



CHAPTER 3: TRANSPORTATION

ROADWAYS

OVERVIEW OF HARLEM AVENUE AND THE CORRIDOR STUDY AREA

Harlem Avenue is a major north-south regional route extending from the north suburb of Glenview to the south suburb of Peotone. It is classified as an “Other Principal Arterial” and falls under the jurisdiction of the Illinois Department of Transportation (IDOT). Other Principal Arterials that intersect the Corridor include:

- 95th Street (US 12/20)
- 119th Street/W. College Drive (IL83)
- 159th Street (US 6)

Between Oakton Street in Niles, and Lincoln Highway (US30) in Frankfort, Harlem Avenue is designated as a state route – Illinois Route 43 (IL43). Within the Corridor, there is no direct “Interstate” or “Expressway/Free-



Harlem Avenue is a major north-south arterial route through the Chicago region, connecting through numerous developed and undeveloped areas.

way” connection to Harlem Avenue. However, I-294 connects to 95th Street via an interchange located approximately 0.4 miles west of Harlem Avenue. In addition, I-55 is located approximately 1.5 miles north of the Corridor boundary (63rd Street) and I-80 is located 0.5 miles south of the Corridor boundary (183rd Street).

As a state route, Harlem Avenue serves a regional travel function and facilitates the safe and efficient movement of people and goods. The Corridor also provides access to a diverse mix of land-uses located across ten study communities. Direct access to commercial centers and businesses in particular is vital to the long-term success of the local economy. Harlem Avenue is also an important multi-modal regional corridor and includes Pace, Chicago Transit Authority (CTA), and Metra services. In recent years, several of the study communities have placed an increased emphasis on enhancing non-motorized travel within the Harlem Avenue Corridor. The following sections provide an overview of the Corridor transportation facilities.

ROADWAY GEOMETRICS AND INTERSECTION CHARACTERISTICS

The Corridor consists of a minimum of four through travel lanes (two lanes in each direction) with some segments expanding to six lanes to accommodate higher traffic volumes (this includes several intersection approaches that expand to six-lanes to provide additional intersection capacity). Major intersections along Harlem Avenue also include exclusive left-turn, and/or right-turn, lanes to accommodate heavy turning movements between the intersecting east-west roadways. The Corridor is also made up of roadway segments that include center turn-lanes, mountable medians, and landscaped medians. Additional discussion of median treatments is presented in the *Access Management Issues* section that follows. Posted travel speeds along Harlem Avenue range between 35 mph and 45 mph. Table 3-1 provides a breakdown of the posted speed limits.

Table 3-1: Posted Speed Limits along Harlem Avenue

Posted Speed Limit	Location
35 mph	- 63 rd Street to 65 th Street - Southwest Highway to 131 st Street
40 mph	- 65 th Street to Southwest Highway - 151 st Street to Hickory Street
45 mph	- 131 st Street to 151 st Street - Hickory Street to 183 rd Street

Source: IDOT

ACCESS MANAGEMENT ISSUES

Access management refers to managing roadways in a way that they operate safely and efficiently. In doing so, it is necessary to balance the mobility and accessibility needs of the traveling public. The traveling public has a right to expect safe and efficient roadways while owners have a right of reasonable access to their property. Roadway access management is defined in the 2003 Transportation Research Board (TRB) Access Management Manual as follows:

“... the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway. It also involves roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing of traffic signals. The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.”

– *Access Management Manual, Transportation Research Board, 2003*

Access management, while addressing problems primarily related to unmanaged vehicular access, also benefits other modes including public transportation and non-motorized users. Implementing access management improvements can increase safety for the traveling public and enhance travel flow along a roadway corridor. The TRB Access Management Manual documents the impact that excessive access points have on traffic operations, corridor travel speeds, and overall traffic safety. Generally speaking, as the number of access points per mile increase, the impact

on free flow travel speeds decrease and the potential crash exposure, for all transportation modes, increases. Traffic studies have indicated that for every ten access points per mile, the average impact on free flow travel speed is a reduction of approximately 2.5 mph.

Map 3-2: Access Points & Median Assessment displays an inventory of the existing access points and center turn-lane/median treatments within the Harlem Avenue Corridor. Figure 3-1 summarizes the southbound access points and Figure 3-2 summarizes the northbound access points within the Corridor. These figures highlight the potential impact the existing access points could have on free flow travel speeds along the Corridor. It should be noted that this is evaluation is based strictly on the number of existing access points between segments and does not factor in existing access measures (i.e., medians, right-in and right-out access points, etc.) which could help reduce the impact of the overall Corridor travel flow. This analysis provided for planning purposes only to help identify corridor segments that might be analyzed in greater detail as the study progresses.

The access points are divided into the following categories and are described as they relate to the Harlem Avenue Corridor.

- **Driveway** – a direct, uncontrolled access point to a business or property from Harlem Avenue. In some cases, properties may have several driveways or access points.
- **Right-in only** – an access point that only allows vehicles to enter a business or property directly from Harlem Avenue in the direction of travel and prohibits left-turns into the property from the opposite direction of travel. This access point cannot be used to exit a property onto Harlem Avenue.
- **Right-in, Right-out** – an access point that allows direct access to/from properties along Harlem Avenue. Right-in, right-out access is a form of access management as it prohibits left-turns across opposing traffic on Harlem Avenue thus helping to reduce the potential crash exposure associated with left-turns.
- **Right-out only** – an access point that only allows vehicles to exit a business or property directly onto Harlem Avenue and prohibits left-turns back onto Harlem Avenue. This access point cannot be used to enter a property onto Harlem Avenue.
- **Side Streets (Unsignalized or Signalized)** – an access point that connects east-west intersecting roadways. These intersections could consist of full intersections or "T"-intersections.

TRAFFIC OPERATIONS

AVERAGE DAILY TRAFFIC VOLUMES

Average Annual Daily Traffic (AADT) volumes within the Corridor range from 29,100 vehicles per day (vpd) between 127th and 135th Streets to 45,500 vpd between 63rd and 71st Streets. The AADT volumes reflect 2009 IDOT traffic counts and include a breakdown by vehicle type. The vehicle types include:

- Passenger Vehicles (21 feet and under)

Figure 3-1: Southbound Access Points

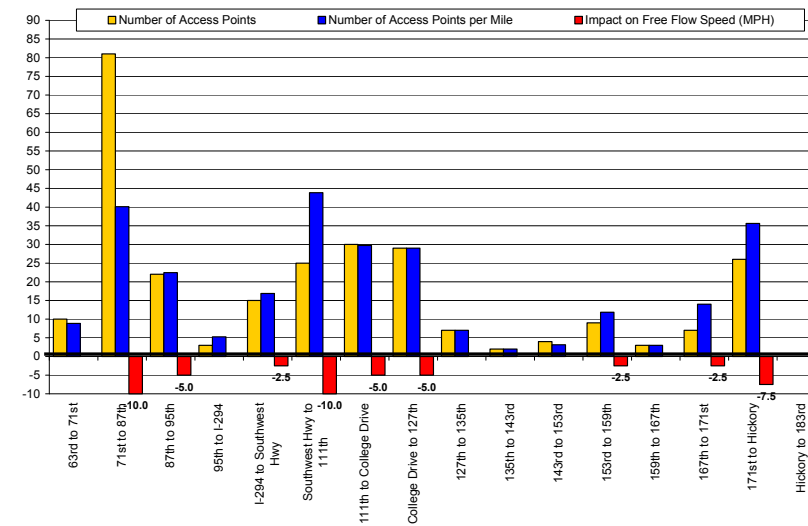


Figure 3-2: Northbound Access Points

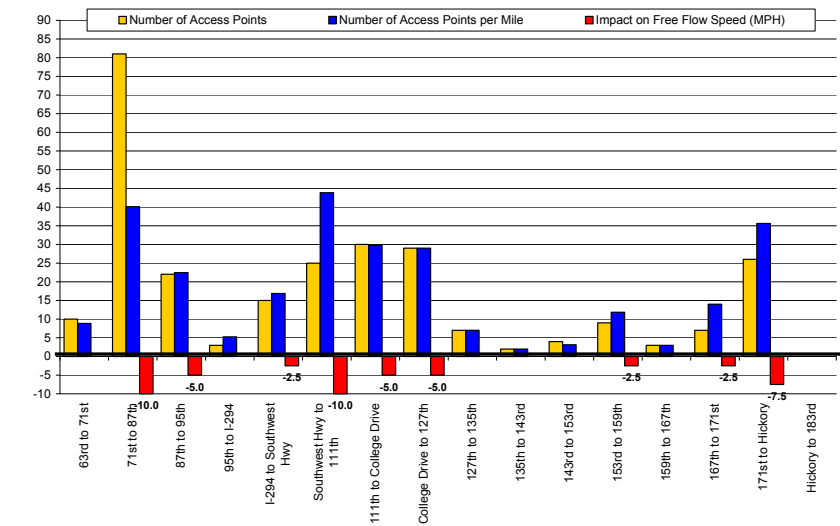
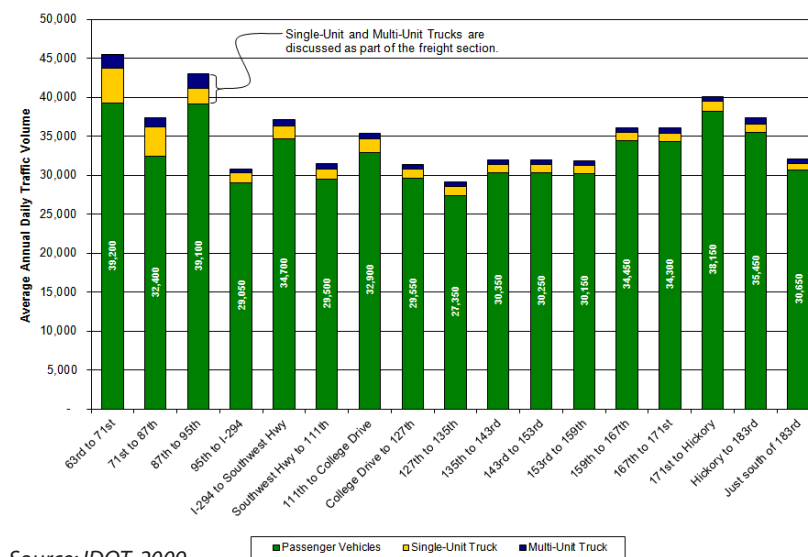


Figure 3-3: Existing AADT Volumes on Harlem Avenue



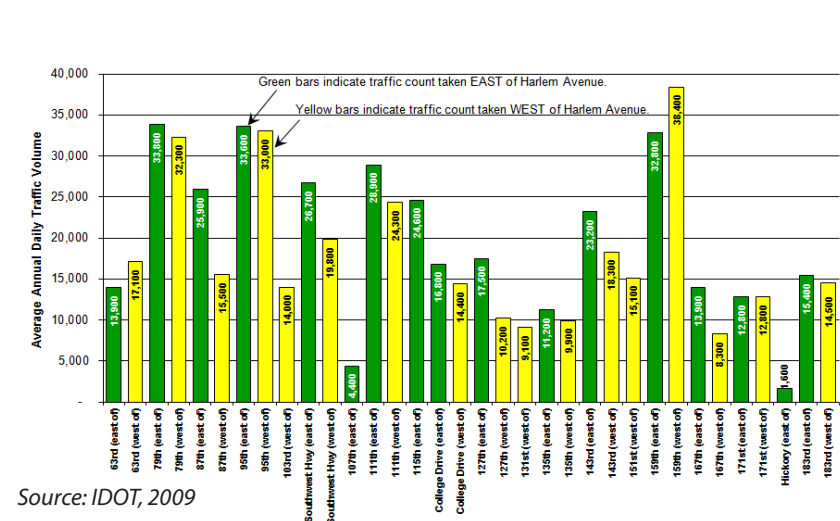
Source: IDOT, 2009

- Single-Unit Trucks (22 feet to 39 feet)
- Multi-Unit Trucks (over 39 feet)

Map 3-1 Traffic Analysis displays the AADT volumes for the Harlem Avenue Corridor and includes the percentage of heavy commercial vehicles (single-unit trucks plus multi-unit trucks).

Figure 3-3 displays further analysis of the existing AADT volumes along Harlem Avenue. The figure shows the AADT volumes sorted by roadway segment from highest traffic volume to lowest traffic volume and includes a breakdown by passenger vehicles, single-unit trucks, and multi-unit trucks. There appears to be a correlation between high traffic areas and

Figure 3-4: Existing AADT Volumes on Intersecting Roads

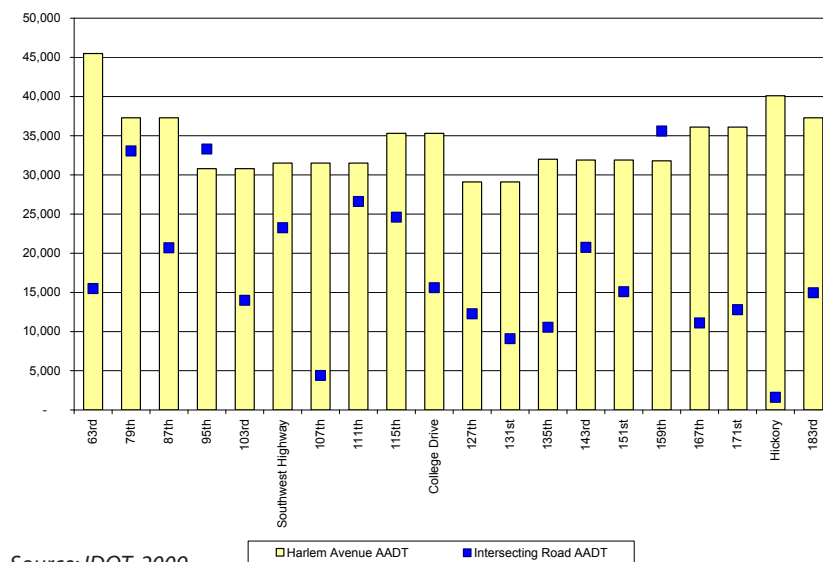


Source: IDOT, 2009

nearby tollways and expressways (I-55, I-294, I-80). Additional discussion of the single-unit and multi-unit truck AADT volumes is presented in the Freight section.

Figure 3-4 displays the AADT volumes for roadways intersecting Harlem Avenue. The majority of these counts, taken just east and west of Harlem Avenue, reflect 2006 IDOT traffic counts. The 2006 IDOT counts do not include a breakdown of vehicle classification so the following figure represents the total AADT volumes for the intersecting roadway segments. The figure shows that the intersecting roadways of 159th Street (38,400 vpd just west of Harlem), 79th Street (33,800 vpd just east of Harlem), and 95th Street (33,600 vpd just east of Harlem) have the highest AADT volumes.

Figure 3-5: Traffic on Harlem and Intersecting Roads



Source: IDOT, 2009

Figure 3-5 displays a combination of the AADT volumes along Harlem Avenue and intersecting roadways. The data, displayed north (beginning at 63rd Street) to south (183rd Street), provides a sense of how the daily traffic volumes vary within the Corridor. For this figure, an average AADT volume for intersecting roadways was calculated using the traffic counts taken just east and west of Harlem Avenue (if both count locations were available). 79th Street, 95th Street, and 159th Streets had the highest observed combined daily volumes along Harlem Avenue and the intersecting roadways.

CAPACITY ANALYSIS

The Highway Capacity Manual (HCM) sets forth the traffic engineering standard for evaluating roadway segment and intersection level of service (LOS). This is commonly referred to as capacity analysis as traffic data collected in the field is compared to theoretical capacities (based on several factors including number of lanes, truck percentages, parking, travel speeds, etc). Conventional analysis of roadway segments, and intersections, results in a particular roadway facility being rated from LOS A to LOS F. Similar to a grading system, each level describes varying traffic conditions with LOS A reflecting optimal operational performance which is normally characterized by light traffic volumes and uninterrupted travel flow. LOS F generally reflects very poor traffic conditions and is normally characterized by high traffic volumes, traffic congestion, extensive delays, and long vehicular queues. LOS F operations at signalized intersections are sometimes characterized by motorists having to wait more than one traffic signal cycle to complete their desired movement. Generally speaking, LOS D is considered an acceptable level of service for roadway segments and intersections within urbanized areas.

At the time this analysis of existing conditions in the Corridor, TRB (the agency that oversees the HCM) is set to release a new level of service methodology. The TRB, having recognized the need to better incorporate transit, pedestrian, and bicyclists in the level of service calculations, is introducing a new multi-modal level of service methodology. Since 2000 LOS measures will soon be outdated, more detailed capacity analysis for the Corridor will be completed once the new LOS methodology has been released (during the transportation planning phase of this project).

TRAFFIC SAFETY

High crash locations were identified within the Harlem Avenue Corridor using the most current crash data (2005 – 2007). Typically a three-year time period is used to evaluate intersection and roadway safety conditions. High crash locations, as defined by the Federal Highway Administration (FHWA) 5% High Accident Locations Report, can be used to identify facilities that may require short-term and/or long-term improvements. Map 3-1: Traffic Analysis displays the high intersection and segment crash locations within the Corridor. Table 3-2 further breaks down the high crash locations by crash type. The intersection and segment crash data will be considered in the evaluation of future transportation improvements within the corridor.

In reviewing the crash data, the crash types are generally consistent with common crashes observed at large intersections with heavy traffic volumes. For example, the intersection at 79th Street has the highest observed AADT volume when considering volumes along both Harlem Avenue (37,300 vpd) and 79th Street (an average of 33,050). The other intersecting roadways were also observed to have some of the highest AADT volumes within the study area. While high traffic volumes alone do not necessarily explain the cause of crashes, it is likely that the high volume intersections, with heavy turning movements, are more likely to have a higher crash exposure.

The data also shows that one roadway segment, between 143rd Street and 159th Street, is identified as a high crash location. Three crashes involved rear end/sideswipe crashes and of the six reported crashes there was one fatality. Given the relatively long length of this segment, it is difficult to pinpoint potential causes. One possible contributing factor could be the changing roadway characteristic of Harlem Avenue between 131st Street and 151st Street. This segment of Harlem Avenue cuts through a forest preserve and as a result has limited access points which could lead to motorists exceeding the posted travel speed of 45 mph. This segment also lacks roadway lighting except at intersections.

PARKING

On-street parking is prohibited throughout the Harlem Avenue Corridor. Parking is generally provided via private parking lots accessed directly from Harlem Avenue and/or nearby side streets. One of the challenges that the Corridor faces is the need to maintain access to local businesses from Harlem Avenue, while recognizing that excessive access connecting directly to Harlem Avenue increases potential traffic conflicts and impedes overall travel flow. Details regarding the corridor access issues, which directly relate to corridor parking, were discussed in the *Access Management Issues* section.



One unique approach to parking management is found in the off-street parking between 122nd Street and 124th Street in Palos Heights (see the image above). This two block stretch includes parking in front of the commercial properties and narrow landscaped medians that separate the parking lot and Harlem Avenue traffic. While access to the off-street parking is limited from Harlem Avenue, there are closely spaced entry/exit points on the intersecting side streets. Given the close spacing to Harlem Avenue, these parking lots could impact Corridor traffic operations and reduce travel flow along the Corridor.

Table 3-2: High Crash Locations (2005 - 2007)

Location	Total Crashes	Fatality	Incapacitating Injury	Non-incapacitating Injury
<i>Intersection</i>				
78th	17	0	4	13
79th	34	1	9	24
Southwest Hwy.	42	0	8	34
111th	36	0	8	28
143rd	36	0	9	27
<i>Segment</i>				
143rd to 159th	6	1	1	4

Source: IDOT

FREIGHT

FREIGHT GENERATORS

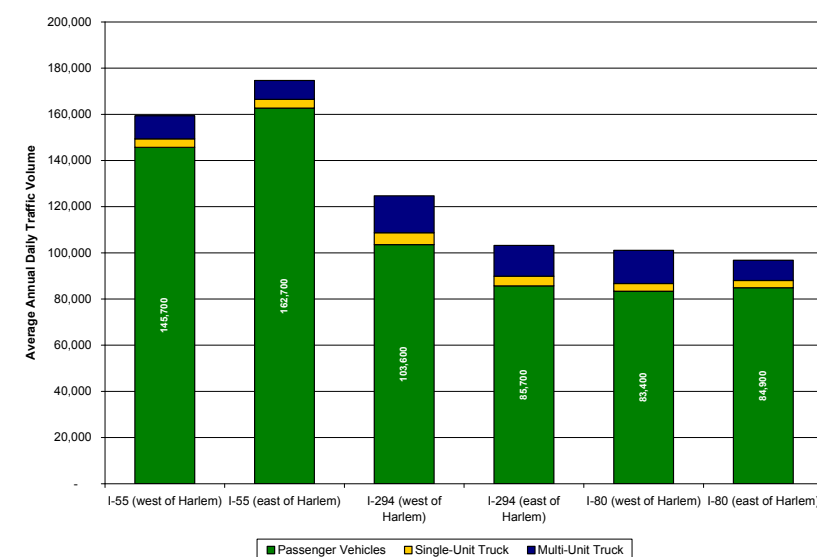
The Corridor includes several trucking/freight facilities and is located in close proximity to three major Interstates (I-55, I-294, and I-80). While I-294 and I-80 directly intersect the Corridor, I-55 is located approximately 1.5 miles north of the northern study boundary (63rd Street). Figure 3-6 displays the AADT volumes on these regional transportation facilities.

While freight terminals are located throughout the region, the most prominent freight facilities within the Corridor are generally located in the northern portion. Some of the more significant freight generators include the following:

- Con-Way Facility, Harlem and 100th Place (Bridgeview)
- FedEx Ground Facility, 75th Street east of Sayre (Bedford Park)
- UPS Freight Facility, 73rd Street east of Sayre (Bedford Park)
- CSX Intermodal Facility, 71st Street east of Sayre (Bedford Park)

In addition, there are numerous smaller warehousing and logistics companies located in close proximity to the Harlem Avenue Corridor, particularly on Bedford Park's 65th Street Corridor and in the areas between 71st and 77th Streets. One of the biggest freight facilities was the Yellow Freight site in Chicago Ridge, but that site is now vacant.

Figure 3-6: Interstate AADT Volumes



Source: IDOT, 2009

TRAFFIC IMPLICATIONS

Truck traffic, or heavy commercial vehicles (HCV), can significantly impact intersection and roadway traffic operations within a corridor. The Highway Capacity Manual (HCM) estimates that one truck is equivalent to at least three passenger vehicles and sometimes more depending on specific roadway conditions. In addition to impacting overall corridor traffic flow, high truck traffic can also negatively impact transit operations and non-motorized travel. Truck impacts will be further considered in evaluating potential transportation improvements within the Corridor.

HEAVY COMMERCIAL VEHICLE VOLUMES

Figure 3-7 displays the HCV volumes within the Harlem Avenue corridor. The HCV counts are broken down by single-unit (22 feet to 39 feet) and multi-unit (over 40 feet) counts.

POINTS OF CONFLICT

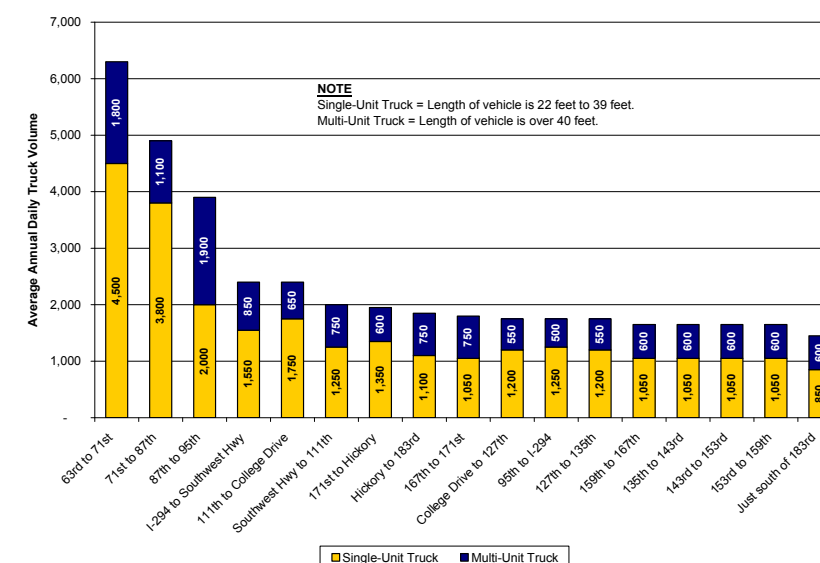
The AADT truck volumes show the highest concentration of HCV is located at the northern end of the Corridor between 63rd and 71st Streets. The truck volume at this location is 6,300 vpd and represents nearly 14% of the daily traffic along this segment of Harlem Avenue. Between 71st and 87th Streets, truck volumes drop to 4,900 vpd but trucks continue to makeup approximately 13% of the daily traffic volume. Between 87th and 95th Streets, truck volumes drop to 3,900 vpd which represents approximately 9% of the daily traffic volumes.

Recent access management improvements implemented in the north section of the Corridor will benefit traffic flow. However, intersection operations will continue to be impacted by heavy truck traffic. Bedford Park has raised concerns regarding traffic congestion, in particular truck traffic, at the intersections of 65th and 71st Streets. These east-west roads connect to thriving manufacturing and distribution/light industrial facilities.

Other concerns are possible multi-modal conflicts near Toyota Park. Special events often result in an increase in transit riders and pedestrians which can conflict with high levels of truck traffic. However, it should be noted that the timing of special events are likely to occur in the evening and on weekends when truck movements may be lower.

As shown in Figure 3-7, the heavy concentration of truck traffic is located in the northern section of the Corridor. Traveling south along the corridor, the truck volumes decline toward 95th Street. Between 95th Street and College Drive, the truck volumes have a small spike back over 2,000 trucks per day. South of 127th Street, HCV volumes remain fairly consistent throughout the southern portion of the Corridor.

Figure 3-7: Heavy Commercial Vehicle AADT Volumes



Source: IDOT, 2009

TRANSIT

OVERVIEW OF SERVICES

The Harlem Avenue corridor includes several public transportation services and facilities. Pace, CTA, and Metra all provide service within, or in close proximity, to the Corridor. Map 3-3: Transit Service (at the end of this Chapter) displays the current transit services and their coverage area (1/2 mile radius around each bus or rail stop) within the Corridor. The following sections provide additional details regarding each service.

PACE BUS

Pace provides a grid of bus transit service throughout the Corridor via six regular service fixed routes which include:

- **356** – Harvey-Homewood-Tinley Park
- **364** – 159th St.
- **379** – Midway-Orland Square
- **381** – 95th St.
- **384** – Narragansett-Ridgeland
- **385** – 87th/111th/127th
- **386** – South Harlem

All of these services operate Sunday through Saturday, with the exception of Route 385 which operates only on weekdays. Table 3-3 provides an overview of Pace fixed routes operating within the Harlem Avenue corridor. Route 386 travels the full length of the Harlem Avenue corridor study area while the other routes are generally east-west routes that intersect Harlem Avenue at a few locations. Stop locations for most of these routes are considered “Flag Stops”, meaning the vehicles will stop at any intersection deemed safe. Route 364 is “Posted Stop” only meaning the vehicle

Table 3-3: Pace Routes

Route	Name	Days of Service	Average Weekday Frequency	Average Weekday Ridership	Average Harlem Ave. Ridership	Description
356	Harvey-Homewood-Tinley Park	M-F, Sa, Su	30 min	545	12	Service between Harvey Transp. Ctr. And Tinley Park Med. Ctr. Via 183 rd , Dixie Hwy., and 159 th St.
364	159 th St.	M-F, Sa, Su	30 min	2,528	61	Service between Orland Square Mall east to Hammond Transit Center
379	Midway-Orland Square	M-F, Sa, Su	30 min	1,568	113	Service between CTA Midway/ Orange Line and Orland Square via Cicero, 79 th , 88 th , and LaGrange Rd.
381	95 th St.	M-F, Sa, Su	15 min	3,033	0	Service between Moraine College and CTA Red Line/95 th St. station
384	Narragansett – Ridgeland	M-F, Sa, Su	30 min	529	n/a	Service between CTA Midway/ Orange Line and 111 th /Harlem Ave.
385	87 th / 111 th / 127 th	M-F	60 min	787	45	Service between CTA Midway/ Orange Line and Rivercrest Shopping Center
386	South Harlem	M-F, Sa	30 min	1,047	548	Service between CTA Midway/ Orange Line and Tinley Park Mental Health Center

Source: Pace, 2010

will only stop at designated stops indicated by a Pace sign. Route 386 operates as flag stops along Harlem Ave. and posted stops along 63rd St.

In addition to the routes listed, there are other Pace routes that connect to points in the Corridor, such as Route 307 (which travels Harlem Avenue north of 63rd) and Route 395 (which connects to the UPS facility in Hodgkins).

RIDERSHIP

As shown in Table 3-3, Route 381 produces the highest ridership across the total route, while Route 386, as would be expected, produces the highest ridership along Harlem Avenue. Both routes 381 and 364 are in Pace’s top five routes system-wide based on ridership.

Pace also provided stop level data. The most active stop locations along Harlem Avenue (including 5th District Court for Route 386) include:

- 79th Street
- 159th Street
- 5th District Courthouse
- 87th Street
- 63rd Street

SOUTH COOK COUNTY – WILL COUNTY INITIATIVE

Pace recently completed the South Cook County–Will County service restructuring initiative. Goals for the restructuring initiative included aligning Pace service with current travel needs and demographics, improving service reliability, and developing new transit options beyond fixed bus routes. Service changes were implemented in 2009. The following route changes impact the Harlem Avenue Corridor:

- **Route 356** – New route connecting Tinley Park to Harvey, travel-



Pace bus service in the Corridor is primarily provided by Route 386, which travels along Harlem and Oak Park Avenues through the Corridor communities. Pace has recently explored upgrading the service and customer facilities along the route as part of its Arterial Rapid Transit initiative (see sidebar, page 3-6).

ing along 183rd Street.

- **Route 379** – Extended south of its previous routing to replace Route 386 and now serves Orland Square. Trip frequency increased from every 60 minutes to every 30 minutes Saturday service was extended from 7:30 p.m. to 11:00 p.m. and Sunday service now starts at 8:00 a.m. instead of 9:30 a.m.
- **Route 381** – Service along 95th Street in Hickory Hills was restored on certain weekday trips. Service was added to/from the Metra Oak Lawn station on the Southwest Service Line. More frequent midday service was added.
- **Route 384** – Sunday trips were extended to 111th/Ridgeland. Routing south of Worth through Palos Heights and Orland Park was discontinued.
- **Route 386** – Route was extended south of 131st Street to the Tinley Park Mental Health Center, replacing Route 354. Routing along 131st Street was discontinued. Weekday trips run earlier in the morning and later in the evening. Saturday trips start earlier. Weekday frequency was increased from 60 minutes to 30 minutes.

TOYOTA PARK STATION

Pace has plans to construct a new transit center at Toyota Park. Currently, Pace’s Toyota Park Express route serves this location but the current drop-off and pick-up location is on an unpaved area of the parking lot, making it very inconvenient for Pace passengers. Pace’s Route 386 Harlem also makes a stop just outside the stadium grounds.

The project involves the design and construction of a transit facility within the Toyota Park stadium property and is located on land owned by the Village of Bridgeview. The transit facility would include bus boarding locations for the Toyota Park Express and Harlem Avenue services along with a passenger waiting area. The transit center would also serve as a transfer location between Routes 386 and 307, relocating the current transfer point from 63rd Street and Harlem Avenue. In the future, this center will serve

PACE ART PLANNING

An important component of Pace's strategic plan, Vision 2020, is to strengthen the service on key travel corridors in its service area. In the plan, line-haul routes on these corridors will provide the backbone of a high-speed inter-suburban transit network connecting critical transportation centers. Pace has identified 24 corridors throughout northeastern Illinois for development of an Arterial Bus Rapid Transit (ART) system specifically tailored to the characteristics of Pace's transit market and suburban service area. ART includes a combination of Transit Signal Priority (TSP) and roadway improvements, including queue jump lanes, along arterial routes.

Six corridors have been selected by Pace to be implemented within a ten year time frame, including the Harlem Avenue Corridor. Other corridors include Milwaukee, Dempster, Oak Brook (Cermak/22nd), 95th Street and Halsted Street.

Based on ongoing studies in the region, and regional plans for the next ten years, Pace determined that the Harlem Avenue Corridor would be more likely to receive regional institutional support in the second five years of the ten-year implementation time frame.

Pace has selected the following preliminary characteristics for the ART:

- Running way will be on arterial streets, operation in mixed traffic. Queue jump lanes could be implemented where applicable.
- Vehicles will be a sub-fleet of low-floor standard 40-foot vehicles that will be branded.
- Stations will be branded and specifically designed for the ART. Shelters will be owned by Pace and will be electrified for heating, lighting and to provide real-time bus arrival information. Station spacing and location will be defined during service planning.
- The fare collection system would be mostly on-board augmented with off-board fare collection at peak times and at peak volume stations. The fare structure will be defined during service planning.
- Transit Signal Priority and Real Time Information systems with LED signs at stations.
- Branding will be applied to the vehicles, stations, specialty bus stop poles, and drivers' uniform. Flags and signs may mark the route in between stations. A specialty marketing campaign could be employed to generate public understanding and support for the system.
- Operation will be supported by supervisors dedicated to the ART service. Dynamic dispatch has the potential to improve transfer connections.

as a park-n-ride facility for an express bus route to Midway Airport and connect to the boarding location for a forthcoming Arterial Bus Rapid Transit (ART) project along Harlem Avenue (see sidebar).

The Village of Bridgeview has been very supportive of establishing a Transit Facility at Toyota Park and has agreed to dedicate right-of-way for the transit center and provide preliminary architectural and civil engineering design service for plans and site development. At this time, funding has been secured for administrative work and discussions are ongoing between Pace and the Village of Bridgeview to finalize agreements, project scope, planning and construction schedules.

EXPRESS SERVICE

Pace does not currently operate express service in the Corridor (defined as service linking a defined origin and destination with limited intermediate stops and typically run during peak hours). Pace is contemplating express service along I-80, featuring a stop in Tinley Park at Harlem Avenue as a component of Vision 2020.

TINLEY PARK MENTAL HEALTH CENTER STATION

The implementation of I-80 express service as well as the long-term potential for redevelopment around the existing Mental Health Center, may necessitate shifting the current transfer location for service to a new facility serving the Harlem ART, express bus service, and other local community services.

ADDITIONAL PACE SERVICES (MUNICIPAL SHUTTLE, DIAL-A-RIDE, VANPOOL)

The City of Palos Heights offers will-call Pace Municipal Vehicle Service Mondays through Saturdays, with service during the daytime Monday through Wednesday, and running through late evening Thursday through Saturday. The service is available to all residents of Palos Heights and Trinity Christian College (TCC) students for rides between a residence and a commercial, office, or institutional destination within Palos Heights.

In addition, Pace's municipal partners operate non-fixed route (paratransit) service utilizing vans and small buses to provide pre-arranged trips to and from specific locations within each designated Dial-a-Ride service area to individuals deemed eligible based on local requirements, usually elderly and/or disabled. The local municipal dial-a-ride services operating within the Harlem Avenue Corridor include Orland Park, Tinley Park, Palos Township, Worth Township and Lyons Townships.

Pace also provides both vanpool and rideshare services within the Harlem Corridor.

- The Pace Vanpool Incentive Program (VIP) is designed to offer

Table 3-4: Metra Ridership

Station	Inbound		Outbound		All Trains	
	on	off	on	off	on	off
Worth	443	1	2	450	445	451
Palos Hts.	280	1	1	262	281	263
Tinley Park	1,214	14	18	1,216	1,232	1,230
80 th Ave.	2,448	7	11	2,315	2,459	2,322

Source: Metra Boarding & Alighting Counts, 2006 (note: numbers are one-day counts and not average figures)

Table 3-5: Access to Metra Stations

Station	Walk	Bike	Drive Alone	Carpool (D+P)	Dropped Off	Bus	Other
Worth	15%	0%	72%	4%	8%	0%	0%
Palos Heights	0%	0%	85%	4%	12%	0%	0%
Tinley Park	16%	1%	61%	5%	16%	0%	1%
80 th Ave.	6%	0%	80%	4%	9%	0%	0%

Source: Metra Boarding & Alighting Counts, 2006

commuters a convenient alternative to driving alone. Employees that live and work near each other can get into a group and utilize our vans to deliver them to and from work.

- Pace RideShare program is supported through www.rideshare.com. This website is a free matching service that connects commuters who are interested in forming a carpool or vanpool in and around Northeastern Illinois.

METRA

Metra service is provided within the Harlem Avenue Corridor by four stations along the SouthWest Service (SWS) and Rock Island District (RID) Lines:

- Worth – SWS
- Palos Heights – SWS
- Tinley Park – RID
- Tinley Park (80th Avenue) – RID

Two additional stations are located near the Corridor, although not included in this analysis – the Chicago Ridge Station (SWS) and the Summit Station (Heritage Corridor). The Chicago Ridge station is not included as there are two nearer stations on this line. The Summit station is not included as Metra data shows that it doesn't attract many commuters from the Corridor.

CORRIDOR RIDERSHIP AND MODE OF ACCESS

Table 3-4 shows that the four Metra stations generated an average of 4,417 weekday boardings in 2006. The two Tinley Park stations generated 83% of this ridership.

Table 3-5 shows that most Metra commuters drove alone and parked at the stations (typically 70% to 80%, with the Tinley Park station slightly lower at 61%). Most stations had approximately 10% to 15% of commuters walking to the stations and about the same amount that were

Table 3-6: Parking at Metra Stations

Station	Parking Capacity	Usage	Effective % Use
Worth	468	292	62%
Palos Heights	502	185	37%
Tinley Park	759	731	96%
80 th Ave.	2172	1674	78%

Source: Metra, 2009



The Worth Station on Metra's Southwest Service line is located just east of Harlem Avenue and north of 111th Street.



The Tinley Park station on Metra's Rock Island District line is located east of Harlem Avenue along Oak Park Avenue in downtown Tinley Park.

dropped off. Based on the Metra Mode of Access data, no commuters rode the bus to access these four stations.

Table 3-6 shows that commuter parking lots provided 3,901 parking spaces in 2009. At the time, nearly three-fourths of the parking spaces were occupied, and the Tinley Park station had the highest utilization at 96% while Palos Heights had the lowest utilization at 37%.

WORTH STATION

The Worth Station on the SWS Line is located just east of Harlem, north of 111th Street. Based on Metra data, this station generated 445 average weekday boardings in 2006. The largest number of commuters boarded before 8:30 a.m., and the largest number alighted after 5 p.m. A majority of commuters at this station came from Worth (36%), Palos Hills (21%), and Palos Heights (14%). The largest mode of access was drive alone (72%), which was higher than the SWS line average (65%) and the Metra system average (54%). Walk access was 15%, similar to the SWS line average. A total of 468 parking spaces were provided, with 62% occupied.

PALOS HEIGHTS STATION

The Palos Heights Station on the SWS Line is located west of Harlem Avenue off of Southwest Highway. Based on Metra data, this station generated 281 average weekday boardings in 2006. The largest number of commuters boarded before 8:30 a.m., and the largest number alighted between after 5 p.m. A majority of commuters came from Palos Hills (39%), Palos Heights (20%), and Orland Park (11%). Given the station location, and surrounding area, the mode of access was predominately drive alone (85%) and dropped-off (12%). No commuters indicated they access this station by walking or by bus. A total of 502 parking spaces were provided, with 185 (37%) occupied.

TINLEY PARK STATION

The RID Metra Station in downtown Tinley Park is located east of Harlem Avenue near Oak Park Avenue and 173rd Street. Based on Metra data, this station generated 1,232 average weekday boardings in 2006. The largest number of commuters boarded before 9 a.m., while the largest number

alighted after 4:30 p.m. The majority of commuters came from Tinley Park (68%). The largest mode of access was drive alone (61%), which was slightly higher than the RID Line average (56%) and the Metra system average (54%). Walk access was 16% which is lower than the RID line average (25%) and the Metra system average (21%). Commuters dropped-off made up 16%, which was slightly higher than the RID line average (11%) and the Metra system average (14%). Parking at the Tinley Park station was approaching capacity with a total of 759 parking spaces provided and 731 (96%) occupied.

TINLEY PARK - 80TH AVENUE STATION

The 80th Avenue Metra Station in Tinley Park along the RID Line is located west of Harlem Avenue near Illinois Route 83. Based on Metra data, this station generated 2,459 average weekday boardings in 2006. The largest number of commuters boarded before 9 a.m., while the largest number alighted after 3:30 p.m. The majority of commuters come from Tinley Park (53%), Orland Park (18%), and Frankfort (9%). The largest mode of access was drive alone (80%), which is considerably higher than the RID Line average (56%) and the Metra system average (54%). Walk access was 6% which was much lower than the RID line average (25%) and the Metra system average (21%). Commuters dropped-off made up 9%, lower than the RID line average (11%) and the Metra system average (14%). This station had one of the largest parking supplies in the Metra system with a total of 2,172 parking spaces provided and 1,694 (78%) occupied.

CTA Bus

CTA provides fixed route transit service at the northern end of the Corridor via three routes – 62, 62H, and 63W. Characteristics of each route are presented in Table 3-7. All three routes terminate at the very northern end of the study area, near Harlem Avenue and 63rd Street, and the 62H and 63W routes each provide a connection to Midway Airport and CTA Orange Line service. Weekday ridership data for 2008 and 2009 is also presented in the table. Stop level data for Harlem Avenue was not available from the CTA.

Table 3-7: CTA Bus Routes

Route	Days of Service	Average Weekday Frequency	Average Weekday Ridership	Description
62 Archer	M-F, Sa, Su	10 min. peak/15 min. off peak (20 minutes nights/Sat.)	13,315	Service between downtown Chicago and Archer/Harlem via Archer Ave.
62H Archer/Harlem	M-F, Sa	15 min peak (30 min midday/Sat.)	2,437	Service between CTA Midway/ Orange Line and Archer/63rd via Archer, Cicero, Harlem
63W West 63rd	M-F, Sa, Su	30 min	2,024	Service between CTA Midway/ Orange Line and Archer/Harlem via 63 rd St.

Source: Chicago Transit Authority, 2010

Non-Motorized

OVERVIEW OF NON-MOTORIZED FACILITIES

The roadway design and diverse land-uses of the Corridor are presently geared toward the movement of vehicles (both passenger vehicles and trucks). Businesses and commercial centers located within these communities are generally accessed via passenger vehicles, and walking and bicycling have generally been viewed as a secondary mode of access in the Corridor.

Many segments along Harlem Avenue currently do not include sidewalks. Some communities, including Palos Heights and Bridgeview, have recently constructed new sidewalks to eliminate some of the existing gaps. This on-going effort is important from many perspectives as the development of the sidewalk network supports access to area businesses and promotes the use of alternative transportation modes, including public transportation services within the Corridor.

Bicycling within the Corridor is very difficult. While regional trails intersect Harlem Avenue, the Corridor itself is not compatible with on-road bicycling. In addition, the previously mentioned sidewalk improvements along Harlem Avenue do not benefit bicyclists as these facilities are not designed to accommodate multi-uses. Even if some segments are able to accommodate bicyclists, the gaps that exist along Harlem Avenue would require bicyclists to ride in the Harlem Avenue travel lanes.

Map 3-4: Non-Motorized Accessibility at the end of this Chapter displays the existing non-motorized facilities within the corridor. Specifically, regional trails that intersect the corridor are displayed along with existing gaps in the sidewalk network along Harlem Avenue. The following provides a summary of the regional trail facilities that intersect the Corridor.

CALUMET-SAG REGIONAL TRAIL

The Calumet-Sag Trail will be a multi-use path running almost entirely along the banks of the Calumet-Sag Channel and Calumet River. Portions of the trail are planned to open by 2012 and will be approximately 32 miles in length connecting Lemont, IL, in the west, to Burnham, IL in the east. In total, the trail will connect 8 communities and will connect to regional and local trails, bus and rail systems, retail areas, parks, forest preserves, marinas, and nature centers. The trail intersects the Corridor along the Calumet-Sag Channel, just on the southern bank at 128th Street.

COOK COUNTY FOREST PRESERVES

The Burr Oak Woods and Tinley Creek Woods Preserves are located between 131st Street and 151st Street. Harlem Avenue bisects the forest preserves for approximately 2.5 miles. Trails that wind through the forest preserves intersect Harlem Avenue with trail crossings at 131st Street and 143rd Street. A non-motorized underpass at Harlem Avenue exists approximately 0.4 miles north of 151st Street.

LOCAL TRAIL FACILITIES AND PLANNING

Several municipalities have developed trail systems that offer residents both recreational opportunities and alternative means of transportation.

- Bridgeview has developed a trail system one-half mile west of Harlem Avenue within a ComEd right of way. A connection to the bike trail system in Oak Lawn is proposed at 93rd Street.
- Oak Lawn has been aggressively pursuing a trail system over the last twelve years, with the goal of connecting to Bridgeview, and, through a potential connection with Chicago Ridge, ultimately linking the Oak Lawn system with the regional Calumet-Sag Trail.
- Palos Heights has just engaged the Active Transportation Alliance (ATA) to prepare a master plan for non-motorized pathway alignment throughout the community. Sections of non-motorized pathways already exist in Lake Katherine and the two-mile stretch of Palos Heights' continuation of the Tinley Creek Bicycle Trail skirts the edge of Community Park. At present, the Tinley Creek Trail is more than 13-miles in length. When complete, it will stretch for 33 miles.
- In Tinley Park, on the west side of Harlem Avenue in the Hilbert Siemsen Meadow, a series of mown loop trails are carved through the grassland-dominated open space. Tinley Park has set its eyes on a more comprehensive network of trails that will connect Downtown to the regional trails, the 80th Avenue train station, and the Convention Center and Music Amphitheatre.

POINTS OF CONFLICT

Non-motorized users face numerous challenges within the Corridor. The existing sidewalk gaps make walking and bicycling difficult at many locations. In some cases, even where sidewalks exist, walking can still be a challenge as the sidewalks are often narrow, have obstructions (i.e., utility poles, signs, etc.), or are located next to the Harlem Avenue travel lanes which have heavy traffic volumes and high travel speeds. In many cases, the Corridor right-of-way restricts, or prohibits, any significant improvements that would enhance walking and bicycling. The heavy traffic volumes and high truck percentages, in particular in the northern section of Harlem Avenue, are also not conducive to non-motorized users. However, recent access management and sidewalk improvements, such as those in Bridgeview, benefit non-motorized users.

Another significant challenge that exists is non-motorized accommodations at major corridor intersections. Most of the major intersections within the Corridor widen to six through lanes, and include exclusive turn-lanes, to accommodate heavy traffic volumes. From a non-motorized perspective, these large intersections are problematic as pedestrians have numerous travel lanes to cross, have heavy conflicting left-turn movements, have a short amount of time to cross, and often do not have sufficient median refuge if they are unable to cross the street during the appropriate signal timing phase. The intersections of 95th Street, 159th Street, and 183rd Street are primary examples within the Corridor.



Sidewalks are not consistent throughout the Harlem Avenue Corridor, as there are significant gaps in the sidewalk network.



There are significant natural resources and trails along the Corridor, particularly at the Forest Preserve District areas, but Harlem Avenue can often serve as a barrier to non-motorized access.