I-290/I-88 EXPRESS BUS STUDY

TRANSIT SUPPORTIVE INFRASTRUCTURE PLAN

Summer 2025

pace EXPRESS I-290/I-88 Express Bus Study

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This study represents an exciting opportunity to expand access to fast, reliable transit for residents and workers in the west suburbs. By exploring expressway bus service along the I-290 and I-88 corridors, we’re looking at ways to improve regional connectivity and better connect people to jobs, education, and essential services.

Melinda J. Metzger
executive director

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Content

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CHAPTER ONE

STUDY BACKGROUUND & PURPOSE

The central purpose of this study is to thoroughly analyze existing transportation and transit conditions within the I-290 and I-88 corridors and to determine a route, terminals, and potential locations for bus-on-shoulder service along the corridors.

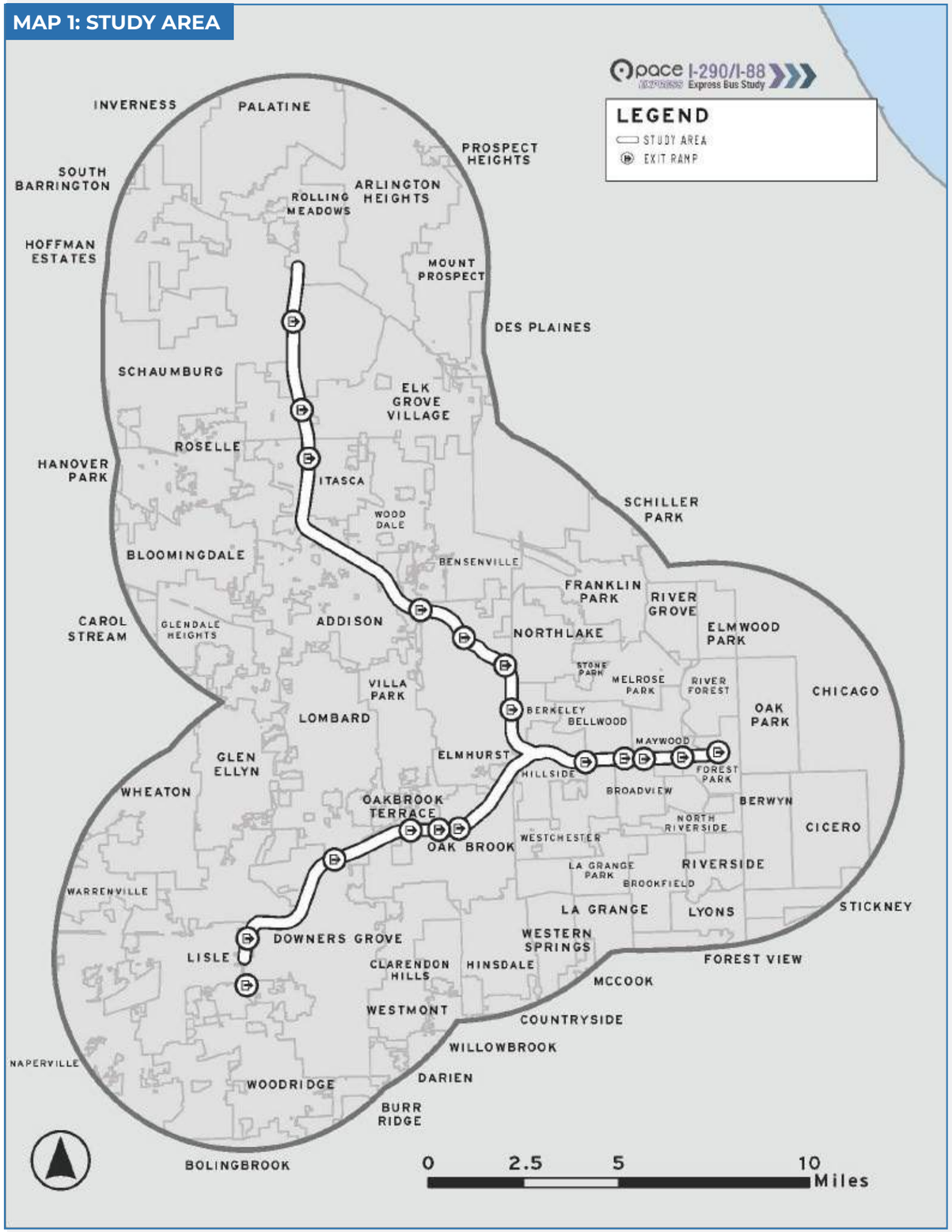
The purpose of this report is to analyze potential station locations and the infrastructure that would be necessary. The report builds off the Service Design Plan and provides a more in-depth analysis of the locations selected for stations along the project corridor. The results of the report will help determine whether locations are physically feasible for stations, the types of stations at each location, and any other supportive infrastructure that will be necessary.

Fig. 1: Forest Park Transit Center

STUDY
AREA OVERVIEW

The I-290 and I-88 corridors, central to this study, extend approximately 31.4 miles, and including the 5-mile buffer around the corridor, is a substantial area of roughly 370 square miles of land. This extensive geographic scope integrates a diverse range of communities, municipalities, and economic hubs that significantly contribute to the metropolitan Chicago region's overall economic vitality and social dynamism. Within the study area, there are also popular destinations that consistently have high boarding/alighting numbers. These destinations include Woodfield Mall, Oakbrook Center, Northwest Transportation Center, CTA Forest Park Blue Line Transit Center, Loyola Medical Center, and many others. This mix of shopping centers, hospitals, educational institutions, and transportation facilities are destinations that riders consistently want to have faster, safer, and easier access to.

MAP 1: STUDY AREA



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CHAPTER TWO

INTEGRATION WITH PLANS & PROGRAMS

INTEGRATION WITH
PLANNED SERVICES

Understanding past plans and programs piloted by Pace and other organizations is critical to assessing what makes an effective Bus-On-Shoulder plan. Elements from all of the plans and programs listed below come together to allow Pace to offer safe and efficient transit service.

I-55 and Harlem Avenue In-line Bus Rapid Transit Station Study (2025)
Pace is evaluating a strategic transfer facility connecting its existing I-55 Express bus on shoulder service with the future Pulse Harlem Line arterial rapid transit. The assessment is reviewing best practices from comparable projects, identifying environmental considerations, analyzing regional transit demand, and conducting structural and engineering evaluations of the existing and planned infrastructure. These findings will provide essential insights for informing the future design and planning of the proposed in-line bus station.

Pace's Driving Innovation Strategic Plan (2021)
Pace's Driving Innovation Strategic Plan was the agency's update to their Vision 2020 strategic plan. The strategic plan served as a response to a variety of issues including population decrease in some of Pace's operating areas and the national decline in transit ridership stemming from the COVID-19 pandemic. The plan outlines innovations to continue capitalizing on past successes, as well as pilot programs to identify future transit opportunities. In this plan, multiple action items are identified for Pace to focus efforts on increasing ridership. These initiatives include zero emission technology (i.e., hydrogen and electric buses), Pace Pulse service, and bus on shoulder express service. The plan details the success of the initial I-55 express bus service and recommends future bus on shoulder studies, including the I-290 expansion.

Transit Signal Priority Program (2019)
Transit Signal Priority (TSP) refers to a variety of techniques that can be implemented at intersections with traffic signals to reduce transit delays and improve service reliability. Delays from signalized intersections are shown to account for up to 20 percent of all bus delays. Pace installed TSP in 2019 along multiple high traffic routes and is installing it on all future and current Pace Pulse routes. While there are different types of TSP technologies, Pace uses a computer on buses which communicates with the traffic signal, extending green lights or shortening red lights. TSP helps increase the likelihood of a bus staying on schedule and delivering reliable service.

Transit Supportive Design Guidelines (2013)
Pace's Transit Supportive Design Guidelines are recommendations that detail the necessary physical characteristics of transit-related infrastructure. Recommendations include bus facility technical design guidance for stations and shelters, as well as recommendations to increase density near transit and signage.

IDOT's Planned I-290/Eisenhower Expressway Reconstruction Project
The planned I-290 Expressway Reconstruction project will bring roadway and transit improvements to the corridor. Travel demand has far exceeded the roadway design, resulting in unsafe and unreliable conditions. This reconstruction project provides a unique opportunity for Pace to implement infrastructure improvements that benefit future bus on shoulder developments along the corridor.

Butterfield Road Corridor Plan (2024)
CMAP's Butterfield Road Corridor Plan between I-355 to the west and Kingery Highway to the east. was a collaborative effort among the agency, the villages of Downers Grove, Lombard, and Oak Brook, as well as the DuPage County Department of Transportation, to enhance the corridor for evolving commercial and transportation needs. The plan made several transportation recommendations for the corridor. These recommendations included improving safety, pedestrian accessibility, bicycle accessibility, and enhancing Pace bus stops and accessibility to the bus stops. Among the specific recommendations included are filling in sidewalk gaps to connect people to bus stops/shelters and improving bus stops/shelters and their amenities.

INTEGRATION WITH
PLANNED SERVICES

Shared Mobility Programs

Shared mobility pilots and programs are becoming common solutions for first/last-mile gaps, as well as satisfying broader equity and safety goals. IDOT completed a Shared Micromobility study in 2024, outlining shared mobility options and assessing their benefits and weaknesses. The study detailed the importance of creating a docking system at or near transit stations, allowing for easier first/last-mile connections, and the effectiveness of "mobility hubs." Mobility Hubs are transportation stations that offer two or more transit options, with micromobility integration.

RTA is also engaging in a project partnered with the Shared Use Mobility Center and Cook County Department of Transportation to build the region's first Mobility Hub Network Framework. Kicking off in 2024, this study will include best practices for mobility hubs using both domestic and international case studies to inform these practices, a policy report for the multi-county RTA operating area, and to begin development of proposed Cook County mobility hubs.

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CHAPTER THREE

SUPPORTIVE INFRASTRUCTURE

PLANNING AND

DESIGN GUIDELINES

Several design standards must be considered to create an accessible transit station. These design elements include station size, travel lane width, boarding/alighting area size, accessible path width, elevator shaft width, and escalator/stairs width.

- Travel lane width – 11’ minimum, 12’ preferred
- Station size:
  - » Standard – 60’ long, 12’ deep
  - » Length-Constrained – 45’ long, 12.5’ deep
  - » Depth-Constrained – 63’ long, 9’ deep
- Boarding/alighting area – 8’ x 5’ minimum
- Accessible path width – 3’ minimum for travel and 5’ minimum for turn-around space.
- Elevator shaft width – 10’ 4” minimum
- Escalator/stairs width – 3’ 8” minimum

Fig. 2 Minimum Bus Shelter Dimensions from Pace Transit Supportive Guidelines

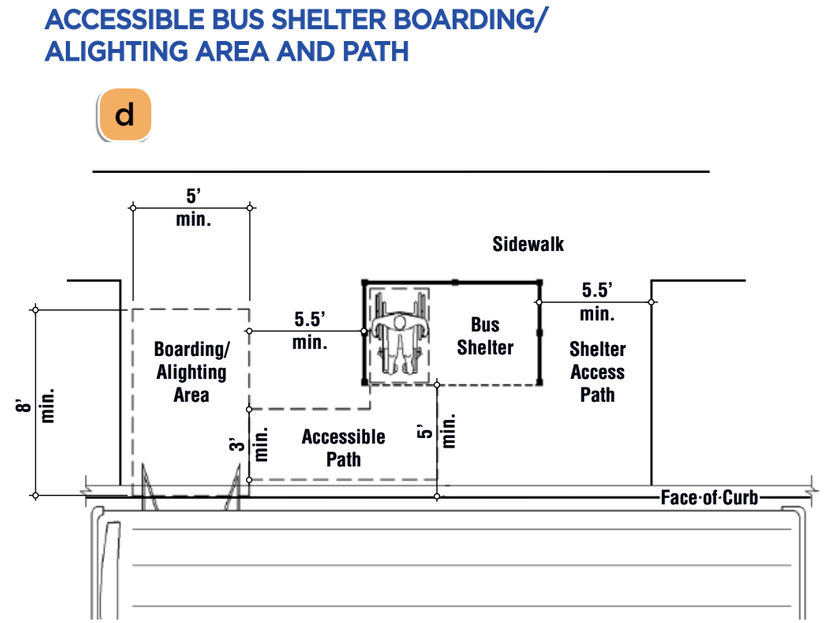

Fig. 3 Minimum Station Dimensions from Pace Transit Supportive Guidelines

Layout	Minimum Dimensions	Features
Standard	60 ft long 12.5 ft deep	ADA-compliant ramps, shelter with front and back panels, bench, trash receptacle, vertical pylon (14.5′ high by 4′ wide), bike rack
Length-Constrained	45 ft long 12.5 ft deep	ADA-compliant ramps, shelter with front and back panels, bench, trash receptacle, vertical pylon (14.5′ high by 4′ wide)
Depth-Constrained	63 ft long 9 ft deep	ADA-compliant ramps, shelter with back panel, bench, trash receptacle, compact vertical pylon (14.5′ high by 2′ wide), bike rack

STATION TYPES

A part of this study is to evaluate different types of stations and their feasibility at the candidate station locations.

Median In-Line Stations

Median in-line stations offer a direct, accessible station in the center of the expressway. They allow riders to board and alight buses without leaving the roadway. These stations reduce the amount of travel time delay for stops.

Median in-line stations must be operationally and physically feasible at the different candidate stations, offering riders safe and accessible passage to the buses. Additionally, stations must be acceptable to IDOT and the Illinois Tollway. Median in-line stations come in different forms, with some being more suitable than others depending on the physical constraints of the location

The first type of median in-line station is a center platform station. These stations would be in the median of the expressway and would have one platform for buses traveling in both directions to share.

However, since Pace Buses strictly use right-side boarding, the design of the center stations must reflect these accommodations. Some express buses have used crossover lanes, where the buses switch sides before and after the platform to allow for right-side boarding/alighting. Operationally however, crossover lanes are undesirable. Other transit agencies have experienced challenges with crossover lanes, and in this study will be avoided.

Two-sided platforms, with buses travelling between them, are also possible at a median in-line station. These platforms would be designed to accommodate right-side boarding/alighting. This design involves one platform for each direction rather than a shared platform and requires a wider expressway median than a center platform.

Another option for the two-sided platform design at a center station would be to stagger the platforms with offset side platform stations. This design would still have buses running down the center of the expressway, where boarding and alighting will happen. However, instead of the

Fig. 4 METRO 46th Street Station in Minneapolis, MN

Fig. 5 METRO Lake Street Station in Minneapolis, MN

platforms being parallel to each other, they are offset from each other. This configuration reduces the necessary median width.

Safe access to the platforms from outside the expressway will be necessary for all stations. Safe access to the stations depends on the makeup of the expressway and the adjacent roadways. In places where stations are parallel with other roadways, an underpass or overpass should be considered to reach the median in-line station. In places where the expressway goes over or under another roadway, elevators and escalators/stairs to the expressway should be considered.

Side Platform Stations

Side platform stations have boarding/alighting platforms located on the outer shoulders of the I-290/I-88 roadway, one for each direction. Similar to median in-line stations, side platform stations would allow buses to continue to operate along the same route without having to leave and change the route, reducing potential delay to the service.

However, outside platforms would cause riders to board and alight on opposite sides of the roadway. Pedestrian overpasses, underpasses, and crossings are important to have in these station designs. Pedestrians should be able to reach both sides of the platform easily and conveniently.

Pace currently uses a side platform park-n-ride station at I-90 and Barrington Road. The stations are located on the sides of I-90 where the riders board and alight. Riders access the platforms via orverpasses and underpasses, which connect to parking lots and shared-use paths.

Adjacent Stations

In this configuration, the station is located adjacent to an expressway and would require the bus to leave the expressway and use local roads to reach the station. Adjacent stations are separated from the expressway and could connect riders to other transit routes, services, shopping, or other amenities directly. This option would cause a delay in service due to the bus leaving the route.

Fig. 6 MTS, City Heights Transit Plaza Offset Station Platform in San Diego, CA

Fig. 7 Pace I-90/Barrington Road Park-n-Ride

Transit Center

Similar to an adjacent station, these facilities would be located off of I-290/I-88 and would serve as a central transit hub where multiple transit routes would stop, allowing riders easy transfer to other bus routes. The buses would need to exit I-290/I-88 to reach the transit center. This option would cause a delay in service, due to the bus needing to leave the route in order to reach the station.

Fig. 8 Assessment of Station Types from RTA/PACE I-294 Feasibility Study

Station Location & Platform Arrangemnt	Most Suitable as an In-Line Station	Minimize Bus Route Deviation	Minimize Walk Distance for Bus Rider	Minimize Impact to Existing Travel Lanes	Opportunities for Joint/TOD development
Center - one median platform	*****	*****	***	**	*
Center - two side platforms	*****	*****	***	*	*
Center - two side platforms offset	*****	*****	***	***	*
Outside - one platform each side	***	****	*	****	***
Adjacent with direct access	*	*	*****	*****	*****
Transfer Station	*	*****	N/A	*****	*

***** best meeting criteria; *least meeting criteria; N/A: Not Applicable

Fig. 9 Aurora Transportation Center in Aurora, IL

Fig. 10 Julia M. Carson Transit Center in Indianapolis, IN

OTHER TRANSIT

SUPPORTIVE INFRASTRUCTURE

In addition to the several different types of stations, other infrastructure should be implemented to help create a safer, more accessible, and more efficient bus route.

Transit Signal Priority

Transit Signal Priority (TSP) improvements could be implemented throughout the I-290/I-88 study area, assisting in the delivery of faster and more reliable service. TSP allows bus drivers to communicate with a traffic signal to extend a green light or shorten a red light. Pace has existing TSP technology that can be repurposed from Pace Pulse and other routes. Another TSP element that could be considered are queue jumps, which combine bus-only lanes and TSP.

Signage & Pavement Markings

Signage as transit supportive infrastructure can take multiple forms. Wayfinding signage, regulatory signage, and informational signage all work together to create a clear and cohesive message around a transit station and encourage ridership.

Wayfinding signage communicates relevant destinations, such as nearby transit, micromobility stations, or popular destinations to riders. Wayfinding signage should be designed on a scale for pedestrians and cyclists.

Regulatory signage designates traffic flow for both vehicles and pedestrians and discourages improper use of facilities. For example, barring vehicles from idling in a bus-only boarding zone, or traveling against the flow of traffic in a one-way street.

Informational signage can educate riders about the services provided and can also work as a form of branding. On Pace Pulse routes, the buses are wrapped in a unique livery, designating the route as a “Pulse” experience and distributing more information about the service.

Pavement markings often use easy-to-understand pictures, such as a bike to indicate a bike lane, or red paint to indicate a bus lane. Signage and pavement markings can work together to create redundancy in information, ensuring that service runs smoothly.

Fig. 11 RTA Wayfinding Signage in Elgin, IL

Fig. 12 Bus Lane Pavement Markings

OTHER TRANSIT

SUPPORTIVE INFRASTRUCTURE

Bus Bulbs & Boarding Islands

Both bus bulbs and boarding islands are infrastructure options that speed up bus service by making the boarding process more efficient. They increase safety by having riders board from an extended curb. Both improvements create more space for riders to wait and for the driver to activate bus access ramps.

Parking

Due to the nature of suburban transit travel, an adequate number of parking spaces should be provided at stations to create Park-n-Rides. Providing riders with a parking space can help solve first-mile/last-mile connectivity concerns, especially if driving to the station is the only way for a rider to access it. Accessible parking spaces and shared mobility spaces should also be provided.

Shelter and Seating

Stations should provide accessible shelters and seating areas for waiting riders. Shelters can help protect riders from rain, snow, traffic noise and heat. Additionally, shelters can be equipped with heat lamps for riders to use in colder weather. Accessible seating can provide comfort for riders as they wait, specifically older riders, riders with disabilities, and parents with young children.

Mobility Hub

One form of shelter and seating is a Mobility Hub. Similar to transit centers, a Mobility Hub functions as a station that offers two or more separate transportation services, as well as connections to other non-transit modes and convenient services. Mobility Hubs can adapt easily to different scenarios, functioning well in both high and low-density areas. Mobility hubs can range from dense urban areas, incorporating large communities into their context, or smaller areas near transit routes that function as areas for micromobility parking near well-used transit routes.

Mobility Hubs can be home to different amenities which can include commercial opportunities such as a coffee shop or café, convenience store, conference rooms, community gathering spaces, restrooms, bicycle storage, and parking spaces. Support with the local community would be critical to the success of a Mobility Hub.

Fig. 13 Pace Pulse Boarding Area in Des Plaines, IL

Fig. 14 Planned Mobility Hub Rendering in Cary, IL

OTHER TRANSIT
SUPPORTIVE INFRASTRUCTURE

Sidewalk
Sidewalks are pedestrian dedicated spaces, typically 5’ wide, but can vary depending on pedestrian volume. Safe and comfortable sidewalks often include a buffer of a minimum 5’ between vehicle travel lanes and pedestrians. Sidewalks near transit stations should be connected to a larger network of sidewalks, allowing for pedestrian connectivity with transit.

Shared Use Path
Shared Use Paths can function similarly to a sidewalk but are built for both pedestrians and cyclists. Typically 10’ wide, Shared Use Paths function well as active transportation connectors through low density and/or recreational areas. Shared Use paths may replace sidewalks on one side of the street, dependent on pedestrian volume, and are the recommended bikeway for high speed/high traffic roads..

Lighting
All sidewalks and transit stations should have adequate lighting infrastructure, particularly emphasized where there are pedestrian and vehicle conflicts. Lighting that meets the minimum requirement for vehicles does not always meet the needs of pedestrians. Installing lighting at pedestrian scale, or at more frequent intervals can improve a pedestrian’s sense of security and improve safety at crossings.

Bicycle Parking
Adequate bicycle parking is important to allow bicyclists the ability to safely and securely lock up their bicycle when they arrive to take the bus.

Bicycle racks allow bicyclists to securely lock up their bicycles. Bicycle racks do not take up much space and are cost-effective. The most common type of bicycle rack is an inverted U rack.

Enclosed bicycle storage, such as bicycle rooms and bicycle lockers, offer a more secure and safe place for bicyclists to store their bicycles. Additionally, these enclosed parking spaces help protect bicycles from extreme weather.

Fig. 15 Shared Use Path in Des Plaines, IL

Fig. 16 Bicycle Locker in Toronto, Ontario

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CHAPTER FOUR

CANDIDATE STATIONS

STATION LOCATIONS

As discussed in the Service Design Plan, in order to select the candidate stations, the top trip origins from the Trip Pair Analysis and the Central Chicago Analysis were evaluated for their potential as a station location. The following factors will be used to determine whether a top origin should be evaluated as a station location:

- Census tract overlaps the study corridor
- Tract includes transit supportive land uses such as employment centers, multifamily housing, etc.
- Census tract is also a top destination from other top origins
- Existing transit that could connect to the proposed station
- Existing bike and pedestrian facilities in the area to support first-last mile connections

Proposed Locations

Eleven candidate stations were selected throughout the project area along both I-290 and I-88:

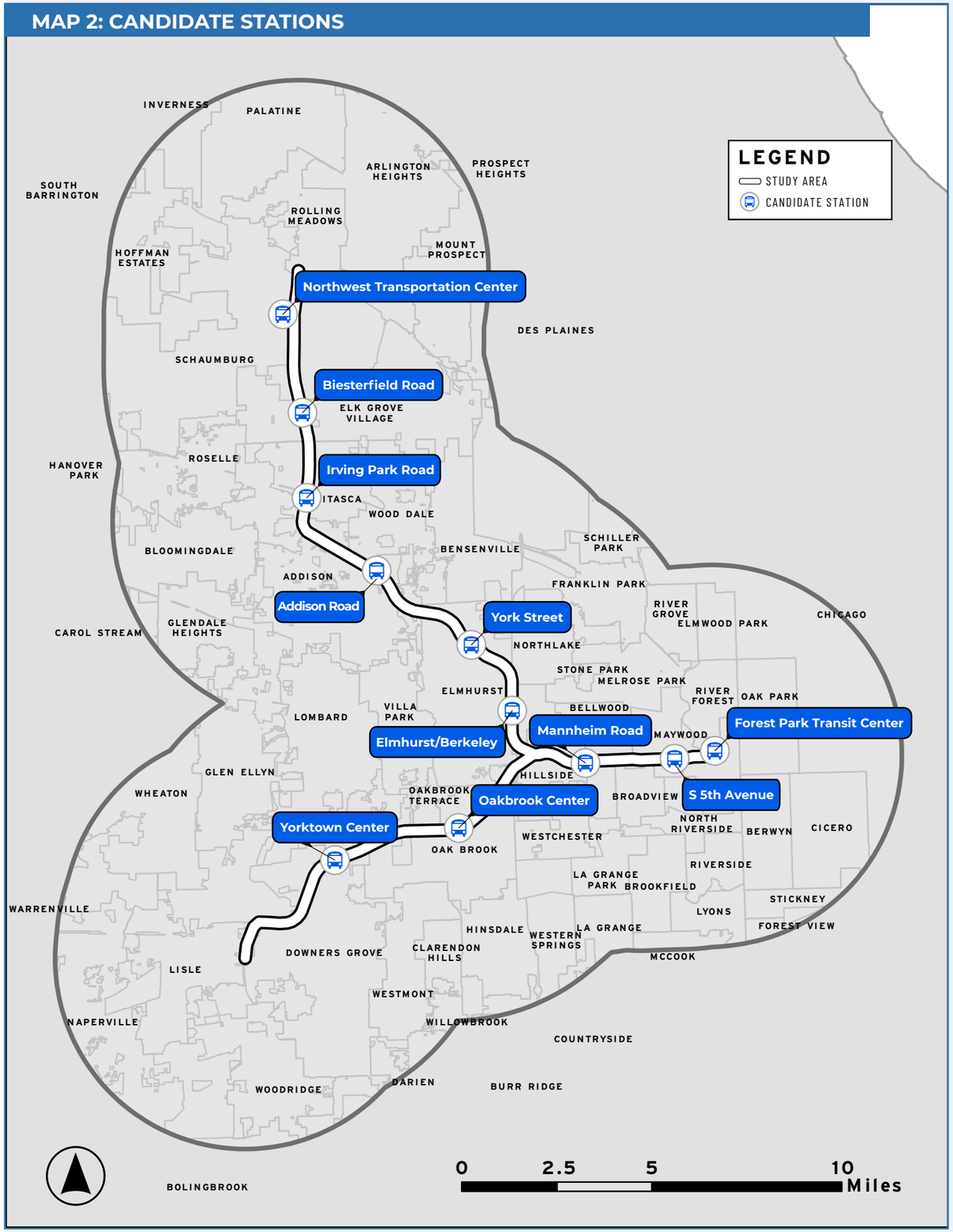
- Northwest Transportation Center
- Biesterfield Road
- Irving Park Road
- Addison Road
- York Street
- Elmhurst/Berkeley
- Yorktown Center
- Oakbrook Center
- Manheim Road
- S 5th Avenue
- Forest Park Transit Center

Screening Process

A two-tiered screening process was used to determine the feasibility of the eleven candidate stations. The first part was to determine whether or not the candidate stations were viable by looking at the travel markets, population and employment density, equity, and potential ridership. results of this analysis are provided in the Service Design Plan.

The second part of the screening process was to determine the physical feasibility of the candidate station locations, to determine if stations would be able to be constructed, what type of station would be suitable, and what

MAP 2: CANDIDATE STATIONS



other transit supportive infrastructure would be needed.

Initial Feasibility Review

Northwest Transportation Center

This location would be the northernmost facility along the I-290 express bus route. Bus service would begin and end at the existing facilities located at the Northwest Transportation Center. Buses would reach the station via Martingale Road and Higgins Road.

Riders would be able to connect to multiple Pace routes: #208, #236, #554, #600, #604, #606, #607, #697, #905, Arlington Heights-Rolling Meadows On Demand, and Pace Dial-a-Ride.

Due to the existing bus facilities, this location will skip the physical feasibility assessment.

Biesterfield Road

Located along Biesterfield Road in Elk Grove Village, this location would connect riders to Ascension Alexian Brothers hospital and other employment locations. The initial review recommends further reviewing the possibility of the buses traveling on Rohlwing Road/Martingale Road, to travel to the Northwest Transportation Center.

This location does not offer any transit connections.

Advance for Physical Feasibility Assessment.

Fig. 17 Northwest Transportation Center Aerial

Fig. 18 Biesterfield Road Aerial

Irving Park Road
Located along Irving Park Road in Itasca near the Itasca Village Hall, this station is located a half-mile from the Itasca Metra Station and would potentially connect riders to the Milwaukee District West (MD-W) Metra line at the Itasca Metra Station. Due to the lack of entrance/exit ramps, the initial review recommends further reviewing a median in-line center station beneath Irving Park Road.

Advance for Physical Feasibility Assessment.

Addison
Located near the intersection of Addison Road and Byron Avenue, this station would connect riders to both nearby residential areas and employment centers south of the location along Addison Road. Due to the lack of entrance/exit ramps, the initial review recommends further reviewing a median in-line center station on I-290 above Addison Road.

This location would connect riders to Pace route #711

Advance for Physical Feasibility Assessment.

Fig. 19 Irving Park Road Aerial

Fig. 20 Addison Aerial

York Street
Located at York Street in Elmhurst, this location connects riders to residential areas to the east, southwest, and southeast, and employment centers to the north and south. Additionally, it would connect riders to Pace route #332.

Due to the existing design of the entrance/exit ramps ramps, the initial review recommends further review of an adjacent transit center or side platform stations for eastbound and westbound buses.

Advance for Physical Feasibility Assessment.

Elmhurst/Berkeley
Located a half-mile from the Berkeley Metra station in Berkeley, the station connects riders to the Metra Union Pacific West (UP-W) line. The location is bordered by residential areas to the southwest, northwest, and southeast, and employment centers to the north and northeast.

Due to the existing widths of this section of I-290 and the inability of the bus to use the shoulders, the initial review recommends further review of side platform stations.

Advance for Physical Feasibility Assessment.

Fig. 21 York Street Aerial

Fig. 22 Elmhurst Berkeley Aerial

Yorktown Center
Located at Yorktown Center in Lombard, this location is the southwestern-most proposed facility location. A stop at Yorktown Center offers riders access to residential areas and employment centers, as well as access to several Pace routes: #313, #322, #715, #722, and #834.

Because Yorktown Center already has existing bus facilities, the proposed express bus service would be able to use the same facilities. The bus would operate on Butterfield Road to access Yorktown Center.

Due to the existing bus facilities, this location will skip the physical feasibility assessment.

Oakbrook Center
Located at Oakbrook Center in Oak Brook, this location offers riders access to residential areas and employment centers, as well as access to several Pace routes: #301, #322, and #332.

Because Oakbrook Center has existing bus facilities, the proposed express bus service would use the same facilities. The inbound bus would access Oakbrook Center via 22nd Street and the outbound bus would operate between I-88 and Oakbrook Center via Kingery Highway.

Due to the existing bus facilities, this location will skip the physical feasibility assessment.

Fig. 23 Yorktown Center Aerial

Fig. 24 Oakbrook Center Aerial

Mannheim Road
Located at Mannheim Road on the border of Hillside and West Chester, this location offers riders access to employment centers, as well as Pace routes #317 and #330.

Due to the shoulder width and location of entrance/exit ramps, the initial review recommends further examination of adjacent stations on the nearby roadways.

Advance for Physical Feasibility Assessment.

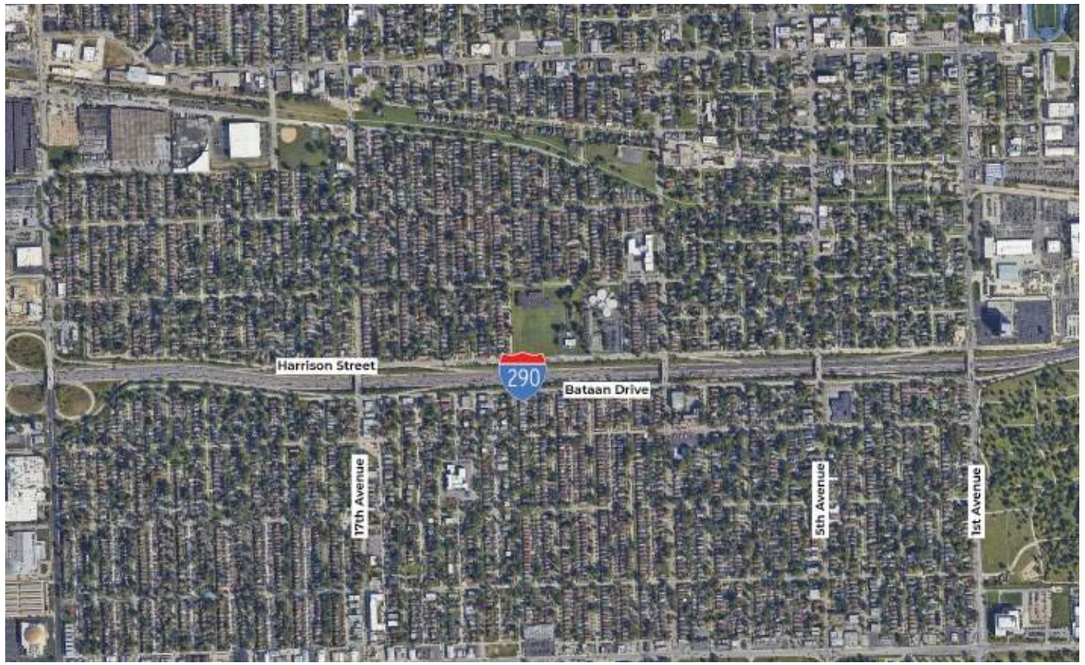
Loyola University Medical Center
Located at I-290 and 5th Avenue in Maywood, this location would offer riders access to Loyola University Medical Center and Pace route #331.

In order to connect riders to the Pace route #331 stop on 5th Avenue, the initial review recommends reviewing the placement of stops on Bataan Drive for eastbound service and Harrison Street for westbound service. Due to the locations of the entrance/exit ramps, the eastbound service would need to exit at 17th Avenue, and westbound service would need to exit onto Harrison Street at Exit 20.

Advance for Physical Feasibility Assessment.

Fig. 25 Mannheim Road Aerial

Fig. 26 Loyola University Medical Center Aerial



Forest Park Transit Center
This location would be the southeasternmost facility along the I-290 express bus route. This location would connect riders to residential areas and employment centers, including downtown Chicago via the CTA Blue Line.

Bus service would begin and end at the existing facilities located at the Forest Park Transit Center. Buses would reach the transit center via Des Plaines Avenue.

Riders would be able to connect to the CTA Blue Line and multiple Pace routes: #301, #303, #305, #308, #310, #317, and #318.

Due to the existing transportation center facilities, this location will skip the physical feasibility assessment.

Fig. 27 Forest Park Transit Center Aerial

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CHAPTER FIVE

PHYSICAL FEASIBILITY

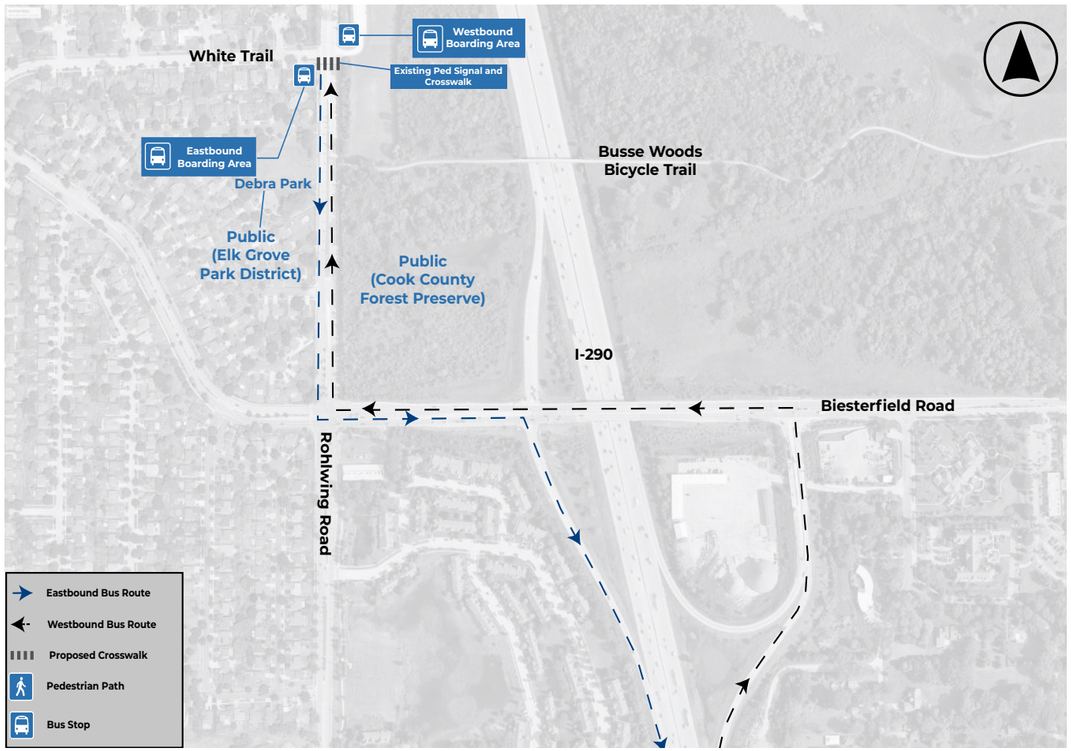
PHYSICAL FEASIBILITY ASSESSMENTS OF
POTENTIAL STATION SITES

Biesterfield Road

The proposed Biesterfield Road stop has westbound buses exit I-290 at Biesterfield Road and travel north on Rohlwing Road to a stop at White Trail. Eastbound buses travel south on Rohlwing Road, stopping at White Trail. Pedestrian signals and high-visibility crosswalks already exist at the proposed stop location. Sidewalk will need to be constructed on the northeast corner to complete the connection to the westbound bus stop. This stop couple creates an important bicycle and pedestrian connection between an existing trail and a park. Site the stops on the far side of the crosswalk so that a pedestrian crosses behind a Pace bus to avoid a potential bus-pedestrian conflict point. Stop should include lighting as Rohlwing Road is currently not lit.

Physical Feasibility: This location is physically feasible to fit within the existing right-of-way because of its compact size. Due to the nature of the stop, infrastructure resembling a preferred Pace Pulse Stop (See Figure 30) should be utilized here. An inline station or similar at this location is not possible due to a lack of median width along I-290.

Fig. 29 Biesterfield Road Site Plan

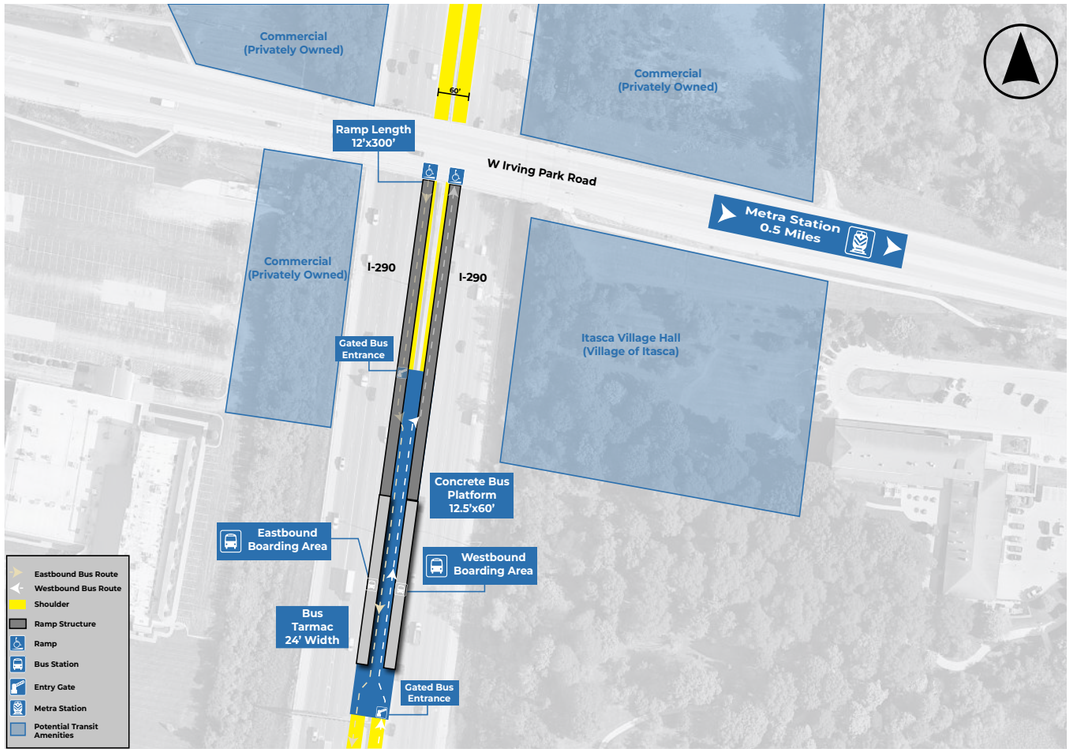


Irving Park Road

The proposed Irving Park Road station is an inline station proposed along I-290 at the Irving Park Road bridge. Buses travel along the I-290 inside shoulder, with boarding and alighting taking place at a built station in the median. Other types of station design are not possible at this location due to a lack of entrance/exit ramps to the highway. There is existing pedestrian infrastructure on the south side of Irving Park Road that can be used for access to the station as the entrance and exit will be solely on this side of the road. This bus route would connect with existing Metra service at the Itasca Metra station, located less than a half mile east of the proposed station. A mobility hub can be built in addition to pedestrian improvements, allowing connections at the Itasca Metra Station.

Physical Feasibility: This location is physically feasible to fit within the existing right-of-way. It is recommended to widen I-290 to allow for two full 12’ bus lanes through the station, and full 10’ shoulders adjacent to the travel lanes. The cost of the station could be reduced by constructing it within the existing 44’ median. This would require sharing one bus lane through the station, controlling access between northbound and southbound buses, and eliminating the inside shoulder.

Fig. 30 Irving Park Road Site Plan

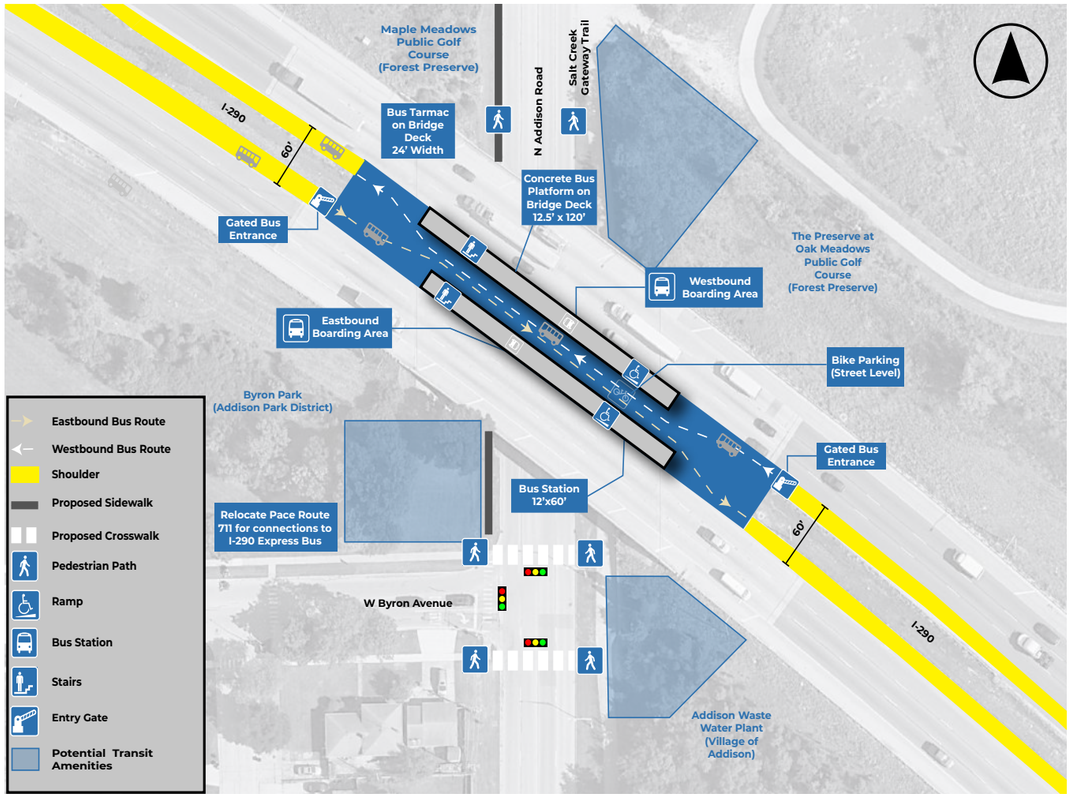


Addison Road

The proposed Addison Inline Station is recommended at the crossover of I-290 and N Addison Road. The bus travels along I-290 on the inside shoulders, with riders waiting in a station built in the median. Due to the highway being above N Addison Road, access to the road is facilitated with an accessible elevator and stairs. An inline station is the only feasible station here, due to the lack of entrance/exit ramps to I-290 at this location. The station would provide a direct and convenient connection to the Salt Creek Trail. Traffic signals and high-visibility crossings are recommended at the intersection of Byron Avenue and N Addison Road, located directly south of the proposed station. Currently, Pace route 711 operates along N Addison Road for a portion of its service. While the service does not extend to I-290, service for route 711 could be extended to allow for a connection to be made for riders.

Physical Feasibility: This location is physically feasible due to ample shoulder width and additional acquirable land for the construction of a mobility hub.

Fig. 31 Addison Road Site Plan



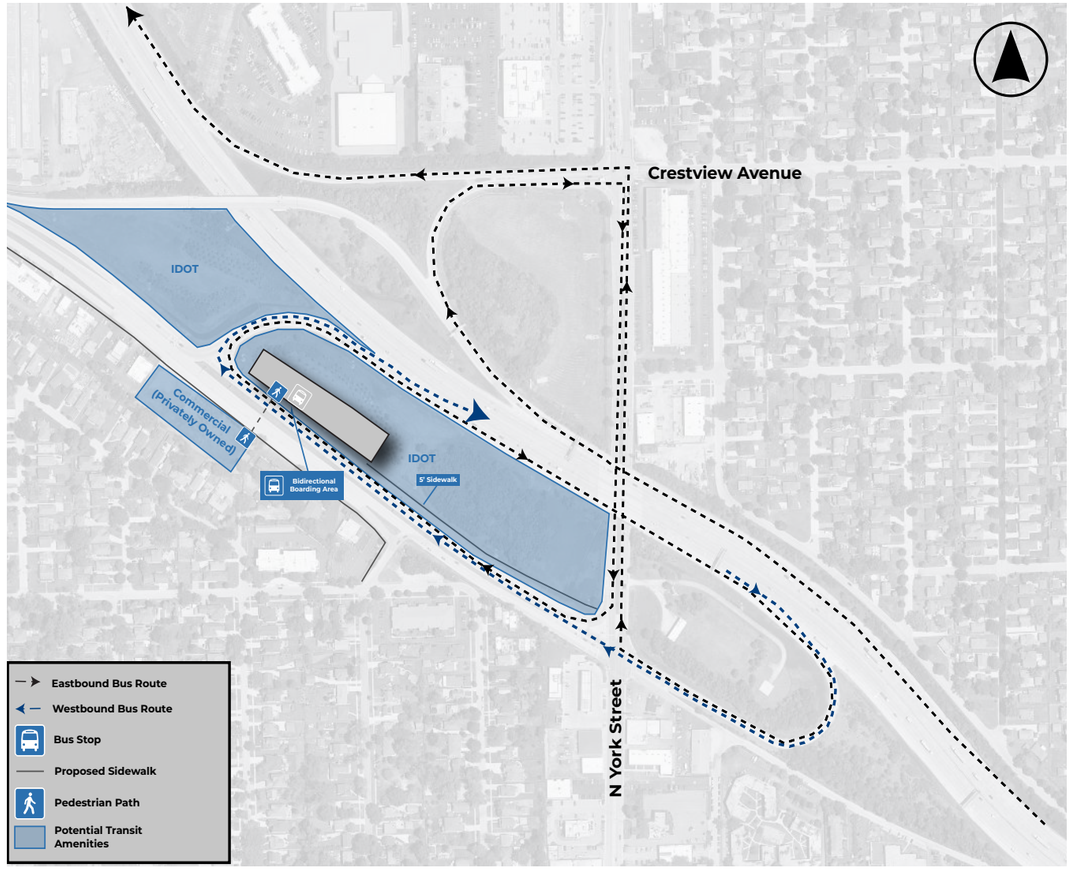
York Street

Two alternatives were considered for the stop along York Street. While York Street has entrance and exit ramps to I-290, challenges exist for westbound bus operators, necessitating a route using multiple interchange ramps. Two options are possible for York Street: the first is a shared stop for both east and westbound buses, located in the infield between I-290 and Lake Street, with buildings and parking on both sides of the street.

The second is the same infield location for the eastbound bus, and a separate area for the westbound bus on the outside shoulder in the industrial park east of I-290. In both options, pedestrian improvements will need to be coupled with the stop placements to improve connectivity between riders, the locations nearby, and Pace route 332 operating on York Street.

Physical Feasibility: This location is physically feasible due to the space available to build stations and mobility hubs in infield areas. The shoulder width is not a concern, because the bus will not be traveling on the shoulder on this section of I-290. The shared station location is more feasbile, due to the travel patterns of the bus intersecting. Having a shared station is more cost effective and easier to implement when the oppurtunity presents itself.

Fig. 32 York Street Site Plan



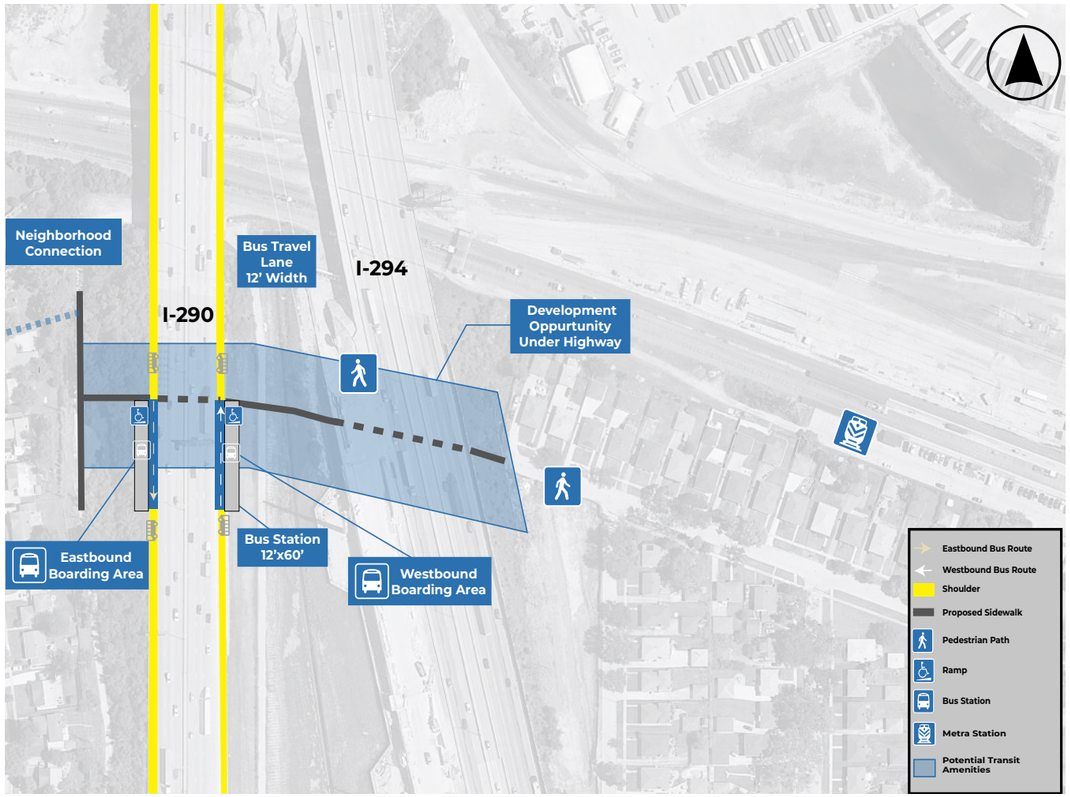
Elmhurst/Berkeley
The Berkeley side platform station is necessary due to the narrow median width. Service will not be using the inside shoulder at this location due to the narrow width, and can be conducted on the outside shoulder, similar to sections of express bus service on I-94. The stations reflect the bus travel patterns and would exist on the east and west sides of I-94, featuring separate buildings for eastbound and westbound riders. There is an existing service road closed to regular traffic below I-290, which could be repurposed to allow for pedestrian travel to the east and west neighborhoods creating a pedestrian connection to the Berkley Metra Station.

Development opportunities are possible along this proposed pedestrian path to create a safe and comfortable connection for pedestrians and bicyclists along the service road.

Physical Feasibility: Although this location lacks inside shoulder space, it does have outside shoulder space. The change from inside shoulder space to outside shoulder space is feasible and is exemplified by the existing Pace I-94 express bus service. There is also significant space under the station in the form of a service road, where, if significant pedestrianization efforts are undertaken, this area can be a safe and comfortable way for riders to access the nearby Metra station by biking or walking.

An engineering study should be performed to evaluate the best way to protect the station from errant vehicles. A small opening between offset barrier walls could be possible where the bus enters at slow speed, but vehicles traveling at design speed would not enter.

Fig. 33 Elmhurst/Berkeley Site Plan



Mannheim

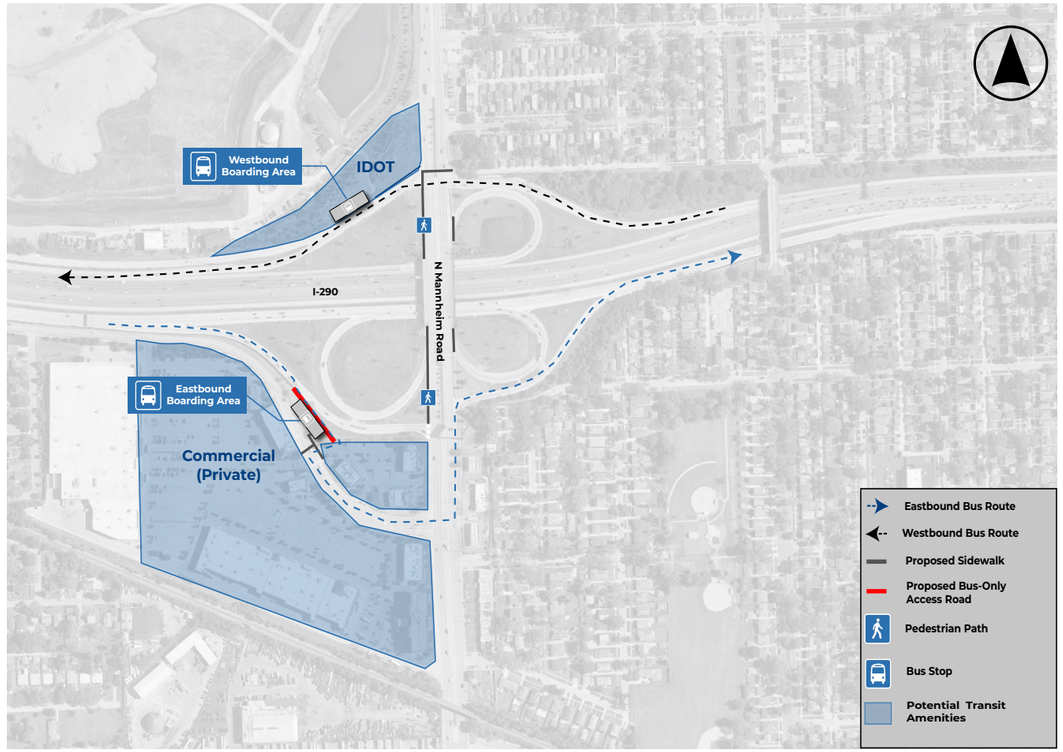
From York Street to Forest Park, the I-290 inside shoulder is too narrow to support bus on shoulder. The bus can use the outside shoulder for this section. The bus will exit I-290 at Mannheim Road. The most feasible stop location for the westbound route exists along the Frontage Road, west of Mannheim Road. The westbound bus can exit at Mannheim Road, and continue straight through the existing traffic signal.

The eastbound route would pull off the Mannheim ramp and enter a bus boarding area outside the flow of ramp traffic. After the stop, the bus would use a new bus-only connection between the Mannheim ramp and a parking lot to get to Harrison Street and the signalized intersection with Mannheim. Once northbound on Mannheim, the eastbound bus can re-enter I-290.

This creates the opportunity to build a Mobility Hub, allowing connections to the existing Pace route 330, and creating a positive and comfortable transportation connection for riders. Significant pedestrian improvements must be made in addition to the stop to allow for travel to and from the Mobility Hub. Through a partnership with the Hillside Town Center and IDOT, park-n-rides can be created within existing parking infrastructure and within IDOT owned property at the westbound ramp.

Physical Feasibility: This location is physically feasible due to significant space along access ramps and the existing Hillside Town Center parking lot for bus station and mobility hub construction.

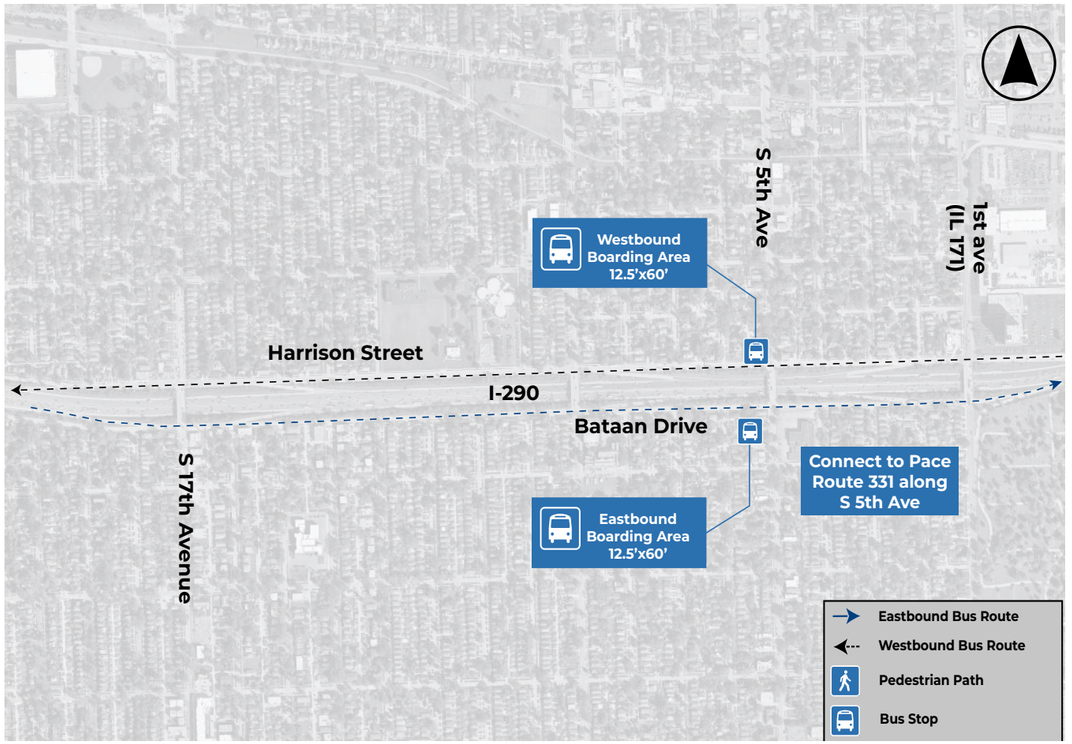
Fig. 34 Mannheim Road Site Plan



S 5th Avenue
The eastbound and westbound buses will be using the outside shoulder and can exit at 17th Street (eastbound) and 1st Avenue (westbound) to access the 5th Street stop. Both buses travel on Bataan Drive for 1 mile and through the 9th Street four-way stop to reach the 5th Street bus stop. Adjacent stations would look similar to traditional bus stops due to their constrained location. Signs, benches, and concrete pads are possible at these locations.

Physical Feasibility: This location is physically feasible because of the ease of construction. Stations would be less demanding due to the ability to create adjacent stations that look like more typical roadside bus stop.

Fig. 35 S 5th Avenue Site Plan



BICYCLE
CONNECTIONS

As part of a robust transportation system, bicycles can provide first-last mile connections to transit services for riders who need to reach destinations beyond walking distance of a station. This study evaluated the existing and planned bicycle network within three miles of each station and identified additional recommendations for new bicycle facilities to improve connections. Three miles (a 15 minute bike ride) is considered a reasonable distance a rider will bike to or from a transit station.

Through ongoing collaboration with local and state partners when implementing service, Pace should encourage construction of these improvements to support the new transit investment and boost quality of life for communities the new Pace express route will serve.

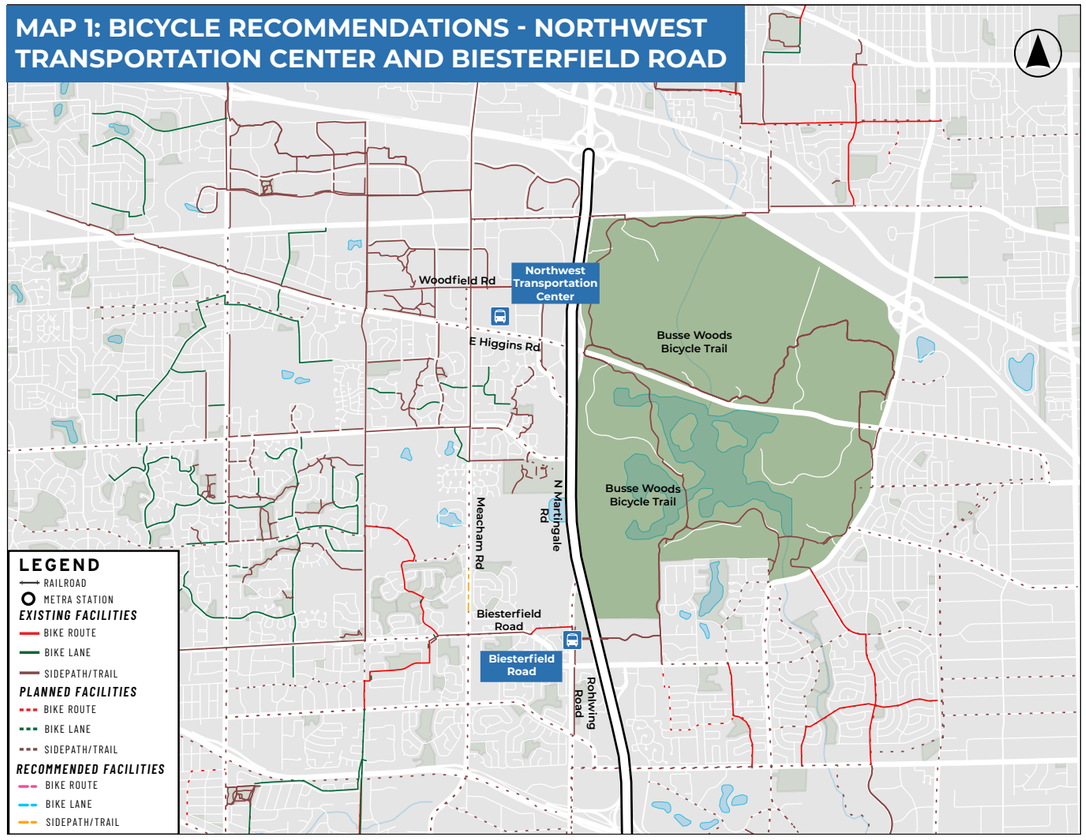
Northwest Transportation Center
The Village of Schaumburg has a comprehensive network of sidepaths and bike lanes in the area around Northwest Transportation Center. Additional sidepaths have been proposed through other local and regional planning efforts, and it is recommended that these planned projects continue to be considered for implementation.

Biesterfield Road
The only proposed facility is a sidepath along Meacham Road, connecting two previously proposed sidepaths.

An existing bicycle and pedestrian bridge crosses I-290 at the proposed stop location on Rohlwing Road and connects to Busse Woods and the neighborhoods east of I-290. A sidepath exists along the east side of Rohlwing Road, and marked bike routes connect to additional side paths in the neighborhood west of the proposed stop. Similar to above, additional bicycle facilities have been proposed through other planning processes, and this report supports the continued implementation of these projects.

Sidepaths have been proposed for portions Meacham Road through other plans, and it is recommended that the proposed path continue continuously from Biesterfield Road to Old Schaumbrg Road.

MAP 1: BICYCLE RECOMMENDATIONS - NORTHWEST TRANSPORTATION CENTER AND BIESTERFIELD ROAD



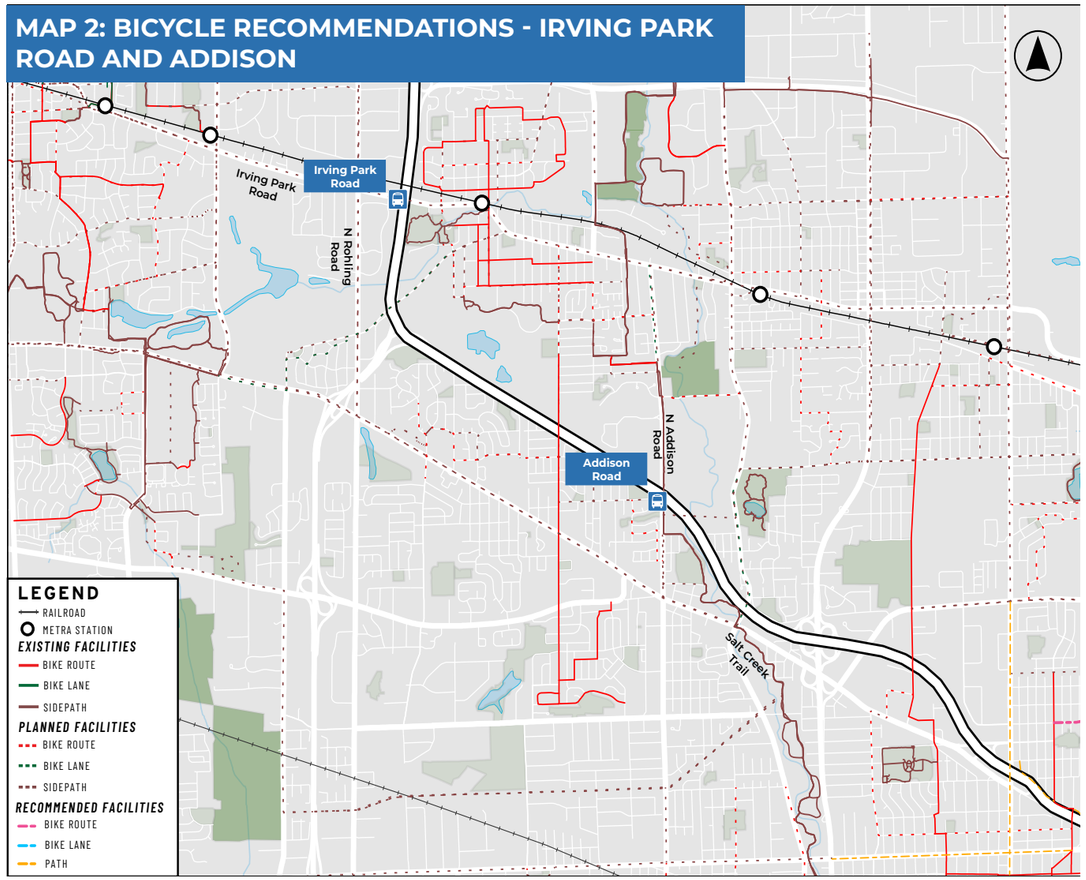
Irving Park Road

A planned sidepath along Irving Park Road would connect the proposed station with existing bike facilities in the surrounding neighborhood. This connection will be critical to provide bicyle access to a new in-line station at Irving Park Road. It is recommended that this project be supported for priority implementation either before the station is constructed or as part of the station implementation itself.

Addison Road

The existing Salt Creek Trail on the east side of Addison Road will serve as an important link to the proposed station. This connects to existing bike routes and sidepaths to the north. Additional sidepaths and bike routes have been proposed through other local and regional planning processes that would expand connections to the surrounding communities, and it is recommended that these projects continue to be moved forward for implementation.

Two new recommendations for this area are shown on Map 2 in yellow. These are sidepaths along E North Avenue and York Street, filling gaps that exist between other proposed facilities.

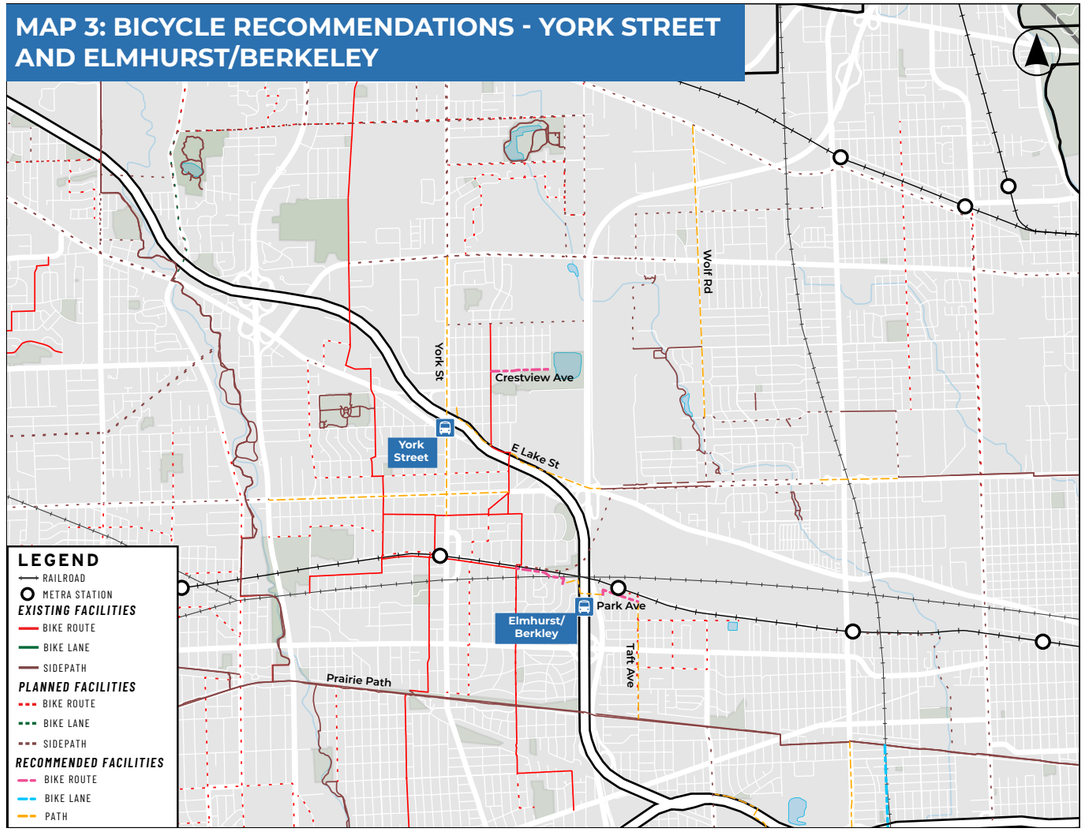


York Street
Elmhurst has existing bike routes near the proposed station at York Street. It is recommended that side paths be added to both York Street, Lake Street, Wolf Road, and North Avenue to complete planned connections that have been proposed through other local and regional planning processes.

Elmhurst/Berkeley
The primary recommendation to provide bicycle access to this station is a sidepath running under I-290 connecting the neighborhoods east and west of the station and also serving as the primary access point to the station. This sidepath could be extended to the Berkeley Metra station by widening the existing sidewalk. And additional connection on Taft Avenue is also proposed, connecting to the Prairie Path.

A vacant lot in the west neighborhood that is currently owned by the Village of Elmhurst could serve as the connection point from the proposed access path to the local street network. To connect to the eastern neighborhood, the path can link to Park Avenue, which currently dead-ends at the interstate.

MAP 3: BICYCLE RECOMMENDATIONS - YORK STREET AND ELMHURST/BERKELEY

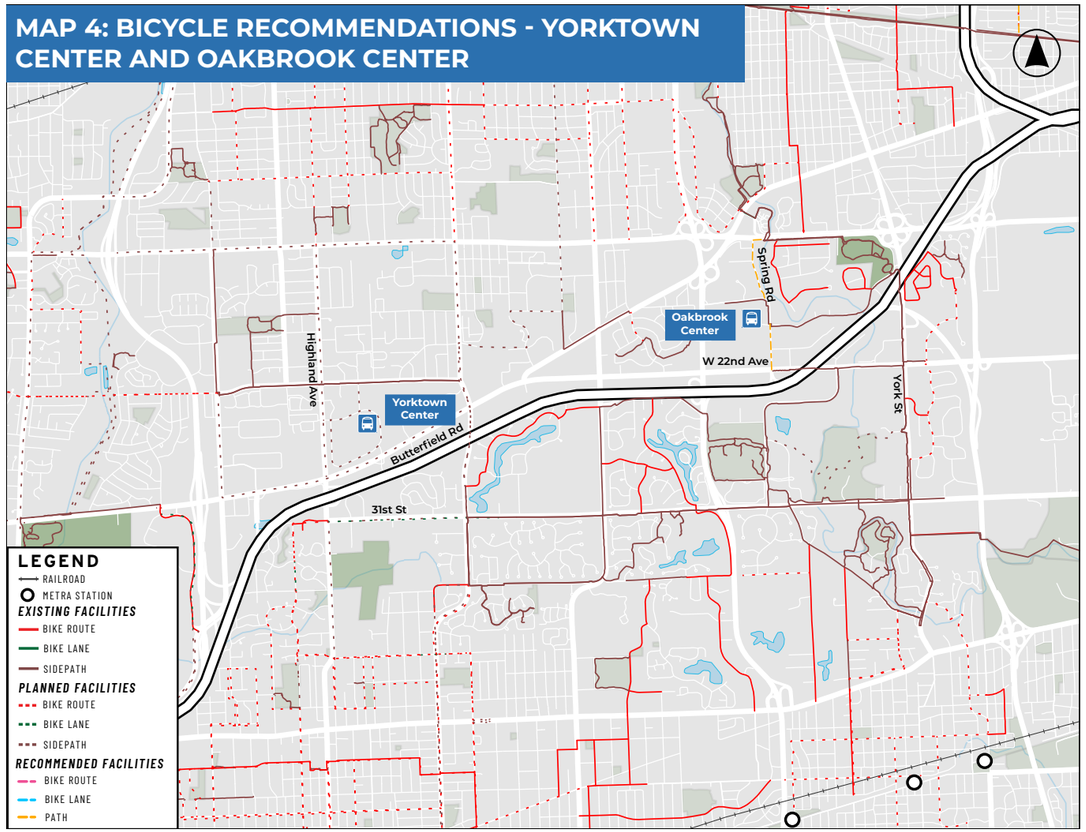


Yorktown Center

A sidepath has been proposed to circle Yorktown Center and connect to existing sidepaths to the north through other local and regional planning projects, and it is recommended that this facility be prioritized to support connections to the existing transit stop where the I-290/I-88 express bus is expected to stop.

Oakbrook Center

There is an existing sidepath along a portion of 16th Street and Spring Road, continuing to a sidepath on Harger Road which connects to a neighborhood street and other regional trails. This study recommends the Spring Road sidepath be extended both north and south to make more direct connections to existing paths and trails that connect to other neighborhood routes.



Mannheim Road

The proposed Mannheim Road station site is near both the Prarie Path and the Salt Creek Trail, but lacks connections to these trails and the surrounding neighborhoods. A sidepath is proposed for Mannheim Road to connect both trails to the proposed station, along with a sidepath along Harrson Street to connect to a future facility on Wolf Road that has been proposed though other local and regional planning processes.

An additional recommendation is to provide bike path on Winchester Boulevard which could serve as a lower-stress alternative to Mannheim Road. Multiple barriers prevent easy east-west travel in this area, so connections to existing trails can help support travel in those directions.

S 5th Avenue

The S 5th Avenue stop is intended to connect riders to the Loyola University Medical Center via Pace Route 331, but bicycle connections could provide greater schedule flexibility for people needing to make this connection. A bike lane is proposed along S 5th Avenue, connecting to the Prairie Path and an existing bike route on Washington Boulevard to the north, and a proposed sidepath on Roosevelt to the south.

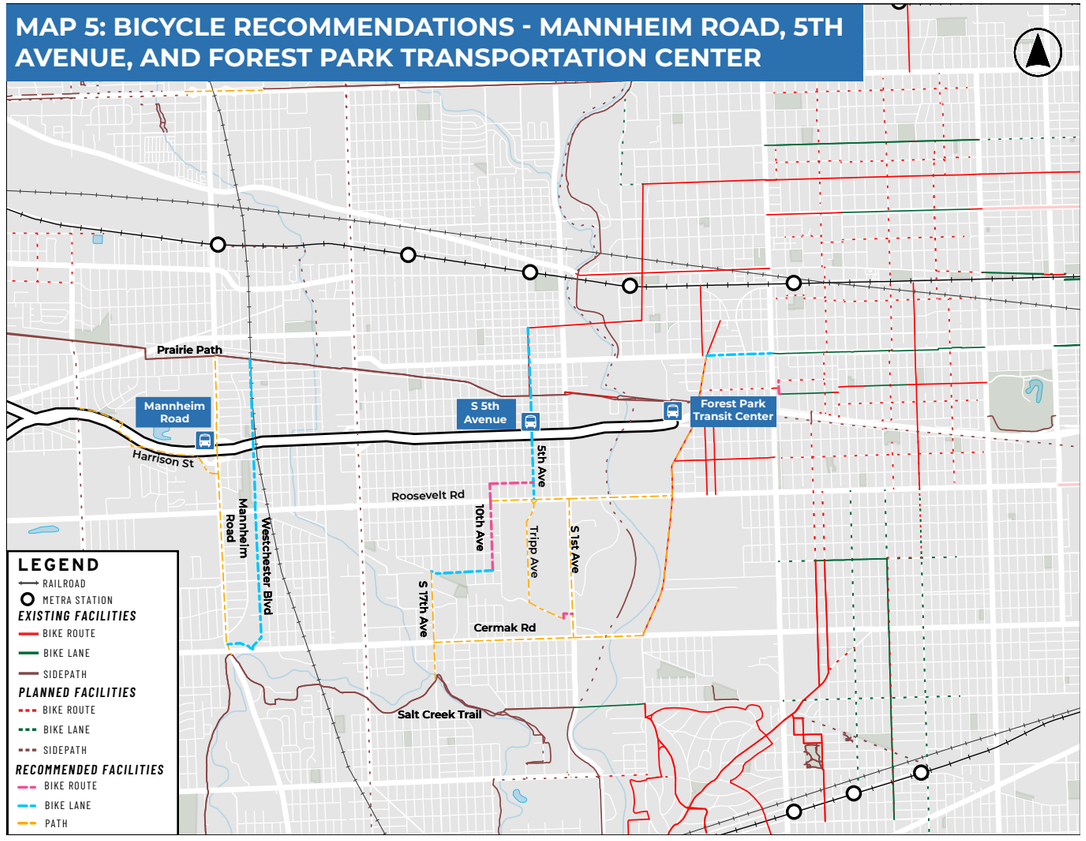
A sidepath is also proposed on Tripp Avenue, which runs through and is owned by Loyola University Medical Center. Coordination with the medical center will be requried to implement the sidepath. Additional bike facility recommendations that could provide connections to the surrounding neighborhood and Loyola University Medical Center are shown in Map 5 to the right.

Forest Park Transportation Center

Des Plaines Avenue, which connects to the transit center, is currently marked as a bike route, though as a four lane collector street that experiences high traffic volumes, it is recommended that this facility be upgraded to a sidepath to improve the safety and comfort of bicyclists accessing this key transit amenity.

Forest Park has several marked bike routes in the neighborhoods surrounding the transit center. Some of these routes connect to planned facilities in Oak Park, which are identified in Map 5. This project recommends a bike lane on Madison Street in Forest Park, connecting the

MAP 5: BICYCLE RECOMMENDATIONS - MANNHEIM ROAD, 5TH AVENUE, AND FOREST PARK TRANSPORTATION CENTER



proposed sidepath on Des Plaines to the bike lanes in Oak Park, which are planned to be upgraded to protected bike lanes in the recently adopted Oak Park Bike Plan.

PEDESTRIAN
CONNECTIONS

Every transit trip begins as a pedestrian trip. For this reason, a well connected sidewalk network is essential to support rider access to a transit station. This study evaluated the existing pedestrian network within a half mile of each station to identify opportunities for improved infrastructure. A half mile is generally considered the maximum distance a rider will walk to or from a transit stop.

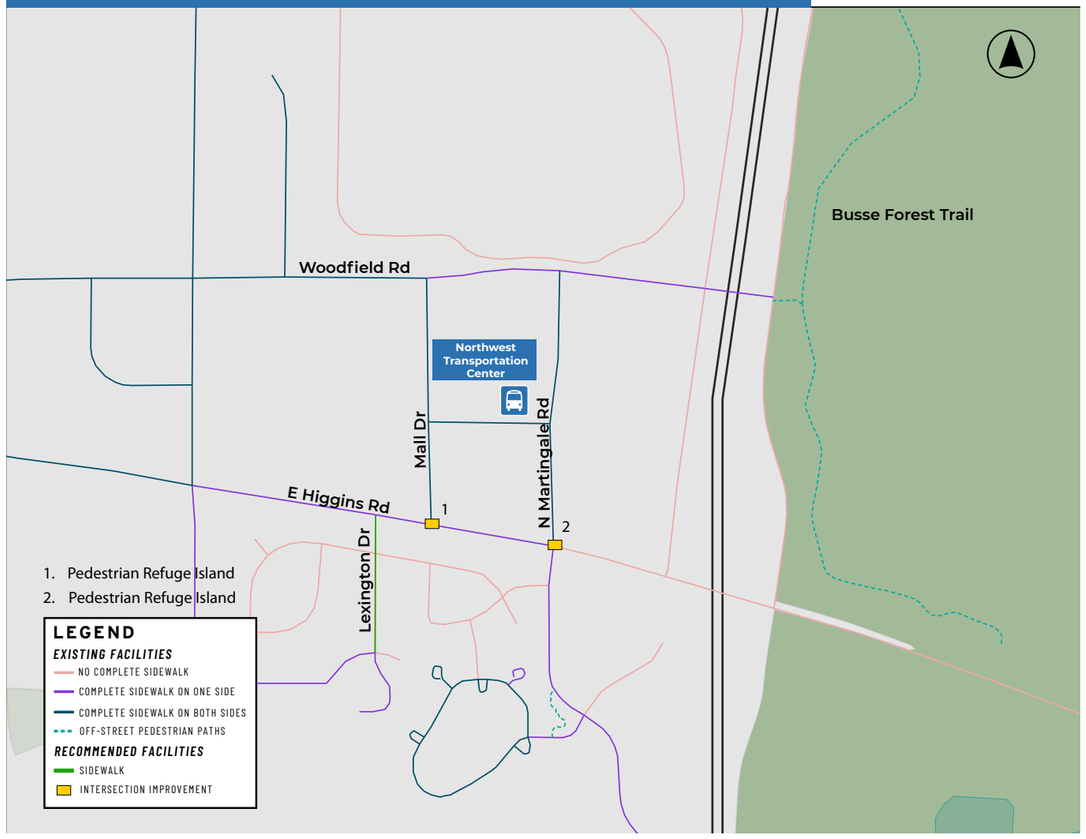
Through ongoing collaboration with local and state partners when implementing service, Pace should encourage construction of these improvements to support the new transit investment and boost quality of life for communities the new Pace express route will serve.

Northwest Transportation Center

Northwest Transportation Center (NWTC) in Schaumburg primarily functions as a park-and-ride and transit hub, though the high employment density surrounding the center suggests the possibility of a workers needing to walk between their job site and the NWTC.

The recommended improvements through this process focus on helping pedestrians cross Higgins Road, which is a high volume arterial with three to four travel lanes in each direction. It is recommended that the existing crossings at Mall Drive and Martingale Road be enhanced with pedestrian refuge islands and high visibility crosswalks.

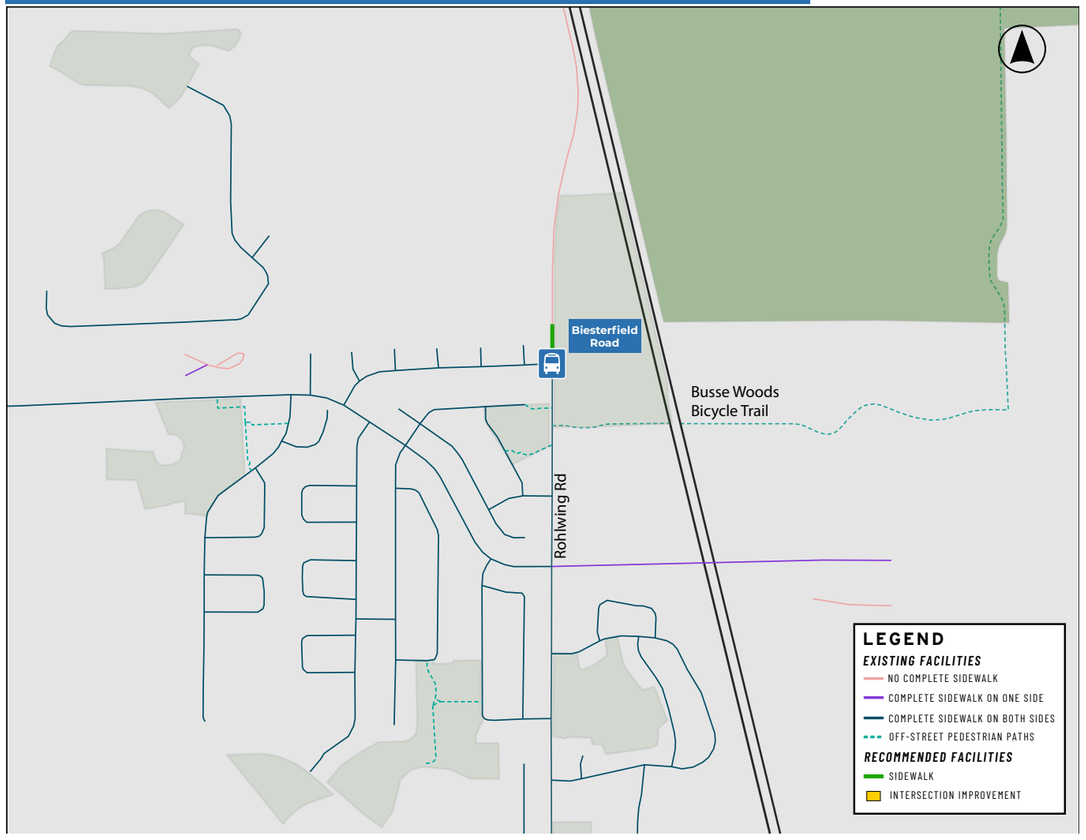
MAP 6: PEDESTRIAN RECOMMENDATIONS - NORTHWEST TRANSPORTATION CENTER



Biesterfield Road

The proposed Biesterfield Road stop is located on Rohlwing Road adjacent to White Trail and the Busse Woods Bicycle Trail that crosses I-290 to the east. The proposed stop location already has pedestrian signals and high-visibility crosswalks present. New sidewalk is recommended on a small section of the east side of Rohlwing Road to complete the sidewalk connection to the proposed stop.

MAP 7: PEDESTRIAN RECOMMENDATIONS - BIESTERFIELD ROAD

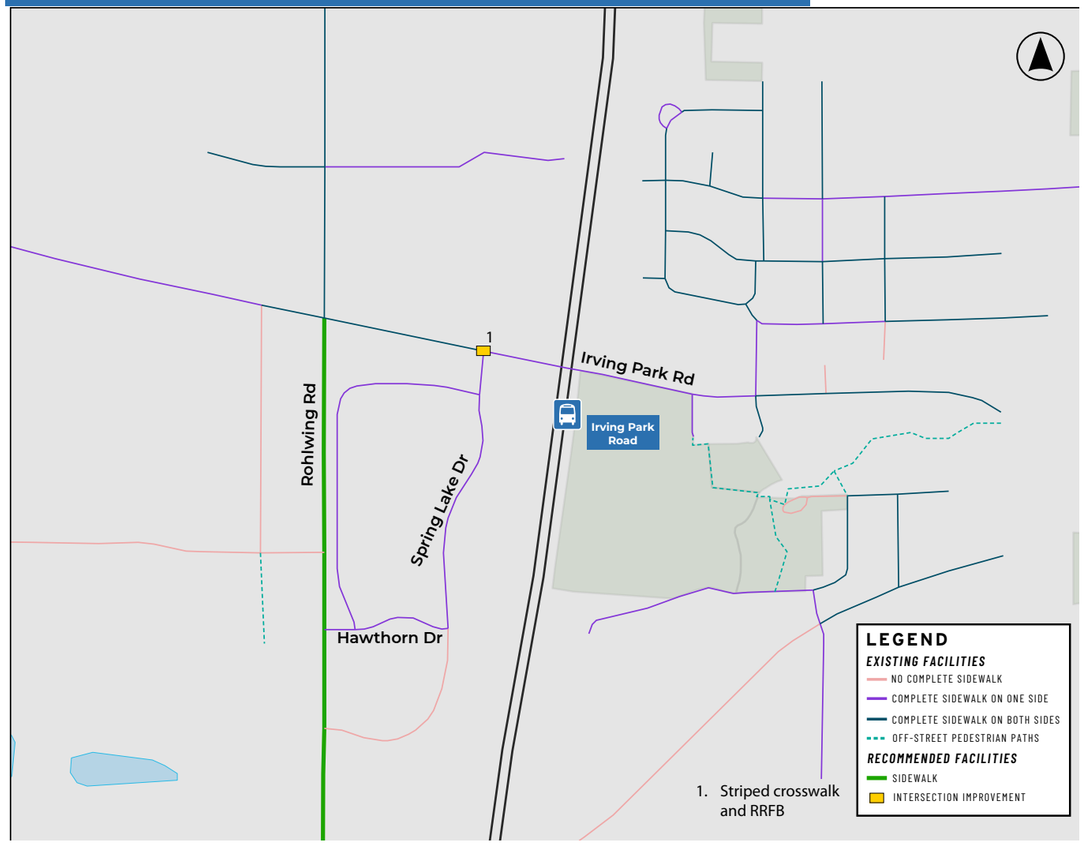


Irving Park Road

Irving Park Road has sidewalks on both sides of the street, with the exception of the bridge over I-290 where sidewalk only exists on the south side. For this reason, access to the station is planned for the south side of the bridge utilizing the existing sidewalk.

An enhanced pedestrian crossing is recommended for Spring Lake Drive, to facilitate transit riders accessing potential job sites on both sides of the street. It is also recommended to add sidewalks to Rohlwing Road.

MAP 8: PEDESTRIAN RECOMMENDATIONS - IRVING PARK ROAD

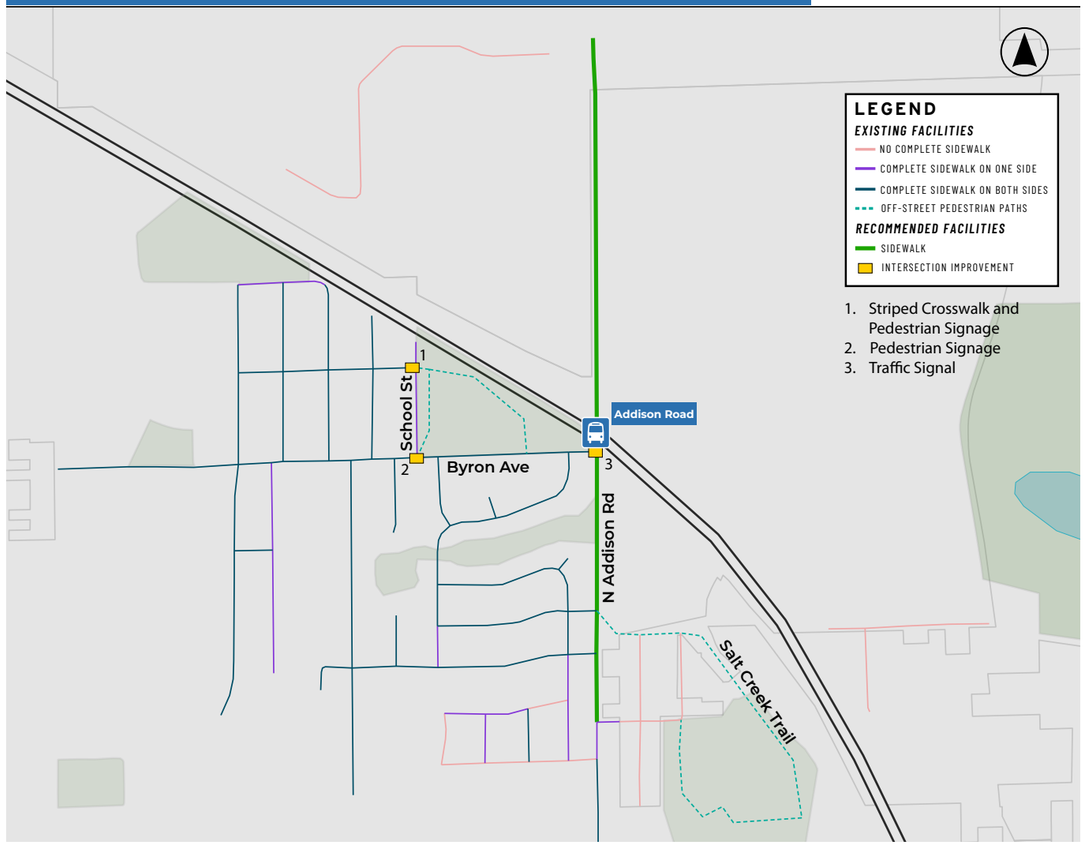


Addison Road

The proposed Addison Road station is adjacent to Bryon Park. The Salt Creek Trail currently exists only on the east side of Addison Road.

It is recommended to add sidewalk to the west side of Addison Road from I-290 south to Stone Avenue. A new traffic signal and cross walks are proposed at Byron Avenue and Addison Road to facilitate crossings for people seeking to access either side of the station. Striped crosswalks on School Street at Bryon Avenue and Meadow Avenue are also proposed to support access to the station from the residential neigborhood to the west.

MAP 9: PEDESTRIAN RECOMMENDATIONS - ADDISON ROAD

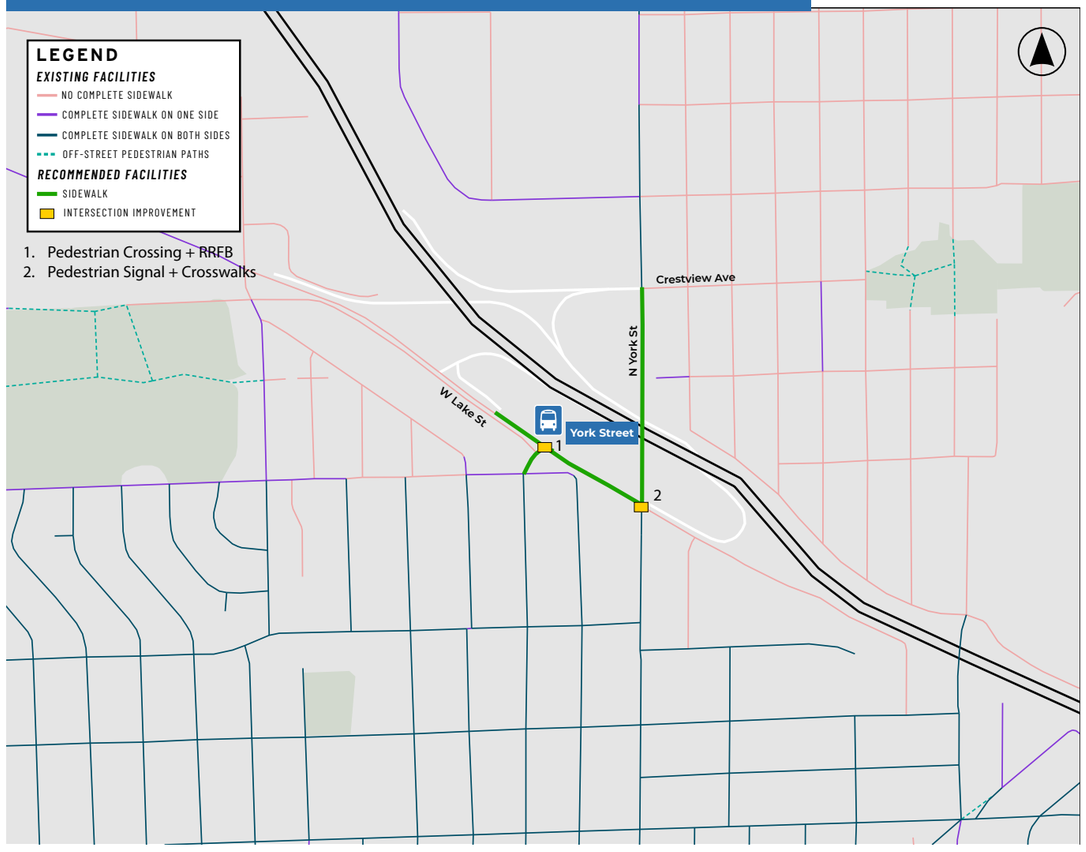


York Street

As the proposed York Street stop is located on the expressway on-ramp, current pedestrian infrastructure is limited. It is recommended to add sidewalk along Lake Street from York Street to the proposed stop, as well as along York Street from Lake Street north to Crestview Avenue.

A pedestrian signal and crosswalks are proposed at the existing traffic signal at Lake Street & York Street, and a crosswalk with RRFB are proposed to support crossing Lake Street at the station.

MAP 10: PEDESTRIAN RECOMMENDATIONS - YORK STREET

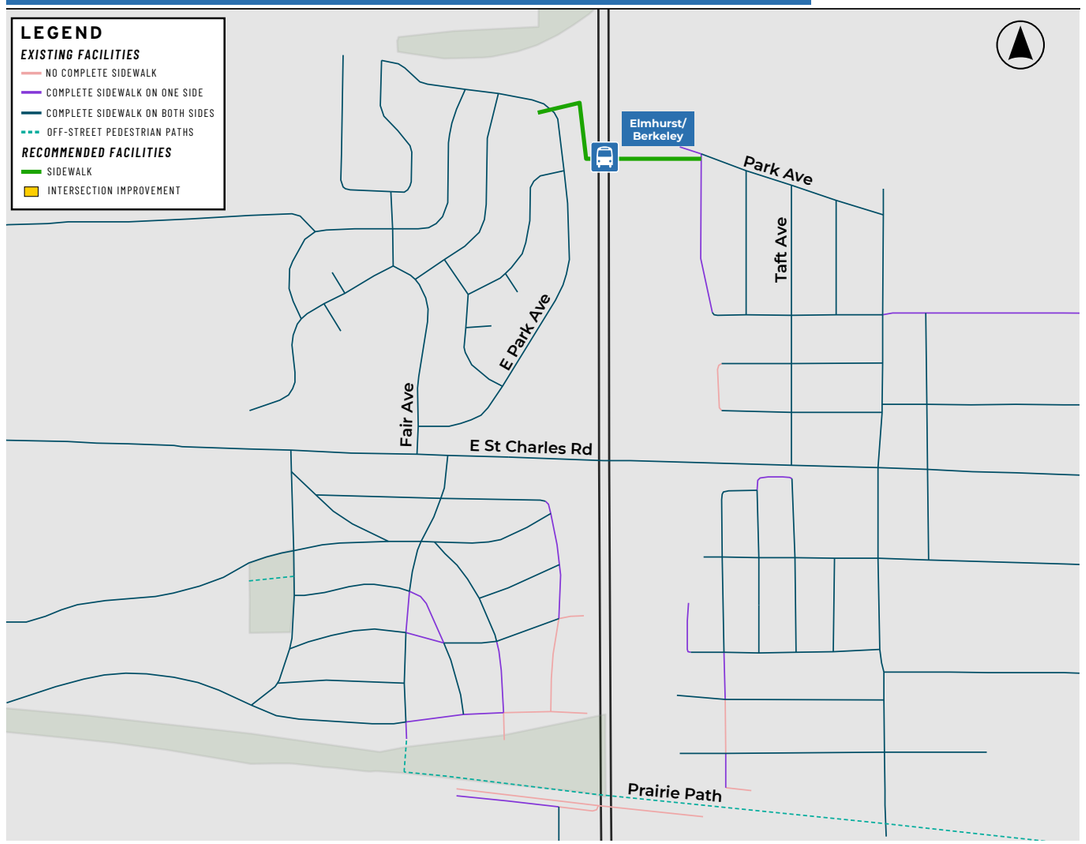


Elmhurst/Berkeley

To facilitate access to the proposed Elmhurst/Berkeley station, a new pedestrian path is proposed under I-290 connecting the neighbohood to the west with Park Avenue to the east. This would also facilitate the connection between the proposed station and the Berkeley Metra station. Coordination will be required with IDOT and the Illinois Tollway for shared use agreements.

A complete sidewalk network exists in the neighborhoods west and east of I-290. Signalized intersections with pedestrian crossings exist at Fair Avenue and Taft Avenue intersections with St. Charles Road.

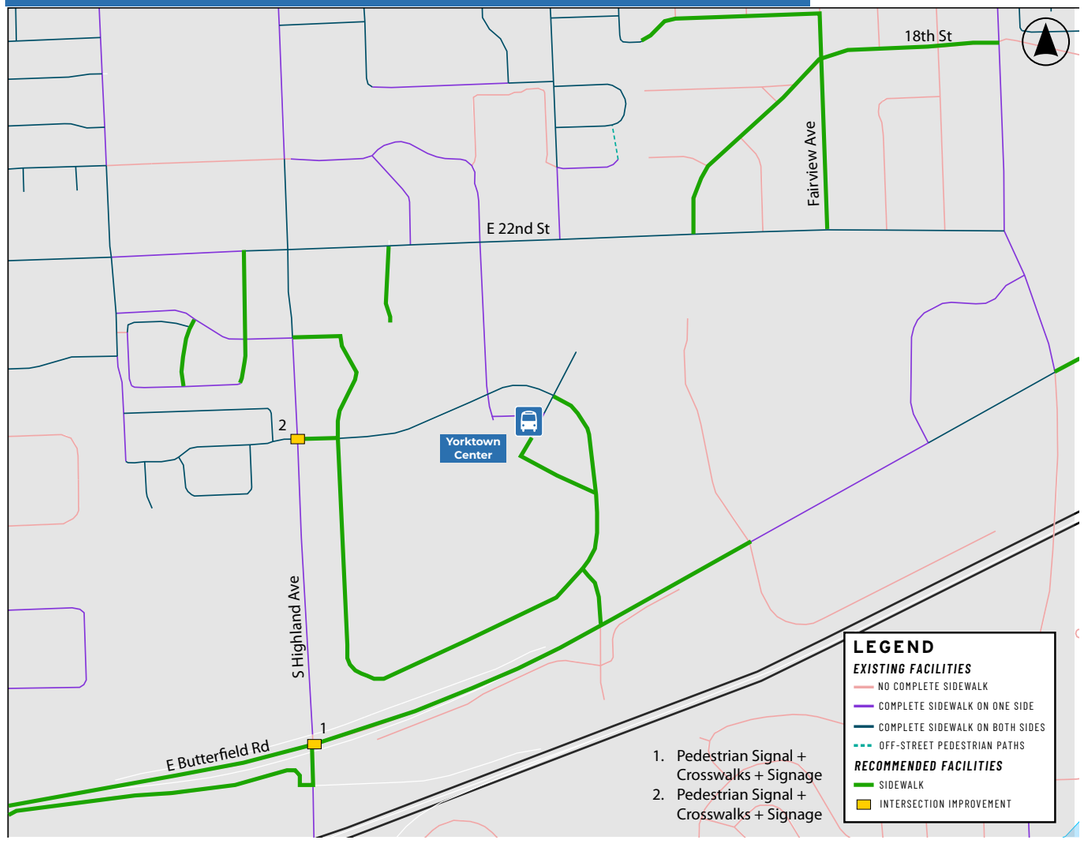
MAP 11: PEDESTRIAN RECOMMENDATIONS - ELMHURST/ BERKELEY



Yorktown Center

The Yorktown Center stop could utilize the existing transit shelter where other Pace routes currently stop to serve the area. Additional sidewalk is recommended around the periphery of the Center, and crossings on Highland Ave at Yorktown Mall Drive and Butterfield Road could be enhanced with high visibility crosswalks to make pedestrians more visible.

MAP 12: PEDESTRIAN RECOMMENDATIONS - YORKTOWN CENTER



Oakbrook Center

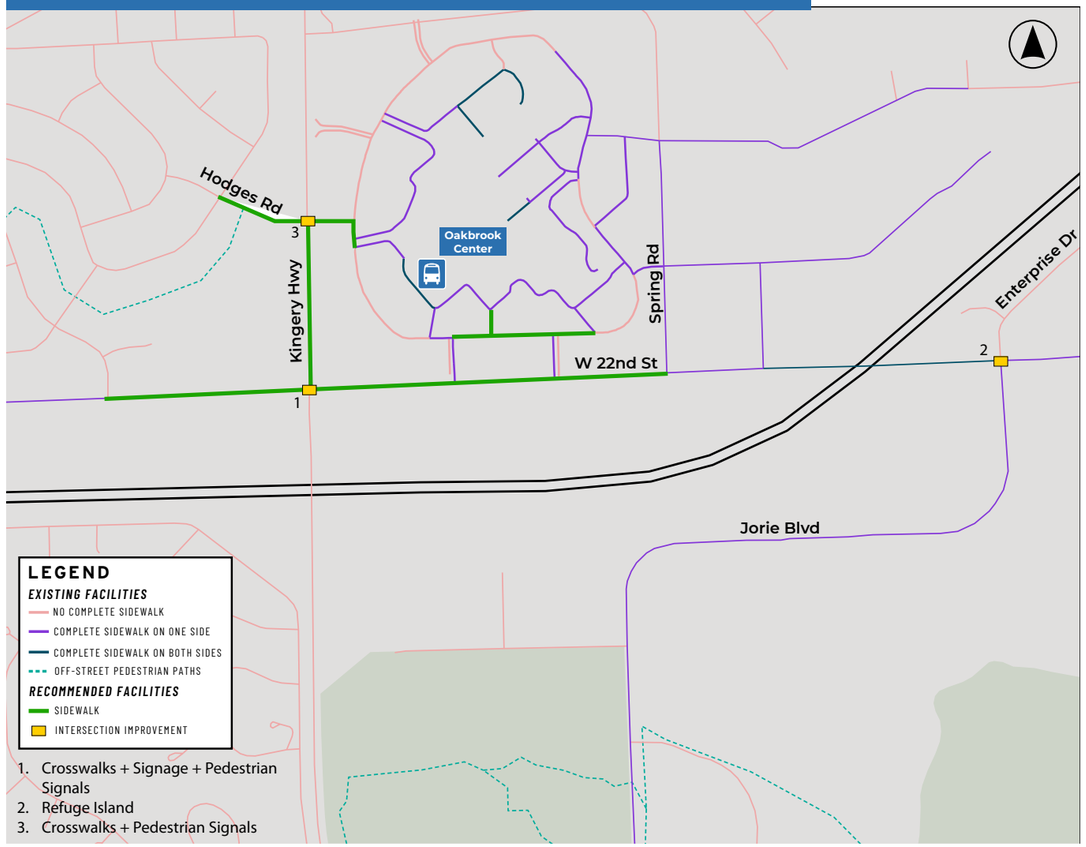
The 1-290/I-88 service is proposed to utilize existing Pace bus facilities within Oakbrook Center near the southwest parking garage. Additional sidewalk is recommended within the Oakbrook Center complex to improve connectivity.

The exisiting signalized crossing at the intersection of Kingery Highway and 22nd Street could be enhanced with a pedestrian refuge island, and signal timings should be checked to ensure they allow enough time for pedestrians of limited mobility to comfortably cross within a single light cycle.

Crosswalks and pedestrian signals are recommended at the intersection of Hodges Avenue and Kingery Highway. Sidewalks are also recommended on Hodges Road from Monterey Avenue to Oakbrook Center and on Kingery Highway from Hodges Road to 22nd Street. A pedestrian refuge island is recommended at the intersection of Jorie Boulevard and 22nd Street.

While not directly connected to the new express service, sidewalks are recommended on 22nd Street between MacArthur Drive and Spring Road. Current bus stops along 22nd Street only have a bus sign pole, and sidewalks would provide connections to these stops.

MAP 13: PEDESTRIAN RECOMMENDATIONS - OAKBROOK CENTER



S 5th Avenue

As this location is primarily residential, limited pedestrian improvements are needed immediately surrounding the stops. However, improved crossings along 1st Avenue (shown in Map 14) could support the broader pedestrian network and people accessing these stops from the northeast or southeast neighborhoods

Forest Park Transportation Center

This location has long served as a transit center for the area and has a robust pedestrian network built out. No improvements are recommended at this time.

MAP 14: PEDESTRIAN RECOMMENDATIONS - S 5TH AVENUE