
Village of Oak Park

# Electric Shuttle Feasibility Assessment

Spring 2026

Village of Oak Park | TYLin

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# 1. Project Background

## Origin of this Study

In 2022 the Village of Oak Park published Climate Ready Oak Park (CROP), a plan to respond to the global climate crisis through concrete commitments and actions. One specific action included is: *Conduct a feasibility analysis of reintroducing the Oak Park shuttle with an all-electric fleet. An electric shuttle would need to contribute to CROP greenhouse gas emission reduction targets, contribute to Village Board goals to enhance the economic vitality of the Village, and help to relieve traffic congestion in the Village.* This study serves to carry out that action and evaluate the potential for a new electric shuttle service in Oak Park.

It is important to note, for historical context, that the Village of Oak Park previously operated a shuttle service from 2004-08. It followed the route shown in Figure 2 to serve downtown Oak Park, historic districts, core transit stations, Village Hall, Park District facilities, and several schools. Service was free to riders and ran every 30 minutes from 10am to 5:30pm on all days. It used 10-passenger and 6-passenger vehicles provided through Pace's Community Vehicle program.


*Figure 1. Signage used for the Oak Park Shuttle in the 2000s. Source: David Wilson on Wikimedia*

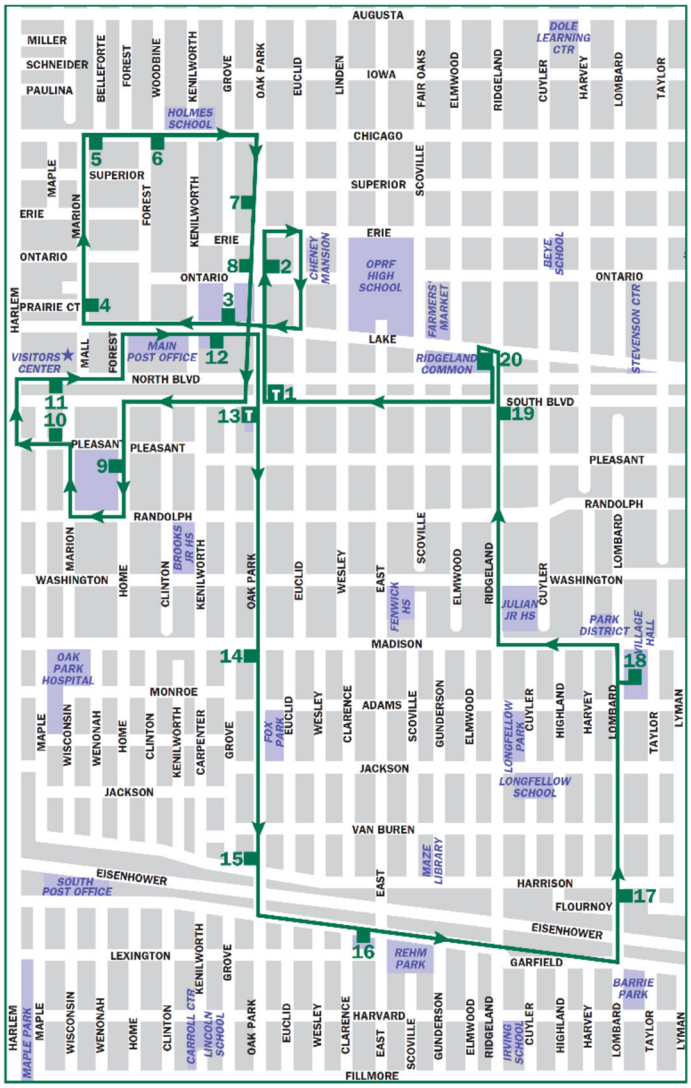



*Figure 2. Route map of the Oak Park Shuttle operated in the 2000s*

The service was ultimately cancelled due to low ridership – in 2007 the shuttle only served 66 rides a day. Concerns were also raised about passenger comfort on the vans used, as well as the use of the shuttle by unhoused individuals seeking shelter. While the most common reason people rode was to go shopping, the shuttle did not meaningfully boost business district activity. The shuttle also was shown to be a net producer of GHG emissions, as it primarily displaced walking and bicycling trips. An evaluation of the prior shuttle is available in the 2008 CNT study, "A More Sustainable Oak Park: Evaluation of Oak Park Shuttle Service".

## Other Fixed-Route Shuttles in the Chicago Region

There are several examples in the Chicago region of community shuttles that are funded by local municipalities and operate alongside existing public transit. The Village of Niles, a northwest suburb of Chicago, has some of the longest-running free shuttles. Its first shuttle began in 1972 and was operated by several different public agencies over its first decade, but has mostly been operated by Pace. In 1983, a second free route was added, and in 1996 a third free route was added. Since then, there have been several changes to the routes following studies led by Pace and the Village, but three free bus routes still remain and are now known as Pace Routes 410, 411, and 412. Service runs from about 9-10am to 4-5pm on all days. The Village of Niles is budgeted to contribute roughly $611,000 to Pace to support these services in 2025.

The Rosemont Entertainment Circulator, Pace Route 811, is another example of a community shuttle. It connects key destinations in Rosemont, such as the Fashion Outlets of Chicago, Donald E. Stephens Convention Center, and Impact Field, and provides transfer opportunities through stops at the Rosemont Transit Center and CTA Blue Line.

*Figure 3. Free Woodfield Trolley at Ikea*

Other similar examples in the region include the Woodfield Trolley and the Elmhurst Express Trolley. These are described in case studies following this section.

The various examples of other community shuttles across the Chicago region display the strong need for local transit throughout the area and the popularity of shuttle service as a transportation solution. For the shuttles operated by Pace, ridership is publicly available. Those numbers, along with service summaries, are shown in Table 1 below. The more residential routes in Niles have slightly higher ridership on weekdays while the commercial and entertainment focused routes in Rosemont and Schaumburg see significantly higher ridership on Saturdays. The Rosemont Entertainment Circulator has the highest ridership on weekdays and weekends of the examples reviewed, and it also has the highest frequency with service operating every 10 to 15 minutes. These serve as good precedents for the service levels and ridership potential for Oak Park.

*Table 1. Free Community Shuttle Ridership and Service Summaries, August 2024*

| ***Route*** | **Avg. Weekday Ridership** | **Avg. Saturday Ridership** | **Service Days** | **Frequency (minutes)** |
|---|---|---|---|---|
| *410 East Niles Local* | 153 | 126 | Mon-Sun | 30 |
| *411 Niles Local Service* | 138 | 124 | Mon-Sun | 30 |
| *412 Niles Shopper Special* | 136 | 122 | Mon-Sun | 30-60 |
| *811 Rosemont Entertainment Circulator* | 618 | 832 | Mon-Sun | 10-15 |
| *905 Schaumburg Trolley* | 95 | 173 | Mon-Sun* | 30 |
| *Elmhurst Express Trolly* | N/A | N/A | Fri-Sat** | 30 |

**Daily service is available from Memorial Day through Labor Day and from the day after Thanksgiving through January 1. Weekend-only (Fri-Sun) service is available during other times of year.*
***May 30th – September 13th*

## Woodfield Trolley Case Study

The Woodfield Trolley (Pace Bus Route 905) is a free fixed-route circulator operating in Schaumburg, IL that primarily serves commercial, entertainment, and institutional destinations in the area. The service was launched in 2001 and is designed to connect visitors and workers traveling between major activity centers and regional transit, linking riders from the Pace Northwest Transportation Center to destinations including Woodfield Mall, Roosevelt University (Schaumburg campus), IKEA, and the Renaissance Schaumburg Convention Center Hotel. The service operates as a visitor-oriented and employee circulation route supporting one of the region's largest suburban commercial districts.


*Figure 4. Informational sign located at several trolley stops*

The service operates as a fixed route with vehicles arriving approximately every 20 to 30 minutes and is fare-free to riders. Funding is provided through a cost-sharing partnership between Pace Suburban Bus and the Village of Schaumburg. The service operates year-round on weekends, but weekday service is only added during the summer and winter holiday season to support higher visitor demand. The route is operated using replica trolley-style buses, reinforcing its role as a visitor-friendly local circulator that complements the broader suburban bus network.

*Table 2. Woodfield Trolley Service Characteristics*

| | |
|---|---|
| Reason for Service: | Circulation between suburban commercial destinations |
| Service Type: | Fixed Route |
| Frequency | Every 20-30 min |
| Fare: | Free |
| Funding Source: | Cost sharing arrangement between Pace Suburban Bus and the Village of Schaumburg |
| Key Service Characteristics | • Yearly weekend service<br>• Weekdays added during summer and winter holiday season |
| Other Transit Nearby: | • Pace Northwest Transportation Center<br>• Pace Suburban Bus Routes |
| Operator: | Pace Suburban Bus |
| Vehicles operated | • Replica Trolleys |

## Elmhurst Express Trolley Case Study

The Elmhurst Express Trolley is a free seasonal fixed-route circulator operating in Elmhurst, IL that is positioned primarily as a resident amenity and local economic development tool. The service operates during peak seasonal periods, most notably in the summer and around the winter holiday season. It connects key commercial corridors with the Metra UP-West station and downtown Elmhurst. With six stops and headways of approximately 20 to 30 minutes, the trolley is designed to support downtown access, encourage local shopping and dining, and provide a convenient, car-free option for short local trips.

The service is fare-free and funded primarily through village resources, supplemented by advertising revenue generated through onboard ad placements sold each season. Unlike the Woodfield Trolley, operations are contracted to a private company that provides replica trolley vehicles not owned by the Village. In addition to basic circulation, the program incorporates experiential elements, such as hosting guest speakers onboard as part of the rider experience. The Elmhurst Express Trolley complements nearby regional transit options, including Metra commuter rail service and local bus routes operated by Pace Suburban Bus, and functions as a seasonal enhancement rather than a core transit service.


*Figure 5. Elmhurst Trolley Vehicle*

*Table 3. Elmhurst Express Trolley Service Characteristics*

| | |
|---|---|
| Reason for Service: | Local village circulation, local economic development, resident amenity |
| Service Type: | Fixed Route |
| Frequency | Every 20-30 min |
| Fare: | Free |
| Funding Source: | Village funds, supplemented by advertising revenue |
| Key Service Characteristics | • Operates seasonally, in the summer and in the winter<br>• Service contracted through private charter bus company |
| Other Transit Nearby: | • Metra UP-West<br>• Pace Suburban Bus Routes |
| Operator: | Aries Charter Transportation |
| Vehicles operated | • Replica Trolleys |

# On-Demand Microtransit Services

## LB Circuit Case Study

Long Beach Circuit operates in Long Beach, CA as a free, demand-response mobility option focused on short local trips in a dense coastal tourism and residential district. Launched in 2022, the service is designed to provide low-emission transportation using an all-electric shared fleet while supporting local economic activity and reducing congestion. The service area covers roughly 5.7 square miles and connects major activity centers including waterfront destinations, neighborhood commercial corridors, and visitor destinations such as the Queen Mary and the Long Beach Convention Center. The program emphasizes first-/last-mile connectivity and short circulation trips within a mixed tourism and multifamily residential environment.

The service is operated by Circuit using a fully electric fleet that, as of 2025, includes small electric neighborhood vehicles (Global Electric Motorcars that can seat 1-6 passengers), electric SUVs for longer trips, and ADA-accessible electric vans. Funding is layered, combining regional transportation sales tax revenue administered through Los Angeles County Metropolitan Transportation Authority (Proposition A local return), grant funding, advertising revenue, and occasional stopgap local funding. The service is designed to complement existing fixed-route transit, particularly rail service on the regional network and local bus


*Figure 6. ADA Accessible vans (left), electric SUVs (middle) and electric GEMS (right) operated by Long Beach Circuit*

service provided by Long Beach Transit, allowing it to function as a local circulation and access service rather than a primary line-haul transit mode.

*Table 4. Long Beach Circuit Service Characteristics*

| | |
|---|---|
| Reason for Service: | Per agency website, "Since November 2022, we've been offering affordable eco-friendly rides in Long Beach, California. Our all-electric shared vehicles reduce emissions and traffic congestion in your community while creating jobs and promoting local businesses. Ditch the car and catch a ride to and from Long Beach and Belmont Shore's favorite spots like Ocean Boulevard, the Convention Center, Queen Mary, Naples, 2nd Street, and more." |
| Service Type: | Demand Response |
| Service Area Size: | 5.7 $mi^2$ |
| Fare: | Free |
| Funding Source: | Regional sales tax (LA Metro Proposition A), grant funding, advertising revenue, stopgap local funding support |
| Key Service Area Details: | • Tourism Hub<br>• Includes a cruise terminal and convention center<br>• Multifamily residential, with some high-rise residential structures |
| Other Transit Nearby: | • LA Metro A Line<br>• Long Beach Transit Bus Routes |
| Operator: | Circuit |
| Vehicles (as of 2025): | • 8 Electric GEMs<br>• 4 Electric SUVs<br>• 2 Electric ADA Accessible Vans |

### Via Jersey City Case Study

Via Jersey City is a demand-response service launched in 2020, designed to expand mobility access, strengthen connections to regional transit, and support environmental goals in Jersey City, NJ. City publications present the service as an affordable option intended to increase transit usage, particularly among lower-income and historically underserved populations. The service operates across the whole of Jersey City, approximately 21.1 square miles, using a zone-based fare structure, with $2 trips between the Central and Outer zones and distance-based pricing within the Outer zone. The program is operated by Via and functions as a first-/last-mile and local circulation service rather than a line-haul transit mode. Operational costs are largely covered by Jersey City, with state and federal grant funding and advertising revenue offering additional financial support.

The service area is structured around two operating zones. The Central zone covers a dense urban core with a mix of commercial and residential uses, while the Outer zone serves small lot single-

family neighborhoods, light multifamily housing, and dispersed industrial employment centers. Service is provided corner-to-corner rather than serving specific addresses; this helps improve efficiency and trip matching. Under this corner-to-corner arrangement, passengers are still expected to walk a short distance to meet the vehicle at pre-determines "virtual bus stops." As of 2024, the fleet included a mix of vehicles including gasoline minivans, gasoline passenger vans, and a small number of electric SUVs to balance capacity, cost, and emissions goals.

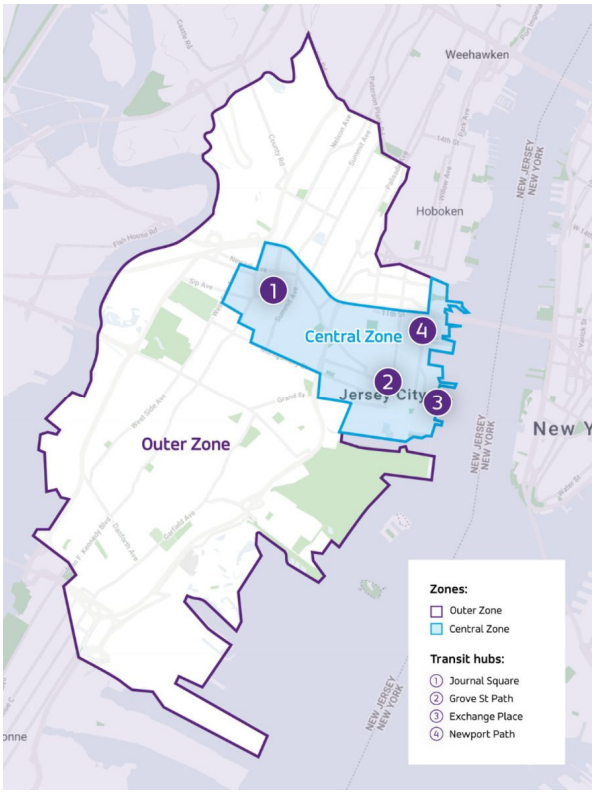



*Figure 7. Via Jersey City Service Zones*

*Table 5. Via Jersey City Service Characteristics*

| | |
|---|---|
| Reason for Service: | Per a Jersey City press release, "providing an affordable transit option that is proven to encourage more people onto mass transit and significantly expands mobility, especially for low-income and minority populations". |
| Service Type: | Demand Response |
| Service Area Size: | 21.1 $mi^2$ |
| Fare: | $2 for rides between the Outer & Central zones<br>$2 + $0.50 per mile for rides within the Outer zone |
| Funding Source: | Operational costs are largely covered by Jersey City, with state and federal grant funding and advertising revenue offering additional financial support. |
| Key Service Area Details: | • Operates in two connected zones. Central zone includes urban core and outer zone covers less dense areas<br>• Operates on a corner-to-corner model |
| Other Transit Nearby: | • New Jersey Transit Light Rail<br>• New Jersey Transit Bus<br>• PATH Trains<br>• Water Ferry Services |
| Operator: | Via |
| Vehicles (as of 2024): | • 33 Gasoline Minivans<br>• 4 Electric SUVs<br>• 11 Gasoline Passenger Vans |

## Plymouth Click and Ride Case Study

*Figure 8. Click-and-Ride cutaway with commuter express motorcoach in the background*

The Plymouth Metrolink Click-and-Ride service is a demand-response microtransit program operating in Plymouth, MN, a suburban community in the northwest portion of the Twin Cities metro area. The service is designed to provide flexible, on-demand trips anywhere within Plymouth, with limited connections to select destinations outside the city when trips begin or end within city limits. The program is intended to expand local mobility in a largely auto-oriented suburban environment while maintaining accessibility, with vehicles equipped to accommodate wheelchairs and bicycles. The service also helps riders connect to neighboring demand-response zones and regional commuter transit services.

The service operates across more than 35 square miles and charges a flat $3 fare. The service area is characterized by dispersed single-family neighborhoods and auto-oriented commercial and industrial employment centers, particularly near the Interstate 494 and Highway 55 interchange. Funding is primarily derived from existing transit funding streams, with state funding representing the majority share (about 81% in 2024). The service is operated by RideCo and, as of 2024, uses a small fleet of gasoline or diesel cutaway vehicles. The program is positioned as a flexible local mobility layer that complements commuter-focused fixed-route and regional transit services rather than replacing them.

Table 6. Plymouth Metrolink Click-and-Ride Service Characteristics

| | |
|---|---|
| Reason for Service: | Regional connectivity supporting commuter oriented express bus services |
| Service Type: | Demand-response |
| Service Area Size: | 35+ $mi^2$ |
| Fare: | $3 |
| Funding Source: | Existing transit funding |
| Key Service Area Details: | • Suburb of Minneapolis, MN<br>• Dispersed single family housing<br>• Auto-oriented commercial and industrial hubs near Interchange of Interstate 494 and MN Hwy 55 |
| Other Transit Nearby: | • Plymouth Metrolink express buses<br>• Adjacent demand response services |
| Operator: | RideCo (previous contract operated by Via) |
| Vehicles (as of 2025): | • 6 diesel or gasoline cutaway vehicles |

## Ride Wilson Case Study

The WilsonRIDE microtransit service operates in Wilson, NC, a small city located about 40 miles east of Raleigh. It was implemented to replace a geographically limited fixed-route bus network. Prior to 2020, the city operated six buses that served roughly 40 percent of the community and operated with headways as long as one hour. The new service uses a much larger fleet of 19 vehicles, following a citywide demand-response model. The transition occurred during the COVID-19 pandemic, partly in response to coverage priorities and changing travel needs. The service operates across approximately 32 square miles and charges a base fare of $2.50 plus $1 for each additional passenger traveling together. Funding primarily comes from reallocating existing fixed-route transit funding, with service span and availability designed to mirror the prior bus system, supplemented by federal grants used to expand service availability. The transition was supported in part by an Accelerating Innovative Mobility grant from the Federal Transit Administration, helping the city shift from fixed-route service to full coverage on-demand transit.

The expanded fleet and microtransit transition has led systemwide ridership to grow from 113k annual passengers in 2020 to 228k in 2024. Figure 10 details the total ridership of Wilson, NC transit offerings before and after the launch of WilsonRIDE.


*Figure 9. Vehicles operated by WilsonRIDE*

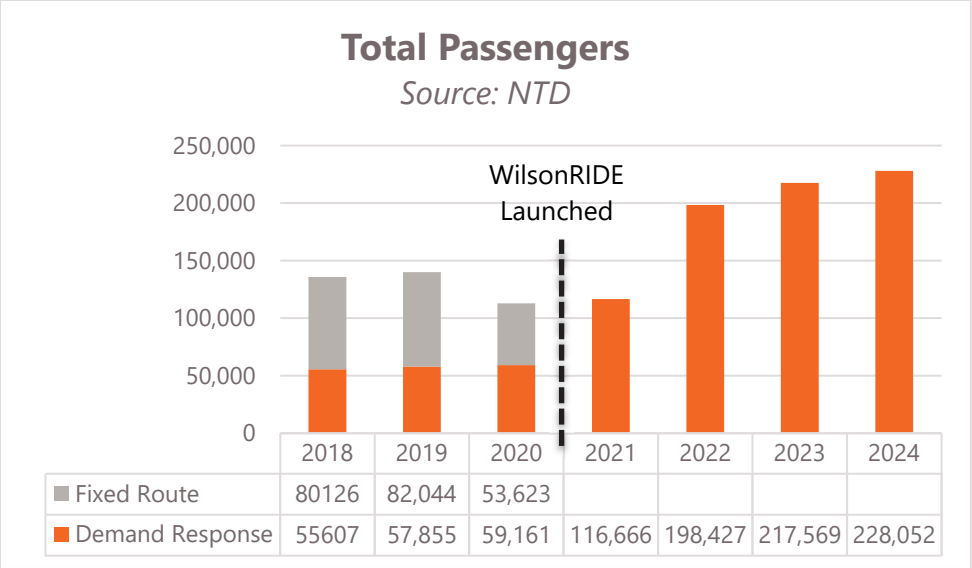



*Figure 10: Wilson Transit Total Passengers (2018-2024)*

The service area includes a historic downtown anchored by intercity passenger rail service and surrounded by mid-density single-family neighborhoods and auto-oriented retail development. The service is operated by Via and, as of 2024, uses a mixed fleet of gasoline minivans and cutaway buses. The program is intended to provide access to jobs, as well as full geographic coverage and improve access to regional mobility connections, including service provided by Amtrak.

*Table 7. WilsonRIDE Service Characteristics*

| | |
|---|---|
| Reason for Service: | Replacement for low frequency fixed route bus network |
| Service Type: | Demand Response |
| Service Area Size: | 32 $mi^2$ |
| Fare: | $2.50 + $1 for each additional passenger |
| Funding Source: | Existing fixed route funding with service expansion funded by federal grant |
| Key Service Area Details: | • 50k person town 40 miles east of Raleigh, NC<br>• Historic mid-rise downtown anchored by Amtrak Carolinian and Palmetto Services surrounded by mid-sized lot single family and auto oriented retail |
| Other Transit Nearby: | • Amtrak Palmetto<br>• Amtrak Carolinian |
| Operator: | Via |
| Vehicles (as of 2024): | • 17 gasoline minivans<br>• 2 gasoline cutaway buses |

## Electric Shuttle Survey

To support planning for an electric shuttle, a survey was conducted through the Engage Oak Park website. It received responses from 187 residents during October–December of 2024. The most common ways for participants to travel in Oak Park were car (58%) and walking (30%), and the most common trip destinations were grocery stores and dining. There was widespread support for a village-funded shuttle service (73%), though views differed on some aspects of the shuttle service.

Survey respondents had high expectations for a new shuttle service. Many participants (44%) would not be willing to walk more than two blocks to access the shuttle, which could be a barrier to ridership. Wait times were also identified as the top barrier to public transit use, and the majority of participants (81%) would not be willing to wait more than 10 minutes for a shuttle.

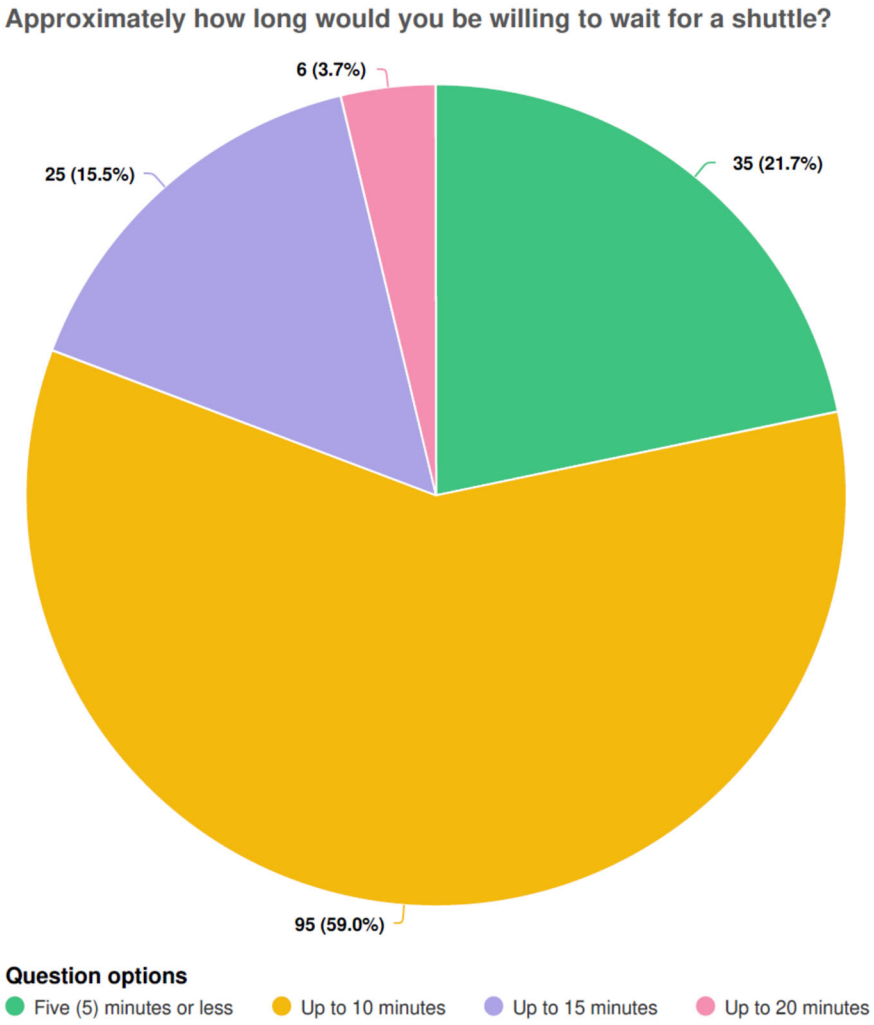



*Figure 11. Responses to the survey question "Approximately how long would you be willing to wait for a shuttle?"*

The survey also addressed other operational factors. Most participants (82%) were willing to pay a modest fare between $1-$3; only 9% of participants were unwilling to pay any fare. Finally, most

parents/caregivers (68%) would be comfortable with their child using a shuttle unaccompanied, and another 16% responded "other" to describe conditions on their choice.

## Focus Groups

The project team also facilitated two focus groups, on 7/2/25 and 7/22/25, to understand community perspectives on potential shuttle options. Each meeting included ten participants and was designed to reflect a variety of community experiences, including recent and long-term residents, renters and homeowners, high school students, parents, employees, business owners, and seniors. Participants described common transportation challenges they face, such as difficulty travelling between south or southeast Oak Park and Downtown Oak Park or Oak Park River Forest High School. Other challenges included concerns about traffic safety, personal security at night, and barriers when walking or biking in inclement weather. They also highlighted parking availability and costs in business districts, existing transit gaps and reliability issues for short local trips, and the complexity of coordinating transportation for families with children at different schools and after-school programs.

In both focus groups, participants discussed tradeoffs between different shuttle service models and potential route designs. Most participants expressed a preference for a fixed-route shuttle over an on-demand service, emphasizing the importance of predictable, frequent service and reasonable walking distances to stops, rather than variable wait times or app-based ride requests. There was strong interest in a shuttle that is low- or no-fare—particularly for students and, if possible, for Oak Park residents more broadly. More detailed findings from the focus groups are provided in Chapter 4.

# 2. Existing Conditions & Transit Markets

## Population, Demographics, and Travel Modes

The Village of Oak Park borders Chicago on its east and north, River Forest and Forest Park on its west, and Berwyn and Cicero to the south. Oak Park historically has a strong connection to Chicago's downtown district, located only 7.5 miles to the east. Being one of the first villages connected to Chicago by rail, Oak Park has a strong downtown business district and population centered around the current Metra UP-W station and CTA Green Line stations. Further south, CTA's Blue line crosses Oak Park alongside the I-290 Eisenhower Expressway, surrounded by business districts, as well (Figure 12). Population density is highest near the train stations, business districts, and along Austin Boulevard, shown in Figure 13 below. Various demographic metrics were reviewed in this study to better understand Oak Park's socioeconomic conditions, ensure planning decisions are equitable, and gain insight on travel patterns. The specific metrics presented were selected because they correlate with public transit usage or need.

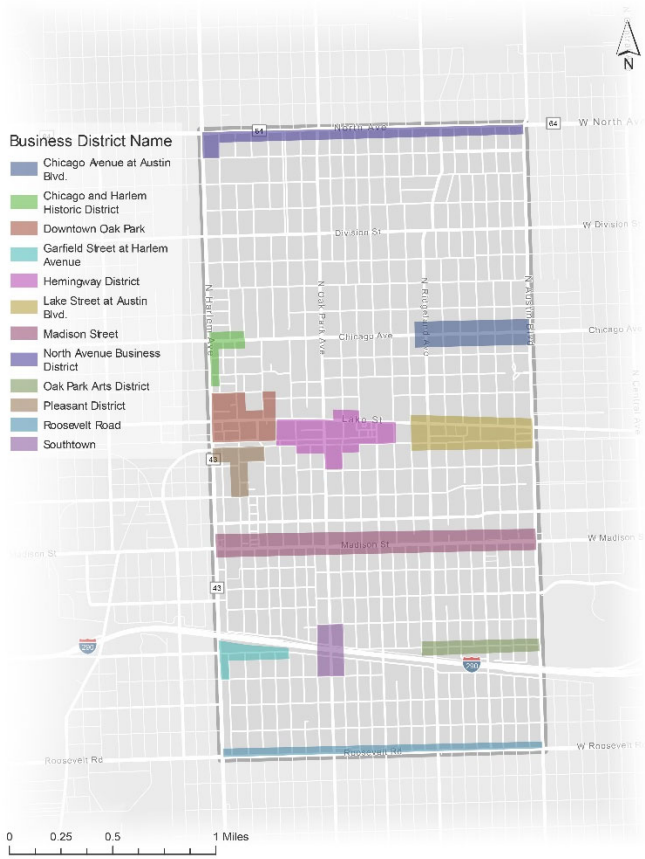



*Figure 12. Oak Park Business Districts*

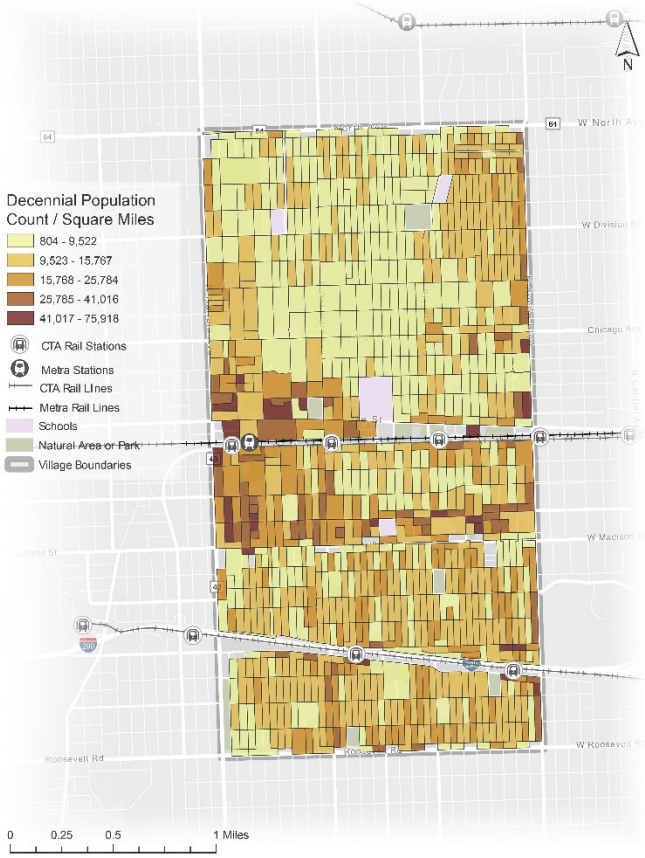



*Figure 13. Oak Park Population Density by Census Block, 2020 Decennial Census*

*Table 8. Oak Park Demographics, ACS 2023 5-Year Estimates*

| | |
|---|---|
| Total Population | 53,315 |
| Population Density (per sq mile) | 11,343 |
| Population 60 Years and Older | 23.3% |
| Population with Disability | 9.8% |
| Minority Population | 39.8% |
| Population Under 2x Poverty Level | 12.6% |
| Education: Bachelor's Degree or Higher | 72.5% |
| Spanish Spoken at Home | 5.7% |
| Language Other Than English Spoken at Home | 13.1% |
| Employment Rate | 66.3% |
| Median Household Income | $108,026 |
| Households with no Vehicle Available | 12.7% |
| Households with one Vehicle Available | 49.4% |
| Means of Transportation to Work:<br>Drove Alone<br>Worked from Home<br>Public Transportation<br>Carpool<br>Walked<br>Bicycle<br>Other | <br>44.5%<br>27.7%<br>16.2%<br>4.9%<br>4.7%<br>1.2%<br>0.9% |

Demographics from the American Community Survey (ACS) are shown in Table 2 and highlight the diverse, dense population in Oak Park. There is a strong employment rate, high median household income, and high percentage of individuals with a bachelor's degree or higher. Oak Park has a significantly lower percent of Spanish speakers at home (5.7%) compared to Cook County (21.0 %) and a higher percentage of White non-Hispanic population (61.1%) compared to Cook County (40.5%). The combined percentage of households with one or zero vehicles available is slightly elevated in Oak Park (62.3%) compared to Cook County (60.6%). The number of people with a disability and the population 60 years and over in Oak Park are aligned with Cook County and regional percentages.

In addition to Village-wide demographics, the project team reviewed key demographics at smaller geographies where available to locate areas with higher transit use and dependency. Various sources of research support this approach, showing that greater employment rates (Matthew Volovski, 2018) and low car ownership (Rasca & Saeed, 2022) are associated with higher transit use. In addition, disadvantaged populations (persons with disabilities, older adults, and low-income/poverty households) (Wang & Woo, 2017), both use and rely heavily on transit for basic mobility needs with alternative options. By exploring some of these demographics on a more granular level, Oak Park can ensure that proposed transit solutions will serve those who are more likely to use it and those who need it the most.

Many of the disadvantaged and potentially transit-dependent populations are located near the Metra and CTA rail stations. Figure 14 displays higher percentages of populations with incomes under 200% of the federal poverty limit. This metric was utilized to account for the higher cost of living and better align with regional low-income thresholds. In addition, the census block groups with the higher percentages of minority populations are located near the Metra and Green Line stations in downtown Oak Park, the two Blue Line stations, and the West Suburban Medical Center in the northeast portion of the village (Figure 15). Populations aged 60 and above are concentrated in and north of downtown Oak Park, where there are a handful of assisted living communities. There are moderate percentages north of the Ridgeland and Austin Green Line stations and south of the Autin Blue Line station (Figure 16). Populations with a disability follow a similar pattern located near the train stations and core business districts, shown in Figure 17.

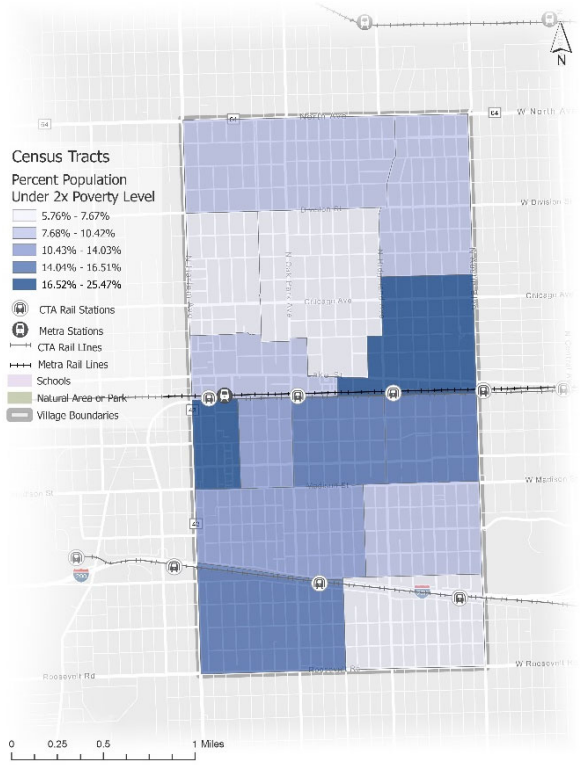



*Figure 14. Oak Park Census Tracts, 200% Federal Poverty Level*

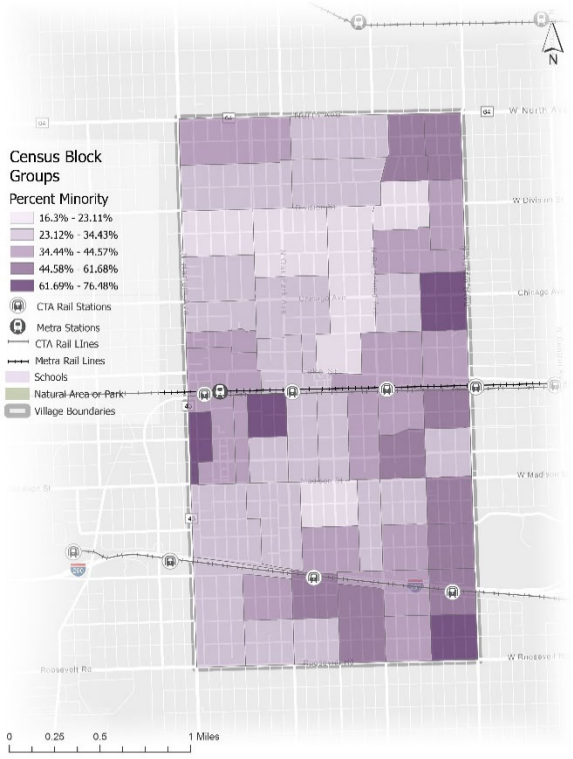



*Figure 15. Oak Park Census Block Groups, Minority Percentage*

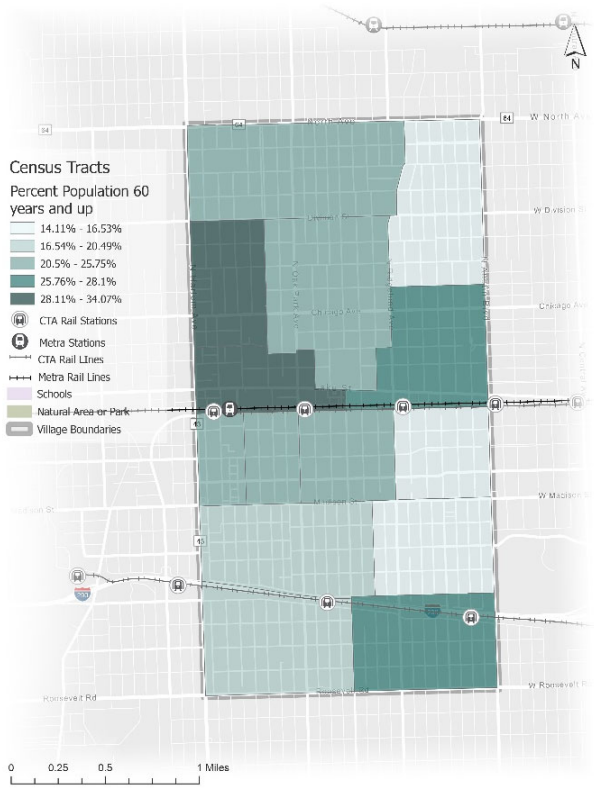



*Figure 16. Oak Park Census Tracts, Population Aged 60+*

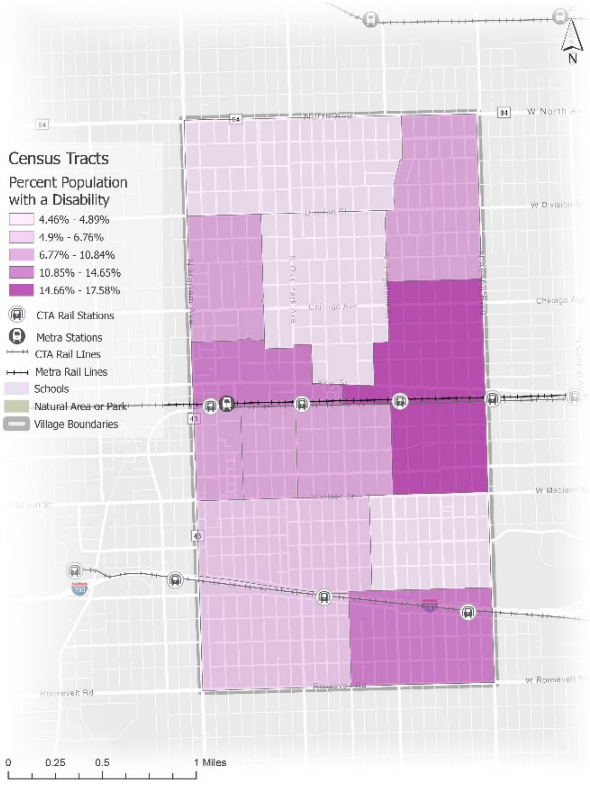



*Figure 17. Oak Park Census Tracts, Population with a Disability*

In addition to these demographics, the project team analyzed job locations in Oak Park and the employment destinations of Oak Park residents through Census data. Figure 18 displays job locations summarized at the census block level in Oak Park. The data shows that the highest concentration of jobs is in business districts and at other key employers, including: Downtown Oak Park, North Avenue Business District, Oak Park and River Forest (OPRF) High School, St Giles Catholic School, Fenwick High School, West Suburban Medical Center, Rush Medical Office Building, and the Park District of Oak Park. Overall, the local economy is strong with 19,167 jobs. Roughly 85% of these jobs are held by individuals living outside of Oak Park, emphasizing the strong need for local transit connections and transfer points.

Working residents of Oak Park travel across the region for employment (Figure 19), with many destinations near Metra and CTA L stations. Almost 90% of Oak Park employed residents work outside of Oak Park, with 16.2% working in the loop and 6.5% in neighborhoods just west of downtown Chicago (West Loop, West Loop Gate, University of Illinois Chicago). Other key locations include River North, Goose Island, and Hyde Park neighborhoods in Chicago, along with Oakbrook, Broadview, and Rosemont.


*Figure 18. Employment Locations in Oak Park*

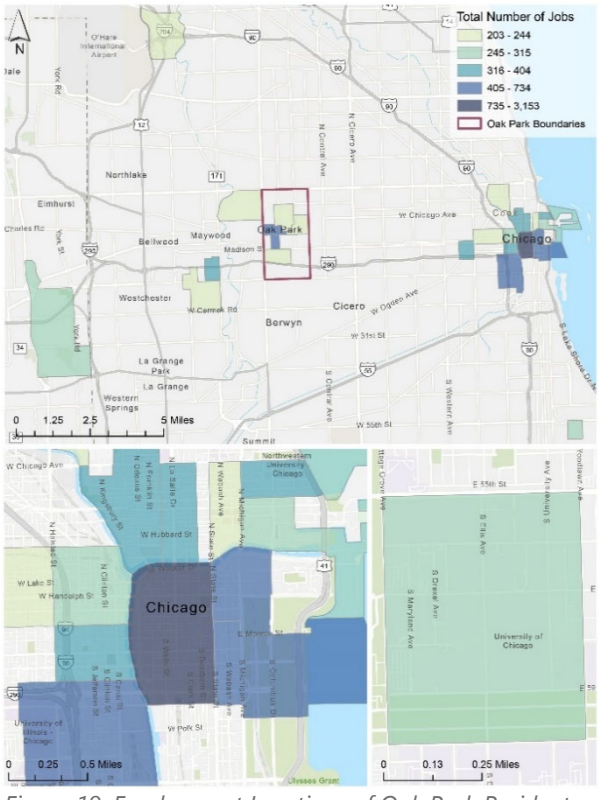



*Figure 19. Employment Locations of Oak Park Residents, Top 25 Census Tracts Only*

## ORIGIN-DESTINATION PATTERNS

Data from the company Replica was analyzed to identify how people travel throughout the Village. Replica is a data platform that provides insights into human movement, travel behavior, and transportation trends. It combines data from public and private sources to model travel demand and activity-based mobility patterns across the contiguous United States. Its Activity-Based Travel Models cover 48 states and the District of Columbia, representing nearly 1.2 billion trips on a typical weekday.

Approximately 67.3k non-freight trips occur within the village boundaries on the average weekday. About 1/3 of these trips were walking trips. The hour with the most trips was 3pm, followed by 7am.

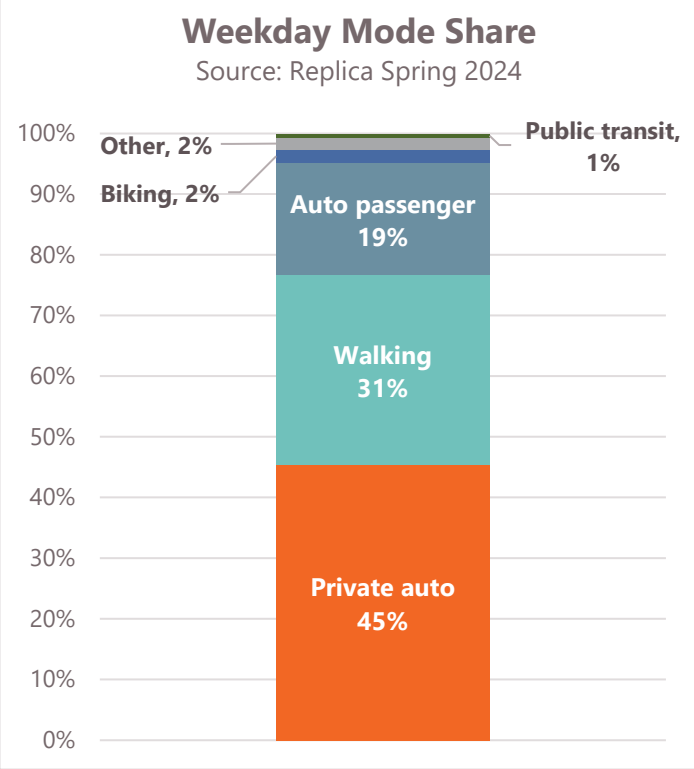



*Figure 20. Existing Weekday Travel Mode Share*

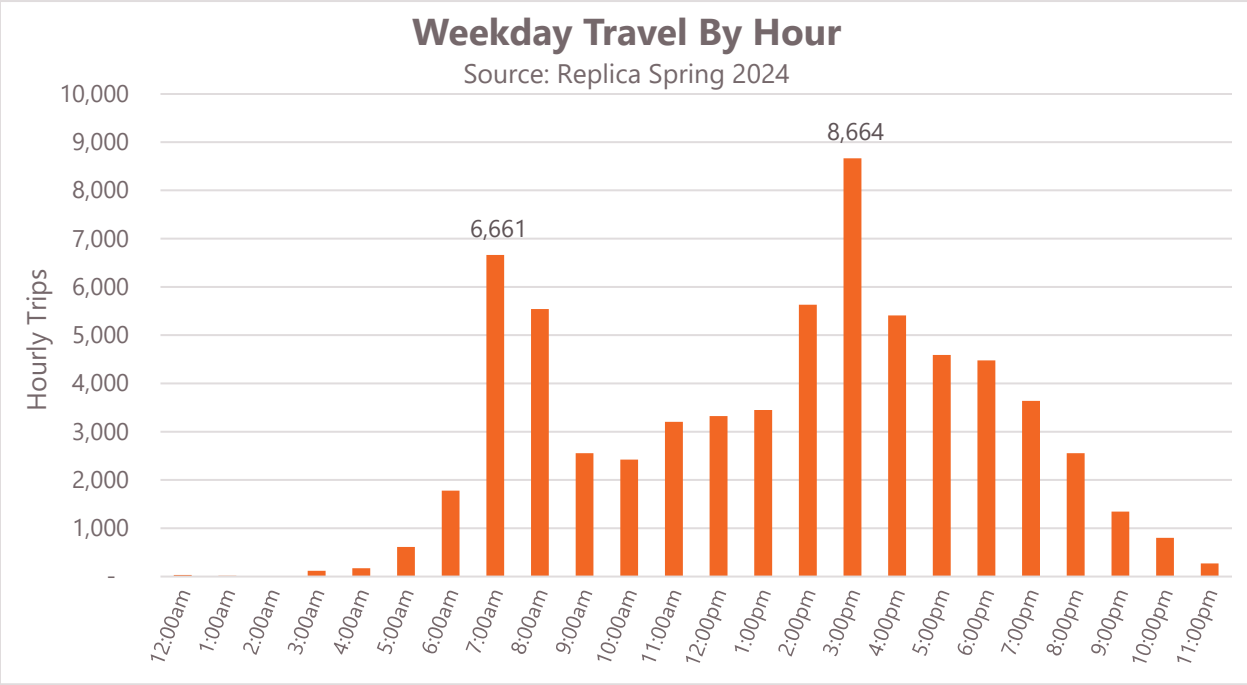



*Figure 21. Weekday Travel by Hour*

Figure 22 shows where these trips originate. Generally, trip origins are clustered along Lake Street. (Note that OPRF, located just north of Lake and Scoville Ave, is in the southern portion of a long census tract that extends north to Division Street. The travel origins associated with this census tract can be largely attributed to OPRF.) Origins are also scattered along Madison Street.

Figure 23 shows where trips taken within the village end. The pattern is similar to origins, with destinations clustered along Lake Street and OPRF. The area surrounding Percy Julian Middle School also represented a significant trip destination.

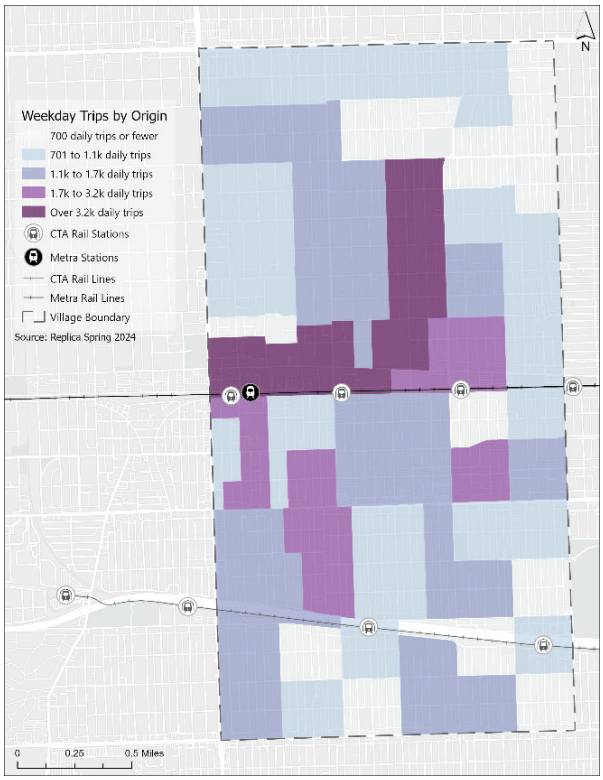



*Figure 22. Weekday, non-freight trips by origin*

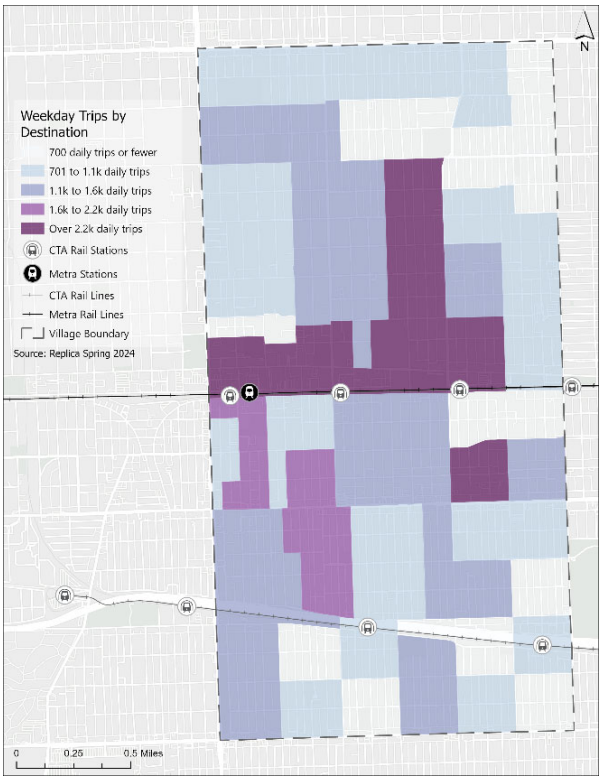



*Figure 23. Weekday, non-freight trips by destination*

Of the 67.3k daily trips that occurred within the village, 54k crossed census geographies, suggesting they are long enough to be taken on a transit service. Figure 24 shows major travel flows on the average weekday. Travel along Lake Street presented the strongest travel flow, followed by North-South travel around Mills Park and travel to and from OPRF.

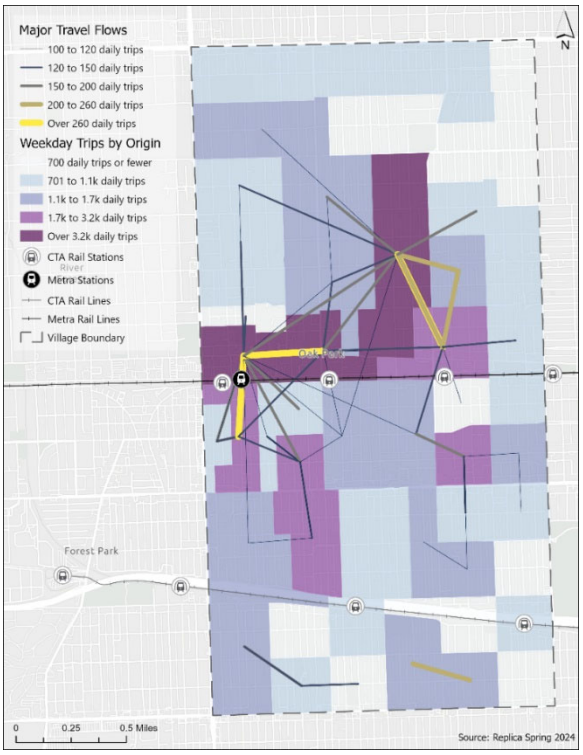
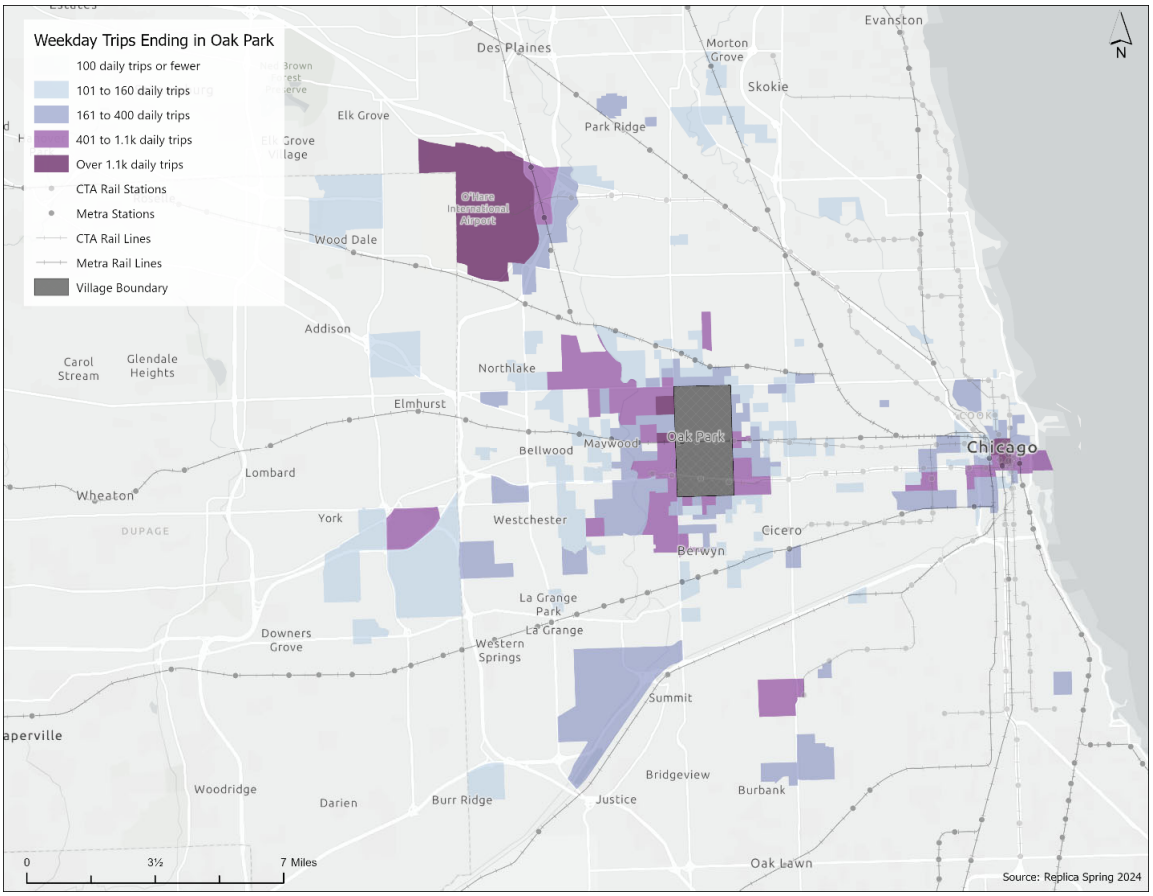



*Figure 24. Major Travel Flows (Avg. Weekday)*

In addition to travel within the village, regional travel ending in the village was investigated. On the average weekday, 111k regional trips end in Oak Park. Notably, trips starting just outside the village represent a significant share. Key origins outside of the village include downtown Chicago, O'Hare Airport, Concordia University, Fenwick High School, and Lake Street just west of the village. Regional trip origins are shown in Figure 25 below.

*Figure 25. Weekday regional trips ending in Oak Park*



## CURRENT TRANSIT SERVICE

Oak Park has an extensive transit system consisting of CTA, Pace, and Metra services (Figure 26). In addition to the three regional transit providers, the Oak Park and River Forest Townships Senior & Disability Services offers a free curb-to-curb shuttle service throughout Oak Park and River Forest for individuals over age 18 with disabilities and any adult over age 60. The Metra Union Pacific West Line and the CTA Green Line both stop at stations in the heart of Oak Park's downtown commercial area. These rail tracks cross the village east-west near the geographic center of Oak Park. Further south, the CTA Blue line also crosses the village east-west. In addition, there are 16 bus routes that serve Oak Park. Only eight of these routes cross the village while seven run along the village borders and four have their last stop at Austin Avenue. The streets that border Oak Park include Austin Avenue, Roosevelt Road, Harlem Avenue, all of which are arterials that are used for major CTA and Pace bus routes, and that experience heavy vehicular traffic.


*Figure 26. Existing Transit Service in Oak Park, IL*

Frequency of service across these routes varies greatly, as do days and times of service. The bus routes on the streets bordering Oak Park have higher frequency service across all days and times of service. On weekdays, all other Pace and CTA bus routes, in addition to Metra and CTA rail, have slightly higher frequency during peak hours and relatively limited service during off-peak hours. Peak hours are generally defined as the weekday morning rush period from 6am to 9am and weekday evening rush period from 3pm to 7pm. Off-peak hours are any other time of the day.

Figure 27 displays bus routes in Oak Park operating during peak hours with higher frequency routes in thicker lines. Figure 28 is a similar map that instead shows off-peak frequencies on weekdays. During off-peak hours, there are no routes that run at a frequency of under 10 minutes.

Repeating the analysis for Saturdays (Figure 29, Figure 30) and Sundays (Figure 31, Figure 32) reveals significantly lower levels of service. This is especially noticeable in the eastern portion of Oak Park where the CTA 86 Narragansett/Ridgeland does not operate on weekends, and the Pace 314 Ridgeland Avenue bus does not operate on Sundays. With lower frequencies on weekends for the Pace 311 Oak Park Avenue, there are limited transit options for weekend north-south trips within Oak Park.


*Figure 27. Weekday Peak Period Transit Frequency*


*Figure 28. Weekday Off-Peak Period Transit Frequency*

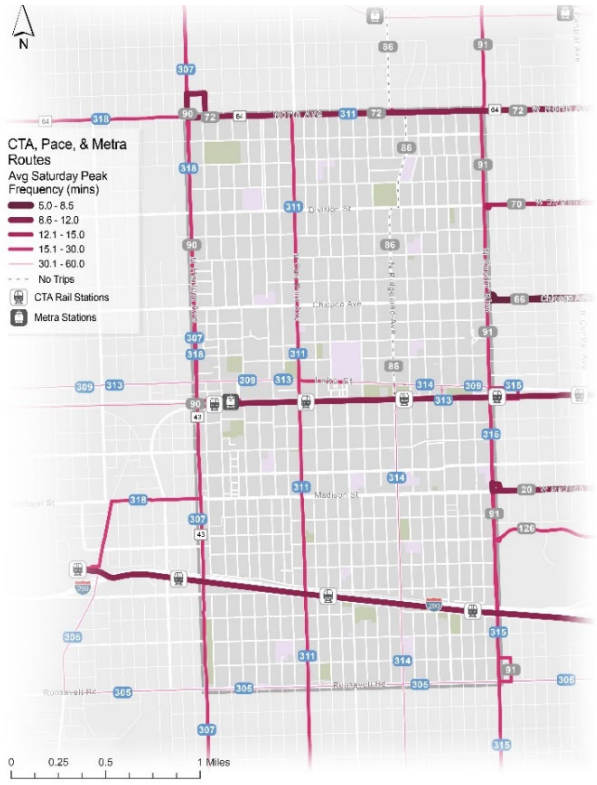



*Figure 29. Saturday Peak Period Frequency*


*Figure 30. Saturday Off-Peak Period Frequency*

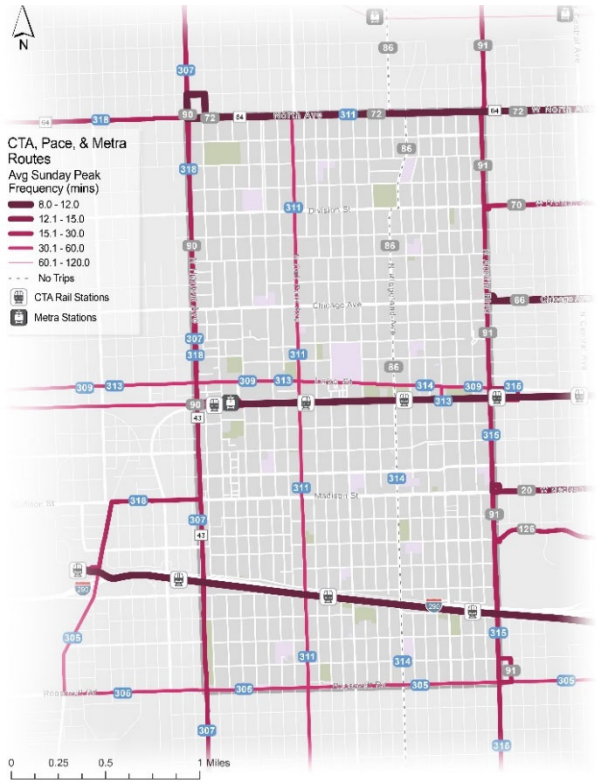



*Figure 31. Sunday Peak Period Transit Frequency*


*Figure 32. Sunday Off-Peak Period Transit Frequency*

In addition to the majority of transit services offering higher frequency on weekdays during the peak periods, more routes also offer longer spans of service on weekdays. Out of the 19 transit services in Oak Park, only two, the CTA Blue Line and CTA Route 20 Madison, offer 24/7 service. On weekdays, 11 bus routes and the two remaining rail lines have their last daily trip between 10pm and 1am (Figure 33). Only one bus route, Pace 314 Ridgeland Avenue, ends in the early evening around 7pm on weekdays. In comparison, on Sundays two bus routes do not operate and four other bus routes end service in the early evening. Transit ridership is lower on the weekends when demand levels and service levels are lower (Figure 34).

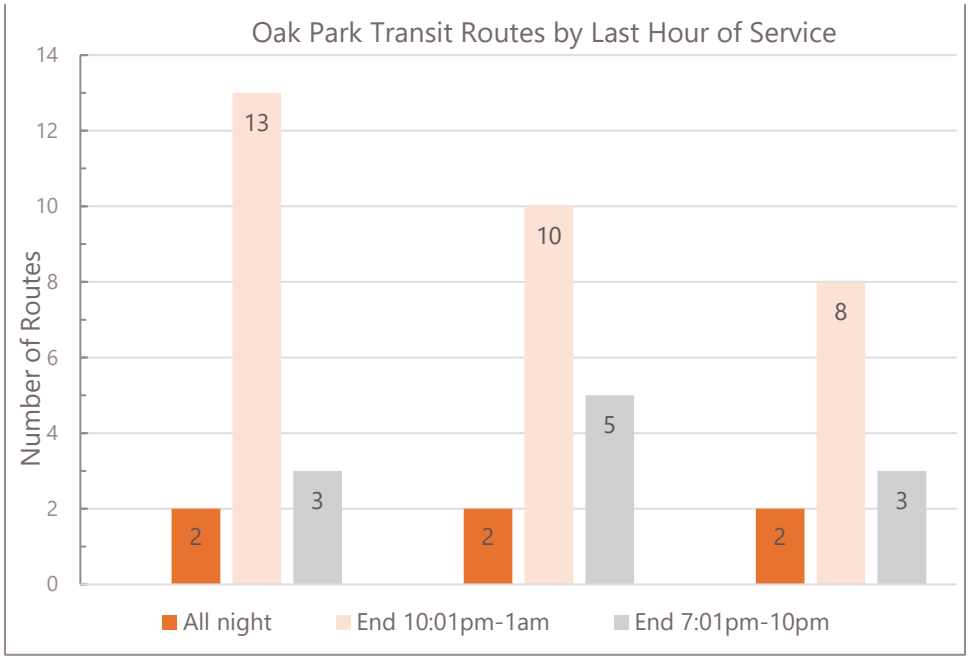



*Figure 33. Oak Park Transit Routes by Last Hour of Service and Day Type*

The Metra UP-W Line, CTA Blue Line, and CTA Green Line stations have the highest average weekday boardings and offer consistent daily, frequent scheduled service. The major intersections along North, Austin, and Harlem Avenues have the highest bus boardings and alightings. On Austin Avenue, four large intersections also feature terminal facilities for the high ridership CTA routes 20 Madison, 66 Chicago, 70 Division, and 126 Jackson. Bus stops on internal streets have much lower ridership in comparison. Within Oak Park, the highest weekday ridership is observed on the CTA Green Line, CTA Blue Line, and CTA 91 Austin (combining boardings and alightings for stops within the Village as shown in Figure 35).

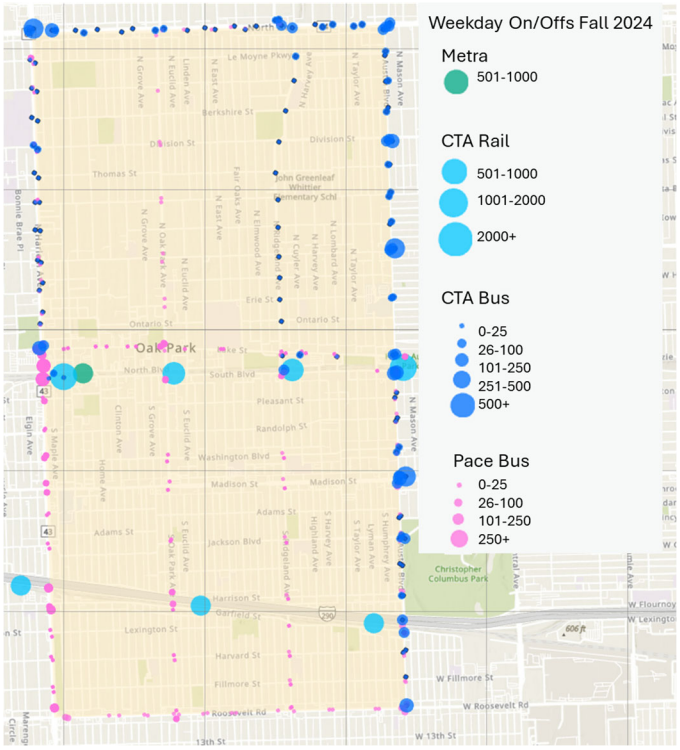



*Figure 34. Transit Ridership in Oak Park*

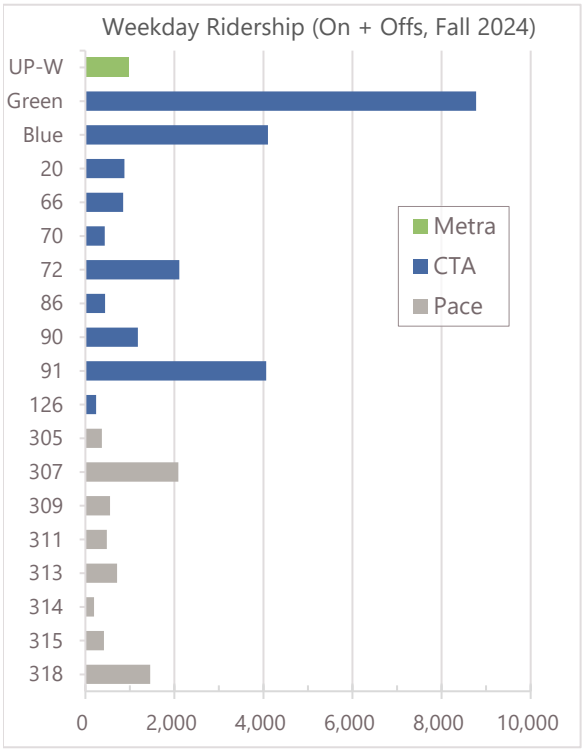



*Figure 35. Transit Ridership (Ons and Offs) by Route for Stops within Oak Park Boundaries, Fall 2024. Metra ridership inferred from 2018 Station & 2024 Annual Route Ridership data.*

Transit use in Oak Park varies by time of day and transit type (Figure 36). Likely due to the high employment rate and commuting market, Metra has 85% of their average weekday ridership occurring during the AM and PM rush periods (6-9am and 3-6pm). Across CTA and Pace services, there are three to five times more midday rides, and generally more even split across daytime periods. Across the top bus routes, there is higher use on weekdays and almost half the ridership on Sundays.

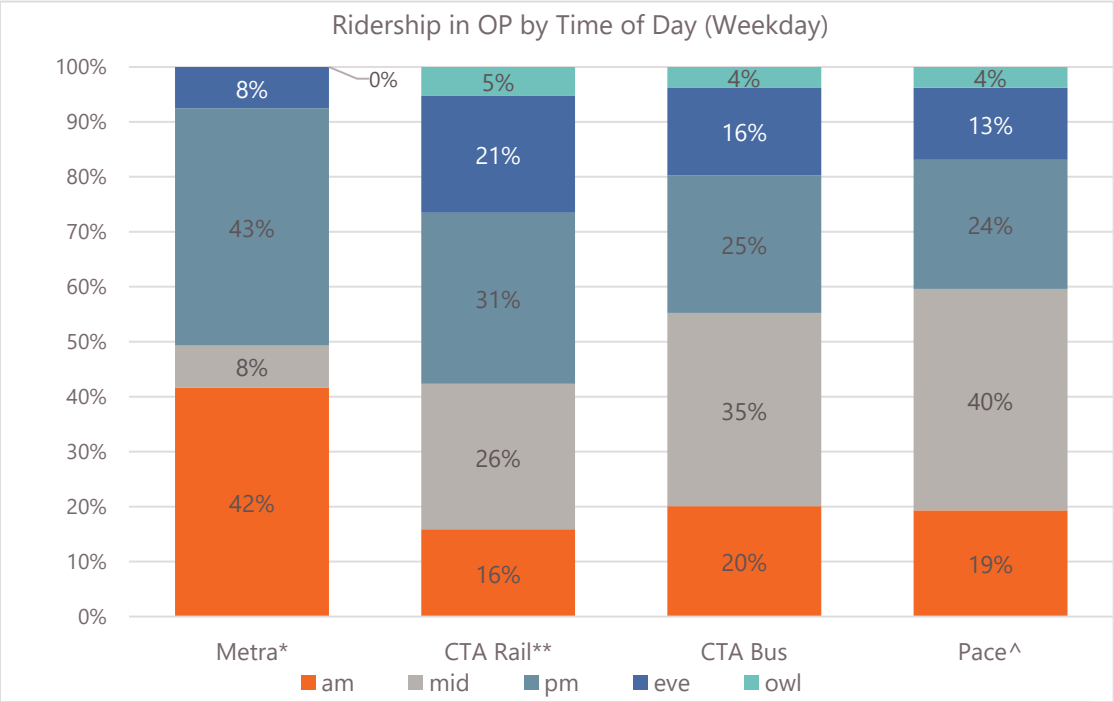



*Figure 36. Average Weekday Transit Ridership in Oak Park by Time of Day*
**Metra ridership inferred from 2018 Station & 2024 Route Ridership data*
***CTA Rail time of day data missing Blue Line Austin & Oak Park stations*
*^Pace route-level ridership, not just Oak Park stops*
*AM=6-8a Mid=10a-3p PM=3-6p Eve=6p-12a Owl=12-6a*

## Potential Gaps/Needs to Address

East-West travel across Oak Park is one of the village's major transportation gaps. The routes ending at Austin Avenue – CTA routes 20 Madison, 66 Chicago, 70 Division, and 126 Jackson – run along business districts and connect straight east to downtown Chicago. These four routes overall have very high ridership, but do not enter Oak Park. For example, CTA Route 66 Chicago has had the highest average weekday ridership across the entire CTA bus system for every month but one over the period July 2024 to June 2025 – this displays the route's importance for connections and travel. The CTA routes that terminate at Austin have no Pace routes or other transit connections for east-west travel. The only east-west bus routes running through Oak Park are 309 and Route 313, both operating on Lake Street. (This excludes the routes that operate along the Village's northern and southern boundaries). While the Metra UP-W, CTA Green Line, and CTA Blue line travel east-west, their stops are spaced much further apart to better serve longer distance travel. Thus, a large gap exists for shorter connections in the village that is especially noticeable on Madison Street and Chicago Avenue where there are higher density populations and significant commercial presence.

# 3. Shuttle Service Concepts

## Objectives and Concept Development

The project team developed numerous initial shuttle concepts with consideration to Oak Park's priorities and key destinations. Many of the options were designed to address specific needs identified in the existing conditions analysis. The options also were designed to address several of the Village's priorities and objectives:

- Addressing gaps in existing transit service, particularly where existing CTA, Pace, and Metra services do not adeuately meet local demand within the Village.
- Improving access for schools, parks, and libraries so students, families, and caregivers have a safe, convenient, and affordable alternative to driving.
- Improving access to business districts and key commercial corridors to support local economic vitality, encourage shopping and dining in Oak Park, and make it easier for employees and customers to reach those destinations without relying solely on personal private vehicles.
- Enhancing accessibility for seniors and persons with disabilities by providing additional transporation options that are easy to use and serve key senior housing, healthcare, and social service destinations.
- Connecting to popular destinations such as Downtown Oak Park, the Harrison Street Arts District, local cultural institutions, High Schools, and major transit hubs.
- Mitigating local congestion and reducing parking demand, especially in business districts, by offering an affordable and easy alternative to short car trips.
- Supporting sustainable transportation and mode shift, helping to reduce vehicle miles traveled, and complementing walking and biking options.

Through an iterative process that incorporated discussions with Oak Park Staff and external stakeholders, the project team narrowed down the options to three service concepts that would be presented in focus groups and in other stakeholder meetings. For example, several early concepts emphasized connections with east-west CTA bus routes terminating at Austin, but Village staff preferred to advance alternatives that prioritized travel internal to the Village. The focus groups then shared preferences regarding potential service plans. They also provided feedback about potential service adjustments to consider. All the three service plan options are described below, including final adjustments to address stakeholder feedback.

## Fixed-Route Shuttle Option A

The Option A service plan option is a fixed-route shuttle running primarily operating on S East, Chicago, and Ridgeland Avenues (Figure 37). The route connects residents in the southeast corner of Oak Park to Downtown Oak Park and up to North Avenue, and vice versa. This routing would provide a one-seat ride for residents and visitors where they would otherwise need to transfer or

have no public transit option. In addition, stakeholders and focus group participants valued the route's direct service to Oak Park River Forest High School.

The project team displayed a draft version of this route to the focus groups, and participants responded favorably to the routing that provides relatively direct access to destinations such as Downtown Oak Park and OPRF. The original draft had an extended bottom loop in southeast Oak Park via Harrison Street, South Austin Boulevard, Roosevelt Road, and South East Avenue. Based on feedback, the loop was reduced to travel via Harrison Street, South Lombard Avenue, Filmore Street, and South East Avenue. This change was implemented due to concerns on traffic volume on duplication of existing transit routes South Austin Boulevard and Roosevelt Road.

In addition, the project team considered a request to modify the route to add direct service to the two Oak Park Middle Schools, Gwendolyn Brooks Middle School and Percy Julian Middle School, from 3-4pm on weekdays. This would require a deviation via Madison Street and S Ridgeland Avenue to access Percy Julian Middle School, then Washington Boulevard to Gwendolyn Brooks Middle School, looping around the school to follow Washington Boulevard back to the main route on South East Avenue. Unfortunately, this additional routing would have significant downsides. The longer trip time would either require an additional vehicle for a very limited period, or schedule changes that would likely reduce reliability and inconvenience riders on the main route. Ultimately, due to the cost and feasibility, this change was not included.

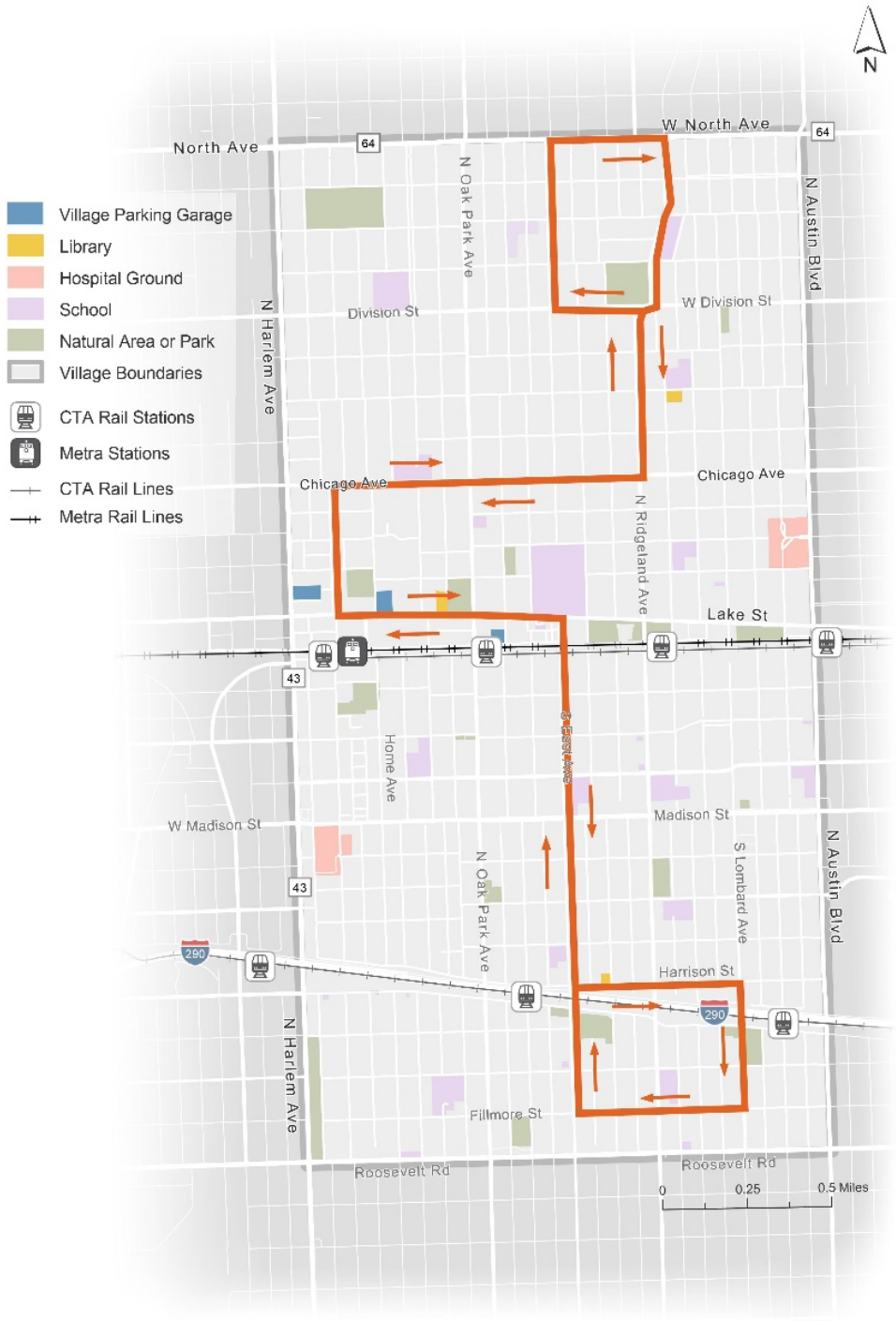



*Figure 37. Option A Fixed-route Shuttle Routing*

Compared with the shuttle operated in the 2000s, this shuttle concept will be more useful to the Oak Park Community in several ways. First, it will provide access to a broader portion of the Village, including areas south of I-290 and north of Chicago Avenue. The service span will be more competitive than the previous shuttle, which did not operate before 10am or after 5:30pm. It will also offer riders more direct trips, with less backtracking and nine fewer turns, making the shuttle more competitive with driving. We project the daily ridership to be 5-18 times that of the previous shuttle, translating into a net GHG reduction. Finally, the selected vehicles will also provide a higher level of passenger comfort than the vans used in the past.

### Shuttle Option A with Higher Service Level

The initial service plan for the Option A shuttle route includes all-day service on weekends and extended service in the morning peak period and evening hours. Originally, the team included a slightly shorter span of service on weekdays, but based on feedback from focus group participants, earlier and later weekday service was added to accommodate high school activities and work shifts. The shuttle would operate every 15 minutes during peak hours and every 30 minutes during off-peak hours. Peak hours were defined as 6am – 9am and 3pm – 7pm. The annual operating cost is estimated to be $3.2 million, assuming an average cost of $150 per hour (a generalized estimate in current dollars, intended to reflect a range of operating models).

*Table 9. Estimate Cost and Fleet Requirements for Option A Route, Higher Service Level Plan*

| | |
|---|---|
| **Hours of Service** | Weekdays: 5:30am – 11:00pm<br>Weekends: 9:00am – 7pm |
| **Peak Frequency**<br>**Off Peak Frequency** | Every 15 minutes<br>Every 30 minutes |
| **Vehicles Required** | 5 (6 with spares) |
| **Estimated Annual Operating Cost** | $3.2 million<br>($150 per hour) |

The investment needed to provide frequent all-day service was identified as a potential source of concern. To address this possibility, the following section presents a lower-cost service plan.

### Shuttle Option A with Lower-Cost Service Level

A second, lower-cost service plan was developed for the Option A shuttle route. Compared to the higher service level plan, this has 1.5 hours reduced from the weekday span and one hour reduced from the weekend span. In addition, the peak frequency is reduced to every 20 minutes and off-peak frequency to every 40 minutes. Peak periods remain defined the same. These adjustments are estimated to reduce the annual operating cost by $1 million, to a total of $2.2 million.

*Table 10. Estimate Cost and Fleet Requirements for Option A Route, Lower-Cost Service Plan*

| | |
|---|---|
| **Hours of Service** | Weekdays: 6:00am – 10:00pm<br>Weekends: 10:00am – 7pm |
| **Peak Frequency**<br>**Off Peak Frequency** | Every 20 minutes<br>Every 40 minutes |
| **Vehicles Required** | 4 (5 with spares) |
| **Estimated Annual Operating Cost** | $2.2 million<br>($150 per hour) |

## FIXED-ROUTE SHUTTLE OPTION B

A second fixed-route service option was considered in discussions with stakeholders and focus groups. This Option B is a looping bidirectional route that creates a '+' shape (Figure 38). It operates via Lake Street, Linden Avenue, Augusta Street, North Lombard Avenue, Lake Street, North Austin Boulevard, Jackson Boulevard, South Ridgeland Avenue, Fillmore Street, South East Avenue, Madison Street, and South Marion Street (clockwise order listed). This route serves several major corridors that do not currently have transit service, such as Madison Street and Jackson Street. In addition, it offers some diagonal service across the village where users would otherwise need to transfer buses or would be unable to use public transit.

A previous version of this route utilized North Oak Park Avenue instead of Linden Avenue, Division Street instead of Augusta Street, went directly to North Austin Boulevard rather than taking North Lombard to Lake Street, and utilized Harrison Street instead of Jackson Boulevard. The routing was adjusted to limit time on N Austin Boulevard due to concerns with traffic congestion and also to reduce overlap with Pace Route 311 on N Oak Park Avenue. In addition, the adjusted routing serves more of the Lake Street corridor and southern Oak Park, and grants closer access to the Oak Park Library Dole Branch and the Oak Park River Forest High School.

Compared with the shuttle operated in the 2000s, this shuttle concept will be more useful to the Oak Park Community in several ways. First, it will provide access to a broader portion of the Village, including areas south of I-290 and north of Chicago Avenue. The service span will be more competitive than the previous shuttle, which did not operate before 10am or after 5:30pm. It will also offer riders more direct trips, with less backtracking and 14 fewer turns, making the shuttle more competitive with driving. We project the daily ridership to be 10-24 times that of the previous shuttle, translating into a net GHG reduction. Finally, the selected vehicles will also provide a higher level of passenger comfort than the vans used in the past.

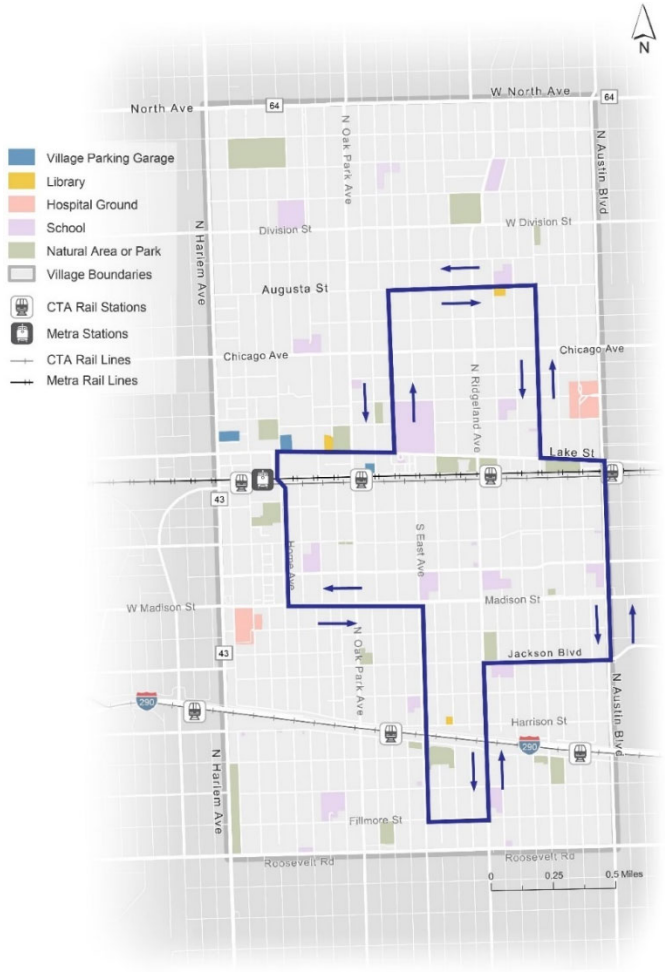



*Figure 38. Option B Fixed-route Shuttle*

The service plan for the Option B fixed-route option is outlined in Table 11 below. The hours of service and frequency are the same as the higher service level plan for the Option A shuttle route. The vehicles required and estimated annual operating costs are higher than the service plans for the Option A shuttle route, primarily due to the loop configuration and bidirectional operation.

*Table 11. Estimate Cost and Fleet Requirements for Option B Fixed-route, Higher Service Level Plan*

| | |
|---|---|
| **Hours of Service** | Weekdays: 5:30am – 11:00pm<br>Weekends: 9:00am – 7pm |
| **Peak Frequency**<br>**Off Peak Frequency** | Every 15 minutes<br>Every 30 minutes |
| **Vehicles Required** | 8 (10 with spares) |
| **Estimated Annual Operating Cost** | $4.6 million<br>($150 per hour) |

## On-Demand Service Option

As an alternative option to fixed-route shuttle service, the project team evaluated an option for on-demand service throughout the entire village. In an on-demand service, riders request trips in real time rather than following a fixed schedule. The proposed zone would allow users to request a ride from any origin to any destination within the service boundaries, which would match the Village boundaries. The service is usually requested via a smartphone app, website, or call center.

Whenever possible, the service would pick up and drop off other riders during a trip to improve efficiency and reduce vehicle-miles travelled. This operation is similar to how ridehail companies operate shared or pooled rides. The service would utilize a software to dynamically group trip requests and route vehicles to pick up and drop off multiple riders along the way. Riders could experience some detours while in the vehicle, but will have no alteration to their requested pick up and drop off.

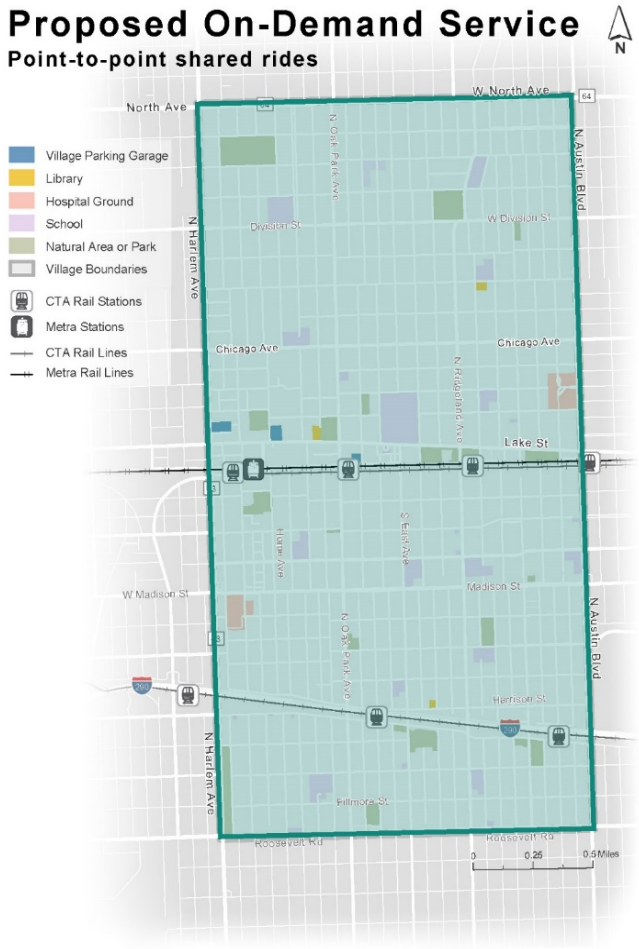



*Figure 39. Proposed On-Demand Zone*

The on-demand service was proposed to offer 16 hours of service on weekdays and 14 hours on weekends, with a later morning start. The vehicles required for the service would begin at four, but if demand were high there could be longer wait times and a need for more vehicles.

*Table 12. Service Details for Proposed On-Demand Service*

| | |
|---|---|
| **Hours of Service** | Weekdays: 6:00am – 10:00pm<br>Weekends: 8:00am – 10pm |
| **Vehicles Required** | Suggest starting with four. However, there may be pressure to increase the fleet if demand is high and wait times become long. |
| **Estimated Annual Operating Cost** | $1.7 million based on plan assumptions, but actual costs may vary depending on fleet size, service span, and productivity. |

While this service is designed to be very flexible and can allow residents point-to-point transportation, focus group participants expressed concerns about reliability and the limited capacity of this service model. Capacity limitations would be at the highest strain during peak travel periods and at school start and release times, when residents indicated a preference for consistency and efficiency over flexibility. Because vehicles are dispatched dynamically, wait times can vary dramatically depending on demand levels, traffic conditions, and fleet size. If demand increases, maintaining reasonable wait times would require adding more vehicles to the fleet, resulting in higher costs. When each vehicle only carries three to five passengers per hour, even a modest increase in ridership can require additional vehicle purchases and operator salaries.

Compared with the fixed-route options, an on-demand shuttle is likely to provide a higher level of service (with no need to walk to/from stops) for a smaller number of riders (given capacity limitations). The service could be especially beneficial for users who live far from existing transit options or have limited mobility. In addition, it could be a more attractive option than fixed route services during off-peak periods when fixed route service has generally lower frequencies but on-demand may have less waiting time.

It is important to note that Oak Park Township also offers a demand-response transportation service, but this is different from a general public microtransit service in several ways. First, the Township service is only available for older adults and people over age 18 with disabilities. In addition, the Township service requires reservations a day in advance rather than same-day service. A new general public microtransit service would likely serve a broader market with different expectations around wait times, trip purpose, and frequency of use. Stakeholders indicate that the Township service is successful and has no recent capacity issues.

During concept development, the project team explored several variants of the on-demand service model proposed above that differed in how and where the service could operate in Oak Park. These variants were considered to balance cost, reliability, and Village goals around economic and equity objectives.

One variant considered would shift point-to-point service to a "virtual stop" model. Instead of users having the ability to enter any address within the service area as their pick-up or drop-off, this model would assign them to the nearest designated stop, ideally within 1-2 blocks. Under this

model, vehicles would make fewer deviations from major streets, making it easier to pool riders and leading to improved operational efficiency. In addition, this would likely result in higher passengers-per-hour than the point-to-point model, reducing the per-ride cost. This model improves reliability and cost, but also decreases the convenience and accessibility of the service for riders – one of the main attractions to on-demand service.

Another potential version of this model would limit on-demand trips to those that begin or end in key areas, such as the downtown business district. This design focused on connecting residential areas to high-priority destinations and employers, and supporting local economic vitality. This version could help support travel to shopping, farmers markets, special events, and nightlife. While this would align very well with local economic development goals, it might not meet the needs of many riders making everyday trips between work, home, and other non-business district destinations, which were discussed frequently in stakeholder and focus group discussions. In addition, spikes in demand caused by special events and peak shopping times could create reliability challenges unless additional vehicles are added to the service, increasing operating costs and operational difficulties. Ultimately, these variants were not chosen for a full plan development due to the advantages of a Village-wide point-to-point service.

## Tradeoffs Between Shuttle Options

The project team analyzed each service option to compare the benefits and drawbacks. Each of the shuttle concepts for Oak Park reflects a different approach to balancing how long riders wait, where service is provided, and what it costs to operate, in addition to reflecting local priorities around better internal connections, accessibility for all users, and reducing congestion. The fixed route shuttle options' strengths are that they would provide predictable, higher-capacity service along popular corridors and have scheduled stops at key destinations. With peak headways of 15-20 minutes and off-peak headways of 30-40 minutes, frequency is easy to remember and offers relatively short wait times, albeit at the tradeoff of riders needing to sometimes walk further at either end of their trip. The fixed-route options generally perform better on cost-effectiveness and projected ridership.

Fixed Route Shuttle Option A delivers a strong north-south connection that links south and southeast Oak Park to the Downtown business district. The two Option A service levels trade frequency and span against operating cost. Fixed Route Shuttle Option B extends coverage to more areas across the Village, reaching additional residents, jobs, and destinations, but requires a larger bus fleet and higher annual operating costs, in addition to a less-direct ride for some users. Both fixed route options are designed to complement existing CTA, Pace, and Metra service.

The on-demand option offers point-to-point trips anywhere within the Village. Its strengths are broad geographic coverage and curbside pick-up/drop-off, allowing for minimal walking on either end of a rider's trip. This service model can be very beneficial for users who live further from key corridors where transits route operate or those who have limited mobility. But, the flexibility of on-demand service has some downsides. Curb-to-curb service results in less efficient routing that serves fewer passengers per vehicle hour (typically 3 to 5 passengers), resulting in higher per-ride operating costs. These issues can result in fluctuations in wait times, especially during peak periods,

undermining the reliability of the service. The service model considered in this study would result in lower projected ridership, even though it reaches more residents and jobs with the village-wide service zone.

Using EPA emissions rates and the prior shuttle's observed auto trip diversion rate, we can estimate the greenhouse gas emissions reductions from each service option. Option A with higher service levels could yield emissions savings of 31 to 78 metric tons annually, while Option A with reduced service levels could yield emissions savings of 21 to 54 metric tons annually. The Option B route could yield emissions savings of 40 to 103 metric tons annually, and the On-Demand service could yield emissions savings of 16 to 26 metric tons annually.

Overall, the findings show that no single option optimizes all goals. The fixed-route shuttle options excel at supporting efficiency, ridership, and greenhouse gas reduction where demand is concentrated along key corridors, while the on-demand service option excels at maximizing coverage and minimizing walking distances. Community members in the 2024 survey indicated reluctance to walk to shuttle stops – but in the 2025 focus groups they also expressed skepticism of a flexible model that doesn't come at the same time each day. Village leadership must weigh these competing priorities to determine what shuttle concept will best serve the community. Table 13 below summarizes the pros and cons of the three service options, including service characteristics, projected ridership, job access, cost, destination access, and more for a high-level reference.

Survey respondents had high expectations for a new shuttle service. Many participants (44%) would not be willing to walk more than two blocks to access the shuttle, which could be a barrier to ridership. Wait times were also identified as the top barrier to public transit use, and the majority of participants (81%) would not be willing to wait more than 10 minutes for a shuttle.

*Table 13. Evaluation Metrics for Shuttle Options*

| **Service Option** | **Option A Route** (Higher Service) | **Option A Route** (Reduced Service) | **Option B Route** | **On-Demand^** |
|---|---|---|---|---|
| Service Model | Fixed route, scheduled stops | | | Point-to-point, dynamic routing |
| Typical Access | Service only at stops; Most residents and jobs within ~0.25 miles of a stop | | | Curb-to-curb anywhere in service area |
| Average Frequency or Wait Time | Every 15-30 min Avg. wait 7.5-15 min | Every 20-40 min Avg. wait 10-20 min | Every 15-30 min Avg. wait 7.5-15 min | ~15 min wait |
| Relative Productivity (Passengers per Vehicle Hour) | High | Medium | High | Low |
| Estimated Annual Operating Cost | $3.2 M | $2.2 M | $4.6 M | $1.7M |
| Estimated Weekday Ridership | 480-1,220 | 330-840 | 630-1,610 | 250-400 |
| Per-Ride Cost | $8.18-$20.78 | $8.21-$20.91 | $9.13-$23.33 | $12.60-$21.00 |
| Fleet Size (including spares) | 6 | 5 | 10 | 5 |
| Bus Connections | 6 of 16 | | 8 of 16 | All |
| Rail Connections | 5 of 6 | | 5 of 6 | All |
| Greenhouse Gas Reduction Potential | Medium-High | Medium | Medium-High | Low |
| Estimated Coverage Stats* | | | | |
| Population Access | ~33,500 | | ~40,700 | ~54,300 |
| Below 200% Federal Poverty Limit | 12% | | 19% | 13% |
| Zero Car Households | 12% | | 18% | 13% |
| Minority | 42% | | 47% | 40% |
| Job Access | ~11,500 | | ~14,800 | ~19,000 |
| Accessible Destinations | | | | |
| Downtown Oak Park | Yes | | Yes | Yes |
| Oak Park Libraries | Yes | | Yes | Yes |
| Oak Park River Forest High School | Yes | | Yes | Yes |
| Middle Schools | No | | Partial | Yes |
| Park District Center | No | | No | Yes |
| West Suburban Medical Center | No | | No | Yes |
| Other Parks/Recreation | Yes | | Yes | Yes |
| Other Business Districts | Partial | | Partial | Yes |

**Estimates based on 0.25 mile service area for fixed-routes and within boundaries for on-demand service (Census 2020).*
*^On-demand estimates assume an average wait time of 15 minutes, fleet of 5 vehicles, an average trip distance of 1.6 miles, and typical microtransit productivity levels. Changes in fleet size, service span, or productivity would affect both the estimated annual cost and per-ride cost.*

# 4. Community Engagement Overview

To better understand the perspectives of potential users, our team engaged in discussions with key stakeholders and community members while developing and refining the plan's alternatives. Our outreach methods were designed to build on the previous feedback gathered from the Village's Electric Shuttle Survey, which launched in the fall of 2024. We held a series of stakeholder interviews and two community focus groups to gather different perspectives, feedback, and preferences regarding potential shuttle operations.

## Stakeholder Interviews

Our team led five small-group interviews with key stakeholders to better understand the transit and transportation context in Oak Park. Interview participants included technical stakeholders and community leaders who were grouped based on similar backgrounds and expertise, resulting in five different discussion focus areas. These focus areas and the participating stakeholders included:

- Infrastructure and operations
    - Village of Oak Park Department of Public Works (DPW) employees
    - ComEd
- Transit
    - Chicago Transit Agency (CTA)
    - Pace Suburban Bus
- Business Leaders
    - OPRF Chamber of Commerce
    - Southtown Business District
    - Downtown Oak Park
- Community Destinations
    - School District 97 (D97)
    - School District 200 (D200)
    - Oak Park Public Library (OPPL)
    - Park District of Oak Park (PDOP)
- Accessibility
    - Disability Access Commission
    - Aging in Communities Commission
    - Village of Oak Park DEI Office
    - Village of Oak Park Public Health Department
    - Oak Park Township

Several insights were identified from the Stakeholder Interviews, as summarized below.

Challenges:

- DPW garages are at capacity, so finding a different space for new shuttle vehicles will be necessary.
- Transit agency partners emphasized that a new shuttle service should not duplicate any existing transit services.

EV Shuttle Use Cases:

- To promote ridership, stakeholders suggested there should be a user-friendly system that makes it easy for riders to find stops, plan their route, pay fare (if applicable), and track the shuttle in real time.
- Middle and high school students are an important potential user group.
    - Business leaders shared that there are many OPRF High School students who work part time jobs in Oak Park's business districts, and they need a way to get to and from those jobs.
    - Representatives from the school districts and the Park District of Oak Park emphasized that there is a gap in transportation for middle and high school students trying to get between school and after-school activities.
- Connecting to business districts and providing another means for residents to get to events in the Village (e.g. Farmers Market, Thursday Night Out, or festivals) would attract interest from community members.

## Focus Groups

We held two in-person focus group discussions with community members to gather feedback about the intended purpose of a shuttle service, tradeoffs of shuttle service, and preferences for shuttle routes. Each focus group had ten participants who received a stipend for their participation.

Focus group participants were selected to represent a variety of different community interests. As a result, the makeup of focus group participants included:

- Renters
- Homeowners
- Employees who work in the Village
- High school students
- Seniors
- Parents
- Long-term Oak Park residents
- New Oak Park residents
- Car-free residents
- Residents who own a car and drive in the Village

Feedback from the focus groups informed our team's analysis. The key findings from these discussions are described below, categorized into three types of feedback: general transportation challenges, shuttle service tradeoffs, and draft shuttle concepts.

## General Transportation Challenges

| Parking & Congestion | Physically Disconnected from Destinations | Unreliable Transportation Options | Challenging Trip-Chaining |
|---|---|---|---|
| The cost and availability of parking in downtown Oak Park make it difficult to drive to downtown destinations and events. | Residents in south Oak Park feel disconnected from the rest of the Village, particularly getting to Downtown, OPRF, and recreational facilities like the Community Recreation Center. | Existing transit services can be unreliable for trips within the Village. Younger or older residents who rely on a family member for a ride sometimes have to wait or find another transportation option. | Parents who have children in different Oak Park schools face challenges with timely drop-off/pick-up in addition to their own work schedule. Students have difficulty getting between school and activities if they are at different locations. |

Discussing general transportation challenges helped our team identify potential opportunity areas. The following four themes encompass many of the community members' discussion points:

## Shuttle Service Tradeoffs

Discussing service tradeoffs helped our team gauge participants' preferences and how they balanced wants for flexibility, reliability, coverage, and ease of use. Among nuanced discussion about the applicability of these tradeoffs, the following themes emerged:

Participants generally preferred a predictable fixed-route shuttle concept to an on-demand option for most standard trips.

- Most participants viewed fixed route shuttle service as more reliable for recurring trips, such as school, work, or after-school activities, because it follows a set schedule.
- Participants noted that on-demand would have to be competitive with rideshare services to attract riders. This would mean having very low wait times, few pooled rides, and possibly a larger service area.
- Some participants felt that on-demand service could compete with the existing Township demand-response service. However, the Oak Park Township service is exclusively for residents aged 60+ and persons with disabilities, and does not offer same-day service.
- Participants were hesitant about the drawbacks associated with an on-demand option, especially the logistics of requesting a ride and reliability for regular trips.

When comparing the fixed route options, most participants preferred broader geographic coverage to a more direct route.

- Participants weighed their willingness to travel to bus stops. Some participants said they already walk far distances if other transportation options aren't available, so walking far to reach a shuttle stop may not be worth it, especially in inclement weather or while traveling with strollers, mobility devices, or several bags. On the other hand, participants were willing to accept a short or modest walk for frequent and predictable service.
- Many participants appreciated fixed-route concepts that served south and southeast Oak

Park and connected directly to Downtown and Oak Park River Forest High School. Participants also noted the importance of ensuring that historically disconnected areas, including the east and southeast side of the Village, are meaningfully served by the final shuttle option.

- Some participants noted that if a route became too circuitous and faced heavy traffic, the shuttle may feel slow or uncompetitive with driving, even if it covered more of the village. Nevertheless, participants favored an option that allowed them to forego the hassle of finding and paying for parking.

Most participants preferred a free or very low price shuttle for residents, and valued student mobility and independence.

- Some participants suggested a system that offers Oak Park residents an exclusive discounted or free fare.
- Most participants agreed that students, especially, should receive free rides from a potential shuttle. Others suggested discounted fares for lower-income residents, highlighting concerns about equity in the program.
- Parents, students, and other participants underscored student needs as a critical use case and emphasized evening service in addition to standard peak times. They mentioned travel to and from school, after-school programs, part-time jobs, libraries, and recreation centers.
- Compared to fixed route options, some participants questioned whether an on-demand model could accommodate demand spikes at school start and dismissal times without long waits, and noted that younger children might need help requesting rides, reducing the independence the shuttle is meant to provide.

## Draft Shuttle Concepts

We presented three draft shuttle concepts to focus group participants. These included two fixed-route options and one on-demand option, with details about the route, operation times, and frequency during peak and off-peak hours. (The final versions of these options have some modifications in response to feedback, but Concept #1 corresponds to the Option B Shuttle Plan while Concept #2 corresponds to the Option A Shuttle Plan.) Both focus groups indicated a preference for fixed-route Concept #2. The table below summarizes benefits and drawbacks of each draft shuttle concept, incorporating the perspectives of focus group participants:

| | Fixed-route Concept #1 | Fixed-route Concept #2 | On-demand Concept |
|---|---|---|---|
| Benefits | • Connects the east side of Oak Park, which has generally lower income residents and participants described having long felt isolated<br>• Brings new service to areas that have not historically received the same level of transit investment | • Crosses the whole Village and provides a direct connection for south side residents to Downtown Oak Park and OPRF<br>• Serves many key destinations in Downtown Oak Park<br>• East Ave offers good coverage to both east and west sides of the Village | • Viewed as potentially better for late-night trips, including school clubs and activities that can run until 10 p.m.<br>• Offers curb-to-curb service, which some participants noted could benefit riders who live farther from major streets or have limited mobility |
| Drawbacks | • 7 p.m. end time was seen as too early to serve most students in after school activities, evening events, or later shift workers<br>• Concerns that traffic congestion on Austin could cause major delays and make the shuttle feel unreliable or slow | • Does not directly serve either middle school<br>• The southwest portion of the Village and some recreational and parks facilities on Lake Street east of East Avenue are not served<br>• Recreational/parks facilities on Lake Street (east of East Ave) aren't served | • Overlap with existing Township service (although that is not same-day and only serves seniors and persons with disabilities)<br>• Younger children might need assistance requesting rides via an app or phone, potentially diminishing the efficiency<br>• Less predictability/ reliability with this option<br>• Participants felt it would needs to be competitive with rideshare by offering better wait times and fares |
| Overall focus group preference | • Some participants valued this concept for serving isolated areas on the southeast side, but relatively few identified it as their top overall choice | • Both focus groups indicated that this was their preferred fixed-route option, particularly because of its connection between south Oak Park, Downtown, and OPRF | • Participants generally did not select this as their preferred choice, but some suggested that an on-demand service could be useful as a complementary or late-night option in addition to a fixed-route shuttle |

# 5. Shuttle Implementation Considerations

## EV Technology Options

Numerous electric vehicle models are available that could potentially be used on a new Oak Park shuttle. The project team reviewed a dozen vehicle options that might meet the Village's requirements. The review focused on vehicles smaller than a standard 40' transit bus, including vans, cutaway buses, and shuttle buses,[1] to facilitate navigation through narrow streets. The vehicles differ in design, seating configurations, and operating range the battery can support. All are ADA accessible and are able to pass beneath local underpasses.

Specific vehicle options are listed below:

- Phoenix Motorcars - Z400 Shuttle (multiple sizes)
- Optimal - S1
- GreenPower – EV Star
- Endera - B4
- Endera - B5
- Motiv Power - EPIC4
- Forest River Bus - Ford Transit
- Forest River Bus - Starcraft Allstar
- Hometown Manufacturing - Villager (multiple sizes)
- Hometown Manufacturing - Streetcar

TYLin also evaluated the technical parameters of the available vehicles to estimate which models are suitable to operate which shuttle service concepts. This analysis sought to anticipate how performance would decline during winter conditions and as the battery degrades over time. We recommend that the Village use auxiliary heaters during winter conditions to minimize range impacts. The results vary across the different shuttle concepts, and schedules are more challenging if they run earlier in the morning and later at night. However, even challenging schedules may be operated by EVs if vehicles are deployed such that no single vehicle is running for the entire day.

Village stakeholders identified two vehicle options from Hometown Manufacturing as being the most appealing due to their distinctive replica trolley design. Using such unique vehicles could help enhance the rider experience and ensure the shuttle is easily recognized. (Of course, there is likely a cost premium associated with this enhanced design.)

[1] *Note: vans and cutaway buses are typically built in two stages. Stage one includes the building of a van or truck chassis at an Original Equipment Manufacturer (OEM) facility, which includes the cab of the vehicle and is sold as an "incomplete motor vehicle". Stage two includes outfitting the chassis with a bus body, which includes the installation of ADA equipment, HVAC systems, seating, and lighting at a second stage manufacturing facility.*

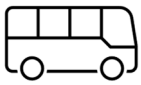

*Figure 40. Photos of replica trolley electric vehicle options*

*Table 14. Key characteristics of replica trolley electric vehicle options*

| | Hometown Mfg. Villager | | Hometown Mfg. Streetcar |
|---|---|---|---|
| **Length** | 24’ or 28’ | 32’ | 30’ |
| **Passenger Capacity** | 14-30 | 30-45 | 24-28 |
| **Max Battery Size** | 150 kWh | 150 kWh | 320 kWh |
| **Advertised Range** | 150-170+ mi | 150-170+ mi | 140-200 mi |
| **Feasibility for Option A Shuttle** | Edits needed | Edits needed | Edits needed |
| **Feasibility for Option B Shuttle** | Feasible | Feasible | Feasible |
| **Feasibility for On-demand** | Likely feasible | Likely feasible | Feasible |
| **Max Charging Rate** | 19.2 kW | 19.2 kW | 50 kW |
| **Height** | 10.4 ft | 10.4 ft | 10.7 ft |

## Ownership/Contracting Approach

At a foundational level, operating a transit service requires vehicles to operate the service, drivers to operate the vehicles, a place to store the vehicles and people to maintain the vehicles. Compliance with regulatory requirements like mandatory insurance are also integral to the successful long-term operation of a transit service. The combination of choices made in response to these questions inform the choice between operating the service directly, or contracting it out. If contracting service to a private operator is the selected approach, the 2024 Eno Center for Transportation Report “Success Factors in Private Contracting for Public Transportation” provides best practices for contracting out public transit service.

| Operating a transit service requires… | |
|---|---|
|  | Vehicles to Operate the service |
| | Purchased, leased or provided by contractor* |
|  | Drivers to Operate the vehicles |
| | Hired or provided by contractor |
|  | A place to store the vehicles |
| | On site property or provided by contractor |
|  | People to maintain the vehicles |
| | Staff mechanics, maintenance agreements or handled by the contractor |
| *Electric vehicles may limit the options for contractors | |

In addition to private sector contractor, the Chicago Transit Authority and Pace Suburban Bus would be capable of operating the service. Notably, Pace has an established Community Vehicle Program where the agency provide ADA-compliant vehicles and training, but leave control over the design and daily operations of the service to the municipality. Table 15 details the breakdown of responsibilities depending on if the service is directly by the Village, or contracted out under various approaches, as well as brief discussion of the strengths and weaknesses of each approach.

*Table 15. Comparison of Operating Models*

| | Operated by Village | Pace Community Vehicle Program (Vehicle Only) | Contracted with Transit Agency | Contracted with Private Operator |
|---|---|---|---|---|
| **Vehicles** | Village | Agency | Agency | Contractor |
| **Drivers** | Village | Village | Agency | Contractor |
| **Vehicle Storage** | Village | Village | Agency | Contractor |
| **Vehicle Maintenance** | Village | Village | Agency | Contractor |
| **Strengths** | • Direct control over service inputs and delivery<br>• Village can procure specialized vehicles | • Potential for fare integration<br>• Minimal vehicle cost<br>• Direct control over service inputs and delivery | • Potential for fare integration | • Flexibility to negotiate contract terms<br>• Broader vehicle options |
| **Weaknesses** | • DPW garage is at capacity, so a different facility would be needed<br>• Village alone is responsible for all elements of service delivery<br>• Lengthy procurement timelines | • Vehicle would not be electric<br>• Limited vehicle options | • Currently all EVs have service assignments<br>• Limited to transit buses or cutaways<br>• Highest cost, partly due to CBAs | • Limited EV availability<br>• ADA accessibility must be confirmed |

## Fare Policy and Revenue Options

The selection of a fare policy for a new shuttle service is an important choice that may relate to the operating model selected. Several possible choices are listed below:

- **Fare free for all riders** – This approach minimizes the barrier to using a shuttle and can be a popular way to attract ridership. Free fares often may also attract unhoused individuals seeking shelter. In some cases, new shuttles may be free during an initial promotional period before shifting to another fare policy. A free fare policy would be easy to implement in any operating model.
- **Adopt Ventra fare system** – The Ventra fare system is widely used in the Chicago region, and it would create a seamless experience for users if the new shuttle adopted the same fare system. Given the technical requirements of Ventra, this would only be feasible if the shuttle were operated in partnership with one of the transit agencies.
- **Fare free for specific groups, cash fare for others** – Similar to the first option, this approach would help promote ridership among specific groups who receive free rides.

For example, OPRF students might ride free by showing a student ID. Oak Park residents might also ride free using a Village-provided document. Other users would pay a modest cash fare.

Fares typically cover around 10% to 20% of bus operating costs, depending on the market served. Additional revenue might be generated through advertising on buses or at stops, but the advertising revenue is typically much smaller (less than 1% of bus operating costs). Most transit funding comes from public sources such as municipalities. Grant funding from the federal and state governments may also be considered to defray these costs. Potential grant programs could include:

- **Congestion Mitigation & Air Quality (CMAQ)** program, administered by CMAP, could support the vehicles and the first three years of operations.
- **Carbon Reduction Program**, administered by CMAP, could support the vehicles.
- **Other programs,** such as Better Utilizing Investments to Leverage Development (BUILD), could support the vehicles. If partnering with a transit agency, the shuttle might become eligible for additional competitive grants from FTA.

## Next Steps for Implementation

Following this planning study, the Village of Oak Park will need to take several steps to continue advancing the proposed electric shuttle service. The first two steps are key strategic choices, and the second two steps will support a successful implementation.

### Step 1: Confirm Service Plan

This study has developed a range of potential service plans for a new Oak Park shuttle. For these ideas to become a reality, Village leaders will need to reach decisions regarding the final shuttle service plan and obtain approval of the Village Board.

There are several practical details that should be confirmed. First, the route's alignment should be confirmed, including stops to serve and location(s) for layovers to occur at the end of the route. The schedule parameters should also be confirmed, including what days service operates, the span of hours that service operates, and the frequency during peak and off-peak times. (For example, two schedule options would include the Higher Service and Reduced Service options presented earlier.) These choices will drive resource requirements such as the peak number of vehicles operating, the daily vehicle-hours of labor required, and the number of operators required.

### Step 2: Select a Preferred Service Operator

With the shuttle service plan confirmed, Oak Park will be ready to begin the process of selecting a service operator. A key question will be whether the shuttle needs to be electric from day one, or whether a pilot period using gas or diesel vehicles is appropriate. This is critical because not all operating models would support deploying an electric shuttle in the near term:

- **To launch service with an electric fleet**, the most likely solution would be contracting with a private operator. While EV fleet offerings from contractors are currently limited, the market is growing and a company may be willing to take steps to meet the Village's

future needs. Unfortunately, the region's transit agencies do not have extra EVs available. The Village could conceivably operate the service itself, but there is currently no capacity to add new vehicles and equipment at the DPW garage.

- Alternatively, the Village could consider launching the shuttle as a **pilot/demonstration project that initially uses traditional gas or diesel vehicles**, and transitions to EVs once the ridership market is proven. This approach would allow the Village to launch service more quickly, with more flexibility in how the service is operated. However, the environmental benefits would be less prominent.

If a private operator is used, informational discussions with vendors may be a valuable first step to assess the state of the industry and the current/future availability of electric shuttle vehicles. In any case, the selection of an entity to operate a new Oak Park shuttle should consider several factors. Most obvious is the cost to operate the service. Capacity to launch the new service in a timely manner should also be a factor; this might consider driver staffing levels, the availability of vehicles suitable to Village needs, and the lead time needed before service launch. If electric vehicles are not available initially, the Village should consider candidates' plans for future EV adoption. Finally, some operators may have eligibility for special funding sources that the Village could not otherwise access.

As part of this process, Oak Park should determine whether it prefers to use third-party-owned vehicles or to use Village-owned vehicles for the shuttle. Third party ownership may be simpler if using a common vehicle type that could easily be used for other purposes. On the other hand, if Oak Park prefers a specialized vehicle such as a replica trolley, it might be best to own the vehicles to avoid issues if changing operators in the future. In either arrangement, the operating entity could be required to house and maintain the vehicles.

### Step 3: Preparations for Implementation

The preparations to implement a new shuttle service are largely the responsibility of the operator that is selected – however, depending on the arrangement, some of the activities may be the responsibility of the Village. The activities may include procurement, production, and delivery of vehicles, hiring and training of drivers, allowing drivers to select their work duties at defined times, setting up technical systems to reflect the new route, and preparing communications materials. These activities will require a significant amount of time – at least several months and possibly closer to a year. The selected operator will be able to provide a more precise timeline.

This step may also include establishing the support infrastructure for EVs – this is a complex process but one that the Village has extensive experience with. If the Village is operating the shuttle itself, it will need to assess charging equipment options and facility upgrade needs. This should consider the electrical capacity of the facility, charger power levels, dispenser configurations, and charging schedules. Third party operators would be responsible for support infrastructure themselves, as part of electrification plans that are already underway.

Many other actions fall into this step and can contribute to the time required. Operations staff will need training related to EV safety and maintenance requirements. The procurement process for vehicles and electrical infrastructure also can add to the transition timeline. In addition, a communications campaign will be needed to promote and explain the new service.

### Step 4: Implementation and Monitoring

Once the shuttle launches, we recommend tracking a set of key performance metrics to understand the operations and ridership. This would include ridership by stop, ridership by time of day, on-time performance, and other information that may help refine the service to fit demand and address any operational issues. Oak Park should be prepared to make service adjustments to the shuttle if issues are revealed in the early days of service.

A special set of performance indicators should be tracked specific to EV operations. This would include additional information to understand the real-world performance capabilities of the new technologies. For example, energy consumption rates (actual kWh per mile) could be tracked under various weather conditions. Charging speeds (actual kW accepted) could be tracked, as these are less than a charger's rated power. It will also be useful to monitor the reliability or failure rates of vehicles and chargers/dispensers, as well as maintenance costs of vehicles and chargers/dispensers.