ILLINOIS 43 STUDY

Harlem Avenue
between 63rd and 65th

PURPOSE AND NEED

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1.0 INTRODUCTION

1.1 Project Background

CREATE Program

The CREATE (Chicago Region Environmental and Transportation Efficiency) Program, initiated in 2003, is a first-of-its kind multi-modal public-private partnership to improve the rail and roadway transportation network within the Chicago region. A substantial portion of freight and passenger rail traffic in the Chicago region suffers from congestion, low operating speeds, and service delays due to traffic demands that exceed the capacity of the regional rail system. The overarching goals of the CREATE Program are to:

- Reduce rail and motorist congestion;
- Improve the efficiency and reliability of freight and passenger rail service;
- Enhance public safety through the reduction of rail-highway conflict points;
- Promote economic development and job creation;
- Improve air quality; and
- Reduce noise from idling or slow- moving trains throughout the Chicago metropolitan area.

The CREATE Program aims to address existing and future rail system congestion issues that bring adverse effects to the national economy and the transportation system. The CREATE Program currently consists of 70 individual projects designed to improve the movement of passengers and freight and to reduce delays to travelers on the roadway system:

- 36 freight railroad projects,
- 6 passenger projects,
- 25 highway grade separation projects, and
- 3 “other” projects

The CREATE Program Study Area and Individual Projects are depicted in Figure 1.

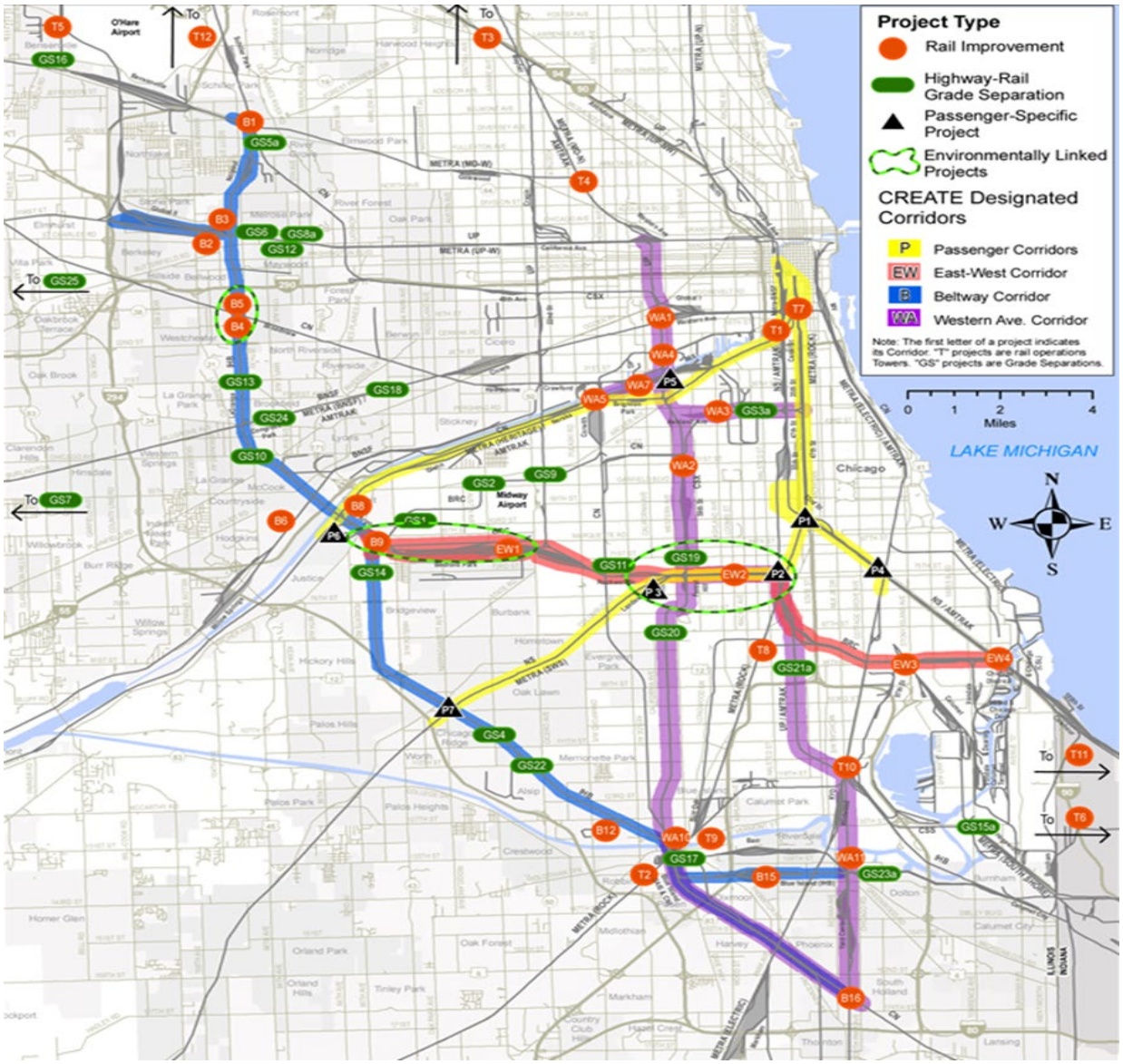
The Critical Cargo, a Regional Freight Action Agenda by the Business Leaders for Transportation, April 2002 report lists the crossings at 63rd and 65th Streets as “crossings that interfere with rail efficiency in the region”. One of the CREATE Program’s primary operational goals is to “separate heavy traffic passenger and freight operations at critical locations, especially when they cross each other at grade, to reduce as much as possible passenger and freight train delays during all periods of the day, but especially during the 3-4 hours of the morning and evening rush hours.” CREATE Projects identified as rail grade separation projects begin with “GS.”

The at-grade crossings of the Belt Railway Company of Chicago (BRC) between 63rd and 65th Streets in the vicinity of IL 43 (Harlem Avenue) is one the twenty-five (25) proposed CREATE grade separation projects and is identified as CREATE Project GS1 (Figure 2). During feasibility

analysis and preliminary screening for the CREATE GS1 Project, existing conditions in the immediate project area verified that:

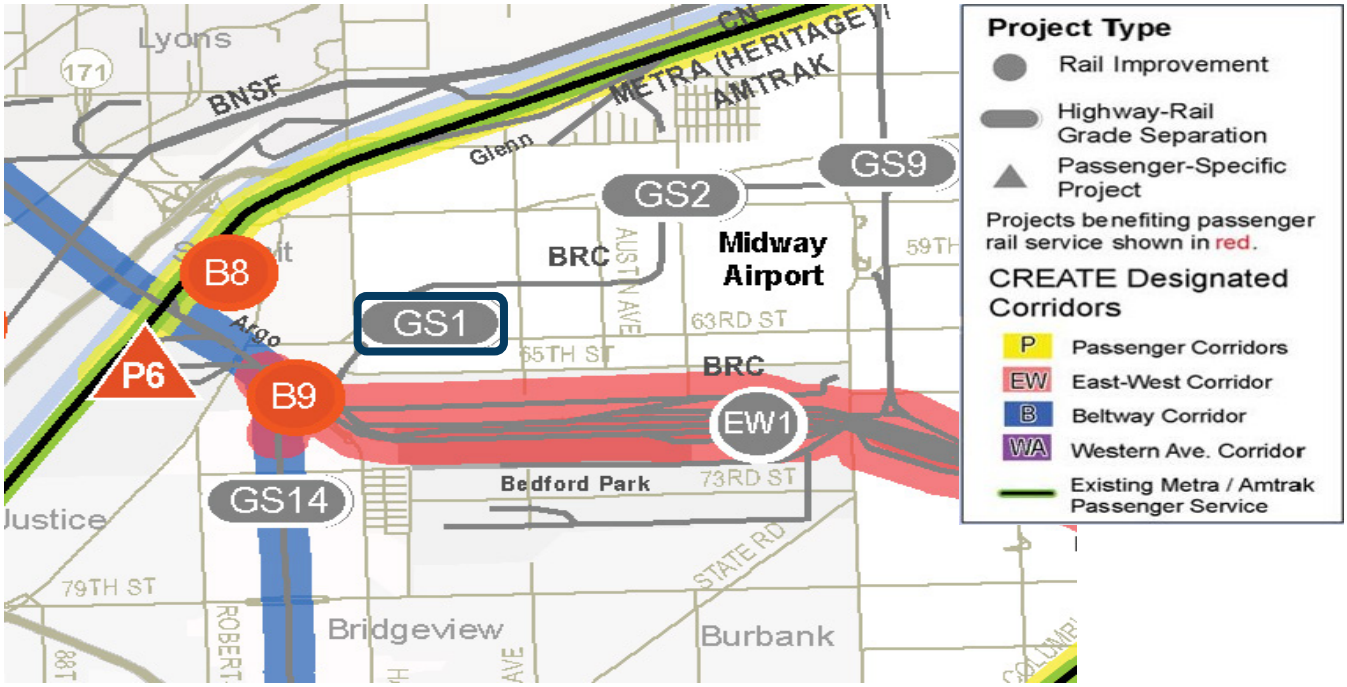
- 15,000 vehicles, including 192 CTA and Pace buses, use the state-designated truck routes daily
- 33 trains per day pass through adjacent crossings
- Trains move at slow speeds (10-25 mph) due to the proximity to the BRC Clearing Yard and local rail customers
- Crossings at this location are designated as “911 Critical Crossings”

Figure 1: CREATE Program Study Area and Individual Project



Source: http://www.createprogram.org/proj_map2.htm

Figure 2: CREATE Project GS1



Source: http://www.createprogram.org/factsheets/pass_benefits_map.pdf

Chicago Metropolitan Agency for Planning (CMAP)

CMAP developed the GO TO 2040 Comprehensive Regional Plan to identify the long-range plan for the region. GO TO 2040 strongly supports increased investment in the region's freight system to promote the economy, public health, safety and welfare. The goals of the investment are to reduce the impacts of freight operations on local communities and to address travel delay, pollution, and safety. As part of the stakeholder outreach during the GO TO 2040 plan development, improvements to at-grade rail crossings and improvements to reduce freight-rail and passenger-rail conflicts were judged by stakeholders to be the most important improvements. The regional and national significance of CREATE make it a priority to secure funds to implement the strategic upgrades. As such, CREATE GS1 is on CMAP's Transportation Improvement Plan (TIP ID 01-06-0052) as a future project. CMAP's ON TO 2050 Comprehensive Regional Plan, adopted on October 18, 2018, affirms and builds upon the recommendations of GO TO 2040.

1.2 Project Description

The Illinois Department of Transportation (IDOT) is conducting a Phase I Study to consider transportation improvements in the vicinity of IL 43 (Harlem Avenue) between 63rd and 65th Streets (Figure 3). Environmental class of action documentation, in accordance with National Environmental Policy Act (NEPA) requirements, will be prepared to analyze a full range of alternatives, including a No-Build Alternative, and to document potential effects to natural,

community and cultural resources. Phase I activities include defining the Purpose and Need, preliminary engineering and environmental studies, analyzing existing and future conditions, developing and evaluating alternatives, concluding with the recommendation of a preferred alternative.

The project is located within the City of Chicago, the Village of Bedford Park, the Village of Bridgeview, and the Village of Summit in Cook County, IL. Potential improvements could include grade separation of the Belt Railway Company of Chicago (BRC) railroad crossings at 63rd Street and/or 65th Streets. Project drainage requirements could include the development of additional surface ponds.

Figure 3: Project Location

1.3 Project Study Area

The IL 43 (Harlem Avenue) Phase I Study is located approximately 12 miles southwest of Chicago's central business district, approximately 1.2 miles south of the interchange with I-55,

and 3.6 miles north of the interchange with I-294 (via 95th Street). The IL 43 (Harlem Avenue) Project Study Area lies within four communities, the Clearing West Neighborhood of the City of Chicago, the Village of Summit, the Village of Bedford Park and the Village of Bridgeview. The Project Study Area is generally bound by W 59th Street to the north, S Oak Park Avenue to the east, W 71st Street to the south and S 75th Avenue to the west (Figure 4).

The Project Study Area is located just to the northwest of the Clearing Yard which is owned and operated by the Belt Railway Company of Chicago or BRC. The BRC Clearing Yard is the largest switching intermediate railroad terminal in the United States. The BRC is a two-track facility through the Project Study Area running west to east just east of IL 43 (Harlem Avenue) with a wide-curve entering into the BRC Clearing Yard. Two (2) at-grade crossings of the BRC are located within the Project Study Area, at 63rd Street between Harlem Avenue and Nottingham Ave and at 65th Street between Harlem Avenue and Old Harlem Avenue.

The Project Study Area (Figure 4) is located in Cook County and is a main north-south corridor currently experiencing heavy travel delays. The project study limits were selected based upon the previous CREATE GS1 feasibility study limits. They also provide sufficient distance from IL 43 at the 63rd Street and 65th Street intersections and the adjacent BRC track crossings as to encompass rail, road, and drainage improvements independent of any future improvements in the area. The roadway study area is 400 foot wide along 1.2 miles of IL 43 (Harlem Avenue) from just north of 71st Street to W 60th Place, includes 0.7 miles of 63rd Street from S 74th Avenue to S New England Ave and 0.5 miles of 65th Street between IL 43 (Harlem Avenue) and S New England Avenue.

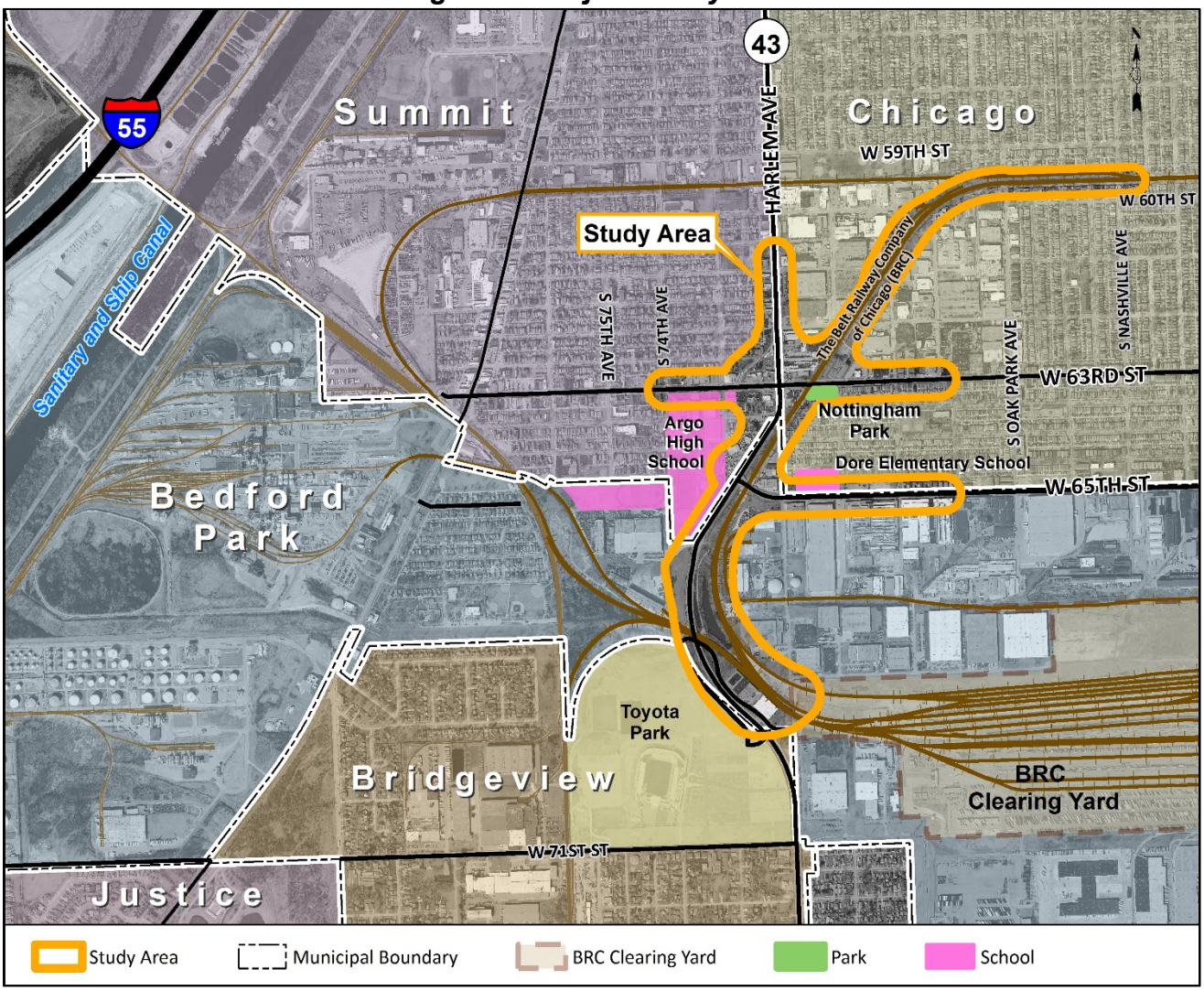
The BRC line located within the Project Study Area is 1.8 miles long and 300 feet wide and is bound by IL 43 to the west. It begins in the northeast near the rail switch at Neenah Ave, curving toward the south and then east into the BRC Clearing yard.

Nottingham Park is located at 7101 W 63rd Street, Chicago, Illinois 60638 within the Clearing West neighborhood, at the southeast corner of the BRC Railway at 63rd Street at-grade crossing. Nottingham Park is a 0.5 acre recreation park within the Chicago Park District system.

Argo High School (District 217) is located at 7329 W 63rd Street, Summit, Illinois 60501 on the west side of the Project Study Area, south of 63rd Street and west of IL 43 (Harlem Avenue). The Argo High School campus is 32 acres with a population of approximately 1,800 students and 118 teachers and administrators.

The new Dore Elementary School located at 7101 W 64th Street (65th Street near Old Harlem Avenue) in the Clearing West neighborhood opened in January 2019. The new school replaced the existing school located at 6108 S Natoma Avenue, Chicago, Illinois 60638. Dore Elementary currently serves over 700 students, pre-Kindergarten through Eighth Grade.

Figure 4: Project Study Area



2.0 STAKEHOLDER INVOLVEMENT

This project is being developed per the IDOT Context Sensitive Solutions (CSS) principles. CSS is a process that requires early coordination with stakeholders to better understand the concerns and needs of the communities that encompass the Project Study Area. As part of ongoing stakeholder involvement efforts that will be scheduled throughout the study process, an initial public informational meeting was held. At the meeting and on the project website, stakeholders were encouraged to provide their input in defining the area's context by submitting written comments and completing a Community Context Survey.

A Community Advisory Group (CAG) has been formed. Five CAG meetings are planned to seek input into the context of the area, develop a problem statement, provide input on the Purpose and Need and assist in developing an initial range of alternatives.

Members of the CAG report that the area has experienced limited mobility due to train movements and railroad crossing gates being down. They added that the existing situation creates congestion, excessive travel delays and diversion that affect all transportation users, especially emergency vehicles, transit, and the community. The congestion also hinders economic development, negatively effects quality of life and makes bicycle and pedestrian movement difficult.

3.0 PURPOSE OF THE PROPOSED ACTION

The purpose of the Proposed Action is to enhance safety, mobility, and improve multi-modal connectivity. The study will analyze alternatives to reduce delays and improve mobility for motorists, transit users, bicyclists, pedestrians and emergency responders who use IL 43 (Harlem Avenue), 63rd Street and 65th Street. In addition to serving the motoring public, the Proposed Action would also help to meet the existing and future needs of the adjacent communities while minimizing social, economic and environmental impacts.

4.0 NEED FOR THE PROPOSED ACTION

4.1 Safety

Vehicular/Motor Vehicle Crash & Pedestrian Summary

Crash data collected by IDOT for a six-year study period from 2010 to 2015 shows that 465 crashes occurred within the Project Study Area, as shown in Table 1 and Figure 5. Rear-end collisions accounted for 38% of the total crashes, indicative of heavy traffic congestion and vehicle queuing. Of the 465 crashes, 317 occurred at an intersection, 139 occurred within roadway sections, and 9 occurred at a railroad crossing.

In the majority of crashes, 376 out of 465, no injuries were reported. The remaining 89 crashes or 19% of the total crashes resulted in injuries, including three (3) fatalities, 18 incapacitating injuries, 32 non-incapacitating injuries, and 36 where an injury was not evident. Two (2) of the fatal crashes occurred at the intersection of IL 43 (Harlem Avenue) and 63rd Street and one (1) occurred along IL 43 (Harlem Avenue) between 63rd Street and 65th Street.

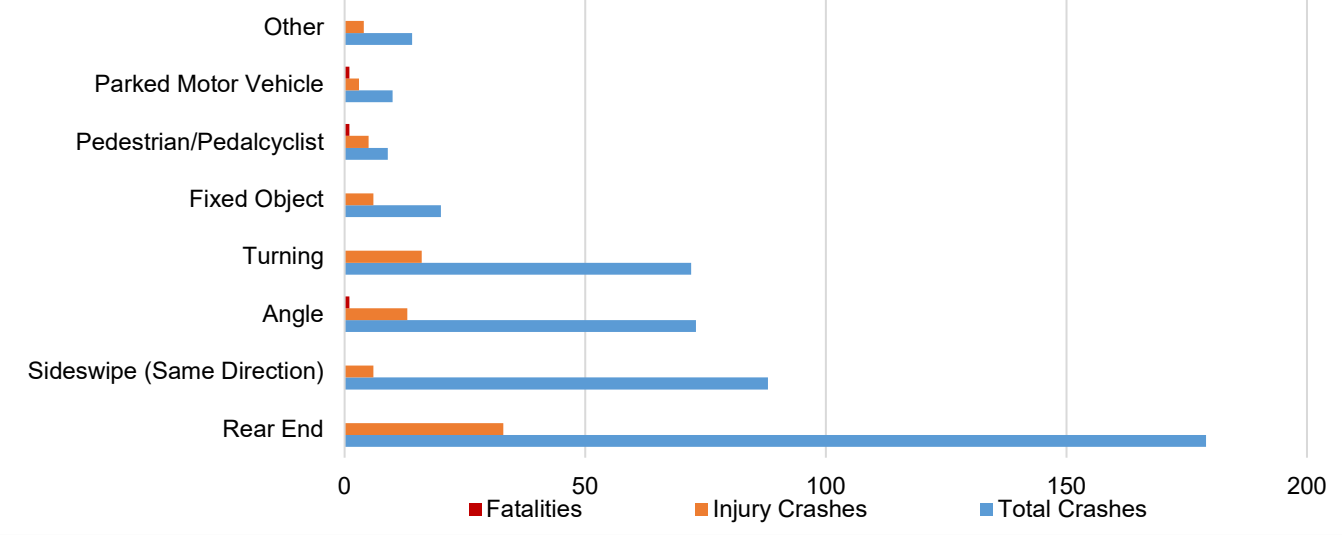
In addition to the three (3) fatalities that occurred during the span of 2010 to 2015, there were two (2) additional fatalities that occurred since 2015. One of these fatalities occurred along IL 43 (Harlem Avenue) and the other at the intersection of IL 43 (Harlem Avenue) and 65th Street. No additional information is provided for these crashes as IDOT crash data for 2016 and 2017 is not currently available.

Table 1: Crashes by Collision Type

	Collision Type (2010-2015)								
	Rear End	Sideswipe (Same Direction)	Angle	Turning	Fixed Object	Pedestrian Pedal cyclist	Parked Motor Vehicle	Other	TOTAL
Total Crashes	179	88	73	72	20	9	10	14	465
% of Total Crashes	38%	19%	16%	16%	4%	2%	2%	3%	100%
Total Injury Crashes	33	6	14	16	6	6	4	4	87
% of Crashes Resulting in Injury	18%	7%	19%	22%	30%	67%	40%	29%	19%

Source: 2010-2015 IDOT Crash Data

Figure 5: Total Crashes and # Injuries by Collision Type



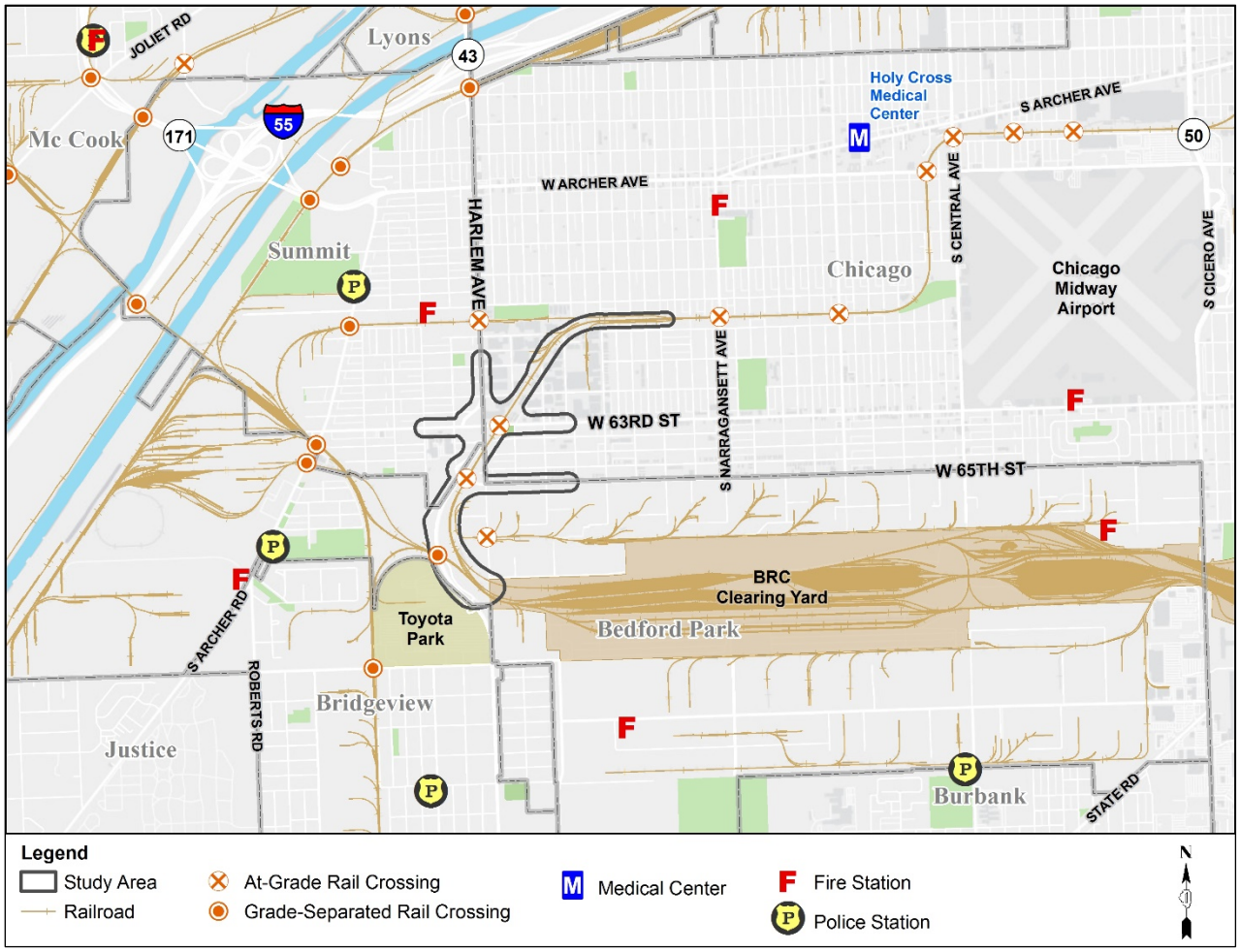
Source: 2010-2015 IDOT Crash Data

Emergency Services

The City of Chicago Office of Emergency Management and Communications (OEMC) designates roadways that provide important access for emergency services to communities that have a high frequency of train movements or delays as “911 Critical Crossings”. The BRC crossing at 63rd Street is designated as a 911 Critical Crossing because it is a key route used by the police, fire and ambulances for delivery of emergency services to the City of Chicago (Figure 6). When trains are stopped or anticipated to obstruct the crossing, train crews must notify the BRC immediately. City Ordinance #9-28-030 defines a reporting process that is to be

followed for obstructions at 911 Critical Crossings. When moving or stopped trains obstruct the crossing for more than five (5) minutes, the Chicago Transportation Coordination Office (CTCO) must immediately notify the 911 emergency telephone system, and then alert them when the crossing is clear.

Figure 6: Emergency Services



Source: 2016 Chicago Data Portal, CMAP, and Google Earth

4.2 Mobility

Mobility describes the ease in which vehicles and other users of the roadway travel to and from their destination. A common measure of mobility is travel time which is impacted by delays resulting from congestion.

Rail Highway Conflict

Rail highway conflict is an ongoing challenge in greater Chicago. Of the 70 projects in the CREATE Program, 25 address at-grade rail/highway crossings. Given the importance of the

Chicago region as a rail hub and the anticipated growth in freight and passenger rail traffic, these projects are critical to maintain community quality of life given current rail volumes and the expectation of future increases.

The BRC Clearing Yard, located to the southeast of the Project Study Area, is the largest switching intermediate railroad terminal in the country, operating 24 hours a day, seven days per week. Not only are the current levels of rail traffic at this location problematic, but the potential for increased train volumes and additional delays is also of great concern to the affected communities.

IL 43 (Harlem Avenue) is part of the designated National Highway System. It is also a principal arterial serving as a major north-south connector in the region as well as a state-designated Class II truck route and Strategic Regional Arterial. The existing roadway is comprised of a 4-lane section (two northbound and two southbound lanes) north of W 61st Street, a 6-lane section (three northbound and three southbound lanes) from south of W 61st Street to north of W 63rd Place, and a 5-lane section (two northbound and three southbound lanes) south of W 63rd Place. IL 43 (Harlem Avenue) intersects with several major and minor cross roads, including signalized intersections with 63rd Street and 65th Street and seven (7) non-signalized intersections. It also provides access to Toyota Park and entrances to several properties along the corridor.

63rd Street is an east-west minor arterial. The existing roadway west of 74th Avenue, 63rd Street is a 2-lane undivided roadway (1 eastbound and 1 westbound lane). Between 74th Avenue and 73rd Avenue, 63rd Street transitions to a 5-lane section (3 eastbound and 2 westbound lanes) with a raised median as it approaches 73rd Avenue. From east of 73rd Avenue to Nottingham Avenue, 63rd Street is a 6- lane roadway (3 eastbound and 3 westbound lanes) divided by a raised median. East of Nottingham Avenue, 63rd Street is a 2-lane undivided roadway (1 eastbound and 1 westbound lane).

65th Street is an east-west major collector. The existing roadway is comprised of a 5-lane section (2 eastbound and 3 westbound lanes) divided by a raised median, from IL 43 (Harlem Avenue) to Old Harlem Avenue. East of Old Harlem Avenue, 65th Street is a 4-lane divided roadway (2 eastbound and 2 westbound lanes) with alternating raised and painted medians.

There are two BRC at-grade intersections, comprised of two tracks each that affects traffic flow at 63rd Street and 65th Street. The close proximity of the BRC railroad to IL 43 (Harlem Avenue) results in additional traffic delays due to train traffic at the crossings.

Traffic Analysis

The 2017 average daily traffic (ADT) and 2050 ADT for the roadways in the Project Study Area were acquired from IDOT and Chicago Metropolitan Agency for Planning (CMAP), respectively (Figure 7). The change in ADT on IL 43 (Harlem Avenue) is low with an overall growth of 3.0% from 2017 to 2050. However, other roads throughout the Project Study Area are expected to experience greater growth with overall increases of about 10-34% from 2017 to 2050.

Figure 7: Existing and Projected Traffic Volumes

Source: IDOT 2017 ADT Volumes, 2050 CMAP ADT Volumes

Turning movement counts (TMCs) were collected in 2016 at 13 intersections to determine the AM and PM peak hour, which were found to be from 6:45 AM to 7:45 AM and from 3:45 PM to 4:45 PM, respectively. These year 2016 TMCs were escalated to year 2017 and year 2050 TMC estimates using each roadway's percent increase in ADT.

BRC operates multiple freight trains per day to and from the BRC Clearing Yard. Twenty-four hour video was collected to determine representative crossing times. A total of 19 trains passed the two at-grade crossings along the BRC. Gate down times, therefore blocking vehicle movements, ranged from 1 min 43 sec to 14 min 15 sec. A median gate down time of 6 minutes 58 seconds was used to estimate traffic impacts during freight train arrivals.

Level of Service (LOS) analysis is widely accepted for evaluating traffic conditions, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The Transportation Research Board Highway Capacity Manual (HCM) defines six LOS, ranging from A to F, which represents the quality of service from a traveler's perspective. LOS A represents free flow conditions (motorists experience little or no delay and traffic levels are well below roadway capacity) while LOS F represents force-flow conditions (motorists experience very long delays and traffic levels exceed

roadway capacity). In urban settings, such as the Project Study Area, LOS D is considered acceptable.

Traditional level of service analysis at intersections follows the HCM methodology for estimating delays due to traffic control. Intersection level of service is generally categorized by the average delay per vehicle resulting from traffic control. The amount of delay expected by motorists varies by intersection control type. Table 2 identifies the level of service criteria for signalized and un-signalized intersections and roundabouts.

However, this methodology is limited in that it considers only that intersection and does not consider the influence of other traffic conditions, such as the BRC crossings. In such cases, the HCM recommends utilizing alternative methods or tools to more accurately analyze the level of service.

Table 2: Intersection Level of Service (LOS) Criteria by Control Type

LOS	Average Delay Per Vehicle (sec)	
	Signalized	Un-signalized and Roundabout
A	≤10	≤10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: Highway Capacity Manual (2010)

Traffic Simulation – Level of Service and Vehicle Delay

The level of service and average delay per vehicle were estimated using SimTraffic, road traffic simulator software. Consistent with HCM methodology, the Project Study Area was simulated using the highest 15-minute volume of the day, which occurs during the PM peak hour. The BRC at-grade crossings were programmed into the simulation model simulating the effect of a gate-down time of 6 minutes 58 seconds during this analysis window. The results for each scenario were averaged over five (5) simulation runs, effectively accounting for varying traffic arrival patterns.

Table 3 summarizes the traffic operations analysis results in terms of level of service (LOS) for the overall intersection operations and the worst individual movement LOS. As shown, when trains are not blocking the crossings, the intersections in the Project Study Area operate at an

overall acceptable LOS D or better for both the 2017 Existing and 2050 No Build traffic volumes. However, when trains block the crossings, all intersections experience a notable degradation in operations.

Table 3: Intersection Level of Service (LOS) Analysis Results – PM Period

Intersection	Movement	Without Train Blockage		With Train Blockage	
		2017	2050	2017	2050
Harlem Avenue and W. 63rd Street	Worst Movement	E	F	F	F
	Overall Intersection	C	D	E	E
Harlem Avenue and W. 65th Street	Worst Movement	E	F	F	F
	Overall Intersection	B	B	C	C
Harlem Avenue and W. 63rd Street Jughandle	Worst Movement	A	A	B	F
	Overall Intersection	A	A	A	B

While intersection LOS identifies impacts at a refined scale, queue lengths can also be used as a measure to evaluate concepts at the corridor level. Queue length is defined as a line of vehicles storing behind each other, resulting in a measurable distance based on vehicle type and mix. This is a useful parameter for representing the worst condition, but is not necessarily typical of what an average driver would experience. The length of the maximum queue helps assess the effect on side streets and also provides a basis for future design decisions, such as turn lane storage requirements. Maximum queue lengths for the 2017 Existing and 2050 No Build PM peak hour conditions are shown in Table 4. The queues from train crossing gate down times result in substantial delays (vehicle hours per day) and clearly demonstrate a strain on the local roadway network along Harlem Ave, 63rd Street and 65th Street.

Table 4: 2017 and 2050 – Effects Caused By Train – PM Period

Roadway Section	Direction of Travel	Additional Delay Due to Train (veh hrs/day)		Queue Lengths (feet)				Increase in Queue Lengths Due to Train (feet)		Additional Intersections, Commercial and Residential Driveways Blocked Due to Train (Int/Comm/Res)	
				2017		2050					
		2017	2050	No Train	Train	No Train	Train	2017	2050	2017	2050
Harlem Avenue	NB – 65th St	63.1	-9.4	326	1,064	298	1,072	738	774	0/0/0	0/0/0
	NB – 63rd St			725	725	807	780	0	-27	0/0/0	0/0/0
	SB – 63rd St	20.2	42.8	565	771	565	1,144	206	579	1/4/0	2/6/0
	SB – 65th St			145	129	186	143	-16	-43	0/0/0	0/0/0
Harlem Avenue Jughandle at 63rd St	SB	106.5	174.6	177	1,080	173	1,429	903	1,256	1/3/0	2/4/0
63rd Street	EB	655.7	1,121.0	341	1,822	370	2,359	1,481	1,989	3/3/0	3/7/0
	WB	375.8	490.7	196	1,807	231	2,023	1,611	1,792	4/5/4	5/7/4
65th Street	EB - Jughandle	270.7	502.7	261	429	449	607	168	158	0/3/0	0/3/0
	WB	373.2	485.3	293	1,269	523	1,729	976	1,206	2/3/0	2/4/0

Source: SimTraffic Analysis & Simulation Output (2019)

Rail and Roadway Operations

With an average of 30 trains crossing per day and a median gate down time of 6 minutes 58 seconds, traffic in the Project Study Area is greatly affected when a train is at either of the two at-grade crossings at 63rd and 65th Streets. The median gate time represents the time when no vehicles can physically travel across either train track at the BRC rail crossings. This restricted movement leads to a complete stoppage of vehicle travel, east and west along 63rd and 65th Streets and to vehicle turning movements at nearby roadway intersections. This backup of vehicle traffic on 63rd and 65th Streets extends varying distances depending on the length and speed of the train crossing the tracks and the vehicle traffic at that specific time of day. The busier the time of day, the more congested and backed up the roadway network will be when the train is crossing. This backup is referred to as a queuing issue. The problem with this backup (or queues) is that they end up affecting the traffic flow of any intersection that the queue crosses such as northbound right turning vehicles and southbound left turning vehicles entering either 63rd or 65th Streets. The same thing can be said of northbound left turning vehicles and southbound right turning vehicles at intersections west of the BRC on 63rd and 65th Street.

This restricted movement caused by a train, due to the 63rd and 65th queues, can result in turning lanes that back up as well. This backup can extend beyond the available turning lane capacity and into the flow of through traffic. The resulting queue spilling-over into the through lane prevents other vehicles from passing and leads to a blockage of vehicles at the intersections. When this happens at multiple intersections along the roadway, vehicles are heavily restricted in arriving to their destination because every roadway is blocked by vehicles who can't move due to the presence of the train. Figures 8 and 9 summarize and illustrate the PM period queuing issues both without a train and with a train on the roadway network within the Project Study Area.

IL 43 (Harlem Avenue) in the vicinity of 63rd and 65th is a heavily traveled roadway that provides important regional connectivity. From the traffic analysis performed, it was determined that in the PM period (both in existing and 2050 No-Build scenarios), vehicles from the 63rd Street / IL 43 (Harlem Ave) "Jughandle" can exceed the turning lane storage capacity and overflow onto IL 43 (Harlem Ave) southbound lanes. This spillage of vehicles onto the IL 43 (Harlem Ave) southbound mainline restricts traffic flow heading southbound towards 63rd Street. In this scenario, the right lane is blocked, while traffic flow is partially restricted in the other two lanes. The same can be seen at IL 43 (Harlem Ave) and 65th Street for the northbound thru movement. The northbound right turning vehicles are blocked by a train at 65th Street and back up onto IL 43 (Harlem Ave). This spillage of vehicles onto the IL 43 (Harlem Ave) northbound mainline restricts traffic flow heading northbound towards 65th Street. In this scenario, the right lane is blocked, while traffic flow is partially restricted in the other two lanes. This same vehicle queuing backs up on IL 43 (Harlem Ave) at the 65th Street/IL 43 (Harlem Ave) "Jughandle" in the 2050 AM period. The spillage of vehicles onto the IL 43 (Harlem Ave) southbound mainline restricts traffic flow heading southbound towards 65th Street.

During all of the above situations, the emergency vehicles, buses, trucks, and personal vehicles would be stuck behind the backup until the train clears the tracks and the vehicles are allowed

to move east and west on 63rd Street and 65th Street. Once this occurs, traffic simulations show that individual drivers may experience a one to three traffic signal cycle delay to clear the intersection at Harlem Avenue, depending on the location and direction of travel. Overall, it may take four (4) or more traffic signal cycles for the backup to completely clear and for the roadway network to return to its usual level of operation. In addition to effects on IL 43 (Harlem Avenue) and intersecting roadways, vehicle queuing that extends through multiple intersections will affect neighboring businesses and other facilities such as schools.

Figure 8: Vehicle Queue Length for Existing (PM)

Figure 9: Vehicle Queue Length for 2050 No Build (PM)

4.3 Improve Multimodal Connectivity

Intermodal Transportation

As industrial and commercial product demand continues to increase, fast and reliable transportation alternatives are becoming increasingly more important. Intermodal transportation is the use of two or more transportation modes — trucks, trains, ships, airplanes, or pipelines — to get raw materials to finished goods from manufacturer to production line to end-user. These modes can be mixed to reduce costs, improve speed, and increase overall performance and customer satisfaction. The *2013 Metropolitan Chicago's Manufacturing Cluster: A Drill-Down Report on Innovation, Workforce, and Infrastructure Study* prepared for the Chicago Metropolitan Agency for Planning (CMAP) found that the area around the Chicago Midway International

Airport is one of the largest centers of manufacturing employment in the region, as well as freight employment. Another area with a high concentration of manufacturing and freight is along I-55, from LaGrange to Bedford Park. Situated between these two major manufacturing and freight centers, the IL 43 (Harlem Avenue) corridor and east-west movements are a critical component to intermodal transportation.

Class II Truck Route

IL 43 (Harlem Avenue) is a state-designated Class II truck route owned and maintained by IDOT. Class II truck routes include major arterials with minimum 11 foot lanes. IL 43 (Harlem Avenue) is also a designated Strategic Regional Arterial (SRA 3001).

According to the traffic count collected at 63rd Street and Harlem Avenue, the total number of Heavy vehicles (Single-Unit Trucks, Articulated Trucks and Buses) accounts to be 13.6%. Cars, light goods vehicles and motor cycles are 76.6%, 9.6% and are 0.2% respectively.

Complete Streets

IDOT's Complete Streets Policy states that bicycle and pedestrian ways are considered in all state road projects and constructed when certain conditions are met. Creating "Complete Streets," which serve all anticipated users, including pedestrians, bicyclists, persons with mobility impairments, and transit riders, is an important goal to help to achieve a modern, efficient, and sustainable transportation system. Similarly, the development of a regional network of trails, which provide both transportation and recreational opportunities on the local and regional scales is of importance as well. Barriers to pedestrians, bicyclists, and pedestrians with disabilities can discourage mobility, require auto trips, or prevent trips.

Opportunities exist to connect numerous local and regional bicycle route and trail networks. The following trails/shared paths exist adjacent to the Project Study Area:

- Regional bike trail terminates along IL 43 north of I-55
- CDOT shared bike path along 63rd Street terminates at IL 43
- Regional bike trails in Buffalo Woods west of Justice, near 79th Street and Archer Avenue

<u>Bicycle Routes</u>

CMAP coordinates planning for trails and greenways in the region. The officially adopted Northeastern Illinois Greenways and Trails Plan (RGTP) is a long-range, multi-jurisdictional plan which envisions a network of continuous greenway and trail corridors, linked across jurisdictions, providing scenic beauty, natural habitat, and recreational and transportation opportunities. Several bicycle routes and trails are planned in the Project Study Area to connect with the regional network (Figure 10). Both CTA and PACE note a lack of connectivity with bicycle and pedestrian paths and that crossing IL 43 (Harlem Avenue) and 63rd Street are difficult due to congestion, lack of refuge islands and count-down signals and poor ADA accessibility.

The Village of Summit conducted a survey as part of a new project, Walk Bike Go, by the Active Transportation Alliance to create vibrant, healthy, and environmentally friendly communities through better biking, walking and transit. Based on the survey, the people of Summit feel unsafe

to bike or walk on IL 43 (Harlem Avenue) due to lack of bike separation and narrow sidewalks. The survey also identified 63rd Street at IL 43 (Harlem Avenue) as an unsafe and difficult intersection due to heavy traffic.

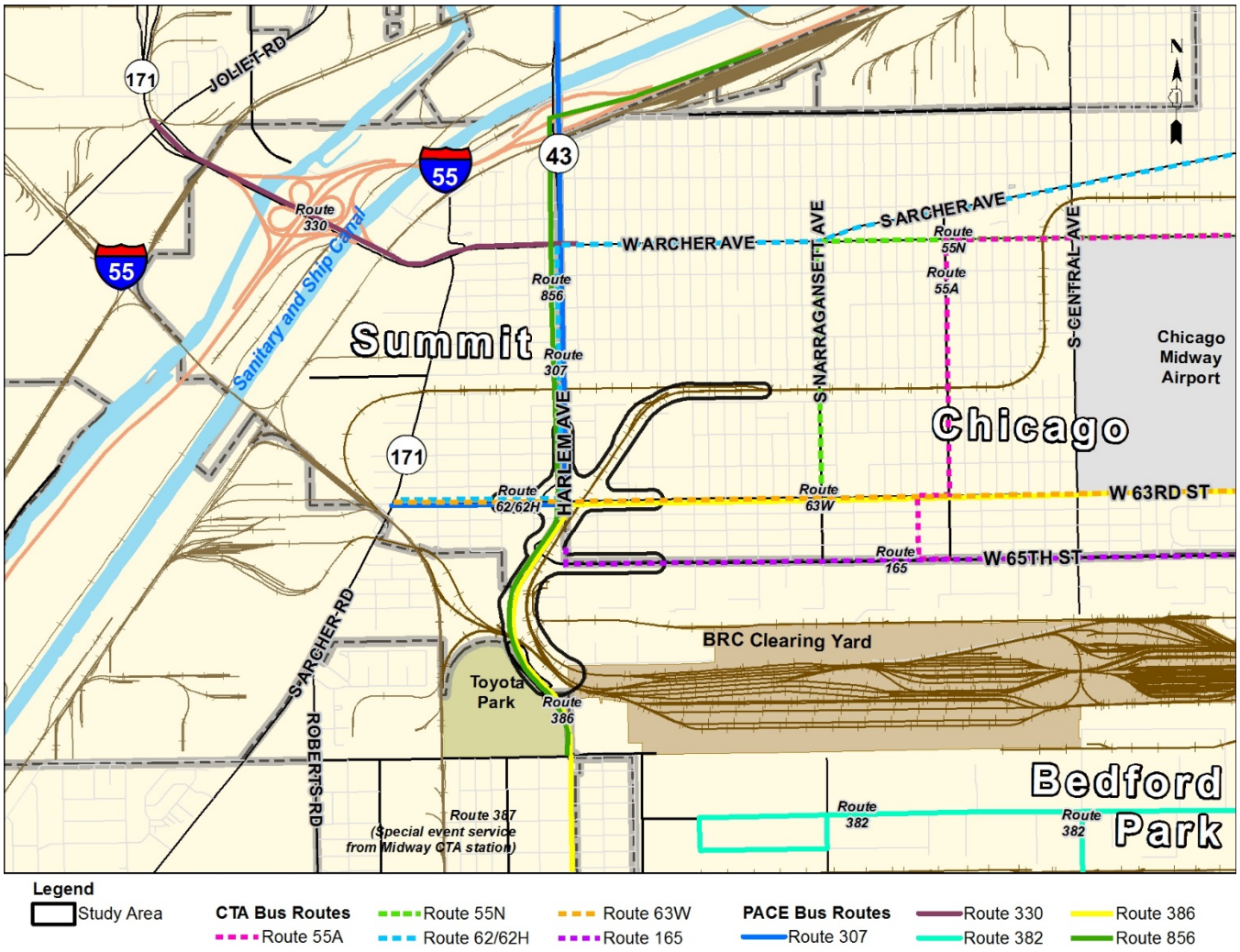
Figure 10: Existing and Planned Bicycle Routes

Source: CMAP

Transit

Mass transit in much of the Chicago area is managed through the Regional Transportation Authority (RTA). PACE and the Chicago Transit Authority (CTA), divisions of RTA, provide transit service to commuters near the Project Study Area (Figure 11). CTA operates two routes, 62H and 63W that are impacted by trains at 65th Street and 63rd Street. PACE operates express bus service on 63rd between IL 43 (Harlem Avenue) and Cicero Avenue that is impacted when trains occupy the BRC tracks on 63rd Street. Both PACE and CTA report bus service delays in the Project Study Area when trains occupy the BRC tracks. PACE has a functioning operations center in Toyota Park at IL 43 (Harlem Avenue) and 71st Street. On-time performance data from PACE shows that the 63rd/Harlem stop is the worst performer with only 9% on time performance. Both CTA and PACE state that buses remain in the queue during train crossings because the buses cannot deviate from their routes and potentially miss waiting passengers.

Figure 11: PACE and CTA Bus Routes



Source: PACE and CTA