ANNUAL BIKE & PEDESTRIAN REPORT

2018

KANE KENDALL COUNCIL OF MAYORS

654,202

Throughout Kane and Kendall County, there are **654,202 residents**.

36

Kane Kendall Council of Mayors proudly serves **36 municipalities** throughout Kane and Kendall County.

201,110

Aurora, the largest city in the KKCOM region, has **201,110 residents**. Aurora is the second largest city in the state.

$30,565

Kendall County has the fifth-highest per capita income in the state, at **$30,565**. Kane County ranks seventh with $29,480.

Photo Source: Greater St. Charles Convention and Visitors Bureau

29,800

Over **29,800 Kane and Kendall County residents** commute daily by bus, train, bike, or walking.

2

Two cities from the KKCOM region, Batavia and Aurora, have been designated as Bicycle Friendly Communities.

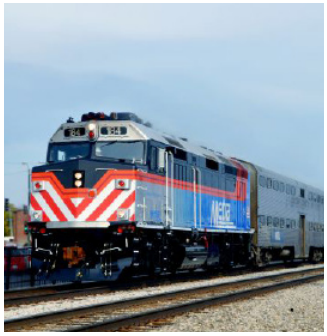
612

There are over **612 miles** of bike trails, lanes, and routes in Kane and Kendall County.

29.1

The average daily commute time for Kane County residents is **29.1 minutes**, which is tied for the lowest in the CMAP region.

Contents



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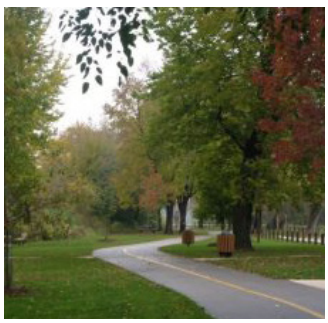

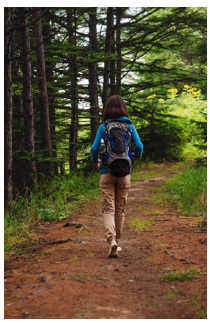


Photo Source: VisitTheUSA.com

Introduction

Kane Kendall Council Of Mayors

Kane and Kendall Counties are part of the seven-county Chicago metropolitan region that also includes Cook, Lake, McHenry, DuPage, and Will Counties. Kane and Kendall County contain a diverse mix of urban, rural, agricultural, and recreational land uses. The Kane Kendall Council of Mayors (KKCOM), one of eleven sub-regional councils established through the Chicago Metropolitan Agency for Planning, provides a forum for municipal and public involvement and partnership in the various transportation plans and projects developed throughout northeastern Illinois.

There are four main committees that steer KKCOM's activities: Full Council of Mayors, Transportation Committee, Bike and Pedestrian Committee, and Transit Committee.

The Full Council meets to program Surface Transportation Program (STP) funding and to review and evaluate transportation issues affecting Kane and Kendall County municipalities.

The KKCOM Transportation Policy Committee is responsible for the programming of STP funds, and is composed of one representative of each full member municipality including Kane County and Kendall County.

The Bike and Pedestrian Committee is responsible for providing guidance for maintaining the significant network of existing regional bicycle trails and many shorter local trails, and advocating for walking and biking, not only as great recreational activities, but as excellent alternative forms of transportation.

KKCOM STAFF

THOMAS B. RICKERT
EXECUTIVE DIRECTOR

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COUNCIL DIRECTOR

RYAN PETERSON
REGIONAL PLANNING LIAISON

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REGIONAL PLANNING LIAISON

To learn more about these committees or access meeting minutes from past meetings, please refer to the link in *Appendix A*.

Annual Bike Report

The purpose of this report is two-fold. First, this report will provide current information on bike and pedestrian infrastructure projects within Kane and Kendall County, while highlighting several key data points that KKCOM staff members believe can assist municipal leaders in guiding their transportation planning for the future. It is the hope of KKCOM staff that publishing information regarding past, present, and future projects will help the residents of Kane and Kendall County become more informed and knowledgeable about the infrastructure being built in their communities.

Economic, commuter, and public health data relating to transportation were included in the report to provide municipalities with accurate, updated information to help in the overall planning efforts of their communities.

Furthermore, this report will provide recommendations on how these two counties can improve their pedestrian and bike infrastructure and/or programming based on best practices and relevant case studies. These recommendations are not mandatory whatsoever, but simply statements of best practices that have been implemented elsewhere and could potentially be successful in the KKCOM region. Municipalities can choose to utilize these strategies to help strengthen bicycle and pedestrian access, or choose other strategies. Not all of the proposed strategies will apply to all municipalities within the KKCOM region.

This report has been informed by several relevant studies completed in the past. These relevant reports include the Kane County Bicycle and Pedestrian Plan (2012), Kane County Long Range Transit Plan (2011), and the CMAP ON TO 2040 Plan (2014). Data sources for this report included the American Community Survey (2013-2017), Illinois Department of Transportation, Metra State of the System Report (2016), US Census Bureau (2015), and PACE Bus.

The Appendices, located at the end of the report, include accessory data sources, links, maps, and information.

If you have additional questions or comments about the report, please contact Ryan Peterson at PetersonRyan@co.kane.il.us.

CHICAGO METROPOLITAN AGENCY OF PLANNING

The Chicago Metropolitan Agency for Planning (CMAP) is responsible for comprehensive regional planning in Cook, DuPage, Kane, Kendall, Lake, McHenry and Will counties in northeastern Illinois. The agency developed and now guides implementation of the recently-passed ON TO 2050 comprehensive regional plan. The plan affirms and builds on the recommendations of its predecessor, GO TO 2040, to offer specific direction where needed and identify additional priorities. The plan process identified three clear, overarching principles, which are inclusive growth, resilience, and prioritized investment.

Gerald R. Bennett (mayor of Palos Hills, Illinois) chairs the CMAP Board, whose membership features balanced representation from across the seven counties to reflect the regional consensus that led to creation of CMAP. In addition to its authorizing legislation, CMAP operates under a set of by-laws. Led by executive director Joseph C. Szabo, the CMAP staff has diverse capabilities in comprehensive planning, data research and analysis, and many related disciplines.

CMAP SUBREGIONAL COUNCILS

Central Council of Mayors/West Central Municipal Conference (west Cook County and eastern DuPage County)

DuPage Council of Mayors/DuPage Mayors and Managers Conference (DuPage County)

Kane Kendall Council of Mayors (Kane and Kendall County)

Lake County Council of Mayors (Lake County)

McHenry County Council of Mayors (McHenry County)

North Central Council of Mayors/West Central Municipal Conference (west Cook County and eastern DuPage County)

North Shore Council of Mayors/Northwest Municipal Conference (Cook, DuPage, Kane, Lake, and McHenry Counties)

Northwest Council of Mayors/Northwest Municipal Conference (Cook, DuPage, Kane, Lake, and McHenry Counties)

Southwest Council of Mayors/Southwest Conference of Mayors (southwest Cook County)

South Council of Mayors/South Suburban Mayors and Managers Association (southern Cook and eastern Will County)

Will Council of Mayors/WIll County Governmental League (Will County)

Photo Source: City of Geneva

Data Analysis & Summary

An important facet of this annual report is sharing pertinent data with the municipalities, advocates, and residents of the KKCOM region. This sharing of data allows both KKCOM staff and municipal leaders to effectively evaluate the progress, or lack thereof, that has been made throughout the two counties in the bicycle and pedestrian realm. The presentation of data is not intended to highlight deficiencies by any counties or municipalities, but rather to provide additional information that some municipal leaders or staff might not be aware of yet. KKCOM staff believe that this increased level of sharing of information will help future planning efforts for all involved.

Throughout this section there will be three different types of data analysis: mode share, economic, and health/wellness. These three categories of analysis will offer quantitative evidence to the growing need for investment in bicycle, pedestrian, and transit infrastructure. This data will also display what kinds of positive impacts that these investments can have on local transportation networks.

Mode Share

One the main reasons for the explosion of suburbia is the massive expansion of the highway system and the mass production of the automobile, which greatly reduced its price. The automobile provided new homeowners the ability to travel from their "bedroom communities" to the major employment hubs in the city. Since the initial explosion of suburban living, the suburbs have undergone many changes, but the automobile still remains as the primary mode of transportation for those living there.[1]

In modern suburban communities, it's rare to find households that do not own at least one car, due to the dependence on owning automobiles. Kane and Kendall County, which are comprised primarily of low-density suburban municipalities, are not dissimilar from other car-dependent communities. From shopping to commuting, much of the daily activities conducted by residents in Kane and Kendall County are difficult to do without a car.

Through analysis of municipal commuting and trip data, patterns can be seen that illustrate the emphasis, through planning and programming, that certain communities place on combating the dependence on the automobile. Commuting data is very important in transportation planning because commuting trips represent a large share of total miles traveled on roadways. According to the American Association of State Highway and Transportation Officials, approximately 28% of all roadway travel and 39% of all transit travel is done for commuting purposes.[2]

One of the most useful data points in analyzing the sustainability of a transportation network is mode share. Mode share is the percentage of people choosing a particular mode of transport on a daily basis. For those residents that choose two forms of transportation (i.e. driving to a transit station and commuting via train), the method that they use for the longest leg of their daily commute is considered their primary method and included within the data.

Table 2.1: Municipalities with the Highest Non-Automobile Commuting Mode Share

MUNICIPALITY	AUTOMOBILE	NON-AUTOMOBILE
Geneva	78.40%	21.60%
Millbrook	81.22%	18.78%
Lily Lake	82.78%	17.22%
Elburn	84.99%	15.01%
Batavia	85.44%	14.56%

According to the 2017 American Community Survey (ACS)

For this report, the American Community Survey (2013-2017 five-year projections) was chosen as the data source.

Table 2.1 displays the five municipalities within the KKCOM region that reported the highest non-automobile mode share. The automobile column within the table displays the percentage of the municipality's residents that commute on a daily basis via automobile, either by themselves or carpooling. The non-automobile column within the table displays the percentage of residents that commute via bicycle, public transportation, walking, taxicab, motorcycle, or working from home.

Based on the results presented in *Table 2.1*, it's clear to see that many residents, not unlike other suburban regions throughout the country, still depend heavily on the automobile. However, many municipalities have started to see their investments in bicycle infrastructure, public transportation, and pedestrian improvements pay dividends.

Since 2014, South Elgin, Sandwich, and Millbrook have experienced the largest decreases in automobile commuting mode share; each municipality decreased their automobile mode share by over 7%. Shifts in commuting patterns for individual municipalities may not seem impactful, but decreases in automobile travel in just a handful of municipalities can result in thousands of less miles traveled on roadways, massive decreases in environmental impacts, and many positive health benefits for residents.

Economy

Economic Mobility

Due to long commutes putting such strain on local, county, and state roadways, one of the ways that municipalities can reduce the need for long commutes is actively striving to attract job providers to their communities. By providing quality jobs to its residents, municipalities are not only saving on transportation maintenance and expansion costs, but they're strengthening their community's economy.

The Census Bureau publishes a dataset within the Longitudinal-Employer Household Dynamics Program, which identifies where residents from a municipality work and where employees from businesses within a municipality reside. This dataset helps quantify the labor inflow/outflow into a municipality, which, when analyzed, can help to identify economic deficiencies of a community.

For example, the top employment hub for residents of the Village of Algonquin is Chicago; around 10% of employed residents in Algonquin are employed by companies in Chicago. Conversely, residents of Algonquin hold the most employment positions of jobs within Algonquin. Approximately 9% of all jobs within the Village of Algonquin are held by its residents.[3] To view the dataset, visit the Census Bureau's website, provided in *Appendix A.*

In addition to providing analysis on planning efforts for providing jobs for local residents, this data is also useful for municipal leaders and staff because it allows them to plan around the commuting patterns of their residents and employees in their communities. Municipalities that have a high rate of residents commuting to jobs in other municipalities should consider planning efforts to encourage or invest in long-range transit like bus-rapid transit, intercity bus services, or upgraded amenities at commuter train stations. Whereas, communities that see a high rate of their residents employed within city limits or neighboring cities, should invest in protected

Table 2.2: Highest Percentage of Transportation Costs in the KKCOM Region

MUNICIPALITY	HOUSEHOLD INCOME	AVERAGE COMMUTE (MINS)	PERCENTAGE OF HOUSEHOLD BUDGET DEDICATED TO TRANSPORTATION COSTS
Millington	$66,250	35.3	28.8%
Millbrook	$73,125	32.7	26.4%
Lisbon	$60,313	29.9	26.0%
Plattville	$84,375	32.5	26.0%
Big Rock	$84,464	27.9	25.8%
KKCOM AVERAGE	$86,240	31.5	23.9%

According to 2015 US Census Bureau & 2017 American Community Survey

bike lanes, walkable commercial and residential districts, or bike sharing stations to accommodate for shorter commutes.

Affordability

Regardless of the form of transportation that residents choose for commuting and other activities, it must remain affordable. If residents are forced to spend a larger percentage of their income on transportation than is advisable, it can put a large strain on a household's budget.

The common guideline set forth by financial institutions and planners is that approximately 15-25% of a resident's monthly income should be spent on transportation costs.[4] Transportation costs might include vehicle insurance, public transportation passes, fuel costs, vehicle maintenance, or vehicle payments.

Nationwide, the average American spends 16% of their monthly household budget on transportation costs, according the Bureau of Labor Statistics. However, in car-dependent communities, transportation costs can often comprise up to 25% of a household budget, whereas well-designed multimodal communities can reduce its residents transportation costs to around 10% of the household budget.[5] Kane and Kendall County had a slightly higher rate than the nationwide statistics. Residents of Kane and Kendall County spend an average of 23% of their monthly income on transportation.[6] *Table 2.2* displays the municipalities in Kane and Kendall County with the highest percentage of transportation costs as a portion of their monthly household budget. The data for this table was provided by the Location Affordability Index, which was created by the U.S. Department of Housing and Urban Development. A full list of KKCOM municipalities and their corresponding transportation costs are available in *Appendix D*.

Municipalities can help their residents decrease their monthly transportation expenditures by shifting their planning philosophies from prioritizing automobile travel to providing access and proper funding for all modes of transportation. By creating more sustainable transportation networks, incorporating multi-use developments, and focusing on providing jobs closer to their residents, transportation costs will dramatically decrease.

Health

Bicycling and walking are not only inexpensive forms of transportation, but are also very beneficial to one's health. In the early 2000's, the Center for Disease Control listed obesity as a national health epidemic, in large part due to insufficient physical activity.[7] Reversing this trend of physical activity will not only positively impact the health of residents, but it will also help to decrease the rising costs of healthcare for all residents.

Increasing the amount of trips that are made by

bicycle or walking can start to have a major effect on the overall health of Americans. In 2009, the Federal Highway Administration (FHWA) reported that 68% of all vehicle trips in the United States were between half a mile and two miles.[8] By replacing these short trips with bicycle and walking trips, it will help to alleviate a number of transportation-related problems, but will certainly help to lessen the obesity epidemic in the county.

Currently, in Kane County, approximately 88% of all trips made within the County are made via automobile. Around 7% of all trips are made by walking and only 0.1% of trips made by bike. In Kendall County, 89% of all trips are made by automobile. Just under 3% of all trips are made by walking and 0.5% of trips are made by bike.[9] These figures are according to the latest CMAP Travel Inventory Survey. *Table D.2* in *Appendix D* has a full comparison of trip data of all counties within the CMAP region.

Data provided by the County Health Rankings & Roadmaps program provided additional evidence to the growing health problems faced in Kane and Kendall County. Despite Kendall County being ranked as the second healthiest in the state, and Kane County being ranked as the fourth healthiest, there are still some startling transportation-related statistics that were mentioned within each county's assessment.

For example, in Kendall County, 84% of commuters drive to work alone, well above the state average of 73%. In Kane County, 80% of commuters drive alone. Both counties were well above the state and national average for long commutes (above 30 minutes) that were driven alone. Long, solo commutes are an indicator of poor community design and lack of infrastructure, which discourages active commuting and social interactions.[10]

The report went on to indicate that Kane and Kendall County have higher rates of air pollution. Kane and Kendall County residents also pay above-average health care costs and have higher-than-average rates of adult obesity, according to the report.[11] All three of these health risks can be mitigated by increasing bike ridership and rates of walking, for commuting or for recreation. These health factors are just another reason for municipalities to consider investing in more bike and pedestrian infrastructure.

Photo Source: Kane County Connects

Existing Facilities

Bike & Pedestrian Facilities

Trail Network

The regional trail system in Kane and Kendall is one of the most extensive and well-maintained in the region. Between the two counties, there are ten major regional trails: the Fox River Trail; Virgil L. Gilman Trail; Aux Sable Trails; WIKADUKE Trail; Prairie Parkway Trail; Rob Roy Creek Trail; Fox & DuPage Trail; Grove Road Trail; Great Western Trail; and Illinois Prairie Path. A number of smaller local paths and trails exist within the two counties, which help to add to the connectivity of the growing trail network. The descriptions for the trails within this section were provided by TrailLink.[12]

The Fox River Trail (FRT), one of the most popular in the region, was built on stretches of three former railroads: Chicago, Aurora & Elgin; Aurora, Elgin, & Fox River Electric; and Chicago & North Western. Today, it hosts a multitude of different birds, trees and wildlife, including bald eagles, herons, and woodpeckers. Starting from its southern terminus, the rail-trail originates in the Village of Oswego, located 50 miles west of Chicago. The trail begins in Hudson Crossing Park, which faces the Fox River and has playgrounds, picnic areas, and benches, as well as a restroom and drinking fountain.

In a study conducted by Trails for Illinois and Rails-to-Trails Conservancy, it was estimated that the Fox River Trail has approximately 86,561 annual visitors.[13] The study also included an interview component of those who were using the trail. The primary findings from the interview portion were that the majority of users were bicycling, middle-aged, using the trail primarily for recreational or exercise purposes, and found the trail to be in relatively good condition. A link to the entirety of the study can be found in *Appendix A*.

The Illinois Prairie Path (IPP) was one of the nation's first rail-trail conversions. It consists of five connected trail segments with three main branches that converge at Volunteer Park (West Liberty Drive at South Carlton Avenue) in Wheaton. The 58-mile trail follows the historical path of the Chicago Aurora and Elgin Railroad. Beginning in 1902, the electric railroad provided passenger service from the western suburbs into downtown Chicago. With the railroad in decline, some routes were replaced by bus service. The partial completion of the Eisenhower Expressway (I-290) in 1955 spelled the end for this once-mighty railroad. A letter to the editor by noted naturalist May Theilgaard Watts in the Chicago Tribune in September 1963 argued for the novel idea of converting the former corridor into a footpath. That letter sparked the efforts of a determined group of Chicagoans and ultimately gave rise to the unprecedented conversion of railroad to public trail.

In the summer of 2013, the Illinois Prairie Path Not-for-Profit Corporation hired Trails for Illinois to measure the economic, environmental, and wellness impact of its namesake trail; the study used trail counts and user surveys to ascertain the level of impact that the trail has on surrounding communities.[14] The study estimated that there are approximately 122,016 annual users of the trail, with highest concentrations of usage in Villa Park and Wheaton. The age demographic that used the

trail most frequently was 46-55 year olds and 77% of respondents reported living in a 601XX zip code.

Some of the most interesting portions of the survey results came from the economic section. The survey found that 35% of respondents reported spending money during their trail visit on the day they were surveyed and 86% of respondents reported spending money in the last year relating to their trail use. Restaurants and bars, grocery stores, and vehicle expenses were the most common expenditure relating to trail usage. The average amount by those reporting a purchase was $41.50. The survey went on to describe the health and environmental survey results as well. A link to the entirety of the study can be found in *Appendix A*.

The western segment of the Great Western Trail in Illinois follows 17 miles of a former railway corridor through DeKalb and Kane counties, between LeRoy Oakes Forest Preserve and the town of Sycamore. Another section of the Great Western Trail is found in DuPage County to the east. The Chicago Great Western Railway (later Chicago and North Western) was called the Corn Belt Route because it linked Chicago, Minneapolis, Omaha, and Kansas City. In winter, allowable uses include cross-country skiing and snowmobiling (the latter west of Wasco and when snows reach 4 inches).

The Virgil L. Gilman Trail travels from quiet forest and prairie lands to bustling neighborhoods in just 11 miles, linking a woodsy community college campus with the western Chicago suburb of Montgomery. The trail's namesake, Virgil Gilman, served as administrator of the Fox Valley Park District for 30 years and successfully championed public access to the Fox River, as the public shoreline grew from 66 feet in 1946 to 20 miles during his tenure. The rail-trail is built along the routes of two former railroads. In the west, the corridor of the Chicago, Aurora & DeKalb Railroad was utilized; it ran as an interurban route 1906–1923, though it never reached Chicago. East of Copley Park, trail builders used the Elgin, Joliet & Eastern Railway's Aurora Branch, which survived as a railroad until the late 1970s.

Bike Lanes

According to County data, there are approximately 16 miles of on-street bike lanes in both Kane and Kendall County. The most notable examples of these bike lanes is on Aurora's River Street, the county's first protected bike lane. Constructing more on-street bike lanes is vital to providing comfortable places for bikers of all experience levels to commute, exercise, and travel.

Bike Sharing

In 2016, the first bike sharing system within Kane and Kendall County was introduced. Zagster Inc, a nationwide bike sharing provider partnered with the City of Aurora to implement three bike share stations in its downtown. The stations were placed strategically in high-traffic locations, all within short distances of the renowned Fox River Trail. The system has 18 bikes that are available for users – over the age of 18 – to rent at a low cost. Those interested in renting bikes from the system are able to choose daily, monthly, or seasonal passes. Users can create a membership via Zagster's app, which then allows them to obtain a single-use code to open the lockbox on the back of each bike.

In 2016, the Zagster network in Aurora had 463 riders from the months of May through December. In 2017, the system had 762 rides throughout the entire year. In 2018, the system reported 466 rides. According to ridership data, the average ride lasts just over an hour; traveling at an average speed, this would mean that a rider could cover up to ten miles. The average age of Zagster riders is 35.55 years old.

Fermilab, a particle physics and accelerator laboratory in Batavia, launched the second bike sharing program in Kane County in May 2018. Their bike share program was created to provide a sustainable form of travel for their employees and other authorized users within the 6,800-acre campus and the surrounding area.

Pedestrian Facilities

The definition of pedestrian facilities will tend to vary based on different guides. For the purpose of this report, we will use four different categories of facilities in this discussion of pedestrian facilities: sidewalks, walkways, and curb ramps; shared use paths; crosswalks, signals, and other treatments of facilities for crossing streets; and signs.

Sidewalks are typically regarded as the most important pedestrian facility. However, there are many other facility types that work in conjunction with sidewalks or independently that offer pedestrians increased safety and comfort.

It is hard to estimate the extent of pedestrian facilities because the availability of such data is scarcer than other datasets. Typically, residential, institutional, and commercial developments are the most likely to incorporate sidewalks within their designs. Industrial users, rural areas, and unincorporated townships are less likely to have sidewalks and pedestrian facilities. However, regardless of the zoning type or land use, pedestrian facilities provide a variety of economic, environmental, and health benefits.

Adding pedestrian facilities offers many benefits to

municipalities and their residents. By simply adding sidewalks to areas that previously did not have them, it can increase the health of residents, increase commercial activity in shopping corridors, provide necessary access to disabled residents, and greatly increase pedestrian safety. Where sidewalks cannot be constructed, paved shoulders and sidepaths can also provide substantial benefits to communities.

To determine the quality and availability of pedestrian facilities, the Highway Capacity Manual has introduced a Pedestrian Level of Service (PLOS), which is an evaluation process that rates pedestrian facilities on safety, design, and infrastructure elements. This tool allows municipalities and roadway professionals a consistent method for evaluating pedestrian facilities. KKCOM staff members are working to compile a PLOS analysis for the region. Staff will use recent pedestrian-level studies conducted by CMAP as the basis for their tool creation.

Public Transportation

Kane and Kendall are home to several different public transportation options that help to serve its residents with affordable, reliable alternatives to driving. These transportation options include commuter rail lines, dial-a-ride bus services, fixed bus routes, university shuttles, and bike sharing systems. Together, these systems help to lessen the dependency on automobiles, reduce the wear-and-tear on roadways, and serve residents that are not able to use automobiles for their daily transportation needs.

The most-used public transportation option within Kane and Kendall County is the Metra commuter service. Despite not currently having any stations within Kendall County, Metra is still the largest provider of public transportation within the two counties. On a daily basis, Metra has over 6,400 daily riders boarding trains from stations located in Kane County.

Metra currently serves Kane County with three lines: the BNSF Railway (Aurora), the Milwaukee District West line (Elgin, Big Timber, and National Street), and the Union Pacific West line (Elburn, La Fox, and Geneva). The station with the most average daily riders is the Aurora Transportation Center, with just over 2,100 daily riders. The Geneva station is second with 1,700 daily riders.

While Kendall County does not currently have any Metra stations, there is growing interest amongst their residents to extend the BNSF Metra line into the northern portion of the County. Currently, approximately 4.5% of Oswego residents commute via public transportation, presumably via nearby Metra stations in Kane County. CMAP has made note of the project in both their GO TO 2040 and

Table 3.2: Daily Metra Riders

METRA LINE	STATION	MUNICIPALITY	DAILY RIDERS
Milwaukee District West	Big Timber	Elgin	782
	Elgin		461
	National Street		700
Union Pacific West	Elburn	Elburn	345
	La Fox	La Fox	313
	Geneva	Geneva	1,732
BNSF Railway	Aurora Transportation Center	Aurora	2,107
		Total:	6,440

According to Metra's 2016 State of the System Report

ON TO 2050 Plans but Metra has not committed to the extension.

Pace Bus is another public transportation provider within the two counties, and helps thousands of residents reach their daily destinations. Pace serves municipalities throughout Cook, Will, DuPage, Kane, Lake, and McHenry counties. According to data provided by Pace staff, there are 38 Pace bus routes that have stops within Kane County. The longest route, Route 607, is 68 miles in length and provides service between I-90/Randall Road and the Pace Northwest Transportation Center in Schaumburg. For more information about the routes and station locations that Pace operates, visit their website; the link is provided in *Appendix A.*

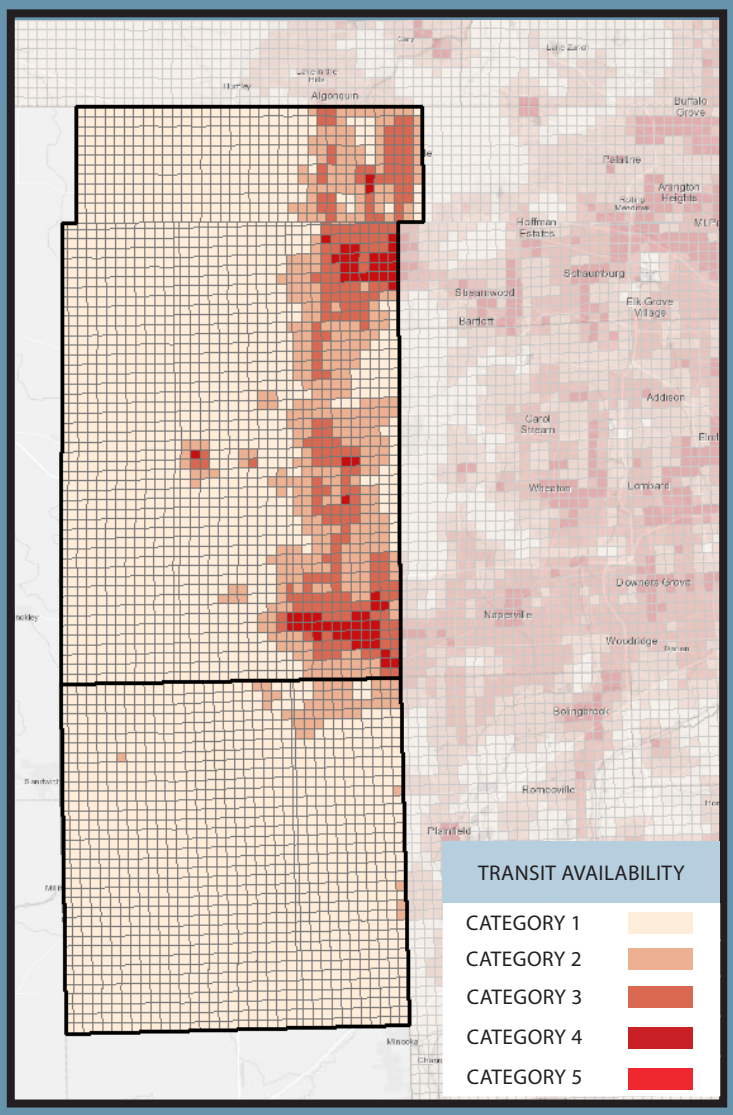
Ride in Kane (RIK) is another public transportation option that specializes its services to disabled and elderly citizens. Ride in Kane provides curb-to-curb bus or taxi service to seniors 65-and-older and to disabled individuals in Kane County. The minimum fare for each ride is $4. This minimum fare applies to rides ten miles or less; riders will be charged $1.50 for every mile after the first ten miles. Ride in Kane is administered by the Association for Individual Development in partnership with Pace Suburban Bus, Kane County and local municipalities, townships and social service agencies operating as local sponsors. However, not all municipalities within Kane County participate in the service. For a full list of participating municipalities and more information on the program, visit the website, listed in *Appendix A.*

Kendall County is served by the Kendall County Area Transit system (KAT), which operates a dial-a-ride bus service. Kendall Area Transit services all locations within the county and some designated locations outside of the county; rides on the service must originate or end within Kendall County. KAT utilizes mini-buses and vans to transport its users to their desired destination. One-way fares for the service are $3.00 for trips within the county and $5.00 for trips that travel outside of the county. The service began in 2010, when it posted an annual ridership of just under 1,100 riders. In 2018, the service provided over 29,100 rides to its users. To learn more about the program, visit their website, listed in *Appendix A.*

Bike & Pedestrian Initiatives

Bicycle Friendly Communities and Businesses
The League of American Bicyclists is a non-profit organization that promotes bicycling for fun and fitness through advocacy and educational programs.

TRANSIT AVAILABILITY IN KANE & KENDALL COUNTY



Despite the availability of many transit options, much of the Kane and Kendall County region is not served by transit.

In order to better plan for the region's transit needs, CMAP has created an indicator that helps to measure an area's access to transit. The Access to Transit Index is a uniform measure of transit level of service available during an average week. It permits the tracking of changes in transit level of service over time and presents the results in an intuitive fashion.

Each area was given a rating of 1-5. Below are the criteria for each rating:

- Category 1: Less than 100 stops per week
- Category 2: 100 to 299.9 stops per week
- Category 3: 300 to 999.9 stops per week
- Category 4: 1000 to 1999.9 stops per week
- Category 5: At least 2000 stops per week

One of their most noteworthy programs is their Bicycle Friendly America program which helps to recognize businesses, communities, and universities that have shown a strong commitment to bicycling education and infrastructure.

Currently, there are two communities in Kane County that have been designated as Bicycle Friendly Communities. In 2013, the City of Batavia was designated as Bike Friendly Community at the bronze level. In 2016, the City of Aurora was designated as a Bike Friendly Community at the gold level. Both Batavia and Aurora have served as excellent examples of strong biking communities, not only in Kane and Kendall County, but in the Chicagoland region.

Currently, there are currently no Bike Friendly Businesses or Universities within Kane or Kendall County.

Philanthropic Initiatives

There are several organizations in the region providing free or low-cost bicycles to families and individuals in need.

Bikes for Batavia is the brain child of a collaboration between the Batavia Bicycle Commission and Chip In Batavia, an initiative that helps families in need within Batavia Community Unit School District 101. The organization gives out bikes, locks, and helmets. Employees of local bike shop All Spoked Up help to inspect and fit the bikes for the individuals receiving the bikes and equipment.

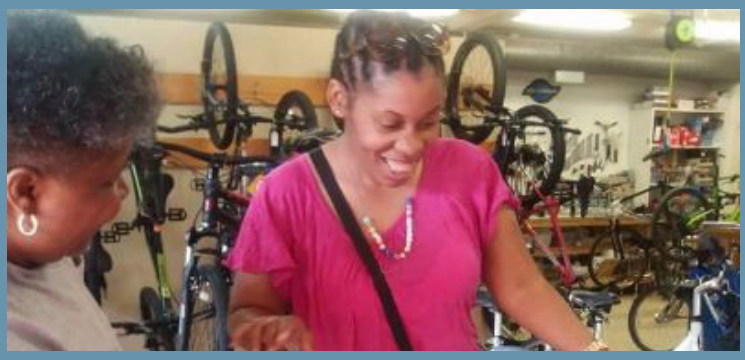
A more recent program, Pedal Empowerment, was started by a local high school student to gather gently used bikes and donate them to local Boys and Girls Clubs. Two local bike shops, Main Street Bicycles in Carpentersville and Sammy's Bikes in St. Charles are the main drop-off points for the donated bikes. The program has helped to donate over 20 bikes to the local Boys and Girls Clubs, with hopes of doing more in the future. To find out more about the program, visit their website, which is listed in *Appendix A*.

Current Organizations

There are a number of bike and pedestrian organizations that help support additional bike and pedestrian infrastructure, enact legislation, organize social events relating to biking and walking, and educate their communities about the positives of biking and walking.

The three categories of organizations within Kane and Kendall Counties are governmental bodies, advocacy groups, and social riding/walking groups.

PHILANTHROPIC EFFORT SUCCESS STORIES

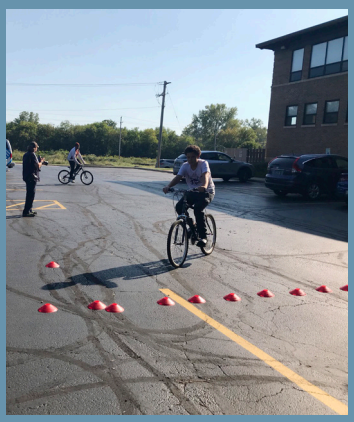


In May 2017, one of the recipients of a bicycle through the Bikes for Batavia program was Batavia resident, Melinda Lesure. As an individual on the autism spectrum, Lesure sometimes has trouble with activities involving balance, including bicycling. However, she was very passionate about becoming an experienced bicyclist.

Lesure's aunt, Veronica Giles, said that her niece had been asking for a bike for almost six months after seeing other Batavia residents biking in the community. Unfortunately, due to Giles' recent breast cancer diagnosis, the family couldn't afford to purchase a bike.

After Joanne Spitz, of the Batavia Bicycle Commission heard about the situation, she worked to find a bicycle that could be donated. After finding a suitable bike, the staff at All Spoked Up, a Batavia bike shop, prepared the bike for Lesure.

Source: City of Batavia website



In September 2018, Pedal Empowerment made a donation to the Boys and Girls Club of Dundee Township (BGCDT). The donations included bikes of all sizes, perfect for a wide range of ages and abilities.

The bikes that were brought to BGCDT were donated from all over the area. The bikes were stored and fixed by staff members at Main Street Bicycles and Sammy's Bikes.

Many of the students at BGCDT were very excited to have bikes to ride.

Source: BGCDT website

These groups have been instrumental in creating an ever-growing biking and walking culture within Kane and Kendall County. Twelve different local and statewide organizations serve Kane and Kendall County. The list of all current groups and organizations are listed within *Table D.5* in *Appendix D.* Links to all of these organizations and groups are listed in *Appendix A*.

Photo Source: Downtown Neighborhood Association of Elgin

New Facilities and Projects

New Facilities

Throughout 2018, many bike and pedestrian facility projects were proposed, started, continued and/or completed.

Aurora Transportation Center

The City of Aurora has begun work to improve the Aurora Transportation Center (ATC), which is the main transit hub in the city and the largest in the county. The ATC is a station on Metra's BNSF Railway and is also a stop on several Pace bus lines. Thousands of people use the ATC on a daily basis to commute and travel throughout the region.

The improvements to the ATC are being handled in two phases. The first phase will add approximately 790 parking spaces on the east and west side of the Fox River, create a pedestrian bridge over the Fox River, and create a designated space for Pace buses and their riders to enter and exit the buses. These additions will help traffic flow throughout the ATC and alleviate congestion for regular commuters and visitors accessing the ATC. The project will also help commuters by allowing them to access the underutilized western parking lot across the river. The project has begun construction, with an estimated completion date in 2021.

The second phase of the improvements deals primarily with the southeastern corner of the lot. Due to the current design of the exit for the ATC parking lot or the Two Brothers Roundhouse, a restaurant directly adjacent to the ATC, there is often considerable congestion. The new layout of the exit for both the ATC and Two Brothers allows for more free-flowing movement, resulting in less congestion. The second phase will also include the addition of commuter shelters on the ATC Metra platform, electronic wayfinding kiosks, and upgraded bicycle storage for commuters. This phase has yet to receive federal funding and does not have an estimated completion date.

Great Western Trail Extension

The Forest Preserve District of Kane County (FPDKC) is seeking to create a safer and more direct means for users of the Great Western Trail to access areas east of Randall Road without having to traverse along 0.43 miles of Dean Street, which is a busy roadway. In order to accomplish this, they will extend the Great Western Trail from the LeRoy Oakes Forest Preserve eastward to Randall Road. This project has received federal funding and is currently underway.

Downtown Elgin Bike Racks

The City of Elgin has proposed to add additional bicycle racks in the City's Central Business District (CBD) to promote and encourage bicycle travel. The project is proposing to place approximately 100 new bike racks throughout Elgin's CBD. The project is currently in its design phase.

The project has received federal funding but has not yet begun construction. No completion date has been set for this project.

Fox River Trail under the UP Railroad

This project will realign the Fox River Trail within the Raymond Street Forest Preserve. A proposed new tunnel will be created under the Union Pacific Railroad embankment approximately 150-200

feet south of Poplar Creek. A new bike path will be constructed on the east side of the railroad embankment to connect to the existing path. The path on the west side will be reconstructed to the new tunnel. The project has received federal funding and is expected to be completed in 2020.

Illinois Prairie Path Improvements
The Fox Valley Park District is scheduled to pave a 2.1-mile segment of the Aurora Branch of the Illinois Prairie Path, from just east of High Street to the DuPage County line in Aurora. This is the only segment of the District's regional trail system that is not paved. This portion of the trail is currently crushed limestone. The project has received federal funding and is expected to be completed in 2019.

Elgin Bikeway Route 4
Elgin Bikeway Route 4 is one of four major bike routes recommended in the Elgin Bikeway Master Plan. The route would provide a connection from southwest Elgin to the Fox River. The western extent of the route would be Bowes Road and the eastern extent would be the Fox River.

In order to make connections between existing off-street bike paths, Bikeway Route 4 will require on-street bike lanes along Bowes Creek Road between Bowes Creek Boulevard and Del Webb Boulevard and on-street bike lanes along East Avenue between Sports Way Drive and IL Route 31. The Bikeway will also require an off-street path between IL Route 31 and Marie Grolich Park.

A new shared use path across US Route 20 on the west side of IL Route 31 has also been proposed. These improvements will allow a continuous on-street and off-street bikeway route between Bowes Creek Boulevard and Marie Grolich Park. This project has received federal funding but does not have an estimated completion date.

New Projects and Initiatives

KKCOM Bike & Pedestrian App
KKCOM staff, along with Kane County GIS staff members, have created a web-based bike and pedestrian app that will allow users to access several transportation maps within one location. The app will provide maps of the Pace Bus routes and stations, Metra lines and stations, dedicated bike lanes, bike trails, local destinations, parking and restrooms, bike shops, and other relevant infrastructure throughout Kane and Kendall County. The app was created to help residents become more knowledgeable about the alternative means of transportation in the region.

The app will operate similarly to the app created

PAST BIKE & PEDESTRIAN PROJECTS IN KANE & KENDALL COUNTY

River Street Protected Bike Lane
Aurora, IL

Red Gate Bridge
St. Charles, IL

Batavia Shared Street
Batavia, IL

by DuPage County in 2017. The DuPage app allows users to use the app to view information about the DuPage County trail system, including parking lots, rest areas, restrooms, popular destinations, bike shops, and emergency assistance facilities.

The app aims to expand on the DuPage County App by offering information about more transportation options within the app. By offering additional maps, it will provide users greater access to multiple modes of transportation.

The app was launched in November 2018. A link to the app is listed in *Appendix A*.

KKCOM Seminar Series

KKCOM staff will be hosting a free seminar series throughout 2019, with various topics of seminars including bike sharing, bikeway design, and bike safety measures. The seminars will be aimed towards municipal staff and elected officials but bike advocates and bike committee members are welcome to join. Please contact KKCOM staff for more information about the seminars.

Fox River Trail Signage Program Update

In 2003 the Fox River Trail Signage Program was authored by the Kane County Division of Transportation, Kane County Council of Mayors and the Forest Preserve District of Kane County. The goal of the original plan was to create universal wayfinding, cautionary, and regulatory signs for the Fox River Trail System. The plan recommended useful navigation and safety information, while not detracting from the trail experience by "over-signing".

Implementation of the original plan was the responsibility of each individual jurisdiction. This resulted in inconsistent implementation of the plan's recommendations among the agencies. Evaluation of the original plan indicated 308 of the original signs could be assessed. Of those signs, 133 signs were still installed, 149 signs were not installed or had been removed and 26 sign variations were installed.

Since the 2003 Fox River Trail Signage Program was adopted, trail traffic has increased substantially and trails are now viewed as a source of recreation, exercise, transportation and economic opportunity. With the increased exposure of the trail as well as the demand for more signs along the trail, a review and update of the 2003 Fox River Trail Signage Program was requested.

Input from the Steering Committee Meetings, Individual Stakeholder Meetings and other Outreach activities was evaluated and the results were conclusive. There was a desire for an update to the original plan and that there was buy in from all Stakeholders. The three main topics emphasized were:

1. Consistent signage along the Fox River Trail
2. Move wayfinding, cautionary and regulatory signs
3. Better branding of the Fox River Trail

As of January 2019, the update was in the implementation phase. All signs have been delivered to municipalities that ordered signs through the program. Almost all municipalities have started work on placing the new signs and removing the old signs. Many municipalities have already finished their share of signage updates. The remaining municipalities and organizations are aiming to have their signage updates completed by Spring 2019. KKCOM staff have prepared an online web map for those interested in tracking the progress of the project. The link to this map is available in *Appendix A*.

PlacesForBikes Rating Process

Launched in 1999 as Bikes Belong, PeopleForBikes serves as both an industry coalition of bicycling suppliers and retailers as well as a charitable foundation. One of their latest creations, PlacesForBikes, is a rating system dedicated solely to determining the best cities in the nation for bike ridership, based on a number of factors ranging from safety to recent investment.

PlacesForBikes is a data-driven approach to identifying the best U.S. cities and towns for bicycling to help city leaders pinpoint improvements and make riding better for everyone. Using feedback from everyday bike riders, city staffers, open-source maps and publicly available data, it scores municipalities on five key factors: Ridership, Safety, Network, Acceleration and Reach. For more details on each score category, visit the PlaceForBikes website, listed in *Appendix A*.

Currently, only three Kane or Kendall County municipalities are ranked within the system: Aurora, Batavia, and St. Charles. As of their latest ratings, Aurora received a score of 1.6, Batavia a score of 1.3, and St. Charles a score of 1.5.[15] The rating system is out of a possible five points. However, all three cities were missing data from their profiles, which could have resulted in a higher score.

PlacesForBikes publish their ratings biennially, with the next rating process happening in October 2019. It is the goal of KKCOM that all municipalities within Kane and Kendall Counties participate in the October rating process. By submitting the necessary data for the ratings, municipalities will

have a consistent, unbiased rating system that they can utilize for future planning efforts. This data will also allow KKCOM staff to analyze all of its municipalities and their various levels of bicycle and pedestrian service.

Regional Active Mobility (RAMP) Initiative
This Regional Active Mobility Program (RAMP) is a regional bicycle and pedestrian plan centered on collaboration and impactful action. The initiative is based on the recommendations from CMAP LTA plans such as the Fox River Corridor Plan, Aurora's Downtown Master Plan and the Village of Carpentersville Health Impact Assessment; the "Trail Town Fox Valley" Big Ideas Presentation by Trails for Illinois at GreenTown 2017; and the success of Aurora's Zagster bike share program. The program has three main components: bike share, wayfinding, and tourism.

The expansion of a bike share program through the region is considered to be the backbone of the Regional Active Mobility Program. By expanding the bike share system, it will help alleviate the "first/last mile" transit problem and provide a low-cost recreational option for residents and visitors.

To enhance recreational activity by bike share members, runners, walkers, and bicyclists, the Regional Active Mobility Program will also include a wayfinding element that would emphasize consistent and user-friendly designs. The wayfinding would go beyond traditional signage to influence and enrich the user experience to encourage more activity with programming, education, and opportunities for exploration. Suggested programming has included pre-designated routes, fitness/commuter challenges, and walking or biking clubs.

The final component of the RAMP Initiative is expanding the growing mobility-based tourism industry in the region. Mobility-based tourism, or attractions centered on trails and other biking and walking amenities, could spur economic development for communities.

Elgin Bike Map
With the help of Ride Illinois and Active Transportation Alliance, the City of Elgin produced the City's first Bike Map. The map details the various bike routes in Elgin and each route's level of comfort for bicyclists. The map also highlights several local amenities, parks, and cultural landmarks. In addition, the map illustrates safe riding techniques and provides contact information for governmental entities and local advocacy groups.

Walkable Downtown Tour (St. Charles)
In celebration of Illinois' bicentennial year, several local organizations have created a walking tour through downtown St. Charles. Complete with 27 different locations, the tour allows residents to learn more about the rich history of the St. Charles' Historic District. The tour was made possible by partnerships between the Downtown St. Charles Downtown Partnership, St. Charles History Museum, the City of St. Charles, and Historic Preservation Committee. For more information, visit their website, listed in *Appendix A.*

Photo Source: Kane County Connects

Funding Sources

There are numerous opportunities for municipalities to access funding, both through local and federal sources, to assist in funding bicycle and pedestrian projects or projects that have bicycle and pedestrian components within their scope. These sources can provide vital funds for projects that often could not be undertaken.

The majority of funding for bicycle facilities and infrastructure comes from the State of Illinois or the federal government. With almost all funding sources, program sponsors are required to provide local funding in addition to the contributions from the various funding sources. Typically, federal funding can cover up to 80% of the costs related to the project and program sponsors are required to provide the remaining 20% as a local match.[16]

While many bicycle and pedestrian-specific funding sources are well-known to municipal leaders and staff members, many are not. KKCOM staff has compiled a list of many of the funding sources that they have used or recommended using in the past.

Within *Table 5.1* there is an explanation of each funding source that details the purpose of the funding source and what it aims to accomplish. The chart also describes the eligible applicants that can apply for the funding, the typical timeframe of the funding cycle, and examples of the types of projects that are eligible for the funding.

While *Table 5.1* details several applicable funding sources, the list is not exhaustive. Additional funding sources can be found by visiting the Chicago Metropolitan Agency for Planning's website that describes the various community assistance grants, the Illinois Department of Natural Resource's Grant page, and/or the Federal Highway Administration's Bicycle and Pedestrian Program page.

Table 5.1: Funding Sources

GRANT NAME	PURPOSE	PROJECT EXAMPLES
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	The Congestion Mitigation and Air Quality (CMAQ) Improvement Program is a federally-funded program of surface transportation improvements designed to improve air quality and mitigate congestion.	Examples include: transit improvements, transit service and equipment, access to transit projects, traffic flow improvements, signal interconnects, bicycle facility projects, and direct emissions reduction projects.
Transportation Alternatives Program (TAP-L)	The locally programmed Transportation Alternatives Program (TAP-L) is a federally-funded program of surface transportation improvements designed to support non-motorized transportation.	Examples include: pedestrian/bicycle facilities; shared use paths; trail/bike lane extensions; on-street bicycle facilities; and off-street bicycle facilities.
Surface Transportation Program Urban (STP-U)	STP-U allocates federal funds to complete a variety of improvements to federal-aid-eligible roads and streets in urban areas. In order for bicycle and pedestrian projects to be eligible within this funding source, they must be implemented as part of a larger project.	Examples include: pedestrian/bicycle facilities; off-street bicycle facilities; on-street bicycle facilities; and pedestrian and bicycle crossing improvements *as part of an already existing project.*
Safe Routes to School (SRTS)	Safe Routes to School program aims to enable and encourage children to walk and bicycle to school; make bicycling and walking to school a safer and more appealing transportation alternative; and to facilitate the planning, development, and implementation of projects.	Examples include: sidewalk improvements, traffic calming/speed reduction improvements, traffic control devices, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle facilities, and secure bicycle parking facilities.
Illinois Transportation Enhancement Program (ITEP)	The Illinois Transportation Enhancement Program (ITEP) was designed to promote and develop alternative transportation options, including bike and pedestrian travel, along with streetscape beautification. The federal funds are awarded competitively, and projects must be related to surface transportation.	Examples include: pedestrian/bicycle facilities; streetscapes, conversion of abandoned railroad corridors to trails; historic preservation and rehabilitation of historic transportation facilities; archaeological activities relating to impacts from implementation of a transportation project; overlooks and viewing areas.
Bike Path Grant	The Bike Path Grant assists local governments in acquiring and developing land for public bicycle path purposes. Grants assist eligible units of government in acquiring, constructing and rehabilitating public, non-motorized bicycle paths and directly related support facilities.	Examples include: linear corridor land acquisition costs, including associated appraisal fees.
Federal Recreational Trails Program	The Federal Recreational Trails Program was created through the National Recreational Trail Fund Act (NRTFA). This program provides funding assistance for acquisition, development, rehabilitation and maintenance of both motorized and non-motorized recreation trails.	Examples include: trail construction and rehabilitation; restoration of areas adjacent to trails damaged by unauthorized trail uses; construction of trail-related support facilities and amenities; and acquisition from willing sellers of trail corridors through easements or fee simple title.
Illinois Grade Crossing Protection Fund (GCPF)	The Grade Crossing Protection Fund (GCPF), appropriated to the Illinois Department of Transportation (IDOT) but administered only upon order of the Illinois Commerce Commission (ICC), was created by state law to assist local public agencies (LPAs) - counties, townships and municipalities - in paying for safety improvements at highway-rail crossings on local roads and streets.	Examples include: warning device upgrades; grade separations; pedestrian grade separations; interconnects; highway approaches; connecting roads; and voluntary crossing closures crossing surface renewals.
High-Growth Cities Fund	The High-Growth Cities Program provides funding to municipalities with populations over 5,000 that are experiencing above-normal population growth.	Examples include: traffic control and school crossing signals; bicycle signs, paths, lanes, or bicycle parking facilities, local mass transit districts, street lighting systems, sidewalks and pedestrian paths, and pedestrian subway or overhead crossings.

Photo Source: Dennis Jurs Memorial Race

Recommended Objectives

This section describes eight strategies that KKCOM staff considers to be the most relevant and have the most potential for change within the region. The strategies presented within this section are not required or mandated by KKCOM or the Kane County DOT. These strategies are simply recommendations as to how Kane and Kendall County municipalities can improve bike and pedestrian access within their communities based on local and national best practices.

Some of the following recommendations are short-term strategies that could be accomplished in a matter of months, but many of these strategies require long-term action and careful planning efforts by municipal staff. KKCOM staff recommends taking these strategies into consideration in future planning efforts but does not expect all of these strategies to be implemented.

Furthermore, not all of these strategies can be accomplished by municipal staff. Some of these recommendations are a call to action of the residents of Kane and Kendall County to advocate and champion efforts for better bicycle and pedestrian infrastructure and policies.

Objective #1: Increase the number of residents choosing biking and/or walking as their preferred choice of commuting to work.

Currently, Kane and Kendall have the highest percentage of residents that choose to commute by cars, trucks, or vans in the entire CMAP region. However, there are significant benefits to lessening this dependence on the automobile.

Increasing the number of residents that choose to commute by alternative forms of transportation is typically done in three ways:

1. Ensuring the safety of bikers and pedestrians through effective design methods.
2. Increasing the educational efforts that describe the ample benefits from commuting via alternative forms of transportation.
3. Making a commitment to providing high-quality bike, pedestrian, and/or public transportation infrastructure at a competitive cost.

Without the presence of these three factors, it is unlikely that suburban areas will have a noticeable presence of commuters that choose to commute by non-automobile methods.[17]

There are numerous benefits of biking to work for employees, employers, and municipalities. Studies have shown that individuals who choose to bike to work experience a wide array of health and fitness benefits from commuting even just a few times per week.

Additionally, bike commuters also save a great deal of money by choosing to commute sustainably. The average American household spends $1,962 annually on gas and motor oil alone, before adding other expenses like insurance and maintenance costs. The average bike commuter could save roughly $7,000 per year on transportation costs.[18] These savings could drastically increase if multiple members of a household chose to commute via bicycle as well.

Employers who encourage their employees to commute sustainably through programming, incen-

tives, and infrastructure, have seen tangible benefits. These employers have noticed increased work production and retention from their employees, a happier and more motivated workforce, employees taking less sick days than those commuting by car, and a higher likelihood of attracting and retaining talented employees.[19]

Examples of how employers can encourage more employees to commute sustainably include providing shower and changing facilities, providing secure bicycle parking, providing additional financial incentives, permitting a more relaxed dress code on specified bike days, participating in programs that provide bike commuters with an alternative form of transportation in case of a family emergency or inclement weather, and/or educational programs for both drivers and cyclists on roadways.

Municipalities with high rates of sustainable commuting among their residents have typically reaped these benefits. First and foremost, cities with bike infrastructure and higher than average rates of bike commuting have been shown to be more desirable. A study of the Monon Trail, a highly trafficked bike commuting trail in Indianapolis, showed that houses within a half-mile of the trail garnered property values more than eleven percent higher than houses further from the trail.[20]

Figure 6.1: Examples of Bike Facilities

Fortunately for municipalities, effective bike infrastructure can be employed at a significantly lower cost than other forms of transportation infrastructure. Many cities like Portland and Minneapolis have started to realize that for the same price as widening a lane on congested highways, they can instead reallocate that money to creating extensive bike networks.[21] Statistics show that for each additional mile of bicycle lane cities can expect to see an approximate one-percent increase in the share of bike-to-work trips.[22] While large, expansive roadway projects are vital to the transportation networks of the suburbs and rural areas, there are many benefits to investing in bike and pedestrian infrastructure, too. For more information on specific costs of bike infrastructure elements, refer to *Appendix A*.

Objective #2: Expand the bike share network.

The Zagster system in the City of Aurora has continued to grow in ridership numbers each year since its inception. The system has provided Aurora residents and visitors with a low-cost, enjoyable mode of transportation that users can use to commute or for recreational purposes. However, there is a lot of opportunity to grow this system in a successful regional bike share coalition through the RAMP Initiative and the assistance of communities adjacent to the existing system.

If communities along the Fox River were to build stations in strategic locations near downtown areas and key regional trails, it would not only create a successful bike sharing system but it would have several economic benefits for the communities that invest in stations. Users of bike share around the country have reported they are far more likely to patronize restaurants and bars that have bike share stations nearby, and bike share commuters have been found to make more visits to bars, restaurants, and convenience stores than their automobile commuter counterparts. Bike share systems also attract younger generations who are economically mobile that prefer to live in cities that are walkable and bikeable.[23]

Bike share also offers benefits to the transportation network. By offering the opportunity for residents to commute via bike share, it helps to decrease congestion and the overall strain on the roadways themselves. Studies have also shown that an increase of cyclists on the road make drivers more aware of their presence, leading to fewer bicyclist fatalities. The systems can also provide great public transportation coverage and an additional form of alternative transportation that helps to complement existing systems.

Objective #3: Improve the multi-modal options at public transportation hubs.

As noted earlier in the report, thousands of Kane and Kendall County residents choose to commute via Metra commuter lines on a daily basis. These thousands of trips help to lessen congestion, mitigate the numerous environmental impacts of automobiles, and contribute to furthering a robust public transportation system in the suburbs. While these commuters are choosing Metra as their primary commuting mode, the vast majority of them are electing to drive alone to the stations rather than biking, walking, or carpooling.

In 2016, Metra analyzed the modes of access that their users took when traveling to their stations to access their train lines.[24] Most users chose to drive to the stations before boarding their trains. However, there were some Kane County stations that reported above-average rates of non-automobile commuting by its riders. Elgin's downtown Metra station posted the highest rate of non-automobile access, with 23% of their Metra users choosing to access the station by walking/biking, public transit, or other forms.

In 2008, Metra conducted a System-Wide Bicycle-Parking Inventory Report which sought to find the existing inventory and utilization of bicycle parking at Metra stations.[25] While facilities at Metra stations were since the report was published, the findings from the report are still relevant. The study found that throughout Metra stations in Kane County there were 187 usable bicycle parking spaces, which were, on a daily basis, 59% full. This usage rate was down almost 20% from Metra's 2003 study on the same topic. The report went on the recommend that municipalities should replace old facilities, install bicycle facilities as part of rehabilitation projects, and invest in high-quality facilities when they are installed at stations.

One of the benefits of increasing the sustainable mode share of Metra commuters is the lessened need for automobile parking at stations. By installing more space-efficient bicycle parking and decreasing automobile parking, municipalities would be able to use the excess space for highly sought-after commercial, residential, mixed-use developments adjacent to train stations, which are typically found in downtown areas. This would likely generate more tax revenue and help to create more dynamic downtown areas.

A great way to encourage more walking and biking to Metra stations is by incentivizing these forms of transportation by the transit companies and municipalities. Adding carpool parking spots in close proximity to the boarding platform would give priority to those who choose to commute sustainably. In addition, providing reduced fare train tickets for commuters that choose to take

Table 6.1: Mode of Access to KKCOM Metra Stations

METRA LINE	STATION	MUNICIPALITY	AUTOMOBILE COMMUTERS	NON-AUTOMOBILE COMMUTERS
Milwaukee District West	Big Timber	Elgin	97%	3%
	Elgin		77%	23%
	National Street		93%	7%
Union Pacific West	Elburn	Elburn	96%	4%
	La Fox	La Fox	100%	0%
	Geneva	Geneva	90%	10%
BNSF Railway	Aurora Transportation Center	Aurora	94%	6%

According to Metra's 2016 State of the System Report & Metra's 2008 Bicycle-Parking Inventory Report

Figure 6.2: Examples of Transit Hub Upgrades

alternative forms of transportation to the station would represent a pronounced motivation to leave the car at home.

In order to make this goal a reality, there needs to be more bicycle and pedestrian infrastructure provided at each station. Examples of this infrastructure might include adding covered bicycle parking, wayfinding signs to help navigate residents and visitors to nearby destinations, adding bike share stations at train and bus stations, adding informational kiosks at major transit hubs, and adding bike lanes and sidewalks that connect transit stations to nearby residential areas.

Objective #4: Eliminate all bicycle and pedestrian fatalities in Kane and Kendall County.

According to IDOT Roadway Crash Data, there were four pedestrian and bicycle fatalities in Kane and Kendall counties in 2016, which was the last year available for analysis. These fatalities all occurred within Kane County, and all were pedestrian fatalities. However, in 2015, there were two bicycle fatalities and four pedestrian fatalities. In Kendall County, the last time there was a pedestrian fatality as a result of an automobile crash was 2014. The last bicyclist fatality in Kendall County was in 2009.[26]

Between Kane and Kendall counties there were over 100 reported pedestrian-related crashes and over 75 reported crashes that involved bicycles in 2016. While these crashes were not fatal, they still represent an ongoing danger for those who choose alternative modes of transportation for recreation and commuting. These rates were also higher, on a per capita basis, than other counties in the region. Many of these crashes are due to an inadequate infrastructure for alternative forms of transportation, low driver awareness, and a lack of education for drivers when encountering bikers and pedestrians on shared roadways.

If biking and walking rates increase in the coming years, roads will become more crowded with the multiple modes of transportation now vying for space. Implementing more safety measures would help to avoid an increase in fatalities. These measures could include safety policies enacted by local and regional governmental entities, training programs for automobile users and bikers that emphasize proper ways to share the roadway, establishing road diets, increased policing of particularly dangerous roads, and employing more pedestrian signage along busy roadways.

Objective #5: Reimagine downtown spaces to include more bike and pedestrian access and/or infrastructure.

Many municipalities consider their downtown districts to be the bright spots of their communities. These downtown areas often serve as a municipality's gateway for both residents and visitors, in addition to housing its commercial core and acting as a primary meeting place for residents. Many downtown areas within Kane and Kendall County are excellent examples of not only how to develop and maintain downtown districts, but also how to adapt and revitalize these districts to changing residential and commercial trends. However, while the main focus of these downtown districts is to remain economically viable, there are still cost-effective improvements that can be made to the transportation systems within and around these areas to increase their sustainability and revenues.

One of the more evident problems is the overabundance of parking along downtown corridors. In suburban communities, maintaining adequate parking is essential for commercial businesses, but several downtown areas could benefit from road diets and/or removing parking from the main streets that dissect their downtown districts. By utilizing the space created through road diets for bicycle and pedestrian elements within their roadway design, downtown districts could increase the number of customers and patrons at downtown businesses, spur additional spending at downtown businesses, decrease traffic congestion, and increase property values.

In a 2012 study, it was found that bikers and walkers actually tend to spend more per visit than automobile drivers at restaurants, bars, and convenience stores. The study also found that walkers and bikers tend to take more trips to restaurants, bars, and convenience stores than automobile drivers.[27] Additionally, providing bike parking is more cost effective and requires less space than providing for automobile parking.

Figure 6.3 shows a typical downtown street with angled parking on both sides. This a very common street layout for many downtown areas, as it provides ample parking opportunities for the surrounding commercial uses and wide, comfortable drive lanes. However, there are improvements that can be made that would eliminate excess parking and provide space for the other modes of transportation.

Figure 6.4 displays proposed changes to street layouts that currently have street parking on both sides. This layout suggests eliminating street parking on one side of the street altogether, while changing the typical front-in parking spot on the opposite to a modern back-in style spot. Back-in parking spots tend to be much safer and help with the flow of traffic upon exiting the spot. The design also proposes to implement a bike lane with the space from the removal of one side of parking. The bike lane, approximately 12 feet wide, would be large enough for not just one direction of bike traffic but two, which would dramatically increase the connectivity of this area.

Figure 6.5 displays another typical downtown street with no parking on either side. Streets that have no parking on either side decrease the chances of bicyclists using those roadways due to the lack of perceived safety and comfort.

Figure 6.6 shows a proposed change to the street by eliminating one travel lane and replacing it with a bike lane. While this strategy is not practical for high-traffic streets, it could be implemented on nearby roads that are adjacent to the main downtown streets. Creating bike lanes on streets adjacent to busier roads near popular areas is recommended because it increases safety by lessening the potential for an automobile-cyclist crash while still allowing for bicyclists to access commercial, dining, and recreational locations.

The designs included within this section are far from the only roadway design upgrades that could be employed, however. There are dozens of improvements that could be added to local downtown areas to improve their transportation system while maintaining or increasing economic vitality. KKCOM staff recommends those interested in learning about these design ideas to use the NACTO Urban Bikeway Design Guide for further research. A link to this resource can be found in *Appendix A*.

Figure 6.3: Current Downtown Street Configuration #1

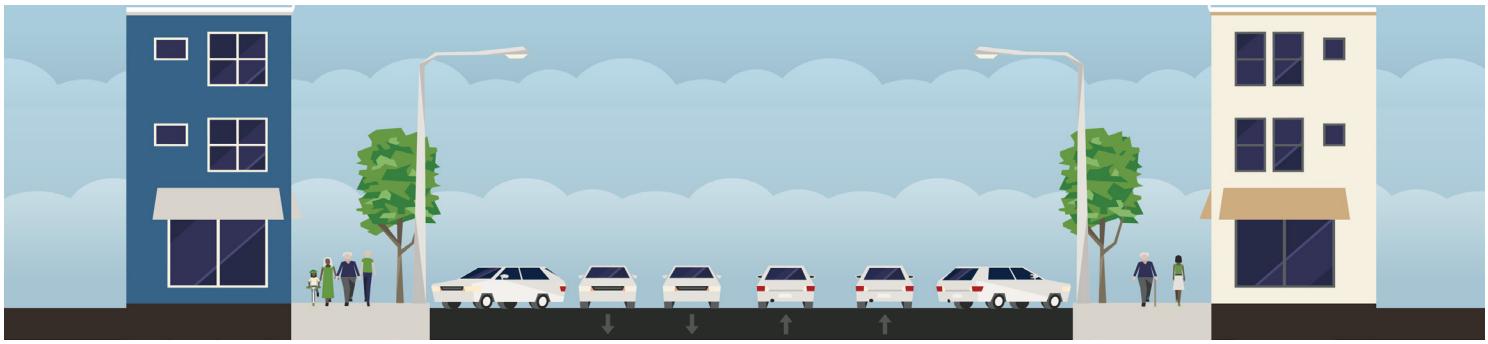


Figure 6.4: Proposed Downtown Street Configuration #1

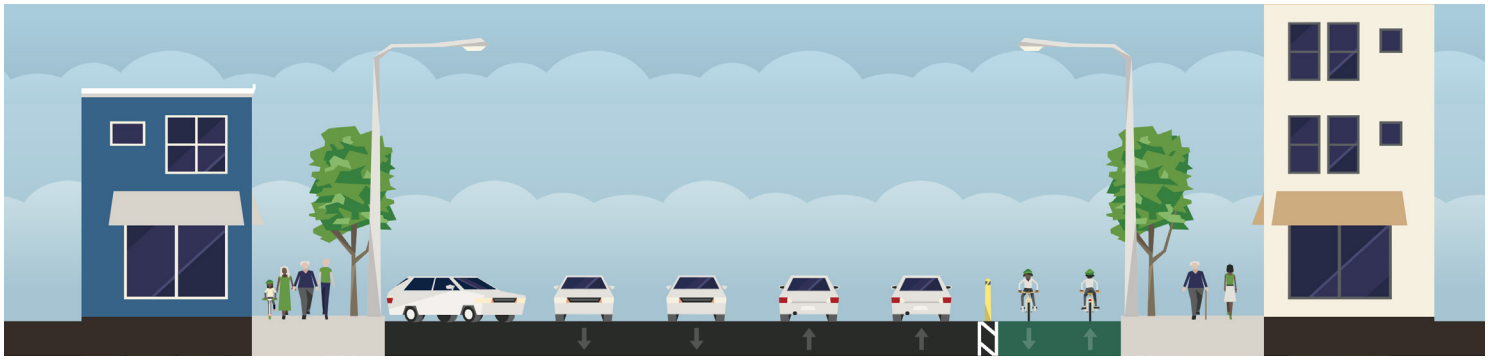


Figure 6.5: Current Downtown Street Configuration #2

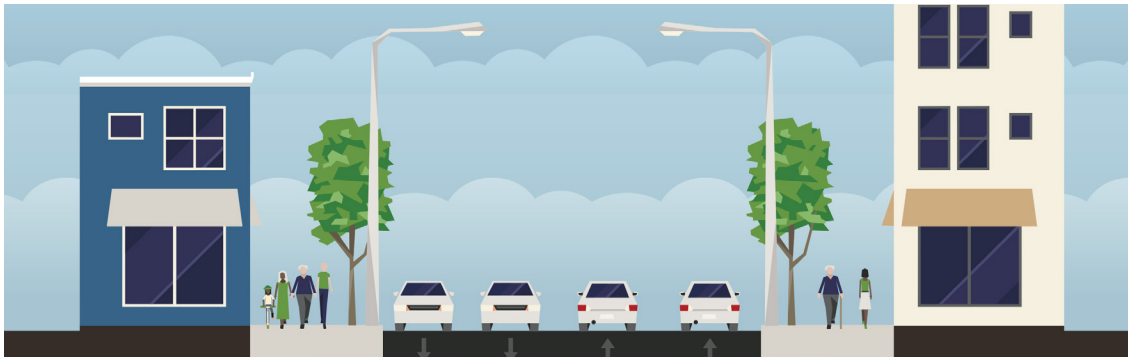
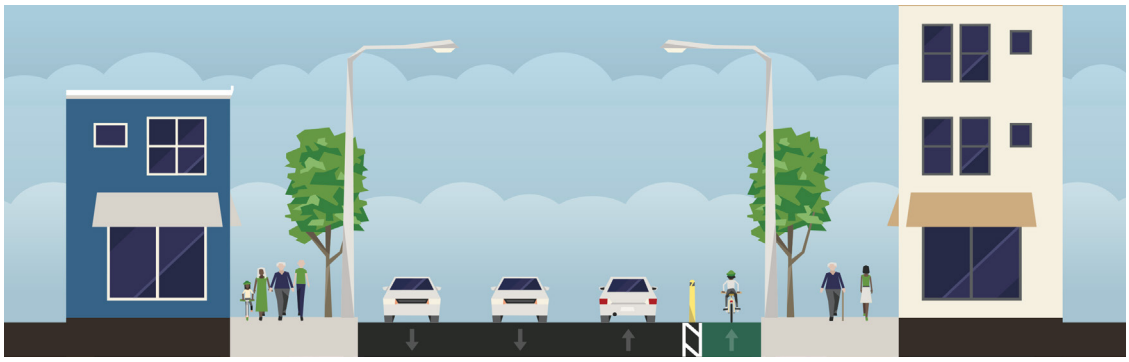


Figure 6.6: Proposed Downtown Street Configuration #2



Objective #6: Invest in bike and pedestrian-related programming and commerce opportunities.

Biking and Walking Tours

Not only do bicycling and walking represent a sustainable, healthy option for both recreation and commuting; they can also represent a viable commercial opportunity for cities and private organizations/businesses. There are less than ten bike tours located throughout the state of Illinois. As is expected, most of these tours are located in downtown Chicago and take their tour goers on a variety of guided tours that include topics ranging from culture to cuisine. However, there are a few examples of companies offering bike tours in the Chicagoland suburbs.

Walking tours, on the other hand, are much more popular throughout the region and statewide. Much like biking tours, many of the walking tours in Illinois can be found in Chicago, but several suburban walking tours are starting to gain notoriety. The City of St. Charles' launched a self-guided downtown tour of their own in 2018. The City of Geneva hosts an annual Christmas Walk and House Tour, where attendees can take part in festive celebrations and marvel at unique architectural residences.[28] Naperville's Bites and Sites Tour offers its customers a guided tour of Downtown Naperville while stopping at six of its local eateries along the way.[29] Peoria offers a sculpture walking tour that provides tour-goers with educational information about the local sculptures around Peoria.[30]

The creation of more biking and/or walking tours in Kane and Kendall County would not only add to the number of walking and biking trips taken throughout the region, but it represents a unique way for municipalities to exhibit their historic features, diverse dining options, exciting downtown areas, and beautiful biking and walking trails. These tours could be hosted by local riding groups, advocacy groups, or the local municipalities themselves. Offering themed tours, much like the historic tour in St. Charles, would help immensely in creating a stronger biking and walking culture in Kane and Kendall County.

Residents who are interested in creating private tours for those visiting Kane or Kendall County can do so as well. There are many sites that allow residents to become tour guides in their own cities, and get paid while doing it. These sites, like Vayable, TourbyLocals or Viator, all offer private citizens the opportunity to host tours regularly or sporadically throughout the year. These tours can be an experience in art, fashion, design, eating, drinking, architecture, history, outdoors or any other cultural experience that tells a unique story about the destination. For more information about these sites visit their websites, links are provided

within *Appendix A*.

Bike Races & Fundraising Events
Thanks to the advocacy efforts by organizations and residents throughout Kane and Kendall Counties, the KKCOM region already hosts many exciting bike races and fundraising events. Examples of these events include high-profile races and fundraisers like the Dennis Jurs Memorial Race, the Swedish Days ride, the Bike MS: Tour de Farms, Everybody Rides event, and the Chicagoland Tour de Cure. Not only do these events help to attract bikers from the KKCOM region, but they bring in riders from across the nation. Many of these events also host bike safety and education clinics and children's rides as part of the festivities. Attempting to attract more of these events would help to boost ridership and add to the bike culture in the region.

Casual & Social Rides
Some of the biking community's more popular events are those that have a mixture of riding with a social component. This combination tends to attract more riders because the ride is normally much shorter and more leisurely than a race or longer ride would entail. Many of these rides also include stops at local eateries, events, or public spaces. Some of the notable social rides within Kane and Kendall Counties include Elgin's Full Moon Ride and Kidical Mass and the Fabyan Villa Ride in Geneva.[31] Other notable examples of social rides include Critical Mass events in Chicago, the Wright Ride in Oak Park, Cycle Fest in Palatine, and the Tour de Taco in Bloomington.[32]

Objective #7: Engage communities and community leaders in nationwide pedestrian and bicycling events.

Bike to Work Week
Bike to Work Week is a yearly international event that originated in Europe. It is typically a seven-day event that advocates bicycling for transportation. The event has been steadily gaining popularity in North American cities over the past decade. The event takes place during the second week of May or June and is typically an entire week of citywide cycling supplemented with events. The central aim of the event is to give citizens of a city the opportunity to help the environment and exercise in a fun and social way.

In 2019, Bike to Work Week will be May 13-19. The week will culminate in National Bike to Work Day on May 17th. Last year, many companies, governmental departments, and individual residents took part in the Bike Week festivities. While there are no documented figures on the exact number of participants, KKCOM staff is hoping to increase the number of participants in 2019 through effective programming and outreach efforts.

KKCOM Bike Week
In 2019, KKCOM staff will be organizing the first annual KKCOM Bike Week, which will also take place May 13-19, the same week as national Bike to Work Week. KKCOM Bike Week will be a series of bicycle planning and programming initiatives throughout Kane and Kendall County to help communities reimagine their streets and roadways and help to provide bike and pedestrian programming during the week. Communities within the KKCOM region will be encouraged to create temporary bike infrastructure during the entirety or portions of the week to show residents different configurations of their existing roads.

These bike infrastructure treatments might include implementing a protected bike lane by installing planters or traffic cones, creating a pedestrian-only street to create a space to host activities during the week, or adding bike shelters at transit and commercial hubs. Other ideas can be simpler in nature, like posting bike lane signs, increased

Figure 6.7: Temporary Bike Infrastructure Example

Photo Source: Greg Raisman, Flickr

wayfinding signage to nearby amenities, adding lighting to darker portions of paths and sidewalks and/or incorporating more signage encouraging cars to slow down in heavily trafficked areas.

The temporary infrastructure does not necessarily have to be transportation-related. The treatments could include creating pop-up parks or playgrounds, removing automobile parking along a sidewalk lined with restaurants in exchange for outdoor seating, creating seating or outdoor patio spaces in underutilized alley spaces, and/or repurposing underused green spaces into urban gardens/orchards. Links to more ideas for temporary treatments are available in *Appendix A.*

KKCOM Bike Week will hopefully provide communities a chance to try different treatments to witness how bicycle infrastructure can positively affect the overall effectiveness of non-automobile modes of travel. If the permanent version of the temporary treatment is too costly or is determined to be ineffective, the treatment can be removed at the end of the week, with little to no cost to the municipality. Conversely, the municipality also has the option to make the experimental treatment permanent if residents have favorable reviews for them.

To add to the festivities of the week, KKCOM staff is challenging all municipality leaders to take part in the fun. On National Bike to Work Day, May 17th, KKCOM would like all interested municipal leaders and civic staff members to set the example for their communities by biking to work that day. By choosing to bike to work, it shows their communities that biking is not only a form of exercise and recreation, but also a legitimate commuting mode.

Walk to School Day

International Walk to School Day is a global event that involves communities from more than 40 countries walking and biking to school on the same day. It began in 1997 as a one-day event. Over time, this event has become part of a movement for year-round safe routes to school and a celebration – with record breaking participation – each October. Today, thousands of schools across America – from all 50 states, the District of Columbia, and Puerto Rico – participate every October.

Bike to School Day

The first-ever National Bike to School Day took place on May 9, 2012, in coordination with the American Bicyclists' National Bike Month. Almost 1,000 local events in 49 states and the District of Columbia joined together to encourage children to safely bicycle or walk to school.

The event builds on the popularity of Walk to School Day, which is celebrated across the country – and the world – each October. Many communities and schools have been holding spring walk and bicycle to school events for years. National Bike to School Day provides an opportunity for schools across the country to join together to celebrate and to build off of the energy of National Bike Month.

For both Bike to School Day and Walk to School Day, KKCOM staff hopes that teachers, staff, and administration will join the students and parents that participate in these two events. It has been shown that engaged and excited administration and faculty will help drive participation by students and their parents. Ultimately, the goals of these events are to promote awareness about walking and biking safety and to promote healthy behavior at young ages for the student population within Kane and Kendall Counties.

Objective #8: Invest in rural bike infrastructure.

Bicycle and pedestrian infrastructure is not "one size fits all." Kane and Kendall Counties are home to a large number of small, rural villages. These communities are typically absent of sustainable transportation infrastructure. Often times, the transportation networks of these smaller communities is focused around high-speed state and county highways, making it unsafe to travel by foot or bike.

Until very recently, few bike infrastructure design guidelines were offered for rural communities. However, there have been many new innovations in infrastructure designs that provide communities cost-effective ways to redesign, or retrofit existing rural roadways and highways.

The following infrastructure descriptions and diagrams are from the *Small Town and Rural Multimodal Networks Guide* provided by the Federal Highway Administration.[33]

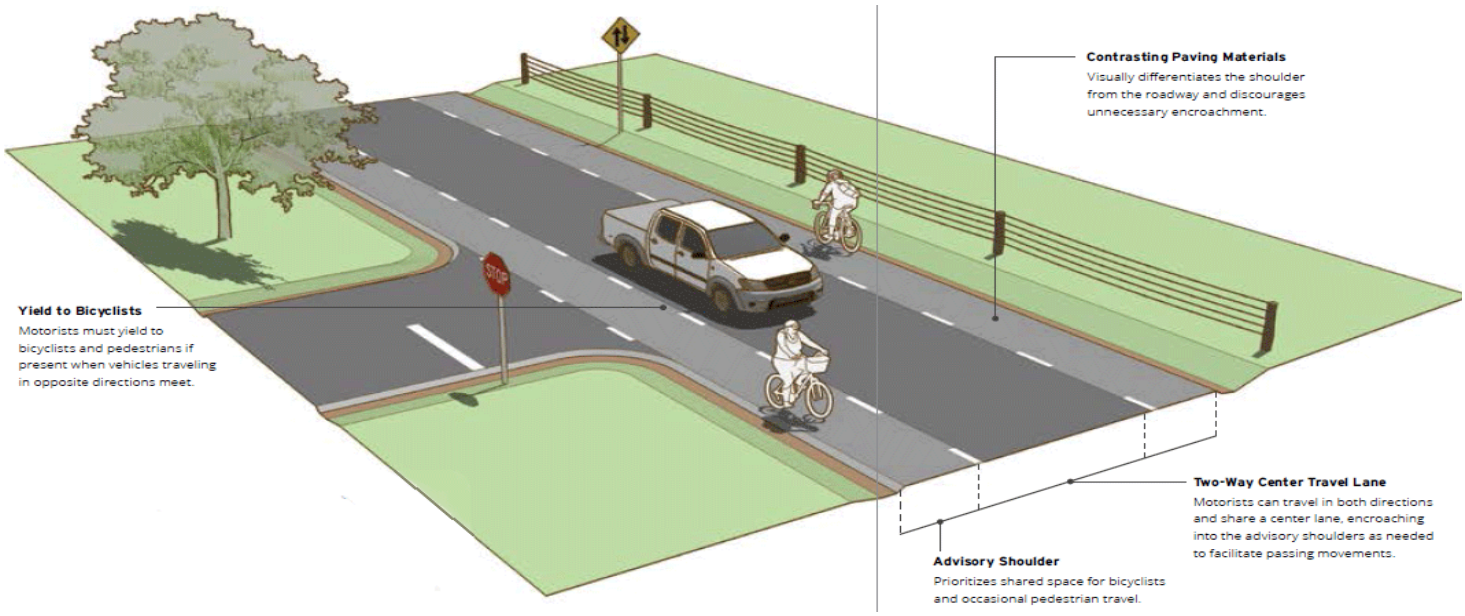
Advisory Shoulder

Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

Advisory lanes tend to reduce crashes due to reduced motor vehicle speeds, function well within a rural and small town traffic context, and support the natural environment by reducing paved surface requirements. Advisory lanes also have the added benefit of not requiring the widening of a road in order to accommodate the facility.

Advisory shoulders are most appropriate on streets with low to moderate volumes and moderate speeds.

Figure 6.8: Advisory Shoulder



Typically, advisory lanes are six feet wide.

Paved Shoulder
Paved shoulders on the edge of roadways can be enhanced to serve as a functional space for bicyclists and pedestrians to travel in the absence of other facilities with more separation.

Paved shoulders improve bicyclist experiences with higher speeds of traffic volume, reduce crashes with pedestrians walking along roadways, and provide space for all users of the road.

Shoulders can improve bicyclist comfort and safety when traveling in higher speed and/or volume situations but only when adequate width is provided. If implemented, rumble strips should be located on the edge line or within a buffer area that will not reduce usable space for bicyclists.

Any amount of clear paved shoulder width can benefit pedestrians and bicyclists, however, to be fully functional for their use, the paved shoulder area should be wide enough to accommodate the horizontal operating envelope of these users.

A paved shoulder should be a minimum of four feet wide. There should also be a 1.5-4 foot buffer between the travel lane and the paved shoulder. If rumble strips are present on the shoulder, it is recommended that they are installed properly, otherwise it can negatively impact bicycle travel.

Sidepaths
A sidepath is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small town community character.

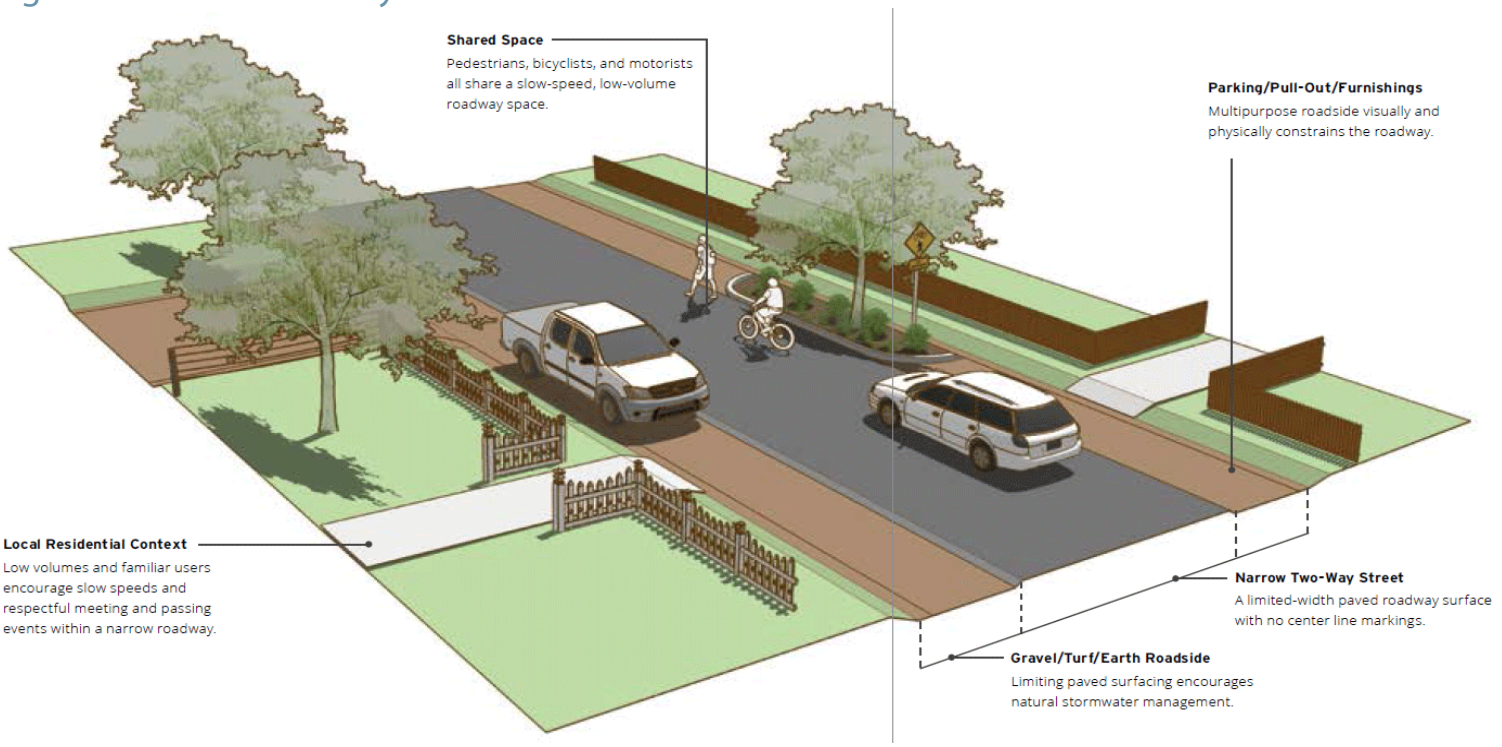
Sidepaths help to complete networks where only high-speed roads are present, fill in gaps of low-stress local roads, and provide a more appropriate facility for users of all ages and abilities than shoulders or mixed traffic facilities on roads with moderate or high traffic intensity.

A typical sidepath is 8-12 feet in width and is designed to be at least five feet from the roadway. However, the amount of separation from the roadway should be informed by the speed and configuration of the adjacent roadway. On high-speed roadways, a separation of 16.5-20.5 feet is recommended.

Yield Roadway
A yield roadway is designed to serve pedestrians, bicyclists, and motor vehicle traffic in the same low-speed travel area. Yield roadways serve bidirectional motor vehicle traffic without lane markings in the roadway travel area.

Yield roadways can effectively serve local travel needs, can maintain aesthetic preferences, and are a common form for low-volume local rural roads. When operating at very-low volumes and at low speeds, pedestrians and bicyclists are comfortable walking within the travel area of the roadway. Yield roadways are designed with narrow roadway

Figure 6.9: Yield Roadway



dimensions to prioritize local access and community livability.

Yield roadways are less costly to build and/or maintain than fully paved cross sections, they connect local residential areas to destinations on the network, and they encourage low travel speeds when implemented on narrow roads.

Yield roadways should be applied on roads with very low volumes and low travel speeds. They are most appropriate within local residential roadways and should not be designed for through motor vehicle travel.

Pedestrian Lane

A pedestrian lane is an interim or temporary pedestrian facility that may be appropriate on roads with low to moderate speeds and volumes. A pedestrian lane is a designated space on the roadway for exclusive use of pedestrians. The lane may be on one or both sides of the roadway and can fill gaps between important destinations in a community.

Pedestrian lanes should be designed to support and promote side-by-side walking within the lane. Because of the lack of physical separation, additional width beyond this should be included for added comfort.

- Preferred width is 8 feet
- The minimum width to allow for side-by-side walking and maneuverability by users of mobility devices is 5 feet.

A pedestrian lane may be considered to operate similarly to a sidewalk. Consult State and local vehicle code for implications in a situation where pedestrians are walking along a roadway with no sidewalk or shoulder available.

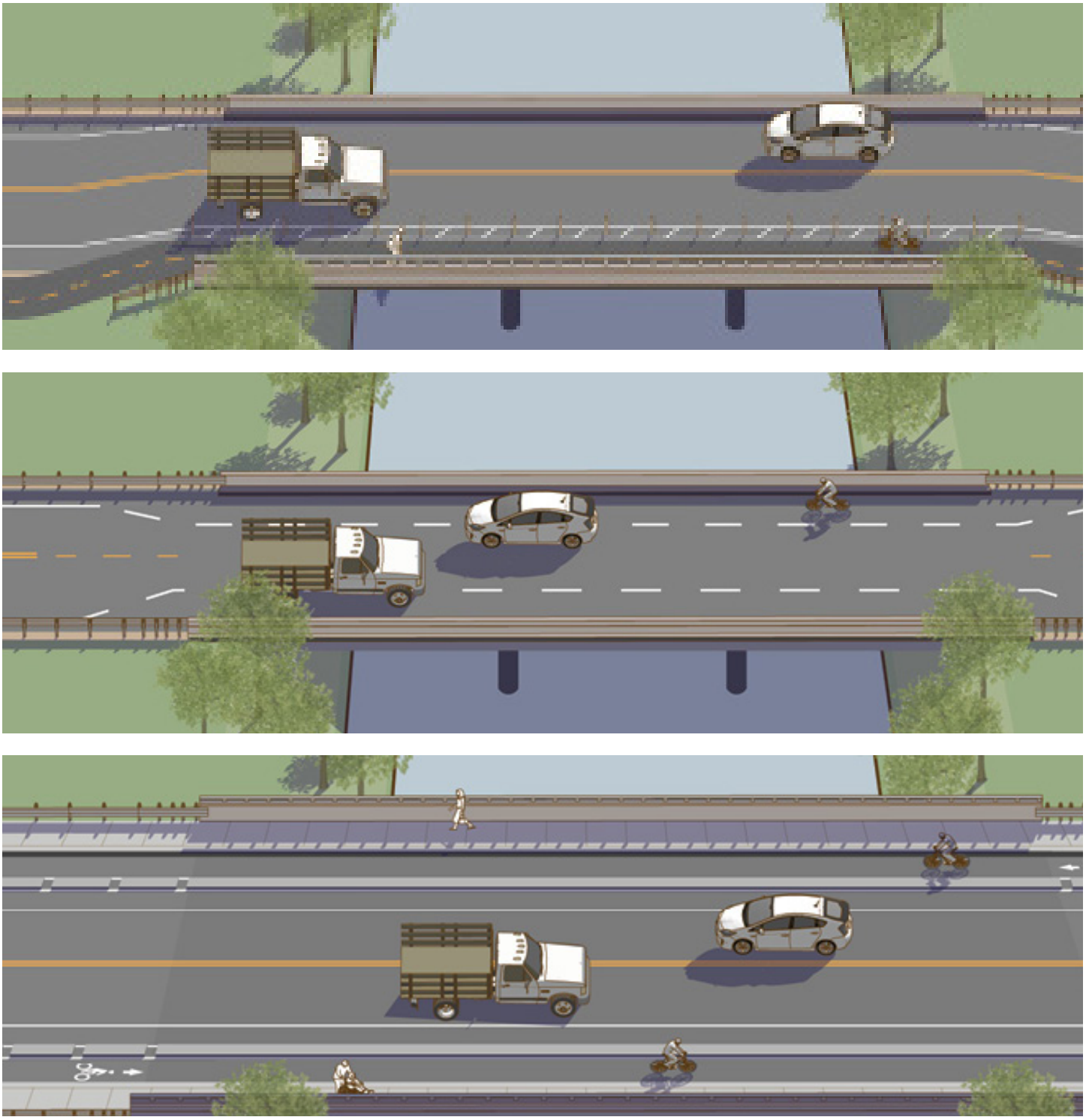
Sufficient space to provide a pedestrian lane may already exist or may be created through configuration changes, including removing or consolidating on-street parking, or narrowing of travel lanes. Implementing pedestrian lanes may share some strategies with the implementation of bike lanes.

Bridge Reconfiguration

Bridges are critical connections in any transportation network. Due to the high cost of bridge replacement or upgrades and the various existing and constrained bridge designs that exist, it is not always possible to have continuity in design approaches for multimodal facilities on bridges. It may take decades for older bridges to be replaced with a design that supports walking and bicycling. Rehabilitating existing bridges presents opportunities for reconfiguring bridge decks and structures to better accommodate all the modes that need to use the connection in the network. The overall strategy for accommodating people walking and bicycling on bridges may vary depending on whether the bridge is being reconfigured, retrofitted, or replaced.

People bicycling and walking should be assumed users of any new or replacement bridge structure.

Figure 6.12: Bridge Reconfigurations



A bridge replacement or rehabilitation project may create an opportunity to provide a new pedestrian and/or bicycle facility that does not necessarily connect to existing facilities. Provide temporary connections from the roadway to the new bridge facilities until the roadway can be permanently upgraded. Providing facilities during construction is less expensive than retrofitting them later.

Retrofitting pedestrian and bicycle facilities on bridges presents special challenges because it may be impractical to widen an existing bridge. Evaluate options that can provide space for people walking or bicycling without roadway widening.

Multimodal Main Streets

A traditional "main street" is designed with street-fronting land uses, slow travel speeds, and pedestrian-oriented design features. Running through a built-up, commercial area, a main street may only

Figure 6.13: Multimodal Main Streets

be a few blocks long and is important for a community's commercial, civic, and sometimes historical identity. These streets are often the most "urban" part of a small town or rural community and may feel similar to commercial areas in larger communities. Main streets are often a small portion of a larger county or state-owned highway and may need to balance competing needs and objectives. Many main streets were established prior to the wide spread adoption of motor vehicles. Some have limited width, while others are excessively wide. In many cases these main streets have evolved and transformed over their history as transportation priorities and technologies have changed.

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Appendix A: Useful Links

CHAPTER & SECTION	DOCUMENT/LINK	WEBSITE LINK
Introduction	KKCOM Website	http://www.kkcom.org/
Chapter 2; Economic Mobility	US Census Bureau Longitudinal Business Database	https://www.census.gov/ces/dataproducts/datasets/lbd.html
Chapter 3; Trail Network	Trail for Illinois Study	http://www.trailsforillinois.org/maketrailscount/
Chapter 3; Trail Network	Illinois Prairie Path Study	http://ipp.org/pdf/IPP%20Trail%20Survey%202013.pdf
Chapter 3; Bike Sharing	Aurora Zagster	http://bike.zagster.com/aurora-il/
Chapter 3; Public Transportation	Pace Bus	http://www.pacebus.com/
	Metra Trains	https://metrarail.com/
	Ride in Kane	http://www.rideinkane.org/
	Kendall Area Transit	https://www.co.kendall.il.us/kendall-area-transit/
Chapter 3; Initiatives	League of American Bicyclists	https://www.bikeleague.org/
	Pedal Empowerment	http://pedalempowerment.com/
Chapter 3; Current Organizations	Aurora Bicycle, Pedestrian & Transit Advisory Board	https://www.aurora-il.org/1041/Bicycle-Pedestrian-Transit-Advisory-Boar
	Batavia Bicycle Commission	https://www.bikingbatavia.org/
	Elgin Bike and Pedestrian Advisory Committee	https://www.cityofelgin.org/67/Boards-and-Commissions#Bicycle%20and%20Pedestrian%20Advisory%20Committee
	Kane Kendall Council of Mayors Bicycle and Pedestrian Committee	http://www.kkcom.org/BicyclePedestrianCommittee.aspx
	Elgin Bike Hub	https://www.elginbikehub.com/
	Bike Walk Every Town	http://activetrans.org/our-work/bicycling/bike-walk-every-town
	Walk Batavia/Well Batavia	https://www.wellbatavia.com/

Appendix A: Useful Links

CHAPTER & SECTION	DOCUMENT/LINK	WEBSITE LINK
Chapter 3; Current Organizations	Fox Valley Bike and Ski Club	https://www.fvbsc.org/
Chapter 4; New Facilities	Kane County DOT Construction Projects	http://www.co.kane.il.us/dot/constProjects.aspx
Chapter 4; Projects and Initiatives	KKCOM Bike & Pedestrian App	www.bitly.com/kkcomapp
	KKCOM Seminar Series	
	PlacesForBikes Rating System	https://peopleforbikes.org/placesforbikes/
	RAMP Initiative	https://www.aurora-il.org/1776/Regional-Active-Mobility-Program
	Temporary Street Treatments	https://www.curbed.com/2016/9/22/13019420/urban-design-community-building-placemaking
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	Fox River Trail Signage Map	https://arcg.is/yXbmz
	Downtown St. Charles Walking Tour	http://www.stcmuseum.org/historicwalkingtour/
Chapter 5; Funding Sources	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	https://www.cmap.illinois.gov/mobility/strategic-investment/cmaq
	Transportation Alternatives Program (TAP-L)	https://www.cmap.illinois.gov/mobility/strategic-investment/transportation-alternatives
	Surface Transportation Program Urban (STP-U)	https://www.cmap.illinois.gov/committees/advisory/council-of-mayors/stp
	Safe Routes to School (SRTS)	http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/safe-routes-to-school/index
	Illinois Transportation Enhancement Program (ITEP)	http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/ITEP

Appendix A: Useful Links

CHAPTER & SECTION	DOCUMENT/LINK	WEBSITE LINK
Chapter 5; Funding Sources	Bike Path Grant	https://www.dnr.illinois.gov/AEG/Pages/BikePathProgram.aspx
	Federal Recreational Trails Program	https://www.dnr.illinois.gov/AEG/Pages/FederalRecreationalTrailsProgram.aspx
	Illinois Grade Crossing Protection Fund (GCPF)	https://www.icc.illinois.gov/railroad/CrossingSafetyImprovement.aspx
Chapter 1; Objective #1	Costs of Bike Infrastructure	http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf
Chapter 6; Objective #5	NACTO Urban Bikeway Design Guide	https://nacto.org/publication/urban-bikeway-design-guide/
Chapter 6; Objective #6	Vayable	https://www.vayable.com/
	TourByLocals	https://www.toursbylocals.com/
	Viator	https://www.viator.com/
	Bike MS: Tour de Farms	https://secure.nationalmssociety.org/site/TR?fr_id=30185&pg=entry&NONCE_TOKEN=7C44587BD89F6687D859CE13CEB505F5
	Swedish Days	http://www.genevachamber.com/swedish_days.php
	Everybody Rides	http://projectmobility.wixsite.com/everybodyrides2018
	Chicagoland Tour de Cure	http://main.diabetes.org/site/TR/TourdeCure/TourAdmin?pg=entry&fr_id=12665
	Dennis Jurs Memorial Race	http://dennisjursmemorialrace.com/
	Elgin's Full Moon Ride & Kidical Mass	https://www.elginbikehub.com/elginbikecalendar/
Chapter 6; Objective #7	Bike to Work Week	https://www.bikeleague.org/league-vocabulary/national-bike-work-week
	Temporary Street Treatments	https://www.curbed.com/2016/9/22/13019420/urban-design-community-building-placemaking
	Walk to School Day & Bike to School Day	http://www.walkbiketoschool.org/
	Bike to Work Challenge	http://bikecommuterchallenge.org/
Chapter 6; Objective #8	FHWA Small Town and Rural Multimodal Networks Guide	https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

Appendix B: Transit & Bike Maps

BIKE MAP	FILE/LINK
Kane & Kendall County Bike Map	http://kdot.countyofkane.org/Publications/2017_2018KaneandNorthernKendallCountyBikeMap.pdf
Batavia Bike Map	https://www.bikingbatavia.org/maps-routes/batavia-bicycle-trail-system/
Elgin Bike Map	
Aurora Bike Map	https://www.aurora-il.org/DocumentCenter/View/1404/City-of-Aurora-Bike-Map-PDF?bidId=

TRANSIT MAP	FILE/LINK
Metra Service Map	https://metrarail.com/maps-schedules/system-map
Aurora-Naperville Service Map	https://www.rtachicago.org/sites/default/files/documents/planyourtrip/AuroraNaperville.pdf
Elgin-NW Cook Service Map	https://www.rtachicago.org/sites/default/files/documents/planyourtrip/ElginNW%20Cook.pdf
Ride in Kane Service Map	http://www.rideinkane.org/KaneCountyRIKMap.pdf
RTA System Map	http://www.pacebus.com/pdf/RTA_System_map.pdf

Appendix C: Bike Shops

SHOP NAME	ADDRESS	WEBSITE
Sammy's Bikes	602 S. 1st Street, St. Charles Illinois 60174	https://www.sammysbikes.com/
Giant Fox Valley	415 S. 1st St., St. Charles Illinois 60174	http://www.giantfoxvalley.com/
All Spoked Up, Inc.	3 Webster St., Batavia Illinois 60510	http://www.allspokedup.com/
Bike Rack, Inc.	2930 Campton Hills Drive, St. Charles Illinois 60175	http://thebikerack.com/
Bicycle Heaven	124 W. State Street #140, Geneva Illinois 60134	http://www.bicycleheavengeneva.com/
Mill Race Cyclery	11 E. State St., Geneva Illinois 60134	http://millrace.com/
Geneva Cycle Shop	12 E. State St., Geneva Illinois 60134	http://www.genevacycleshop.com/services.html
Creative Mobility	Campton Hills Rd, St. Charles Illinois 60175	http://www.creativemobility.net/
Prairie Path Cycles	1945, 122 W. Wilson St., Batavia Illinois 60510	http://www.prairiepathcycles.com/
CORBIN FIBER Electricycles	2228 Vanderbilt Dr., Geneva Illinois 60134	https://www.facebook.com/CorbinfiberElectricMotorCycles
The Village Pedaler	1954 Gyorr Avenue, South Elgin Illinois 60177	http://villagepedaler.com/
Everything Pedal	135 N. La Fox St., Elgin Illinois 60177	http://www.everythingpedal.com/
All Spoked Up	12 W. Downer Pl. Suite 12 Aurora, Illinois 60506	http://www.allspokedup.com/
Pedal & Spoke, Ltd.	157 Lincolnway St., North Aurora Illinois 60542	http://www.pedalandspoke.com/
Main Street Bicycles	39 E. Main St., Carpentersville Illinois 60110	http://mainstbicycles.com/
Cycling Republic	2397 S. Randall Road, Algonquin Illinois 60102	http://www.cycling-republic.com/
PSIMET	11 Jackson St., East Dundee Illinois 60118	http://www.psimet.com/
Shinola Aurora Outlet	1650 Premium Outlet Blvd #570 Aurora, Illinois 60502	http://shinola.com/
Oswego Cyclery	59 Main St, Oswego Illinois 60543	http://oswegocyclery.com/
Larson's Mudslinger's Bicycles	325 E. Main St., Plano Illinois 60545	https://www.mudslingersbikeshop.com/about-us/

Appendix D: Additional Data

Figure D.1: KKCOM Municipality Commuting Trends

MUNICIPALITY	AUTOMOBILE	NON-AUTOMOBILE
Algonquin	88.64%	11.36%
Aurora	89.39%	10.61%
Batavia	85.44%	14.56%
Big Rock	92.23%	7.77%
Burlington	87.02%	12.98%
Campton Hills	87.33%	12.67%
Carpentersville	94.66%	5.34%
East Dundee	91.58%	8.42%
Elburn	84.99%	15.01%
Elgin	91.13%	8.87%
Geneva	78.04%	12.60%
Gilberts	91.36%	8.64%
Hampshire	89.74%	10.26%
Huntley	89.57%	10.43%
Kaneville	96.14%	3.86%
Lily Lake	82.78%	17.22%
Lisbon	93.33%	6.67%
Maple Park	97.75%	2.25%
Millbrook	81.22%	18.78%

Appendix D: Useful Data

Table D.1: KKCOM Municipality Commuting Trends, cont.

MUNICIPALITY	AUTOMOBILE	NON-AUTOMOBILE
Millington	95.28%	4.72%
Montgomery	89.41%	10.59%
Newark	88.08%	11.92%
North Aurora	91.55%	8.45%
Oswego	89.51%	10.49%
Pingree Grove	99.22%	0.78%
Plano	93.67%	6.33%
Plattville	91.96%	8.04%
Sandwich	93.85%	6.15%
Sleepy Hollow	86.00%	14.00%
South Elgin	91.27%	8.73%
St. Charles	85.57%	14.43%
Sugar Grove	90.75%	9.25%
Virgil	95.45%	4.55%
Wayne	86.43%	13.57%
West Dundee	90.86%	9.14%
Yorkville	93.07%	6.93%

Appendix D: Additional Data

Figure D.2: CMAP Regional Primary Trip Mode

MUNICIPALITY	AUTOMOBILE	WALKING	BIKING	OTHER
Cook County	74.9%	14.0%	1.1%	10.0%
DuPage County	86.9%	7.0%	1.4%	4.7%
Kane County	88.2%	7.4%	0.1%	4.3%
Kendall County	89.3%	2.9%	0.5%	7.3%
McHenry County	92.3%	3.1%	0.3%	4.3%
WIll County	89.9%	3.8%	0.4%	5.9%

Appendix D: Additional Data

Figure D.3: Percentage of Transportation Costs in the KKCOM Region

MUNICIPALITY	AVERAGE HOUSEHOLD INCOME	AVERAGE COMMUTE (MINS.)	AVERAGE PERCENTAGE OF BUDGET TO TRANSPORTATION COSTS
Algonquin	$103,291	36.4	23.6%
Aurora	$66,848	28.8	21.1%
Batavia	$92,094	28.8	22.0%
Big Rock	$84,464	27.9	25.8%
Burlington	$76,146	31.6	25.4%
Campton Hills	$131,658	33.8	25.3%
Carpentersville	$61,489	30.6	22.2%
East Dundee	$67,632	29.0	22.3%
Elburn	$100,341	33.1	24.4%
Elgin	$63,655	28.4	21.0%
Geneva	$105,161	30.7	22.2%
Gilberts	$105,087	33.5	24.6%
Hampshire	$99,362	33.1	24.7%
Huntley	$75,587	36.8	23.9%
Kaneville	$66,667	27.3	N/A
Lily Lake	$113,000	37.0	25.3%
Lisbon	$60,313	29.9	26.0%
Maple Park	$74,250	34.3	25.0%
Millbrook	$73,125	32.7	26.4%

Appendix D: Useful Data

Table D.3: Percentage of Transportation Costs in the KKCOM Region, cont.

MUNICIPALITY	AVERAGE HOUSEHOLD INCOME	AVERAGE COMMUTE (MINS.)	AVERAGE PERCENTAGE OF BUDGET TO TRANSPORTATION COSTS
Millington	$66,250	35.3	28.8%
Montgomery	$84,284	30.7	22.4%
Newark	$73,409	29.5	24.8%
North Aurora	$82,354	26.8	22.1%
Oswego	$101,191	33.6	23.5%
Pingree Grove	$78,433	38.0	24.7%
Plano	$59,631	29.5	23.6%
Plattville	$84,375	32.5	26.0%
St. Charles	$90,883	31.1	21.8%
Sandwich	$61,656	27.0	23.4%
Sleepy Hollow	$102,188	32.6	23.7%
South Elgin	$89,565	31.6	22.5%
Sugar Grove	$106,789	29.6	24.8%
Virgil	$90,000	28.7	25.6%
Wayne	$133,804	31.2	24.3%
West Dundee	$84,182	30.1	22.5%
Yorkville	$95,383	35.3	23.9%

Appendix D: Additional Data

Table D.4: KKCOM Region Pace Route Info

ROUTE	ROUTE NAME	ADA ACCESSIBLE	IBS SCHEDULED ROUTE	ROUTE LENGTH
524	West Aurora	Yes	Yes	39.43 miles
530	West Galena - Naperville	Yes	Yes	21.77 miles
532	Illinois Avenue	Yes	Yes	3.29 miles
533	Northeast Aurora	Yes	Yes	13.58 miles
534	Fox Valley Villages	Yes	Yes	9.12 miles
540	Farnsworth Avenue	Yes	Yes	17.97 miles
541	Northeast Elgin	Yes	Yes	6.61 miles
542	Bluff City	Yes	Yes	6.67 miles
543	Dundee - Carpentersville	Yes	Yes	11.45 miles
546	Orange - Walnut	Yes	Yes	8.65 miles
547	Wing Park	Yes	Yes	18.80 miles
548	Highland	Yes	Yes	6.10 miles
549	South Randall	Yes	Yes	9.20 miles
550	Elgin Transportation Center - Crystal Lake	Yes	Yes	33.36 miles
552	North State - Spring Hill Mall	Yes	Yes	9.73 miles
554	Elgin - Woodfield	Yes	Yes	22.21 miles
592	St. Charles Call-n-Ride	Yes	Yes	14.34 miles
596	Batavia Call-n-Ride	Yes	Yes	15.66 miles
597	Southeast Aurora Call-n-Ride	Yes	Yes	12.56 miles
603	Elgin Transportation Center - Rosemont Express	Yes	Yes	25.80 miles
605	I-90/Randall Road Station - Rosemont Express	Yes	Yes	51.94 miles
607	I-90/Randall Road - Schaumburg Express	Yes	Yes	68.37 miles
801	Elgin - Geneva	Yes	Yes	17.15 miles
802	Aurora - Geneva via Lake	Yes	Yes	21.42 miles
803	Carpentersville Local	Yes	Yes	11.00 miles

Appendix D: Useful Data

Table D.5: Bike and Pedestrian Organizations

ORGANIZATION TYPE	NAME	MUNICIPALITY/LOCATION
Governmental Organizations	Aurora Bicycle, Pedestrian & Transit Advisory Board	Aurora
	Batavia Bicycle Commission	Batavia
	Kane Kendall Council of Mayors Bicycle and Pedestrian Committee	Kane/Kendall County
Advocacy Groups	Elgin Bike Hub	Elgin
	Walk Batavia	Batavia
	Well Batavia	Batavia
	Ride Illinois	Statewide
	Illinois Prairie Path Corp.	Wheaton
	Trails for Illinois	Statewide
	Active Transportation Alliance	Chicago
Riding/Walking Groups	Fox Valley Bike & Ski Club	St. Charles
	Chicago Area Mountain Bikers	Chicagoland Region

Appendix E: Citations

CHAPTER & SECTION	PHOTO	PHOTO CREDIT	LINK
Cover Page	Top, Middle Photo	Everton Vila, Unsplash	https://unsplash.com/@evertonvila
	Bottom, Left Photo	AllEvents.in	https://allevents.in/kane%20county/adult-nature-walking-group/922031537960954
	Bottom, Middle Photo	Explore Oswego	http://gooswego.org/explore-oswego/
	Bottom, Right Photo	Kane County Connects	http://kanecountyconnects.com/2018/11/kkcom-launches-hyper-local-web-based-bike-and-pedestrian-app/
Table of Contents	First Page, Top Photo	West Suburban Living	http://www.westsuburbanliving.net/Batavia/
	First Page, Second From Top, Left Photo	RTA Chicago	https://www.rtachicago.org/index.php/plan-your-trip/travel-tips/riding-metra-trains
	First Page, Second from Top, Right Photo	Friends of the Great Western Trail	http://www.friendsofthegreatwesterntrails.com/
	First Page, Third from Top Photo	Kane County DOT	N/A
	First Page, Bottom Photo	Enjoy Aurora	https://www.enjoyaurora.com/Marge-Cline-Whitewater-Course
	Second Page, Top Photo	David Sharos, Chicago Tribune	https://www.chicagotribune.com/suburbs/aurora-beacon-news/news/ct-abn-riveredge-seats-st-0105-20180104-story.html
	Second Page, Second from Top Photo	WSPY News	http://www.wspynews.com/news/local/montgomery-welcomes-kendall-area-transit-service-available-to-village-residents/article_891b41ba-b5e2-11e8-9c84-ebd14b4d5b07.html
	Second Page, Third from Top Photo	NBC Chicago	https://www.nbcchicago.com/blogs/ward-room/Program-To-Allow-Buses-To-Ride-The-Shoulder-133350693.html
	Second Page, Bottom, Left Photo	Oswegoland Park District	https://www.oswegolandparkdistrict.org/parks-facilities/trails-parks/
	Second Page, Bottom, Right Photo	Kane County Chronicle	https://www.kcchronicle.com/magazine/articles/2017/05/31/02173962/index.xml

Appendix E: Citations

CHAPTER & SECTION	PHOTO/STATISTIC	PHOTO CREDIT	LINK
Page 14	River Street Protected Bike Lane; Top Photo	Active Transportation Alliance	https://www.google.com/search?q=aurora+protected+bike+lane&rlz=1C1GCEU_enUS820US820&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjZ1P-s0srfAhWH8oMKHUyOBHwQ_AUIDygC&biw=1920&bih=969#imgrc=eWqbM9upMZ4JbM:
	Red Gate Bridge; Middle Photo	Lusas	http://www.lusas.com/case/bridge/red_gate_bridge.html
	Batavia Shared Street; Bottom Photo	Bill Hogan, Chicago Tribune	https://www.google.com/search?rlz=1C1GCEU_enUS820US820&biw=1920&bih=969&tbm=isch&sa=1&ei=qVgqXLiNAeXTjwSLxqzoDg&q=batavia+shared+street&oq=batavia+shared+street&gs_l=img.3..35i39.127153.129416..129544...0.0..0.342.1303.19j1j0j1.....1....1..gws-wiz-img.....0j0i67j0i8i30j0i24.1JwepomMioE#imgrc=2G1RE6AlX5B3yM:
Page 20	Figure 6.1; Top Photo	Rackspace Blog	https://blog.rackspace.com/san-francisco-rackers-celebrate-bike-to-work-day
	Figure 6.1; Bottom Photo	Re:public	http://www.re-publicspace.com/tag/breeam/
Page 22	Figure 6.2; Top Photo	Kiosk Industry	https://kioskindustry.org/citypost-information-kiosks-coming-to-jersey-citys-streets/
	Figure 6.2; Bottom Photo	UC-Davis Enterprise	https://www.davisenterprise.com/media-post/ucd-carpool-photo/