



Regional
Transportation
Authority

DUPAGE TRANSIT CONNECTIVITY STUDY

Market Conditions Executive Summary

Purpose

DuPage County is interested in assisting employers and employees to improve commuting options and opportunities. In partnership with the RTA, DuPage County has initiated the **DuPage Transit Connectivity Study** to assess business' public transit needs by identifying first and last mile transportation challenges. The County recognizes there is growing demand for mobility options especially for people who come from Chicago or from other suburban areas. The County seeks to reduce commute times and improve access to jobs in the project areas for these inter-county and longer range commuters. The goal is to make jobs more accessible by improving commuting options, to improve employee attraction and retention for DuPage county employers, and to sustain that accessibility.

The DuPage Transit Connectivity Study begins with the task of assessing the current market conditions for the proposed study areas: Wood Dale, Addison, and Warrenville Road in Naperville. A strong understanding of market conditions allows area employers, employees, and other stakeholders to be identified for outreach activities.

Background

DuPage County has the highest population and employment density of any county in the region outside of Cook County, and continues to grow. Existing transit provided by Metra, Pace, and CTA serve tens of thousands of passengers in DuPage every weekday. While the existing transit network does a good job of serving trips destined into the City of Chicago and Loop, transit connectivity remains a challenge within DuPage and for reverse commute trips.

The majority of workers in DuPage reside in dispersed areas outside of the county, with limited transit options directly connecting their home location to their work. In addition, employment densities tend to be more concentrated in areas further from rail, making last-mile connections to employment challenging.

The three selected study areas of Wood Dale, Addison, and Warrenville are within 1 to 3 miles of multiple Metra stations providing potential opportunities for transit connections, though each offers a different set of challenges and opportunities. These corridors were chosen because they attract a high number of trips from throughout the region.

87%
of employees
working in DuPage
County drive alone
to work

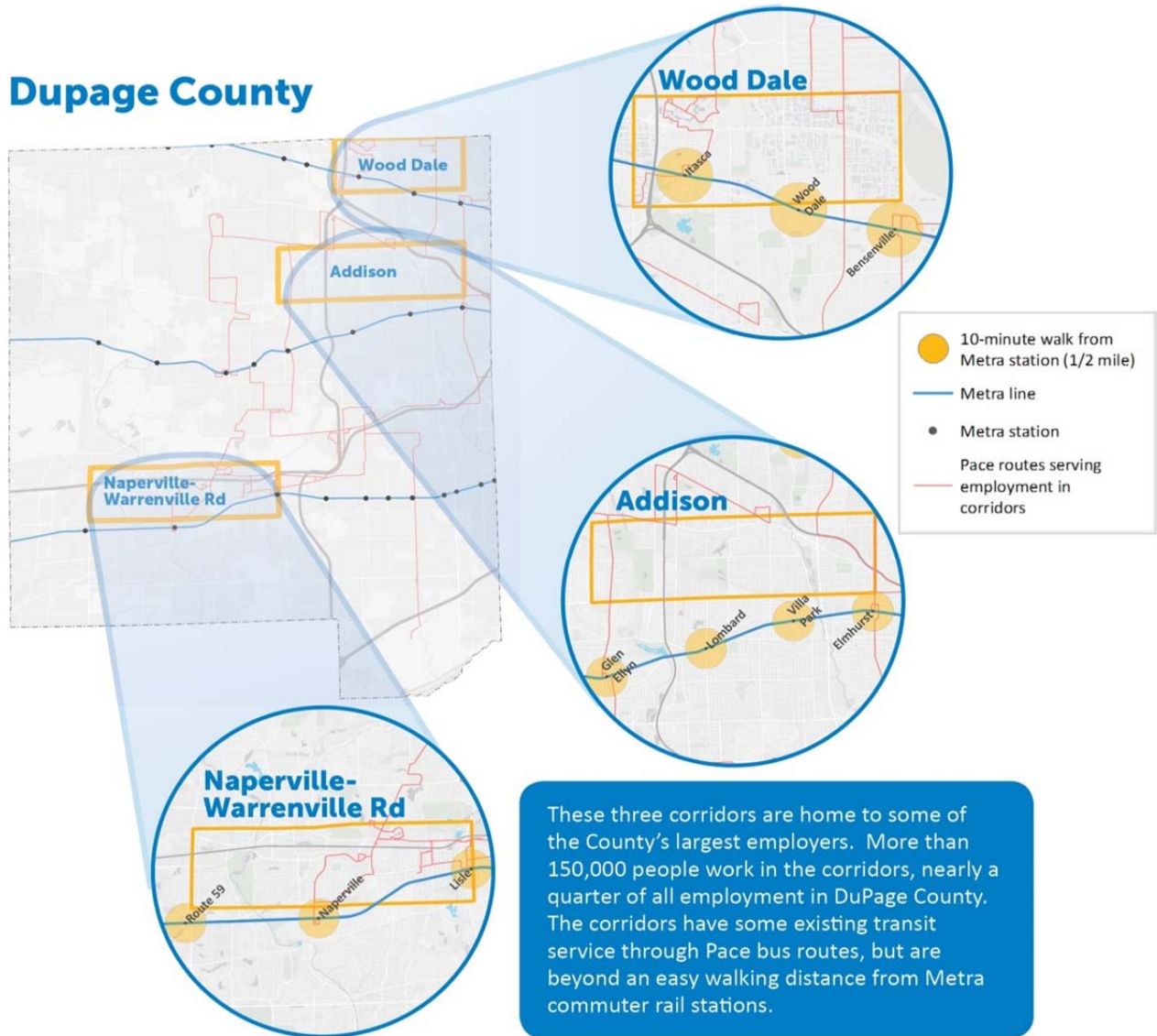
47%
of employees
working in DuPage
County wish there
were more transit
options

The Wood Dale corridor is primarily made up of light manufacturing and industry within Wood Dale and Bensenville, neighboring O’Hare International Airport. It also includes Itasca, home to the Hamilton Lakes office park.

The Addison corridor consists of light manufacturing and industry with some residential density concentrated around Elmhurst. It includes an industrial park that is the fourth largest in Illinois with more than 17 million square feet of industrial and warehousing business.

The Naperville-Warrenville Road corridor is typified by campus-style corporate offices, including technology companies and professional employment. This corridor is near downtown Naperville, which is a densely populated area with mixed use development.

Dupage County



Methodology

A market conditions assessment for the three study areas analyzed:

- Total trips attracted
- Transit potential for those trips based on origin location and demographics
- Transit availability near locations of employment
- Pedestrian environment
- Travel time analysis
- Potential for last-mile improvement

Analysis of these characteristics helps to understand commute patterns, identify gaps in transit access, and examine the effects of last-mile improvements. The market conditions assessment will ultimately inform the type of improvements that make sense for the County and businesses to pursue given the unique characteristics of the study areas and narrow the focus of the project moving forward.

Overview of Findings

Wood Dale Corridor

The Wood Dale corridor primarily attracts trips originating from surrounding areas in northern DuPage County, northwest Cook County and western portions of Cook County near the City of Chicago. Many of the workers in the corridor reside along Metra's Milwaukee District West (MD-W) line, which serves the corridor with three stations. When compared to the other two corridors, Wood Dale has a lower share of Millennials that can access the corridor via Metra.

Currently, corridor Metra stations have a significant share of passengers alighting during the morning and midday, representing nearly one quarter of daily activity. This suggests that commuters are already accessing local jobs via transit. Daily Pace bus service that connects to the CTA Blue Line at Rosemont serves a portion of the corridor and is well-utilized. Pedestrian access is below average with incomplete sidewalk networks and large block size.

Current transit commute times to the Wood Dale corridor are roughly three times as long as average drive time for the same trip. The addition of a last-mile service could significantly improve transit times by as much as 19 percent.

Addison Corridor

The Addison corridor attracts trips primarily from adjacent areas in central DuPage County, northwest Cook County and western portions of Cook County near the city of Chicago. Addison also attracts a high number of trips from within the corridor due to the corridor's mix of business and residential areas.

73,500

work trips are made into the
Wood Dale corridor every
weekday

4,798

people per square mile work
in the corridor, compared to
a regional average of 1,058

1,837

people per square mile live
in the corridor, compared to
a regional average of 2,973

86,000

work trips are made into the Addison corridor every weekday

3,655

work in the corridor, compared to a regional average of 1,058

3,360

people per square mile live in the corridor, compared to a regional average of 2,973

Of the three corridors, Addison has the highest share of trips originating from areas served by Metra, nearly double that of the Wood Dale corridor. Addison trips also originate from areas with zero-vehicle household rates approximately 50-60 percent higher than Wood Dale and three times higher than Warrenville Road.

The Addison corridor is served by Metra UP-W and MD-W lines, though all stations nearest the corridor are beyond walking distance. Daily Pace bus service is available on the edges of the corridor only. Pedestrian access is average, though sidewalk completeness and network connectivity are better in the more residential areas than in the areas of greater employment. Approximately 1,000 passengers get off trains at the corridor's six Metra stations in the morning or midday, representing 17 percent of daily boardings and alightings.

Current transit times to the Addison corridor are roughly three times as long as average drive time for the same trip. The addition of a last-mile service would have an impact of seven percent reduction in average transit travel time.

Naperville-Warrenville Road Corridor

Naperville-Warrenville Road is the largest trip attractor among the corridors, with 25 percent more trips overall than Addison and coming primarily from areas within northwest DuPage, eastern Kane, and northern Will Counties. The corridor attracts a small number of trips from Cook County and areas served by the Metra BNSF line. Naperville-Warrenville Road trips originate from areas with average income higher than either the Addison or Wood Dale corridors.

The Naperville-Warrenville Road corridor is served by three stations along Metra's BNSF line, though none are within walking distance of the core employment areas. Pace operates many traditional commute routes in the area, and has introduced a new all-day service on Warrenville Road. Approximately 1,500 passengers get off trains in the morning or midday at the corridor's three Metra stations representing 13 percent of daily activity. In the high employment areas, pedestrian access is below average characterized by higher speed roads, limited sidewalk connectivity, and difficult or lengthy access to buildings from bus stops.

Current transit times to the Naperville-Warrenville Road corridor are a little less than three times as long as average drive time for the same trip, but can be significant at as high as two hours in length. A last-mile solution results in a decrease in average travel times on transit by about 6 percent overall.

92,000

work trips are made into the Naperville-Warrenville Road corridor every weekday

4,111

people per square mile work in the corridor, compared to a regional average of 1,058

3,405

people per square mile live in the corridor, compared to a regional average of 2,973

Recommendations

The three corridors analyzed in this study all have unique commute needs that will be best addressed by different transit mobility solutions. This section summarizes the Corridor Assessment for each study area and provides a framework for the development of potential transit connectivity solutions.

Wood Dale Corridor

Wood Dale is primarily business oriented and contains little residential density. Solutions here should focus on improving connections from nearby Metra stations and the CTA Blue Line targeted to specific businesses or sites and reducing fixed-route bus travel times from northwest Chicago. Pedestrian infrastructure is incomplete and existing transit service is commuter oriented, limiting transit's effectiveness in the area.



Figure 1 Aerial of typical Wood Dale development typology

The corridor has the potential to attract a respectable amount of commute trips on Metra as well as CTA connections via Pace Rosemont service. However, while the area attracts trips from throughout the region, the majority of the trips are from near or adjacent areas. While a last-mile service could potentially target commuters connecting from Metra, a broad mobility concept might be challenging due to the lack of residential in the corridor.

Addison Corridor

Addison contains a mix of high-density employment and residential areas. Due to the residential, pedestrian, and employment characteristics of the corridor, a broader mobility hub concept that unites various services providing shared-use mobility could be effective, especially if centered near Metra stations with high ridership and higher-density mixed use development, such as Elmhurst. This concept could include many connectivity solutions including improved last-mile connections to Metra,



Figure 2 Aerial of typical Addison development typology

non-motorized transportation options, or generalized ride-sharing/pooling opportunities. Pedestrian infrastructure is more complete in residential areas than in employment areas, providing greater mobility opportunities for residents. The corridor is located between two Metra stations on different lines, connected by Pace fixed-route service, providing greater potential for increasing the reverse commute market; though the rest of the corridor largely lacks fixed-route bus service. Total trips attracted to the corridor are high and many are from origins with a high share of zero-vehicle households. The corridor has the potential to attract commuters from areas of Chicago that contain higher shares of Millennials.

Naperville-Warrenville Road Corridor

Naperville-Warrenville Road is characterized by low-density campus-style employment with little residential development nearby. This environment could support a broader mobility-hub concept that includes localized circulation via non-motorized or shared-use services in and around the Naperville downtown. A part of the mobility hub solution could also include more targeted last-mile service to participating employers in the Warrenville Road corridor. Such a concept could be beneficial to existing reverse-commuters to area Metra stations



Figure 3 Aerial of typical Naperville-Warrenville Rd development typology

but also could target the high concentrations of trips originating in the Aurora area. Pedestrians have incomplete networks and have to traverse large building setbacks, parking, and landscape elements to access places of work. Pace fixed route service is substantial, though it is geared toward serving the strong traditional commute market. Newly restructured Pace bus route service will increase all-day mobility in the Naperville-Warrenville Road corridor. While not a strong reverse commute market from Chicago, the corridor attracts a high number of trips, and trip origins are well-defined and concentrated from the southwest quadrant of DuPage and the Aurora area. Household income of workers and attraction of Millennials are high in the corridor suggesting that technology based efforts to enhance or market transportation alternatives could prove effective. While not in the Naperville-Warrenville Road corridor as defined, areas directly surrounding the Naperville Metra station have higher residential densities and more mixed-use development.

Next Steps

The next step of the DuPage Transit Connectivity Study is for DuPage County to use the information provided in this Market Conditions Assessment to collaborate with employers to develop practical solutions for the three corridors. To help outreach efforts and inform local employers on potential last mile solutions DuPage County, Choose DuPage, and the RTA will be co-hosting the John Noel Conference in September 2016. The conference will highlight findings from this Market Conditions Assessment and bring together local stakeholders, transit agencies, transportation providers, and mobility experts to engage in conversation and produce innovative ideas for increasing the connectivity to transit for DuPage residents and workers.

Potential last-mile solutions will be identified specific to the unique characteristics of each corridor. These partnership, service, or infrastructure enhancements will be assessed for their feasibility by identifying methods of funding and paths toward implementation.