77%	1%	1%	13%	3%	5%	1%
Van Buren Street	5,657	79%	2%	0%	15%	1%	2%	1%
Total	117,473	78%	1%	1%	13%	3%	4%	1%

Table 1: Mode of Egress for CBD Metra Stations

Source: Metra 2006 Origin-Destination Survey

Many of the CTA bus services that serve the downtown stations are oriented to serve the Loop, North Michigan Avenue, Northwestern University medical complex, McCormick Place, and the UIC/Illinois Medical District during rush periods.

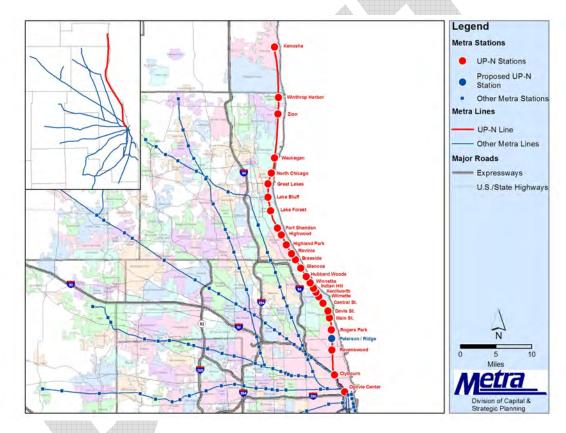
Private bus shuttles contracted by major businesses fulfill a particular transit need in downtown Chicago, primarily for riders alighting at OTC or Union Station. This is largely because of a lack of a direct transit connection from these two stations to job rich areas along North Michigan Avenue, the Northwestern University medical complex, and the Illinois Center complex. Private shuttles are effective largely because there is enough passenger demand between the CBD stations and one particular destination to make the services fast and frequent during rush periods. A lack of direct and fast public transportation services from OTC and Union Station to major portions of the CBD is also a factor in the viability of private shuttle buses.

# UNION PACIFIC NORTH LINE

# **Existing Service and Conditions**

Metra's Union Pacific North (UP-N) Line extends north from Ogilvie Transportation Center (OTC) in downtown Chicago through Winthrop Harbor to Kenosha, Wisconsin, serving portions of Cook, Lake, and Kenosha (Wisconsin) counties along the shore of Lake Michigan (see Figure 1). In addition to OTC, the line serves 25 year-round stations along its 52-mile route, plus one seasonal station at the Ravinia Park outdoor concert grounds. In 2011, passenger trips on the UP-N totaled 9.4 million, the fourth-highest ridership of any line in the Metra system (based on ticket sales).

Figure 1: Metra Stations on the UP-N Line



The UP-N Line is owned by the Union Pacific Railroad and operated and maintained by its employees under a purchase of service agreement with Metra. Metra owns the passenger coaches and revenue-service locomotives. Daytime train storage and coach servicing takes place at the California Avenue Yard, located on the Union Pacific West Line about three miles west of Ogilvie Transportation Center. The "M-19A" locomotive fuel and service facility is about two miles farther west at Keeler Avenue. Two outlying UP-N yards (at Waukegan and Kenosha) accommodate nighttime storage and maintenance.

Prior to 1995, commuter service was provided by the Chicago and NorthWestern Railroad, the predecessor of Union Pacific. In terms of number of routes and total mileage, Chicago and NorthWestern once operated the most extensive commuter service in the region.

The UP-N Line operates on two tracks adjacent to the Union Pacific Northwest Line between Ogilvie Transportation Center and Clybourn Junction (near Armitage and Ashland in Chicago), a distance of approximately three miles. From Clybourn north to Kenosha (49 miles) the line is double-tracked. None of the UP-N stations are more than two miles from the lakefront. Most have been in the same general locations for more than a century, with commercial centers that grew around them.

Consequently, the UP-N weekday schedule had few changes until 2007, except that the North Chicago and Abbott Platform Stations were consolidated in 1986 at the Abbott Platform location. In 2007, more peak period service was added to accommodate dramatic ridership increases, especially in reverse commuting and at the stations in Evanston and Chicago. There is, and was, frequent passenger service on the line between OTC and Waukegan – almost hourly or better on weekdays. Service is less frequent to the three stations north of Waukegan, where much of the line is adjacent to large swaths of state, county, municipal, non-profit, and private open lands. There is little freight service on the UP-N, and essentially none over the 27 miles of track between Clybourn and Lake Bluff stations. Table 1 details the service, station, and ridership characteristics of the UP-N.

Table 1: UP-N Current Conditions

a) Service and Ridership Characteristics

### UP-N 2006 Weekday Boardings

Time of Day	Inbound	Outbound		
AM Peak	10,198	2,099		
Midday	1,550	1,342		
PM Peak	1,942	9,194		
Evening	645	1,307		
TOTAL	14,335	13,942		

Source: Weekday Station Boardings and Alightings by Time-of-Day and Direction

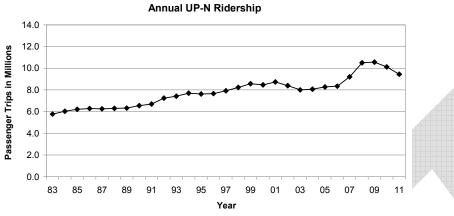


2011 Average Trip Length	18.18 miles
2011 Average Fare Paid	\$2.84
Source: Ridership Trends Report, Decem	ber 2011

Number of Stations	26
Route Length	51.6 miles
Number of Weekday Trains	70
2011 On-Time Performance*	92.6%
*On-Time Performance Report, December 20	11

### Table 1 (continued)

#### b) Ridership



\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

#### c) Station Characteristics

								Time to Chicago			
Station <sup>8</sup>	Fare	Mile	Accessibility <sup>1</sup>	Boardings		Station Parking (2011)			(mins) <sup>1</sup>		
	Zone	Post		1983 <sup>2</sup>	<b>2006</b> <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local	
Ogilvie Trans. Center	А	0.0	Full	8,437	10,935	0	n/a	n/a	n/a	n/a	
Clybourn <sup>7</sup>	А	2.9	None	110	697	33	100%	100%	n/a	10	
Ravenswood	В	6.5	None	307	1,940	56	98%	98%	n/a	17	
Rogers Park	В	9.4	Full	464	1,176	137	77%	77%	19	23	
Main St.	С	11.0	Full	481	869	71	83%	83%	23	27	
Davis St.	С	12.0	Full	565	1,854	59	78%	78%	21	29	
Central St.	С	13.3	Full	771	1,234	305	94%	74%	24	32	
Wilmette	С	14.4	Full	1,175	1,379	386	100%	100%	27	35	
Kenilworth	D	15.2	Full	444	408	99	100%	84%	29	37	
Indian Hill	D	15.8	None	356	362	99	100%	82%	35	39	
Winnetka	D	16.6	Full	673	562	198	91%	85%	32	41	
Hubbard Woods	D	17.7	None	511	371	104	100%	51%	36	44	
Glencoe	D	19.2	Full	748	708	432	100%	69%	36	47	
Braeside	E	20.5	Full	301	341	131	87%	87%	43	50	
Ravinia	E	21.5	Full	366	332	147	54%	54%	43	52	
Highland Park	Ē	23.0	Full	970	1,118	421	82%	82%	42	55	
Highwood	E	24.5	Full	230	279	96	25%	25%	52	58	
Ft. Sheridan	F	25.7	Full	311	279	301	50%	44%	63	61	
Lake Forest	F	28.3	Full	644	725	782	92%	60%	50	66	
Lake Bluff	G	30.2	Full	307	519	202	87%	87%	53	69	
Great Lakes	G	32.0	Full	76	306	84	60%	42%	57	73	
North Chicago	G	33.7	Full	175	191	56	77%	64%	60	77	
Waukegan	Н	35.9	Full	553	1,030	439	51%	51%	63	80	
Zion	1	42.1	Full	81	152	100	92%	92%	71	88	
Winthrop Harbor	- I	44.5	Full	21	79	107	65%	36%	76	93	
Kenosha	K	51.5	Full	142	431	126	60%	60%	84	101	
TOTAL UP-N <sup>8</sup>	A			19,233	28,277	4,971	82%	69%			

<sup>1</sup> Union Pacific North Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts. Total includes 14 boardings from Abbott Platform Station, which closed in 1986.

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Parking area at this station serves UP-N and UP-NW Lines

<sup>8</sup> Ravinia Park Station is not shown, because it is only used to serve the Ravinia Park summer evening outdoor concerts

### Table 1 (continued)

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Ogilvie Trans. Center	34%	5%	10%	41%	10%
Clybourn	36%	24%	16%	21%	2%
Ravenswood	59%	26%	5%	9%	2%
Rogers Park	60%	23%	11%	5%	1%
Main St.	73%	19%	6%	1%	0%
Davis St.	61%	17%	11%	10%	1%
Central St.	50%	33%	15%	2%	0%
Wilmette	42%	42%	13%	2%	0%
Kenilworth	62%	26%	12%	0%	1%
Indian Hill	70%	22%	8%	0%	0%
Winnetka	47%	35%	17%	0%	0%
Hubbard Woods	74%	15%	11%	0%	0%
Glencoe	32%	48%	20% 🧹	0%	0%
Braeside	34%	51%	13%	0%	1%
Ravinia	58%	26%	13%	2%	0%
Highland Park	22%	58%	18%	2%	0%
Highwood	57%	26%	15%	2%	0%
Ft. Sheridan	15%	71%	14%	0%	0%
Lake Forest	27%	50%	23%	0%	1%
Lake Bluff	28%	60%	11%	1%	1%
Great Lakes	9%	48%	33%	6%	3%
North Chicago	22%	27%	42%	5%	5%
Waukegan	5%	59%	25%	8%	2%
Zion	13%	58%	25%	0%	4%
Winthrop Harbor	11%	76%	11%	2%	0%
Kenosha	7%	66%	23%	1%	3%
TOTAL UP-N	43%	31%	13%	10%	2%
SYSTEM TOTAL	22%	56%	16%	5%	1%

Source: Metra, Fall 2006 Origin-Destination Survey

# **Improvements Since the Start of Metra**

Since 1985, Metra has invested over \$438 million (in year of expenditure dollars) in improvements to the UP-N corridor, as shown in Table 2. On the UP-N Line, since 1985, new depots or warming houses have been constructed at Great Lakes, Highwood, North Chicago, and Waukegan. In addition, other significant station improvements have been completed at Central Street, Davis Street, Main Street, Fort Sheridan, Glencoe, Highland Park, Hubbard Woods, Indian Hill, Kenosha, Lake Bluff, Lake Forest, Ravinia, Wilmette, Winnetka, Winthrop Harbor, and Zion. All of these projects, except Hubbard Woods, Lake Bluff, North Chicago, and Waukegan were completed since FAST was initially developed in 1992.

Most UP-N stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 87% of UP-N boardings were at these accessible stations. Metra's station compliance program started with designating eight of the busiest UP-N stations, including OTC in downtown Chicago, as "key stations", all of which were made fully accessible by 2004. Since 1985, Metra has completed access improvements at a total of 20 non-downtown UP-N stations, and 20 outlying UP-N stations are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible.

	UP-N	System
Rolling Stock	\$152.4	\$1,856.6
Track	36.7	763.5
Structure	89.0	606.0
Signal	21.6	508.0
Electrical	4.5	74.9
Communications	2.3	36.5
Facilities	13.5	417.1
Equipment	9.4	113.4
Stations	53.8	629.5
Parking	8.1	171.4
Downtown Terminals	47.0	295.4
TOTAL	\$438.3	\$5,472.3

Table 2: Metra Capital Investment History

(in millions of dollars)



# Present and Future Demand

In 2006, more than 28,000 boardings took place each weekday on the UP-N, with 69% of boardings occurring on peak-period, peak-direction trains. At UP-N stations, ridership has increased 47% since 1983 (see Table 1c). However, at the three stations in the City of Evanston, boardings increased an average of 118% between 1983 and 2006. Chicago stations close to the CBD have experienced dramatic ridership gains, with boardings at the Clybourn and Ravenswood Stations each increasing more than 500% during the same period. Figure 2 shows the origins of UP-N riders who board at stations outside of Chicago's Central Business District (CBD). Overall passenger ridership on the UP-N totaled 9.4 million in 2011.

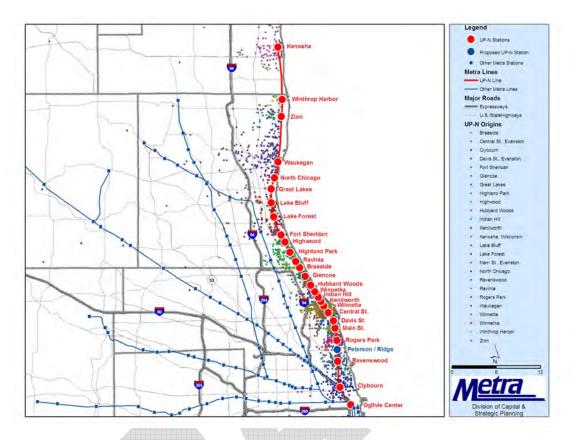


Figure 2: Origins of Riders Using Non-CBD UP-N Stations

About 5,000 parking spaces serve the riders of the UP-N, as shown in Table 1c. According to parking counts conducted in 2011, the effective rate of utilization at all stations on the line averages 82%. At 13 stations, effective parking utilization exceeds 85%. This indicates a demand for increased parking on the line, since Metra considers lots over 85% occupied to be approaching full capacity. Due to residential growth in the UP-N corridor, the demand for parking is expected to grow.

A number of indicators suggest that demand for commuter rail service will continue to rise in the UP-N corridor, as shown in Tables 3, 4, and 5. The corridor has been growing in recent decades, and demographic forecasts anticipate continued growth in population and employment.

### Table 3: UP-N Corridor Population

	Fare	Area	Pop	oulation in Zo	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Ogilvie Trans. Center, Clybourn	А	12.6	217,022	237,400	296,087	9.4%	24.7%
Ravenswood, Rogers Park	В	18.3	383,769	367,136	445,992	-4.3%	21.5%
Main St., Davis St., Central St., Wilmette	С	16.4	115,569	122,933	143,531	6.4%	16.8%
Kenilworth, Indian Hill, Winnetka, Hubbard Woods, Glencoe	D	14.2	39,370	38,528	55,406	-2.1%	43.8%
Braeside, Ravinia, Highland Park, Highwood	Е	14.3	32,179	32,057	48,355	-0.4%	50.8%
Fort Sheridan, Lake Forest	F	11.4	15,541	16,212	22,714	4.3%	40.1%
Lake Bluff, Great Lakes, North Chicago	G	25.1	68,234	78,102	91,370	14.5%	17.0%
Waukegan	н	26.1	84,286	86,173	106,783	2.2%	23.9%
Zion, Winthrop Harbor	I	46.4	47,559	53,813	71,901	13.1%	33.6%
Kenosha <sup>1</sup>	К	n/a	n/a	n/a	n/a	n/a	n/a
UP-N TOTAL		184.8	1,003,529	1,032,354	1,282,139	2.9%	24.2%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

<sup>1</sup> Station is not located in Illinois, and marketshed data is not available.

### Table 4: UP-N Corridor Households

	Fare	Area 🧹	Hou	seholds in Z	one	Percent Change	
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Ogilvie Trans. Center, Clybourn	А	12.6	112,854	122,915	160,216	8.9%	30.3%
Ravenswood, Rogers Park	В	18.3	169,194	163,940	197,148	-3.1%	20.3%
Main St., Davis St., Central St., Wilmette	С	16.4	44,346	44,845	56,355	1.1%	25.7%
Kenilworth, Indian Hill, Winnetka, Hubbard Woods, Glencoe	D	14.2	13,829	13,467	19,028	-2.6%	41.3%
Braeside, Ravinia, Highland Park, Highwood	E	14.3	11,883	11,677	17,664	-1.7%	51.3%
Fort Sheridan, Lake Forest	F	11.4	5,290	5,369	7,317	1.5%	36.3%
Lake Bluff, Great Lakes, North Chicago	G	25.1	18,570	17,049	25,434	-8.2%	49.2%
Waukegan	н	26.1	27,866	27,759	34,024	-0.4%	22.6%
Zion, Winthrop Harbor		46.4	16,211	18,336	24,698	13.1%	34.7%
Kenosha <sup>1</sup>	к	n/a	n/a	n/a	n/a	n/a	n/a
UP-N TOTAL		184.8	420,043	425,357	541,884	1.3%	27.4%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

<sup>1</sup> Station is not located in Illinois, and marketshed data is not available.

## Table 5: UP-N Corridor Employment

		Area	Employment in Zone			Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Ogilvie Trans. Center, Clybourn	А	12.6	257,635	259,322	352,184	0.7%	35.8%	
Ravenswood, Rogers Park	В	18.3	71,269	84,439	97,844	18.5%	15.9%	
Main St., Davis St., Central St., Wilmette	С	16.4	76,407	72,573	63,216	-5.0%	-12.9%	
Kenilworth, Indian Hill, Winnetka, Hubbard Woods, Glencoe	D	14.2	15,953	16,898	20,838	5.9%	23.3%	
Braeside, Ravinia, Highland Park, Highwood	E	14.3	20,972	26,211	34,774	25.0%	32.7%	
Fort Sheridan, Lake Forest	F	11.4	11,056	10,732	15,767	-2.9%	46.9%	
Lake Bluff, Great Lakes, North Chicago	G	25.1	46,817	44,039	44,809	-5.9%	1.7%	
Waukegan	н	26.1	35,349	31,423	37,328	-11.1%	18.8%	
Zion, Winthrop Harbor	1	46.4	7,863	9,163	16,893	16.5%	84.4%	
Kenosha <sup>1</sup>	к	n/a	n/a	n/a	n/a	n/a	n/a	
UP-N TOTAL		184.8	543,321	554,800	683,653	2.1%	23.2%	
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%	

<sup>1</sup> Station is not located in Illinois, and marketshed data is not available.

The Chicago Metropolitan Agency for Planning (CMAP) forecasts that the UP-N corridor will attract nearly 250,000 new residents between 2010 and 2040, a 24% increase. Employment growth will be a significant factor in stimulating ridership growth. A 23% increase in employment is projected for marketsheds within the UP-N corridor from 2010 to 2040.

# **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (Metra's primary commuter market is discussed in the Central Business District (CBD) Market section). The UP-N Line hosts a substantial amount of reverse commute traffic. Seventeen percent of UP-N boardings during the AM peak are in the reverse (outbound) direction, the highest percentage of any line in the Metra system and well above the system average of 6%. Over three-quarters of these outbound boardings take place at the four Chicago stations, from OTC to Rogers Park. Figure 3 shows AM alightings at non-CBD UP-N stations.

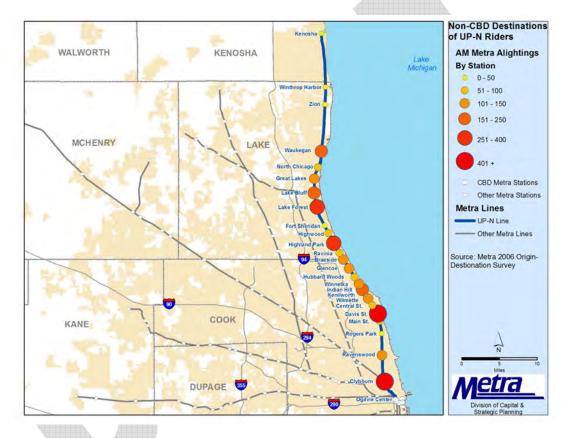


Figure 3: AM Alightings at Non-CBD UP-N Stations

Dense development along the UP-N Line, in Chicago and throughout the lakefront suburbs to the north, has led to heavy use of outlying UP-N stations as destination stations. The proximity of stations to residences and employment centers makes it possible for many Metra riders—even those using stations far outside Chicago—to walk to and from stations at both ends of their trip. In fact, the UP-N Line has the highest walk and bike mode of access (43%) of any Metra line (see Table 1d). A significant number of riders utilize stations in suburban downtowns in order to reach nearby jobs. For example, during a typical AM peak period in 2006, nearly 700 riders alighted trains at the Davis Street Station in Evanston, which serves the downtown Evanston business district and the Evanston campus of Northwestern University. A significant number of riders are attracted to stations in less dense areas as well, as domestic workers commute to jobs in residential areas and workers at larger employers, such as New Trier High School in Winnetka and Abbott Laboratories in

North Chicago, utilize nearby stations. (Some major employers along the UP-N are shown in Table 6.)

Between 2002 and 2006, AM peak period outbound boardings on the UP-N increased 14%, and the number of riders alighting at outlying stations during the AM peak increased 17%. Several indicators suggest that travel to outlying stations, including reverse commute travel, will continue to increase in the UP-N corridor.

Growth in population and number of households is projected in all UP-N station marketsheds by 2040, especially those from Kenilworth north (see Tables 3 and 4). Significant employment growth is projected in marketsheds from Kenilworth to Lake Forest, and in the Zion and Winthrop Harbor marketsheds (see Table 5). Such suburban employment growth, accompanied by an increase in population in the city and inner suburbs, has been linked to increased demand for reverse commute travel. Population growth of 23% by 2040 is projected in the four station marketsheds within the City of Chicago.

Generator Type	Name	Comments	Municipality
Colleges and	Truman College	24,000 students	Chicago
Universities	St. Augustine College	600 students	Chicago
	Loyola University Chicago	15,500 students	Chicago
	Northwestern University	15,100 full time students, 1,100 part time students	Evanston
	Lake Forest College	1,400 students	Lake Forest
	Rosalind Franklin University	1,700 students	North Chicago
	College of Lake County - Lakeshore Campus	Lakeshore Campus	Waukegan
	University of Wisconsin - Parkside Campus	5,000 students	Kenosha, WI
	Gateway Technical College	5,000 full time students, 24,000 part time students	Kenosha, WI
	Carthage College	2,200 full time students, 750 part time students	Kenosha, WI
Culture and	Wrigley Field	Chicago Cubs baseball stadium, capacity 41,100	Chicago
Entertainment	Ryan Field	Northwestern Univ. Wildcats football stadium, capacity 47,100	Evanston
	Welsh-Ryan Arena	Northwestern University Wildcats basketball arena, cap. 8,100	Evanston
	Chicago Botanic Garden	385-acre living plant museum	Glencoe
	Ravinia Park	Performing arts facility, 3,200 seat open air theater	Highland Park
	Genesee Theatre	Concert hall, capacity 2,400	Waukegan
	Anderson Arts Center	9,000 sq ft arts center	Kenosha, WI
Shopping*	Westfield Old Orchard	Super-regional shopping center with approximately 170 stores, including 4 anchor department stores	Skokie
Government	Evanston City Hall	City administrative offices	Evanston
	Waukegan City Hall	City administrative offices	Waukegan
	Lake County Courthouse and Administration Building	County administrative offices	Waukegan
	Kenosha County Administration Building	County administrative offices	Kenosha, WI
	Kenosha County Courthouse	Circuit court for Kenosha County	Kenosha, WI
Hospitals	Bethany Methodist Hospital	235 beds; 525 employees	Chicago
	Saint Francis Hospital	375 beds; 1,300 employees	Evanston
	Evanston Hospital	377 beds; 4,200 employees	Evanston
	Highland Park Hospital	155 beds; 1,700 employees	Highland Park
	Lake Forest Hospital	215 beds; 1,600 employees	Lake Forest
	Naval Hospital	45 beds; 1,200 employees	North Chicago
	North Chicago VA Medical Center	503 beds; 2,650 employees	North Chicago
	Vista Medical Center West	67 beds; 900 employees	Waukegan
	Vista Medical Center East	146 beds; 1000 employees	Waukegan
	Midwestern Regional Medical Center	70 beds; 950 employees	Zion
	Kenosha Medical Center	189 beds; 1,800 employees	Kenosha, WI
Top Private	Rotary International	Non-profit service organization; 500 employees	Evanston
Employers	Abbott Laboratories	Pharmaceutical company; 10,000 employees	North Chicago
· •	U.S. Navy	Naval station, recruit training center; 4,500 employees	North Chicago
	Snap-on	Developer and manufacturer of tools; 500-900 employees	Kenosha, WI
	Chrysler	Engine Plant; 500-900 employees	Kenosha, WI
	,		

Table 6: Major Trip Generators in the UP-N Corridor

\* Significant shopping areas exist at several stations areas along the line.

# **Station and Parking Improvements**

In conjunction with a major bridge rehabilitation project, the Ravenswood Station will be completely replaced and made fully accessible to disabled riders. Boardings increased over 500% at the station between 1983 and 2006, making Ravenswood the busiest outlying station on the UP-N Line. To accommodate heavy ridership, the rebuilt station will offer two new warming shelters and longer platforms.

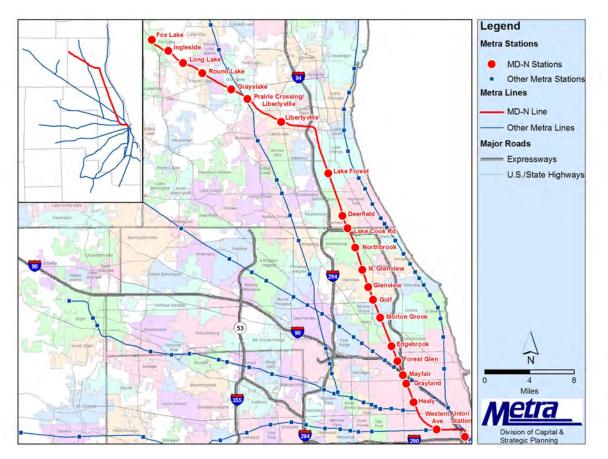
Rehabilitation of the Winnetka Station was recently completed, largely via \$5 million in American Recovery and Reinvestment Act (ARRA) funds. At Winthrop Harbor Station, a new warming shelter and a parking expansion were recently completed. Proposed to be funded by the recent State of Illinois bond program, station improvements are planned at the Hubbard Woods Station. The station will be made fully ADA-compliant as part of replacing the platforms and rehabilitating the depot building. A complete new station on the UP-N Line is proposed for Peterson Avenue, between the Edgewater and West Ridge neighborhoods of the City of Chicago.

# MILWAUKEE DISTRICT NORTH LINE

# **Existing Service and Conditions**

Metra's Milwaukee District North (MD-N) Line extends 49.5 miles north-northwest from Chicago's Union Station (CUS or "Union Station") to Fox Lake. The MD-N Line provides service to 20 intermediate stations between Chicago Union Station and Fox Lake with service to the northwest side of Chicago, northern Cook County, and Lake County (see Figure 1). In 2011, passenger trips on the MD-N totaled 7 million, ranking eighth among the eleven Metra lines (based on ticket sales).

Figure 1: Metra Stations on the MD-N Line



The Milwaukee District North and Milwaukee District West (MD-W) Lines were acquired by Metra following the demise of the famed Milwaukee Road, the Chicago, Milwaukee, St. Paul and Pacific Railroad. Both the MD-N and MD-W are operated and maintained by Metra employees and commuter trains on both lines are dispatched by Canadian Pacific Railway (CP), which operates freight service over Metra-owned Milwaukee District track. Maintenance and daytime storage of all Milwaukee District trainsets, as well as trainsets serving the North Central Service (NCS) and Heritage Corridor, takes place at the Western Avenue Yard, located approximately three miles west of Chicago Union Station. Overnight storage of trainsets serving the MD-N Line takes place at the Fox Lake Yard, just east of the station in Fox Lake.

Both Milwaukee District lines as well as the NCS share the Western Avenue Station in Chicago and Metra's three main tracks for the five miles between CUS and the A-5 junction, where the MD-N and MD-W/NCS separate. The MD-N has three distinct segments: a triple-track main line from CUS to Tower A-5, a double-track main line north from Tower A-5 to Rondout Junction (located between the Lake Forest and Libertyville stations), and a single-track branch line (the Fox Lake Subdivision northwest from Rondout to Fox Lake) (Figure 1). The double-track main line north of Rondout is owned by CP while the branch line beyond Fox Lake is owned by the Wisconsin River Rail Transit Commission.

In addition to Metra passenger trains, the main line segment of the MD-N to Rondout handles Amtrak's *Hiawatha* and *Empire Builder* services. These Amtrak trains terminate at Union Station and also stop at the Glenview station. Besides Amtrak and Metra services, a limited amount of freight traffic from the Wisconsin & Southern Railroad and CP operates over the MD-N via trackage rights.

Service levels are higher on the double-track main line than the single-track Fox Lake Subdivision. A variety of train operations, limited crossovers, and the single-track Fox Lake Subdivision preclude the maximization of reverse commuter service and additional recycling of trains for peak period trips. Table 1 details the service, station, and ridership characteristics of the MD-N.

Table 1: MD-N Current Conditions

a) Service and Ridership Characteristics

MD-N 2006 Weekday Board	inas
-------------------------	------

Time of Day	Inbound	Outbound
AM Peak	8,835	1,565
Midday	1,394	1,179
PM Peak	1,649	7,882
Evening	342	1,411
TOTAL	12,220	12,037

Source: Weekday Station Boardings and Alightings by Time-of-Day and Direction

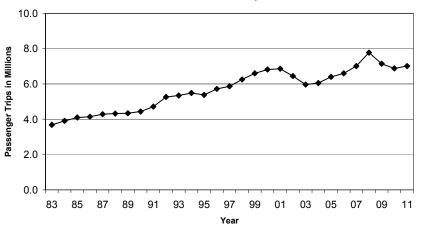
2011 Average Trip Length	23.21 miles
2011 Average Fare Paid	\$3.19
Source: Ridership Trends Report, Decembe	r 2011

Number of Stations	22
Route Length	49.5 miles
Number of Weekday Trains	60
2011 On-Time Performance*	89.6%
*On-Time Performance Report, December 20	11

#### Table 1 (continued)

#### b) Ridership

Annual MD-N Ridership



\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

				_					Time to 0	
Station	Fare	Mile	Accessibility <sup>1</sup>	Board	dings		on Parking (2		(mir	ıs)'
	Zone	Post				Capacity	Effective	Observed		
				<b>1983</b> <sup>2</sup>	<b>2006</b> <sup>3</sup>	(Spaces) <sup>4</sup>	Use⁵	Use <sup>6</sup>	Express	Local
Union Station	А	0.0	Full	5,805	9,776	0	n/a	n/a	n/a	n/a
Western Ave.7	Α	2.9	Full	136	435	22	100%	100%	n/a	14
Healy	В	6.4	Full	226	342	13	100%	100%	n/a	20
Grayland	В	8.2	None	78	318	21	95%	95%	n/a	23
Mayfair	В	9.0	None	53	317	0	n/a	n/a	n/a	25
Forest Glen	С	10.2	None	73	331	100	77%	77%	n/a	28
Edgebrook	С	11.6	Partial	197	544	183	96%	96%	n/a	31
Morton Grove	С	14.3	Full	451	966	474	100%	84%	26	36
Golf	D	16.2	Full	131	315	35	94%	94%	30	39
Glenview	D	17.4	Full	1,218	1,611	681	98%	76%	31	42
Glen / N. Glenview <sup>8</sup>	D	18.8	Full		770	849	58%	58%	34	45
Northbrook	E	21.1	Partial	1,213	1,323	696	96%	96%	38	49
Lake Cook Rd. <sup>8</sup>	E	23.0	Full		1,406	653	46%	46%	41	53
Deerfield	E	24.2	Full	1,185	1,315	621	91%	88%	44	56
Lake Forest	F	28.4	Full	193	578	553	70%	54%	50	62
Libertyville	н	35.5	Full	702	1,169	448	97%	77%	60	72
Prairie Crossing <sup>8, 9</sup>	н	39.2	Full		344	647	42%	42%	66	78
Grayslake	1	41.0	Full	196	772	670	54%	54%	72	82
Round Lake	1	44.0	Full	317	710	489	55%	53%	77	88
Long Lake	J	46.0	Partial	45	133	49	78%	78%	81	91
Ingleside	J	47.8	Full	15	150	119	55%	55%	84	94
Fox Lake	J	49.5	Full	405	632	408	91%	87%	84	97
TOTAL MD-N				12,670	24,257	7,731	74%	68%		

#### c) Station Characteristics

<sup>1</sup> Milwaukee District / North Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts. Total includes 14 boardings at Wilson Road station, which closed in 1984.

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Parking area at this station serves MD-N, MD-W and NCS Lines

<sup>8</sup> The Glen/North Glenview opened in 2001. Prairie Crossing/Libertyville opened in 2004.

<sup>9</sup> Parking area at this station serves MD-N and NCS Lines

### Table 1 (continued)

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Union Station	30%	6%	9%	46%	10%
Western Ave.	16%	48%	15%	20%	1%
Healy	35%	23%	12%	29%	1%
Grayland	44%	34%	10%	13%	0%
Mayfair	30%	24%	15%	32%	0%
Forest Glen	28%	53%	16%	3%	0%
Edgebrook	31%	45%	17%	8%	0%
Morton Grove	14%	63%	21%	1%	1%
Golf	35%	26%	36%	3%	0%
Glenview	26%	54%	18%	2%	1%
Glen / N. Glenview	13%	72%	14%	1%	0%
Northbrook	19%	69%	12%	0%	0%
Lake Cook Rd.	3%	85%	10%	1%	1%
Deerfield	17%	66%	15%	2%	0%
Lake Forest	8%	72%	18%	1%	1%
Libertyville	12%	63%	22%	2%	1%
Prairie Crossing	10%	76%	14%	0%	0%
Grayslake	10%	71%	18%	0%	0%
Round Lake	7%	68%	23%	1%	1%
Long Lake	15%	68%	18%	0%	0%
Ingleside	12%	70%	18%	0%	0%
Fox Lake	6%	70%	23%	1%	1%
TOTAL MD-N	19%	51%	16%	11%	2%
SYSTEM TOTAL	22%	56%	16%	5%	1%

# **Improvements Since the Start of Metra**

Since 1985, Metra has invested \$420 million (in year of expenditure dollars) in improvements to the MD-N Line. Table 2 indicates the amount of investment in different asset categories.

On the MD-N Line, since 1985, new infill stations have been added at Lake Cook Road, North Glenview, and Prairie Crossing, and new depots or warming houses have been constructed at Glenview, Ingleside, Lake Forest, and Northbrook. In addition, other significant station improvements have been completed at Deerfield, Fox Lake, Golf, Healy, and Western Avenue. All of these projects were completed since FAST was initially developed in 1992. In addition to new infill stations along the MD-N, there have also been major enhancements to existing stations, including upgrades to parking and station platforms. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities.

Additional infrastructure improvements since 1992 include rehabilitated crossovers at Mayfair Interlocking, upgrades to Tower A-5, and repair or replacement of six bridges.

Table 2: Metra Capital Investment History
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	MD-N	System
Rolling Stock	\$171.6	\$1,856.6
Track	35.7	763.5
Structure	30.6	606.0
Signal	54.5	508.0
Electrical	0.4	74.9
Communications	2.9	36.5
Facilities	46.1	417.1
Equipment	11.6	113.4
Stations	50.9	629.5
Parking	11.9	171.4
Downtown Terminals	3.8	295.4
TOTAL	\$420.0	\$5,472.3

(in millions of dollars)

Most MD-N stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 88% of MD-N weekday boardings were at these accessible stations. Metra's station ADA-compliance program started with designating ten of the busiest MD-N stations, including Chicago Union Station, as "key stations," all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a total of 11 non-downtown MD-N stations, and 15 outlying stations on the line are now fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated so that eventually all stations will be accessible.

# Present and Future Demand

Due to substantial increases in population along the MD-N corridor, demand for commuter rail service is expected to grow. Figure 2 shows the origins of MD-N riders using stations outside the central business district (CBD).

On a typical weekday in 2006, the MD-N had almost 25,000 boardings with 69% of boardings on peak period, peak-direction trains. Overall, the MD-N has seen a 91% increase in boardings since 1983 (see Table 1c). Significant ridership increases have been at stations in Chicago (Western Avenue, 220%; Grayland, 308%; Mayfair, 498%) as well as in the burgeoning suburbs of Lake County (Grayslake, 294%; Ingleside, 900%). No MD-N stations have shown a decline in ridership, although ridership in northern Cook County has shown only a modest increase since 1983. Despite considerable population and ridership growth in northwest Lake County along the Fox Lake Subdivision, approximately 73% of weekday MD-N riders still board trains on the main line south of Libertyville. Overall passenger ridership on the MD-N totaled 7 million in 2011.

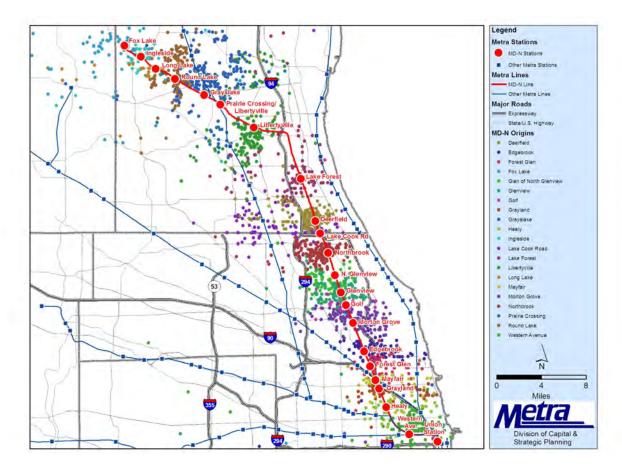


Figure 2: Origins of Riders Using Non-CBD MD-N Stations

There are over 7,700 parking spaces on the MD-N. According to parking counts conducted in 2011, the effective parking utilization rate on the MD-N as a whole is 74%. Eleven stations have effective utilization rates above 85%, which indicates a demand for increased parking on the line, since Metra considers lots over 85% occupied to be approaching full capacity. Parking is not currently provided at CUS or Mayfair stations.

In 2010, the population of the entire MD-N corridor was 653,000. By 2040, the population of the corridor is expected to increase by 32% to 860,000. Stations along the Fox Lake Subdivision are estimated to have the greatest percent increase in population, with projected growth of 50%. In contrast, the main line station marketshed populations are estimated to increase by 26%. With heavy population and household growth along the MD-N corridor, it is likely that the MD-N will continue to see ridership gains and increased service demands in the future, particularly along the Fox Lake Subdivision. Tables 3, 4 and 5 describe the population, household and employment demographics for stations along the MD-N corridor.

### Table 3: MD-N Corridor Population

	Fare	Area	Pop	oulation in Zo	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	61,046	56,719	76,351	-7.1%	34.6%
Healy, Grayland, Mayfair	В	9.2	207,047	189,203	230,090	-8.6%	21.6%
Forest Glen, Edgebrook, Morton Grove	С	19.4	110,958	114,518	140,560	3.2%	22.7%
Golf, Glenview, Glen / N. Glenview	D	20.5	63,705	68,695	82,471	7.8%	20.1%
Northbrook, Lake Cook Rd, Deerfield	E	22.9	55,891	56,654	78,132	1.4%	37.9%
Lake Forest	F	14.6	11,480	12,087	19,539	5.3%	61.7%
Libertyville, Prarie Crossing	н	35.3	45,702	48,881	62,614	7.0%	28.1%
Grayslake, Round Lake	1	30.8	28,718	42,917	70,023	49.4%	63.2%
Long Lake, Ingleside, Fox Lake	J	83.6	46,282	63,097	100,166	36.3%	58.7%
MD-N TOTAL		239.9	630.829	652.771	859.946	3.5%	31.7%
REGION TOTAL		3,748	8,091,717	8,456,762	11,717,936	4.5%	38.6%

## Table 4: MD-N Corridor Households

	Fare	Area	Hou	seholds in Z	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	24,349	26,143	29,606	7.4%	13.2%
Healy, Grayland, Mayfair	В	9.2	64,824	63,481	68,608	-2.1%	8.1%
Forest Glen, Edgebrook, Morton Grove	С	19.4	42,165	42,399	50,910	0.6%	20.1%
Golf, Glenview, Glen / N. Glenview	D	20.5	23,429	25,370	29,179	8.3%	15.0%
Northbrook, Lake Cook Rd, Deerfield	E	22.9	20,117	20,985	27,632	4.3%	31.7%
Lake Forest	F	14.6	3,513	3,766	6,373	7.2%	69.2%
Libertyville, Prarie Crossing	н	35.3	16,477	17,901	22,872	8.6%	27.8%
Grayslake, Round Lake	1	30.8	9,788	14,366	24,084	46.8%	67.6%
Long Lake, Ingleside, Fox Lake	J	83.6	16,793	23,771	35,442	41.6%	49.1%
MD-N TOTAL		239.9	221,455	238,182	294,706	7.6%	23.7%
REGION TOTAL		3,748	2,906,924	3,050,134	4,224,349	4.9%	38.5%

### Table 5: MD-N Corridor Employment

	Fare	Area	Emp	oloyment in Z	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	50,855	40,907	53,328	-19.6%	30.4%
Healy, Grayland, Mayfair	В	9.2	30,054	29,878	35,449	-0.6%	18.6%
Forest Glen, Edgebrook, Morton Grove	С	19.4	81,007	71,143	88,636	-12.2%	24.6%
Golf, Glenview, Glen / N. Glenview	D	20.5	48,557	36,192	43,021	-25.5%	18.9%
Northbrook, Lake Cook Rd, Deerfield	E	22.9	75,327	59,412	85,705	-21.1%	44.3%
Lake Forest	F	14.6	18,923	19,819	24,527	4.7%	23.8%
Libertyville, Prarie Crossing	н	35.3	26,253	18,554	41,736	-29.3%	124.9%
Grayslake, Round Lake	1	30.8	14,315	9,897	21,204	-30.9%	114.2%
Long Lake, Ingleside, Fox Lake	J	83.6	5,517	10,107	27,654	83.2%	173.6%
MD-N TOTAL		239.9	350,808	295,909	421,260	-15.6%	42.4%
REGION TOTAL		3,748	4,340,215	3,786,224	5,267,696	-12.8%	39.1%

Employment growth is likely to be a significant factor in increasing ridership. A 42% increase in employment is projected for marketsheds within the MD-N corridor from 2010 to 2040. One of the region's significant clusters of employment outside the CBD is located near the MD-N's Northbrook, Lake-Cook Road, and Deerfield stations, largely focused around the Lake-Cook Road corridor. Therefore, since 1989, the Transportation Management Association of Lake-Cook (TMA) has been working to "improve employees' commute" in Cook and Lake Counties. The TMA is a non-profit business association operated by the largest employers in the Lake-Cook Road corridor, including Baxter Healthcare, Hewitt, and Walgreens. To improve job access for its members, the TMA manages the Shuttle Bug program in cooperation with Pace. The Shuttle Bug consists of 12 routes serving 22 employers, connecting these employers to seven Metra stations on three lines.

In addition to downtown Chicago and Lake-Cook Road business clusters, significant employment growth is expected to occur along the Fox Lake Subdivision by 2040. Here,

employment is projected to increase by 135% over 2010 levels, compared with a 28% increase in employment in main line station marketsheds. However, main line station marketsheds outside of downtown Chicago are still projected to have over three times as many jobs as Fox Lake Subdivision marketsheds by 2040.

# **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD MD-N stations.

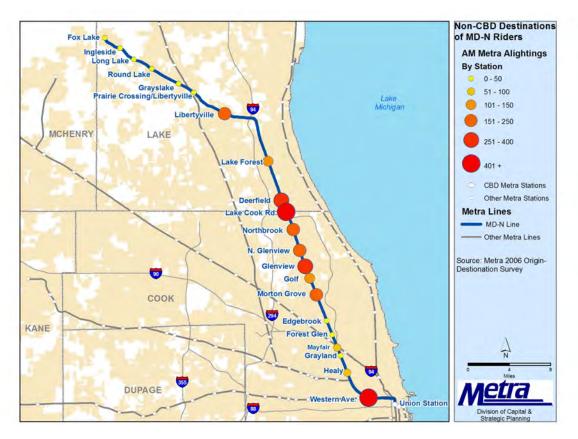


Figure 3: AM Alightings at Non-CBD MD-N Stations

Outside the CBD, much of the employment along the MD-N Line is concentrated near the Lake-Cook Road corridor and in the vicinity of Glenview, Deerfield, and Lake Forest. As discussed earlier, this corridor is well-served by employer-sponsored shuttles. Accordingly, Lake-Cook Road has the highest number of AM alightings of any Metra station outside downtown Chicago, and is one of the few outlying stations where more riders alight than board during the AM peak period. On the MD-N Line, 15% of AM peak boardings are in the reverse (outbound) direction, the second-highest percentage on the Metra system (after the UP-N Line) and well above the system average of 6%. Between 2002 and 2006, AM peak outbound boardings on the MD-N increased 41%.

Employment in outer MD-N marketsheds, from Northbrook north, is expected to increase 70% between 2010 and 2040 (see Table 5). Meanwhile, population growth of 36% is forecast for the two station marketsheds closest to downtown Chicago (see Table 3). Growth in suburban employment and growth of population in the city and inner suburbs have been linked to increased reverse commuting, suggesting that this type of trip pattern will continue to increase on the MD-N Line.

A list of major employers along the MD-N corridor is shown in Table 6.

Generator Type	Name	Comments	Municipality
Airports	Campbell Airport	General aviation	Grayslake
Colleges and	College of Lake County	16,000 students	Grayslake
Universities	Hebrew Theological College	200 students	Skokie
	Malcolm X College	7,200 students	Chicago
	Northwestern College	Jefferson Park campus	Chicago
	St. Augustine College	West Town satellite campus, 400 students	Chicago
	University of Illinois at Chicago	25,000 students	Chicago
Culture and	Berto Center	Bulls practice facility	Deerfield
Entertainment	Chain O'Lakes State Park	2,800-acre state park on Fox River	Spring Grove
	Halas Hall	Bears practice facility	Lake Forest
	Kohl Children's Museum	46,700 sq ft children's museum	Glenview
	Lake County Fairgrounds	Hosts several events throughout the year	Grayslake
	Marytown	Catholic shrine and retreat center	Libertyville
	United Center	Bulls and Blackhawks stadium, capacity 21,700	Chicago
Shopping *	Deerfield Square	Lifestyle center with 30 stores, 2 anchors	Deerfield
	The Glen Town Center	Lifestyle center with 50 stores, 3 anchors	Glenview
	Golf Mill Shopping Center	Regional shopping center with 120 stores, 4 anchors	Niles
	Gurnee Mills	Super Regional shopping center with 200 stores, 16 anchors	Gurnee
	Northbrook Court Shopping Center	Super Regional shopping center with 125 stores, 3 anchors	Northbrook
	Village Crossing Shopping Center	Regional shopping center with 40 stores, 7 anchors	Skokie
	Westfield Hawthorn Shopping Mall	Super Regional shopping center with 180 stores, 4 anchors	Vernon Hills
Government	Cook County Juvenile Court	28 courtrooms and Juvenile Temporary Detention Center	Chicago
	Cook County District 2 Courthouse	Cook County circuit court suburban location, 2nd of 6 districts	Skokie
	Lake County Forest Preserve	General offices	Libertyville
	US District Export Assistance Center	U.S. Department of Commerce offices	Libertyville
Hospitals	Condell Medical Center	304 beds; 2,500 employees	Libertyville
	Glenbrook Hospital	125 beds; 1,400 employees	Glenview
	Kindred Chicago Central Hospital	114 beds; 150 employees	Chicago
	Lake Forest Hospital	215 beds; 1,600 employees	Lake Forest
	Norwegian American Hosiptal	200 beds; 800 employees	Chicago
	St. Mary and Elizabeth Medical Center	246 beds; 2,100 employees	Chicago
	Swedish Covenant Hospital	337 beds; 3,000 employees	Chicago
Top Private	Abt Electronics	Consumer electronics retailer; 1,100 employees	Glenview
Employers	Allstate	Personal lines insurer; 5,300 employees	Northbrook
	Aon	Insurance provider; 900 employees	Glenview
	Avon Products	Cosmetics seller; 1,100 employees	Morton Grove
	Baxter International	Global healthcare company; 1,100 employees	Deerfield
	Hospira	Pharmaceutical company; 1,500 employees	Lake Forest
	HSBC North America	Banking and financial service firm; 2,400 employees	Mettawa
	John Crane	Mechanical sealing manufacturer; 1,400 employees	Morton Grove
	Kraft Foods (R&D and Division HQ)	Food and Beverage Company; 2,000 employees	Glenview
	Kraft Foods (World HQ)	Food and Beverage Company; 2,200 employees	Northfield
	Motorola	Telecommunications company; 5,000 employees	Libertyville
	Takeda	Pharmaceutical company; 1,100 employees	Deerfield
	Underwriters Laboratories	Product safety certification organization; 1,500 employees	Northbrook
	United Parcel Service	Package delivery service; 1,100 employees	Northbrook
	W.W. Grainger	Industrial supply company; 1,500 employees	Lake Forest
	Walgreens	Pharmacy chain; 1,800 employees	Deerfield

### Table 6: Major Trip Generators in the MD-N Corridor

\*Significant shopping areas exist at several station areas along the line.

# **Station and Parking Improvements**

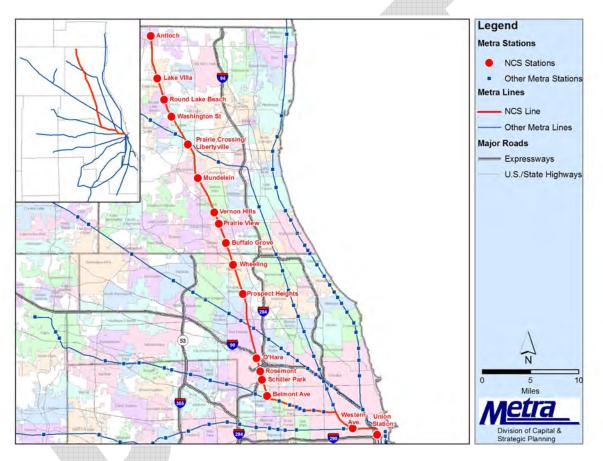
Proposed to be funded under the state capital bonding program are improvements at the following MD-N stations: Grayland, Healy, and Mayfair. Each station will undergo significant renovations, including new platforms, lighting, warming shelters, and ADA accessibility improvements.

# NORTH CENTRAL SERVICE

# **Existing Service and Conditions**

Metra's North Central Service (NCS) Line extends north from Chicago Union Station (CUS, or "Union Station") in downtown Chicago to Antioch, near the Wisconsin state line, serving portions of Cook and Lake counties (see Figure 1). In addition to CUS, the line serves 17 other stations along its 53-mile route. In 2011, passenger trips on the NCS totaled nearly 1.7 million, ranking tenth among the eleven Metra lines (based on ticket sales).

Figure 1: Metra Stations on the NCS Line



In August 1996, when Metra initiated the NCS almost from scratch, it was the first new commuter rail line in the Chicago region in 70 years. Service began with 10 trains each weekday, and with an upgrade 10 years later, Metra brought the total number of weekday trains to 22 and added four more intermediate stations.

The NCS route includes 40 miles owned by the Canadian National Railway (CN; formerly Wisconsin Central 1987-2001, and Soo Line before that) and 13 miles using Metra's own Milwaukee District. Before 1996, the CN portion of the line had never had commuter service, and its very limited intercity passenger operation had ended in 1965. None of the old Soo Line passenger stations and yards remained in usable form, and former double-tracked sections had reverted to single track.

Today, CN and Metra maintain their respective tracks, signals, and rights-of-way, while Metra owns and operates the NCS trains and commuter yards. Daytime NCS train storage and servicing takes place at the Western Avenue Yard, located on the Milwaukee District Line about three miles west of CUS. The outlying NCS Antioch yard accommodates nighttime storage and maintenance.

The NCS and the Milwaukee District North and West Lines (MD-N and MD-W) share the Western Avenue Station (Chicago) and Metra's three main tracks for the first five miles from CUS to the A-5 junction (where the MD-N and the MD-W/NCS separate). Metra's next seven miles between A-5 and the B-12 junction (where the NCS diverges towards Antioch) are shared by MD-W and NCS trains. Metra upgraded the third main track between the two junctions for commuter service in 2006, allowing NCS and MD-W trains to run express through this segment. Canadian Pacific and Wisconsin & Southern also operate freight trains over these tracks, paying Metra for the trackage rights.

CN owns and maintains track and operates freight trains over the 40 route miles between B-12 and Antioch that it shares with the NCS commuter trains. (CN also owns and operates the track north of Antioch and south of B-12.) Table 1 details the service, station, and ridership characteristics of the NCS.

Table 1: NCS Current Conditions

a) Service and Ridership Characteristics

## NCS 2006 Weekday Boardings

Time of Day	Inbound	Outbound
AM Peak	2,462	71
Midday	163	286
PM Peak	125	2,019
Evening	5	207
TOTAL	2,755	2,583

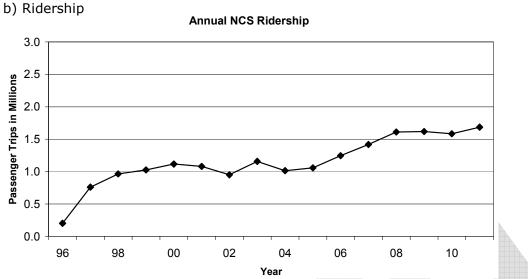
Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction



2011 Average Trip Length	31.93 miles					
2011 Average Fare Paid	\$3.64					
Source: Ridership Trends Report, December 2011						
Number of Stations	18					
Route Length	52.8					
Number of Weekday Trains	22					

2011 On-Time Performance\* 91.1% \*On-Time Performance Report, December 2011

# Table 1 (continued)



\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

Station	Fare	Mile	Accessibility <sup>1</sup>	Boar	dings	Statio	on Parking (	(2011)	Time to ( (mir	
otation	Zone		recoolinity	Boa		Capacity	Effective	Observed		
				1983 <sup>2</sup>	<b>2006</b> <sup>3</sup>	(Spaces) <sup>4</sup>	Use <sup>5</sup>	Use <sup>6</sup>	Express	Local
Union Station	Α	0.0	Full		2,173	0	n/a	n/a	n/a	n/a
Western Ave. <sup>7</sup>	Α	2.9	Full		35	22	100%	100%	n/a	13
River Grove <sup>8</sup>	С	11.4	Full		124	160	94%	86%	n/a	24
Belmont Ave. (Franklin Park)	С	13.0	Full		25	97	16%	16%	30	30
Schiller Park	С	14.8	Full		29	102	14%	14%	34	34
Rosemont	D	15.6	Full	7	23	100	6%	6%	37	37
O'Hare Transfer	D	17.1	Full		106	0	n/a	n/a	33	40
Prospect Heights	Ē	24.0	Full		245	348	35%	35%	45	51
Wheeling	F	27.2	Full	-	306	485	40%	40%	51	56
Buffalo Grove	F	29.5	Full		545	1,062	40%	40%	53	61
Prairie View	G	31.6	Full		299	405	71%	68%	58	66
Vernon Hills	G	33.0	Full		353	658	32%	32%	59	69
Mundelein	н	36.9	Full		283	516	36%	35%	65	75
Prairie Crossing <sup>9</sup>	н	40.7	Full		117	647	42%	42%	69	81
Washington St. (Grayslake)	i	43.9	Full		109	157	58%	58%	74	86
Round Lake Beach	J	45.9	Full		154	358	29%	29%	76	89
Lake Villa	J	48.2	Full		150	234	49%	49%	80	93
Antioch	К	52.8	Full		262	318	58%	58%	86	99
TOTAL NCS					5,338	5,669	42%	42%		

#### c) Station Characteristics

<sup>1</sup> North Central Service Schedule

<sup>2</sup> NCS service began in 1996

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Western Ave. Station serves MD-N, MD-W and NCS Lines

<sup>8</sup> River Grove Station serves MD-W and NCS Lines

<sup>9</sup> Parking area at Prairie Crossing Station serves MD-N and NCS Lines

## Table 1 (continued)

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Chicago Union Station	30%	6%	9%	45%	11%
Western Ave.	16%	48%	14%	19%	3%
River Grove	23%	51%	23%	1%	2%
Belmont Ave. (Franklin Park)	20%	40%	30%	10%	0%
Schiller Park	43%	43%	14%	0%	0%
Rosemont	50%	50%	0%	0%	0%
O'Hare Transfer	38%	0%	0%	13%	50%
Prospect Heights	13%	67%	17%	0%	2%
Wheeling	6%	68%	22%	1%	4%
Buffalo Grove	11%	72%	15%	1%	1%
Prairie View	17%	65%	14%	0%	4%
Vernon Hills	20%	59%	19%	0%	3%
Mundelein	5%	73%	21%	0%	1%
Prairie Crossing	15%	58%	21%	4%	2%
Washington St. (Grayslake)	9%	58%	30%	0%	3%
Round Lake Beach	12%	61%	26%	1%	0%
Lake Villa	3%	67%	30%	0%	0%
Antioch	10%	57%	32%	0%	1%
TOTAL NCS	19%	52%	19%	5%	5%
SYSTEM TOTAL	30%	49%	15%	4%	2%

Source: Metra, Fall 2006 Origin-Destination Survey

# Improvements Since the Start of Metra

Since 1985, Metra has invested over \$345 million (in year of expenditure dollars) in improvements to the NCS corridor, as shown in Table 2. Since its 1996 inauguration, numerous adjustments have been made to the schedule, increasing service and reducing delays. On the NCS Line, a new depot was added at Prospect Heights and the depot at Buffalo Grove was expanded after the initial stations were constructed in 1996. Four additional new stations opened in 2006. That year, the number of weekday trains was doubled, which required that Metra and CN partner to double-track all but eight miles of their shared route and upgrade its signals. Metra and CN have also together repaired or replaced ten bridges. In addition (but not counted in Table 2), Metra has made other bridge improvements on the portion of the Milwaukee District that is used by NCS trains. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities. Ten bridge repair or replacement projects have been completed on the line since 1992.

Table 2: Metra Capital Investment History

	NCS	System
Rolling Stock	\$30.1	\$1,856.6
Track	167.7	763.5
Structure	1.1	606.0
Signal	54.5	508.0
Electrical	0.3	74.9
Communications	1.5	36.5
Facilities	36.9	417.1
Equipment	6.3	113.4
Stations	43.3	629.5
Parking	2.8	171.4
Downtown Terminals	1.0	295.4
TOTAL	\$345.5	\$5,472.3

(in millions of dollars)

All NCS stations comply with the accessibility requirements of the Americans with Disabilities Act (ADA). The NCS-specific stations north of River Grove were fully accessible to disabled riders when they opened for service. As part of the 2006 NCS/MD-W upgrade, all of the remaining inaccessible stations between CUS and River Grove were also brought into ADA compliance.

# Present and Future Demand

In 2006, more than 5,000 boardings took place each weekday on the NCS, with 84% of boardings occurring on peak-period, peak-direction trains. Figure 2 shows the origins of NCS riders who board at stations outside of Chicago's Central Business District (CBD). Overall passenger ridership on the NCS totaled nearly 1.7 million in 2011.

Nearly 5,700 parking spaces serve the riders of the NCS, as shown in Table 1c. According to parking counts conducted in 2011, the effective rate of utilization at all stations on the line averages 42%. Because parking was expanded substantially as part of the 2006 NCS/MD-W upgrade to accommodate anticipated future demand, there is not an immediate need for more commuter parking on the NCS. Metra considers that lots more than 85% occupied are approaching full capacity and in need of expanded parking, and Western Avenue and River Grove— two relatively small lots shared with the two Milwaukee District lines—are the only NCS stations to meet this standard.

Tables 3, 4, and 5 show that NCS station marketsheds in Chicago or inner-ring suburbs experienced negative or little growth in population and households between 2000 and 2010. though healthy growth was experienced in marketsheds furthest from the CBD. However, the Chicago Metropolitan Agency for Planning (CMAP) forecasts significant population growth by 2040 along the NCS—an overall increase of 30% in the corridor. Employment expansion will also be a factor in stimulating ridership growth. Substantial job growth is projected in all but one zone (encompassing the Rosemont and O'Hare Transfer Station marketsheds), and is expected to be particularly strong near the outer end of the NCS corridor in northern Lake County.

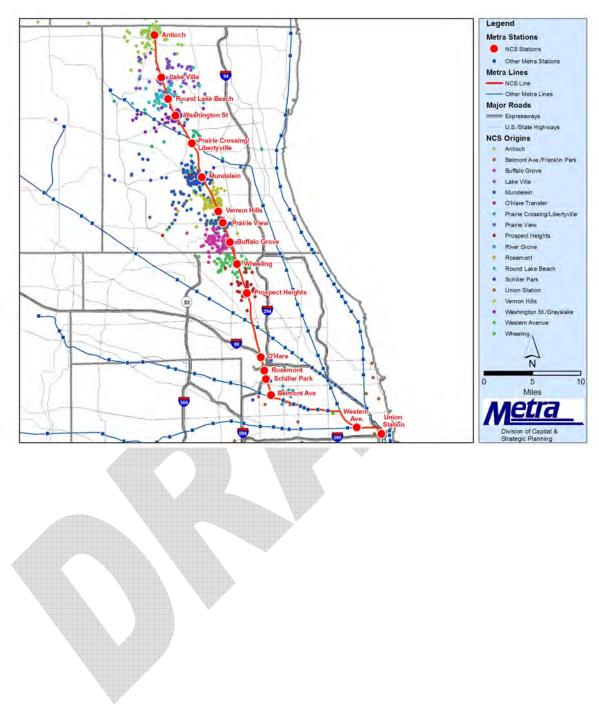


Figure 2: Origins of Riders Using Non-CBD NCS Stations

# Table 3: NCS Corridor Population

	Fare	Area	Pop	oulation in Zo	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	61,046	56,719	76,351	-7.1%	34.6%
River Grove, Belmont Ave. (Franklin Park), Schiller Park	С	10.2	45,485	44,664	52,070	-1.8%	16.6%
Rosemont, O'Hare Transfer	D	12.5	20,956	22,133	24,290	5.6%	9.7%
Prospect Heights	E	11.8	36,565	35,342	43,338	-3.3%	22.6%
Wheeling, Buffalo Grove	F	25.9	89,757	90,898	112,750	1.3%	24.0%
Prairie View, Vernon Hills	G	30.1	41,516	45,188	62,251	8.8%	37.8%
Mundelein, Prairie Crossing	н	36.5	44,105	48,325	61,049	9.6%	26.3%
Washington St. (Grayslake)	1	14.0	29,196	32,255	42,072	10.5%	30.4%
Round Lake Beach, Lake Villa	J	43.0	44,960	52,826	74,867	17.5%	41.7%
Antioch	К	35.5	16,461	21,415	35,975	30.1%	68.0%
NCS TOTAL		223.1	430,047	449,765	585,013	4.6%	30.1%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

### Table 4: NCS Corridor Households

	Fare	Area	Hou	seholds in Z	one	Percent Change	
Station	Zone	Sq. Mi.	2000	2010 2040		2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	24,349	26,143	29,606	7.4%	13.2%
River Grove, Belmont Ave. (Franklin Park), Schiller Park	С	10.2	17,940	17,529	20,089	-2.3%	14.6%
Rosemont, O'Hare Transfer	D	12.5	9,107	9,204	10,137	1.1%	10.1%
Prospect Heights	E	11.8	13,533	13,304	15,803	-1.7%	18.8%
Wheeling, Buffalo Grove	F	25.9	33,949	35,486	41,088	4.5%	15.8%
Prairie View, Vernon Hills	G	30.1	14,017	16,332	20,726	16.5%	26.9%
Mundelein, Prairie Crossing	Н	36.5	14,369	15,998	20,037	11.3%	25.2%
Washington St. (Grayslake)		14.0	9,673	10,936	13,884	13.1%	27.0%
Round Lake Beach, Lake Villa	J	43.0	14,829	17,454	24,756	17.7%	41.8%
Antioch	К	35.5	6,164	7,893	13,298	28.0%	68.5%
NCS TOTAL		223.1	157,930	170,279	209,424	7.8%	23.0%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

# Table 5: NCS Corridor Employment

	Fare	Area	Emp	Employment in Zone			Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040		
Union Station, Western Ave.	А	3.6	50,855	40,907	53,328	-19.6%	30.4%		
River Grove, Belmont Ave. (Franklin Park), Schiller Park	С	10.2	27,319	22,476	25,446	-17.7%	13.2%		
Rosemont, O'Hare Transfer	D	12.5	130,803	70,157	52,641	-46.4%	-25.0%		
Prospect Heights	Е	11.8	42,048	21,168	35,029	-49.7%	65.5%		
Wheeling, Buffalo Grove	F	25.9	42,997	46,618	52,774	8.4%	13.2%		
Prairie View, Vernon Hills	G	30.1	60,964	34,641	44,154	-43.2%	27.5%		
Mundelein, Prairie Crossing	н	36.5	18,151	19,589	36,341	7.9%	85.5%		
Washington St. (Gravslake)	1	14.0	9,824	11,430	15,699	16.3%	37.3%		
Round Lake Beach, Lake Villa	J	43.0	4,911	7,625	14,767	55.3%	93.7%		
Antioch	К	35.5	4,052	4,116	8,428	1.6%	104.8%		
NCS TOTAL		223.1	391,924	278,727	338,607	-28.9%	21.5%		
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%		

## **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD NCS stations.

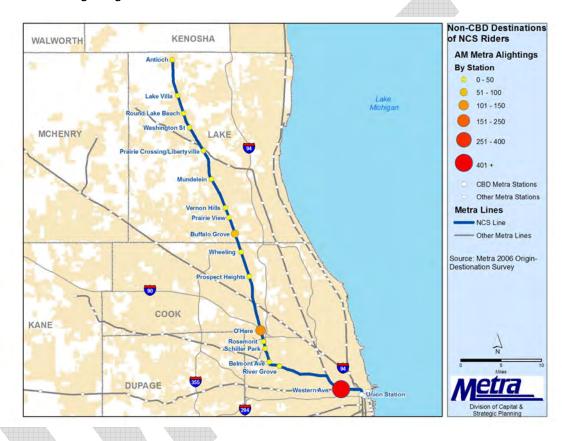


Figure 3: AM Alightings at Non-CBD NCS Stations

There are a number of employment centers near the NCS Line away from downtown Chicago. For instance, on a typical weekday morning in the autumn of 2006, only nine months after the January 2006 schedule upgrade, 90 riders got off NCS trains at Buffalo Grove Station, which is adjacent to several office parks and is served by several Pace bus routes. On the same typical weekday, 105 morning riders alighted at the O'Hare Transfer Station, which serves airport travelers and employees, and others who work nearby. Some major employers along the NCS are shown in Table 6.

Generator Type	Name	Comments	Municipality
Airports	O'Hare International Airport	Second-busiest airport in U.S.	Chicago
	Chicago Executive Airport	General and business aviation	Wheeling
Colleges and	University of Illinois at Chicago	25,000 students	Chicago
Universities	Malcolm X College	7,200 students	Chicago
	Triton College	17,000 students	River Grove
	DePaul Univ. O'Hare Campus	Branch campus serving adult/continuing ed.	Des Plaines
	Oakton Community College	10,800 students	Des Plaines
	University of St. Mary of the Lake	400 students	Mundelein
	College of Lake County	16,000 students	Grayslake
Culture and	United Center	Bulls and Blackhawks stadium, capacity 21,700	Chicago
Entertainment	Rosemont Theatre	Concert hall, capacity 4,300	Rosemont
	Donald E. Stephens Convention Center	840,000 sq ft convention center	Rosemont
	Allstate Arena	Sports arena, capacity 17,500	Rosemont
	Marytown	Catholic shrine and retreat center	Libertyville
	Lake County Fairgrounds	Hosts several events throughout the year	Grayslake
Shopping *	Randhurst Village	Lifestyle center with 3 anchor stores	Mt. Prospect
	Westfield Hawthorn Shopping Mall	Super-Regional shopping center with 180 stores, including 4 anchor department stores	
Government	Cook County Juvenile Court	28 courtrooms and Juvenile Temporary Detention Center	Chicago
Hospitals	St. Mary and Elizabeth Medical Center	246 beds; 2,100 employees	Chicago
	Norwegian American Hospital	200 beds; 800 employees	Chicago
	Gottlieb Memorial Hospital	250 beds; 1,200 employees	Melrose Parl
	Resurrection Holy Family Medical Ctr.	184 beds; 1,200 employees	Des Plaines
	Condell Medical Center	304 beds; 2,500 employees	Libertyville
Top Private	Allstate Insurance Company	Personal lines insurer; 1,300 employees	Buffalo Grov
Employers	Siemens Building Technology	Building automation and technology firm; 1,100 employees	Buffalo Grov
	Zebra Technologies HQ	Bar code label and receipt printers manufacturer; 900 employees	Vernon Hills
	Medline Industries	Hospital supply distribution center; 950 employees	Mundelein
	Motorola	Telecommunications company; 5,000 employees	Libertyville

## Table 6: Major Trip Generators in the NCS Corridor

\* Significant shopping areas exist at several stations areas along the line.

# **Station and Parking Improvements**

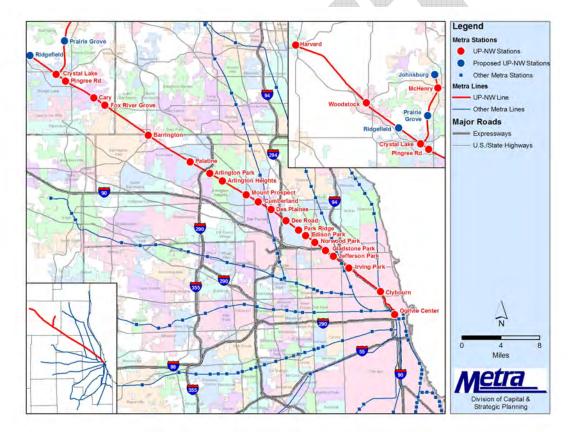
No improvements to the outlying NCS stations are currently scheduled, because they were all built between 1996 and 2006 and still in good condition.

# UNION PACIFIC NORTHWEST LINE

# **Existing Service and Conditions**

Metra's Union Pacific Northwest (UP-NW) Line extends northwest from Ogilvie Transportation Center (OTC) in downtown Chicago to Harvard, serving portions of Cook, Lake, and McHenry counties (see Figure 1). The line is the longest in the Metra system, with 23 outlying stations along its 63-mile route. A 7.5-mile single-track branch of the UP-NW extends north from Crystal Lake to the City of McHenry. This branch is only served during weekday rush periods, while the main line offers a full schedule on weekdays and weekends. In 2011, passenger trips on the UP-NW totaled 11.1 million, the second-highest ridership of any line in the Metra system (based on ticket sales).

Figure 1: Metra Stations on UP-NW Line



The UP-NW Line is owned by the Union Pacific Railroad and operated by its employees under a purchase of service agreement with Metra. Metra owns the passenger coaches and revenue service locomotives. Daytime train storage and servicing takes place at the California Avenue Yard, located on the Union Pacific West Line about three miles west of Ogilvie Transportation Center. UP-NW locomotives are fueled and serviced about two miles west of the yard at the M-19A facility. Four outlying yards (at Barrington, Crystal Lake, Harvard, and McHenry) accommodate nighttime storage and maintenance.

Prior to 1995, service was provided by the Chicago and NorthWestern Railroad, the predecessor of Union Pacific. In terms of number of routes and total mileage, Chicago and NorthWestern operated the most extensive commuter service in the region. Commuter

service on the line's McHenry branch once extended to Williams Bay, Wisconsin, but was gradually reduced in distance beginning in the mid-1960s. In 1981, after the RTA was formed, service was cut back to its present terminus at McHenry.

The UP-NW Line operates on two tracks adjacent to the Union Pacific North Line between Ogilvie Transportation Center and Clybourn Junction (near Armitage and Ashland in Chicago), a distance of approximately three miles. From Clybourn to Barrington (29 miles) the line is triple-track, followed by double-track from Barrington to Harvard (31 miles), and a single-track branch line from Crystal Lake to McHenry (7.4 miles). Present operations have outbound traffic on one track and inbound traffic on the other track, with the center track in triple-track territory available for express movements in either direction. With only two sets of automated track crossovers in the 29 miles of triple-track, the ability to recycle trains for additional peak-period trips, or to bypass slower-moving trains, is severely limited. In addition, the line's signaling system limits train speed and operating flexibility. There is very limited freight traffic on this line. Table 1 details the services, stations and ridership characteristics of the UP-NW.

Table 1: UP-NW Current Conditions

a) Service and Ridership Characteristics

### UP-NW 2006 Weekday Boardings

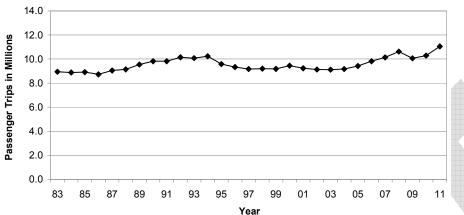
Time of Day	Inbound	Outbound
AM Peak	13,568	959
Midday	2,115	1,865
PM Peak	1,109	12,599
Evening	429	1,586
TOTAL	17,221	17,009

Source: Weekday Station Boardings and Alightings by Time-of-Day and Direction

2011 Average Trip Length	25.54 miles					
2011 Average Fare Paid	\$3.24					
Source: Ridership Trends Report, December 2011						
Number of Stations	23					
Route Length*	70.5 miles					
Number of Weekday Trains	65					
2011 On-Time Performance**	94.9%					
*63.1 mile main line to Harvard, 7.4 mile branch to McHenry **On-Time Performance Report, December 2011						

#### b) Ridership

Annual UP-NW Ridership



\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

### c) Station Characteristics

Station	Fare	Mile	Accessibility <sup>1</sup>	Boardings		Station Parking (2011) <sup>4</sup>			Time to Chicago (mins) <sup>1</sup>	
	Zone	Post	-	1983 <sup>2</sup>	2006 <sup>3</sup>	Capacity (Spaces)	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local
Ogilvie Trans. Center	А	0.0	Full	13,737	14,886	0	n/a	n/a		
Clybourn <sup>7</sup>	Α	2.9	None	272	769	33	100%	100%		11
Irving Park	В	7.0	Full	175	495	89	91%	91%		18
Jefferson Park	В	9.1	Full	441	786	122	99%	99%		22
Gladstone Park	В	10.1	None	81	103	34	85%	85%		25
Norwood Park	С	11.4	Full	218	289	100	81%	81%	26	28
Edison Park	С	12.6	Full	383	536	260	62%	62%	29	31
Park Ridge	С	13.5	Full	908	897	495	85%	73%	24	34
Dee Road	С	15.0	Full	397	446	172	98%	98%	28	37
Des Plaines	D	17.1	Full	1,145	1,085	322	74%	68%	28	41
Cumberland	D	18.6	None	685	393	257	65%	65%	29	44
Mount Prospect	D	20.0	Full	2,146	1,590	667	95%	93%	34	47
Arlington Heights	E	22.8	Full	2,764	2,317	2,172	83%	67%	35	52
Arlington Park	E	24.4	Full	1,430	1,614	1,001	99%	99%	40	55
Palatine	F	26.4	Full	1,632	2,105	1,332	94%	90%	41	59
Barrington	G	31.9	Full	1,564	1,724	953	100%	98%	46	66
Fox River Grove	н	37.3	Partial	209	422	307	79%	79%	56	74
Cary	н	38.6	Full	457	988	624	84%	84%	59	77
Pingree Road		41.7	Full	n/a <sup>8</sup>	581	708	66%	66%	59	83
Crystal Lake	1	43.2	Full	907	1,370	1,080	74%	74%	66	86
Woodstock	к	51.6	Full	166	456	441	52%	52%	78	95
Harvard	М	63.1	Full	84	274	222	78%	78%	93	108
McHenry	к	50.6	Partial	101	101	106	65%	65%	73	87
TOTAL UP-NW		J.		29,909	34,227	11,497	84%	79%		

<sup>1</sup> Union Pacific Northwest Line Schedule.

<sup>2</sup> Metra 1983 Boarding/Alighting Counts. Total includes 7 boardings from Hartland Station, which closed in 1984.

<sup>3</sup> Metra 2006 Boarding/Alighting Counts.

<sup>4</sup> Metra Station Parking Capacity and Use.

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey.

<sup>6</sup> Observed use: spaces physically occupied during parking survey.

<sup>7</sup> Parking area at this station serves UP-N and UP-NW Lines.

<sup>8</sup> Pingree Road Station opened in 2005.

#### d) Mode of Access

Boarding Station Name	Walk & Bike	Drive Alone & Carpool Driver	Carpool Passenger & Drop Off	Transit	Other
Ogilvie Trans. Center	34%	5%	10%	41%	10%
Clybourn	36%	24%	16%	21%	2%
ving Park	48%	24%	9%	18%	1%
fferson Park	28%	28%	17%	27%	0%
adstone Park	55%	27%	15%	3%	0%
orwood Park	48%	33%	17%	1%	2%
lison Park	49%	44%	7%	0%	0%
rk Ridge	26%	53%	20%	0%	0%
e Road	43%	40%	13%	2%	1%
s Plaines	43%	34%	18%	5%	1%
mberland	23%	61%	13%	1%	1%
unt Prospect	24%	56%	16%	3%	1%
ngton Heights	23%	54%	20%	2%	0%
ngton Park	6%	80%	13%	1%	0%
atine	16%	66%	16%	1%	1%
rrington	9%	70%	19%	1%	1%
River Grove	12%	71%	16%	0%	0%
ry	10%	71%	18%	0%	0%
ngree Road	2%	82%	16%	0%	0%
stal Lake	7%	74%	18%	1%	0%
odstock	17%	68%	13%	0%	0%
rvard	8%	69%	22%	1%	0%
Henry	7%	66%	25%	0%	1%
TAL UP-NW	23%	52%	16%	8%	2%
STEM TOTAL	22%	56%	16%	5%	1%

Source: Metra, Fall 2006 Origin-Destination Survey

## **Improvements Since the Start of Metra**

Since 1985, Metra has invested over \$580 million (in year of expenditure dollars) in improvements to the UP-NW corridor. Table 2 indicates the amount of investment in different asset categories. On the UP-NW Line, since 1985, new depots or warming houses have been constructed at Arlington Heights, Dee Road, Edison Park, Jefferson Park, and Palatine, and a new station was added at Pingree Road. In addition, other significant station improvements have been completed at Arlington Park, Barrington, Crystal Lake, Des Plaines, Irving Park, Mount Prospect, Park Ridge, and Woodstock. All of these projects, except Irving Park and Mount Prospect, were completed since FAST was initially developed in 1992. Seventeen bridge repair or replacement projects have been completed on the line since 1992.

The Pingree Road Station, opened in 2005 with nearly 400 parking spaces, is the line's newest station. It quickly attracted a significant number of riders, and has relieved congestion near the existing station in downtown Crystal Lake by serving the growing market east of the city. In 2009, 338 spaces were added at this station using American Recovery and Reinvestment Act (ARRA) funds.

	UP-NW	System
Rolling Stock	\$184.8	\$1,856.6
Track	39.2	763.5
Structure	129.9	606.0
Signal	23.5	508.0
Electrical	5.8	74.9
Communications	2.9	36.5
Facilities	22.3	417.1
Equipment	11.5	113.4
Stations	82.1	629.5
Parking	17.5	171.4
Downtown Terminals	63.8	295.4
TOTAL	\$583.2	\$5,472.3

Table 2: Metra Capital Investment History

(in millions of dollars)

In the last 20 years, numerous adjustments have been made to the UP-NW's schedule, increasing speed and service, reducing delay and crowding during peaks, accommodating reverse commuters, and improving service reliability.

Most UP-NW stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 95% of UP-NW weekday boardings were at these accessible stations. Metra's station compliance program started with designating ten of the busiest UP-NW stations, including OTC in downtown Chicago, as "key stations", all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a total of 17 non-downtown UP-NW stations, and 17 outlying stations on the line are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible.

## **Present and Future Demand**

In 2006, close to 35,000 boardings took place each weekday on the UP-NW, with 76% of boardings occurring on peak-period, peak-direction trains. At UP-NW stations, ridership has increased 14% since 1983 (see Table 1c). However, at the six McHenry County stations built before 2005, boardings increased an average of 114% between 1983 and 2006. Chicago stations close to the Central Business District (CBD) have also experienced significant ridership gains, with boardings at the Clybourn and Irving Park Stations increasing 183% during the same period. Figure 2 shows the origins of UP-NW riders who board at stations outside the CBD. Overall passenger ridership on the UP-NW totaled 11.1 million in 2011.

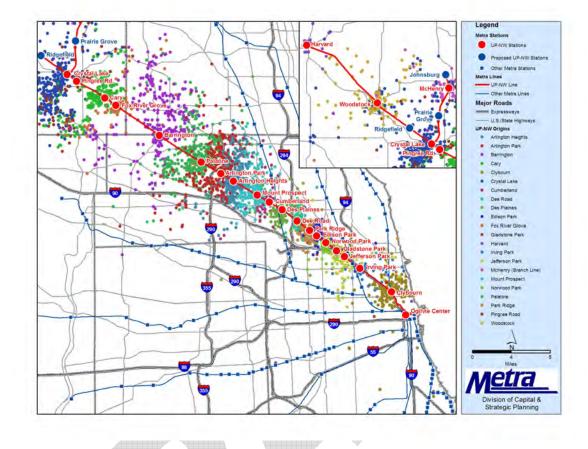


Figure 2: Origins of Riders Using Non-CBD UP-NW Stations

Nearly 11,500 parking spaces serve the riders of the UP-NW. According to parking counts conducted in 2011, the average rate of effective utilization at all stations on the line is 84%. At eight stations, observed parking utilization exceeds 85%, indicating a demand for increased parking, since Metra considers lots over 85% occupied to be approaching full capacity. Due to residential growth in the UP-NW corridor, the demand for parking is expected to grow.

A number of indicators suggest that demand for commuter rail service will continue to rise in the UP-NW corridor, as shown in Tables 3, 4, and 5. The corridor has grown in population and households in recent decades, and demographic forecasts anticipate continued growth. The Chicago Metropolitan Agency for Planning (CMAP) forecasts that the UP-NW corridor will attract over 350,000 new residents between 2010 and 2040, a 29% increase. The projected population growth is greatest near the outer edge of the corridor in eastern McHenry County. For instance, population in the McHenry and Woodstock station marketsheds is expected to increase 76% by 2040, and the population in Harvard's station marketshed is projected to increase nearly 72% in the same time period. Though 76,000 jobs were lost in the UP-NW corridor between 2000 and 2010, a period that coincided with the economic downturn, projections indicate that 285,000 jobs will be added by 2040, a 42% increase.

## Table 3: UP-NW Corridor Population

	Fare	Area	Population in Zone			Percent Change	
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Ogilvie Transportation Center, Clybourn	А	12.6	217,022	237,400	296,087	9.4%	24.7%
Irving Pk., Jefferson Pk., Gladstone Pk.	В	9.5	160,611	152,218	171,845	-5.2%	12.9%
Norwood Pk., Edison Pk., Park Ridge, Dee Rd.	С	17.1	111,198	112,724	128,606	1.4%	14.1%
Des Plaines, Cumberland, Mt. Prospect	D	15.6	71,556	72,225	82,149	0.9%	13.7%
Arlington Heights, Arlington Park	E	37.8	145,779	146,225	165,234	0.3%	13.0%
Palatine	F	32.2	93,081	94,621	110,430	1.7%	16.7%
Barrington	G	56.8	54,873	57,886	65,720	5.5%	13.5%
Fox River Grove, Cary	н	68.1	91,639	97,574	127,202	6.5%	30.4%
Pingree Road, Crystal Lake	I.	85.5	90,414	120,737	205,670	33.5%	70.3%
McHenry, Woodstock	K	295.7	86,937	104,004	183,370	19.6%	76.3%
Harvard	М	156.7	15,742	16,505	28,329	4.8%	71.6%
UP-NW TOTAL		787.6	1,138,852	1,212,119	1,564,642	6.4%	29.1%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

## Table 4: UP-NW Corridor Households

Table 4: UP-NW Corridor House	nolds						
Station	Fare	Area		seholds in Zo		Percent	•
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Ogilvie Transportation Center, Clybourn	А	12.6	97,822	112,854	160,216	15.4%	42.0%
Irving Pk., Jefferson Pk., Gladstone Pk.	В	9.5	53,323	57,037	58,702	7.0%	2.9%
Norwood Pk., Edison Pk., Park Ridge, Dee Rd.	С	17.1	41,768	43,324	49,830	3.7%	15.0%
Des Plaines, Cumberland, Mt. Prospect	D	15.6	25,937	28,091	31,136	8.3%	10.8%
Arlington Heights, Arlington Park	E	37.8	55,175	58,476	63,951	6.0%	9.4%
Palatine	F	32.2	32,397	35,282	41,103	8.9%	16.5%
Barrington	G	56.8	15,724	18,162	22,054	15.5%	21.4%
Fox River Grove, Cary	н	68.1	23,653	30,744	43,520	30.0%	41.6%
Pingree Road, Crystal Lake		85.5	16,906	30,274	71,372	79.1%	135.8%
McHenry, Woodstock	ĸ	295.7	24,819	31,120	65,546	25.4%	110.6%
Harvard	м	156.7	4,500	5,332	9,649	18.5%	81.0%
UP-NW TOTAL		787.6	392,024	450,696	617,079	15.0%	36.9%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

# Table 5: UP-NW Corridor Employment

	Fare	Fare Area Employment in Zone			one	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Ogilvie Transportation Center, Clybourn	A	12.6	257,635	259,322	352,184	0.7%	35.8%	
Irving Pk., Jefferson Pk., Gladstone Pk.	В	9.5	60,744	32,948	45,615	-45.8%	38.4%	
Norwood Pk., Edison Pk., Park Ridge, Dee Rd.	С	17.1	42,349	52,218	65,717	23.3%	25.9%	
Des Plaines, Cumberland, Mt. Prospect	D	15.6	49,918	36,571	40,670	-26.7%	11.2%	
Arlington Heights, Arlington Park	E	37.8	166,984	124,089	181,157	-25.7%	46.0%	
Palatine	F	32.2	45,332	52,107	54,900	14.9%	5.4%	
Barrington	G	56.8	22,466	23,473	35,522	4.5%	51.3%	
Fox River Grove, Cary	н	68.1	20,046	18,542	31,735	-7.5%	71.2%	
Pingree Road, Crystal Lake	1	85.5	38,236	36,494	75,904	-4.6%	108.0%	
McHenry, Woodstock	к	295.7	45,951	38,674	73,414	-15.8%	89.8%	
Harvard	М	156.7	4,818	3,607	6,526	-25.1%	80.9%	
UP-NW TOTAL		787.6	754,479	678,045	963,344	-10.1%	42.1%	
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%	

## **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD UP-NW stations.

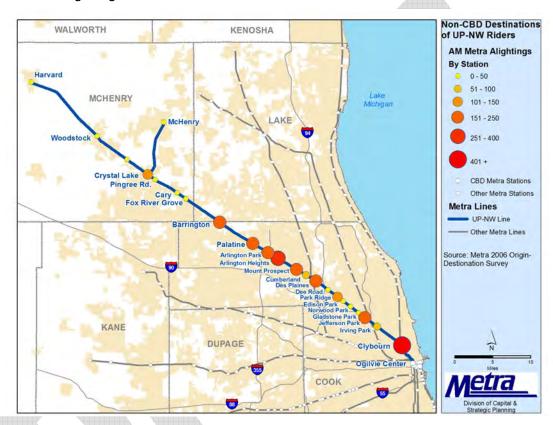


Figure 3: AM Alightings at Non-CBD UP-NW Stations

There are substantial employment centers near the UP-NW Line. Though many station marketsheds experienced a net employment loss between 2000 and 2010, CMAP forecasts job growth in every UP-NW marketshed by 2040, with an increase of 42%, or 285,000 jobs. Certain areas on the route are projected to experience phenomenal job growth. For instance, employment is expected to more than double in the Pingree Road and Crystal Lake marketsheds between 2000 and 2040, adding nearly 40,000 jobs. In addition, since the UP-NW is Metra's longest line, it has greater potential for growth of ridership to locations outside of downtown Chicago than other Metra lines. While few riders will choose to travel by train rather than automobile for a short suburb-to-suburb commute, they are more likely to do so for a longer, non-CBD commute. See Table 6 for a list of major trip generators in the UP-NW corridor, including top employers.

Generator Type	Name	Comments	Municipality
Airports	O'Hare International Airport	Second-busiest airport in U.S.	Chicago
Colleges and	Columbia College	Branch campus of Mobased liberal arts college	Crystal Lake
Universities	DePaul Univ. O'Hare Campus	Branch campus serving adult/continuing ed.	Des Plaines
	DeVry University	3,500 students	Addison
	Harper College	15,000 students	Palatine
	McHenry County College	11,000 students	Crystal Lake
	North Park University	Branch campus of Chicago liberal arts college	Arlington Heights
	Northeastern Illinois University	13,000 students	Chicago
	Northwestern College	Jefferson Park campus	Chicago
	Oakton Community College	10,800 students	Des Plaines
	Roosevelt University	3,000 students	Schaumburg
	Wright College	19,000 students	Chicago
Culture and	Allstate Arena	Concert/sports venue; capacity 18,500	Rosemont
Entertainment	Arlington Park Racecourse	Mile oval horse track; capacity 50,000	Arlington Heights
	Arlington Plaza	Neighborhood shopping center	Arlington Heights
	Illinois Railway Museum	Largest railway museum in US	Union
	Mystic Waters Aquatic Center	Public water park	Des Plaines
	Raue Center	Theater, capacity 800	Crystal Lake
Shopping*	Golf Mill Mall	Regional center; 120 stores including 4 anchors	Niles
	Randhurst Village	Former regional center; converting to lifestyle center	Mount Prospect
	Streets of Woodfield	Regional center; 29 stores including 3 anchors	Schaumburg
	Woodfield Mall	Super-regional center; 280 stores including 5 anchors	Schaumburg
Government	Cook County District 3 Courthouse	Circuit Court, County Clerk's office	Rolling Meadows
	McHenry County Govt. Center	Circuit Court, County Clerk's office	Crystal Lake
Hospitals	Advocate Good Shepherd Hospital	154 beds; 600 employees	Barrington
	Advocate Lutheran General Hospital	617 beds; 4,800 employees	Park Ridge
	Centegra Memorial Medical Ctr.	150 beds; 700 employees	Woodstock
	Centegra Northern IL Medical Ctr.	139 beds; 3,300 employees	McHenry
	Mercy Harvard Hospital	32 beds; 200 employees	Harvard
	Northwest Community Hospital	488 beds; 3,700 employees	Arlington Heights
	Resurrection Holy Family Medical Ctr.	184 beds; 1,200 employees	Des Plaines
	Resurrection Medical Center	443 beds; 2,700 employees	Chicago
Top Private	Sears	Retail; International headquarters; 6,000 employees	Hoffman Estates
Employers	Motorola	Electronics; 4,000 employees	Arlington Heights
	Universal Oil Products	Chemical Engineering Services; 2,000 employees	Des Plaines
	Tec, Inc.	Adhesives; 1,600 employees	Palatine
	Catalent	Pharmaceutical Services; 1,000 employees	Woodstock
	UPS	Parcel Shipping; 1,000 employees	Palatine
	Weber Stephens	Barbecues; 1,000 employees	Palatine
	Brown Printing Co.	Printing; 900 employees	Woodstock
	Littlefuse, Inc.	Auto and Electrical; 800 employees	Des Plaines
	Symons Corp.	Concrete forming equipment; 800 employees	Des Plaines
	Caremark	Pharmaceutical Services; 800 employees	Mount Prospect

## Table 6: Major Trip Generators in the UP-NW Corridor

\* Significant shopping areas exist at several station areas along the line.

# **Station and Parking Improvements**

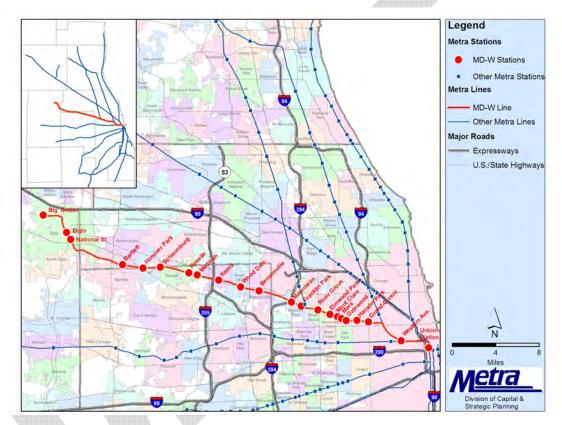
Expanded parking is vital to Metra's success in distant suburbs, as over 70% of Metra riders who board at stations more than 25 miles from downtown Chicago drive to the station, and many of the existing parking lots serving the UP-NW Line are at or near capacity (see Table 1d). Station facilities at Cumberland and Fox River Grove Stations are slated for rehabilitation using funds from the state transit bond program.

# MILWAUKEE DISTRICT WEST LINE

# **Existing Service and Conditions**

Metra's Milwaukee District West (MD-W) Line extends west from Chicago Union Station (CUS or "Union Station") to the City of Elgin. The line serves portions of Cook, DuPage, and Kane counties with 21 outlying stations along its 40-mile route (see Figure 1). In 2011, 7.1 million trips were taken on the MD-W, the seventh-highest number of Metra's 11 lines (based on ticket sales).

Figure 1: Metra Stations on the MD-W Line



The Milwaukee District North (MD-N) and Milwaukee District West Lines were acquired by Metra following the demise of the famed Milwaukee Road, the Chicago, Milwaukee, St. Paul and Pacific Railroad. Both the MD-N and MD-W are operated and maintained by Metra employees. Commuter trains on both lines are dispatched by Canadian Pacific Railway (CP), which operates freight service over Metra-owned Milwaukee District track. Canadian Pacific Railway (CP) owns the track west of the Big Timber Road Station in Elgin, beyond the extent of MD-W service.

Both Milwaukee District lines as well as the North Central Service (NCS) share the Western Avenue Station in Chicago and Metra's three main tracks for the five miles between CUS and the A-5 junction (where the MD-N diverges towards Fox Lake). The next seven miles of triple main line track between A-5 and the B-12 junction in Franklin Park (where the NCS diverges toward Antioch) are shared by MD-W and NCS trains. Metra upgraded the third main track between the two junctions for commuter service in 2006, allowing NCS and MD-

W trains to run express through this segment. The MD-W is double-tracked from B-12 to Big Timber Road, except for a single-track bridge across the Fox River, east of the National Street Station in Elgin. This bridge is a major "choke point" on the line. Trains must proceed one at a time across the bridge, precluding extensive reverse-commute operations or recycling of peak-period trains from Elgin.

Daytime storage and servicing of all Milwaukee District trains, as well as trains serving the NCS and Heritage Corridor, takes place at the Western Avenue Yard, located approximately three miles west of Chicago Union Station. Nighttime storage and maintenance of trainsets serving the MD-W Line takes place at the Elgin Yard, just south of the station in downtown Elgin. Table 1 details the service, station, and ridership characteristics of the MD-W.

Table 1: MD-W Current Conditions

a) Service and Ridership Characteristics

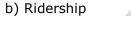
### MD-W 2006 Weekday Boardings

Time of Day	Inbound	Outbound
AM Peak	8,802	491
Midday	1,401	1,226
PM Peak	778	8,412
Evening	293	940
TOTAL	11,274	11,069

Source: Weekday Station Boardings and Alightings by Time-of-Day and Direction

2011 Average Trip Length 24.56 miles 2011 Average Fare Paid \$3.19 Source: Ridership Trends Report, December 2011

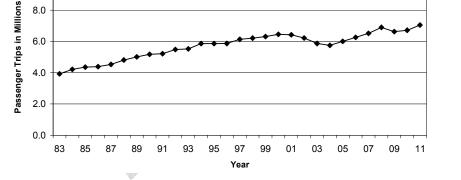
Number of Stations	22
Route Length	39.8 miles
Number of Weekday Trains	58
2011 On-Time Performance*	93.0%
*On-Time Performance Report, December 2011	



10.0

8.0





\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011...

#### c) Station Characteristics

			1	_						Chicago
Station	Fare	Mile	Accessibility <sup>1</sup>	Boar	dings		on Parking	/	(mir	1S)'
	Zone	Post		2	2	Capacity	Effective	Observed	Shortest	Longest
				<b>1983</b> <sup>2</sup>	<b>2006</b> <sup>3</sup>	(Spaces) <sup>4</sup>	Use⁵	Use <sup>6</sup>	Trip	Trip
Union Station	А	0.0	Full	6,548	10,144	0	n/a	n/a	n/a	n/a
Western Ave.7	А	2.9	Full	158	372	22	100%	100%	12	14
Hermosa <sup>8</sup>				101	35					
Grand / Cicero <sup>8</sup>	В	6.5	Full			0	n/a	n/a	20	24
Cragin <sup>8</sup>				111	37					
Hanson Park	в	7.7	Full	54	54	27	96%	96%	23	27
Galewood	В	8.6	Full	202	265	135	43%	43%	22	29
Mars	В	9.1	Full	75	110	63	60%	60%	27	30
Mont Clare	В	9.5	Full	314	361	194	41%	41%	24	32
Elmwood Park	С	10.2	Full	466	392	135	96%	96%	26	34
River Grove <sup>9</sup>	С	11.4	Full	222	174	162	94%	86%	28	37
Franklin Park	С	13.2	Full	446	461	288	74%	74%	26	41
Mannheim	С	14.0	None	49	37	30	3%	3%	29	43
Bensenville	D	17.2	Full	439	450	204	58%	58%	32	48
Wood Dale	D	19.1	Full	497	639	466	80%	75%	36	52
Itasca	Е	21.1	Full	444	546	341	76%	73%	40	56
Medinah	Е	23.0	Full	194	501	397	91%	85%	43	60
Roselle	Е	23.9	Full	1,455	1,500	1,100	89%	73%	46	62
Schaumburg	F	26.5	Full	480	1,698	1,584	77%	76%	43	67
Hanover Park	F	28.4	Full	738	1,482	1,373	90%	78%	47	71
Bartlett	F	30.1	Full	669	1,064	741	88%	72%	51	74
National St.	н	36.0	Full	132	742	573	83%	83%	60	82
Elgin	н	36.6	Full	390	476	147	99%	99%	62	84
Big Timber Rd <sup>10</sup>	Н	39.8	Full		803	694	87%	87%	69	90
TOTAL MD-W				14,184	22,343	8,676	82%	76%		

<sup>1</sup> Milwaukee District / West Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

 $^{\rm 7}$  Parking area at this station serves MD-N, MD-W and NCS Lines

<sup>8</sup> Grand/Cicero is a new station that opened in late 2006, replacing the nearby Hermosa and Cragin Stations which were closed. In 2008, 108 boardings were counted at Grand/Cicero.

<sup>9</sup> Parking area at this station serves MD-W and NCS Lines

<sup>10</sup> New station, opened in 1986.

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Union Station	30%	6%	9%	46%	10%
Western Avenue	16%	48%	15%	20%	1%
Hermosa <sup>1</sup>	85%	15%	0%	0%	0%
Cragin <sup>1</sup>	54%	15%	15%	8%	8%
Hanson Park	22%	63%	4%	11%	0%
Galewood	25%	53%	19%	4%	0%
Mars	53%	29%	19%	0%	0%
Mont Clare	41%	46%	12%	1%	0%
Elmwood Park	38%	42%	15%	5%	0%
River Grove	23%	51%	23%	1%	1%
Franklin Park	18%	65%	15%	2%	0%
Mannheim	88%	13%	0%	0%	0%
Bensenville	28%	57%	11%	3%	1%
Wood Dale	13%	68%	17%	0%	2%
Itasca	18%	59%	19%	1%	3%
Medinah	3%	76%	20%	1%	1%
Roselle	9%	72%	18%	0%	1%
Schaumburg	6%	81%	13%	1%	0%
Hanover Park	4%	82%	14%	0%	1%
Bartlett	7%	69%	23%	0%	1%
National St.	5%	84%	10%	1%	1%
Elgin	14%	55%	20%	5%	4%
Big Timber	3%	78%	17%	0%	2%
TOTAL MD-W	15%	57%	15%	10%	3%
SYSTEM TOTAL	22%	56%	16%	5%	1%

<sup>1</sup> Station closed in late 2006; replaced by Grand/Cicero Station.

Source: Metra, Fall 2006 Origin-Destination Survey

## **Improvements Since the Start of Metra**

Since 1985, Metra has invested nearly \$525 million (in year of expenditure dollars) in improvements to the MD-W corridor. Table 2 indicates the amount of investment in different asset categories. Since 1985, new depots or warming houses have been constructed on the MD-W Line at Bartlett, Big Timber, Elmwood Park, Galewood, Hanover Park, Hanson Park, Mars, Mont Clare, National Street, River Grove, Roselle, Schaumburg, and Wood Dale, and a new station was added at Grand/Cicero. In addition, other significant station improvements have been completed at Bensenville, Elgin, Franklin Park, Itasca, Medinah, and Western Avenue. All of these projects were completed since FAST was initially developed in 1992. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities. Ten bridge repair or replacement projects have been completed on the line since 1992.

The amounts shown in Table 2 reflect the cost of a number of improvements made in conjunction with the NCS upgrade project, completed in 2006. These improvements included track and signal upgrades, yard expansion, and construction of new station buildings and platforms at five MD-W stations to accommodate new triple-track commuter operation: Hanson Park, Galewood, Mars, Mont Clare, and Elmwood Park. A new station was built at Grand and Cicero Avenues in Chicago, replacing two adjacent stations. Consolidation

has improved operational efficiency, and the new location is more accessible for CTA bus users and pedestrians.

	MD-W	System	
Rolling Stock	\$192.4	\$1,856.6	
Track	85.4	763.5	
Structure	39.5	606.0	
Signal	66.8	508.0	
Electrical	1.1	74.9	
Communications	2.9	36.5	
Facilities	53.8	417.1	
Equipment	10.1	113.4	
Stations	46.7	629.5	
Parking	22.0	171.4	
Downtown Terminals	3.7	295.4	
TOTAL	\$524.4	\$5,472.3	
(in millions of dollars)	•	•	

Table 2: Metra Capital Investment History

(in millions of dollars)

Numerous adjustments have been made to the MD-W's schedule over the years, in order to reduce congestion, improve on-time performance, accommodate reverse commuters, improve bus connections, and add service to meet demand. A zone-type schedule was implemented in 1987 to provide additional service to and from the western portion of the MD-W, where demand was—and still is—highest. More express trains and hourly midday service were also provided. During peak periods, passengers traveling to and from intermediate stations transfer between local and express trains at Franklin Park. Two years after the schedule change, boardings at MD-W stations west of Franklin Park had increased 14%. Service to the Big Timber Road Station has been expanded from two peak-period, peak-direction trains per day in 1990 to a full weekday schedule today, though the station is not served on weekends.

All but one MD-W station-Mannheim-complies with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, over 99% of MD-W boardings were at ADA-accessible stations. Metra's station compliance program started with designating six of the busiest MD-W stations, including CUS in downtown Chicago, as "key stations", all of which were made fully accessible by 2002. Since 1985, Metra has completed access improvements at a total of 20 non-downtown MD-W stations, and these are now fully accessible to disabled riders. Metra will bring the remaining station into full ADA compliance when it is rehabilitated, so that eventually all MD-W stations will be accessible.

# Present and Future Demand

In 2006, 22,000 boardings took place each weekday on the MD-W, with 77% of boardings occurring on peak-period, peak-direction trains. On the MD-W, ridership has increased 58% since 1983 (see Table 1c), with the most significant ridership gains occurring at stations near the western end of the line. Since 1983, boardings have increased 73% at stations from Wood Dale westward (excluding the Big Timber Road Station, which opened in 1986). Ridership in this segment accounts for 70% of boardings at non-downtown MD-W stations.

Figure 2 shows the origins of MD-W riders who board at stations outside of the Central Business District (CBD). Overall passenger ridership on the MD-W totaled 7.1 million in 2011.

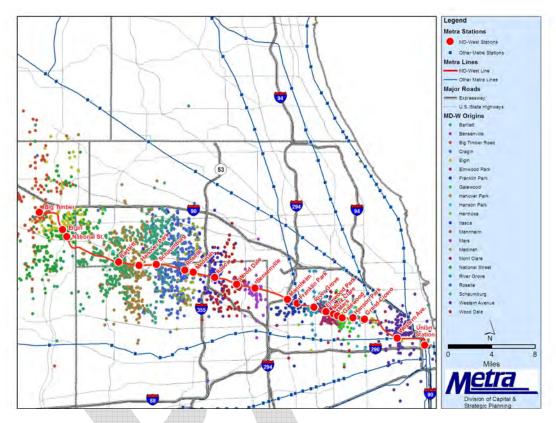


Figure 2: Origins of Riders Using Non-CBD MD-W Stations

Demographic forecasts suggest that demand for commuter rail service on the MD-W will continue to rise (see Tables 3, 4 and 5). Though most of the corridor experienced a modest loss of population or only modest growth between 2000 and 2010, the Chicago Metropolitan Agency for Planning (CMAP) forecasts that the MD-W corridor will attract 264,000 new residents between 2010 and 2040, a 28% increase. Nearly 195,000 jobs are projected to be added, a 51% rise.

Projected population growth is especially significant at the outer end of the corridor in eastern Kane County. Population in the Elgin station marketsheds (National Street, Elgin, and Big Timber Road) is forecasted to increase 62% from 2010 to 2040. Employment growth in the Elgin area, as well as most marketsheds in the corridor, is also anticipated to be strong.

Currently, nearly 8,700 parking spaces serve the riders of the MD-W, as shown in Table 1c. According to parking counts conducted in 2011, the effective utilization rate at all stations on the line is 82%. When utilization of station parking areas exceeds 85%, Metra considers that they are approaching full capacity. Ten MD-W stations exceed this threshold, indicating a demand for increased parking at these stations. Due to residential growth in the MD-W corridor, the demand for parking is expected to grow.

#### Table 3: MD-W Corridor Population

	Fare	Area Sq.	Рор	ulation in Zo	one	Percent	Change
Station	Zone	Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	61,046	56,719	76,351	-7.1%	34.6%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	189,353	177,894	208,390	-6.1%	17.1%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	102,989	100,834	108,921	-2.1%	8.0%
Bensenville, Wood Dale	D	21.6	49,982	47,874	62,835	-4.2%	31.3%
Itasca, Medinah, Roselle	E	39.9	124,537	125,421	147,164	0.7%	17.3%
Schaumburg, Hanover Park, Bartlett	F	68.1	207,037	212,801	243,443	2.8%	14.4%
National St, Elgin, Big Timber Rd.	Н	198.6	172,418	224,519	363,399	30.2%	61.9%
MD-W TOTAL		359.3	907,362	946,062	1,210,503	4.3%	28.0%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

#### Table 4: MD-W Corridor Households

	Fare	Area Sq.	Hou	seholds in Z	one	Percent	Change
Station	Zone	Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	A	3.6	24,349	26,143	29,606	7.4%	13.2%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	55,838	53,838	61,302	-3.6%	13.9%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	37,628	36,097	39,338	-4.1%	9.0%
Bensenville, Wood Dale	D	21.6	17,029	16,183	20,672	-5.0%	27.7%
Itasca, Medinah, Roselle	E	39.9	47,515	48,454	55,202	2.0%	13.9%
Schaumburg, Hanover Park, Bartlett	F	68.1	70,771	73,279	82,885	3.5%	13.1%
National St, Elgin, Big Timber Rd.	н	198.6	57,738	74,495	124,412	29.0%	67.0%
MD-W TOTAL		359.3	310.868	328,489	413.417	5.7%	25.9%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

### Table 5: MD-W Corridor Employment

	Fare	Area Sq.	Emp	loyment in Z	one	Percent	Change
Station	Zone	Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	A	3.6	50,855	40,907	53,328	-19.6%	30.4%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	35,715	22,469	29,265	-37.1%	30.2%
Elmwood Park, River Grove, Franklin Park, Mannheim	C	15.7	55,125	37,122	39,510	-32.7%	6.4%
Bensenville, Wood Dale	D	21.6	116,919	66,969	106,272	-42.7%	58.7%
Itasca, Medinah, Roselle	E	39.9	91,627	71,717	93,807	-21.7%	30.8%
Schaumburg, Hanover Park, Bartlett	F	68.1	54,898	55,078	79,150	0.3%	43.7%
National St, Elgin, Big Timber Rd.	Н	198.6	115,146	87,039	174,345	-24.4%	100.3%
MD-W TOTAL		359.3	520,285	381,301	575,677	-26.7%	51.0%
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%

## **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD MD-W stations.

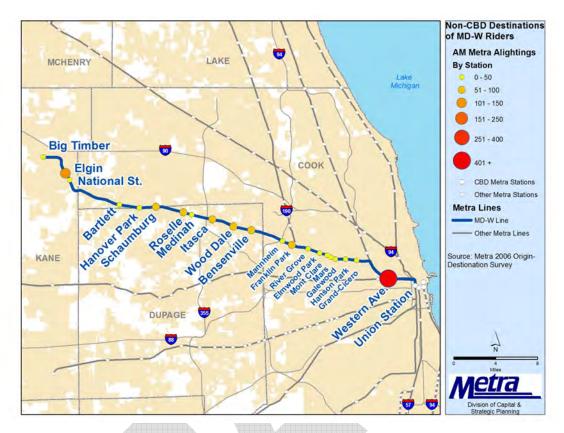


Figure 3: AM Alightings at Non-CBD MD-W Stations

According to Metra's 2006 Boarding and Alighting Count, over 7% of morning peak-period MD-W riders alight at stations outside central Chicago (i.e. excluding CUS and Western Avenue). Five O'Hare-area stations (Franklin Park, Mannheim, Bensenville, Wood Dale, and Itasca) account for 40% of MD-W morning peak-period alightings outside central Chicago, and the Elgin Station attracts another 13% of this non-traditional group. Interestingly, over one-quarter of passengers using the Elgin – Chicago Street Station during the morning peak alight at this station rather than board, as riders travel to Elgin municipal offices, the Grand Victoria Casino, and other significant employers.

As noted above, substantial employment growth is projected in MD-W station marketsheds along nearly the entire line, and 195,000 jobs are expected to be added in the corridor between 2010 and 2040, a 51% increase (see Table 5). Since employment growth in an area contributes to increased ridership at nearby Metra stations, this projection is a meaningful indicator of likely ridership growth on the MD-W Line. See Table 6 for a list of major trip generators in the MD-W corridor, including top employers.

Generator Type	Name	Comments	Municipality
Airports	O'Hare International Airport	Second-busiest airport in U.S.	Chicago
Colleges and	University of Illinois at Chicago	25,000 students	Chicago
Universities	Malcolm X College	7,200 students	Chicago
	St. Augustine College	West Town satellite campus, 400 students	Chicago
	Triton College	17,000 students	River Grove
	Elgin Community College	16,000 students	Elgin
	Judson University	1,200 students	Elgin
Culture and	United Center	Bulls and Blackhawks stadium, capacity 21,700	Chicago
Entertainment	Hansen Stadium	Chicago Park District football and track stadium	Chicago
	Wonder Works	Children's Museum	Oak Park
	Medinah Country Club	Country Club that has hosted 5 PGA Major Championships	Medinah
	Alexian Field	Schaumburg Flyers baseball stadium, capacity 6,000	Schaumburg
	Grand Victoria Casino	Riverboat Casino	Elgin
Shopping*	Stratford Square Mall	Regional center; 140 stores including 6 anchors	Bloomingdale
	Streets of Woodfield	Regional center; 29 stores including 3 anchors	Schaumburg
	Woodfield Mall	Super-regional center; 280 stores including 5 anchors	Schaumburg
Government	Cook County Juvenile Court	28 courtrooms and Juvenile Temporary Detention Center	Chicago
	U.S. Treasury Department	Federal Government Finance and Taxation Office	Elk Grove Village
	U.S. Dept. of Health and Human Services	O'Hare Import Inspection Post	Elk Grove Village
	Elgin City Hall	Municipal administration offices	Elgin
Hospitals	St. Mary and Elizabeth Medical Center	246 beds; 2,100 employees	Chicago
	Norwegian American Hospital	200 beds; 800 employees	Chicago
	Shriners Hospital for Children	60 beds; 400 employees	Chicago
	Gottlieb Memorial Hospital	250 beds; 1,200 employees	Melrose Park
	Sherman Hospital	353 beds; 1,800 employees	Elgin
	Provena Saint Joseph Hospital	193 beds, 1,300 employees	Elgin
Top Private	Nestle USA	Manufacturer of confections; 900 employees	Franklin Park
Employers	Werner	Manufacturer of ladders; 800 employees	Franklin Park
	Sara Lee Coffee and Tea	Beverage Wholesaler; 800 employees	Bensenville
	Videojet Technologies	Manufacturer of printing products; 900 employees	Wood Dale
	Corning Clinical Laboratories	Blood test and clinical laboratory; 900 employees	Wood Dale
	Bank One Card Services	Credit Card Issuer; 1,900 employees	Elgin

## Table 6: Major Trip Generators in the MD-W Corridor

\* Significant shopping areas exist at several station areas along the line.

# **Station and Parking Improvements**

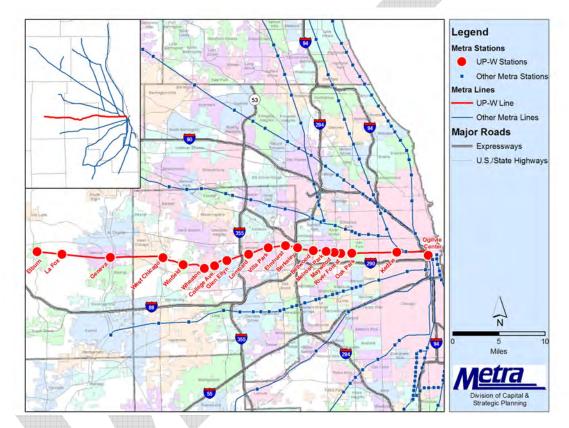
No improvements to outlying MD-W stations are currently scheduled.

# UNION PACIFIC WEST LINE

# **Existing Service and Conditions**

Metra's Union Pacific West (UP-W) Line extends west from Ogilvie Transportation Center (OTC) in downtown Chicago to the Village of Elburn. The line serves portions of Cook, DuPage, and Kane counties with 18 outlying stations along its 44-mile route (see Figure 1). In 2011, 7.9 million trips were taken on the UP-W, the sixth-highest number of Metra's 11 lines (based on ticket sales).

Figure 1: Metra Stations on the UP-W Line



The UP-W Line is owned by the Union Pacific Railroad and operated by its employees under a purchase of service agreement with Metra. Metra owns the passenger coaches and revenue service locomotives. Daytime storage and servicing of Union Pacific trains takes place at the California Avenue Yard, located on the UP-W Line about three miles west of OTC. This location also functions as the heavy repair facility for all bi-level coaches from Metra diesel lines. Union Pacific locomotives are serviced at the M-19A facility, located about two miles west of the California Avenue Yard. The Elburn yard accommodates nighttime storage and maintenance of trainsets serving the UP-W Line.

Prior to 1995, service was provided by the Chicago and NorthWestern Railroad, the predecessor of Union Pacific. In terms of number of routes and total mileage, Chicago and NorthWestern once operated the most extensive commuter service in the region. The UP-W Line was the first railroad built in the state of Illinois. The line fueled the growth of Oak

Park, Geneva, and numerous other towns in the corridor, and freight carried by the UP-W and other lines helped transform Chicago into a major transportation hub.

The UP-W Line is the main freight line into Chicago for the Union Pacific Railroad, and the UP operates as many as 70 freight trains per day on the line. Despite the heavy freight traffic on the line, the UP-W supports a full schedule of commuter service, consisting of 59 passenger trains each weekday.

The UP-W Line operates on three tracks from just west of OTC to West Chicago, a distance of 33 miles, except for a five-mile segment of double-track between River Forest and Elmhurst. This gap in the triple track creates a bottleneck where three tracks must merge into two near one of the largest Union Pacific freight yards. When the railroad returns to triple track, there are no crossovers for over fifteen miles between Elmhurst and West Chicago, greatly reducing the utility and flexibility of the segment. Commuter trains are subject to delays if they cannot bypass slower-moving freight trains, or if track repairs are being performed. Scheduling conflicts are also an issue west of West Chicago, where passenger and freight operations share two tracks for six miles until the line returns to triple track at Peck Road, five miles east of the passenger terminal at Elburn. The UP-W Line is also hampered by a signal system that does not permit close spacing of trains. Many of these issues will be addressed by improvements that will be funded by a Metra/Union Pacific public-private partnership Table 1 details the service, station, and ridership characteristics of the UP-W.

Table 1: UP-W Current Conditions

a) Service and Ridership Characteristics

Time of Day	Inbound	Outbound
AM Peak	10,149	547
Midday	1,347	1,115
PM Peak	576	9,758
Evening	388	1,133
TOTAL	12,460	12,553

### UP-W 2006 Weekday Boardings

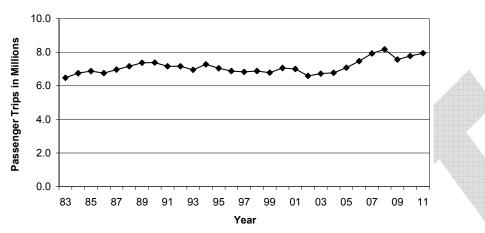
Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction, 2006

2011 Average Trip Length	22.27 miles
2011 Average Fare Paid	\$3.06
Source: Ridership Trends Report, Decem	ber 2011

Number of Stations	19
Route Length	43.6 miles
Number of Weekday Trains	59
2011 On-Time Performance*	90.9%
*On-Time Performance Report, December 20	011

#### b) Ridership

Annual UP-W Ridership



<sup>\*</sup>From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

Station	Fare	Mile	Accessibility <sup>1</sup>	Board	lings	Statio	on Parking	(2011)	Time to C (min	
	Zone	Post	-	1983 <sup>2</sup>	2006 <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local
Ogilvie Trans. Center	А	0.0	Full	10,769	11,743	0	n/a	n/a	n/a	n/a
Kedzie	А	3.6	None	42	22	0	n/a	n/a	n/a	12
Oak Park	В	8.5	Full	344	1,025	430	67%	48%	16	19
River Forest	В	9.7	None	127	367	208	87%	74%	20	23
Maywood	С	10.5	Partial	87	97	88	50%	50%	22	25
Melrose Park	С	11.3	Partial	101	100	47	100%	43%	23	27
Bellwood	С	12.6	Partial	248	215	209	42%	42%	26	30
Berkeley	С	14.3	Full	201	176	129	58%	58%	29	33
Elmhurst	D	15.7	Full	1,521	1,833	1,230	83%	78%	26	36
Villa Park	D	17.8	Full	1,289	835	485	99%	83%	31	40
Lombard	D	19.9	Full	1,418	1,281	534	97%	95%	33	44
Glen Ellyn	E	22.4	Full	1,971	1,537	719	95%	77%	36	48
College Ave.	E	23.8	Full	838	952	597	93%	84%	42	51
Wheaton	E	25.0	Full	1,770	1,661	701	81%	77%	41	54
Winfield	F	27.5	Full	341	503	325	74%	64%	52	58
West Chicago	F	29.8	Full	371	588	468	74%	74%	49	62
Geneva	н	35.3	Full	872	1,562	983	99%	94%	58	70
La Fox <sup>7</sup>		40.9	Full	n/a	261	300	80%	80%	67	78
Elburn <sup>7</sup>	1	43.6	Full	n/a	255	596	39%	39%	72	82
TOTAL UP-W				22,310	25,013	8,049	82%	74%		

#### c) Station Characteristics

<sup>1</sup> Union Pacific West Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Stations opened 2006

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Ogilvie Trans. Center	34%	5%	10%	41%	10%
Kedzie	17%	33%	42%	8%	0%
Oak Park	56%	21%	17%	5%	0%
River Forest	42%	45%	12%	1%	1%
Maywood	19%	73%	4%	4%	0%
Melrose Park	17%	71%	12%	0%	0%
Bellwood	10%	70%	16%	1%	2%
Berkeley	19%	68%	14%	0%	0%
Elmhurst	22%	57%	19%	1%	1%
/illa Park	20%	63%	16%	0%	1%
ombard	23%	55%	20%	3%	0%
Glen Ellyn	29%	43%	22%	5%	1%
College Ave.	20%	63%	14%	2%	0%
Wheaton	22%	52%	20%	5%	1%
Winfield	18%	64%	18%	0%	0%
Nest Chicago	10%	76%	14%	0%	0%
Geneva	8%	66%	22%	3%	1%
_a Fox	1%	87%	12%	0%	0%
Elburn	7%	72%	19%	0%	2%
OTAL UP-W	24%	49%	17%	8%	2%
SYSTEM TOTAL	22%	56%	16%	5%	1%

Source: Metra, Fall 2006 Origin-Destination Survey

## Improvements Since the Start of Metra

Since 1985, Metra has invested over \$530 million (in year of expenditure dollars) in improvements to the UP-W corridor. Table 2 indicates the amount of investment in different asset categories. This amount includes the extension of the line from Geneva to Elburn, which was completed in 2006. The \$135 million project, funded in part with New Starts funds from the Federal Transit Administration, included two new stations, track and signal improvements, construction of an overnight train storage yard at Elburn, and purchase of two locomotives to service the line. The project has relieved automobile and train congestion at Geneva and allowed Metra to better serve growing Kane County travel markets.

On the UP-W Line, since 1985, new depots or warming houses have been constructed at College Avenue, Geneva, Oak Park, West Chicago, Wheaton, and Winfield, and new stations were added at Elburn and La Fox. In addition, other significant station improvements have been completed at Elmhurst, Glen Ellyn, Lombard, Melrose Park, River Forest, and Villa Park. All of these projects, except Elmhurst, Geneva, Glen Ellyn, and Melrose Park, were completed since FAST was initially developed in 1992. Eight bridge repair or replacement projects have been completed on the line since 1992. In 2010, the City of Elmhurst constructed a 290-space parking structure at the corner of First Street and Larch Avenue for the joint use of commuters and local businesses. Metra contributed \$2.5 million towards the project in exchange for the long term use of approximately 80 commuter spaces.

	UP-W	System
Rolling Stock	\$164.8	\$1,856.6
Track	105.8	763.5
Structure	28.9	606.0
Signal	59.9	508.0
Electrical	5.4	74.9
Communications	2.0	36.5
Facilities	21.5	417.1
Equipment	7.9	113.4
Stations	65.7	629.5
Parking	27.5	171.4
Downtown Terminals	43.4	295.4
TOTAL	\$532.9	\$5,472.3

Table 2: Metra Capital Investment History

(in millions of dollars)

In the last 20 years, numerous adjustments have been made to the UP-W's schedule, increasing efficiency and reliability, reducing delay and crowding during peaks, adding express and weekend service, and extending service to new stations.

Most UP-W stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 97% of UP-W weekday boardings were at these accessible stations. Metra's station compliance program started with designating seven of the busiest UP-NW stations, including OTC in downtown Chicago, as "key stations", all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a total of 15 non-downtown UP-W stations, and 13 outlying stations on the line are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible.

## **Present and Future Demand**

In 2006, 25,000 boardings took place each weekday on the UP-W, with nearly 80% of boardings occurring on peak-period, peak-direction trains. On the UP-W, ridership has increased 12% since 1983 (see Table 1c). Ridership gains are most significant at stations near the eastern and western ends of the line, while ridership has decreased at seven of the nine stations between Melrose Park and Wheaton. This decrease could be attributed to the expanding suburban job market, with workers shifting from the Central Business District (CBD) to suburb-to-suburb commutes.

At the three westernmost stations built before 2005 (Winfield, West Chicago, and Geneva) boardings increased 67% between 1983 and 2006, which reflects the population and employment growth that has taken place in this area. Ridership increased 196% in the same time period at the Oak Park and River Forest Stations, an example of the significant ridership growth that has been experienced at many of Metra's stations close to the CBD. Overall passenger ridership on the UP-W totaled 7.9 million in 2011.

Figure 2 shows the origins of UP-W riders who board at stations outside of the CBD.

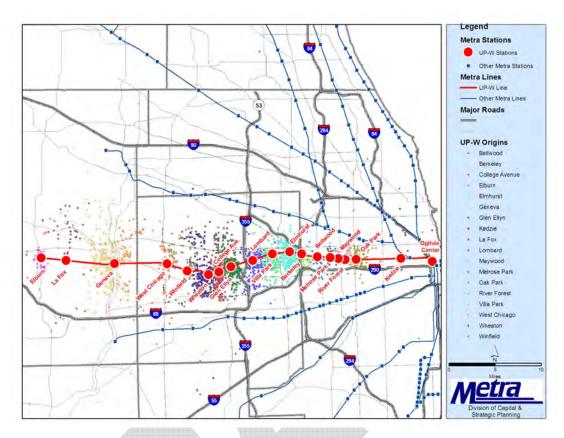


Figure 2: Origins of Riders Using Non-CBD UP-W Stations

Currently, over 8,000 parking spaces serve the riders of the UP-W. According to parking counts conducted in 2011, the average rate of utilization at all stations on the line is 82%. At seven stations, effective parking utilization exceeds 85%, the threshold used by Metra to determine if a station is in need of additional parking.

A number of indicators suggest that demand for commuter rail service will continue to rise in the UP-W corridor, as shown in Tables 3, 4, and 5. The corridor has been growing rapidly in recent decades, and demographic forecasts anticipate continued growth in population and employment. The Chicago Metropolitan Agency for Planning (CMAP) forecasts that the UP-W corridor will attract nearly 160,000 new residents between 2010 and 2040, a 20% increase. Population growth is expected to be most significant near the outer end of the UP-W corridor in eastern Kane County. Population in Geneva's station marketshed is expected to increase 36% from 2010 to 2040 and population in the La Fox and Elburn marketsheds is expected to increase 35% during the same period (see Table 3).

Similarly, the greatest gains in suburban employment on the UP-W corridor, in terms of percentage and absolute numbers, are expected to occur in the marketsheds from Geneva west. CMAP forecasts a 242% increase in employment in the La Fox and Elburn marketsheds, with an addition of 17,200 jobs. Employment growth of 64%, representing over 35,000 jobs, is projected for the Geneva marketshed. Along the entire corridor,,over 190,000 jobs are projected to be added, a 33% rise.

### Table 3: UP-W Corridor Population

	Fare	Area	Population in Zone			n Zone Percent C		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Ogilvie Transportation Center, Kedzie	А	8.6	104,712	113,821	141,857	8.7%	24.6%	
Oak Park, River Forest	В	10.8	110,781	104,823	114,666	-5.4%	9.4%	
Maywood, Melrose Park, Bellwood, Berkeley	С	21.1	116,915	115,412	128,615	-1.3%	11.4%	
Elmhurst, Villa Park, Lombard	D	33.5	122,435	124,565	155,888	1.7%	25.1%	
Glen Ellyn, College Ave., Wheaton	E	30.9	124,603	125,482	139,934	0.7%	11.5%	
Winfield, West Chicago	F	47.1	83,502	85,585	99,236	2.5%	16.0%	
Geneva	н	51.7	78,484	90,799	123,625	15.7%	36.2%	
La Fox, Elburn	1	216.0	29,955	44,987	60,832	50.2%	35.2%	
UP-W TOTAL		419.7	771,387	805,474	964,653	4.4%	19.8%	
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%	

## Table 4: UP-W Corridor Households

	Fare	Area	Hou	seholds in Zo	one	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Ogilvie Transportation Center, Kedzie	А	8.6	36,834	47,780	55,642	29.7%	16.5%	
Oak Park, River Forest	В	10.8	44,255	42,569	46,491	-3.8%	9.2%	
Maywood, Melrose Park, Bellwood, Berkeley	С	21.1	38,010	37,336	40,686	-1.8%	9.0%	
Elmhurst, Villa Park, Lombard	D	33.5	45,866	45,987	56,786	0.3%	23.5%	
Glen Ellyn, College Ave., Wheaton	E	30.9	44,316	44,533	50,217	0.5%	12.8%	
Winfield, West Chicago	F	47.1	26,022	26,916	31,751	3.4%	18.0%	
Geneva	Н	51.7	27,916	33,297	46,063	19.3%	38.3%	
La Fox, Elburn		216.0	9,732	14,019	20,426	44.1%	45.7%	
UP-W TOTAL		419.7	272,951	292,437	348,062	7.1%	19.0%	
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%	

## Table 5: UP-W Corridor Employment

	Fare	Area	Emp	loyment in Z	one	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Ogilvie Transporation Center, Kedzie	A	8.6	205,966	204,807	291,441	-0.6%	42.3%	
Oak Park, River Forest	В	10.8	58,282	39,883	43,981	-31.6%	10.3%	
Maywood, Melrose Park, Bellwood, Berkeley	C	21.1	102,738	53,753	70,919	-47.7%	31.9%	
Elmhurst, Villa Park, Lombard	D	33.5	134,576	108,103	113,365	-19.7%	4.9%	
Glen Ellyn, College Ave., Wheaton	E	30.9	65,199	68,893	77,433	5.7%	12.4%	
Winfield, West Chicago	F	47.1	21,493	33,944	49,482	57.9%	45.8%	
Geneva	Н	51.7	58,442	56,037	91,719	-4.1%	63.7%	
La Fox, Elburn		216.0	3,061	7,102	24,316	132.0%	242.4%	
UP-W TOTAL		419.7	649,757	572,522	762,656	-11.9%	33.2%	
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%	

## **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD UP-W stations.

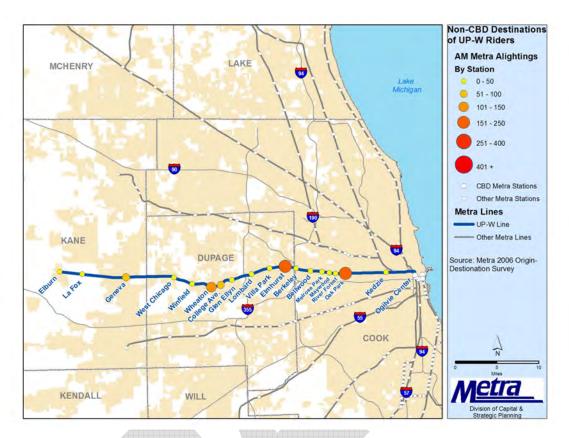


Figure 3: AM Alightings at Non-CBD UP-W Stations

Factors that increase reverse commute trip patterns are the growth of employment in the suburbs as well as the growth of population and households in the city and inner ring suburbs. Significant population and household growth is expected near the CBD and in western UP-W marketsheds, as shown in Tables 3 and 4. In terms of employment, CMAP projects the greatest employment growth to occur in UP-W marketsheds closest to the CBD and near the western end of the UP-W Line (see Table 5). This forecast suggests that some residents living in between may need to commute to job centers elsewhere in the UP-W corridor. In particular, the DuPage Business Center in West Chicago has the potential to become a significant employment draw along the UP-W Line. DNTP's master plan calls for 5.5 million square feet of space on 800 acres when the property is fully built out.

Boardings on UP-W AM peak-period outbound trains increased over 20% between 2002 and 2006, and projected employment growth in suburbs served by the UP-W indicate that reverse-commute ridership on the line is likely to continue to increase. See Table 6 for a list of major trip generators in the UP-W corridor, including top employers.

Generator Type	Name	Comments	Municipality
Colleges and	West Suburban College of Nursing	200 students	Oak Park
Universities	Dominican University	3,300 students	River Forest
	Concordia University	4,100 students	River Forest
	Loyola Univ. Stritch School of Medicine	600 students	Maywood
	Loyola Univ. Marcella Niehoff Sch. of Nursing	300 students	Maywood
	Elmhurst College	2.900 students	Elmhurst
	National Univ. of Health Sciences	600 students	Lombard
	College of DuPage	31,000 students	Glen Ellyn
	Wheaton College	2.900 students	Wheaton
	IIT - Rice Campus	Satellite campus of IIT	Wheaton
Culture and	Maywood Park	Half-mile oval horse track; capacity 33,300	Maywood
Entertainment	Mayan Adventure Indoor Waterpark	24,000 sq ft indoor waterpark	Elmhurst
	Safari Land	Largest indoor amusement park in Chicagoland	Villa Park
	Cantigny Park	Gardens and museums on 500 acres	Wheaton
	DuPage County Fairgrounds	Hosts several events throughout the year	Wheaton
	Elfstrom Stadium	Kane County Cougars baseball stadium; capacity 7,300	Geneva
		Hosts several events throughout the year	Geneva
	Kane County Fairgrounds	Hosts several events throughout the year	Geneva
Shopping*	Oakbrook Center	Super-Regional center; 160 stores including 6 anchors	Oakbrook
	Yorktown Center	Super-Regional center; 180 stores including 3 anchors	Lombard
	Geneva Commons	Lifestyle center; 80 stores including 3 anchors	Geneva
Government	Cook County District 4 Courthouse	Cook County circuit court suburban location	Maywood
	DuPage County Govt. Complex	Includes administrative and judicial offices, jail, and convalescent center	
	Kane County Government Center	County administrative offices	Geneva
Hospitals	Norwegian American Hospital	200 beds; 800 employees	Chicago
	Sacred Heart Hospital	119 beds	Chicago
	Hartgrove Hospital	136 beds; 400 employees	Chicago
	Advocate Bethany Hospital	85 beds; 400 employees	Chicago
	West Suburban Medical Center	287 beds; 1,700 employees	Oak Park
	Rush Oak Park Hospital	128 beds; 900 employees	Oak Park
	Loyola University Medical Center	570 beds; 6,000 employees	Maywood
	Edward Hines Jr. VA Hospital	483 beds; 2,700 employees	Hines
	Gottlieb Memorial Hospital	250 beds; 1,200 employees	Melrose Parl
	Westlake Community Hospital	282 beds; 1,000 employees	Melrose Parl
			Elmhurst
	Elmhurst Memorial Hospital	427 beds; 3,000 employees	
	Central DuPage Hospital Delnor Community Hospital	313 beds; 2,400 employees 128 beds; 1,700 employees	Winfield Geneva
Top Private	Alberte Culture	Manufacturer of boouth products: 2,750 employees	Molross D
•	Alberto Culver	Manufacturer of beauty products; 2,750 employees	Melrose Parl Melrose Parl
Employers	Navistar	Manufacturer of commercial trucks; 1,500 employees	werose Park
	Jewel Foods	Warehouse, mgmt. offices of retail food stores; 1,200 employees	Melrose Park
	HSBC	Banking and financial services firm; 1,800 employees	Elmhurst
	Siemens-Furnas Control	Manufacturer of electric controls; 800 employees	West Chicag
	Jel Sert	Beverages and other food products; 850 employees	West Chicag
	Fermi National Accelerator Lab	High-energy particle physics laboratory; 2000 employees	Batavia
	Fermi National Accelerator Lab	rightenergy particle physics laboratory, 2000 employees	Dalavia

### Table 6: Major Trip Generators in the UP-W Corridor

\* Significant shopping areas exist at several station areas along the line.

## **Station and Parking Improvements**

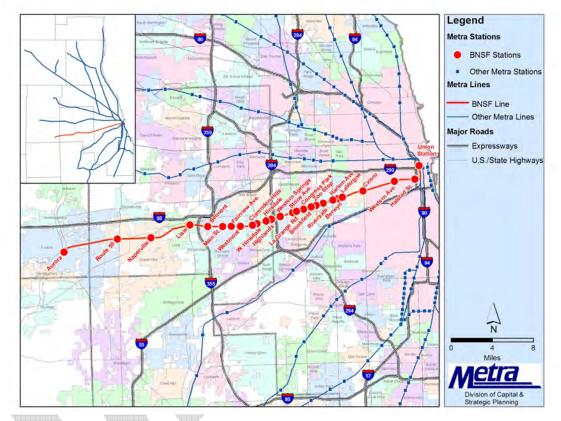
Pending funding from the recent State of Illinois transit bond program, rehabilitation of the River Forest Station, as well as parking improvements at the Geneva Station, are proposed. Construction of a third level on the existing two-level commuter parking structure in Geneva will provide an additional 180 parking spaces, for a total of 539 spaces. Some of these additional spaces will be needed to offset parking lost due to the extension of the third main line through Geneva proposed as part of the Metra/Union Pacific public-private partnership project.

# **BNSF RAILWAY**

## **Existing Service and Conditions**

Metra's BNSF Line extends west from Chicago Union Station (CUS, or "Union Station") to the Aurora Transportation Center, serving portions of Cook, DuPage, and Kane Counties (see Figure 1). In addition to CUS, the BNSF Line provides service to 25 stations along its nearly 38-mile route. In 2011, passenger trips on the BNSF totaled 16.6 million, the highest ridership of any line in the Metra system (based on ticket sales).

Figure 1: Metra Stations on the BNSF Line



The BNSF Line also has the region's most efficient physical plant, with three tracks throughout its length, high-speed track crossovers every four miles, and the ability to operate in either direction on any track. As a result, BNSF commuter service operates frequent high-speed peak-period express trains with a zone-type schedule between most stations and downtown Chicago. The physical plant also provides the ability to efficiently recycle trains for additional peak-period trips, thus making very effective use of its trains and personnel. The high-density commuter operation shares the tracks with a high-volume freight service and eight daily Amtrak trains. Although subsidized by Metra since 1984, the line is owned by BNSF Railway and is operated by its own employees under a purchase of service agreement with Metra. Naperville Station, LaGrange Road Station, and Chicago Union Station are also served by Amtrak. Metra and the West Suburban Mass Transit District own the passenger coaches, and Metra owns the revenue-service locomotives. Daytime train storage and servicing takes place at 14<sup>th</sup> Street Yard, south of CUS. Overnight

train storage is at Hill Yard, immediately east of the Aurora Transportation Center. Table 1 details the service, station, and ridership characteristics of the BNSF Line.

The Chicago Burlington & Quincy Railroad (CB&Q), a predecessor of the BNSF Railway, began suburban passenger service on this line in the 1860s. By 1895, the CB&Q boasted of a 43-minute running time between Downers Grove and downtown Chicago. Modernization in the form of a fully dieselized locomotive fleet and stainless steel bi-level passenger coaches came in the early 1950s. In 1970, the CB&Q joined with the Great Northern and Northern Pacific Railroads to form the Burlington Northern Railroad. A merger with the Atchison, Topeka & Santa Fe Railroad in 1995 created the BNSF Railway. In 2010, Berkshire Hathaway Inc. agreed to acquire all outstanding stock in the Burlington Northern Santa Fe Corporation, the parent company of BNSF Railway.

The BNSF Line serves the rapidly growing communities within the Illinois Technology and Research Corridor along I-88 in southern DuPage County. Rapid residential, commercial, and industrial development in the corridor, particularly in the Naperville-Aurora area, has transformed Route 59 and Naperville into Metra's top two stations in terms of total weekday boardings. In the past 25 years, almost all ridership growth on the BNSF Line has occurred at stations from Downers Grove, Main Street, to the west, on the outer portion of the corridor.

Table 1: BNSF Current Conditions

a) Service and Ridership Cha	racteristics
------------------------------	--------------

## BNSF 2006 Weekday Boardings<sup>†</sup>

Time of Day	Inbound	Outbound				
AM Peak	24,046	921				
Midday	1,753	3,310				
PM Peak	1,440	20,107				
Evening	418	3,444				
TOTAL	27,657	27,782				

<sup>†</sup> Includes Clyde Station, which was closed in 2007. Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction

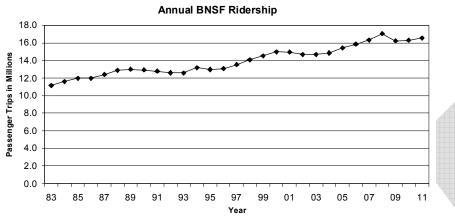


2011 Average Trip Length	23.81 miles
2011 Average Fare Paid	\$3.08
Source: Ridership Trends Report, Decer	nber 2011

Number of Stations	26
Route Length	37.5 miles
Number of Weekday Trains	94
2011 On-Time Performance*	92.9%
*On-Time Performance Report, December 20	11

Table 1 (continued)





\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.



## c) Station Characteristics

									Time to 0	Chicago
Station	Fare	Mile	Accessibility <sup>1</sup>	Board	dings	Stati	on Parking	(2011)	(min	s) <sup>1</sup>
	Zone	Post	_			Capacity	Effective	Observed		
				<b>1983</b> <sup>2</sup>	<b>2006</b> <sup>3</sup>	(Spaces) <sup>4</sup>	Use <sup>5</sup>	Use <sup>6</sup>	Express	Local
Union Station	Α	0.0	Full	18,545	26,547	0	n/a	n/a	n/a	n/a
Halsted St.	Α	1.8	None	36	70	0	n/a	n/a	8	14
Western Ave.	Α	3.8	None	116	110	0	n/a	n/a	14	19
Cicero	В	7.0	None	276	246	170	38%	38%	15	24
Clyde <sup>7</sup>	-			131	64			-		
LaVergne	В	9.1	Full	235	159	169	88%	30%	18	25
Berwyn	В	9.6	Full	852	718	532	76%	60%	17	29
Harlem Ave.	В	10.1	None	680	530	153	87%	44%	19	31
Riverside	С	11.1	Partial	531	416	164	91%	70%	22	33
Hollywood (Zoo Stop)	С	11.8	Full	152	133	50	100%	30%	26	35
Brookfield	С	12.3	Partial	708	604	228	88%	55%	25	37
Congress Park	С	13.1	None	129	176	30	100%	93%	18	36
LaGrange Rd.	С	13.8	Full	1,496	1,352	358	100%	78%	19	41
LaGrange, Stone Ave.	С	14.2	None	1,017	988	463	99%	74%	23	41
Western Springs	D	15.5	Full	1,022	1,093	406	95%	69%	23	45
Highlands	D	16.4	None	210	176	92	73%	64%	28	45
Hinsdale	D	16.9	Full	1,155	1,065	239	97%	96%	22	48
West Hinsdale	D	17.8	Partial	338	323	139	100%	46%	25	48
Clarendon Hills	D	18.3	Partial	1,078	799	304	94%	81%	26	51
Westmont	D	19.5	Full	1,305	1,168	567	89%	67%	29	54
Fairview Ave.	Е	20.4	Full	598	403	280	65%	52%	34	57
Downers Grv., Main St.	Е	21.2	Full	1,830	2,328	889	96%	92%	27	59
Belmont	Е	22.6	Full	1,204	1,414	769	95%	83%	31	60
Lisle	Е	24.5	Full	2,330	2,472	839	100%	85%	34	64
Naperville	F	28.5	Full	2,571	4,112	1,473	98%	91%	33	69
Route 59 <sup>8</sup>	G	31.6	Full		5,793	4,256	98%	92%	41	74
Aurora	н	37.5	Full	834	2,180	1,644	93%	79%	51	82
TOTAL BNSF				39,379	55,439	14,214	94%	81%		

<sup>1</sup> BNSF Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Station was closed in 2007.

<sup>8</sup> Station was opened in 1989.

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Union Station	30%	6%	9%	46%	10%
Halsted St.	93%	7%	0%	0%	0%
Western Ave.	36%	9%	5%	45%	5%
Cicero	20%	56%	8%	16%	0%
Clyde <sup>1</sup>	73%	14%	5%	9%	0%
aVergne	56%	29%	15%	0%	0%
Berwyn	36%	41%	17%	3%	2%
Harlem Ave.	52%	31%	13%	3%	0%
Riverside	51%	35%	12%	0%	1%
Hollywood (Zoo Stop)	79%	13%	8%	0%	0%
Brookfield	43%	40%	17%	0%	0%
Congress Park	73%	9%	17%	0%	1%
_aGrange Rd.	40%	37%	19%	3%	1%
aGrange, Stone Ave.	45%	36%	18%	0%	
Vestern Springs	43%	36%	17%	3%	0%
Highlands	46%	46%	9%	0%	0%
Hinsdale	32%	27%	36%	3%	2%
Vest Hinsdale	38%	54%	6%	1%	1%
Clarendon Hills	34%	37%	20%	8%	1%
Vestmont	20%	51%	15%	14%	0%
airview Ave.	36%	47%	15%	0%	1%
Downers Grv., Main St.	23%	48%	21%	2%	7%
Belmont	9%	70%	14%	5%	2%
isle	10%	49%	20%	19%	1%
laperville	10%	47%	23%	18%	2%
Route 59	6%	74%	15%	4%	1%
Aurora	3%	71%	20%	5%	1%
TOTAL BNSF	21%	49%	18%	11%	2%
SYSTEM TOTAL	22%	56%	16%	5%	1%

<sup>1</sup> Station closed in 2007

Source: Metra, Fall 2006 Origin-Destination Survey

# **Improvements Since the Start of Metra**

Since 1985, Metra has invested over \$626 million (in year of expenditure dollars) in improvements to the BNSF corridor, as shown in Table 2. On the BNSF Line, since 1985, new depots and warming houses have been constructed at Cicero and Western Springs, and a new station was added at Route 59 with several subsequent expansions. In addition, other significant station improvements have been completed at Aurora, LaGrange Road, LaVergne, and Berwyn. All of these projects, other than Berwyn, were completed since FAST was initially developed in 1992. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities. Three bridge repair or replacement projects have also been completed on the BNSF since 1992.

	BNSF	System
Rolling Stock	\$319.4	\$1,856.6
Track	49.7	763.5
Structure	33.7	606.0
Signal	95.9	508.0
Electrical	1.5	74.9
Communications	2.7	36.5
Facilities	54.7	417.1
Equipment	10.4	113.4
Stations	32.2	629.5
Parking	17.7	171.4
Downtown Terminals	8.3	295.4
TOTAL	\$626.1	\$5,472.3

Table 2: Metra Capital Investment History

(in millions of dollars)

Most BNSF stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 92% of BNSF weekday boardings were at these accessible stations. Metra's station compliance program started with designating seven of the busiest BNSF stations, including CUS in downtown Chicago, as "key stations", all of which were made fully accessible by 2004. Since 1985, Metra has completed access improvements at a total of 15 non-downtown BNSF stations, and 14 outlying stations on the line are now fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible.

## **Present and Future Demand**

In weekday boardings at all non-downtown Chicago Metra stations, the top two stations and five of the top ten stations in Metra's system are on the BNSF Line. More than 55,000 boardings took place each weekday on BNSF trains in 2006, with 80% of boardings occurring on peak-period, peak-direction trains. Ridership on the rail line has increased 41% since 1983 (see Table 1c). Almost all ridership growth on the BNSF Line during this time occurred at the six outermost stations (Downers Grove, Main Street to Aurora), increasing by 109% from 1983 to 2006. These six stations accounted for 63% of all weekday BNSF boardings outside the Central Business District (CBD) in 2006. Ridership at the remaining outlying stations, combined, fell by 12% from 1983 to 2006, with ridership increasing at only Halsted, Congress Park, and Western Springs Stations. Figure 2 shows the origins of BNSF riders who board at non-CBD stations. Overall passenger ridership on the BNSF Line

The parking utilization rate at BNSF stations is the highest of all Metra lines, with 94% effective occupancy of the more than 14,000 total parking spaces counted in 2011 (see Table 1c). (Metra considers station parking areas over 85% occupied to be approaching full capacity, and in need of expansion.) Effective utilization at 12 of the 23 stations with parking facilities is at least 95%, with five stations at 100%, although observed parking utilization at a number of BNSF stations is much lower, indicating that many permit spaces at these stations are unoccupied. Though demand for parking at BNSF stations is expected

to increase due to anticipated residential growth in the corridor, a lack of available commuter parking along the line could threaten further ridership growth.

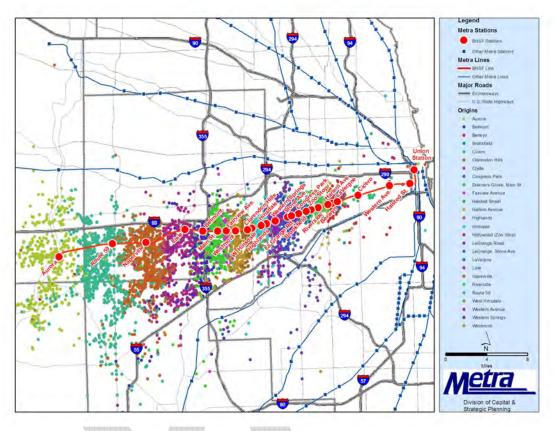


Figure 2: Origins of Riders Using Non-CBD BNSF Stations

A number of indicators suggest that demand for commuter rail service will continue to rise in the BNSF corridor. The corridor has been growing in recent decades, and demographic forecasts anticipate continued growth in population and employment, particularly in the area from Downers Grove to Aurora.

As shown in Tables 3, 4, and 5, almost all station marketsheds on the BNSF Line are forecasted to see increases in population, households, and employment by 2040. Chicago Metropolitan Agency for Planning (CMAP) forecasts that the BNSF corridor will attract 338,000 new residents between 2010 and 2040, a 28% increase (see Table 3). The corridor is forecast to attract nearly 200,000 new jobs, a 36% increase (see Table 5). Reflecting the ridership trends noted above, much of the anticipated population growth is expected in the outer areas of the corridor. The population of BNSF corridor marketsheds from Downers Grove to Aurora (Fairview Avenue Station to Aurora Station) is projected to grow from 568,000 in 2010 to 810,000 in 2040. The projected population increase along this portion of the corridor. It is essential that Metra and other public transportation services work to meet the demand related to continued population and employment growth along this corridor to prevent worsening roadway congestion.

### Table 3: BNSF Corridor Population

	Fare	Area	Рор	oulation in Zo	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Halsted St., Western Ave.	Α	12.2	189,076	186,896	224,876	-1.2%	20.3%
Cicero, LaVergne, Berwyn, Harlem Ave.	В	24.2	258,042	252,332	286,192	-2.2%	13.4%
Riverside, Hollywood (Zoo Stop), Brookfield, Congress	С	18.8	81,781	82,712	86,898	1.1%	5.1%
Park, LaGrange Rd., LaGrange, Stone Ave.							
Western Springs, Highlands, Hinsdale, West Hinsdale,	D	33.2	100,863	101,470	120,643	0.6%	18.9%
Clarendon Hills, Westmont							
Fairview Ave., Downers Grv. (Main St.), Belmont, Lisle	E	44.0	133,446	131,862	182,826	-1.2%	38.6%
Naperville	F	39.1	110,475	120,210	168,890	8.8%	40.5%
Route 59	G	45.4	82,369	111,502	149,269	35.4%	33.9%
Aurora	Н	80.9	143,462	204,119	309,129	42.3%	51.4%
BNSF TOTAL		297.8	1.099.514	1,191,103	1.528.723	8.3%	28.3%
REGION TOTAL		3,765.0	7,261,074	8,091,516	10,033,858	11.4%	24.0%

#### Table 4: BNSF Corridor Households

	Fare	Area	Hou	seholds in Z	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Halsted St., Western Ave.	Α	12.2	52,008	52,863	64,054	1.6%	21.2%
Cicero, LaVergne, Berwyn, Harlem Ave.	В	24.2	77,234	74,019	81,179	-4.2%	9.7%
Riverside, Hollywood (Zoo Stop), Brookfield, Congress	С	18.8	32,639	32,237	34,354	-1.2%	6.6%
Park, LaGrange Rd., LaGrange, Stone Ave. Western Springs, Highlands, Hinsdale, West Hinsdale, Clarendon Hills, Westmont	D	33.2	38,264	38,806	46,407	1.4%	19.6%
Fairview Ave., Downers Grv. (Main St.), Belmont, Lisle	Е	44.0	51,581	52,649	69,134	2.1%	31.3%
Naperville	F	39.1	37,404	40,712	57,323	8.8%	40.8%
Route 59	G	45.4	29,380	39,345	52,692	33.9%	33.9%
Aurora	Н	80.9	46,205	62,591	102,125	35.5%	63.2%
BNSF TOTAL REGION TOTAL		297.8 3,765.0	364,715 2,620,271	393,222 2,906,983	507,268 3,627,412	7.8% 10.9%	29.0% 24.8%

### Table 5: BNSF Corridor Employment

	Fare	Area	Emp	loyment in Z	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Halsted St., Western Ave.	Α	12.2	95,643	101,279	116,942	5.9%	15.5%
Cicero, LaVergne, Berwyn, Harlem Ave.	В	24.2	73,033	59,463	77,232	-18.6%	29.9%
Riverside, Hollywood (Zoo Stop), Brookfield, Congress Park, LaGrange Rd., LaGrange, Stone Ave.	С	18.8	43,953	41,003	43,727	-6.7%	6.6%
Western Springs, Highlands, Hinsdale, West Hinsdale, Clarendon Hills, Westmont	D	33.2	104,679	90,511	87,046	-13.5%	-3.8%
Fairview Ave., Downers Grv. (Main St.), Belmont, Lisle	E	44.0	76,141	91,976	118,402	20.8%	28.7%
Naperville	F	39.1	56,762	60,406	65,850	6.4%	9.0%
Route 59	G	45.4	39,172	54,997	128,929	40.4%	134.4%
Aurora	Н	80.9	79,467	50,677	110,530	-36.2%	118.1%
BNSF TOTAL REGION TOTAL		297.8 3,765.0	568,850 3,845,085	550,312 4,323,689	748,658 5,563,780	-3.3% 12.4%	36.0% 28.7%

### **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). According to Metra's 2006 Boarding and Alighting Count, over 5% of BNSF peak boardings follow the reverse-commute pattern. Reverse commuters make up over 1,100 of the approximately 1,700 total weekday morning non-CBD alightings

on the BNSF Line. Twenty-nine percent of these weekday morning non-CBD alightings are at Naperville and Aurora Stations, with nearly 300 and 200 alightings, respectively. Together, the six outermost BNSF stations (Downers Grove, Main Street to Aurora) account for nearly 1,000, or 58%, of BNSF weekday morning non-CBD alightings, with LaGrange Road, Riverside, and Hinsdale Stations accounting for an additional 300, or 17% of non-CBD morning alightings. Riverside is unique among these stations in that most morning alightings are from inbound, not outbound trains. Figure 3 shows AM alightings at non-CBD BNSF stations.

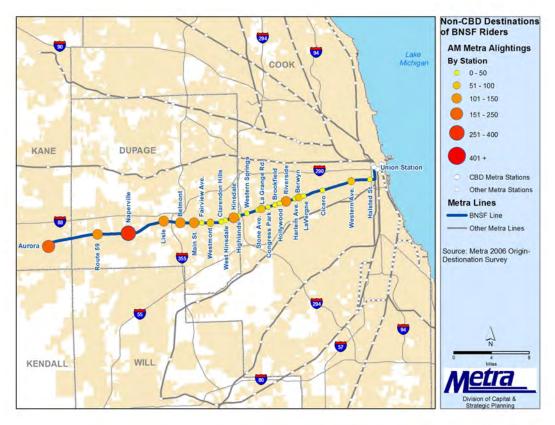


Figure 3: AM Alightings at Non-CBD BNSF Stations

Factors that increase reverse commute trip patterns are the growth of population and households in the city and inner ring suburbs as well as the growth of employment in the suburbs. Significant population and household growth is expected near the CBD, as shown in Tables 3 and 4. Meanwhile, Table 5 shows that employment along the entire BNSF corridor is expected to grow 36% between 2010 and 2040. Substantial job growth is expected in station market areas located in southwest DuPage County and southeast Kane County. According to CMAP projections, employment within the BNSF corridor from Downers Grove to Aurora (Fairview Avenue Station to Aurora Station) is projected to grow from 258,000 jobs in 2010 to 424,000 in 2040. The projected employment growth along this portion of the corridor accounts for 84% of the projected employment growth along the entire BNSF corridor. Some major employers along the BNSF are shown in Table 6.

Generator Type	Name	Comments	Municipality
Airports	Midway Airport	Commercial aviation, second busiest airport in Illinois	Chicago
Colleges and	University of Illinois at Chicago	24,000 students	Chicago
Universities	Morton College	5,000 students	Cicero
	Midwestern University	1.900 students	Downers Grove
	College of DuPage	31,000 students	Glen Ellyn
	Illinois Benedictine University	5,300 students	Lisle
	North Central College	2,600 students	Naperville
	Aurora University	4,000 students	Aurora
Culture and	Hawthorne Race Course	Half-mile oval horse track; capacity 80,000	Cicero
Entertainment	Cicero Community Park	11-acre outdoor festival park	Cicero
	Brookfield Zoo	200 acre zoo with 450 species of animals	Brookfield
	Morton Arboretum	1,700 acre arboretum with herbarium and library	Wheaton
	DuPage Children's Museum	Children's museum, 300,000 visitors annually	Naperville
	Naper Settlement	19th century living history museum	Naperville
	Hollywood Casino	Riverboat Casino	Aurora
	Paramount Theater	Concert venue	Aurora
Shopping*	North Riverside Park Mall	128 stores, 3 anchors	North Riverside
5	Yorktown Center	180 stores, 4 anchors	Lombard
	Westfield Fox Valley	180 stores, 4 anchors	Aurora
	Chicago Premium Outlets	120 stores	Aurora
Government	Cook County Juvenile Court	28 courtrooms and Juvenile Temporary Detention Center	Chicago
	Cook County Criminal Division Court	Trials of felony cases are heard here	Chicago
	Naperville City Hall	Administrative Center for City of Naperville	Naperville
	Aurora City Hall	Administrative Center for City of Aurora	Aurora
Hospitals	Mount Sinai Hospital	431 beds; 2,000 employees	Chicago
	Saint Anthony Hospital	166 beds; 800 employees	Chicago
	MacNeal Hospital	427 beds; 1,600 employees	Berwyn
	Edward Hines Jr. VA Hospital	483 beds; 2,700 employees	Hines
	Loyola University Medical Center	570 beds; 6,000 employees	Maywood
	Adventist La Grange Memorial Hospital	274 beds; 1,200 employees	La Grange
	RML Specialty Hospital	81 beds; 500 employees	Hinsdale
	Adventist Hinsdale Hospital	426 beds; 2,600 employees	Hinsdale
	Advocate Good Samaritan Hospital	340 beds; 2,700 employees	Downers Grove
	Edward Hospital and Health Services	317 beds; 4,500 employees	Naperville
	Rush Copley Medical Center	183 beds; 1,700 employees	Aurora
	Provena Mercy Medical Center	356 beds; 1,200 employees	Aurora
			, la ora
Top Private	GCA Services Group	Provider of maintenance and janitorial services; 1,500 employees	Downers Grove
Employers	Sara Lee Corp	HQ of food and beverage manufacturer; 1,000 employees	Downers Grov
	Unique Mailing Services Inc	Direct mailing company; 1,050 employees	Downers Grov
	Alcatel-Lucent	employees	Naperville
	BP	R&D facility for global energy company; 1,400 employees	Naperville
	Nicor Gas Co	HQ of energy and shipping company; 2,300 employees	Naperville
	Nalco Company	North American HQ of water treatment company; 1,000 employees	Naperville
	OfficeMax	HQ of office supplies retailer; 1,500 employees	Naperville
	Caterpillar Inc	Manufacturer of medium wheel loaders; 3,000 employees	Aurora
	LTD Commodities	Catalog fulfillment company; 1,200 employees	Aurora
	LID Commodities	Catalog iuliliment company; 1,200 employees	Aurora

### Table 6: Major Trip Generators in the BNSF Corridor

\*Significant shopping areas exist at several station areas along the line.

## **Station and Parking Improvements**

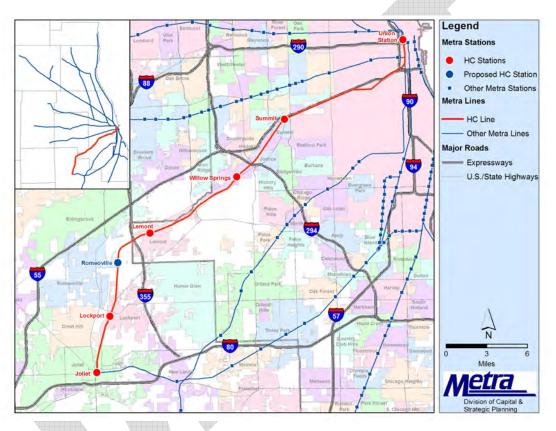
Proposed to be funded by the recent State of Illinois bond program, station improvements are planned at the Cicero, Naperville, and Downers Grove, Main Street Stations. Cicero Station is scheduled for a major renovation that will include upgraded customer safety and notification features and replacement of both inbound and outbound platforms. The proposed renovation will also include construction of new shelters and heated waiting areas on both platforms, a new ADA compliant access ramp, and will relocate the parking lot for better commuter access. Proposed improvements at the Naperville Station include replacement of both inbound and outbound platforms and adjacent surfaces, as well as replacement of the inbound canopy. Proposed improvements at the Downers Grove, Main Street Station include replacement of both platforms and replacement of the outbound shelter.

# HERITAGE CORRIDOR LINE

## **Existing Service and Conditions**

Metra's Heritage Corridor (HC) Line extends southwest from Chicago Union Station (CUS) in downtown Chicago to the City of Joliet. The line serves portions of Cook and Will counties with service to five stations in addition to CUS along its 37-mile route (see Figure 1). The HC is Metra's smallest line in terms of train service, number of stations, and ridership (with 706,000 trips in 2011, based on ticket sales).

Figure 1: Metra Stations on HC Line



Commuter service on the line was operated by Illinois Central Gulf and its predecessors until 1987, when Metra assumed operation under a trackage rights agreement and gave the service its present name. Currently, Metra operates HC trains operate on track owned by Canadian National (CN) between Joliet and 21<sup>st</sup> Street in Chicago, and HC trains use Amtrak-owned track to enter CUS. Union Pacific (UP) owns the last half-mile of track utilized by the HC entering Joliet. CN, UP, and BNSF freight trains, as well as 10 daily Amtrak trains, also utilize the HC route. Amtrak's *Lincoln Service* stops at both JUD and Summit Metra Station. Joliet is also the terminal station for Metra's Rock Island District, making Joliet the only suburban transfer station serving multiple Metra lines and Amtrak. The HC is also a proposed future high-speed rail corridor.

The CN-owned segment of the route is double-tracked, and track west of the Brighton Park interlocking (MP 5.1) is maintained for a maximum passenger speed of 79 miles per hour, though trains must slow to 50 miles per hour through Argo interlocking (MP 13.1). However,

intense freight activity in the eastern portion of the route makes HC trains particularly vulnerable to delays, and the line consistently has the lowest on-time performance record of Metra's 11 lines. The HC crosses four major at-grade interlockings (Brighton Park (Panhandle) with the CSX and Norfolk Southern Railway, Corwith with the BNSF Railway, LeMoyne with the Belt Railway of Chicago, and Argo with the Indiana Harbor Belt and CSX), and encounters heavy traffic near two rail yards. These conflicts have constrained commuter service on the HC to six trains per weekday, and it is the only Metra line limited to peak-period, peak-direction service. Grade separation of the four crossings could eliminate conflicts with freight traffic at these locations.

Midday servicing of HC trains takes place at the Milwaukee District's Western Avenue Yard, and trains are stored overnight at the Joliet Yard east of JUD, which is shared with the Rock Island District. Table 1 details service, station, and ridership characteristics on the HC.

Table 1: HC Current Conditions

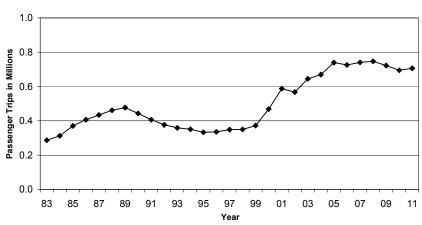
#### a) Service and Ridership Characteristics

Time of Day	Inbound	Outbound
AM Peak	1,480	0
Midday	0	0
PM Peak	0	1,430
Evening	0	0
TOTAL	1,480	1,430

Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction

28.23 miles
\$3.16
2011
6
37.2 miles
6
86.2%

#### b) Ridership



Annual Heritage Corridor Ridership

\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

### Table 1 (continued)

### c) Station Characteristics

Station	Fare	Mile	Accessibility <sup>1</sup>	Boardings		Statio	on Parking	Time to Chicago (mins) <sup>1</sup>		
	Zone	Post		1983 <sup>2</sup>	<b>2006</b> <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local
Union Station	Α	0.0	Full	499	1,421	0	n/a	n/a	n/a	n/a
Summit	С	11.9	Full	44	64	151	45%	45%	n/a	33
Willow Springs	D	17.5	Full	84	97	150	78%	35%	n/a	41
Lemont	Е	25.3	Full	130	381	331	93%	83%	n/a	50
Lockport	G	32.9	Full	55	552	410	81%	77%	n/a	59
Joliet	Н	37.3	Full	106	395	561	96%	94%	n/a	65
TOTAL HC				918	2,910	1,603	85%	77%		

<sup>1</sup> Heritage Corridor Line Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts. Total includes 56 boardings from Halsted, Brighton Park, and Glenn Stations, which closed between 1984 and 1989.

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other
Union Station	30%	6%	9%	46%	10%
Summit	14%	69%	14%	0%	3%
Willow Springs	25%	68%	7%	0%	0%
Lemont	7%	78%	16%	0%	0%
Lockport	2%	81%	17%	0%	0%
Joliet	5%	70%	22%	3%	1%
TOTAL HC	18%	39%	14%	28%	1%
SYSTEM TOTAL	22%	56%	16%	5%	1%

Source: Metra, Fall 2006 Origin-Destination Survey

## **Improvements Since the Start of Metra**

Since 1985, Metra has invested nearly \$60 million (in year of expenditure dollars) in improvements to the HC corridor. Table 2 indicates the amount of investment in different asset categories. This amount includes costs of a track and signal upgrade project completed in 2002, new warming houses at Summit and Willow Springs, and restoration of the historic Lemont, Lockport, and Joliet depots (the oldest depots in the Metra system). American Recovery and Reinvestment Act (ARRA) grants funded recently completed platform improvements at the Lockport Station and JUD. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities.

Due to capacity constraints on the HC, Metra has had limited opportunities to adjust the service schedule on the line. However, in April 1999 the number of peak hour trains was increased from four to six, in order to better serve existing riders and add capacity during reconstruction of the Stevenson Expressway. The ridership impact of this improvement can be seen in Table 1b, as HC boardings increased 31% between 1999 and 2002.

Table 2: Metra Capital Investment History

	НС	System
Rolling Stock	\$15.1	\$1,856.6
Track	11.5	763.5
Structure	1.1	606.0
Signal	2.5	508.0
Electrical	0.0	74.9
Communications	1.5	36.5
Facilities	4.2	417.1
Equipment	6.2	113.4
Stations	9.7	629.5
Parking	6.2	171.4
Downtown Terminals	0.5	295.4
TOTAL	\$58.6	\$5,472.3

(in millions of dollars)

Several power crossovers were installed along the HC Line since the publication of FAST. Bi-directional signals were installed throughout the line, but the project is not yet completed.

Since 1992, Metra has completed studies of grade separating the HC's four major at-grade crossings as long-term improvements, due to the cost, complexity and service disruptions these projects would cause. Several improvements were completed at the Brighton Park interlocking in 2007 in order to improve operations without construction of a more costly flyover. The improvements included the installation of a modern remotely-controlled signal system and replacement of the crossing diamonds.

Since 1985, Metra has completed access improvements at all five non-downtown HC stations. As part of the American Recovery and Reinvestment Act (ARRA)-funded work mentioned above, HC platforms at JUD were made accessible to disabled riders in 2011, and all HC stations are now compliant with the accessibility requirements of the Americans with Disabilities Act (ADA).

### Present and Future Demand

In 2006, over 2,900 boardings took place each weekday on the HC, an increase of 191% since 1983 (see Table 1c). At the three southernmost stations (Joliet, Lockport, and Lemont) boardings increased 357% between 1983 and 2006, which reflects the population and employment growth that has taken place in this area. Ridership increased 25% in the same time period at the Willow Springs and Summit Stations, an example of the ridership growth that has been experienced at many of Metra's stations close to the Central Business District (CBD). Overall passenger ridership on the HC totaled 706,000 in 2011.

Figure 2 shows the origins of HC riders who board at stations outside of the CBD.

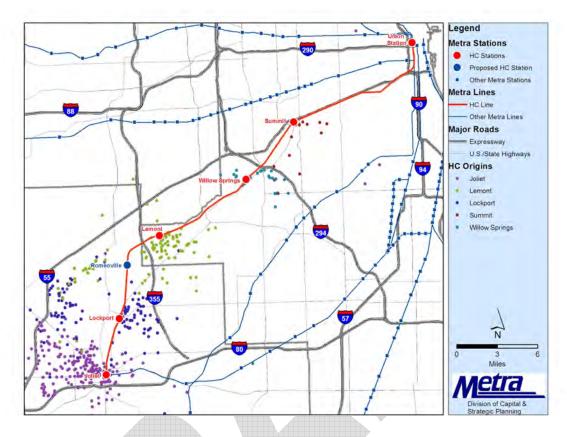


Figure 2: Origins of Riders Using Non-CBD HC Stations

A number of indicators suggest that demand for commuter rail service will continue to rise in the HC corridor. The corridor has been growing rapidly in recent decades, and demographic forecasts anticipate continued growth in population and employment. The Chicago Metropolitan Agency for Planning (CMAP) forecasts that all HC station marketsheds will increase in population, households, and employment, as shown in Tables 3, 4, and 5. The HC corridor is projected to attract 281,000 new residents between 2010 and 2040, a 52% increase. Projected population growth is especially significant near the southwest portion of the HC in Will County. Over 131,000 jobs are projected to be added in the corridor by 2040, a 63% rise.

With improved service frequencies, as well as mid-day and reverse-commute trains, the HC would be better able to serve the transportation needs of the growing market in the corridor. An upgraded HC would also be able to attract riders living near the HC who currently drive to distant stations on the BNSF, SouthWest Service, or Rock Island District in order to take advantage of improved service levels. (This phenomenon is visible in Figure 2 of the chapters associated with these three lines.) Increasing the utility of the HC would reduce travel times for these riders and reduce congestion on adjacent Metra lines. In addition, those traveling to the Illinois & Michigan Canal area to enjoy its recreational and historical attractions would be able to utilize HC service. (See Table 6 for a list of major trip generators in the HC corridor.)

Currently, 1,600 parking spaces serve the riders of the HC. According to parking counts conducted in 2011, the average rate of effective utilization at all stations on the line is 85%.

Parking utilization exceeds 85% at two of the line's five outlying stations, which indicates a demand for increased parking.

#### Table 3: HC Corridor Population

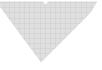
	Fare	Area	Pop	oulation in Zo	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station	A	0.3	4,156	5,507	4,804	32.5%	-12.8%
Summit	С	18.4	67,159	68,574	73,815	2.1%	7.6%
Willow Springs	D	32.1	45,709	45,747	62,253	0.1%	36.1%
Lemont	E	63.7	81,722	94,814	139,067	16.0%	46.7%
Lockport	G	77.3	72,690	128,799	213,824	77.2%	66.0%
Joliet	Н	120.3	152,991	194,444	325,326	27.1%	67.3%
HC TOTAL		312.1	424,427	537,885	819,089	26.7%	52.3%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

### Table 4: HC Corridor Households

	Fare	Area	Hou	Households in Zone			Percent Change	
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Union Station	A	0.3	2,663	3,576	2,923	34.3%	-18.3%	
Summit	С	18.4	25,137	24,480	27,308	-2.6%	11.6%	
Willow Springs	D	32.1	17,579	17,807	23,381	1.3%	31.3%	
Lemont	E	63.7	26,352	30,876	45,359	17.2%	46.9%	
Lockport	G	77.3	24,432	40,378	74,893	65.3%	85.5%	
Joliet	Н	120.3	53,102	65,212	114,648	22.8%	75.8%	
HC TOTAL		312.1	149,265	182,329	288,512	22.2%	58.2%	
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%	
	and a second sec							

### Table 5: HC Corridor Employment

	Fare	Area	Emp	loyment in Z	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station	A	0.3	30,742	22,956	32,106	-25.3%	39.9%
Summit	С	18.4	52,914	22,431	29,355	-57.6%	30.9%
Willow Springs	D	32.1	23,841	24,988	27,680	4.8%	10.8%
Lemont	E	63.7	45,064	50,001	73,074	11.0%	46.1%
Lockport	G	77.3	17,906	26,772	53,604	49.5%	100.2%
Joliet	Н	120.3	57,272	62,695	125,108	9.5%	99.6%
HC TOTAL		312.1	227,739	209,843	340,927	-7.9%	62.5%
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%



### **Reverse-Commute Market and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, on many lines Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). However, due to the limited schedule of the HC, reversecommute trips are not possible and the number of riders alighting at suburban stations is extremely small.

Factors that increase reverse-commute trip patterns are the growth of employment in the suburbs as well as growth of population in the city and inner ring suburbs (see Tables 3, 4, and 5). While forecasts indicate a moderate decline by 2040 in population and households in the HC's CBD marketshed, employment growth in the suburbs along the line is projected to be strong during this period. These opportunities are likely to draw commuters from beyond the immediate downtown Chicago station area. Employment along the entire HC is expected to increase 63% between 2010 and 2040, with the most substantial growth projected in station marketsheds near the southern end of the HC, particularly following completion of the I-355 South extension in 2007. The data suggests that with a more robust schedule, the HC would be able to attract commuters traveling from the city and inner suburbs to employment centers in outlying suburbs. Some major employers along the HC are shown in Table 6.

enerator Type	Name	Comments	Municipality
irports	Midway Airport	Commercial aviation, second busiest airport in Illinois	Chicago
	Lewis University Airport	General aviation	Romeoville
	Joliet Regional Airport	General aviation	Joliet
olleges and	Moraine Valley Community College	48,000 students	Palos Hills
niversities	Lewis University	5,200 students	Romeoville
	University of St. Francis	1,700 students	Joliet
	Joliet Junior College	22,000 students	Joliet
ulture and	Cog Hill Golf & Country Club	Public golf complex; host of PGA BMW Championship	Lemont
ntertainment	Harrah's Joliet Casino	Riverboat casino;1,600 employees	Joliet
	Rialto Square Theatre	Community Theater; capacity 2,000	Joliet
	Silver Cross Field	Joliet JackHammers Baseball stadium; capacity 6,000	Joliet
	Empress River Casino	Riverboat casino with 1,700 employees	Joliet
	Chicagoland Speedway/Route 66 Raceway	NASCAR racetrack; capacity 75,000	Joliet
hopping*	Louis Joliet Mall	120 stores, 4 anchors	Joliet
	Long Run Marketplace	Sub-regional shopping center with one anchor and 7 stores	Lemont
overnment	City of Joliet	City adminstrative offices	Joliet
	Stateville Correctional Center	1,300 employees	Joliet
	Will County Government / Courthouse	County administrative offices and courthouse	Joliet
ospitals	Siver Cross Hospital	304 beds; 2,500 employees	Joliet
-	Provena St. Joseph Medical Center	480 beds; 3,000 employees	Joliet
op Private	Chicago Area Consolidation Hub	Package sorting; 8,000 employees	Hodgkins
mployers	Argonne National Laboratory	Scientific research laboratory; 4,000 employees	Argonne
	Empress Casino Joliet	Riverboat casino; 1,700 employees	Joliet
	Harrah's Joliet Hotel and Casino	Riverboat casino; 1,600 employees	Joliet
	Caterpillar, Inc.	Manufacturing; 1,400 employees	Joliet
	Commonwealth Edison	Electric provider; 1,400 employees	Joliet

Table 6: Major Trip Generators in the HC Corridor

\*Significant shopping areas exist at several stations along the line.

## **Station and Parking Improvements**

A new station is proposed at 135<sup>th</sup> Street in Romeoville. This new station would be funded by the federal Congestion Mitigation and Air Quality Improvement (CMAQ) Program and State of Illinois bond funds.



# SOUTHWEST SERVICE LINE

## **Existing Service and Conditions**

Metra's SouthWest Service (SWS) Line extends 40.8 miles southwest from Chicago Union Station (CUS, or "Union Station") in downtown Chicago to Manhattan in Will County and currently serves 11 intermediate stations in southwest Cook County and north-central Will County (see Figure 1). The service is operated by Metra personnel under a trackage lease agreement with the Norfolk Southern (NS) Railway, which owns and dispatches the railroad south of 74<sup>th</sup> Street. Metra maintains the tracks, signals, and rights-of-way and owns and operates the yards in this section. Metra, NS, and Amtrak each own and control various short segments between 74<sup>th</sup> Street and Union Station. Prior to 1993, the NS operated commuter service on the line, formerly known as the "Norfolk Southern Line." When Metra began operating along the line, the line was renamed as the "SouthWest Service Line." Daytime storage and servicing of trains takes place at the BNSF 14<sup>th</sup> Street Coach Yard, one mile south of the Downtown terminal. The majority of overnight train storage was relocated from 143<sup>rd</sup> Street to the area near 179<sup>th</sup> Street in 1995 for additional space when the rail line was extended to a new 179<sup>th</sup> Street Station in Orland Park. When service was extended to Manhattan in 2006, a new small yard became available to store two trains overnight at Manhattan. In 2011, passenger trips on the SWS totaled 2.6 million, ranking ninth among the eleven Metra lines (based on ticket sales).

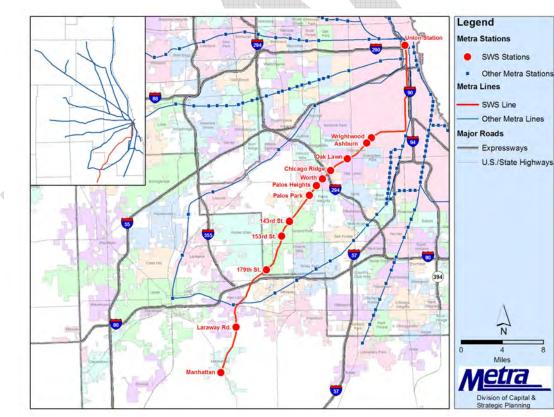


Figure 1: Metra Stations on SWS Line

Prior to the creation of Metra, the NS (known as Norfolk and Western until 1982) operated a single commuter train to Chicago in the morning and back to Orland Park in the evening. This service was based in and dispatched from Decatur, where train and crew returned on

weekends. Since then, service frequency has gradually increased. In 1995, service was extended to 179<sup>th</sup> Street (with a new intermediate station at 153<sup>rd</sup> Street). A new Palos Heights Station and a larger warming house and parking area at the Wrightwood Station opened in December 2004. In 2006, the line was upgraded and extended to Manhattan (with a new intermediate station at Laraway Road) through the Federal Transit Administration's New Starts program. Eight trains per day were added as a part of this project, increasing service to 30 trains each weekday. In March 2009, Saturday service was initiated on the SWS Line and weekday service to the Laraway Road and Manhattan Stations was also improved, with a midday trip now serving both stations.

There are several factors that have impacted further expansion of service; however, some of these factors have been resolved as a result of Metra's New Starts improvements to the SWS Line and the extension of the rail line to Manhattan that was completed in 2006. Two remaining segments of single track prevent operation of more trains: a two-mile segment between the Forest Hill interlocking and the CN crossing near Ashburn Station, and a 17-mile segment between the Orland Park, 143<sup>rd</sup> Street Station and the Manhattan Station. Table 1 details service, station, and ridership characteristics on the SWS.

Table 1: SWS Current Conditions

a) Service and Ridership Characteristics

### SWS 2006 Weekday Boardings

Time of Day	Inbound	Outbound		
AM Peak	4,149	20		
Midday	257	350		
PM Peak	29	3,615		
Evening	18	373		
TOTAL	4,453	4,358		

Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction

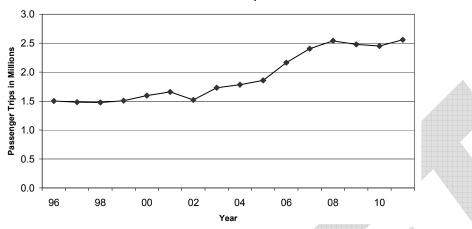
2011 Average Trip Length	18.99 miles
2011 Average Fare Paid	\$2.76
Source: Ridership Trends Report, Deceml	ber 2011
Number of Stations	13
Route Length	40.8 miles

Number of Weekday Trains	30
2011 On-Time Performance*	92.1%
*On-Time Performance Report, December 2011	

### Table 1 (continued)

#### b) Ridership

Annual SWS Ridership



\*From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

### c) Station Characteristics

Station				Board	lings	Statio	n Parking	(2011)	Time to (min	Chicago ns) <sup>1</sup>
	Fare Zone	Mile Post	Accessibility <sup>1</sup>	1983 <sup>2</sup>	<b>2006</b> <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local
Union Station	A	0.0	Full	1,437	4,327	0	n/a			n/a
Wrightwood	C	11.9	Full	130	296	180	90%	-	-	26
Ashburn	С	12.6	Full	244	321	138	60%	60%	n/a	29
Oak Lawn	D	15.2	Full	443	1,157	976	82%	72%	n/a	35
Chicago Ridge	D	16.8	Full	227	406	431	53%	32%	n/a	40
Worth	D	18.2	Full	204	445	466	61%	61%	n/a	43
Palos Heights <sup>7</sup>	D	19.2	Full		281	502	53%	53%	n/a	45
Palos Park	E	20.3	Full	63	387	350	76%	76%	n/a	48
Orland Park, 143rd	E	23.6	Full	135	234	738	74%	57%	n/a	55
Orland Park, 153rd <sup>8</sup>	E	25.2	Full		715	1,374	35%	33%	n/a	60
Orland Park, 179th <sup>9</sup>	F	28.9	Full		209	311	42%	42%	n/a	66
Laraway Road <sup>10</sup>	н	35.8	Full		11	288	4%	4%	n/a	76
Manhattan <sup>10</sup>	- I	40.8	Full		22	250	6%	6%	n/a	87
TOTAL SWS		40.8		2,902	8,811	6,004	54%	48%		

<sup>1</sup> SouthWest Service Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts. Total includes 19 boardings from Western Avenue Station, which closed in 1984.

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

<sup>7</sup> Station opened in 2004

<sup>8</sup> Station opened in 1990

<sup>9</sup> Station opened in 1995

### Table 1 (continued)

d) Mode of Access

		Drive &	Carpool		
	Walk &	Carpool	Passenger &		
Station Name	Bike	Driver	Dropped Off	Transit	Other
Union Station	30%	6%	9%	46%	10%
Wrightwood	22%	59%	18%	2%	0%
Ashburn	31%	52%	17%	0%	0%
Oak Lawn	16%	68%	15%	1%	0%
Chicago Ridge	31%	52%	17%	0%	1%
Worth	16%	74%	9%	0%	0%
Palos Heights	0%	87%	13%	0%	0%
Palos Park	10%	71%	20%	0%	0%
Orland Park, 143rd	10%	67%	22%	0%	2%
Orland Park, 153rd	2%	87%	10%	0%	0%
Orland Park, 179th	8%	72%	19%	0%	1%
Laraway Road	0%	100%	0%	0%	0%
Manhattan	5%	71%	24%	0%	0%
TOTAL SWS	14%	70%	15%	0%	0%
SYSTEM TOTAL	22%	56%	16%	5%	1%

Source: Metra, Fall 2006 Origin-Destination Survey

## Improvements Since the Start of Metra

Since 1985, Metra has invested over \$347 million (in year of expenditure dollars) in improvements to the SWS corridor. Table 2 indicates the amount of investment in different asset categories. This amount includes the 1990 extension to  $153^{rd}$  Street in Orland Park, the 1995 extension to  $179^{th}$  Street in Orland Park and construction of a new coach yard, as well as the 2006 line upgrade and extension to Manhattan. Since 1985, new depots or warming houses have been constructed on the SWS Line at 143rd Street/Orland Park, Ashburn, Chicago Ridge, Oak Lawn, Palos Park, Worth, and Wrightwood, and new stations were added at  $153^{rd}$  Street,  $179^{th}$  Street, Laraway Road/New Lenox, Manhattan, and Palos Heights. Fifteen bridges have been repaired or replaced. All of these projects were completed since FAST was initially developed in 1992. Over the years, Metra has partnered with Amtrak, owner of CUS, to complete a number of upgrades to the terminal's commuter facilities. Ten bridge repair or replacement projects have been completed on the line since 1992.

Table 2: Metra Capital Investment History

	SWS	System
Rolling Stock	\$73.4	\$1,856.6
Track	120.5	763.5
Structure	4.3	606.0
Signal	51.7	508.0
Electrical	0.0	74.9
Communications	1.3	36.5
Facilities	29.2	417.1
Equipment	5.7	113.4
Stations	44.2	629.5
Parking	15.8	171.4
Downtown Terminals	1.1	295.4
TOTAL	\$347.3	\$5,472.3

(in millions of dollars)

The 2006 upgrade project, funded in large part with \$198 million in New Starts funds from the Federal Transit Administration, included the extension of the route to Manhattan with an intermediate station at Laraway Road/New Lenox, doubling of service to 30 trains per day, a new coach yard in Manhattan to supplement the existing yard at 179th Street in Orland Park, installation of a second track between Palos Park and 143rd Street in Orland Park, and other track and signal improvements. The project also included the extension of station platforms with significant improvements at several stations, major parking expansion, and two new train-sets. As part of the project, 143<sup>rd</sup> Street, 153<sup>rd</sup> Street, Ashburn, Oak Lawn, and Palos Park stations were rehabilitated and expanded to accommodate the projected growth from the doubling in service.

In March 2009, Saturday service was initiated on the SWS. Three inbound and three outbound trains now serve the line on Saturdays. Weekday service to the Laraway Road and Manhattan Stations was also improved with a midday trip now serving both stations.

All SWS stations comply with the accessibility requirements of the Americans with Disabilities Act (ADA). Metra's station compliance program started with designating four of the busiest SWS stations, including CUS in downtown Chicago, as "key stations", all of which were made fully accessible by 2001.

### Present and Future Demand

In 2006, 8,800 boardings took place each weekday on the SWS, with nearly 88% of boardings occurring on peak-period, peak-direction trains. On the SWS, ridership has increased 204% since 1983 (see Table 1c). Significant ridership gains have occurred at every station along the line since 1983. The most significant ridership increases have been experienced at the stations from the Palos Park Station to the outer end of the line.

At the two stations built in the 1990s,  $153^{rd}$  Street and  $179^{th}$  Street, boardings increased 159% between 1995 and 2006, which reflects the population growth that has taken place in this area. Ridership increased 50% in the same time period at the Ashburn, Oak Lawn, and

Wrightwood Stations, an example of the significant ridership growth that has been experienced at many of Metra's stations close to the Central Business District (CBD).

A number of indicators suggest that demand for commuter rail service will continue to rise in the SWS corridor. The burgeoning south suburbs, and in particular, suburbs in Will County, have seen phenomenal growth in population and employment. As shown in Tables 3, 4, and 5, Chicago Metropolitan Agency for Planning (CMAP) forecasts for 2040 illustrate this trend continuing. All SWS station marketsheds are forecasted to see increases in population, households and employment, with a 26% increase in population from 2010 to 2040 throughout the entire line. In the southernmost SWS marketsheds, from 179<sup>th</sup> Street/Orland Park to Manhattan, CMAP projects a 135% increase in population.

Figure 2 shows the origins of SWS riders who board at stations outside of downtown Chicago. Overall passenger ridership on the SWS totaled 2.6 million in 2011.

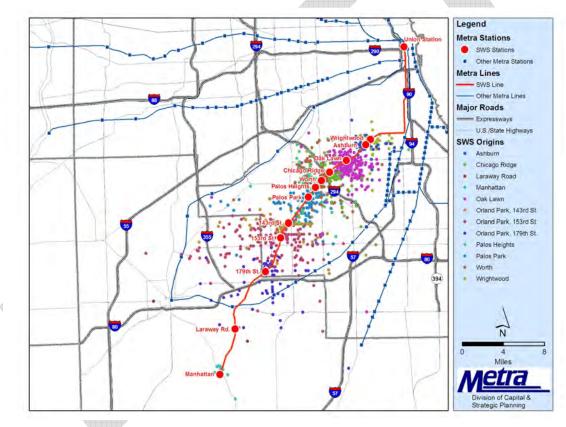


Figure 2: Origins of Riders Using Non-CBD SWS Stations

There are 6,000 parking spaces serving the riders of the SWS. According to parking counts conducted in 2011, the effective parking utilization rate on the SWS is 54%. Given the significant expansion in parking as part of the New Starts project, much of the anticipated growth in parking demand has been satisfied. There are long-term opportunities to build additional commuter parking at the 143<sup>rd</sup> Street/Orland Park Station as part of the Main Street development project and in conjunction with the widening of LaGrange Road.

### Table 3: SWS Corridor Population

	Fare	Area	Pop	oulation in Zo	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station	Α	0.3	4,156	5,507	4,804	32.5%	-12.8%
Wrightwood, Ashburn	С	20.3	229,396	226,013	244,488	-1.5%	8.2%
Oak Lawn, Chicago Ridge, Worth, Palos Hts.	D	33.2	163,881	171,402	176,907	4.6%	3.2%
Palos Park, 143rd St., 153rd St.	E	47.6	75,658	81,380	107,495	7.6%	32.1%
179th St., Orland Park	F	19.4	15,810	21,710	43,473	37.3%	100.2%
Laraway Road	н	31.2	9,714	15,020	51,572	54.6%	243.4%
Manhattan	1	276.2	25,970	31,353	64,694	20.7%	106.3%
SWS TOTAL		428.2	524,585	552,385	693,433	5.3%	25.5%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

#### Table 4: SWS Corridor Households

	Fare	Area	Hou	seholds in Zo	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station	A	0.3	2,663	3,576	2,923	34.3%	-18.3%
Wrightwood, Ashburn	С	20.3	66,890	63,042	70,956	-5.8%	12.6%
Oak Lawn, Chicago Ridge, Worth, Palos Hts.	D	33.2	62,762	62,911	69,588	0.2%	10.6%
Palos Park, 143rd St., 153rd St.	E	47.6	26,765	30,176	38,177	12.7%	26.5%
179th St., Orland Park	F	19.4	5,430	7,770	14,611	43.1%	88.0%
Laraway Road	н	31.2	3,023	4,663	16,966	54.3%	263.8%
Manhattan	1	276.2	9,293	11,506	22,539	23.8%	95.9%
SWS TOTAL		428.2	176,826	183,644	235,760	3.9%	28.4%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

### Table 5: SWS Corridor Employment

	Fare	Area	Emp	loyment in Z	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station	A	0.3	30,742	22,956	32,106	-25.3%	39.9%
Wrightwood, Ashburn	С	20.3	45,902	32,292	46,567	-29.7%	44.2%
Oak Lawn, Chicago Ridge, Worth, Palos Hts.	D	33.2	62,072	54,284	63,456	-12.5%	16.9%
Palos Park, 143rd St., 153rd St.	E	47.6	29,897	31,847	43,583	6.5%	36.9%
179th St., Orland Park	F	19.4	652	3,636	11,504	457.7%	216.4%
Laraway Road	н	31.2	1,937	2,145	7,482	10.7%	248.8%
Manhattan	I	276.2	2,480	5,351	31,817	115.8%	494.6%
SWS TOTAL		428.2	173,682	152,511	236,515	-12.2%	55.1%
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%

## **Reverse-Commute Market and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, on many lines Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). However, the SWS retains the traditional suburb-to-CBD trip pattern and has not experienced the volume of reverse commute ridership seen on some other Metra lines. According to Metra's 2006 Origin-Destination Survey, 0.5% of AM peak boardings on the SWS are in the reverse (outbound) direction, less than one-tenth of the system average of 6%.

Factors that increase reverse commute trip patterns are the growth of population in the city and inner suburbs as well as the growth of employment in the suburbs (see Tables 3, 4, and 5). While forecasts indicate a moderate decline between 2010 and 2040 in population and households in the marketshed near Union Station, employment growth in the suburbs along

the SWS is projected to be strong during this period. These opportunities are likely to draw commuters from beyond the immediate downtown Chicago station area. Employment along the entire SWS is expected to increase 55% by 2040, with the most substantial growth concentrated in near the southern end of the corridor. In SWS station marketsheds from 179<sup>th</sup> Street/Orland Park to Manhattan, CMAP projects a 356% increase in employment by 2040. Business expansion is already visible throughout the corridor, following completion of the I-355 South extension in 2007. In addition, Silver Cross Hospital's relocation to New Lenox, completed in 2012, could have an impact on commute trips on the SWS Line. Some major employers along the SWS are shown in Table 6.

Generator Type	Name	Comments	Municipality
Airport	Midway Airport	Serves over 17 million travelers each year	Chicago
Colleges and	Trinity Christian College	Christian college; 1,600 students	Palos Heights
Universities	Moraine Community College	Second largest community college in IL; 31,000 students	Palos Hills
	Robert Morris College	One of 7 campuses in Illinois	Orland Park
	St. Xavier University	Branch campus of Catholic university; 785 students	Orland Park
Cultural and	Children's Museum in Oak Lawn	Children's museum	Oak Lawn
Entertainment	Little Red Schoolhouse	Historic nature center	Palos Hills
Shopping*	Ford City Mall	Regional mall with 3 anchor and 140 stores	Chicago
	Chicago Ridge Mall	Regional mall with 3 anchor and 130 stores	Chicago Ridge
	The Plaza Shopping Center	Regional mall with 1 anchor and 90 stores	Evergreen Park
	Orland Park Place	Regional shopping center with 1 anchor and 20 stores	Orland Park
	Orland Square Mall	Regional mall with 4 anchor and 160 stores	Orland Park
Government	Bridgeview Courthouse	Cook County courthouse and administrative offices	Bridgeview
Hospitals	Advocate Christ Community Hospital	814 beds; 3,000 employees	Oak Lawn
	Little Company of Mary Hospital	494 beds; 1,700 employees	Evergreen Park
	Palos Community Hospital	436 beds; 2,500 employees	Palos Heights
Top Private	Eastco International	Electrical component manufacturing; 250 employees	Oak Lawn
Employers	Executive Mailing	Commercial mail sorting; 300 employees	Palos Hills
	Panduit Corporation	Electrical component manufacturing facility; 200 employees	Orland Park
	Publishers Circulation Fulfillment	Local printing, distribution of natl. publications; 300 employees	Orland Park
	Michael's	Distribution center of craft supply retailer; 175 employees	New Lenox
	Panduit Corporation	Electrical component manufacturing facility; 1,000 employees	New Lenox

Table 6: Major Trip Generators in the SWS Corridor

\*Significant shopping areas exist at several stations along the line.

## **Station and Parking Improvements**

All of the stations and platforms outside of downtown Chicago along the SWS Line were improved before or in 2006, so there are no plans at this time for improvements at these locations. However, additional facility expansions at these stations are possible in the long term as warranted by ridership growth.

# **ROCK ISLAND DISTRICT LINE**

## **Existing Service and Conditions**

Metra's Rock Island District (RID) Line extends 40.2 miles southwest from Chicago's LaSalle Street Station to Joliet's Union Depot (JUD). The RID Line provides service to 24 intermediate stations between LaSalle Street Station and JUD with service to the south side of Chicago, southern Cook County, and Will County. The RID Beverly Branch serves portions of the south side of Chicago west of the main line (see Figure 1). Maintenance and daytime storage of trains are located at Metra's 47<sup>th</sup> Street Yard in Chicago. The 47<sup>th</sup> Street Yard is also the location for heavy duty repair to all of Metra's diesel locomotives. Overnight train storage yards are located in both Blue Island and Joliet. In 2011, passenger trips on the RID line totaled 8.6 million, ranking fifth among the eleven Metra lines (based on ticket sales).

Legend Metra Stations Proposed Metra Stations Proposed Metra Stations Metra Lines Other Metra Stations Metra Lines District of the period Proposed Metra Stations Proposed Metra Stations Proposed

Figure 1: Metra Stations on the RID Line

The RID Line, like most of the other passenger railroads that have historically served Chicago, predates Metra. Prior to the formation of Metra, the RID was owned by the Chicago, Rock Island & Pacific Railroad (CRI&P) and acquired by the Regional Transportation Authority in 1982 following the bankruptcy of the CRI&P. Passenger service prior to Metra's formation in 1983 was slightly more frequent than today with 77 daily trains (51 on the suburban branch line). Metra now operates 69 weekday trains over the line. Most of these trains operate on the branch line except for a few express main line trains that are primarily used during the weekday peak periods. Table 1 describes the service, station and ridership characteristics of the RID.

The double-track main line of the RID extends southwest from LaSalle Street Station, serving 25 stations in Chicago's south side communities and the suburbs of Cook and Will Counties. About 4 miles south of LaSalle Street Station, Metra operates the 47<sup>th</sup> Street yard that has daytime storage for much of the RID fleet as well as a heavy duty locomotive repair shop onsite. Further south at Gresham Junction (MP 9.8) the double-track Beverly Branch Line extends west from the main line and serves the Beverly and Morgan Park neighborhoods. The Beverly Branch line has 11 local stations located approximately every half mile. The segment of the main line between Gresham Junction and Blue Island is used only for peak period express trains serving stations beyond Blue Island. On the main line, there are stations at Gresham, 95<sup>th</sup> Street/Longwood, 103<sup>rd</sup> Street/Washington Heights, and Vermont Street in Blue Island. It is at Vermont Street where the Beverly Branch Line reconnects with the main line (MP 15.6). Trainsets that service just the Beverly Branch Line are kept overnight in a yard just north of the Vermont Street/Blue Island Station. JUD, the terminus of the RID, is also the terminus for Metra's Heritage Corridor Line as well as a stop for the Amtrak Texas Eagle and Lincoln Service routes, which makes Joliet the only suburban transfer station serving multiple Metra lines and Amtrak. The Joliet Coach Yard is located one half-mile east of JUD. West of Joliet Coach Yard the RID operates on a single track to JUD.

Table 1: RID Current Conditions

a) Service and Ridership Characteristics

Time of Day	Inbound	Outbound
AM Peak	15,725	231
Midday	1,422	2,145
PM Peak	370	13,925
Evening	123	1,153
TOTAL	17,640	17,454

RID 2006 Weekly Boardings

Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction



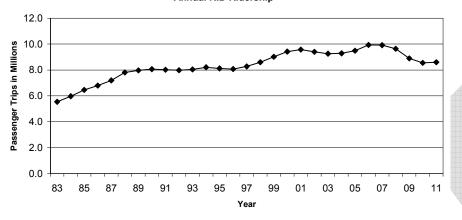
2011 Average Trip Length	21.37 miles
2011 Average Fare Paid	\$2.93
Source: Ridership Trends Report, Decen	nber 2011

Number of Stations:	26			
Route Length*	46.8 miles			
Number of Weekday Trains:	69			
2011 On-Time Performance*'	94.0%			
*40.2 mile main line to Joliet, 6.6 mile Beverly Branch				
**On-Time Performance Report, December 2	2011			

#### Table 1 (continued)

### b) Ridership

Annual RID Ridership



From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

### c) Station Characteristics

Station	Fare	Mile	Accessibility <sup>1</sup>	Boardings		Static	on Parking	(2011)	Time to ( (mir	•
	Zone	Post		1983 <sup>2</sup>	2006 <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Effective Use <sup>5</sup>	Observed Use <sup>6</sup>	Express	Local
LaSalle St	А	0.0	Full	10,286	17,026	0	n/a	n/a	-	-
35th St/"Lou" Jones <sup>7</sup>	А	3.2	Full	-		0	n/a	n/a	-	10
Gresham	В	9.8	None	49	537	313	59%	59%	-	18
Brainerd	С	10.6	Full	123	448	263	68%	68%	-	22
91st St	С	11.3	Partial	478	437	189	79%	79%	-	24
95th St	С	11.7	Partial	722	604	189	54%	54%	-	26
99th St	С	12.3	Full	614	679	99	99%	99%	-	28
103rd St	С	12.8	Full	1,085	931	255	94%	94%	-	30
107th St	С	13.3	Partial	435	617	331	45%	45%	-	32
111th St	С	13.8	Full	766	820	388	51%	51%	-	34
115th St	С	14.3	Partial	215	279	105	64%	64%	-	36
119th St	С	14.8	Partial	424	326	242	55%	55%	-	38
123rd St	D	15.2	None	65	96	0	n/a	n/a	-	40
Prairie St	D	15.8	None	79	44	7	43%	43%	-	42
Longwood	С	10.9	Partial	27	147	104	58%	58%	19	23
Wash. Heights	С	12.0	Full	80	219	267	32%	32%	22	26
Vermont	D	15.7	Full	679	1,148	842	43%	43%	28	44
Robbins	D	17.2	Full	27	152	35	74%	74%	32	48
Midlothian	D	18.4	Full	864	1,230	612	90%	87%	35	50
Oak Forest	E	20.4	Full	1,019	1,487	1,036	73%	73%	39	54
Tinley Park	E	23.5	Full	910	1,232	777	95%	75%	44	59
80th Avenue	E	25.1	Partial	632	2,459	2,149	65%	65%	48	62
Hickory Creek <sup>8</sup>	F	27.0	Full	-	1,236	1,109	67%	67%	53	66
Mokena	F	29.6	Full	382	634	462	68%	60%	57	70
New Lenox	G	34.0	Full	301	1,348	1,082	83%	83%	63	76
Joliet	H	37.2	Full	193	958	561	96%	94%	73	85
TOTAL RID				20,455	35,094	11,417	70%	68%		

<sup>1</sup> Rock Island Line Schedule

<sup>2</sup> Metra 1983 Boarding/Alighting Counts

<sup>3</sup> Metra 2006 Boarding/Alighting Counts

<sup>4</sup> Rock Island District Line Metra 2008 Parking Counts <sup>5</sup> Observed Use: Spaces physically occupied during parking survey

<sup>6</sup> Effective Use: All sold permit spaces are assumed to be used even if unoccupied during parking survey

<sup>7</sup> 35th St/Jones opened in 2011

<sup>8</sup> Hickory Creek opened in 1993

### Table 1 (continued)

#### d) Mode of Access

Station Name	Walk & Bike	Drive & Carpool Driver	Carpool Passenger & Dropped Off	Transit	Other	
LaSalle St	47%	7%	8%	29%	8%	
35th St/Jones <sup>1</sup>	-	-	-	-	-	
Gresham	15%	69%	12%	4%	0%	
Brainerd	26%	61%	12%	0%	1%	
91st St	31%	51%	17%	0%	1%	
95th St	35%	36%	18%	9%	1%	h.
99th St	40%	42%	18%	1%	0%	
103rd St	34%	44%	17%	5%	0%	
107th St	41%	46%	13%	0%	0%	
111th St	24%	57%	15%	5%	0%	
15th St	38%	51%	10%	0%	1%	
19th St	19%	74%	6%	0%	1%	h.
23rd St	87%	9%	4%	0%	0%	
Prairie St	60%	40%	0%	0%	0%	
5th St./Longwood	25%	70%	4%	0%	2%	
03rd St./Washington Heights	9%	74%	15%	2%	0%	
/ermont	11%	69%	16%	3%	1%	
Robbins	33%	50%	17%	0%	0%	
lidlothian	9%	75%	14%	1%	0%	
Dak Forest	9%	72%	18%	0%	1%	
inley Park	17%	64%	18%	0%	1%	
0th Avenue	6%	83%	11%	0%	0%	
Hickory Creek	4%	85%	10%	0%	0%	
Mokena	14%	69%	16%	0%	1%	
New Lenox	4%	86%	10%	0%	0%	
Joliet	5%	70%	22%	3%	1%	
Total RID	16%	67%	14%	2%	1%	
System Total	22%	56%	16%	5%	1%	

Source: Metra, Fall 2006 Origin-Destination Survey

## **Improvements Since the Start of Metra**

Service quality and passenger trips on the RID declined rapidly throughout the 1970's and into the early 1980's as a result of poor maintenance on the RID's physical plant by the CRI&P. When the assets of the RID were purchased from the CRI&P, much of its facilities and right-of-way were in deplorable shape. Because the RID's service quality was inferior to other commuter rail lines, a higher priority was given to the RID for major capital improvements in rehabilitating the line.

Since 1985, Metra has invested over \$762 million (in year of expenditure dollars) in improvements to the RID corridor. Table 2 indicates the amount of investment in different asset categories.

	RID	System
Rolling Stock	\$229.2	\$1,856.6
Track	64.1	763.5
Structure	202.6	606.0
Signal	43.2	508.0
Electrical	1.0	74.9
Communications	3.1	36.5
Facilities	60.8	417.1
Equipment	12.7	113.4
Stations	59.6	629.5
Parking	24.5	171.4
Downtown Terminals	61.5	295.4
TOTAL	\$762.2	\$5,472.3

Table 2: Metra Capital Investment History

(in millions of dollars)

One of the first major improvements to the RID was a complete reconstruction of the Beverly Branch Line which included the replacement of all rail, ties, and ballast. These improvements allowed the branch line to operate more efficient service at a significantly greater speed. Over the years 43 RID main line bridges have been reconstructed and now much of the line can maintain speeds of up to 79 miles per hour. A concerted program of improvements has provided new equipment, track, storage yards and centralized traffic control (CTC) which has resulted in significant efficiency, ridership, and safety enhancements. An ongoing \$130 million capital program is currently in progress to replace bridges along the main line from 18<sup>th</sup> Street to 67<sup>th</sup> Street in Chicago.

In 2011, a new station, formally named the 35<sup>th</sup> Street/"Lou" Jones Metra Station, opened at 35<sup>th</sup> and Federal Streets on the RID. This station, located on the south side of Chicago, serves U.S. Cellular Field, the Illinois Institute of Technology, and the redeveloping Bronzeville neighborhood. Additionally, the 35<sup>th</sup> Street station serves as a multi-modal access point: it provides transit connections to the Chicago Transit Authority's Red Line station at 35<sup>th</sup> Street (one-half block west), Green Line station at 35<sup>th</sup> Street (two blocks east), and CTA bus service along 35<sup>th</sup> Street. The 35<sup>th</sup> Street station received \$6.8 million from the American Recovery and Reinvestment Act (ARRA), which was used for construction of the station.

There have been other major station improvements on the RID since FAST was last updated in 1992. In the mid-1990s the LaSalle Street Station was completely reconstructed, including track, structure, signal, and interlocking systems. In addition, since 1985 new depots or warming houses have been constructed at Brainerd, Gresham, Midlothian, Robbins, and Tinley Park, and a new station was added at Hickory Creek. Other significant station improvements have been completed at 95<sup>th</sup> Street/Beverly Hills, 99<sup>th</sup> Street, 103<sup>rd</sup> Street/Beverly Hills, 111<sup>th</sup> Street/Morgan Park, Joliet, Mokena, New Lenox, Oak Forest, and Vermont Street. All of these projects were completed since FAST was initially developed in 1992.

Most RID stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and in 2006, approximately 84% of RID weekday boardings were at these accessible stations. Metra's station compliance program started with designating eight of the busiest RID stations, including LaSalle Street Station in downtown Chicago, as "key

stations," all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a total of 13 non-downtown RID stations, and 14 outlying stations on the line are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated so that eventually all will be accessible.

## Present and Future Demand

Due to substantial increases in population along the RID corridor, demand for commuter rail service is expected to grow. Figure 2 shows the origins of RID riders outside the central business district (CBD).

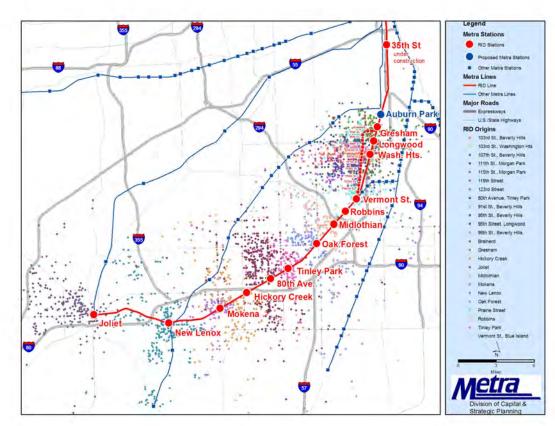


Figure 2: Origins of Riders Using Non-CBD RID Stations

On a typical weekday in 2006, the RID had over 35,000 boardings on 68 trains serving 25 stations between Joliet and Chicago, with 85% of boardings on peak period, peak-direction trains. Overall, the RID has seen a 72% increase in boardings since 1983 (see table 1c). Significant ridership increases have been at stations nearest downtown Chicago on the main line (Gresham, 996%; 95<sup>th</sup> Street/Longwood, 444%; 103<sup>rd</sup> Street/Washington Heights, 174%) as well as in the burgeoning suburbs of Will County (New Lenox, 348%; Joliet, 396%). In contrast, however, five of the eleven stations along the Beverly Branch have seen decreases in ridership. Three branch line stations, 95<sup>th</sup> Street/Beverly Hills, 103<sup>rd</sup> Street/Beverly Hills, and Prairie Street, have seen substantial losses (an average decline of 25%) while stations on the main line east of the Beverly Branch at 95<sup>th</sup> Street/Longwood, 103<sup>rd</sup> Street/Washington Heights, and Vermont Street/Blue Island, have seen substantial increases in ridership (an average increase of 229%). These trends suggest a shift in

ridership towards the main line, which provides express service on the south side of Chicago as well as an increase in passengers from the suburban stations. The largest increases in ridership have been at Tinley Park/80<sup>th</sup> Avenue, New Lenox, and Joliet. Overall passenger ridership on the RID totaled 8.6 million in 2011.

There are over 11,400 parking spaces serving the riders on the RID. According to parking counts conducted in 2011, the effective utilization rate on the RID is 70%. When utilization of station parking areas exceeds 85%, Metra considers that they are approaching full capacity. Five RID stations exceed this threshold, indicating a demand for increased parking at these stations.

RID ridership decreased slightly from 2008-2011, increased in 2011, and is likely to continue to see ridership gains in the future. The burgeoning south suburbs, and suburbs in Will County in particular, have seen phenomenal growth in population and employment. CMAP forecasts for 2040 show this trend continuing, and all station marketsheds on the RID are forecasted to see increases in population, households and employment. In fact, CMAP forecasts suggest a 38% increase in population from 2010 to 2040 throughout the entire corridor.

Employment growth will be a significant factor in ridership. A 51% increase in employment is projected for marketsheds in the RID corridor from 2010 to 2040. Projections indicate that the RID marketsheds with the biggest percentage increases in population, households and employment in the RID corridor will continue to be in Will County. Tables 3, 4 and 5 describe the demographics in the RID corridor.

	Fare	are Area Population in Zone		Fare Area Population in Zone		Fare Area Population in Zone		Fare Area Population in Zone		Area Population in Zone Perce			Population in Zone			in Zone Percent Cha		Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040											
LaSalle Street Station, 35 <sup>th</sup> St./"Lou" Jones	A	11.6	153,492	133,871	171,907	-12.8%	28.4%											
Gresham	В	5.8	75,146	63,542	78,289	-15.4%	23.2%											
Brainerd, 91 <sup>st</sup> , 95 <sup>th</sup> , 95 <sup>th</sup> /Longwood, 99 <sup>th</sup> , 103 <sup>rd</sup> ,		1000																
103 <sup>rd</sup> /Wash. Hts.,107 <sup>th</sup> , 111 <sup>th</sup> , 115 <sup>th</sup> , 119 <sup>th</sup>	С	15.2	127,173	116,366	131,885	-8.5%	13.3%											
123 <sup>rd</sup> , Prairie St., Vermont St., Robbins,	D	20.8	77,122	78,567	90,847	1.9%	15.6%											
Oak Forest, Tinley Park, 80 <sup>th</sup> Ave.	E	37.7	90,159	94,832	125,030	5.2%	31.8%											
Hickory Creek, Mokena	F	36.8	42,159	57,150	88,358	35.6%	54.6%											
New Lenox	G	20.7	19,410	22,735	37,789	17.1%	66.2%											
Joliet	H	120.3	152,991	194,444	325,326	27.1%	67.3%											
RID TOTAL		268.9	737,652	761,507	1,049,431	3.2%	37.8%											
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%											

### Table 3: RID Corridor Population

### Table 4: RID Corridor Households

	Fare	Area	Households in Zone			Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
LaSalle Street Station, 35 <sup>th</sup> St./"Lou" Jones	Α	11.6	50,214	46,481	57,345	-7.4%	23.4%
Gresham	В	5.8	23,861	21,803	26,313	-8.6%	20.7%
Brainerd, 91 <sup>st</sup> , 95 <sup>th</sup> , 95 <sup>th</sup> /Longwood, 99 <sup>th</sup> , 103 <sup>rd</sup> ,							
103 <sup>rd</sup> /Wash. Hts.,107 <sup>th</sup> , 111 <sup>th</sup> , 115 <sup>th</sup> , 119 <sup>th</sup>	С	15.2	43,810	41,869	47,251	-4.4%	12.9%
123 <sup>rd</sup> , Prairie St., Vermont St., Robbins,	D	20.8	27,671	27,603	33,326	-0.2%	20.7%
Oak Forest, Tinley Park, 80 <sup>th</sup> Ave.	Е	37.7	32,056	35,661	45,338	11.2%	27.1%
Hickory Creek, Mokena	F	36.8	13,486	19,258	28,832	42.8%	49.7%
New Lenox	G	20.7	6,396	7,663	12,757	19.8%	66.5%
Joliet	Н	120.3	53,102	65,212	114,648	22.8%	75.8%
RID TOTAL		268.9	250,596	265,550	365,810	6.0%	37.8%
REGION TOTAL		3,748.0	2,906,924	3,050,134	4,224,349	4.9%	38.5%

### Table 5: RID Corridor Employment

	Fare	Area	Emp	oloyment in Ze	one	Percent	Change
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
LaSalle Street Station, 35 <sup>th</sup> St./"Lou" Jones	Α	11.6	178,408	208,518	251,480	16.9%	20.6%
Gresham	В	5.8	3,942	4,022	5,870	2.0%	45.9%
Brainerd, 91 <sup>st</sup> , 95 <sup>th</sup> , 95 <sup>th</sup> /Longwood, 99 <sup>th</sup> , 103 <sup>rd</sup> ,							
103 <sup>rd</sup> /Wash. Hts.,107 <sup>th</sup> , 111 <sup>th</sup> , 115 <sup>th</sup> , 119 <sup>th</sup>	С	15.2	14,473	16,231	22,952	-3.5%	9.4%
123 <sup>rd</sup> , Prairie St., Vermont St., Robbins,	D	20.8	31,668	26,827	31,902	1.5%	17.8%
Oak Forest, Tinley Park, 80 <sup>th</sup> Ave.	E	37.7	34,827	33,945	61,184	37.2%	52.7%
Hickory Creek, Mokena	F	36.8	19,740	24,571	54,502	238.4%	122.1%
New Lenox	G	20.7	7,709	6,756	24,589	-12.4%	264.0%
Joliet	н	120.3	57,272	62,695	125,108	9.5%	99.6%
RID TOTAL		268.9	348,039	383,565	577,587	10.2%	50.6%
REGION TOTAL	b	3,748.0	3,786,224	3,786,224	5,267,696	0.0%	39.1%

### **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). This market is not as significant for the RID, which still retains the traditional suburb-to-CBD trip pattern. According to Metra's 2006 Origin-Destination Survey, only 1.4% of AM peak period boardings on the RID are in the reverse (outbound) direction, significantly lower than the system-wide average of 6%. Of these reverse commuters, the greatest percentage travel to Vermont Street Station in Blue Island (28%), followed by Joliet (16%) and Oak Forest (11%). Figure 3 shows AM alightings at non-CBD RID stations.

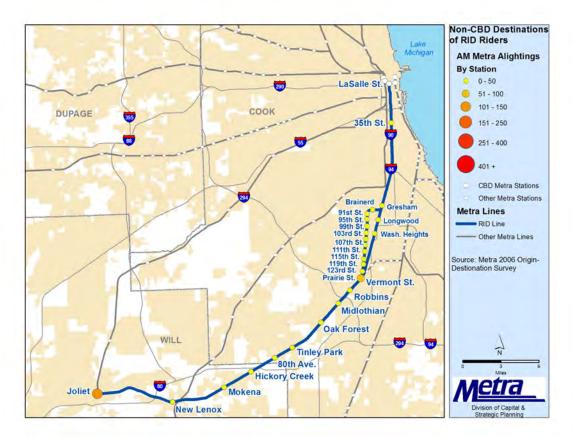


Figure 3: AM Alightings at Non-CBD RID Stations

Factors that increase reverse-commute trip patterns are the growth of employment in the suburbs as well as the growth of population in the city and inner ring suburbs (Tables 3, 4, and 5). As mentioned earlier, employment along the RID corridor is expected to increase 51% between 2010 and 2040. However, projected employment growth is not evenly distributed. While expected in all marketsheds, projected employment growth is greatest in far southwest Cook County and Will County communities. Joliet, at the end of the RID Line, is Illinois' fourth-largest city and was one of the fastest growing cities in the state between 2000 and 2010. New Lenox, Hickory Creek, and Mokena, suburbs just east of Joliet, also expect significant gains in employment and population. Meanwhile, population growth of 28% is forecast for the marketshed zone closest to downtown Chicago (Fare Zone A). Though employment in these marketsheds is projected to increase 21%, some residents may need to commute to suburban job centers near the RID. Table 6 lists some of the major employers within the RID corridor.

Generator Type	Name	Comments	Municipality
Airports	Joliet Regional Airport	General aviation	Joliet
Colleges and	Illinois Institute of Technology	6,900 students	Chicago
Jniversities	St. Xavier University	5,000 students	Chicago
	University of Illinois at Chicago	25,000 students	Chicago
	DeVry University	1,500 students	Tinley Park
	Moraine Valley Community College	Southwest Education Center auxiliary campus	Tinley Park
	Joliet Junior College	22,000 students	Joliet
	University of St. Francis	1,300 students	Joliet
Culture and	U.S. Cellular Field	Chicago White Sox baseball stadium; capacity 41,000	Chicago
Entertainment	First Midwest Bank Amphitheater	Concert venue; capacity 28,000	Tinley Park
	Harrah's Joliet Hotel and Casino	Hotel/ riverboat casino; 204 rooms	Joliet
	Empress Casino Joliet	Riverboat casino; 1,000 employees	Joliet
	Silver Cross Field	Joliet Jackhammers baseball stadium; capacity 6,900	Joliet
	Chicagoland Speedway/Rt. 66 Raceway	NASCAR racetrack; capacity 75,000	Joliet
	Rialto Square Theater	Community Theater; capacity 2,000	Joliet
Shopping*	Evergreen Plaza	120 stores, 2 anchors	Evergreen Parl
	Orland Square Mall	140 stores, 4 anchors	Orland Park
	Louis Joliet Mall	120 stores, 4 anchors	Joliet
Government	Cook County District 6 Courthouse	Cook County circuit court suburban location	Markham
	City of Joliet	900 employees	Joliet
	Stateville Correctional Center	1,300 employees	Joliet
	Will County Government / Courthouse	1,900 employees	Joliet
lospitals	Metro South Medical Center	244 beds; 1,300 employees	Blue Island
	Cook County Oak Forest Hospital	213 beds; 787 employees	Oak Forest
	Provena St. Joseph Medical Center	480 beds; 3,000 employees	Joliet
	Silver Cross Hospital	304 beds; 2,500 employees	Joliet
op Private	Modern Drop Forge Company	Headquarters of forged parts manufacturer; 500 employees	Blue Island
Employers	Comcast	Telecommunications firm call center; 500 employees	Tinley Park
	Midwest Suburban Publishing	Newspaper publisher and direct marketer; 550 employees	Tinley Park
	Panduit Corporation	Electrical component manufacturer; 1,000 employees	Tinley Park
	V.J. Mattson Company	Steel fabricator; 800 employees	Mokena
	Caterpillar, Inc.	Heavy equipment manufacturer; 1,400 employees	Joliet
	T.J. Lambrecht Construction	Civil construction contractor; 700 employees	Joliet

### Table 6: Major Trip Generators in the RID Corridor

## **Station and Parking Improvements**

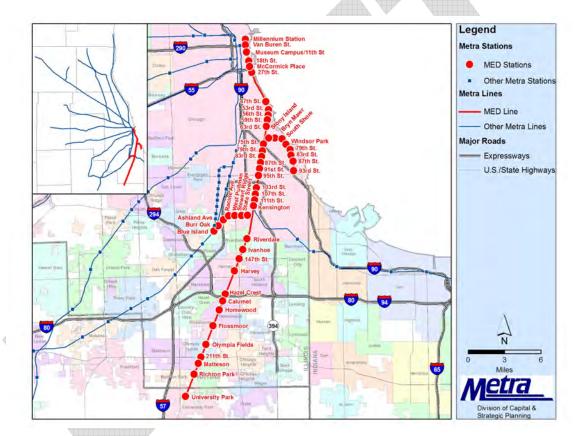
Proposed to be funded under the state capital bonding program are rehabilitations and upgrades at the following RID stations: 91<sup>st</sup> Street/Beverly Hills, 115<sup>th</sup> Street/Morgan Park, Vermont Street, and Hickory Creek. A new station is proposed for the Auburn Park neighborhood at 78<sup>th</sup> Street and the RID Line in Chicago. 91<sup>st</sup> Street, 115<sup>th</sup> Street, and Vermont Street stations involve renovations to historically significant buildings, and Hickory Creek would be upgraded substantially. In addition to the station capital bonding program, the Village of Tinley Park is working with Metra to replace the 80<sup>th</sup> Avenue Station by contributing to the cost of new platforms, a pedestrian tunnel, and a new, larger depot.

# METRA ELECTRIC DISTRICT

## **Existing Service and Conditions**

The Metra Electric District (MED) Line extends nearly 32 miles south from Millennium Station in downtown Chicago to Chicago's south side and southern suburbs in Cook and Will counties (see Figure 1), terminating in University Park. A 4.7-mile double-track branch leaves the Main Line at 67<sup>th</sup> Street in Chicago, extending east and south to serve the South Shore and South Chicago neighborhoods, terminating at 93<sup>rd</sup> Street Station. For much of its length, the South Chicago branch runs in a street median, and the branch is the only segment in Metra's system to terminate within the city limits of Chicago. In addition, a 4.4-mile single-track branch extends west from 121<sup>st</sup> Street to Blue Island.

Figure 1: Metra Stations on the MED Line



Both the Blue Island and South Chicago branches are served by through trains to Millennium Station, which run during morning and afternoon peak periods as well as midday. In the early morning and late evening, passengers on the Blue Island Branch transfer to Main Line trains at the Kensington/115<sup>th</sup> Street Station, and South Chicago Branch riders transfer to the Main Line at the 63<sup>rd</sup> Street or 59<sup>th</sup> Street stations. Train schedules are coordinated to facilitate these transfers. The 59<sup>th</sup> Street and 55<sup>th</sup>-56<sup>th</sup>-57<sup>th</sup> Street Stations in Hyde Park as well as the Kensington/115<sup>th</sup> Station are frequent transfer points for Main Line riders who need to transfer between express and local trains. An additional transfer point is the Blue Island Station, where riders can transfer to or from the Rock Island District at the adjacent Vermont Street Station. Service on the MED is offered seven days a week, except for the Blue Island Branch, which is not served on Sundays.

From Millennium Station to 115<sup>th</sup> Street, MED tracks are shared with South Shore Line commuter trains operated by the Northern Indiana Commuter Transportation District (NICTD), and South Shore trains stop at seven MED stations in this portion of the route. However, to avoid competition with MED service, passengers may not board inbound South Shore trains from Kensington/115<sup>th</sup> to Millennium Station, and outbound South Shore passengers may not disembark at these stations. South of the Kensington/115<sup>th</sup> Station, the South Shore Line diverges from the MED onto its own tracks, traveling to Chicago's Hegewisch neighborhood and through northern Indiana, terminating in South Bend, Indiana.

Unique among Metra lines, the MED is served by two downtown stations: Millennium Station, located between Randolph Street and South Water Street, and Van Buren Station, less than a mile to the south. Among riders utilizing the two stations, approximately two-thirds use Millennium Station, with the remainder using Van Buren Station. The MED has the highest number of stations of any line in the Metra system, and is served by the highest number of trains. In 2011, passenger trips on the MED totaled 10 million, third among all Metra lines.

A number of unique features distinguish the MED from Metra's ten other lines:

1) MED trainsets consist of electric self-propelled coaches which draw power from a dedicated overhead catenary wire system. Because of this, MED trains accelerate faster and run more quietly than the diesel locomotives and unpowered coaches used elsewhere in Metra's system.

2) The MED Main Line is completely grade-separated from intersecting streets and highways and its tracks are completely segregated from freight and Amtrak service on adjacent track. This increases safety and reduces delays.

3) All stations are built with high-level platforms, which means that passengers do not climb steps from the platform to board train cars, reducing station dwell time.

4) Most stations are unstaffed and tickets are purchased from vending machines.

5) Weekday and Saturday schedules are similar, and express service is available on many midday, Saturday, and reverse-commute trips, in addition to peak period-peak direction trips.

Commuter rail service on what is now the MED Main Line was initiated in 1856 by the Illinois Central Railroad (IC). Success of this service led to the construction of the South Chicago and Blue Island Branches in 1883 and 1892, respectively. The Main Line and both branches were converted to electric power in 1926 after passage of a city ordinance requiring IC to electrify its operations in order to eliminate coal emissions from steam engines along the lakefront. Grade separation of the Main Line from Richton Park to the Chicago terminal coincided with electrification. The line was extended to its current terminus at University Park in 1977, one year after RTA began subsidizing IC commuter service. In 2001, the South Chicago Branch terminus at 91<sup>st</sup> Street was relocated to 93<sup>rd</sup> Street so that commuter parking could be provided. IC-then known as Illinois Central Gulf-sold its commuter rail operations, equipment, and right-of-way to Metra in 1987. The freight tracks that parallel the MED Main Line between McCormick Place and University Park are still owned by IC (now a subsidiary of Canadian National). Although IC (CN) has trackage rights to serve industries located on Metra's corridor, no freight trains currently operate on the MED itself. The IC tracks are also used by Amtrak trains to Carbondale and New Orleans, and passengers can transfer between MED and Amtrak trains at Homewood Station. (However, passengers not

transferring to other Amtrak trains in Chicago cannot board northbound Amtrak trains at Homewood, to avoid competition with Metra service.)

Most midday servicing of the MED fleet takes place at the 18<sup>th</sup> Street MU Facility (also known as Weldon Yard), located near Soldier Field. Inspections and mechanical work are performed at Kensington Yard (KYD), located south of the Kensington/115<sup>th</sup> Station, or at 18<sup>th</sup> Street. Most Main Line trainsets are stored overnight at Richton Yard with a small number of additional trainsets held at the end of the line in University Park. Rolling stock serving the Blue Island Branch is stored at the Vermont Street terminal, and South Chicago Branch trainsets are stored at Millennium Station. Table 1 details the service, station, and ridership characteristics of the MED.

#### Table 1: MED Current Conditions

a) Service and Ridership Characteristics

#### MED 2006 Weekday Boardings

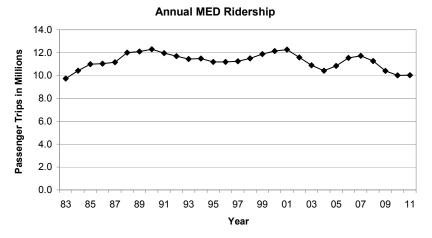
Time of Day	Inbound	Outbound
AM Peak	16,779	468
Midday	2,454	2,675
PM Peak	618	15,069
Evening	431	1,712
TOTAL	20,282	19,924

Source: Weekday Station Boardings and Alightings by Timeof-Day and Direction, 2006

	sources.
2011 Average Trip Length	19.63 miles
2011 Average Fare Paid	\$2.73
Source: Ridership Trends Report, Decem	ber 2011

Number of Stations	49			
Route Length*	40.6 miles			
Number of Weekday Trains	170			
2011 On-Time Performance**	96.8%			
* 31.5 mile Main Branch, 4.4 mile Blue Island Branch, 4.7 mile South Chicago Branch				
** On-Time Performance Report, December 2	2011			

#### b) Ridership



\*Excludes South Shore. From 2008, figures include free Circuit Permit trips. 2008-2011 figures include free senior trips; this program ended September 2011.

### Table 1 (continued)

### c) Station Characteristics

Station	Fare	Mile	Accessibility <sup>1</sup>	Boa	rdings	Statio	on Parking (	(2011)	Time to ( mir)	
Station	Zone	Post	Accessionity	Boardings		Capacity	Effective	Observed	(111115)	
	20110	1 000		<b>1983</b> <sup>2</sup>	<b>2006</b> <sup>3</sup>	(Spaces) <sup>4</sup>	Use <sup>5</sup>	Use <sup>6</sup>	Express	Loca
Millennium Station	А	0.0	Full	12,112	13,152	0	n/a	n/a		-
Van Buren St.	А	0.8	Full	5,151	4,671	0	n/a	n/a		:
Museum Campus/11th St.	А	1.4	Full	365	443	0	n/a	n/a		
18th St.	А	2.2	None	19	29	0	n/a	n/a		
McCormick Place	A	2.7	Full	171	137	0	n/a	n/a		
27th St.	A	3.2	None	77	105	0	n/a	n/a		1
47th St. (Kenwood)	В	5.9	None	18	113	0	n/a	n/a		1
51st/53rd St. (Hyde Park)	В	6.5	Full	427	571	0	n/a	n/a		1
55th-56th-57th St.	В	7.0	Full	533	1,591	53	94%	94%	15	1
59th St. (Univ. of Chicago)	В	7.4	None	513	517	123	95%	95%	16	. 1
63rd St.	B	7.9	None	109	261	0	n/a	n/a	18	2
75th St. (Grand Crossing)	В	9.3	None	61	52	0	n/a	n/a	22	2
79th St. (Chatham)	B	10.0	None	70	119	27	37%	37%	24	2
Stony Island	B	9.1	Full	175	113	0	n/a	n/a	23	2
Bryn Mawr	B	9.7	Full	153	184	0	n/a	n/a	25	2
South Shore	B	10.3	Full	349	278	9	78%	78%	23	2
Windsor Park	B	10.3	Full	266	192	27	19%	19%	29	2
Cheltenham (79th St.)	B	10.9	None	232	192	73	22%	22%	29 31	3
B3rd St.	В	12.0	Full	417	217	33	88%	88%	33	3
	В	12.0	Full	211	189	40	83%	83%	35	
37th St.	В	12.5			974	699	83% 34%	83% 34%		3
South Chicago (93rd St.)			Full	635		COLORADO CONTRACTOR			38	
33rd St. (Avalon Park)	C	10.4	None	46	103	15	80%	80%	25	2
37th St. (Woodruff)	С	10.9	None	41	64	15	87%	87%	26	2
91st St. (Chesterfield)	С	11.4	None	30	66	0	n/a	n/a	28	3
95th St. (Chicago St. Univ.)	C	12.0	None	17	49	0	n/a	n/a	30	3
103rd St. (Rosemoor)	С	13.0	None	17	70	38	21%	21%	31	3
107th St.	С	13.5	None	18	34	0	n/a	n/a	33	3
111th St. (Pullman)	С	14.0	None	46	27	0	n/a	n/a	34	3
Kensington (115th St.)	С	14.5	Full	840	1,577	445	85%	85%	25	3
Riverdale	D	17.3	None	747	397	260	34%	34%	30	4
vanhoe	D	18.2	Full	1,529	945	475	74%	65%	32	4
147th St. (Sibley Blvd.)	D	19.0	None	990	1,255	1,124	64%	64%	34	4
Harvey	D	20.0	Full	1,229	937	872	40%	40%	36	4
State St.	D	15.6	None	51	85	0	n/a	n/a	31	4
Stewart Ridge	D	16.0	None	48	61	0	n/a	n/a	33	4
Vest Pullman	D	16.7	None	57	24	27	4%	4%	35	4
Racine Ave.	D	17.0	None	41	53	29	24%	24%	36	5
Ashland Ave.	D	17.9	None	166	165	91	46%	46%	38	5
Burr Oak	D	18.4	None	350	156	60	93%	93%	40	5
Blue Island	D	18.9	Full	393	324	842	43%	43%	42	5
Hazel Crest	E	22.3	None	610	518	140	99%	81%	33	5
Calumet	E	22.8	Full	764	1,363	1,174	90%	74%	36	5
lomewood	Е	23.5	Full	1,602	1,456	524	95%	87%	39	5
Flossmoor	E	24.9	Full	1,273	1,002	275	100%	85%	42	5
Dlympia Fields	F	26.6	None	265	473	504	99%	99%	38	6
211th St. (Lincoln Hwy.)	Ē	27.6	Full	796	1,149	713	52%	52%	41	6
Matteson	F	28.2	None	1,080	879	743	71%	71%	43	6
Richton Park	F	29.3	Full	1,140	1,625	1,043	71%	64%	46	6
University Park	G	31.5	Full	411	1,243	1,040	74%	66%	51	7
				36,661	40,206	11,561	67%	63%	<b>.</b>	

<sup>1</sup> MED Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

<sup>4</sup> Metra Station Parking Capacity and Use

<sup>5</sup> Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

<sup>6</sup> Observed use: spaces physically occupied during parking survey

## Table 1 (continued)

## d) Mode of Access

		Drive &	Carpool			
Station Name	Walk & Bike	Carpool Driver	Passenger & Dropped Off	Transit	Other	
Millennium Station	53%	9%	4%	29%	4%	
Van Buren St.	59%	8%	8%	23%	2%	
Museum Campus/11th St.	59%	3%	9%	26%	3%	
8th St.	100%	0%	0%	0%	0%	
AcCormick Place	40%	20%	10%	0%	30%	
?7th St.	83%	0%	17%	0%	0%	
7th St. (Kenwood)	56%	28%	0%	11%	6%	
51st/53rd St. (Hyde Park)	88%	5%	3%	2%	1%	
5th-56th-57th St.	73%	15%	6%	5%	1%	
9th St. (Univ. of Chicago)	38%	43%	8%	9%	1%	
63rd St.	53%	34%	9%	4%	0%	
5th St. (Grand Crossing)	67%	17%	17%	0%	0%	
9th St. (Chatham)	57%	24%	8%	12%	0%	
Stony Island	52%	39%	8%	2%	0%	
Bryn Mawr	55%	25%	15%	5%	0%	
South Shore	73%	20%	4%	1%	1%	
Vindsor Park	80%	18%	3%	0%	0%	
heltenham (79th St.)	69%	10%	17%	5%	0%	
3rd St.	50%	38%	9%	1%	2%	
7th St.	42%	41%	15%	2%	0%	
South Chicago (93rd St.)	9%	63%	24%	3%	0%	
33rd St. (Avalon Park)	77%	11%	11%	0%	0%	
37th St. (Woodruff)	40%	50%	10%	0%	0%	
1st St. (Chesterfield)	95%	5%	0%	0%	0%	
5th St. (Chicago St. Univ.)	31%	23%	31%	15%	0%	
03rd St. (Rosemoor)	57%	29%	11%	0%	3%	
07th St.	92%	8%	0%	0%	0%	
11th St. (Pullman)	69%	15%	15%	0%	0%	
ensington (115th St.)	12%	66%	16%	6%	1%	
liverdale	29%	63%	7%	1%	1%	
vanhoe	31%	48%	20%	0%	0%	
47th St. (Sibley Blvd.)	4%	76%	16%	3%	0%	
larvey	4%	74%	16%	6%	1%	
tate St.	54%	27%	11%	5%	3%	
tewart Ridge	63%	30%	7%	0%	0%	
Vest Pullman	75%	0%	13%	13%	0%	
Racine Ave.	45%	36%	18%	0%	0%	
shland Ave.	38%	52%	7%	2%	1%	
urr Oak	30%	62%	7%	0%	1%	
lue Island	19%	43%	16%	20%	1% 1%	
lazel Crest Calumet	7% 4%	70% 81%	16% 14%	5% 0%	1% 0%	
lomewood	4%	48%	28%	0% 5%	0% 1%	
lossmoor	29%	48% 38%	30%	3%	0%	
Dlympia Fields	9%	79%	11%	0%	0%	
11th St. (Lincoln Hwy.)	6%	79%	17%	0 % 7%	0%	
Aatteson	12%	74%	13%	1%	0%	
Richton Park	12 %	63%	17%	2%	1%	
Iniversity Park	1%	82%	12%	2%	2%	
TOTAL MED	24%	55%	15%	4%	1%	
SYSTEM TOTAL	22%	56%	16%	5%	1%	

Source: Metra, Fall 2006 Origin-Destination Survey

## **Improvements Since the Start of Metra**

Since 1985, Metra has invested over \$830 million (in year of expenditure dollars) in improvements to the MED corridor. Table 2 indicates the amount of investment in different asset categories. Interlockings at 67th Street, Kensington, and the Millennium Station terminal have been replaced, and customer and operations communications systems have been upgraded. Since 1985, new depots and platforms, or warming houses, have been constructed at 47th Street,  $51^{st}/53^{rd}$  Street,  $55^{th}-56^{th}-57^{th}$  Street,  $83^{rd}$  Street (South Chicago),  $87^{th}$  Street (South Chicago),  $93^{rd}$  Street, Blue Island, Bryn Mawr, Calumet, Cheltenham, Flossmoor, Harvey, Hazel Crest, Homewood, Ivanhoe, Kensington, Matteson, McCormick Place, Millennium Station, Museum Campus/11<sup>th</sup> Street, Olympia Fields, Richton Park, Riverdale, South Shore, Stony Island, University Park, Van Buren, and Windsor Park. In addition, other significant station improvements have been completed at  $95^{th}$  Street/Chicago State University and  $211^{th}$  Street. All of these projects, except Flossmoor, Harvey, Matteson, Olympia Fields, Richton Park, and Riverdale were completed since FAST was initially developed in 1992.

Table 2: Metra Capital Investment History

	MED	System
Rolling Stock	\$323.4	\$1,856.6
Track	47.1	763.5
Structure	45.3	606.0
Signal	33.8	508.0
Electrical	54.9	74.9
Communications	13.4	36.5
Facilities	74.3	417.1
Equipment	21.5	113.4
Stations	141.4	629.5
Parking	17.4	171.4
Downtown Terminals	61.3	295.4
TOTAL	\$833.8	\$5,472.3

(in millions of dollars)

In 2006, 26 new electric multiple-unit cars featuring restrooms and modern propulsion systems entered service. Prior to delivery of the new vehicles, the entire MED fleet had been inherited from IC and lacked the restrooms available on trains serving Metra's diesel lines. In 2010, funds from the state transit bond program were allocated to purchase 160 additional new cars. Metra will be able to retire approximately 145 aging vehicles, and the electric fleet will meet the Metra Board mandate that 67% of MED cars be restroom-equipped. Nine bridges on the MED have been replaced since the completion of FAST in 1992, and six bridges are currently being rehabilitated using \$3.5 million in American Recovery and Reinvestment Act (ARRA) funds.

In the last 20 years, numerous adjustments have been made to the MED's schedule, increasing mid-day service on the Main Line, reducing crowding during peaks, adding through-trains to Millennium Station from the branch lines, improving transfer opportunities, and improving efficiency.

In 2006, approximately 86% of MED boardings took place at stations that are in compliance with the accessibility requirements of the Americans with Disabilities Act (ADA). Metra's station compliance program started with designating nine of the busiest MED stations, including Millennium Station (formerly Randolph Street Station) in downtown Chicago, as "key stations", all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a total of 25 non-downtown MED stations, and 21 outlying stations on the line are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible. It should be noted that although the high-level platforms and grade-separated right-of-way on the MED facilitate speed and reliability, these features complicate track maintenance and station improvement projects, resulting in higher costs.

### **Present and Future Demand**

In 2006, over 40,000 boardings took place each weekday on the MED, with close to 80% of boardings occurring on peak-period, peak-direction trains. MED ridership has increased 10% since 1983 (see Table 1c). The 13 suburban stations on the Main Line from Riverdale south to University Park comprise the most productive segment of the route in terms of ridership, accounting for 60% of MED boardings at outlying stations (i.e. excluding Millennium and Van Buren Stations). Of outlying stations within the City of Chicago, 57% of boardings occur at five stations: Kensington/115<sup>th</sup>, where express service provides a sub-regional draw; the three Hyde Park Stations (51<sup>st</sup>/53<sup>rd</sup> Street, 55<sup>th</sup>-56<sup>th</sup>-57<sup>th</sup> Street, and 59<sup>th</sup> Street, which serve as both origin and destination stations due to nearby residential development and institutional complexes; and the 93<sup>rd</sup> Street endpoint of the South Chicago Branch, which serves a portion of Chicago isolated from CTA rail alternatives and has ample commuter parking available to serve a larger area. Figure 2 shows the origins of MED riders using stations outside the Central Business District (CBD). Overall passenger ridership on the MED Line totaled 10 million in 2010.

The suburban Main Line stations that experienced ridership increases between 1983 and 2006 are those at which a significant amount of parking was added. These projects attracted new riders to the system and likely diverted riders from stations with fewer unoccupied parking spaces, relieving overcrowding. At these six stations (147<sup>th</sup> Street, Calumet, 211<sup>th</sup> Street, Olympia Fields, Richton Park, and University Park), nearly 2,800 spaces were added between 1987 and 2010. This amount includes approximately 500 spaces at Olympia Fields, which did not have commuter parking facilities prior to 2005.

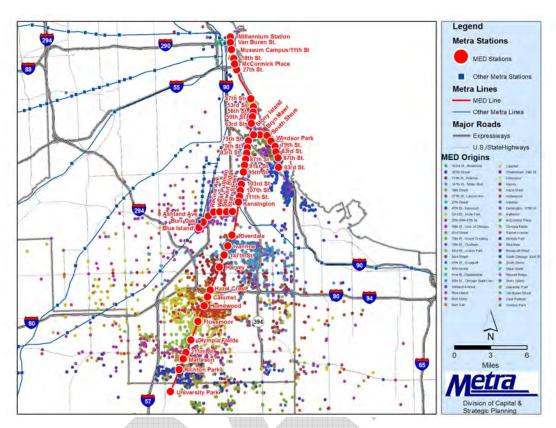


Figure 2: Origins of Riders Using Non-Downtown MED Stations

Over 11,500 parking spaces serve the riders of the MED. According to parking counts conducted in 2011, the average effective rate of utilization at all stations on the line is 67%. At ten stations, effective occupancy exceeds 85%, Metra's threshold to determine if a station is in need of additional parking. Due to anticipated residential growth in the MED corridor, the demand for parking is expected to grow.

A number of indicators suggest that demand for commuter rail service will rise in the MED corridor. Tables 3, 4, and 5 show that although population and employment has declined in much of the corridor in recent years, demographic forecasts anticipate significant growth along the line by 2040. The Chicago Metropolitan Agency for Planning (CMAP) forecasts that the MED corridor will attract nearly 285,000 new residents between 2010 and 2040, a 32% increase. Over 167,000 jobs will be added, a 43% rise.

Population and household growth in the MED marketshed zone closest to the CBD (Fare Zone A), which was rapid between 2000 and 2010, is expected to taper off, though employment growth is expected to remain strong until 2040. By 2040, employment is expected to increase substantially from the far South Side of Chicago to University Park. However, CMAP forecasts that, by 2040, the number of jobs in the MED marketshed zone closest to the CBD will be close to the number in all other MED marketsheds combined. Population and household growth is expected to be strongest in the marketsheds near the southern end of the MED, from Olympia Fields to University Park.

#### Table 3: MED Corridor Population

Station	Fare	Population in Zone					
otation	Zone	Area Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Millennium Station, Van Buren St., Museum Campus/11 <sup>th</sup>							
St., 18 <sup>th</sup> St., McCormick Place, 27 <sup>th</sup> St.	А	8.6	90,081	117,733	125,207	23.5%	6.3%
47 <sup>th</sup> St. Kenwood, 53 <sup>rd</sup> St. Hyde Park, 55 <sup>th</sup> -56 <sup>th</sup> -57 <sup>th</sup> St., 59 <sup>th</sup>							
St. Univ. of Chicago, 63 <sup>rd</sup> St., 75 <sup>th</sup> St. Grand Crossing, 79 <sup>th</sup>							
St. Chatham (Main Line)	В	14.6	177,630	159,209	193,767	-11.6%	21.7%
Stony Island, Bryn Mawr, South Shore, Windsor Park,							
Cheltenham 79 <sup>th</sup> St., 83 <sup>rd</sup> St., 87 <sup>th</sup> St., South Chicago 93 <sup>rd</sup>	_						
St. (S. Chicago Branch)	В	14.8	137,725	120,021	150,979	-14.8%	25.8%
ZONE SUBTOTAL 83 <sup>rd</sup> St. Avalon Park, 87 <sup>th</sup> St. Woodruff, 91 <sup>st</sup> St.	В	29.4	315,355	279,230	344,746	-12.9%	23.5%
Chesterfield, 95 <sup>th</sup> St. Chicago St. Univ., 103 <sup>rd</sup> St. Rose-							
moor, 107 <sup>th</sup> St., 111 <sup>th</sup> St. Pullman, Kensington 115 <sup>th</sup> St.	с	15.5	95,196	80,935	93,728	-17.6%	15.8%
		15.5	95,190	00,935	93,720	-17.0%	13.0%
Riverdale, Ivanhoe, 147 <sup>th</sup> St. Sibley Blvd, Harvey (Main Line)	D	24.4	106,224	94,450	118,910	-12.5%	25.9%
State St., Stewart Ridge, West Pullman, Racine Ave.,							
Ashland Ave., Burr Oak, Blue Island (Blue Island Branch)							
	D	7.4	50,282	42,683	52,695	-17.8%	23.5%
ZONE SUBTOTAL	D	31.8	156,506	137,133	171,605	-14.1%	25.1%
Hazel Crest, Calumet, Homewood, Flossmoor	E	48.4	104,568	103,410	124,245	-1.1%	20.1%
Olympia Fields, 211 <sup>th</sup> St. Lincoln Hwy., Matteson, Richton	<u> </u>					0.50	44.000
Park	F	59.3	112,176	116,187	164,774	3.5%	41.8%
University Park	G	179.4	32,888	41,632	136,059	21.0%	226.8%
MED TOTAL		372.4	906,770	876,260	1,160,364	-3.4%	32.4%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%

### Table 4: MED Corridor Households

			Hou	seholds in Z	Percent Change		
Station	Fare Zone	Area Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Millennium Station, Van Buren St., Museum Campus/11 <sup>th</sup> St., 18 <sup>th</sup> St., McCormick Place, 27 <sup>th</sup> St. 47 <sup>th</sup> St. Kenwood, 53 <sup>rd</sup> St. Hyde Park, 55 <sup>th</sup> -56 <sup>th</sup> -57 <sup>th</sup> St., 59 <sup>th</sup> St. Univ. of Chicago, 63 <sup>rd</sup> St., 75 <sup>th</sup> St. Grand Crossing, 79 <sup>th</sup>	A	8.6	54,602	67,408	74,036	23.5%	9.8%
St. Chatham (Main Line) Stony Island, Bryn Mawr, South Shore, Windsor Park, Cheltenham 79 <sup>th</sup> St., 83 <sup>rd</sup> St., 87 <sup>th</sup> St., South Chicago 93 <sup>rd</sup>	В	14.6	70,700	65,137	82,742	-7.9%	27.0%
St. (S. Chicago Branch)	В	14.8	49,853	45,695	54,881	-8.3%	20.1%
ZONE SUBTOTAL 83 <sup>rd</sup> St. Avalon Park, 87 <sup>rd</sup> St. Woodruff, 91 <sup>st</sup> St. Chesterfield, 95 <sup>th</sup> St. Chicago St. Univ., 103 <sup>rd</sup> St. Rose-	В	29.4	120,553	110,832	137,623	-8.1%	24.2%
moor, 107 <sup>th</sup> St., 111 <sup>th</sup> St. Pullman, Kensington 115 <sup>th</sup> St. Riverdale, Ivanhoe, 147 <sup>th</sup> St. Sibley Blvd, Harvey (Main Line)	C	15.5 24.4	<b>34,436</b> 34,802	<b>31,541</b> 31,344	<b>34,655</b> 39,597	-8.4% -9.9%	<b>9.9%</b> 26.3%
State St., Stewart Ridge, West Pullman, Racine Ave., Ashland Ave., Burr Oak, Blue Island (Blue Island Branch)	D	7.4	15,597	14,251	16,697	-8.6%	17.2%
ZONE SUBTOTAL	D	31.8	50,399	45,595	56,294	-9.5%	23.5%
Hazel Crest, Calumet, Homewood, Flossmoor Olympia Fields, 211 <sup>th</sup> St. Lincoln Hwy., Matteson, Richton Park	E	48.4 59.3	37,231 40.472	36,925 41,549	44,687 60,395	-0.8% 2.7%	21.0% 45.4%
University Park	G	179.4	11,901	15,305	48,215	28.6%	215.0%
MED TOTAL REGION TOTAL	1	372.4 3,748.0	349,594 2,906,924	349,155 3,050,134	455,905 4,224,349	-0.1% 4.9%	30.6% 38.5%

### Table 5: MED Corridor Employment

			Emp	loyment in Z	one	Percent Change		
Station	Fare Zone	Area Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040	
Millennium Station, Van Buren St., Museum Campus/11 <sup>th</sup>								
St., 18 <sup>th</sup> St., McCormick Place, 27 <sup>th</sup> St.	А	8.6	323,244	221,457	270,786	-31.5%	22.3%	
47 <sup>th</sup> St. Kenwood, 53 <sup>rd</sup> St. Hyde Park, 55 <sup>th</sup> -56 <sup>th</sup> -57 <sup>th</sup> St., 59 <sup>th</sup>								
St. Univ. of Chicago, 63 <sup>rd</sup> St., 75 <sup>th</sup> St. Grand Crossing, 79 <sup>th</sup>								
St. Chatham (Main Line)	В	14.6	20,231	41,750	45,992	106.4%	10.2%	
Stony Island, Bryn Mawr, South Shore, Windsor Park,								
Cheltenham 79 <sup>th</sup> St., 83 <sup>rd</sup> St., 87 <sup>th</sup> St., South Chicago 93 <sup>rd</sup>	D	44.0	7 000	2.010	10.000	40.00/	404.00/	
St. (S. Chicago Branch) ZONE SUBTOTAL	B	14.8 29.4	7,666 27,897	8,612 50,362	19,923 65,915	12.3% 80.5%	131.3% 30.9%	
83 <sup>rd</sup> St. Avalon Park, 87 <sup>th</sup> St. Woodruff, 91 <sup>st</sup> St.	В	29.4	27,097	50,502	00,910	00.5%	30.9%	
Chesterfield, 95 <sup>th</sup> St. Chicago St. Univ., 103 <sup>rd</sup> St. Rose-								
moor, 107 <sup>th</sup> St., 111 <sup>th</sup> St. Pullman, Kensington 115 <sup>th</sup> St.	с	15.5	13,622	9,889	19,412	-27.4%	96.3%	
Riverdale, Ivanhoe, 147 <sup>th</sup> St. Sibley Blvd, Harvey (Main								
Line)	D	24.4	32,400	25,517	35,873	-21.2%	40.6%	
State St. Stawart Didge West Dullman Desine Ave								
State St., Stewart Ridge, West Pullman, Racine Ave., Ashland Ave., Burr Oak, Blue Island (Blue Island Branch)				<b>A</b>				
	D	7.4	5,198	5,436	11,169	4.6%	105.5%	
ZONE SUBTOTAL	D	31.8	37,598	30,953	47,042	-17.7%	52.0%	
Hazel Crest, Calumet, Homewood, Flossmoor	E	48.4	41,149	32,153	49,394	-21.9%	53.6%	
Olympia Fields, 211 <sup>th</sup> St. Lincoln Hwy., Matteson, Richton	- I							
Park	F	59.3	31,669	30,268	52,293	-4.4%	72.8%	
University Park	G	179.4	10,551	11,069	48,921	4.9%	342.0%	
MED TOTAL		372.4	485,730	386,151	553,763	-20.5%	43.4%	
REGION TOTAL		3,748.0	4,340,215	3,786,224	5,267,696	-12.8%	39.1%	
						•		

### **Reverse-Commute and Non-Downtown Markets**

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse commute options (discussion of Metra's primary commuter market is in the Central Business District (CBD) Market section). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD MED stations.

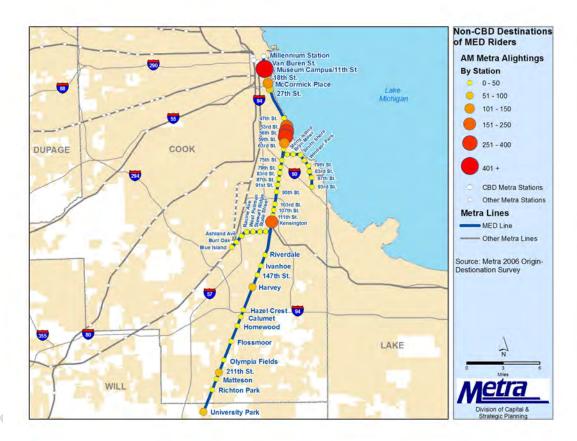


Figure 3: AM Alightings at Non-CBD MED Stations

However, the MED still retains the traditional suburb-to-CBD trip pattern, and has not experienced the volume of reverse commute ridership seen on some other Metra lines. According to Metra's 2006 Origin-Destination Survey, 2.7% of AM peak boardings on the MED follow the reverse commute pattern, significantly lower than the system-wide average of 6%. Of AM peak reverse commute (outbound) riders on the MED, the greatest percentage (15%) travel to the University Park Station. Together, the three Hyde Park stations (51<sup>st</sup>/53<sup>rd</sup> Street, 55<sup>th</sup>-56<sup>th</sup>-57<sup>th</sup> Street, and 59<sup>th</sup> Street) attract 26% of MED AM peak outbound riders. The Hyde Park stations also attract 4% of AM peak riders in the inbound direction, who arrive from points south.

Factors that increase reverse commute trip patterns are the growth of employment in the suburbs as well as the growth of population in the city and inner ring suburbs (see Tables 3, 4, and 5). While only modest population growth in MED marketshed zone closest to the CBD is expected by 2040, from 2000 and 2010 these marketsheds increased rapidly in population (by 24%, or 28,000) and lost over 100,000 jobs. According to projections, this

area is expected to regain only about half of these jobs by 2040. Residents of the CBD marketsheds have convenient access to employment opportunities in downtown Chicago, but the substantial number of jobs expected to be added further south along the MED are likely to attract CBD residents, as well as others living along the MED corridor, and potentially increase reverse commute trips. Table 6 shows some of the major employers along the MED.

Generator Type	Name	Comments	Municipality
Colleges and	Illinois Institute of Technology	6,900 students; 700 employees	Chicago
Universities	Illinois College of Optometry	600 students; 50 employees	Chicago
	University of Chicago	13,000 students	Chicago
	Chicago State University	8,500 students; 500 employees	Chicago
	Olive-Harvey College	A City College of Chicago; 4,400 students	Chicago
	South Suburban College	Community college; 8,000 students	South Holland
	Prairie State College	Community college; 5,400 students; 100 employees	Chicago Heights
	Governors State University	5,400 students; 700 employees	University Park
Culture and	McCormick Place	Convention facility; attracts nearly 3,000 visitors per year	Chicago
Entertainment	Museum of Science and Industry	1.4 million visitors annually; 370 employees	Chicago
	DuSable Museum of African American History	Located in Washington Park; 175,000 visitors annually	Chicago
Shopping	River Oaks Center	Regional Center with 140 stores including 4 anchors	Calumet City
	Lincoln Mall	Regional Center with 70 stores including 2 anchors	Matteson
Government	Cook County District 6 Courthouse	Cook County circuit court suburban location	Markham
Hospitals	Mercy Hospital	494 beds; 2,000 employees	Chicago
	Provident Hospital of Cook County	222 beds; 800 employees	Chicago
	University of Chicago Hospitals	633 beds; 4,500 employees	Chicago
	Jackson Park Hospital	326 beds; 500 employees	Chicago
	Roseland Community Hospital	162 beds; 400 employees	Chicago
	Advocate Trinity Hospital	263 beds; 800 employees	Chicago
	Ingalls Memorial Hospital	582 beds; 1,700 employees	Harvey
	Advocate South Suburban Hospital	286 beds; 1,000 employees	Hazel Crest
	St. James Hospital (Olympia Fields)	200 beds; 2,300 employees	Olympia Fields
	St. James Hospital (Chicago Heights)	361 beds; 1,500 employees	Chicago Heights
Top Private	Allied Tube and Conduit Corp.	Welded pipe and tube manufacturing; 800 employees	Harvey
Employers	Consolidated Medical Transport	Local passenger transportation; 800 employees	Dolton
	Modern Drop Forge Co.	Tool and Die Makers; 400 employees	Blue Island
	Midwest Health Ventures	Health clinic and outpatient services; 500 employees	Chicago Heights
	GNU Inc.	Motor vehicle parts/accessories; 600 employees	Chicago Heights
	Ford Chicago Stamping Plant	Ford Chicago Stamping Plant; 1.900 employees	Chicago Heights
	Elisabeth Ludeman Center	Residential treatment facility; 700 employees	Park Forest
	Applied Systems, Inc.	Computer services; 500 employees	University Park

#### Table 6: Major Trip Generators in the MED Corridor

#### **Station and Parking Improvements**

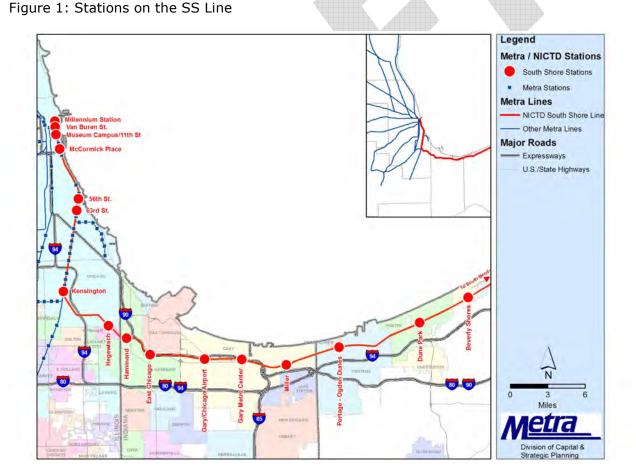
Proposed to be funded by the recent State of Illinois bond program, improvements are planned at eight stations. At the 59<sup>th</sup> Street and 63<sup>rd</sup> Street Stations, new platforms, headhouses, warming houses, and elevators are included in the proposed improvements. At Ashland, Burr Oak, and Racine, new canopies, headhouses, and warming shelters will be constructed. At Calumet and Flossmoor, warming houses and platforms will be replaced and stairs will be rehabilitated. At the Hazel Crest Station, the depot and headhouse will be renovated, and a new elevator will be added to make the station fully accessible. All of the proposed station improvements include improved lighting, signage, and other minor enhancements.

### SOUTH SHORE LINE

### **Existing Service and Conditions**

Commuter rail service on the South Shore Line (SS) between downtown Chicago and South Bend, Indiana is operated by the Northern Indiana Commuter Transportation District (NICTD). Like trains on the Metra Electric District (MED), SS trains are powered by a overhead catenary wire system, and the two services operate on MED track from Millennium Station to Kensington Interlocking at 115<sup>th</sup> Street in Chicago. The SS then diverges onto its own tracks, extending across northern Indiana to the line's eastern terminal at the South Bend Regional Airport.

Implementation of commuter service on the present-day SS route took place in the early 1900s, as various segments of the line were completed. The Chicago, South Shore and South Bend Railroad (CSS&SB), incorporated in 1925, operated commuter and freight service on the line for nearly 60 years.



In 1977, the Indiana General Assembly created NICTD to partially subsidize the CSS&SB for its passenger service. The agency's administrative offices are located in Chesterton, Indiana, with the SS's dispatching office and main rail yard in Michigan City. NICTD took over operation of the commuter rail service after the CSS&SB declared bankruptcy in 1989, and the agency purchased the railroad's assets the following year. Anacostia & Pacific

assumed operation of the diesel-powered freight service on the line, under the name "Chicago, *SouthShore* and South Bend Railroad."

Under a purchase-of-service agreement (PSA), Metra reimburses NICTD for an agreed upon portion of net operating losses (operating and maintenance costs less operating revenues) associated with commuter rail service on the SS. Metra's portion of net operating losses is designed to reflect the "benefit" received from SS service (as measured by passenger boardings) within the State of Illinois. Under the current PSA, Metra reimburses NICTD for 21% of net operating losses. NICTD pays Metra under a trackage rights agreement to operate SS service on the MED between Millennium Station and Kensington Station. NICTD is generally responsible for all operating- and capital-related costs associated with maintenance and improvements of right-of-way and facilities located within the State of Illinois that are used exclusively by the SS (i.e., the portion of the SS between Kensington Interlocking and the Indiana border).

The SS Line serves 20 stations along its 90-mile route, including eight stations on the 14.5mile segment shared with the MED. To avoid competition with Metra service, passengers may not board inbound SS trains from Kensington/115th to Millennium Station, and outbound SS passengers may not disembark at these stations. The SS station located in Chicago's Hegewisch neighborhood is the only non-MED station in Illinois served by SS trains. Since the station is located within the Regional Transportation Authority's (RTA) service area, Metra funded construction of new station buildings and a parking lot at Hegewisch in 1992, and retains ownership of these facilities. Meanwhile, NICTD owns the land and other parking lots at the station, and is responsible for platform maintenance.\* Passengers traveling between Hegewisch and other stations in Chicago are charged based on Metra's fare structure rather than NICTD's.

NICTD and Metra have a history of assisting each other during service disruptions. In order to minimize passenger delays, the two agencies have accepted each other's fare media and used equipment to move disabled rolling stock.

<sup>\*</sup> NICTD completed installation of high-level platforms at Hegewisch in 2006.

#### Table 1: SS Current Conditions

a) Service and Ridership Characteristics

Time of Day	Inbound	Outbound
AM Peak	5,938	97
Midday	801	954
PM Peak	200	5,214
Evening	70	762
TOTAL	7,009	7,027

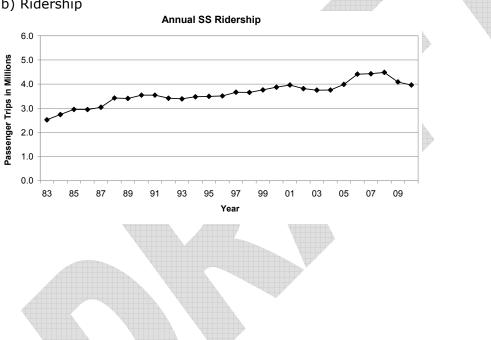
2006 Weekday Boardings

Source: Weekday Station Boardings and Alightings by Time-of-Day and Direction, 2006



2010 Average Trip Length	28 miles
2010 Average Fare Paid	\$4.76
Source: National Transit Database	

Number of Stations	20
Route Length	90.1 miles
Number of Weekday Trains	41
2010 On-Time Performance	n/a



#### c) Station Characteristics

Station	Fare	Mile	Accessibility <sup>1</sup>	Воа	ardings	Time to Chicago (mins) <sup>1</sup>		
	Zone	Post		<b>1983</b> <sup>2</sup>	<b>2006</b> <sup>3</sup>	Express	Local	
Millennium Station	1	0.0	Full	3,180	5,095			
Van Buren Street	1	0.8	Full	715	1,439		6	
Museum Campus/11th St.	1	1.4	Full	45	140		9	
McCormick Place	1	2.7	Full	171	137		8	
55th-56th-57th St.	2	7.0	Full	143	150		18	
63rd Street	2	7.9	None	30	9		21	
Kensington	2	14.5	Full	38	51		31	
Hegewisch	3	19.0	Full	1,042	1,449		41	
Hammond	4	20.9	Full	n/a ▲	1,307		48	
East Chicago	4	23.4	Full	n/a	1,848		53	
Gary/Chicago Airport	5	28.0	None	n/a	146		53	
Gary Metro Center	5	30.9	Full	n/a	632		64	
Miller	5	34.7	None 🧹	n/a	520		72	
Portage/Ogden Dunes	6	38.9	Full	n/a	217		78	
Dune Park	6	46.0	Full	n/a	485	\	87	
Beverly Shores	7	50.4	None	n/a	58	`	89	
11th St. (Michigan City)	8	55.8	None	n/a	129		102	
Carroll Ave. (Mich. City)	8	57.5	Full	n/a	184		108	
Hudson Lake	10	74.6	None	n/a	5		132	
South Bend Airport	11	90.1	Full	n/a	172		156	
TOTAL SS				5,364	14,173			

<sup>1</sup>SS Schedule

<sup>2</sup> Metra's 1983 Boarding/Alighting Counts; Indiana SS stations not counted in 1983.

<sup>3</sup> Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006.

#### **Improvements Since the Start of NICTD**

Since its creation, NICTD has invested hundreds of millions of dollars in maintaining and upgrading the SS Line. Among NICTD's first activities was the acquisition of new rolling stock in the early 1980s, which allowed the line's oldest vehicles—dating from the 1920s—to be retired. The RTA contributed funding towards the purchase, and eight single-level cars used on the SS are still owned by Metra, though they are operated, stored, and maintained by NICTD. Other rolling stock purchases have been made in the following years. The SS fleet consists of electric self-propelled coaches and small number of unpowered trailer cars that are placed between cab cars in a trainset. Most SS cars are single-level, but 14 bi-level gallery cars—similar to the newest cars on the MED—entered service in 2009.

In 1992, the SS was extended 3.2 miles to the airport in South Bend. Since the 1990s, NICTD has rebuilt a number of SS stations with high-level platforms, giving passengers step-free access to train cars and reducing dwell time. At these stations, gauntlet tracks allow SS trains to align with the platform while providing freight trains the extra width needed to clear the platform edge.

NICTD completed installation of Centralized Traffic Control (CTC) signaling from Michigan City to South Bend in 2007, and recently finished a three-year effort to replace nearly 70 miles of catenary from Kensington to Michigan City. Construction is underway on a new bypass track through the Kensington Interlocking (funded by NICTD). The project will cut travel times and improve on-time performance on the SS, and add operational flexibility on the high-volume portion of the MED north of Kensington.

In 2010, NICTD was awarded TIGER II funding for a preliminary engineering study of realignment options in Michigan City, where the SS currently runs on track embedded in the middle of the roadway, which is shared with other traffic. Relocation of the terminal station at the South Bend Airport has been proposed, in order to accommodate runway expansion and cut travel times for SS passengers. NICTD is also studying several potential extension routes, including a proposed 19-mile extension from Hammond to Lowell (with an initial eight-mile segment from Hammond to Dyer) and a separate extension to Valparaiso.



# Strategic Plan Update

Metra Board of Directors April 13, 2012 Presented by Lynnette Ciavarella Senior Division Director, Strategic Capital Planning/ Grants Development

# **Elements of Strategic Planning Process**

- Set Context / Review Existing Conditions
- Establish Mission / Vision / Values
- SWOT
  - -Strengths, Weaknesses, Opportunities & Threats
- Situational Analysis
  - -Political, economic, technological, environmental, regulatory, and legal analysis
- Establish Goals & Objectives

-to bring about Mission / Vision

Metra Board, Public, & Key Stakeholders Involved Through out the Process



## Elements of Strategic Planning Process (cont.)

### Define Performance Measures

- –to evaluate ways to accomplish Goals & Objectives
- Define Strategies, Initiatives and Scenarios

   to accomplish Goals & Objectives
- Evaluate Strategies, Initiatives, & Scenarios

# –using previously developed Performance Measures

- Develop Financial Plans
- Develop Final Plan, Programs & Strategic Actions

Metra Board, Public, & Key Stakeholders Involved Through out the Process

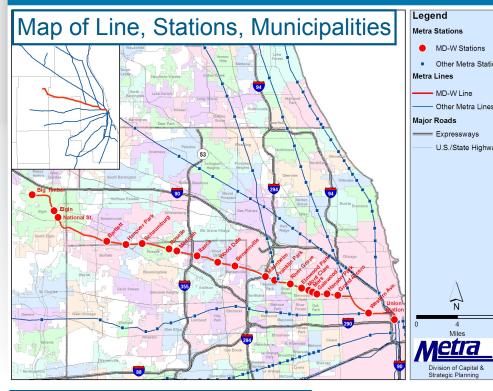


# Existing Conditions – State of the System

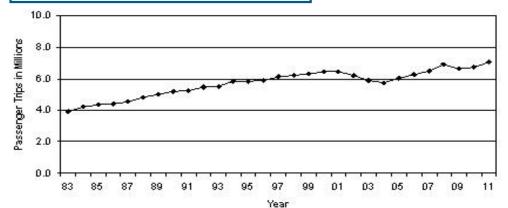
- Intro & chapters on each of Metra's 11 rail lines with separate chapters on NICTD & CBD Market
- Each rail line chapter contains:
  - Existing Service & Conditions
  - -Improvements Since the Start of Metra
  - -Present and Future Demand
  - Station & Parking Improvements
- Presented in DRAFT form to begin the Strategic Plan conversation with an accurate picture of the existing conditions in the system



# State of the System Example: MD-W (1 of 2)



### Line Level Ridership Trends



### Service & Ridership Characteristics

ions	2011 Average Trip Length	24.56 miles								
	2011 Average Fare Paid	\$3.19								
s	Source: Ridership Trends Report, December 2011									
ays	Number of Stations	22								
	Route Length	39.8 miles								
	Number of Weekday Trains	58								
	2011 On-Time Performance*	93.0%								
	*On-Time Performance Report, December 2	011								

### Station Characteristics

Station		Fare Mile Accessibility <sup>1</sup>				<b>0</b> 1-1		Time to Chicago (mins) <sup>1</sup>			
Station	Zon	Post		cessibility <sup>1</sup> Boardings			on Parking Effective	(2011) Observed			
	e	FUSC		1983 <sup>2</sup>	<b>2006</b> <sup>3</sup>	Capacity (Spaces) <sup>4</sup>	Use <sup>5</sup>	Use <sup>6</sup>	Shortest Trip	Longest Trip	
Union Station	А	0.0	Full	6,548	10,144	0	n/a	n/a	n/a	n/a	
Western Ave.7	А	2.9	Full	158	372	22	100%	100%	12	14	
Hermosa <sup>8</sup>	-			101	35					-	
Grand / Cicero <sup>8</sup>	в	6.5	Full			0	n/a	n/a	20	24	
Cragin <sup>8</sup>			-	111	37					-	
Hanson Park	в	7.7	Full	54	54	27	96%	96%	23	27	
Galewood	в	8.6	Full	202	265	135	43%	43%	22	29	
Mars	в	9.1	Full	75	110	63	60%	60%	27	30	
Mont Clare	в	9.5	Full	314	361	194	41%	41%	24	33	
Elmwood Park	С	10.2	Full	466	392	135	96%	96%	26	34	
River Grove9	С	11.4	Full	222	174	162	94%	86%	28	37	
Franklin Park	С	13.2	Full	446	461	288	74%	74%	26	41	
Mannheim	С	14.0	None	49	37	30	3%	3%	29	43	
Bensenville	D	17.2	Full	439	450	204	58%	58%	32	48	
Wood Dale	D	19.1	Full	497	639	466	80%	75%	36	52	
ltasca	E	21.1	Full	444	546	341	76%	73%	40	56	
Medinah	E	23.0	Full	194	501	397	91%	85%	43	60	
Roselle	E	23.9	Full	1,455	1,500	1,100	89%	73%	46	62	
Schaumburg	F	26.5	Full	480	1,698	1,584	77%	76%	43	6	
Hanover Park	F	28.4	Full	738	1,482	1,373	90%	78%	47	7	
Bartlett	F	30.1	Full	669	1,064	741	88%	72%	51	74	
National St.	н	36.0	Full	132	742	573	83%	83%	60	82	
Elgin	н	36.6	Full	390	476	147	99%	99%	62	84	
Big Timber Rd <sup>10</sup>	Н	39.8	Full		803	694	87%	87%	69	9	
TOTAL MD-W				14,184	22,343	8,676	82%	76%			



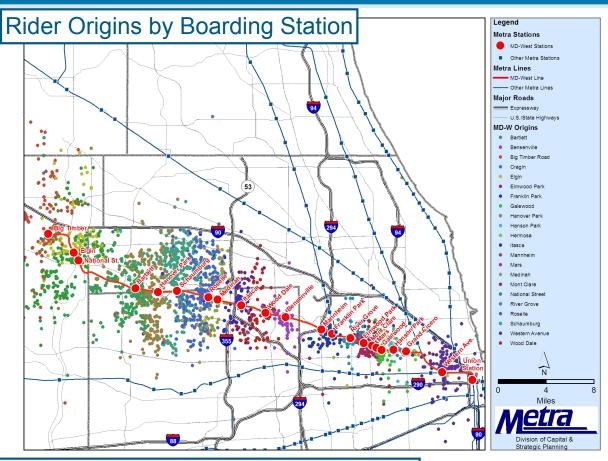


# State of the System Example: MD-W (2 of 2)

### Capital Investment History

	MD-W	System
Rolling Stock	\$192.4	\$1,856.6
Track	85.4	763.5
Structure	39.5	606.0
Signal	66.8	508.0
Electrical	1.1	74.9
Communications	2.9	36.5
Facilities	53.8	417.1
Equipment	10.1	113.4
Stations	46.7	629.5
Parking	22.0	171.4
Downtown Terminals	3.7	295.4
TOTAL	\$524.4	\$5,472.3
(in millions of dollars)		

6



### Corridor & Station Area Population, Households & Employment Growth

	Fare	Area	Рор	ulation in Z	Percent Change		
Station	Zone	Sq. Mi.	2000	2010	2040	2000 vs 2010	2010 vs 2040
Union Station, Western Ave.	А	3.6	61,046	56,719	76,351	-7.1%	34.6%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	189,353	177,894	208,390	-6.1%	17.1%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	102,989	100,834	108,921	-2.1%	8.0%
Bensenville, Wood Dale	D	21.6	49,982	47,874	62,835	-4.2%	31.3%
Itasca, Medinah, Roselle	E	39.9	124,537	125,421	147,164	0.7%	17.3%
Schaumburg, Hanover Park, Bartlett	F	68.1	207,037	212,801	243,443	2.8%	14.4%
National St, Elgin, Big Timber Rd.	Н	198.6	172,418	224,519	363,399	30.2%	61.9%
MD-W TOTAL		359.3	907,362	946,062	1,210,503	4.3%	28.0%
REGION TOTAL		3,748.0	8,091,717	8,456,762	11,717,936	4.5%	38.6%



## Timeline

- Today: Review evaluation of existing conditions – DRAFT State of the System Report
- Summer: Develop draft policy statements for Board consideration
- Summer: Begin Board, public, & key stakeholder outreach regarding Strategic Plan
- Fall: Evaluation of strategies, initiatives & scenarios
- Winter: Approve final plan



