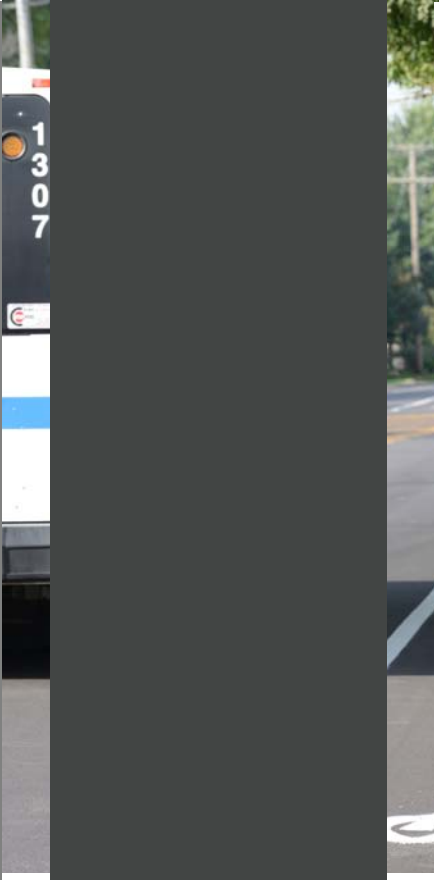
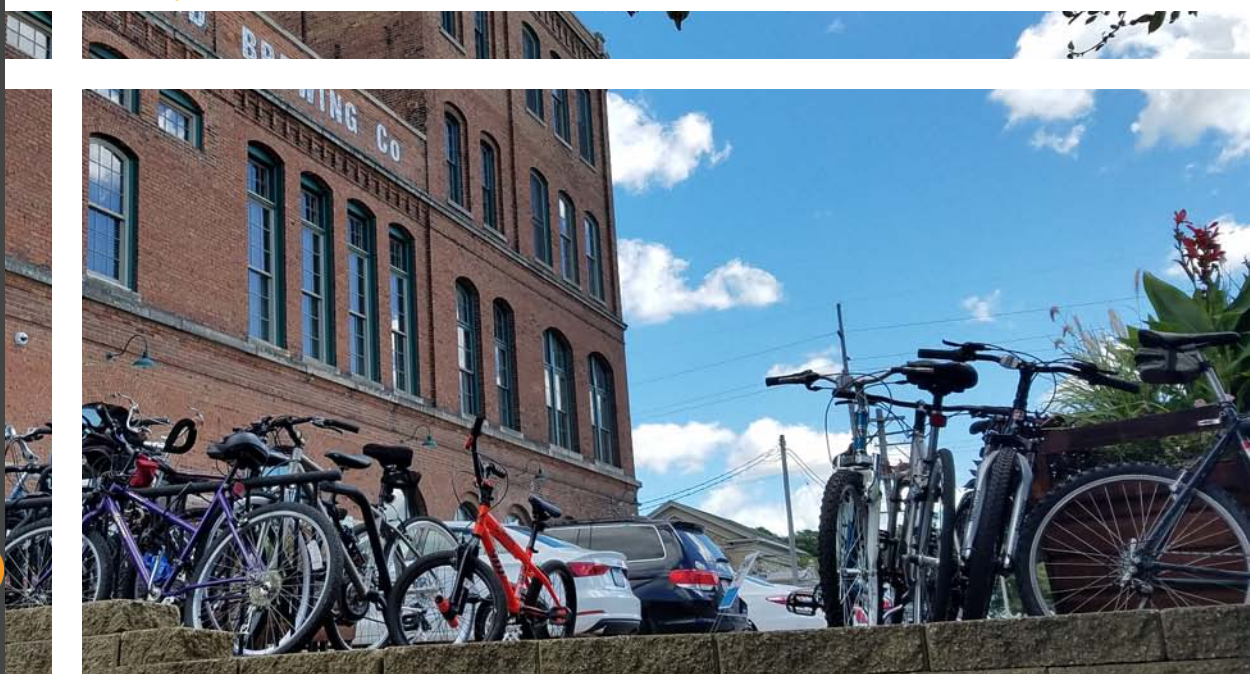


Bicycle & Pedestrian Plan

For the Rockford Metropolitan Area



ourmap
Rockford Metropolitan Agency For Planning
our future, our goals, our map

Bicycle & Pedestrian Plan
for the Rockford Metropolitan Area

This plan was prepared by RMAP Staff in collaboration with its member agencies, partner organizations, and local stakeholders.

This report was prepared in cooperation with the following:
U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration
Illinois Department of Transportation

This Plan can be amended or updated at any time. Comments and proposed refinements or changes should be directed as follows:

Rockford Metropolitan Agency for Planning
313 North Main Street
Rockford, IL 61101
Phone: 815.319.4180
Web: www.rmapil.org

Table of Contents

List of Figures

List of Tables

List of Maps

List of Acronyms & Abbreviations

3-C ..... Continuing, Comprehensive, Cooperative
5 E's ..... Engineering, Education, Encouragement, Enforcement, Evaluation
AADT ..... Annual Average Daily Traffic
AASHTO ..... American Association of State Highway and Transportation Officials
ACS ..... American Community Survey
ADA ..... Americans with Disabilities Act
ADAAG ..... Americans With Disabilities Act Accessibility Guidelines
ADT ..... Average Daily Traffic
APT ..... ActiveTrans Priority Tool
BDE ..... Bureau of Design and Environment Manual
BPAC ..... Bicycle and Pedestrian Advisory Committee
CIP ..... Capital Improvement Program
CO_2 ..... Carbon Dioxide
CODES ..... Crash Outcome Data Evaluation System
CSS ..... Context Sensitive Solutions
DNR ..... Department of Natural Resources
DOT ..... U.S. Department of Transportation
EDDNI ..... Economic Development District of Northern Illinois
EMS ..... Emergency Medical Services
EPA ..... U.S. Environmental Protection Agency
FAST ..... Fixing America's Surface Transportation Act
FHWA ..... Federal Highway Administration
FTA ..... Federal Transit Administration
GHG ..... Greenhouse Gas
GIS ..... Geographic Information Systems
HAWK ..... High-Intensity Activated Crosswalk
HSIP ..... Highway Safety Improvement Program
HUD ..... U.S. Department of Housing and Urban Development
IDNR ..... Illinois Department of Natural Resources
IDOT ..... Illinois Department of Transportation
IRIS ..... Illinois Roadway Information System
ISTEA ..... Intermodal Surface Transportation Efficiency Act for the 21st Century
ITEP ..... Illinois Transportation Enhancement Program
LRTP ..... Long Range Transportation Plan
MAP-21 ..... Moving Ahead for Progress in the 21st Century
MFT ..... Motor Fuel Tax
MPA ..... Metropolitan Planning Area
MPO ..... Metropolitan Planning Organization
MSA ..... Metropolitan Statistical Area
MUTCD ..... Manual on Uniform Traffic Control Devices
NACTO ..... National Association of City Transportation Officials
NHPP ..... National Highway Performance Program
NHS ..... National Highway System
NO_x ..... Nitrogen Oxides
NTA ..... Notice to Appear
PCPI ..... Per Capita Personal Income
PROWAG ..... Public Right-of-Way Accessibility Guidelines
PSI ..... Pedestrian Suitability Index
RATS ..... Rockford Area Transportation Study
RMAP ..... Rockford Metropolitan Agency for Planning
RMTD ..... Rockford Mass Transit District
RPSD ..... Regional Plan for Sustainable Development

List of Acronyms & Abbreviations, Continued

RRFB ..... Rectangular Rapid Flash Beacon
RSA ..... Road Safety Audit
RTP ..... Recreational Trail Program
SAFETEA-LU . Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SLATS ..... State Line Area Transportation Study
SMTD ..... Stateline Mass Transit District
SOV ..... Single Occupancy Vehicle
SRTS ..... Safe Routes to School
STBG ..... Surface Transportation Block Grant
STP ..... Surface Transportation Program
TA ..... Transportation Alternatives Set-Aside
TAP ..... Transportation Alternatives Program
TDM ..... Travel Demand Modal
TIF ..... Tax Increment Financing
TIP ..... Transportation Improvement Program
UA ..... Urbanized Area
UNC ..... University of North Carolina
VMT ..... Vehicle Miles Traveled
VOC ..... Volatile Organic Compounds
WFC ..... Walk Friendly Communities
WinGIS ..... Winnebago County Geographical Information System

Introduction

The purpose of the Bicycle and Pedestrian Plan (the Plan) is to promote a safe and efficient transportation network for people that provides a balanced multi-modal system minimizing costs and impacts to the taxpayer, society and the environment. The Plan will address the development of a region-wide system of on-street bicycle and pedestrian facilities to connect with existing shared use path facilities, existing and planned public transportation services and provide model development regulations and ordinances to promote and encourage bicycle- and pedestrian-friendly growth in the Rockford Metropolitan Planning Area (MPA).

The Bicycle and Pedestrian Plan aligns with the Rockford Metropolitan Agency for Planning's (RMAP) Transportation for Tomorrow (2040): Long Range Transportation Plan for the Rockford Region (LRTP). The LRTP was developed in the interest of promoting, developing, and maintaining a safe and efficient transportation system that will meet the needs of the area's citizens, businesses and industries through the Year 2040. Providing for pedestrian and bicycle systems is an important part of the transportation planning process.

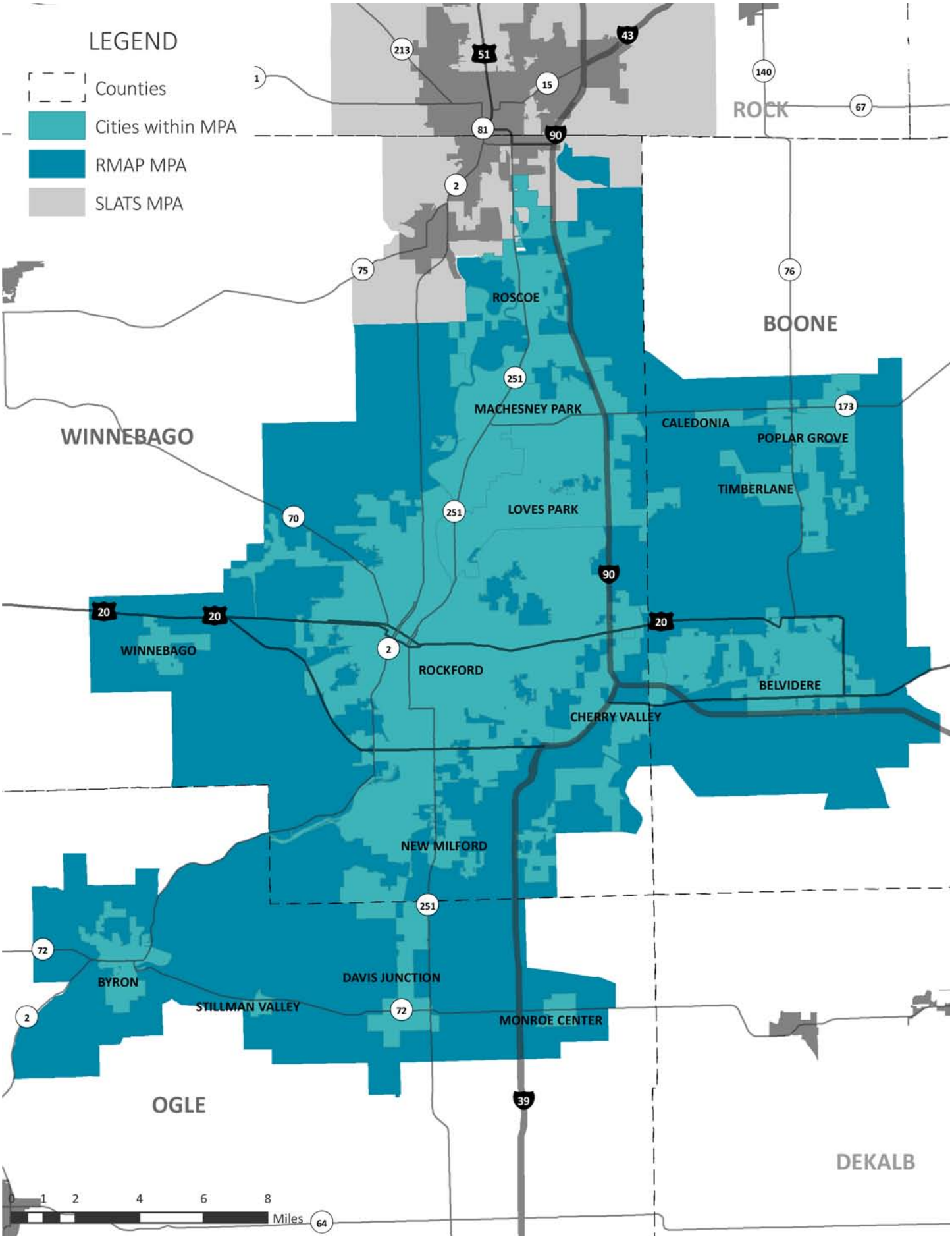
Planning for the transportation needs of the Rockford Region is an ongoing process that has been performed by the Metropolitan Planning Organization (MPO) for the past 50 years. RMAP is the designated MPO for the Metropolitan Planning Area (MPA). The Rockford MPA is smaller than the boundaries of Boone, Ogle, and Winnebago Counties.

The area where RMAP performs transportation planning is called the Rockford MPA. The Rockford MPA has three parts:

- The urbanized area, as defined by the U.S. Bureau of the Census.
- The adjusted urbanized area includes other small areas that round off the irregular boundaries of the urbanized area. It also includes additional lands that are likely to be developed within the next five years and other abutting or nearby already developed lands.
- The forecasted area, which is expected to become included in the urbanized area in the next 30 years. This area is determined through a consensus of the RMAP Technical and Policy Committee members and is based on growth trends, local land use plans and general planning judgment.

Map 1, on the following page, shows the study area for this plan, including the communities within the study area.

MAP 1. RMAP'S METROPOLITAN PLANNING AREA (MPA)



Bicycle & Pedestrian Planning History

Bicycle and pedestrian system planning was initiated with the Regional Bikeway and Pedestrian Plan adopted by the Rockford Area Transportation Study (RATS) on June 27, 1984. The Rockford Park District, the Winnebago County Forest Preserve District, Rockford, Loves Park, Machesney Park, Cherry Valley, and Winnebago County also adopted this plan.

On January 20, 2005, the MPO conducted a workshop to encourage public involvement in the bicycle system planning process. This group represented a cross section of bicycle stakeholders from throughout the Rockford MPA. The attendees were requested to review the existing plan, propose new bikeway facilities, or recommend changes to bikeway policy. Any thoughts or ideas in regard to the bikeway system were encouraged. After open discussion, the attendees ranked the planned bikeway system along with new proposed facilities and policies. In 2016, the status of these projects has been reviewed and is shown in Table 1.

TABLE 1. RESULTS FROM 2005 BICYCLE AND PEDESTRIAN WORKSHOP

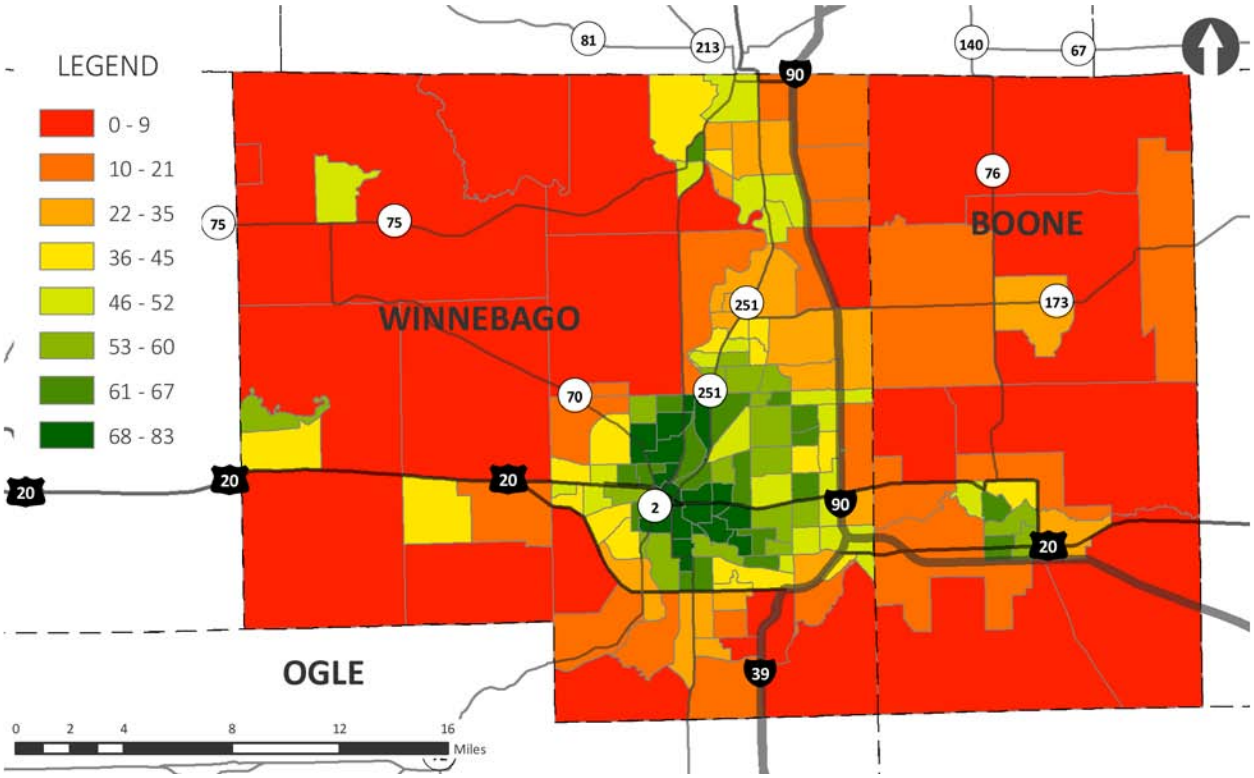
RANK	PROJECT DESCRIPTION	SCORE	CONNECTIVITY	ON-STREET	NEW	POLICY	STATUS
1	Connect Charles Street Path to Perryville Path	28	X	X	X		99%
2	Connect Rock Cut Trail to Long Prairie Trail	27	X				
3	Riverside Bike Bridge - Improve grade separation on west side	27					
4	Use shared off-street path or on-street routes to connect existing paths	27	X	X		X	ON-GOING
5	Connect Willow Creek Trail to Rock River Path through Machesney Park	25	X		X		ON-GOING
6	Connect Rock River Path to Page Park	22	X				
7	Mill Street/Perryville Connection to existing Kishwaukee River Trail	16	X				
8	Perryville Road/State Street - Increase signal crossing times or add an expanded median island on State Street as a refuge during long crossing	16					MOVED TO ARGUS
9	Provide designated on-street bike route system	13		X		X	ON-GOING
10	Harrison Street bike lane from Mulford Road to Kishwaukee Street	12		X			ON-GOING
11	Roads and intersections should be designed using AASHTO Guide for the Development of Bicycle Facilities/ USDOT / IDOT	11				X	ON-GOING
12	Connect north-south path (Perryville Path to Rock River Path) with east-west paths	11	X	X			PORTIONS COMPLETE
13	Kishwaukee River Path East	10					
14	Connect downtown bike path on west side of Rock River to the Rock River Trail on the east side.	10	X	X			PORTIONS COMPLETE
15	Connect Riverside bike bridge to Mel Anderson Path	10	X	X	X		
16	Spring Brook Path/Mulford Road – add actuated signals at the intersection to permit pedestrians and bikes to cross Mulford Road	10			X		
17	Connect Midway Village to Perryville Path by way of Guilford Road	10	X	X			
18	Provide regional bikeway system map	10				X	ON-GOING
19	Continuous Bike Path along both sides of the Rock River	9			X		ON-GOING

As it turns out, connectivity of the existing paths, especially in an east-west manner was highly ranked. In addition, the use of on-street lanes or routes as a method of connectivity was also highly ranked. On-street routes/lanes could provide an important and cost-effective means of connecting the existing bikeway system. The current stand-alone RMAP Bicycle and Pedestrian Plan (2008) built off of the momentum of the 2005 Bicycle & Pedestrian Workshop and contains an area-wide analysis of bicycle and pedestrian facilities and appeared as an appendix in prior Long Range Transportation Plans, namely the 2035 and 2040 LRTPs. However, a comprehensive

evaluation of the current bikeway system policy and facilities is warranted. The Bicycle and Pedestrian Plan recommended that the RMAP Technical and Policy Committees should consider a policy with regard to encouraging on-street bike lanes and routes, which would cause a major change in the bikeway system plan. Additionally, prioritization of bikeway system improvements would have to be reconsidered with the policy change. However, it was determined, by the Technical Committee, that project prioritization should proceed after the issue with on-street bike lanes/routes is resolved.

In 2010, the Rockford Metropolitan Agency for Planning and Rockford Region was one of forty-five communities nationwide to secure a grant from the HUD-DOT-EPA Partnership for Sustainable Communities. From 2010-2013, RMAP was able to utilize these funds to collect data, generate regional indicators, form committees that furthered regional collaboration among various stakeholders and develop the area's first Regional Plan for Sustainable Development (RPSD). As a part of the RPSD, RMAP partnered with Winnebago County Geographic Information System

MAP 2. WALKSCORE FOR THE ROCKFORD REGION



(WinGIS) to develop a Walk Score for the region. The goal of this walkability analysis was to create a data-driven metric system to score areas within Winnebago and Boone counties on how easy or difficult it is to walk to destinations. As seen in Map 2, there is a high concentration of walkable neighborhoods in south central and north central Rockford. Several other districts in Belvidere, Loves Park and eastern Rockford also scored fairly high.

In early 2016, RMAP completed its fourth iteration of the Boone and Winnebago Counties Greenways Map. The Greenways Plan and Map is used to promote a regional greenway network that protects natural and cultural resources; provides alternative forms of transportation and recreational benefits; enhances environmental and scenic qualities; and stimulates economic development. The current Greenways Plan and Map also provides existing shared use paths and

potential shared use paths in Winnebago and Boone Counties.

Local Context

The Local Context section summarizes the geographic, demographic, mobility, safety, and government and agency context for the Rockford Metropolitan Area. For each category, a chart or table is provided along with an explanation of the data and its importance to bicycle and/or pedestrian issues.

Data from the U.S. Census Bureau was used to compile the information in this section, unless otherwise noted. A full population count and basic survey is completed every ten years, recently performed in 2010. The U.S. Census Bureau also conducts an ongoing survey called the American Community Survey (ACS) which administers a more detailed survey to a small sample of the population.

Geography & Climate

The Rockford Metropolitan Area is located in north-central Illinois in the scenic Rock River Valley. The region is at the confluence of four major river systems in northern Illinois, including the Kishwaukee River, Pecatonica River, Sugar River, and Rock River, the largest and most central. Parts of western Boone County, northeastern Ogle County, and eastern Winnebago County are included in the Rockford MPA and covers approximately 440 square miles.

The MPA is located near the Illinois-Wisconsin Stateline and is approximately 70 miles northwest of downtown Chicago, 60 miles southeast of Madison, and 80 miles southwest of Milwaukee. The City of Rockford forms the primary urban core of the region. Rockford is the third-largest city in Illinois, encompassing approximately 64 square miles.

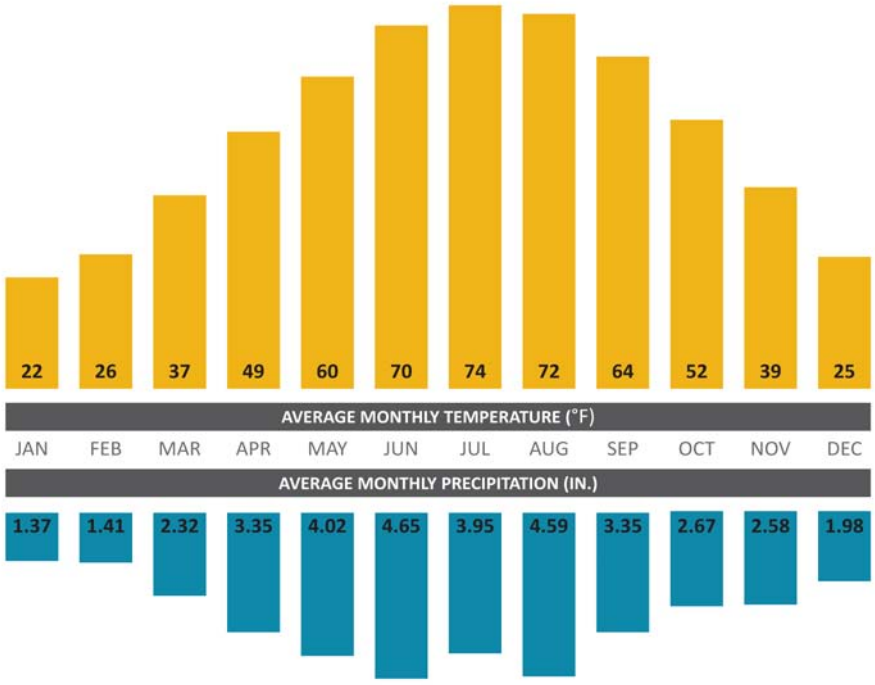
PIERCE LAKE, ROCK CUT STATE PARK

The Region was originally founded as an agricultural area, but quickly became a major transportation hub due to its location between Chicago and the Mississippi River. The region still remains a hub for highways, rails, and air travel. The region is served by Interstates 90 and 39, U.S. Route 20, and Illinois Routes 2, 70, 72, 76, 173, and 251. The Chicago Rockford International Airport (RFD) is located in the City of Rockford.

The Cities of Rockford and Loves Park, as well as the Villages of Machesney Park and Roscoe, have experienced a large land expansion east through the second half of the 20th century. Beyond their downtown areas along the Rock River, commercial and industrial development follows the major arterial corridors to the east, towards Interstate 90, surrounded by low-density, single-

family residential zoning. Similarly, the City of Belvidere has experienced a large expansion south of their downtown, along the Kishwaukee River, towards Interstate 90 and U.S. Route 20. The street network outside of the downtown areas is disconnected making bicycling more circuitous.

FIGURE 1. AVERAGE MONTHLY TEMPERATURES & PRECIPITATION



SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. NATIONAL CLIMATIC DATA CENTER. MONTHLY CLIMATE NORMALS, 1981 – 2010

Weather is often cited as a significant barrier to walking and bicycling. Due to its location in the Midwest, the Region experiences four clearly defined seasons. Generally, the region experiences hot, humid summers, with highs in the low to mid 80s, and cold winters with highs in the low 30s. The region does experience some extreme temperatures during the winter months, with wind chills down to-20^{O}F. While extreme hot and cold temperatures may deter some, some cities with the highest rates of walking and biking in the country are in areas with temperature extremes, such as Madison and Washington D.C. The area averages 36 inches of rain annually, with higher monthly precipitation averages between May and August (See Figure 1). The region averages an annual snowfall of 37 inches.

Population Characteristics

Understanding the growth and composition of the demographics that make up the RMAP Region's population is an important factor in the development of the Plan. This section provides an overview of the historic trends in population change in the region, as well as an analysis of the characteristics of the residents' composition.

Population growth has historically varied across the RMAP region. Growth in the region slowed to less than two percent during the economic recession of the 1980s. Following the recession, Ogle and Winnebago Counties both returned to a more moderate growth rate – slightly exceeding the average growth rate for Illinois. However, still lagging behind the National average. During the same time, Boone County experienced a rapid population increase; between 1970 and 2010 the County's population more than doubled.

The Rockford metropolitan region has seen a stable population base in recent decades. In 2010, the Rockford Metropolitan Statistical Area (MSA) had a total population of 349,305 people; with the recent addition of Ogle County to the RMAP planning area, the three county total raises to 402,755 people. Since 2010, the region has seen a decline in the total population. According to 2015 ACS 5-Year estimates, the three county region has declined to a total of just 396,687.

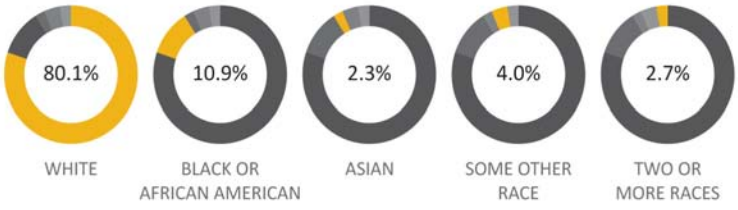
FIGURE 2. AGE DISTRIBUTION IN THE ROCKFORD MSA

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

The median age of residents in the Rockford MSA is currently 39 years old, just slightly higher than the state and national median, as compared to the 2010 median age of 38.1 years old. Children under the age of 18 comprise 24.5% of the population, while those over the age of 65 comprise 14.8% of the population; the remaining 60.7% fall between the working ages of 18 to 65. Figure 2 shows the age distribution of residents in the Rockford MSA.

The majority of residents (80.1%) in the Rockford MSA are White, followed by 10.9% African Americans or Black, 4.0% "Other", 2.7% "Two or More Races", and 2.3% Asian (See Figure 3). Hispanic, which is considered an ethnicity and not reported in race totals, represents the largest minority in the MSA at 13.1%. Winnebago County has the highest percentage of African Americans (12.5%), while Boone County has the highest percentage of Hispanics (20.4%).

FIGURE 3. DEMOGRAPHIC COMPOSITION IN THE ROCKFORD MSA



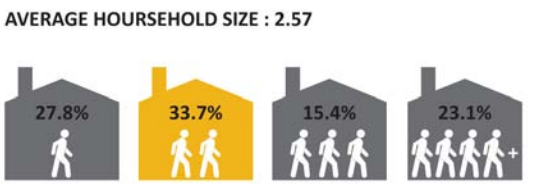
SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

Housing Characteristics

In the region, the number of households steadily grew between 1970 and 2010 at a rate outpacing population growth. Boone County experienced the greatest rate of household growth during this time period; however Winnebago County still remains much larger as the population center of the region.

The burst in the housing bubble greatly affected the housing vacancy rate in the three county region. In 2000, the vacancy rate for the region was 5.6%, which climbed to a high of 9.2% in 2015. This is slightly lower than the vacancy rate for the state at 9.8% and below the national average of 12.3%.

FIGURE 4. AVERAGE HOUSEHOLD SIZE



SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

Following the national trend of diminishing household sizes over time, in 1970 the three county areas averaged 3.2 persons per household, whereas by 2010 it fell to an average of 2.6 persons per household (see Figure 4). According to 2015 estimates, Boone County has the largest average household size of 2.95 people, while both Ogle and Winnebago Counties have average household sizes of 2.5 people.

FIGURE 5. OCCUPANCY RATES IN THE ROCKFORD MSA

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

Boone County has a high percentage of owner-occupied housing units at 81.1%, compared to only 66.3% owner-occupied in Winnebago County. Ogle County falls between the two with 75.9% of the housing units being owner-occupied. All three counties in the RMAP MPA are greater than or equal to the statewide average of 66.3% and greater than the national average of 63.9% owner-occupied units.

EAST STREET, CHERRY VALLEY

WALKER AVENUE, LOVES PARK

Income Characteristics

Per capita personal income (PCPI) is a measure of income per person. The PCPI for 2015 in the Rockford MSA is $25,350. At the county level, Winnebago County has the lowest PCPI at $25,198, while Ogle County had the highest at $27,451. At the state level, the PCPI for 2015 is $30,494, higher than the national PCPI of $28,930. Since PCPI represents a mean, it does not accurately represent the income distribution of the region.

Median household income is a common measure for the economic wellbeing of an area. The 2015 median household income for the MSA is $49,987; at the county level Boone County has the highest median household income of $58,248, while Winnebago lags the furthest behind at $48,225. For comparison, the 2015 median household income for Illinois was $57,574 and $53,889 for the nation. The region lags behind both the state and nation, however offers a relatively lower cost of living.

The MSA has high rates of poverty. In 2015, almost 12.3% of families and 15.8% of individuals living in the MSA are below the poverty level. Winnebago County has been the hardest hit, with the number people living below poverty almost doubling from 9.6% in 2000 to 16.8% in 2015. Compared to the statewide poverty rate of 14.3% of individuals living below the poverty level, Boone and Ogle Counties have lower rates of 10.9% and 10.3%, respectively.

TABLE 2. HOUSING CHARACTERISTICS BY COUNTY

BOONE COUNTY	OGLE COUNTY	WINNEBAGO COUNTY
HOUSEHOLDS: 18,128	HOUSEHOLDS: 20,731	HOUSEHOLDS: 113,912
HOUSING UNITS: 19,968	HOUSING UNITS: 22,583	HOUSING UNITS: 125,720
VACANCY RATE: 9.2%	VACANCY RATE: 8.2%	VACANCY RATE: 9.4%
OWNER OCCUPIED UNITS: 81.1%	OWNER OCCUPIED UNITS: 75.9%	OWNER OCCUPIED UNITS: 66.3%
STRUCTURE BUILT BEFORE 1939: 18.2%	STRUCTURE BUILT BEFORE 1939: 26.1%	STRUCTURE BUILT BEFORE 1939: 15.1%
STRUCTURE BUILT AFTER 2000: 23.5%	STRUCTURE BUILT AFTER 2000: 13.0%	STRUCTURE BUILT AFTER 2000: 11.6%

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

TABLE 3. INCOME CHARACTERISTICS BY COUNTY

BOONE COUNTY	OGLE COUNTY	WINNEBAGO COUNTY
PER CAPITA INCOME: $26,170	PER CAPITA INCOME: $27,451	PER CAPITA INCOME: $25,198
MEDIAN HOUSEHOLD INCOME: $58,248	MEDIAN HOUSEHOLD INCOME: $54,849	MEDIAN HOUSEHOLD INCOME: $48,225
PERSONS BELOW POVERTY: 10.9%	PERSONS BELOW POVERTY: 10.6%	PERSONS BELOW POVERTY: 16.8%
FAMILIES BELOW POVERTY: 9.0%	FAMILIES BELOW POVERTY: 7.3%	FAMILIES BELOW POVERTY: 12.9%

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

Education

In 2015, there was an estimated 100,620 people above the age of three years old enrolled in school in the three county region. Of those students enrolled, 64.3% were enrolled in a Kindergarten to 12th grade (K-12) program. At the county level, Ogle County had the largest percent of K-12 student enrolled in public schools (96.4%), while Boone County had the lowest at 83.5%. The three county region had 17.4% enrolled in college. Winnebago County had the highest college enrollment rate at 18.1%, while Boone County was at only 13.6% of the population enrolled in college.

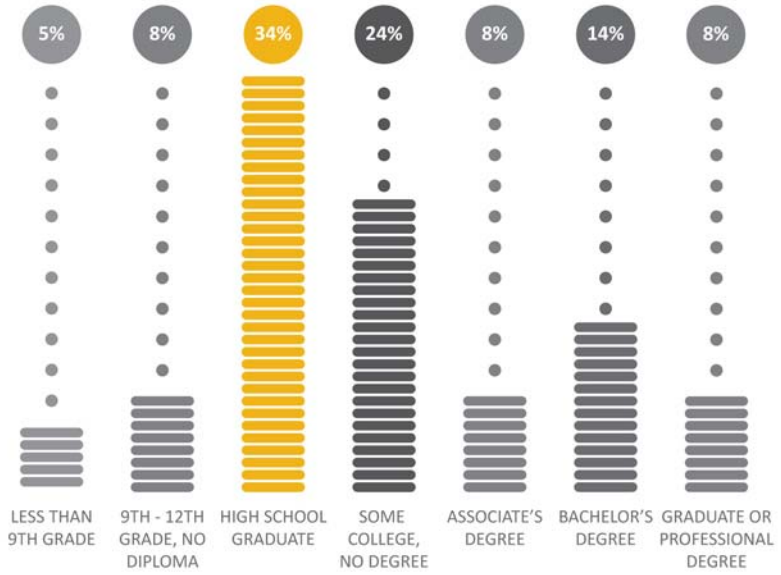
TABLE 4. EDUCATION CHARACTERISTICS BY COUNTY

BOONE COUNTY	OGLE COUNTY	WINNEBAGO COUNTY
K-12 ENROLLMENT: 11,537	K-12 ENROLLMENT: 9,566	K-12 ENROLLMENT: 51,497
COLLEGE ENROLLMENT: 2,529	COLLEGE ENROLLMENT: 2,805	COLLEGE ENROLLMENT: 15,901
HIGH SCHOOL GRADUATE: 36.0%	HIGH SCHOOL GRADUATE: 33.7%	HIGH SCHOOL GRADUATE: 33.3%
BACHELORS DEGREE OR HIGHER: 20.2%	BACHELORS DEGREE OR HIGHER: 19.8%	BACHELORS DEGREE OR HIGHER: 21.9%

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

Within the region, 87.3% of the population over the age of 25 has obtained at least a high school diploma, with a statewide average of 87.6% in 2015. Beyond high school, 23.9% of the population over the age of 25 have received some college as their highest educational attainment, 8.3% obtained an Associate Degree, 13.6% received a Bachelor Degree, and 7.7% received a graduate degree or higher. Ogle County has the highest percent of the population with some college at 25.4%, while Winnebago has the highest percentage of the population with a Bachelor's degree (14%).

FIGURE 6. EDUCATIONAL ATTAINMENT IN THE ROCKFORD MSA



SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

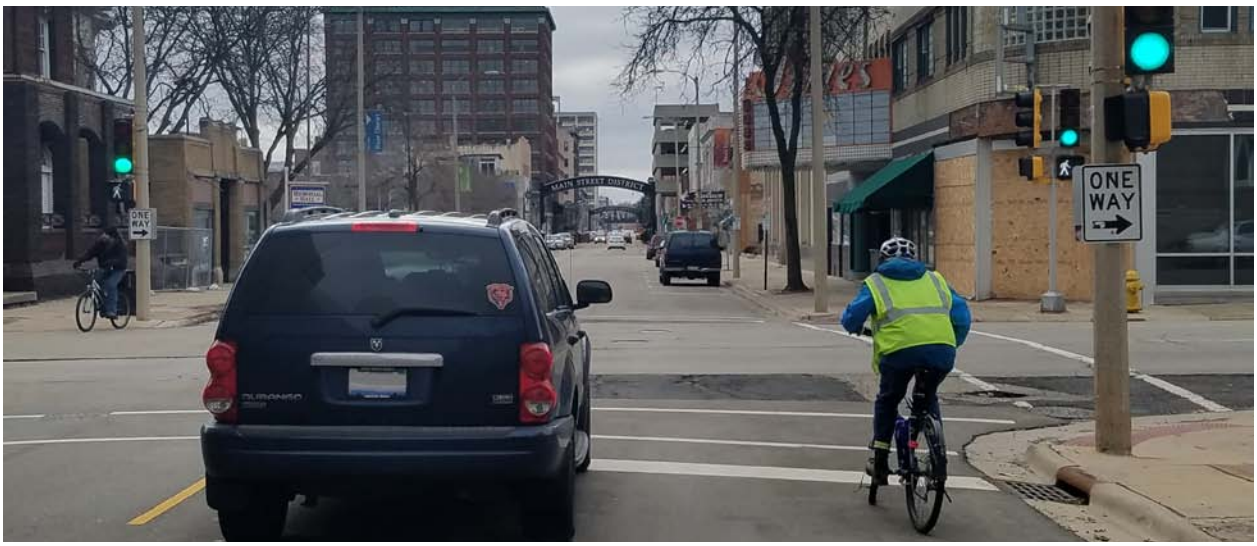
One of the region's assets is the quality of higher education within commuting distance. The City of Rockford is home to Rockford University, a private four-year college, as well as the University of Illinois' Health Sciences Campus at Rockford. There is also Rock Valley Community College and several technical colleges within the region. The region is also within commuting distances of several four-year colleges and universities, such as Beloit College, Northern Illinois University, and University of Wisconsin-Whitewater.

Commuting Characteristics

In the RMAP region, the vast majority of transportation to work is by a personal automobile; 84 percent of workers age 16 and over in the MSA drive alone to work, while another nine percent carpool. Alternative transportation choices, including using public transportation, walking, or biking combined are used as the primary mode of transportation to work by less than three percent of the MSA population. While only a small portion use alternative transportation choices, two percent of the MSA population is composed of zero car households. This discrepancy indicates either a portion of the zero car households carpool with others, or are unable to work.

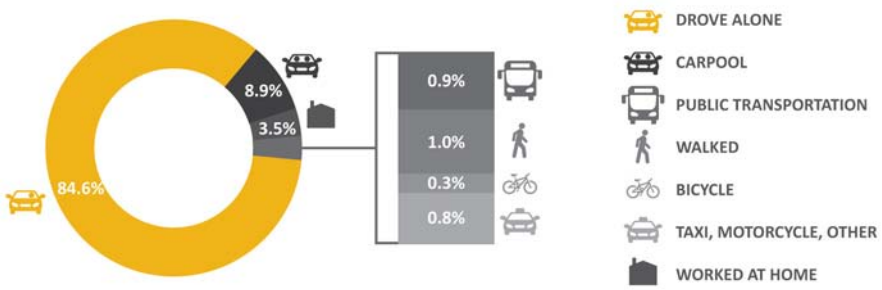
TABLE 5. COLLEGES WITHIN COMMUTING DISTANCE

FOUR YEAR INSTITUTIONS		
INSTITUTION	DISTANCE	ENROLLMENT
BELOIT COLLEGE *BELOIT, WISCONSIN*	16 MILES	1,385
BLACKHAWK TECHNICAL COLLEGE *JANSVILLE, WISCONSIN*	23 MILES	1,126
EMBRY-RIDDLE AERONAUTICAL UNIVERSITY *ROCKFORD, ILLINOIS*	WITHIN MPA	151
JUDSON UNIVERSITY *ROCKFORD, ILLINOIS*	WITHIN MPA	150
JUDSON UNIVERSITY *ELGIN, ILLINOIS*	44 MILES	1,081
NORTHERN ILLINOIS UNIVERSITY *DEKALB, ILLINOIS*	28 MILES	21,869
NORTHERN ILLINOIS UNIVERSITY *ROCKFORD, ILLINOIS*	WITHIN MPA	985
ROCKFORD UNIVERSITY *ROCKFORD, ILLINOIS*	WITHIN MPA	1,318
ST. ANTHONY COLLEGE OF NURSING *ROCKFORD, ILLINOIS*	WITHIN MPA	193
UPPER IOWA UNIVERSITY *ROCKFORD, ILLINOIS*	WITHIN MPA	142
UNIVERSITY OF WISCONSIN *WHITEWATER, WI*	43 MILES	12,034
COMMUNITY COLLEGES		
INSTITUTION	DISTANCE	ENROLLMENT
HIGHLAND COMMUNITY COLLEGE *FREEPORT, ILLINOIS*	30 MILES	3,200
KISHWAUKEE COLLEGE *MALTA, ILLINOIS*	26 MILES	7,696
ROCK VALLEY COLLEGE *ROCKFORD, ILLINOIS*	WITHIN MPA	8,091
OTHER INSTITUTIONS		
INSTITUTION	DISTANCE	ENROLLMENT
ROCKFORD CAREER COLLEGE *ROCKFORD, ILLINOIS*	WITHIN MPA	751
RASMUSSEN COLLEGE *ROCKFORD, ILLINOIS*	WITHIN MPA	321
UNIVERSITY OF ILLINOIS - ROCKFORD HEALTH SCIENCES CAMPUS *ROCKFORD, ILLINOIS*	WITHIN MPA	402



CYCLISTS COMMUTING TO WORK, ROCKFORD

FIGURE 7. MEANS OF TRANSPORTATION TO WORK IN THE ROCKFORD MSA



SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

The average commute time to work in the MSA is 23 minutes; the average commute time was higher for Boone County at 29 minutes. For comparison, 13 percent of Boone County workers have a commute of greater than 60 minutes, whereas Ogle and Winnebago Counties only had six percent commuting longer than 60 minutes.

FIGURE 8. MEAN TIME TO WORK

22.8 MIN
MEAN TIME
TO WORK

SOURCE: U.S. CENSUS BUREAU, 2011 - 2015 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

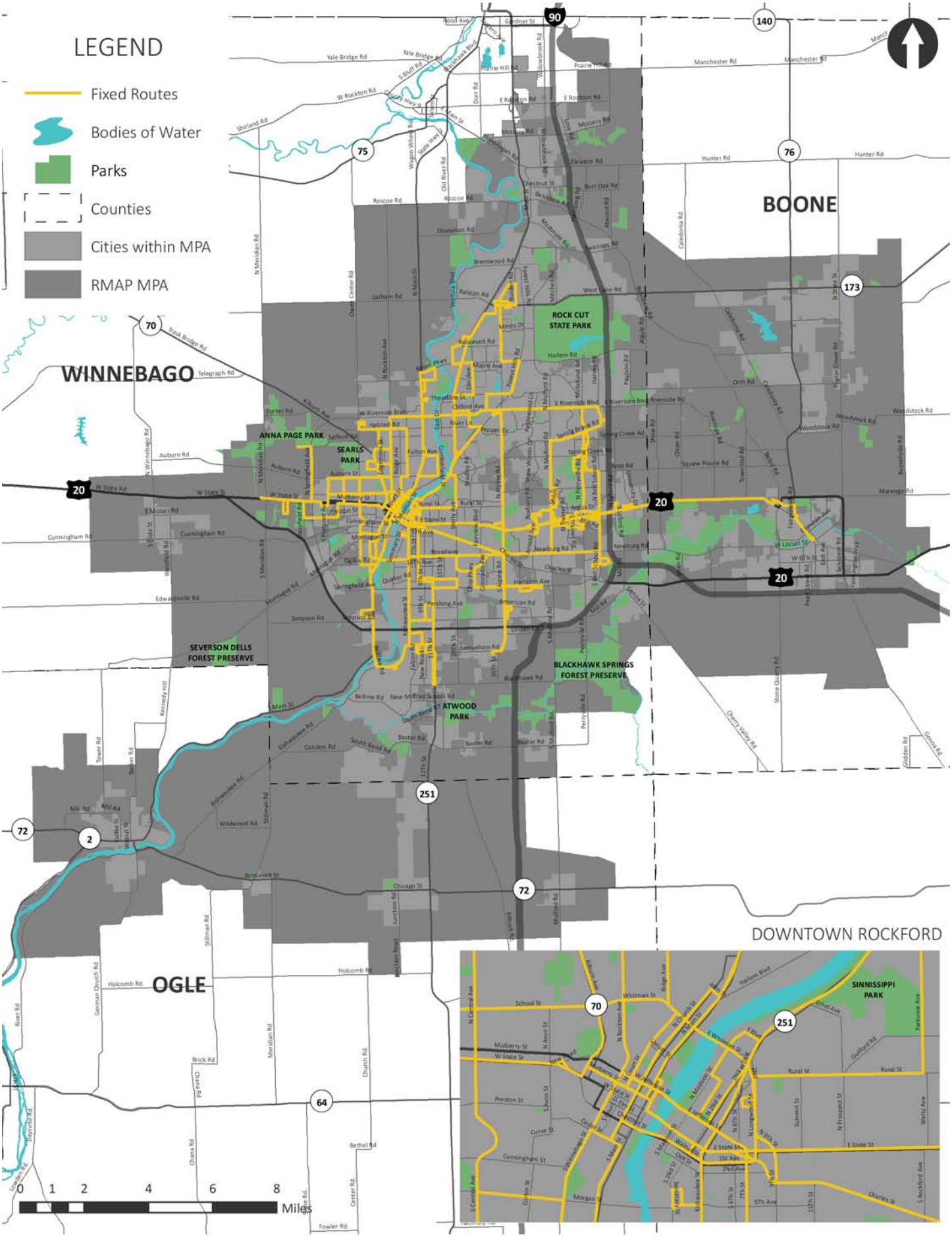
Public Transportation

The Rockford Metropolitan Planning Area is served by the Rockford Mass Transit District (RMTD) as well as several demand response transit services. The Rockford Mass Transit District has provided fixed-route transit services for the Rockford Urbanized Area over the past forty years. The bulk of RMTD's service area is within the City of Rockford, as well as services to the City of Loves Park, Village of Machesney Park, and City of Belvidere. RMTD provides various routes at a relatively low price ($1.50 for a full one-way fare and $55 for a monthly pass). Most routes operate between 6:00 a.m. to roughly 11:00 p.m. RMTD operates bus service along approximately 20 routes and records approximately 1.5 million rides annually. The current fixed routes (as of 2017) can be seen in Map 3.

In addition, Boone County offers public transportation services, equipped with wheel-chair lifts, to all residents of Boone County regardless of age. Priority is given to the medical and nutritional needs of older persons and persons with disabilities. Origin to destination services are provided on a demand-response basis. The service is provided Monday through Friday between 8:00 AM-4:30 PM. Reservations are required at least one day in advance. Boone County provides a fleet of eight paratransit vehicles, which are utilized by Boone County Center on Aging (BCCA), that are fully

RMTD'S DOWNTOWN TRANSFER CENTER, ROCKFORD

MAP 3. ROCKFORD MASS TRANSIT DISTRICT'S FIXED ROUTE SYSTEM



accessible for demand-response service in Boone County. The cost of service for BCCA transportation (per trip) is $1 to $2.

The Northern portion of Winnebago County is served by the Stateline Mass District (SMTD). SMTD began in February 2008 in the form of a demand-response transit system that operates Monday through Friday (6:00am-10:00pm) with limited hours of operation on Saturday (8:00am-6:00pm) and Sunday (8:30am-4:30pm). Service is provided with seven demand-response vehicles and areas serviced through this mass transit district include the Village of Rockton, Rockton Township, the Village of Roscoe and the City of South Beloit. The Stateline Mass Transit District contracts with RMTD to provide the demand-response service.

RMTD'S "BIKES ON BUSES" PROGRAM

Regional Employers

The Rockford Metropolitan Area continues to expand and diversify its economic development and employment opportunities. The major industry clusters in the Rockford Region include advanced manufacturing, transportation, logistics and distribution, and healthcare. The major employers in the region are listed in Table 6 and are primarily made up of healthcare, manufacturing, governmental, and transportation sectors.

TABLE 6. TOP EMPLOYERS WITHIN THE ROCKFORD REGION

COMPANY	INDUSTRY	EMPLOYEES
FIAT CHRYSLER AUTOMOBILES	AUTOMOTIVE MANUFACTURING	4,323
ROCKFORD PUBLIC SCHOOLS	EDUCATION	3,525
MERCYHEALTH	HEALTHCARE	3,000
SWEDISHAMERICAN HEALTH SYSTEMS	HEALTHCARE	2,988
OSF HEALTHCARE	HEALTHCARE	2,800
UTC AEROSPACE SYSTEMS	AEROSPACE MANUFACTURING	2,200
WAL-MART STORES	RETAIL	1,611
WOODWARD	AEROSPACE MANUFACTURING	1,540
PACKAGING COORDINATORS INC	SUPPORT SERVICES	1,500
WINNEBAGO COUNTY	GOVERNMENT	1,449
HARLEM CONSOLIDATED SCHOOLS	EDUCATION	1,191
CITY OF ROCKFORD	GOVERNMENT	1,076
UPS	POSTAL SERVICE	900
LOWE'S	WAREHOUSING	900
BELVIDERE COMMUNITY SCHOOLS	EDUCATION	870
EXELON	POWER GENERATION	860
MONDELEZ INTERNATIONAL	FOOD MANUFACTURING	850
EGS CUSTOMER CARE	SUPPORT SERVICE	800
GENERAL MILLS	FOOD MANUFACTURING	675
TAYLOR COMPANY	MACHINERY MANUFACTURING	671

SOURCE: ECONOMIC DEVELOPMENT DISTRICT OF NORTHERN ILLINOIS.

Benefits of Bicycle & Pedestrian Facilities

Active transportation, such as bicycling or walking, can offer a variety of benefits when a commitment is made to creating a more pedestrian- and bicycle-friendly community. A community with a complete multi-modal transportation network that balances the needs of all roadway users offers a variety of benefits, including: economic, environmental, equity, health, quality of life, safety, and transportation.

Economic Benefits

Investment into a bicycle and pedestrian network contributes to the economic growth and stability of a community in a number of ways. Household transportation costs can decrease allowing families to spend more money on other essentials or reinvesting back into the local economy. Property value increases tend to occur in bicycle- and pedestrian-friendly areas. Local businesses also have seen positive impacts as investment are made into bicycle and pedestrian facilities in commercial and mixed use areas.

Typically in the United States, a household's second-largest expenditure is transportation costs. Adequate bicycle and pedestrian facilities potentially lowers household transportation costs. The average annual operating cost of the average car is $8,220 versus only $308 for the annual operating cost of a bicycle.[1] The cost per vehicle mile associated with owning and operating vehicles varies greatly between the average car, bicycling, and walking. An average car costs $0.44 to operate per vehicle mile compared to $0.09 per vehicle mile for bicycles. While the fixed vehicle ownership costs are non-existent for walking there is an estimated $0.05 cost per vehicle mile in operating costs. This operating cost for walking includes the cost of shoes and increase of food requirements from burning more calories.[2] The estimated daily net cost savings for the typical urban commuter shifting from driving an average automobile to bicycling is $12.99 and shifting to walking is $13.37. The daily savings take into account external costs such as parking, congestion, roadway facility costs, crash risk, and environmental impacts.[3]

HONONEGAH RECREATION PATH, ROSCOE

In addition to household expenditure savings, bicycle- and pedestrian-friendly areas have seen an increase in home values. People are willing to pay more for properties with access to greenways or shared use paths. A study conducted in Indianapolis found that two identical houses, each containing the same number of square feet, bathrooms, bedrooms, and comparable garages, the house within half a mile of a shared-use path would sell for an average of 11 percent more than

1 "PEDALING TO PROSPERITY" (OAKLAND: SIERRA CLUB, 2012).
2 TODD ALEXANDER LITMAN AND ERIC DOHERTY, *TRANSPORTATION COST AND BENEFIT ANALYSIS* (VICTORIA: VICTORIA TRANSPORT POLICY INSTITUTE, 2009), 5.1 -11.
3 *TRANSPORTATION COST AND BENEFIT ANALYSIS*, 6-1 - 6-15.

the house further away from the trail.[4] Property values also increase in areas of high walkability. Homes in neighborhoods with high walkability sell for $4,000 to $34,000 more than the average home.[5]

FULL BICYCLE RACK OUTSIDE OF RIVERFRONT BUSINESSES, ROCKFORD

Communities with successful bicycle and pedestrian facilities can benefit from a potential boost in the local economy. Studies have shown that people who walk or bike to a commercial area spend more money per month than those who drove there. Consumers who drove to various establishments, such as convenience stores, bars, and restaurants, spent more on average per trip than those who walked or biked. However, consumers who walked or biked to an establishment made more trips and spent more per month than their counterparts who drove.[6] Additional studies have shown that the bicycle industry and bicycle tourism can boost local employment levels and economic activity. The communities who benefit the most from the bicycle industry and tourism are communities with successful bicycle and pedestrian facilities.[7]

Environmental Benefits

Bicycling and walking are carbon neutral forms of transportation. In comparison, a typical passenger vehicle emits about 4.7 metric tons of carbon dioxide per year. The EPA estimates an average passenger vehicle emits about 411 grams of CO_2 per mile. On average, CO_2 emissions are 95-99% of the total greenhouse gas emissions from a passenger vehicle, after accounting for the global warming potential of all greenhouse gases (GHG).[8] A commuter who chooses to ride a bicycle four miles to work, five days a week, instead of driving motor vehicle would save about 2,000 pounds of CO_2 emissions each year.[9]

Recent research has shown a link between walkable neighborhoods and a decrease in air

4 DARREN FLUSCHE, "BICYCLING MEANS BUSINESS: THE ECONOMIC BENEFITS OF BICYCLE INFRASTRUCTURE", ADVOCACY ADVANCE (JULY 2012).
5 JOE CORTRIGHT, WALKING THE WALK: HOW WALKABILITY RAISES HOME VALUES IN U.S. CITIES, (CHICAGO: CEOS FOR CITIES, AUG. 2009).
6 KELLY CLIFTON, ET AL., "CONSUMER BEHAVIOR AND TRAVEL CHOICES: A FOCUS ON CYCLISTS AND PEDESTRIANS." (2013).
7 "THE ECONOMIC BENEFITS OF BICYCLE INFRASTRUCTURE INVESTMENTS". ADVOCACY ADVANCE (2009).
8 EPA, "GREENHOUSE GAS EMISSIONS FROM A TYPICAL PASSENGER VEHICLE", HTTPS://WWW.EPA.GOV/GREENVEHICLES/GREENHOUSE-GAS-EMISSIONS-TYPICAL-PASSENGER-VEHICLE-0 (MARCH 25, 2016).
9 GARY GARDNER, "POWER TO THE PEDALS." WORLD WATCH MAGAZINE (JULY-AUG. 2010)

pollutants. The SMARTRAQ study for the Atlanta region showed that the travel patterns of the residents in the areas with the least walkability generated approximately 20 percent higher CO_2 emissions than travel patterns of those in more walkable neighborhoods. This results in approximately 2,000 extra grams of CO_2 per person each weekday.[10] Additionally, a five percent increase in the walkability of a neighborhood results in increased active travel by a per capita of 32.1%, a decrease in miles driven by 6.5%, 5.6% fewer grams of NO_x emitted, and 5.5% fewer grams of volatile organic compounds (VOCs) emitted.[11]

Health Benefits

An increase in the amount of bicycle/pedestrian facilities in an area increases the opportunities to travel by bike or foot, thus increasing the opportunities to be active and live a healthy lifestyle. Expansion of an active transportation network can address chronic illnesses, such as asthma, diabetes, and heart disease, as well as reduce exposure to transportation related emissions.

Studies have shown that active commuting, such as walking or bicycling, was associated with an 11% reduction in cardiovascular risk.[12] A study of traffic patterns in a San Francisco Bay Area study found that increasing biking and walking from 4 to 24 minutes a day would reduce cardiovascular disease and diabetes by 14%.[13]

Communities with successful bicycle and pedestrian facilities can see the health benefits in their children and adolescent cohorts. Teens who participated in bicycling, in-line skating, or skateboarding more than four times a week are 48% less likely to be overweight as adults. Each week adolescents participated in physical education decreases the odds of being overweight by 5%.[14] Additionally, adolescents who commute to school by bicycling or walking are 30% more likely to bike to other neighborhood destinations.[15]

A FAMILY RIDING BIKES TOGETHER, ROCKFORD

10 DAVID GOLDBERG, ET AL, NEW DATA FOR A NEW ERA: A SUMMARY OF THE SMARTRAQ FINDINGS (JAN. 2007), 22.
11 LAWRENCE D. FRANK, ET AL. "MANY PATHWAYS FROM LAND USE TO HEALTH" JOURNAL OF THE AMERICAN PLANNING ASSOCIATION 72.1 (2006): 75-87.
12 M. HAMER AND Y. CHIDA, "ACTIVE COMMUTING AND CARDIOVASCULAR RISK", ABSTRACT, PREVENTIVE MEDICINE 46(1) (JANUARY 2008): 9-13.
13 N. MAIZLISH, ET. AL., "HEALTH COBENEFITS AND TRANSPORTATION-RELATED REDUCTIONS IN GREENHOUSE GAS EMISSIONS IN THE SAN FRANCISCO BAY AREA", ABSTRACT, AMERICAN JOURNAL OF PUBLIC HEALTH 103(4), (APRIL 2013): 703-709.
14 D. MENSCHIK, ET. AL. "ADOLESCENT PHYSICAL ACTIVITIES AS PREDICTORS OF YOUNG ADULT WEIGHT", ABSTRACT, ARCHIVES OF PEDIATRICS & ADOLESCENT MEDICINE 162(1), (JANUARY 2008): 29-33.
15 J. DOLLMAN AND N. LEWIS,. "ACTIVE TRANSPORT TO SCHOOL AS PART OF A BROADER HABIT OF WALKING AND CYCLING AMONG SOUTH AUSTRALIAN YOUTH", ABSTRACT, JOURNAL OF SCIENCE AND MEDICINE IN SPORT 19(4), (2007): 436-443.

According to a recent study, people living in neighborhoods with the lowest walkability drive an average of 30% more than residents in areas with the highest walkability during the week. On weekends, residents the areas with the highest walkability drove 40% less than their counterparts in the least walkable neighborhoods.[16]

Quality of Life Benefits

Expanding and improving bicycle and pedestrian infrastructure can help increase equity throughout a community and create community spaces. Equity is the fair and impartial distribution of resources and opportunities. Communities that have increased the transportation choices for their citizens have seen an increase in equity and a greater quality of life.

A complete network of active transportation options enhance connections between residences, schools, parks, public transportation, retail destinations, and offices. The development of bicycle- and pedestrian-friendly communities improves the overall quality of life by creating an environment where people are encouraged to interact and develop a sense of community.[17] Bicycle- and pedestrian-friendly communities help revitalize downtowns, promote tourism, and increases opportunities for active transportation for all users, including traditionally underserved populations.

EAST STATE STREET, CHERRY VALLEY

Additionally, the fastest growth in bicycling in the past decade is among some of the traditionally underserved population, such as the Hispanic, African American, and Asian American population. However, many of these communities of color are in areas of cities considered transit deserts that lack safe streets for walking and bicycling, despite these communities having the largest growth in the percent of all trips that are by bicycles between 2001 and 2009. The growth in the percent of all trips that are by bike rose 100 percent for African Americans, 80 percent for Asian Americans, and 50 percent for Hispanics, compared to a 22 percent growth for whites.[18]

By creating a more accessible active transportation network throughout the entire city, there is more connectivity between communities and potential open economic opportunities for individuals and families who are often excluded from major routes of transportation. Magnified throughout a community, this increased access has potential to improve quality of life through boosted income and a greater sense of ability.[19]

16 GOLDBERG, *NEW DATA FOR A NEW ERA: A SUMMARY OF THE SMARTRAQ FINDINGS*, 9.
17 NJDOT, "MAKING COMPLETE STREETS A REALITY: A GUIDE TO COMPLETE STREETS POLICY DEVELOPMENT" (2012): 3
18 ANDONIA LUGO, ELIZABETH MURPHY, AND COROLYN SZEPANSKI, *THE NEW MAJORITY: BIKE EQUITY TODAY* (MAY 2013): 3
19 MICHAEL ANDERSON AND MARY LAURAN HALL, "BUILDING EQUITY: RACE, ETHNICITY, CLASS, AND PROTECTED BIKE LANES" (MARCH 2014): 4

Safety

According to the Federal Highway Administration, 5,376 pedestrians and 818 bicyclists were killed and roughly 70,000 pedestrians and 45,000 bicyclist were injured in 2015.[20] While these totals have decreased somewhat in recent years, however pedestrian and bicyclist safety is an ongoing problem that needs to be addressed. Many cities in the United States have found that bike lanes slowed motor vehicle traffic, increased bicycle ridership, reduced crashes, and improved people's feelings of safety on those corridors.

Many cities have seen a large reduction in collisions with the implementation of on-street bicycle lane facilities. In Chicago, stoplight compliance rose from 31 percent to 81 percent when a protected lane and bike-specific signals were added.[21] In New York, the installation of miles of new bike lanes did not lead to an increase in bicycle injuries despite the increase in cyclists.[22] When protected bike lanes were installed in New York City, crashes with reported injuries dropped by at least 40 percent for all road users, including pedestrians and drivers.[23]

PEDESTRIAN BRIDGE IN BELVIDERE PARK, BELVIDERE

20 "QUICK FACTS 2015", NATIONAL HIGHWAY TRAFFIC SAFETY ADMINSTRATION, HTTPS://CRASHSTATS.NHTSA.DOT.GOV/#/, (2016).
21 JON HILKEVITCH, "CITY SAYS DEARBORN BIKE SIGNALS KEEPING CYCLISTS IN LINE", CHICAGO TRIBUNE, HTTP://ARTICLES.CHICAGOTRIBUNE.COM/, (JUNE 10, 2013)
22 L. CHEN, ET AL., "EVALUATING THE SAFETY EFFECTS OF BICYCLE LANES IN NEW YORK CITY", AMERICAN JOURNAL OF PUBLIC HEALTH, (NOVEMBER 17, 2011).
23 H. WOLFSON, "MEMORANDUM ON BIKE LANES", CITY OF NEW YORK, OFFICE OF THE MAYOR, HTTP://WWW.PEOPLEFORBIKES.ORG/STATISTICS/CATEGORY/FACILITIES-STATISTICS, (MARCH 21 2011).

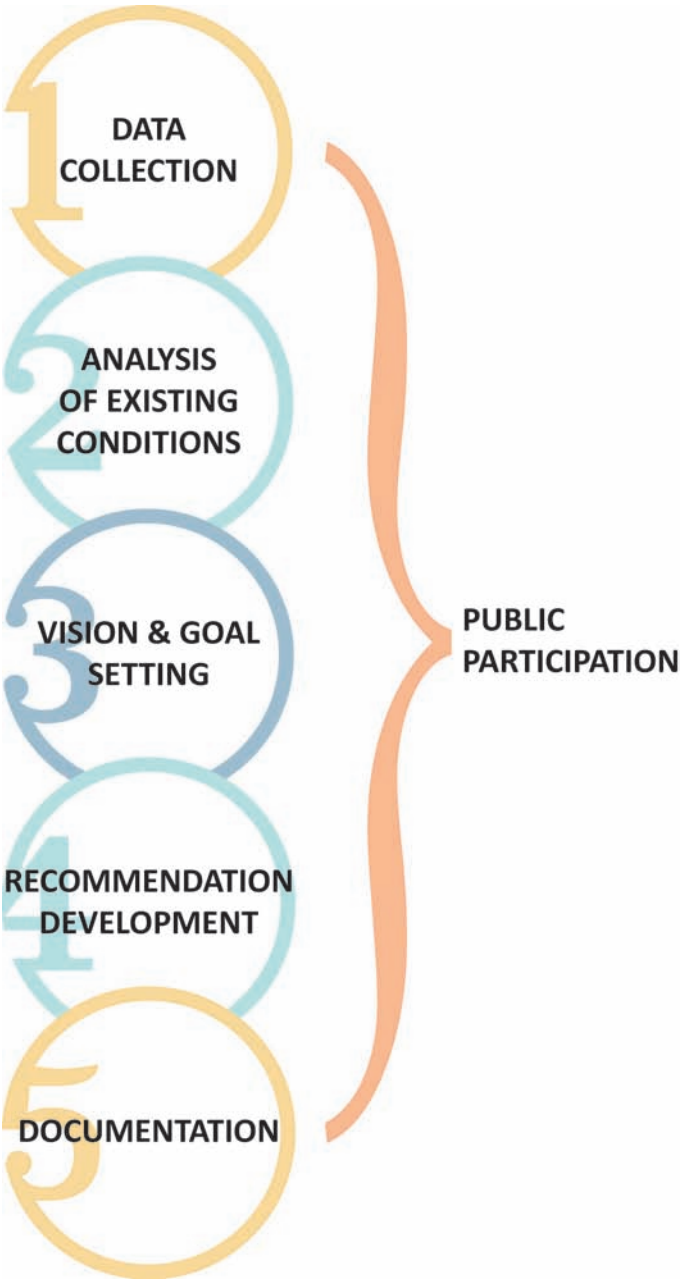
Plan Development

The update to the 2008 RMAP Bicycle & Pedestrian Plan, which began in March 2016, was divided into five phases: Data Collection; Analysis of Existing Conditions; Vision and Goal Setting; Development of Recommendations; and Documentation. Public participation occurred throughout the planning process. Figure 9 depicts the overall process in developing the Bicycle and Pedestrian Plan for the RMAP Metropolitan Area.

Phase 1: Data Collection

The initial data collection phase involved the gathering of data from Geographic Information Systems (GIS), Travel Demand Model (TDM), U.S. Census Bureau, and Illinois Department of Transportation (IDOT) portals. GIS data was gathered from internal MPO databases, local municipalities, and the Winnebago County Geographic Information System (WinGIS). Various demographic data was collected from the United States Census Bureau. For consistency of the demographic data presented in this document, the 2015 American Community Survey (ACS) 5-Year Estimates were used. Additional historic data was collected from the U.S. Decennial Censuses. Other data sources have been maintained or updated as necessary.

FIGURE 9. PLAN DEVELOPMENT PROCESS



Phase 2: Analysis of Existing Conditions

The development of the Plan is dependent on the evaluation of the existing conditions in terms of infrastructure, demand, and other factors. The analysis of existing conditions began with a review of the local context of the region, such as population characteristics, as well as a review of existing plans and policies within the region. Additionally, an analysis of the physical infrastructure in the bicycle and pedestrian networks were examined to determine opportunities and constraints. These opportunities and constraints were developed based on the bicycle demand

analysis and pedestrian suitability index.

Phase 3: Vision & Goal Setting

In September 2016, the process of developing the vision statement, goals, and strategies for the plan began with the first meeting of the Bicycle & Pedestrian Advisory Committee (BPAC). This ad hoc committee was developed to ensure that the Plan will reflect the needs, interests, and concerns of the community. Members of the BPAC are representatives of various agencies, organizations, and individuals working to enhance active transportation in the region. A list of members and organizations that participated are listed in Table 7. The BPAC crafted the vision statement, as well as the five goals centering on the following themes: safety, infrastructure, collaboration, funding, and education/encouragement.

TABLE 7. BICYCLE & PEDESTRIAN ADVISORY COMMITTEE MEMBERS

MEMBER	ORGANIZATION
TIM BRAGG	ROCKFORD PARK DISTRICT
ERIC BROWN	RAMP, CENTER FOR INDEPENDENT LIVING
ALDERMAN TIM DURKEE	UNIVERSITY OF ILLINOIS, COLLEGE OF MEDICINE
TROY FLYNN	ROCKFORD AREA VENUES & ENTERTAINMENT AUTHORITY
EMILY HARDY	PRAIRIE STATE LEGAL & IGNITE ROCKFORD
DENNY HENDRICKS	ROCKFORD MASS TRANSIT DISTRICT
RALPH HOEKSTRA	BLACKHAWK BICYCLE CLUB
MIKE MAPES	ROCKFORD ROAD RUNNERS
CATHY MCDERMOTT	ROCK RIVER DEVELOPMENT PARTNERSHIP
AMANDA C. MEHL	BOONE COUNTY HEALTH DEPARTMENT
MARK PENTECOST	BELVIDERE PARK DISTRICT
JEFF SCHELLING	ROCKFORD UNIVERSITY
KIMBERLY THEILBAR	PRAIRIE STATE LEGAL & IGNITE ROCKFORD

Phase 4: Recommendations Development

In order to ensure the goals and objectives for the region are met, the recommendations made in this Plan include policies and programs that address engineering, education, encouragement, enforcement, and evaluation. The recommendations were developed in an effort to allow the MPO and local municipalities to achieve the goals of the plan.

Phase 5: Documentation

The final phase of the Plan Development consisted of compiling the information collected in the previous phases to create a clear guide for the MPO, local implementation agencies and organizations to achieve the vision and goals of the plan.

Public Participation

Public participation was critical in the development of the Plan. As noted in Table 8, four open houses and engagement events created opportunities for public input and occurred throughout the planning process. The sessions were hosted throughout the region to enhance access of materials related to this plan/planning process.

Public informational open houses were held at various locations to kick-off the Plan update. Preliminary open houses were held after initial data collection and some analysis of the existing conditions had been completed. The meetings focused on the existing conditions and the needs of pedestrians and bicyclists. Additional meetings were held for key stakeholders and the public after the Bicycle & Pedestrian Advisory Committee completed a draft of the vision statement and goals. The vision statement, goals, strategies, and prioritization methods were presented during these events. The feedback from members of the public was gathered and incorporated into the plan. A final series of public open houses was held for feedback on this draft of the Bicycle & Pedestrian Plan on August 1st, 2nd, and 3rd, 2017. Comments from the draft plan open houses were incorporated into the final adopted document.

TABLE 8. PUBLIC OPEN HOUSES & ENGAGEMENT SESSIONS

EVENT	DATE	LOCATION
Kick-Off Open Houses	June 1st, 2016	RMAP Offices *313 N. Main St., Rockford, IL*
	June 8th, 2016	Belvidere City Hall *401 Whitney Blvd., Belvidere, IL*
	June 9th, 2016	Loves Park City Hall *100 Heart Blvd., Loves Park, IL*
Community Conversations: Bicycle & Pedestrian Planning	February 15th, 2017	Veterans Memorial Hall *211 N. Main St., Rockford, IL*
Public Comment Period: Open Houses	August 1st, 2017	Boone County Admin Offices *1212 Logan Ave, Belvidere, IL*
	August 2nd, 2017	RMAP Offices *313 N. Main St., Rockford, IL*
	August 3rd, 2016	Machesney Park Village Hall *300 Roosevelt Rd., Machesney Park, IL*

Materials and notices were posted to the RMAP website, which included information on the public meetings, survey results, and the draft document. Also, presentations regarding the Bicycle and Pedestrian Plan were given during open meetings of the RMAP Technical and Policy Committees. An online survey was conducted to gather walking and bicycling related insight. Materials and notices were also posted to the RMAP website and presented during open meetings of the RMAP Technical and Policy Committees.

The online public survey was available through Survey Gizmo beginning on June 1st, 2016. Links to the survey were on the Bicycle & Pedestrian Plan Facebook page and RMAP's website. An additional press release was

JUNE 1ST BICYCLE AND PEDESTRIAN PLAN OPEN HOUSE, RMAP OFFICES

sent out to media outlets on June 24th, 2016. In addition to the online survey, hard copies were available at the three public open houses hosted on June 1st, 8th and 9th of 2016. On July 31st, 2016, the survey was closed. RMAP received a total of 120 complete surveys with a completion rate of 75.5%. RMAP released the survey results on the Facebook page. The survey included questions regarding transportation access, pedestrian travel, bicycle travel, and demographic information. In total, the respondents were asked to answer 16 questions regarding their transportation habits, preferences, and importance of active transportation. An additional four questions were asked to determine if the survey results reflected the population characteristics of our region. The results of this survey can be found in Appendix A.

On February 15th, 2017, members of the RMAP staff participated in a Community Conversation co-hosted by Transform Rockford at Veterans Memorial Hall in Rockford, Illinois. Eighty-seven community members attended the event. RMAP's presentation included information on the progress of the plan as well as information related to the existing conditions and needs of bicyclists and pedestrian in the RMAP Metropolitan Area. At the end of the presentation, the event was open to a Q & A session in which RMAP staff and three panelists answered any questions that attendees had.

COMMUNITY CONVERSATION, VETERANS MEMORIAL HALL, ROCKFORD

The draft RMAP Bicycle and Pedestrian Plan for the Rockford Metropolitan Area was made available on July 20th, 2017 via the RMAP website, as well as by contacting RMAP. A thirty day public comment period for this Bicycle and Pedestrian Plan lasted from July 20, 2017 to August 21, 2017. Materials from this comment period can be found in Addendum 1.

Plan Outline

The Plan is comprised of eight sections, including this introduction. Section 2 outlines the vision, goals, and strategies for pedestrian and bicycle travel in the region. Section 3 provides useful technical information about facilities discussed in this plan in order to create a consistent description and design standards. Section 4 and Section 5 describes existing conditions for bicycle and pedestrian networks in the Rockford region, respectively. These sections include the demand and suitability analysis for walking and bicycling in the region. Section 6 provides infrastructure recommendations for both the bicycle and pedestrian network. Section 7 details recommendations related education, encouragement, enforcement, and evaluation programs. Section 8 focuses on plan implementation by detailing a select number of corridors identified as priority areas for walking and bicycling, as well as information on available funding sources.

Vision, Goals & Objectives

In September 2016, the process of developing the vision statement, goals, and strategies for the Plan began with the first meeting of the Bicycle & Pedestrian Advisory Committee (BPAC). This ad hoc committee was developed to ensure that the Plan reflects the needs, interests, and concerns of the community. Members of the BPAC are representatives of various agencies, organizations, and individuals working to enhance active transportation in the region. A list of members and organizations that participated are listed in Table 7 on page 22.

At the second meeting of the Bicycle and Pedestrian Advisory Committee, which was held on October 17th, 2016, members crafted the vision statement by brainstorming words and phrases that describe the future of the region in regards to active transportation. The concepts and themes that emerged were used to draft the final vision statement for the plan.

At the third and fourth meetings of the BPAC, held on November 14th and December 12th, 2016, members identified five goals and several objectives for each of the goals that would help the region achieve the vision statement.

Developing a common set of goals and objectives is an important part of any planning process as it is the foundation for which policies, resources, and other actions are based upon. For the Bicycle and Pedestrian Plan, the goals and objectives were centered on five themes:

- Safety
- Infrastructure
- Collaboration
- Funding
- Education, Encouragement, Enforcement, & Evaluation

The following section presents the recommended vision statement, goals, and objectives of the RMAP Bicycle and Pedestrian Plan.

Vision Statement

It is important to have a vision statement to guide the development and implementation of the Bicycle and Pedestrian Plan for the Rockford Metropolitan Area. Vision statements in transportation planning documents provide an overarching direction of desired outcomes and leads to well defined goals and objectives. The vision statement is designed to outline the overall view of the region's policies, infrastructure, and programs. A vision can help inspire the imagination and establish momentum toward new approaches or policies.

This plan establishes the following vision for active transportation in the RMAP Planning Area:

> ***"The Rockford Metropolitan Area envisions a community provided with a diverse and safe active transportation network of interconnected, continuous, and accessible system of sidewalks, bicycle facilities and trails throughout the region. This network will foster a culture of safety, health, awareness, and recreation to enhance the quality of life for both residents and visitors through promoting active transportation alternatives."***

Goals & Objectives

Setting clear goals and objectives is a critical foundation for creating a successful bicycle and pedestrian planning effort. The goals stem from the values inherent in the region's vision for the future found above. The goals and objectives for this plan were developed in conjunction with both RMAP staff and members of the Bicycle and Pedestrian Advisory Committee. Goals for this plan were developed with a focus on desired outcomes. Once the goals were identified, objective statements were developed. The objectives are specific statements that support the overarching goals.

Goal One: Safety

Improve safety by decreasing the number and severity of crashes involving motorist, bicyclists, and pedestrians.

Objective 1.a. Reduce the number and severity of bicycle-related accidents.

Objective 1.b. Reduce the number and severity of pedestrian-related accidents.

Objective 1.c. Increase awareness of bicycles and pedestrians on our roads and the rules of the road.

Objective 1.d. Improve the visibility of existing facilities by regularly maintaining existing crosswalk paint, sharrow paint, and bike lane roadway markings.

Goal 2 - Infrastructure

Develop a well-connected active transportation network that links a variety of multi-modal facilities together and accommodates users of all ages and abilities.

Objective 2.a. Focus on achieving connectivity of the existing bikeway and trail system when planning and programming trail and bikeway improvements.

Objective 2.b. Increase the number of multimodal connections between residential areas, commercial centers, and employment opportunities to enhance the quality of life for residents and visitors.

Objective 2.c. Increase signage and wayfinding on existing pedestrian and bicycle facilities that will direct users to the existing active transportation network.

Objective 2.d. Provide bike racks at major recreational and commercial locations in the community to encourage bicycle use and accommodate existing bicycle facilities.

Objective 2.e. Coordinate roadway improvements so that bicycle and pedestrian facilities are not inaccessible or eliminated in construction zones, in instances where closures are necessary provide marked alternative routes.

Objective 2.f. Develop regional and local Complete Streets policies that require adequate accommodation of bicyclists and pedestrians when a street is constructed or reconstructed.

Goal 3 – Collaboration

Build a collaborative and cooperative environment within the region among stakeholders and communities that supports more active transportation choices.

Objective 3.a. Strengthen ongoing coordination and collaboration among federal, state, regional, local, and private partners to facilitate a seamless pedestrian and bicycle network.

Objective 3.b. Establish a MPO Bicycle & Pedestrian Sub-Committee to advise on regional active transportation issues to the MPO's Technical and Policy Committees.

Objective 3.c. Create and support opportunities for public and user input and engagement into the bikeways and trail systems.

Objective 3.d. Work with multiple jurisdictions in planning, funding, and designing regional trail and on-street bikeway facilities.

Objective 3.e. Encourage multi-jurisdictional grant application submittals for the regional bikeway system.

Objectives 3.f. Adopt uniform bicycle and pedestrian facility design elements and standards across the region to provide consistent and continuous accommodation.

Goal 4 - Funding

Increase the utilization of funding to improve and sustain bicycle and pedestrian facilities.

Objective 4.a. Encourage local jurisdictions to identify and include bicycle and pedestrian facility improvements in their Capital Improvement Programs.

Objective 4.b. Pursue creative financing mechanisms through business sponsorships to fund pedestrian and bicycle investments.

Objective 4.c. Promote adopt-a-sidewalk, bus stop, and/or trail programs.

Objective 4.d. Encourage the formation of dedicated local, regional, and state funding sources which can be used to leverage federal funds.

Goal 5 – Education, Encouragement, Enforcement, and Evaluation

Develop adequate education, encouragement, evaluation, and enforcement programs to create a more active bicycle and pedestrian culture in the region.

Objective 5.a. Generate awareness among bicyclists, pedestrians, and other trail users on the rights and responsibilities on roadways and shared-use facilities.

Objective 5.b. Educate motorists on the rights of pedestrians and cyclists.

Objective 5.c. Create and maintain a multi-jurisdictional, online mapping system of bicycle and pedestrian facilities for technical use by jurisdictions and for educational use by residents.

Objective 5.d. Identify and coordinate with key enforcement agencies to develop strategies to increase the safety of transportation facilities.

Objective 5.e. Partner with public schools to incorporate bicycle and pedestrian information into a consistent program of classroom and experiential education curricula.

Objective 5.f. Expand partnerships with advocacy and community groups to encourage these groups to be more active in bicycle and pedestrian planning efforts.

Facility Types & Design Standards

This section provides facility types and design standard guidelines gathered from local, state, and national best practices. Definitions and facility descriptions in this section are intended to provide useful technical information about facilities discussed in this plan in order to create consistent descriptions and design standards. Consistency allows all roadway users, including bicyclists and pedestrians, to be prepared for the types of facilities they may come across and is essential in providing a safe and efficient multi-modal transportation system. This section of the plan covers the following elements:

- Bicycle Facility Types and Design Standards
- Pedestrian Facilities and Design Standards
- Shared Use Path Design Standards
- Complete Streets Policy and Design

The definitions and standard guidelines for the bicycle facilities are primarily based on the national guidelines established by U.S. Department of Transportation Federal Highway Administration's (FHWA) 2009 edition of the *Manual on Uniform Traffic Control Devices* (MUTCD), the American Association of State Highway Officials' (AASHTO) *2012 Guide for the Development of Bicycle Facilities*, and the National Association of City Transportation Officials' (NACTO) 2nd Edition of the *Urban Bikeway Design Guide*.

The pedestrian facilities presented in this section represent national best practices and design standards. The guidelines for the pedestrian facilities are primarily based on the standards established by U.S. Department of Transportation Federal Highway Administration's (FHWA) 2009 edition of the *Manual on Uniform Traffic Control Devices* (MUTCD), AASHTO's *Guide for Planning, Design, and Operation of Pedestrian Facilities*, NACTO's *Urban Street Design Guide,* and the Active Transportation Alliance's C*omplete Streets Complete Networks: A Manual for the Design of Active Transportation*, were also used in the development of these definitions.

Additionally, an overview of the Complete Streets approach is provided. Complete streets is a transportation policy and design approach that focuses on designing and operating roadways to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

Bicycle Facilities

There are several forms of bicycle facilities such as shared lanes, sharrows, buffered bicycle lanes, and paved shoulders. Many considerations should be made when selecting a bicycle facility, also known as bikeways. These considerations include urban vs. rural setting, surrounding land use, motor vehicle speed and volumes, existing infrastructure, and potential modal conflicts, such as intersections, driveways, and pedestrian crossings. Bicycle facilities can be broken into two categories: shared lanes and bike lanes.

Shared Lanes

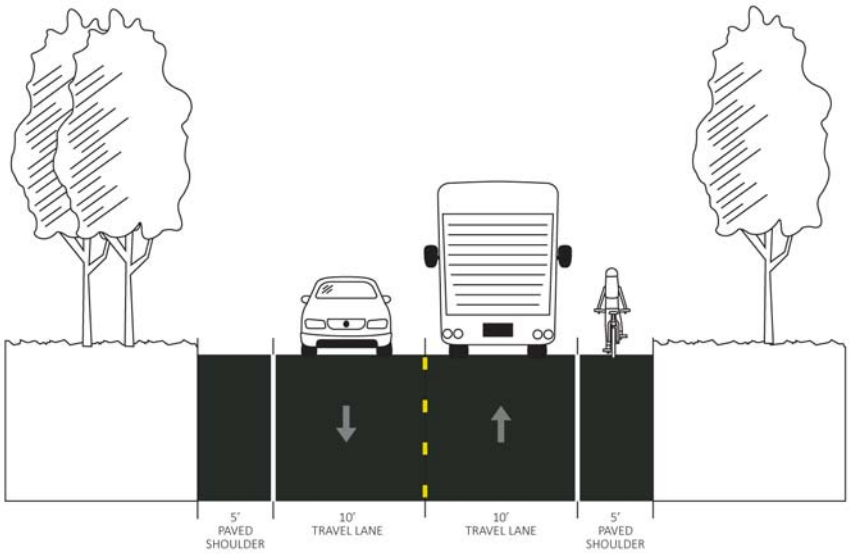
Shared lanes are any roadway in which it is legal to operate a bicycle regardless if a separate bicycle lane has been designated. Essentially, every roadway is a shared lane in which bicycles and motor vehicles share the same travel lane, except on certain highways. Roadways with low traffic volumes and travel speeds may already be suitable as a shared lane in their present condition.

Paved Shoulder

Paved shoulders are the paved areas adjacent to motor vehicle travel lanes. The best application for paved shoulders to be used as bicycle facilities is on rural highways that connect town centers and other major attractions, or for corridors that cannot accommodate a 5-foot bike lane.[1]

Characteristics of the adjacent travel lanes' context and conditions help determine the paved shoulder widths. Paved shoulders should have a minimum width of at least four (4) feet to accommodate bicyclists, if the roadway does not have a curb. If there is a roadside barrier, guardrail, or curb, the shoulder width should be at least five (5) feet wide (see Figure 10). Additional shoulder width is recommended if motor vehicle speeds exceed 50 mph or if used by heavy trucks, buses, or recreational vehicles.[2]

FIGURE 10. PAVED SHOULDER IN RURAL AREA



1 AASHTO. *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES*, 2012. 4TH ED. WASHINGTON, DC, 2012. P.4-7
2 *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES*, 2012. P.4-7

Shared Lane Marking/Sharrow

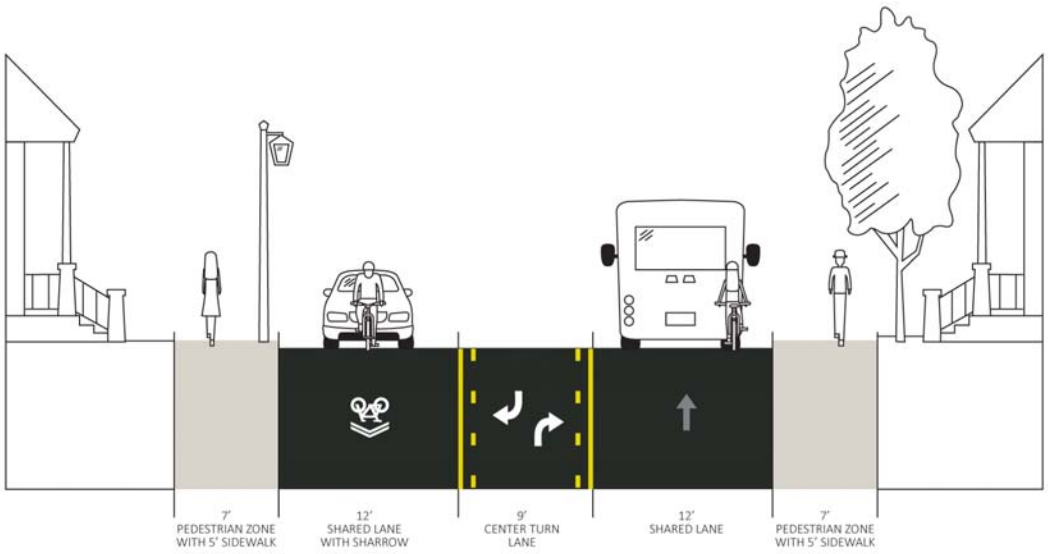
Shared lane markings or "sharrows" are road markings used to indicate a shared lane environment for automobiles and bicycles. A shared lane marking is not a facility type and should not be considered a suitable substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits.[3] Shared lane markings can be used as a reasonable alternative to bike lanes where street width can only accommodate a bicycle lane in one direction. Shared lane markings can also help fill gaps in a continuous bike path or bike lane, provide a transition for bicyclist across traffic lanes or from conventional bike lanes to a shared lane environment, or to help direct bicyclists along circuitous routes. [4]

SHARROW ON HARLEM BOULEVARD, ROCKFORD

Shared lane markings alert motorists of the potential presence of bicyclists, as well as encourages bicyclists to position themselves safely in lanes too narrow for a motor vehicle and a bicycle to comfortably travel side-by-side. Shared lane markings also provide a wayfinding element along bike routes, requires no additional street space, reduces incidences of wrong-way bicycling, and encourages safe passing by motorists.

According to the Manual on Uniform Traffic Control Devices (MUTCD), shared lane markings cannot be placed on shoulders, in designated bicycle lanes, or to designate bicycle detection

FIGURE 11. SHARED LANES WITH SHARROWS IN RESIDENTIAL AREA

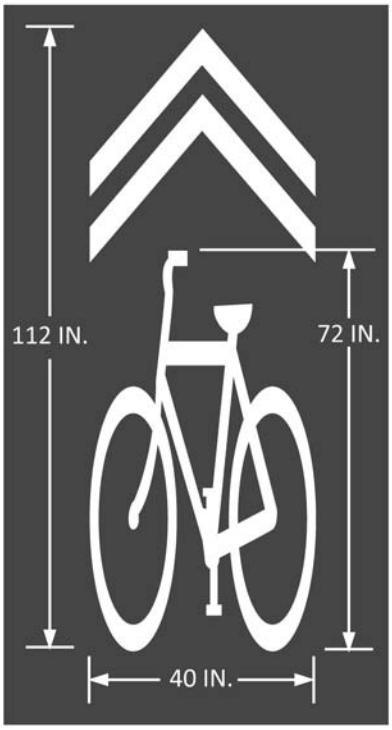


3 NACTO. *URBAN BIKEWAY DESIGN GUIDE*. 2ND EDITION. WASHINGTON D.C., 2014, P. 133
4 *URBAN BIKEWAY DESIGN GUIDE*. P. 135

at signalized intersections.[5] On streets with posted 25 mph speeds or slower, the shared lane marking should be placed in the center of the travel lane, however they should not be used on streets with 35 mph or faster posted.

The shared lane markings in use within the United States is called the "bike-and-chevron sharrow". Figure 12 details the appropriate words, symbols, and arrow pavement markings that may be used for bicycle lanes.

FIGURE 12. SHARED LANE MARKING



Bike Lanes

Conventional Bicycle Lanes

A conventional bicycle lane is a designated space for exclusive use by bicyclist through pavement markings and signs. Conventional bicycle lanes are desirable on streets with an average daily traffic (ADT) of 3,000 or more. Bicycle lanes are also helpful for streets with a speed limit of more than 25 mph.

Conventional bicycle lanes offer a defined separation between bicyclist and automobiles. Additionally, conventional bicycle lanes visually reminds motorist of bicyclists' rights and increases predictability of bicyclists and motorists positioning. These benefits boost a bicyclists comfort and confidence on busy streets.[6]

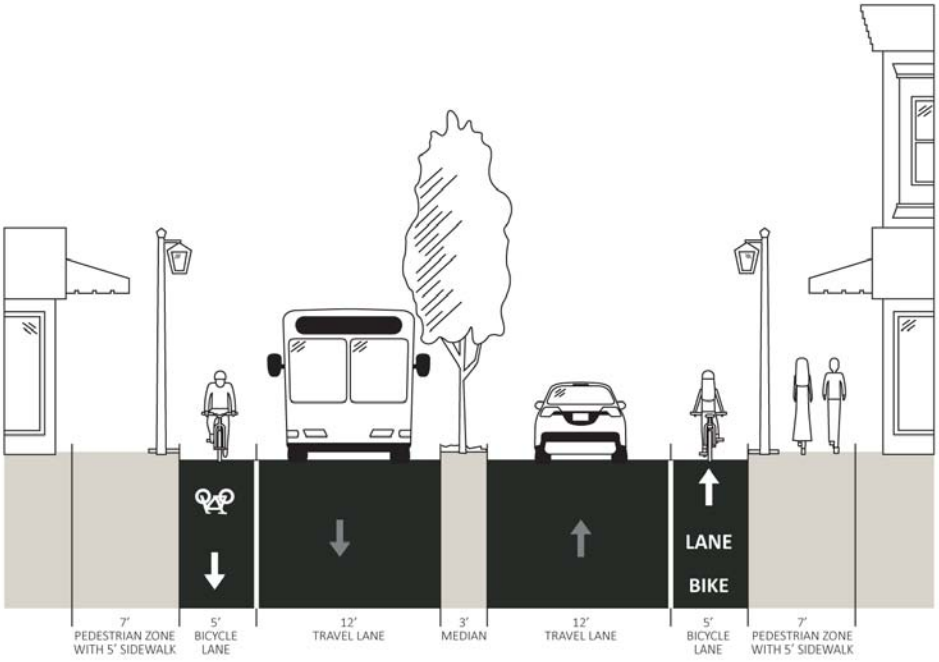
SPRING BROOK ROAD, ROCKFORD

Typically, conventional bicycle lanes are adjacent to the travel lanes on the right side of the street and flows in the same direction as motor vehicle traffic. Bicycle lanes are between the traffic lane and the curb, road edge, or parking lane.[7] Unlike shared lanes, conventional bicycle lanes have several required and recommended design standards.

Characteristics of the adjacent travel lanes, such as speed and volume, help determine the bicycle lane widths. A width of five (5) feet is recommended for conventional bicycle lanes under most circumstances, as it is the preferred operating width by bicyclists. However, certain roadway conditions increase the desirable width for conventional bicycle lanes. Wider lanes of 6- to 8-feet are recommended when a bicycle lane is adjacent to a parking lane with

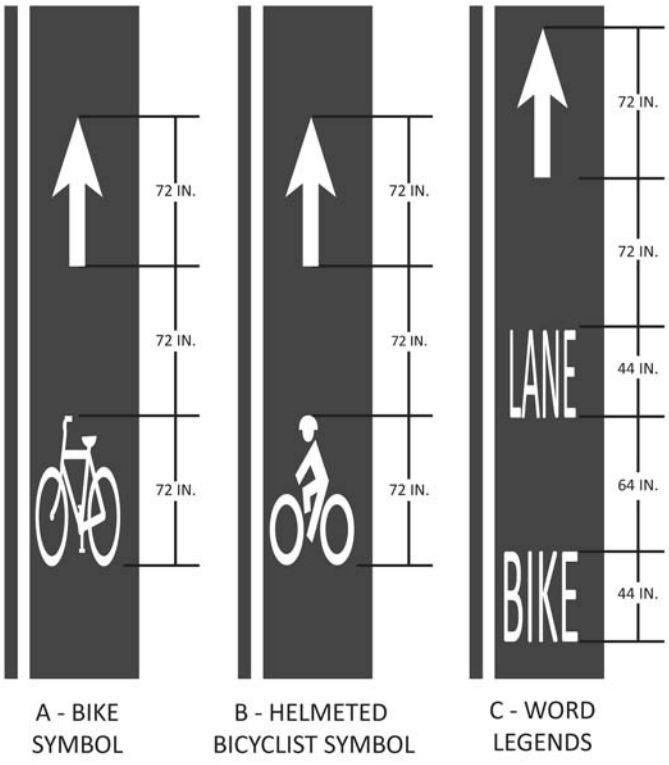
5 FEDERAL HIGHWAY ADMINISTRATION. *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. 2009 EDITION. WASHINGTON D.C., 2009, P. 9C.07 03
6 *URBAN BIKEWAY DESIGN GUIDE*. P. 5
7 *URBAN BIKEWAY DESIGN GUIDE*. P. 7

FIGURE 13. CONVENTIONAL BICYCLE LANE IN A MIXED-USE AREA



high turnover, areas with high bicycle traffic, and along high-speed and high-volume roadways.[8]

FIGURE 14. MUTCD BICYCLE LANE PAVEMENT MARKINGS



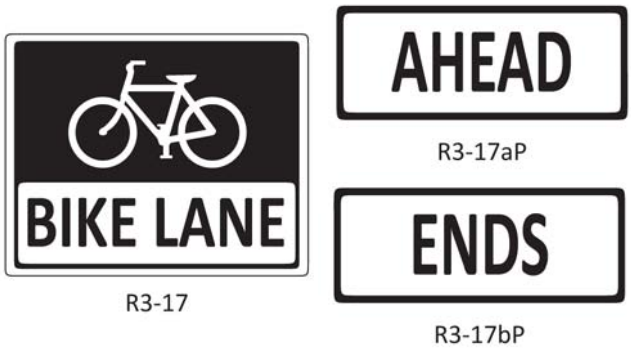
Conventional bicycle lanes are differentiated from travel lanes for the exclusive use of bicyclists by a solid white line. The solid white line should measure between 4- to 6- inches. A striped buffer can be used to provide a safeguard between a bicycle lane and another adjacent lane that could cause conflict, such as high turnover parking lanes or higher speed travel lanes.[9]

The function of markings in a bicycle lane is to indicate the separation of the adjacent travel lanes from the bicycle lane and inform all users of the road of the restricted nature of the bicycle lane.[10] According to the MUTCD, bicycle lane word, symbol, and/or arrow markings should be placed at the beginning of a bicycle lane and at periodic intervals along the bicycle lane.[11] The bicycle lane symbol would precede any words or arrows that

8 *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES*, 2012. P.4-14
9 *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES*, 2012. P.4-17
10 *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. P. 806
11 *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. P. 806

might be used in conjunction with it. Figure 14 details the appropriate words, symbols, and arrow pavement markings that may be used for bicycle lanes.

FIGURE 15. MUTCD BICYCLE LANE SIGNS



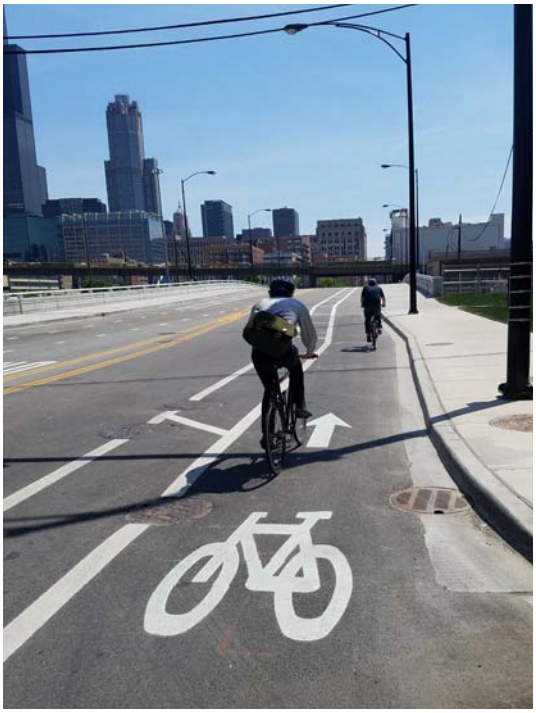
Several standard signs may be used to supplement bicycle lane lines and markings, however their effectiveness is reduced in urban areas due to the cluttered nature of roadsides and on-street parking. The standard "BIKE LANE (R3-17)" sign along with the "AHEAD (R3-17aP)" or "ENDS (R3-17bP)" plaques could be placed to alert all road users to the bicycle lanes. The "BIKE LANE (R3-17)" sign along with the "AHEAD (R3-17aP)" plaque may be placed ahead of the start of the lane, while the "BIKE LANE (R3-17)" sign with the "ENDS (R3-17bP)" plaque can be placed at a sufficient distance in order to give warning to bicyclists.[12] The standard sign and two plaques can be seen in Figure 15.

Buffered Bicycle Lanes

A buffered bicycle lane is a conventional bicycle lane paired with a designated buffer space to increase lateral separation between bicyclist and motor vehicles. Buffered bicycle lanes can be considered anywhere a conventional bike lane is being considered and are desirable on streets with high travel speeds, high traffic volumes, and high amounts of truck traffic.[13]

Buffered bicycle lanes offer a greater separation between bicycles and motor vehicles while providing more room for bicyclists to pass other bicyclists and avoid the door zone of on-street parking. Additionally, the buffer adds more space without appearing too wide to be mistaken for an automobile travel lane. In turn, a buffered bicycle lane makes a wider cross-section of bicyclists' feel comfortable riding on a busy street.[14]

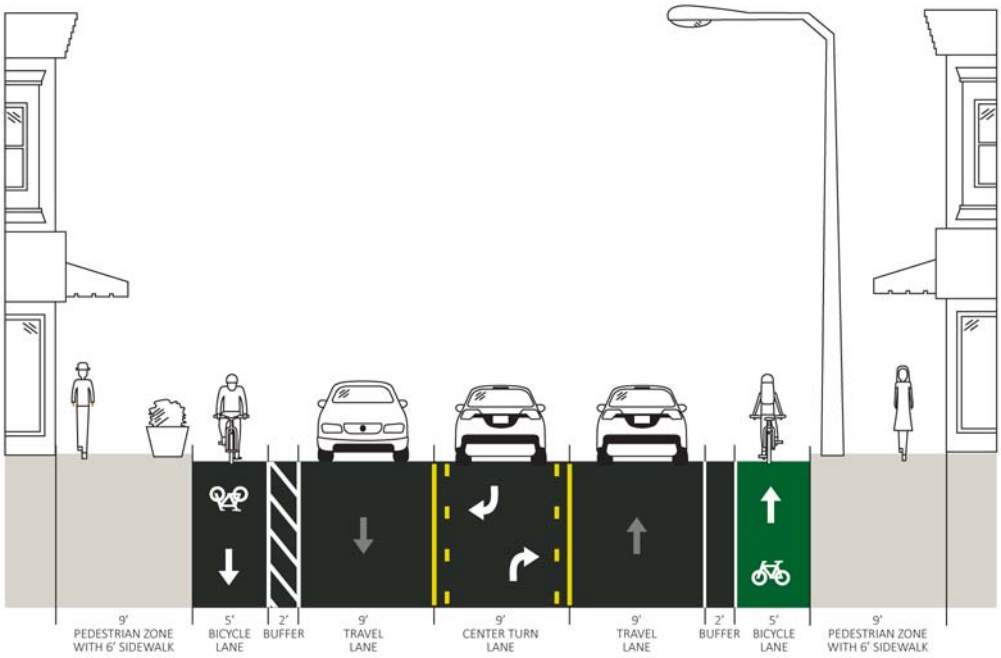
Similar to conventional bicycle lanes, buffered bicycle lanes are typically adjacent to the travel lanes on the right of the street and flows in the same direction as motor vehicle traffic. Several required and recommended design standards are associated with buffered bicycle lanes.



BUFFERED BICYCLE LANE, DOWNTOWN CHICAGO

12 *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. P. 806
13 *URBAN BIKEWAY DESIGN GUIDE*. P. 19
14 *URBAN BIKEWAY DESIGN GUIDE*. P. 19

FIGURE 16. BUFFERED BICYCLE LANES IN A COMMERCIAL AREA



The combined width of the buffer(s) and the travel side of the buffered bicycle lane are considered the "bike lane width." A width of five (5) feet is recommended for the travel side of the bicycle lane. However, when buffers are used, a total bicycle lane can be narrower because the distance between a moving vehicle and the bicyclists is assumed by the buffer.[15]

Buffers should be at least two (2) feet wide and marked with two (6-8") solid white lines. If the buffer is at least three (3) feet wide, white diagonal hatching should be used. In addition to the diagonal hatching, constructing the interior of the buffer area using different paving materials could better define the buffer between the bicycle lanes and automobile travel lanes.[16] Signage for buffered bicycle lanes are the same as the conventional bicycle lanes.

Separated Bicycle Lanes

A separated bicycle lane is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and combines the experience of a shared use path with the on-street infrastructure of a conventional bike lane. A separated bicycle lane is physically separated from the travel lanes, like a buffered bicycle lane, but also has the added delineation of a vertical element. Separated bicycle lanes should be considered when high traffic counts, high speed traffic, and high parking turnover may cause bicyclists to feel stressed.[17] Separated bicycle lanes are sometimes called cycle tracks or protected bicycle lanes.

Separated bicycle lanes provide protection of designated space for bicyclists to feel more comfortable and safe, and eliminates the risk of a bicyclist being stuck by an over-taking vehicle or car door. Additionally, separated bicycle lanes are conducive to use by bicyclist of all ages and skill levels.[18]

15 *URBAN BIKEWAY DESIGN GUIDE*. P. 20
16 *URBAN BIKEWAY DESIGN GUIDE*. P. 20
17 *URBAN BIKEWAY DESIGN GUIDE*. P. 60
18 *URBAN BIKEWAY DESIGN GUIDE*. P. 60

A one-way separated lane on a one-way street can be placed on either side of the street, but a left-side-running separated lane can only be placed under certain conditions. A one-way separated lane on a two-way street will typically run along the outside of the travel lanes (See Figure 17). Two-way separated bike lanes can be placed on the right-side of a one-way street or on the right-side of a two-way street, this is known as a two-way cycle track (See Figure 18).[19]

The preferred width for a one-way separated lane on a one-way or two-way street is seven (7) feet. The preferred width for a two-way separated lane on a one-way or two-way street is twelve (12) feet.

Buffer width is dependent on the form of separation used. For delineator posts, a three (3) foot buffer is preferred with 10'-40' spacing between posts. For bollards, a 1.5'-3' buffer is preferred with 10'-40' spacing between posts. For concrete barriers, a three (3) foot buffer is preferred with continuous spacing. For a raised median, 16" is preferred with continuous spacing, and six (6) inch typical curb height.

Markings for separated bicycle lanes are the same as the conventional bicycle lanes and buffered bicycle lanes. Signage for buffered bicycle lanes are the same as the conventional bicycle lanes and buffered bicycle lanes.

SEPARATED BICYCLE LANE, STATE STREET BRIDGE, ROCKFORD

ALPINE SHARED USE PATH BRIDGE WITH BOLLARDS, MACHESNEY PARK

19 FHWA. *SEPARATED BIKE LANE PLANNING AND DESIGN GUIDE*. WASHINGTON D.C., 2015. P. 77-82

FIGURE 17. SEPARATED BICYCLE LANES IN A COMMERCIAL AREA

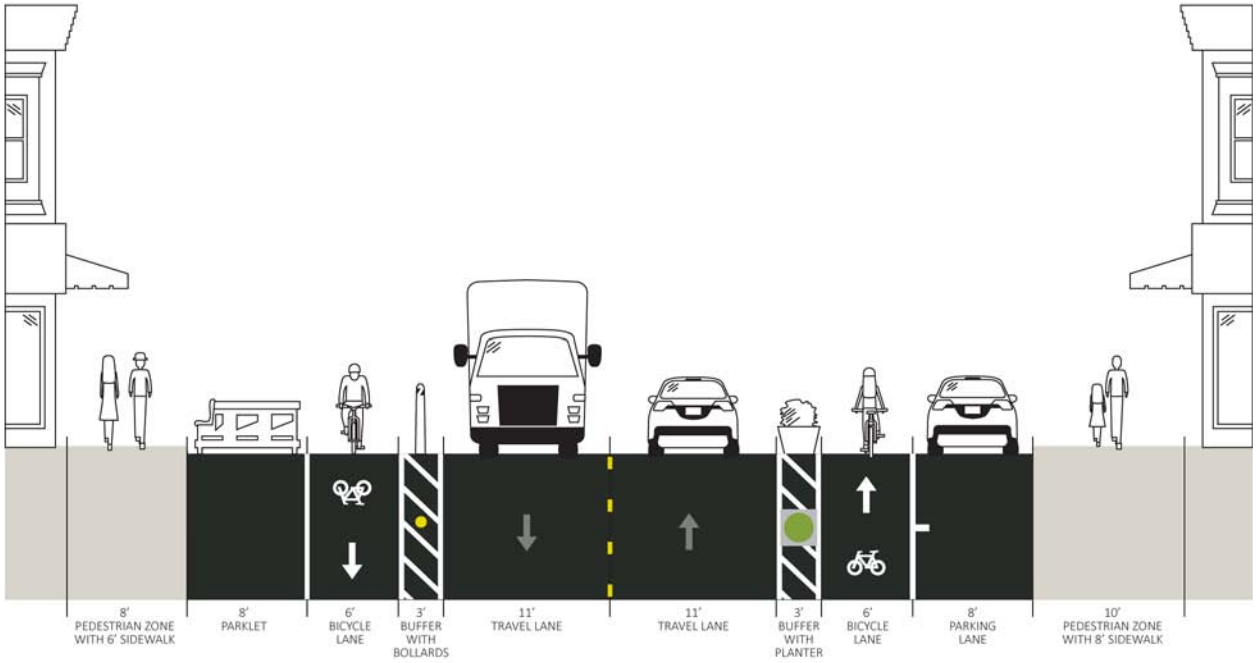
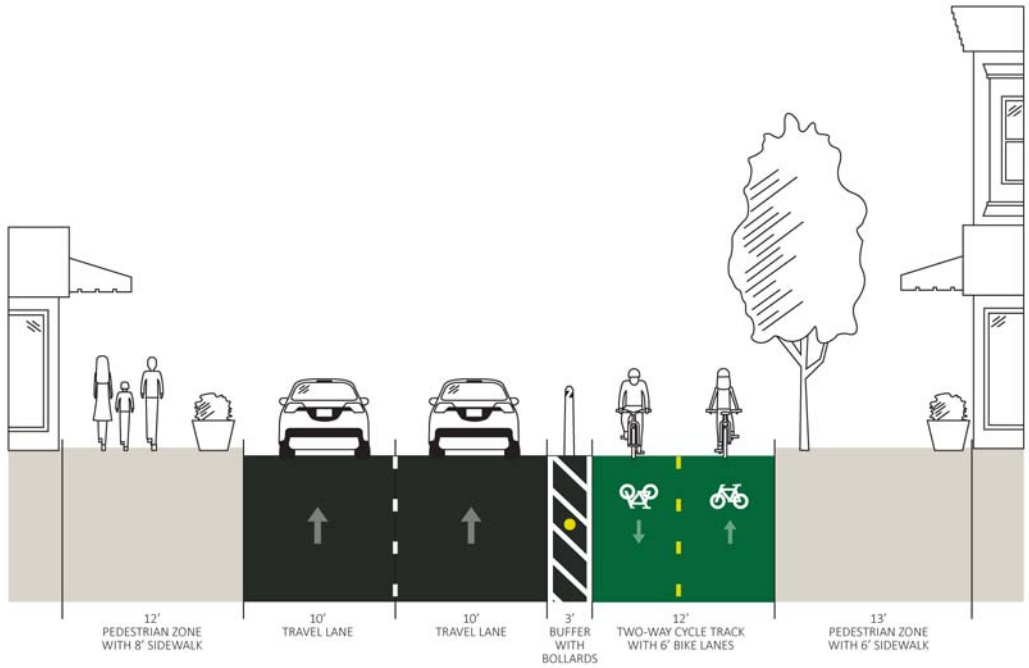


FIGURE 18. TWO-WAY CYCLE TRACK IN A COMMERCIAL AREA



Pedestrian Facilities

Everyone is a pedestrian at one time or another. The MUTCD's defines a pedestrian as a person afoot, in a wheelchair, on skates, or on a skateboard. The pedestrian facilities detailed below have been identified as effective measures to enhance the overall safety and experience of pedestrians on public right-of-way.

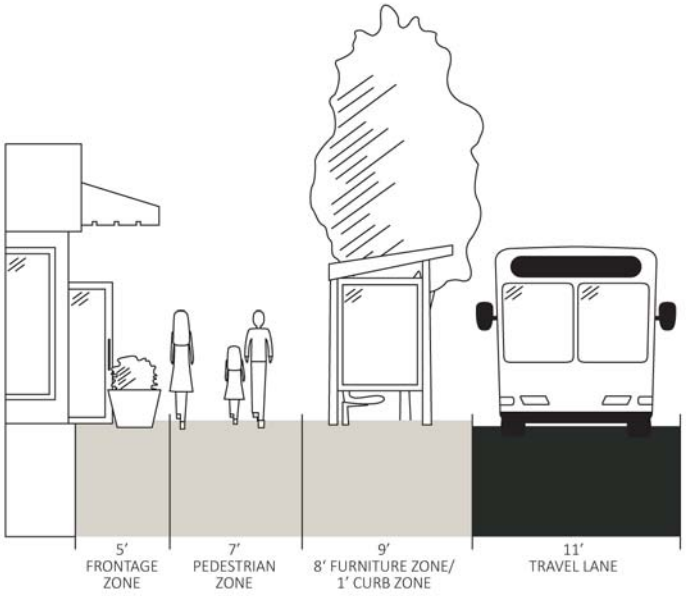
Sidewalks

Sidewalks play a key role in cities by serving as critical links in the transportation network. Sidewalks provide pedestrian access to commercial districts, schools, government offices, recreation areas, and transit stops. Investing in safe, well-maintained sidewalks is fundamental and necessary for cities. High quality sidewalk design encourages walking by making it more attractive, which has been found to enhance general public health, maximize social capital, and contribute to a high quality of life. Additionally, high quality sidewalks can enhance the economic strength of commercial districts by allowing them to be accessible to a greater majority of the population.

Having distinct, function zones of pedestrian ways, referred to as a "Sidewalk Zone System" ensures that the needs of pedestrians are prioritized. Additionally, the Sidewalk Zone System makes it easier to meet the basic ADA requirements for a continuous and obstruction-free sidewalk.[20] Similar to selecting bicycle facilities, the combination of functional zones depends on the setting, surrounding land use, motor vehicle speed and volumes, existing infrastructure, and potential modal conflicts. Sidewalks in downtown urban areas will vary from residential neighborhoods and rural areas. Each of the four function zones within a sidewalk zone system has a distinct and specific function. The four zones within the Sidewalk Zone System are:

1. Curb zone;
2. Furniture zone;
3. Pedestrian zone; and
4. Frontage zone.

FIGURE 19. SIDEWALK ZONE SYSTEM



Curb Zone

The curb zone is the area of the sidewalk immediately adjacent to the roadway. This zone is also referred to as the edge zone. The area between the curb zone and the furniture zone provides the minimum necessary separation between the roadway and pedestrians. The curb zone can play an integral role in the drainage system and prevents access

20 HALUPKA, PAUL, LIPPENS, PAUL, PERSKY, DAN, & WOODALL, AMANDA. *COMPLETE STREETS COMPLETE NETWORKS: A MANUAL FOR THE DESIGN OF ACTIVE TRANSPORTATION*. ACTIVE TRANSPORTATION ALLIANCE, CHICAGO, IL: 2012. P. 86-87

water from collecting on the sidewalk.[21] The curb also discourages motor vehicles from driving or parking onto the sidewalk. The curb zone has a minimum width of six (6) inches with a target width between one to two feet in both residential neighborhoods and commercial corridors. In some residential neighborhoods with open drainage, there may not be a curb zone.

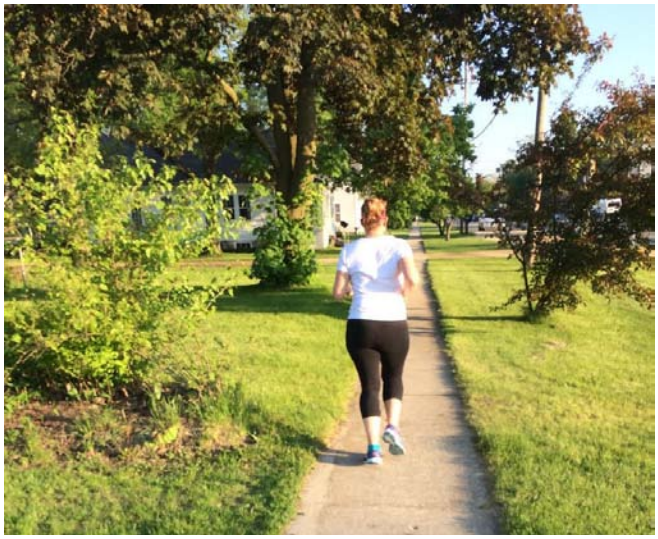
Furniture Zone

The furniture zone is found between the curb and pedestrian zones, in which street furniture and amenities are provided. Street furniture and amenities may include lighting, benches, newspaper kiosks, bicycle parking, utility poles, or trees. The purpose of this zone is to ensure that the pedestrian zone is clear of all obstacles. In residential areas, this zone is often a planting strip for trees or grass. In commercial corridors, the furniture zone is a part of the paved walkway. According to Complete Streets, Complete Networks: A Manual for the Design of Active Transportation, the desired width is five (5) feet in commercial zones and six (6) feet in residential areas. The minimum recommended width for the furniture zone is two (2) feet.

LIGHTING IN FURNITURE ZONE, ROCKFORD

Pedestrian Zone

The pedestrian zone is the primary, accessible pathway specifically reserved for pedestrian travel. It should remain free of obstacles, protruding objects, and vertical obstructions that ensures that pedestrians have a safe and adequate place to walk. The pedestrian zone is typically five (5) to six (6) feet wide in residential areas, which allows for two pedestrians to travel side-by-side or two pedestrians traveling in opposite directions to pass each other. In commercial or urban areas, sidewalks should be wide enough to accommodate groups of pedestrians traveling in both directions, approximately an eight (8) to ten (10) feet width.[22]



SIDEWALK IN RESIDENTIAL AREA, ROSCOE

21 AXELSON, PETER W., JULIE B. KIRSCHBAUM, PATRICIA E. LONGMUIR, KATHLEEN M. MISPAGEL, JULIE A. STEIN, AND DENISE A. YAMADA. *DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART II OF II: BEST PRACTICES DESIGN GUIDE*. "CHAPTER 4: SIDEWALK CORRIDORS". WASHINGTON, D.C.: U.S. DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 2001.

22 *COMPLETE STREETS, COMPLETE NETWORKS: A MANUAL FOR THE DESIGN OF ACTIVE TRANSPORTATION*. P. 86-87

Frontage Zone

The frontage zone is the area of the sidewalk that transitions to adjacent land-uses. This zone is the section of the sidewalk that functions as an extension of the building. Pedestrians tend to avoid walking to close to property line barriers, such as storefront areas, in which many doorways swing into the sidewalk corridor. In residential areas or areas with wide open space, the frontage zone can be completely eliminated in many cases. The minimum frontage zone in commercial areas is one foot. However, a larger (5- to 10-foot) frontage zone provides improved access to buildings and areas for café seating and sidewalk sales.[23]

CAFE SEATING IN SIDEWALK FRONTAGE ZONE, BELVIDERE

Crosswalks

Crosswalks serve as the pedestrian right-of-way across a street. At all intersections, it is implied and legal for a pedestrian to cross the street, whether or not the crosswalk is marked, unless it is specifically prohibited. Intersections should be designed with the premise that pedestrians will be present and that they should be able to cross the street safely. The level of connectivity for pedestrian facilities is directly related to the placement and frequency of location where pedestrians are permitted to cross the street.[24]

MIDBLOCK CROSSING AT THE CORONADO THEATER, ROCKFORD

Vehicle traffic volumes are not enough to determine where pedestrian crossing treatments should be applied. The application of a crosswalk should be based on several factors, including land uses, present and future demand, pedestrian compliance, speed, safety, and crash history.[25] Additionally, pedestrians should be able to cross streets at regular intervals, as they should not be expected to go a quarter mile or more out of their way to take advantage of a controlled intersection.[26]

Marked crosswalks indicate optimal or preferred locations for pedestrians to cross. Marked crosswalks serve two functions: provide guidance to pedestrians crossing roadways at intersections and serve to alert motorists of a pedestrian crossing point. According to the Illinois Bureau of Local and Streets Guide, crosswalks should be marked at all intersections

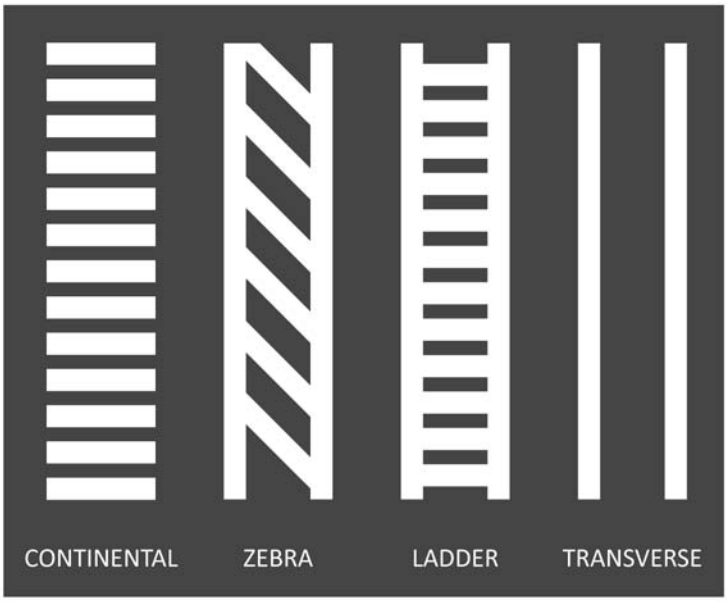
23 *COMPLETE STREETS, COMPLETE NETWORKS: A MANUAL FOR THE DESIGN OF ACTIVE TRANSPORTATION*. P. 86-87
24 AASHTO. *GUIDE FOR PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES*, 2004. WASHINGTON, DC, JULY 2004. P. 81
25 NACTO. "CROSSWALKS AND CROSSINGS." *URBAN STREET DESIGN GUIDE*. 2013. HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/INTERSECTION-DESIGN-ELEMENTS/CROSSWALKS-AND-CROSSINGS/
26 GUIDE FOR PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES. P. 81

where there is substantial conflict between motor vehicular and pedestrian movements.

Marked crosswalks can also be used to create a midblock crossing. Midblock crossings can help supplement crossing needs in areas where intersections are spaced far apart or substantial pedestrian generators are located between intersections, such as schools or hospitals. Designated midblock crossings should not be installed where sight distance or sight lines are limited for motorists or pedestrians.

Characteristics of the approaching sidewalks and the land use context help determine the width of the crosswalk. The crosswalk should be striped as wide as or wider than the sidewalk it connects to. However, the width for a marked crosswalk should not be less than six (6) feet. In central business districts, it might be necessary to have wider crosswalks measuring ten (10) feet wide. The crosswalk lines should extend the full length of the crossing.[27]

FIGURE 20. CROSSWALK MARKING PATTERNS



A variety of pavement marking patterns are used. The type of marking chosen is based on the local transportation engineer and cost considerations. Typical patterns, as shown in Figure 20, include transverse lines, ladder, continental, and diagonal (zebra) markings. Transverse lines are considered the standard crosswalk marking pattern, with ladder and continental markings reserved for uncontrolled intersections or midblock crossings. According to the MUTCD, all crosswalk markings must be white.

FIGURE 21. MUTCD PEDESTRIAN SIGNS

R1-5b

R1-5c

"STOP FOR PEDESTRIANS" SIGN, EAST STATE STREET, ROCKFORD

27 GUIDE FOR PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES. P. 81

Additional markings that can accompany crosswalks are advanced stop or yield lines. An advanced stop or yield line can be placed 20 to 50 feet ahead of a crosswalk to reduce the likelihood of a multiple-threat crash at signalized midblock crossings. The purpose of an advanced stop or yield line is to improve visibility of pedestrians to motorists and vice versa. The line encourages motorists to stop far enough back for a pedestrian to see if a second motor vehicle is approaching the crosswalk. These advanced warning lines are most effective when paired with a "Stop (or Yield) Here for Pedestrians" (R1-5b) signs approved by MUTCD, shown in Figure 21.

Curb Ramp

Curb ramps provide access between the sidewalk and the street for people using wheelchairs, strollers, walkers, crutches, handcarts, and for individuals with mobility impairments that limit their ability to step up and down high curbs. Federal legislation requires the installation of curb ramps at all intersections and mid-block locations where pedestrian crossings exist.

FIGURE 22. CURB RAMP

DOWNTOWN BELVIDERE

The appropriate type of curb ramp that should be used is based on sidewalk width, curb height, curb radius, and the topography of the street corner.[28] However, it is preferable that a separate curb ramp for each crosswalk at an intersection should be provided rather a single ramp at a corner, as it provides orientation for visually impaired individuals. Additionally, tactile warnings on the ramp alert individuals to the sidewalk/street edge.

Raised Medians/Pedestrian Refuge Islands

Raised medians or pedestrian refuge islands are protected spaces placed in the center of the roadway between opposing lanes of traffic. Raised medians and pedestrian refuge islands allow pedestrians to cross one direction of traffic at a time. There is also a reduced amount of delay incurred by pedestrians waiting for a gap in traffic to cross where these treatments have been implemented.[29] Additional benefits include reduction of motor vehicle crashes, decreased delays for motorists, reduction of vehicle speeds on the roadway, provide space for landscaping within the right-of-way, provide space to install additional roadway lighting, provides space for supplemental signage on multi-lane roads, and be less expensive to build and maintain than paved medians.[30]

The Federal Highway Administration (FHWA) encourages the use of raised medians and refuge islands in areas where there is a mix of pedestrians, high volumes of traffic (more than 12,000 vehicles a day) and intermediate to high speed limits.[31]

28 *GUIDE FOR PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES*. P. 86
29 FEDERAL HIGHWAY ADMINISTRATION. *SAFETY BENEFITS OF RAISED MEDIANS AND PEDESTRIAN REFUGE ISLANDS*. 2013. P. 5
30 FEDERAL HIGHWAY ADMINISTRATION. *SAFETY BENEFITS OF RAISED MEDIANS AND PEDESTRIAN REFUGE ISLANDS*. 2013. P. 6
31 FEDERAL HIGHWAY ADMINISTRATION. *SAFETY BENEFITS OF RAISED MEDIANS AND PEDESTRIAN REFUGE ISLANDS*. 2013. P. 7

According to NACTO's Urban Street Design, pedestrian refuge islands should be at least six (6) feet wide, but the preferred width is eight (8) to ten (10) feet. Where a six (6) foot wide median cannot be accommodated, a narrower raised median is still preferable to nothing. It is preferable to have the crosswalk "cut-through" the median and should be as equal width of the crosswalk markings.[32] A pedestrian refuge island is shown in Figure 23.

FIGURE 23. PEDESTRIAN REFUGE ISLAND

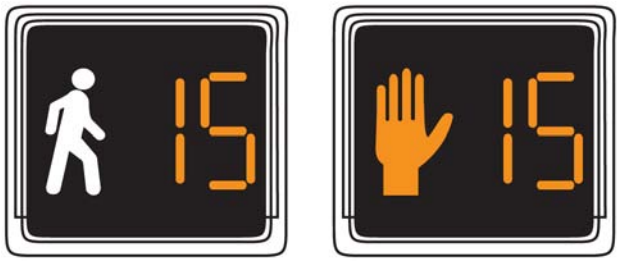
HARLEM BOULEVARD, ROCKFORD

Pedestrian Signals

In general, all pedestrian signals perform the same function – establish a period of time when it is safest for pedestrians to cross the road. Signals provide guidance to pedestrians regarding the permitted signal interval to cross a street or prohibit crossing when conflicting traffic may impact their safety. According to the MUTCD, pedestrian signals should be used if (1) an exclusive pedestrian signal phase is provided at a signalized intersection, (2) there is an established school crossing at a signalized location, (3) if a signal would reduce vehicle/pedestrian conflicts, (4) pedestrians are only permitted to cross a portion of the street during a single phase interval, or (5) if the vehicle traffic signals are not invisible to pedestrians crossing the street.

The MUTCD also provides guidance regarding the symbols and illumination that is used in pedestrian signals to identify "Walk" and "Don't Walk" phases, shown in Figure 24. The steady international pedestrian symbol is preferred and recommended to indicate the "Walk" phase for pedestrians who are facing the signal. There are two "Don't Walk" phases associated with the "Upraised Hand" symbol. The flashing "Upraised Hand" symbol is used to indicate when pedestrians should not start to cross the road. The steady "Upraised Hand" symbol means that pedestrians are not permitted to enter the roadway. Countdown pedestrian indicators are required for all newly installed traffic signals. The countdown indicator must be designed to begin counting down at the beginning of the flashing "Don't Walk" interval and can be on a fixed-time or push button operation.[33]In addition to the standard pedestrian signals at intersections, there are several other types of pedestrian signals that can be located at midblock crossings, including:

FIGURE 24. MUTCD PEDESTRIAN CROSSING SIGNAL WITH COUNTDOWN



32 NACTO. "PEDESTRIAN SAFETY ISLANDS" *URBAN STREET DESIGN GUIDE*. 2013. HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/INTERSECTION-DESIGN-ELEMENTS/CROSSWALKS-AND-CROSSINGS/PEDESTRIAN-SAFETY-ISLANDS/

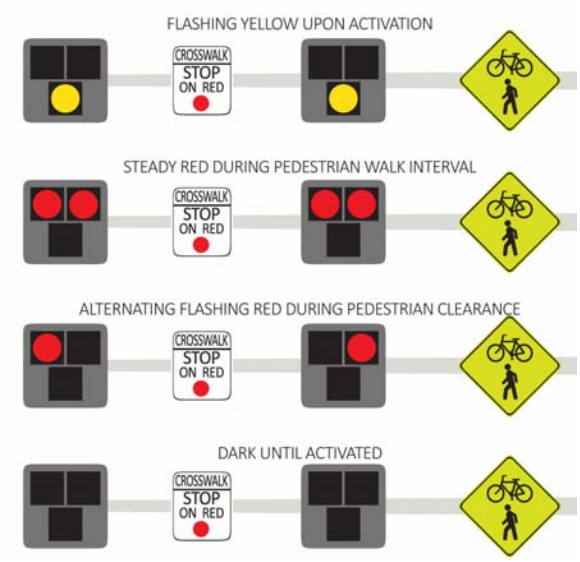
33 "PEDESTRIAN SIGNALS" HTTP://WWW.PEDBIKEINFO.ORG/PLANNING/FACILITIES_CROSSINGS_PEDSIGNALS.CFM. (MARCH 15, 2017.)

- A Rectangular Rapid Flash Beacon (RRFB) warns approaching vehicular traffic that people are entering the roadway at the crosswalk ahead. When the signal is activated by a person waiting to cross, the signal's lights flash rapidly to capture the attention of motorists (See Figure 25).

- A High-Intensity Activated Crosswalk (HAWK) signal permits a safe crossing of pedestrian traffic at crosswalks with irregular activity and ones located away from standard traffic signals, such as mid-block crossings. A series of flashing or steady and red or yellow lights indicate when vehicular traffic should slow down, stop and wait at the line, and proceed over the crosswalk. The Hawk signal is activated by a pedestrian push button.

FIGURE 25. RECTANGULAR RAPID FLASH BEACON

FIGURE 26. HIGH-INTENSITY ACTIVATED CROSSWALK SIGNAL



Shared Use Paths

Shared use paths are a multi-use trail or other path physically separated from motorized vehicular traffic by an open space or barrier. These facilities may be within a roadway right-of-way or within an independent right-of-way. Shared use paths may be used by pedestrians, bicyclists, skaters, and other non-motorized users. Shared use paths should be thought of as off-road transportation routes that extends or compliments the existing roadway network and should not be used to substitute on-street bicycle facilities and sidewalks.[34]

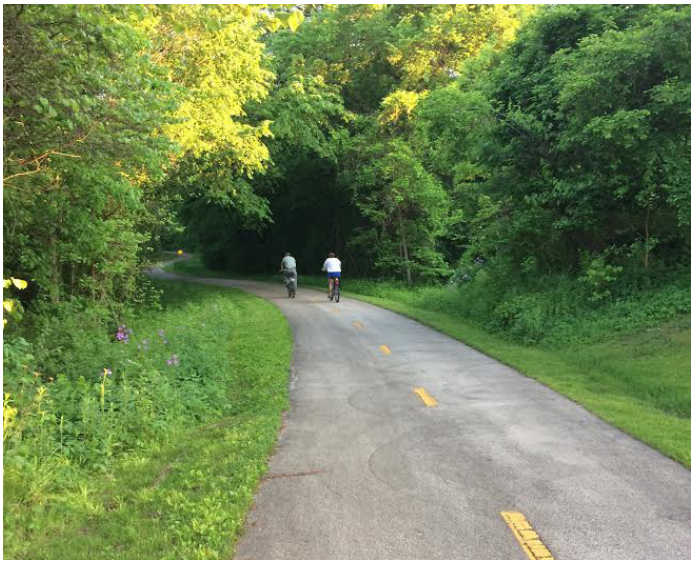
Since paths are designed to be used by pedestrians, they fall under ADA requirements. If a path is constructed in the public right-of-way to function as a sidewalk, it must fall in accordance with the Public Right-of-Way Accessibility Guidelines (PROWAG). A shared use path constructed in an independent right-of-way should meet the guidelines in the Accessibility Guideline for Shared Use Paths.

Shared use paths provide transportation links and recreational opportunities for users of all ages and abilities. Paths can provide shortcuts through residential neighborhoods and provide access

34 *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2012.* P.5-2

to schools. Additionally, paths can provide a commuting route between residential areas and job centers.

Shared use paths may be within a roadway right-of-way or within an independent right-of-way. Paths that run adjacent to roadways are called "side paths". Typically, paths are designed for two-way traffic.



STONE BRIDGE TRAIL. ROSCOE

The preferred width for a shared use path is 12 to 14 feet. The minimum width of a path is eight (8) feet, however, it should only be used if bicycle traffic is expected to be low, pedestrian use of the facility is not expected to be more than occasional, there are well-designed passing and resting areas, and the path will not be regularly subjected to maintenance vehicles.[35]

Adequate separation from the roadway should create a buffer between motor vehicles and the shared use path users. The separation can consist of a tree row, shoulder, or parking lane.

The MUTCD provides guidance standards of signs and markings for shared use paths. Stops signs should be installed on paths at points where bicyclists are required to stop. Additionally, yield signs should be installed at points where bicyclists have an adequate view of conflicting traffic and are required to yield the right-of-way to that of conflicting traffic. Warning signs, object markers, mode-specific signing, and guide signs are also permitted on shared use paths. Where there are two designated lanes, a yellow line may be used to separate the two directions of travel. A solid yellow line may be used where passing is not permitted and a dashed yellow line where passing is permitted.[36]

RIVERWALK AT THE ROCKFORD MUSEUM PARK, ROCKFORD

35 *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2012*. P.5-3
36 *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. P. 806

Complete Streets

Complete streets is a transportation policy and design approach that requires streets to be planned, designed, and maintained to enable safe, convenient and comfortable travel. At the core of the complete streets philosophy is the idea that pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a street.

There is no single formula or approach to creating Complete Streets. Each complete street is unique and responds to the context of the surrounding area. Elements that may be found on a complete street include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and more. A complete street in a rural area looks quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.

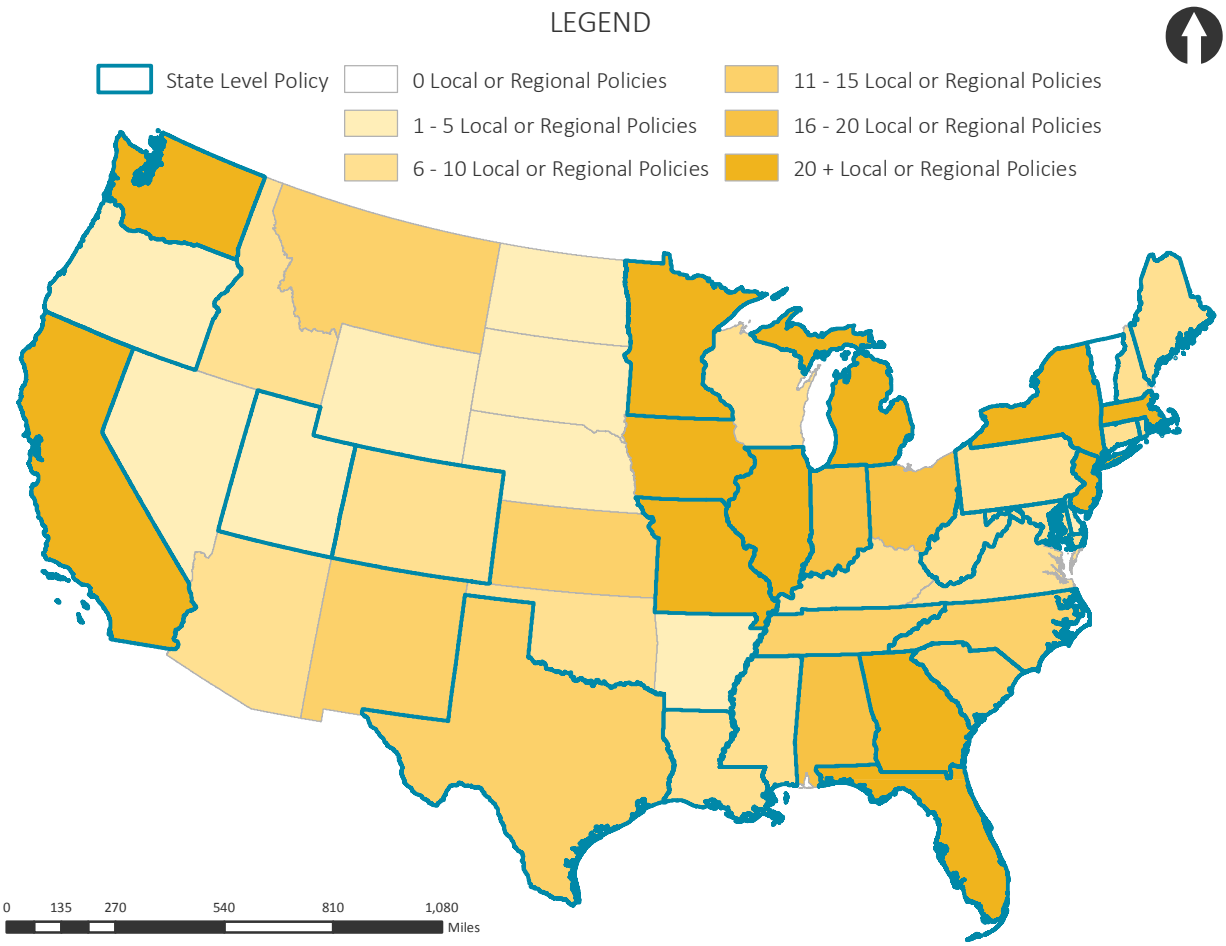
Following the proliferation of the personal automobile, American roadways were designed to move as many vehicles as quickly as possible between destinations, without much consideration of the context of the surrounding land uses. It is now readily apparent that this auto-focused design has failed to meet the needs of an increasingly growing segment of the traveling public.

In 2005, the National Complete Streets Coalition was formed in order to promote low cost retrofit options for existing roadways and to ensure that all new roadways are designed to provide safe access for all users. According to Smart Growth America, over 900 Complete Streets policies have been based in the United States, including adoption by 33 states.[37] States with statewide complete streets policies and the distribution of complete streets policies nationwide is shown

COMPLETE STREETS ELEMENTS, BELOIT, WIISCONSIN

37 "COMPLETE STREETS POLICIES NATIONWIDE." HTTPS://SMARTGROWTHAMERICA.ORG/PROGRAM/NATIONAL-COMPLETE-STREETS-COALITION/POLICY-DEVELOPMENT/POLICY-ATLAS/ (FEBRUARY 10, 2017).

MAP 4. ADOPTED COMPLETE STREETS POLICIES NATIONWIDE



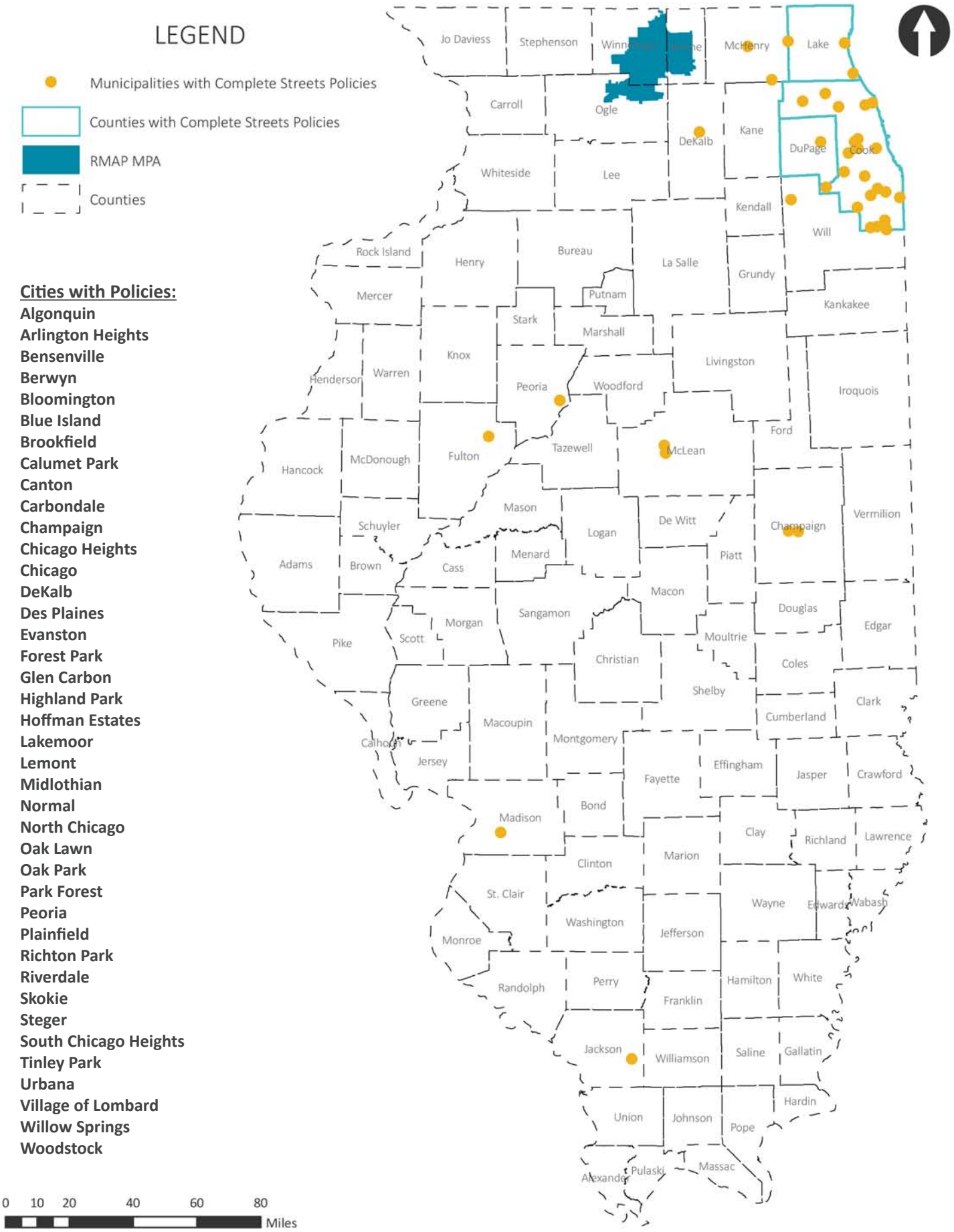
in Map 4. In 2007, the Illinois General Assembly passed the "Illinois Complete Streets Law" (Illinois Public Act 095-0665). The law reads that "Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs." This law provides the framework for Illinois municipalities, counties and metropolitan areas to establish new policies and standards to incorporate transportation facilities for all types of users into their planning, programming and implementation documents. This law ensures that pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street.

Bicycle and pedestrian facilities as well as other considerations, such as public transportation facilities have been integrated into Illinois Department of Transportation (IDOT) projects throughout the RMAP planning area since the adoption of the Illinois "Complete Street Law". As of February 2016, approximately thirty-nine Illinois municipalities and other entities that have adopted Complete Streets policies.[38] Adopted Complete Streets policies in Illinois can be found in Map 5.

Complete streets planning and design takes into account development patterns, land uses, and environmental contexts, as well as the roadway network. It should be noted that Complete Streets is an approach to all streets within a community or regional network. It is not meant to

38 "COMPLETE STREETS POLICIES." ACTIVE TRANSPORTATION ALLIANCE. HTTP://ATPOLICY.ORG/COMPLETE-STREETS-POLICIES-INDEX/ (NOVEMBER 28, 2016.

MAP 5. ADOPTED COMPLETE STREETS POLICIES IN ILLINOIS



Cities with Policies:

Algonquin
Arlington Heights
Bensenville
Berwyn
Bloomington
Blue Island
Brookfield
Calumet Park
Canton
Carbondale
Champaign
Chicago Heights
Chicago
DeKalb
Des Plaines
Evanston
Forest Park
Glen Carbon
Highland Park
Hoffman Estates
Lakemoor
Lemont
Midlothian
Normal
North Chicago
Oak Lawn
Oak Park
Park Forest
Peoria
Plainfield
Richton Park
Riverdale
Skokie
Steger
South Chicago Heights
Tinley Park
Urbana
Village of Lombard
Willow Springs
Woodstock

be applied to a singular street project.

Complete streets address the need for a connected multimodal transportation network that balances access, mobility, health, and safety needs of all roadway users. The numerous benefits of Complete Streets and active transportation include safety, health, environmental, economic, equity, and travel mode choice. More information on the benefits associated with active transportation and complete streets planning and design can be found in the Introduction section of this document on page 16.

By creating complete streets policies, agencies can change their approach to public roads and take an incremental step to ensure all users are thought of during the transportation planning process. The application of a Complete Streets policy will require coordination of plans, jurisdictions, and agencies.

These policies can come in many forms. The following are the most common types of Complete Streets policies:

- A Resolution of Support is issued by a governing or policy body. Resolutions are non-binding official statements of support for complete streets. These resolutions do not require any action, so they are often a critical first step in gathering support to furthering Complete Streets initiatives in the future. This type of policy can be enacted at the municipal, county, MPO or state level.

- An Ordinance legally requires the needs of all users to be addressed in transportation projects, and updates the city code to reflect this accordingly. They are legally binding and enforceable by law. Ordinances may be passed by all implementing agencies, including municipalities and counties.

- Updating Design Guidelines/Manuals to incorporate Complete Streets principles is the most effective means for ensuring complete streets becomes widely implemented into construction and maintenance standards. Updates of this nature may be a lengthy process. In 2010, IDOT's Bureau of Design and Environment revised its design manual to incorporate complete streets standards and treatments. Local municipalities may work in consultation with IDOT to develop local design guidelines that integrate Complete Streets treatments into local project development.

Existing Conditions: Bicycle Network

Many changes related to the bicycle network have occurred in the Rockford Metropolitan Planning Area (MPA), since the first iteration of the Bicycle and Pedestrian Plan. While shared use paths are the dominate bicycle facility choice in the region, many new on-street facilities have been added to the local bicycle network. While the region has made a stride in increasing the number and types of on-street bicycle facilities, additional facilities should be prioritized.

However, a thorough analysis of the existing network for bicycles needs to be reviewed before new infrastructure, policies, and programs can be prioritized for implementation. An analysis of the existing network includes a review of several elements that affect the existing conditions. These elements include:

- A review of the existing shared use paths and on-street bicycle facilities;
- An analysis of demand for bicycling in different areas of the region;
- An examination of the constraints and barriers that exist within the network; and
- The opportunities that might shape how bicycle infrastructure, policies, and programs are dealt with in the future.

The data used to analyze the existing conditions is derived from multiple sources, including geographical information system (GIS), municipal and county comprehensive plans, local ordinances, and surveys completed by municipal, county, and agency staff. Additional data sources include the Illinois Department of Transportation's Illinois Traffic Crash Reports, as well as the online public survey that was opened from June 1st, 2016 to July 31st, 2016.

Existing Infrastructure

Shared Use Paths

An intelligently planned shared use path system can serve as part of the transportation circulation system. Simultaneously, these paths help support an array of recreation opportunities such as walking, running, bicycling, and inline skating. Shared use paths need to be built to accommodate users that travel at fast speeds, such as a bicyclist, and also contain design features that allow those with disabilities equal access to the system. Additionally, information and signage about the trail system should clearly and objectively convey useful information to trail users, including data about surface, distance, amenities, emergency contact information, and maps showing an individual's relative location.[1]

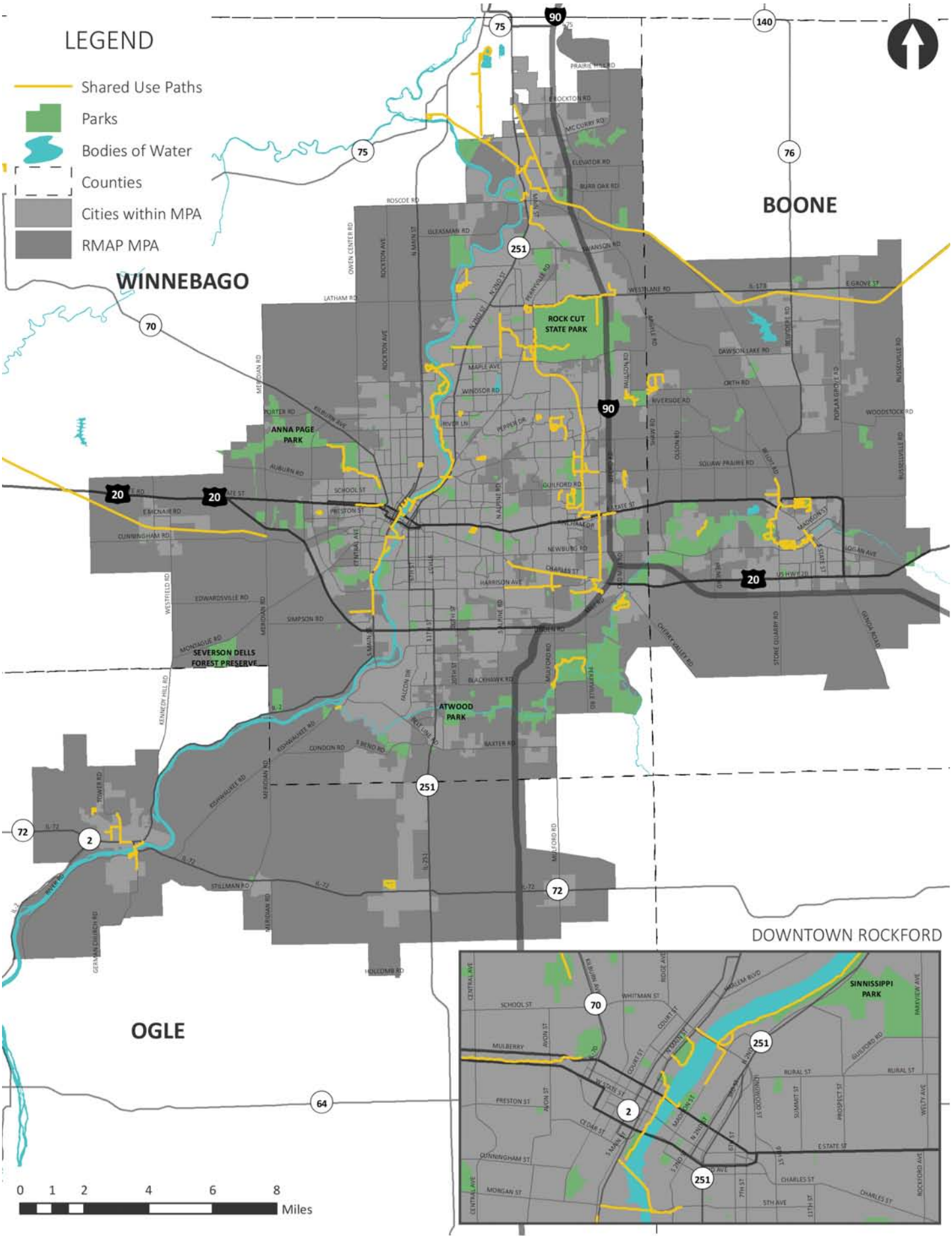
Shared use paths are the most predominate and widespread type of facility in the Rockford Metropolitan Area that's designed for bicycle use. There are 110.3 miles of shared use paths located within RMAP's MPA. Shared use paths vary in widths from eight (8) feet to 12 feet and surface materials can also vary. Some of the region's shared use paths are historic, while others have only recently been completed a month or two ago. The paths also vary greatly in length, connectivity, amenities, and other features. Some paths are designed for use within a specific neighborhood or park and do not connect anywhere else, they may even be less than 1,000 feet.

PATH IN BELVIDERE PARK, BELVIDERE

Other shared use path systems link together allowing users to travel great distances with little flow interruption or vehicle crossings. A great example is the Long Prairie Trail connecting into the Stone Bridge Path and eventually into the Hononegah Recreational Path. In total, there are 228.5 miles of proposed shared use paths within Boone and Winnebago County that were identified through the update process to the Boone and Winnebago County Greenways Map in 2015. RMAP planning staff believes that these proposed shared use path alignments should be looked at closer to reduce redundancy and to streamline the proposed network with future updates to the Greenways Plan. This will be discussed further in the Recommendations section.

1 PETER W AXELSON, JULIE B. KIRSCHBAUM, PATRICIA E. LONGMUIR, KATHLEEN M. MISPAGEL, JULIE A. STEIN, AND DENISE A. YAMADA. *DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART II OF II: BEST PRACTICES DESIGN GUIDE*. "CHAPTER 14: SHARED-USE PATH DESIGN". WASHINGTON, D.C.: U.S. DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 2001.

MAP 6. EXISTING SHARED USE PATHS



On-Street Facilities

Not all on-street bicycle facilities are equal. Depending on the available road width, right of way, geometric design, level of service, and an array of other factors may limit or constrain the type of facilities that may be permitted. Sometimes a simple restriping and reconfiguration of the lanes, often times referred to as a road diet, is all that is needed. While other times, right-of-way acquisition may be needed to safely include a bicycle facility along a major roadway corridor with high vehicular speeds. However, many times there may not be enough room on a street corridor to implement a bicycle route of any type. Bike lanes enable a bicyclist to ride at their preferred speed without interference from prevailing traffic conditions. Bike lanes also facilitate a predictable and anticipated behavior of movement between motorists and cyclists. This creates a safer environment for automobile drivers and bicyclists by letting drivers know where the edge of their lane is in relationship to a bicyclist's lane of travel.

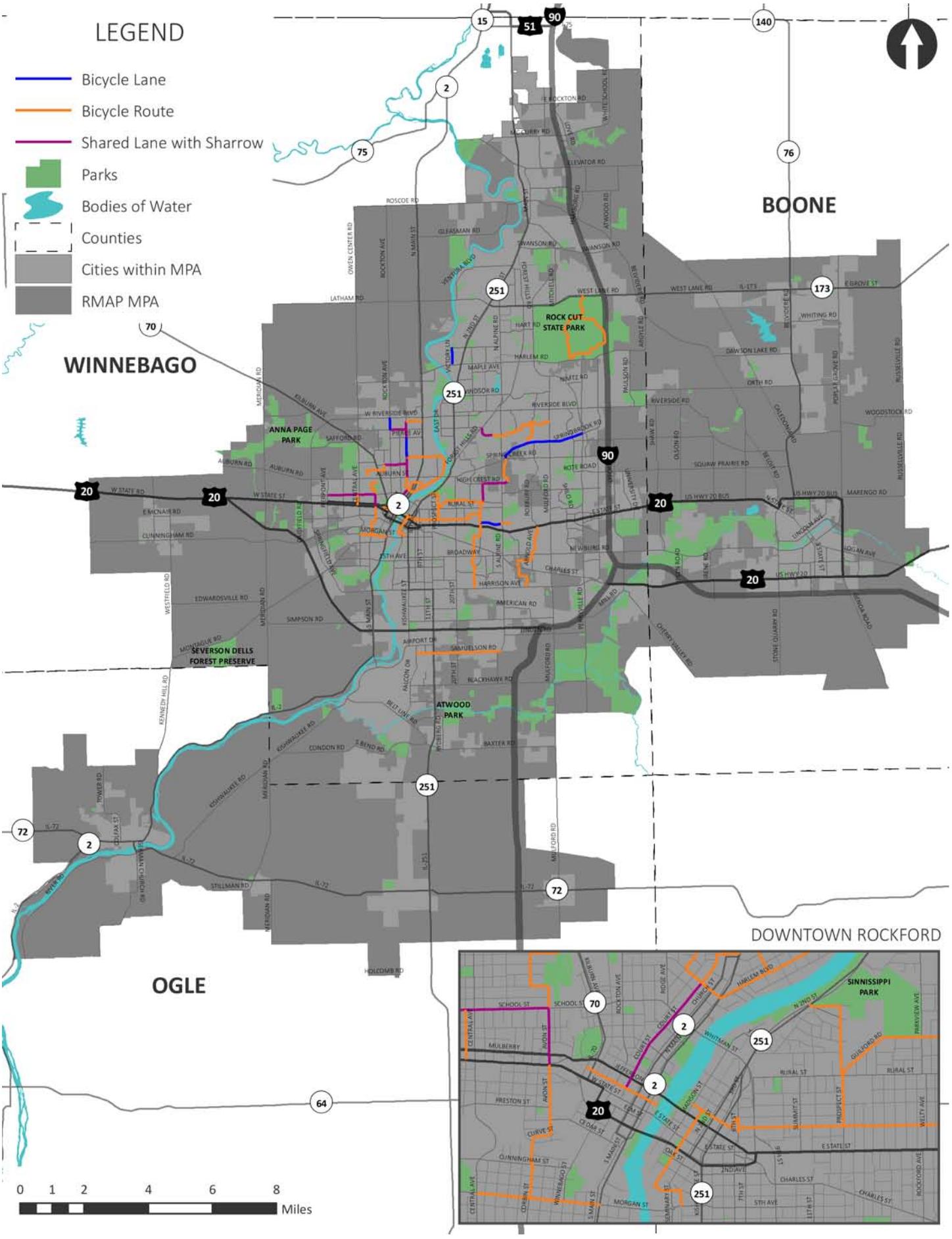
HUFFMAN BOULEVARD BIKE LANE. ROCKFORD

There are currently 45.5 miles of existing on-street bicycle facilities in Winnebago County. At this time, Boone County does not have on-street bicycle facilities. This may, in part, be attributed to the rural character of the county and the density populated downtown core of Belvidere. Further detail and advice for the inclusion of on-street bicycle facilities in Belvidere is included as part of the Recommendations section.

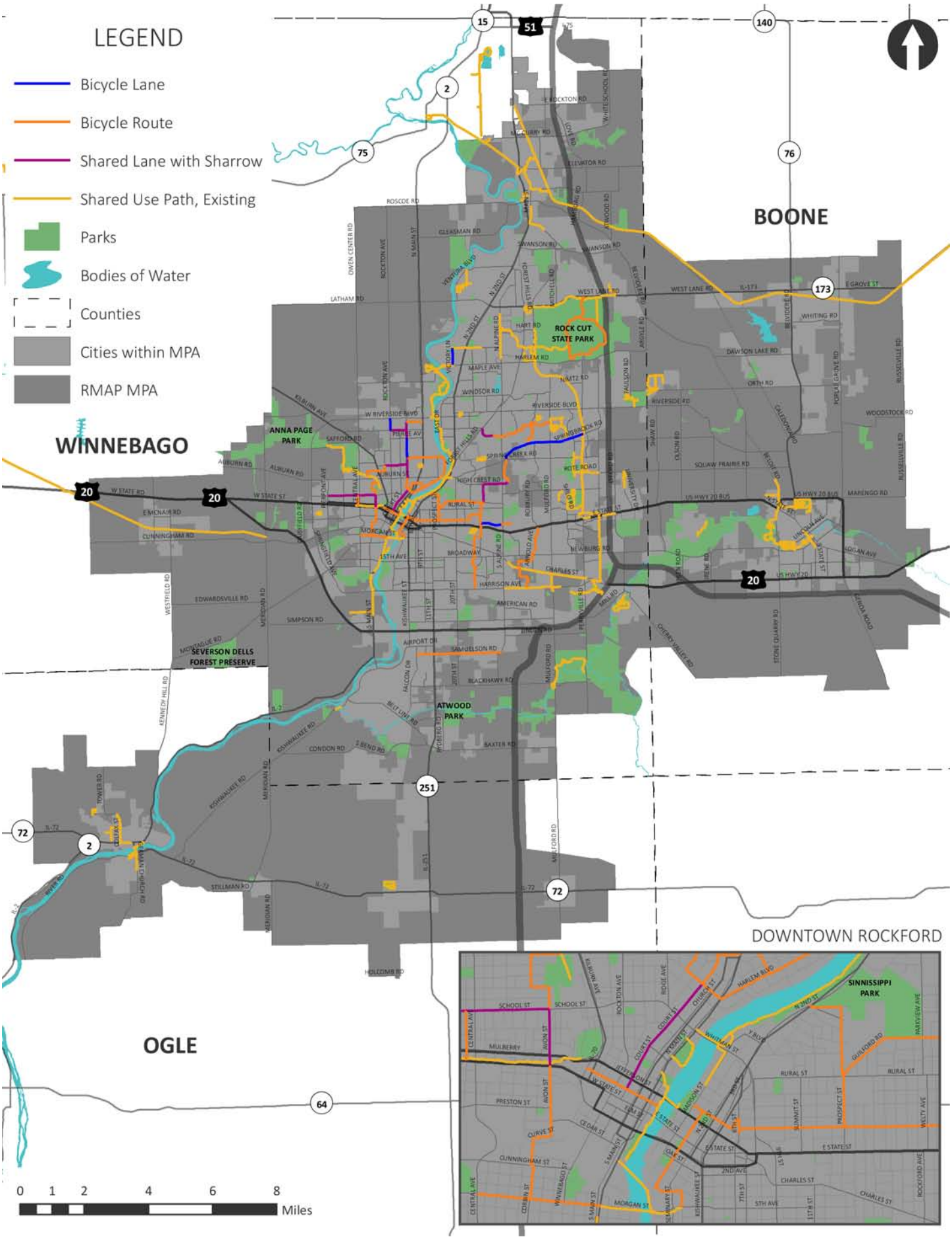
As previously mentioned in the Types of Facilities and Design Standards section of this plan, there are two main types of on-street bike facilities: shared lanes and bike lanes. The region has very limited designated bike lanes and no buffered or separated bike lanes. There are 32.8 miles of on-street bike routes that are designated by a route sign, with no pavement markings present. These are the least ideal type of on-street bicycle facility because drivers are generally unaware of the designated route due to the lack of markings. There are seven miles of on-street bike routes with a sharrow pavement marking along the route. There are only 5.7 miles of designated on-street bike lanes in the region. Bike lanes are the most preferred type of on street bike facility and increasing the number of miles for the region is greatly needed.

FIGURE 27. MILES OF SHARED-USE PATHS AND ON-STREET FACILITIES

MAP 7. EXISTING ON-STREET BICYCLE FACILITIES



MAP 8. COMPLETE BICYCLE NETWORK



Demand

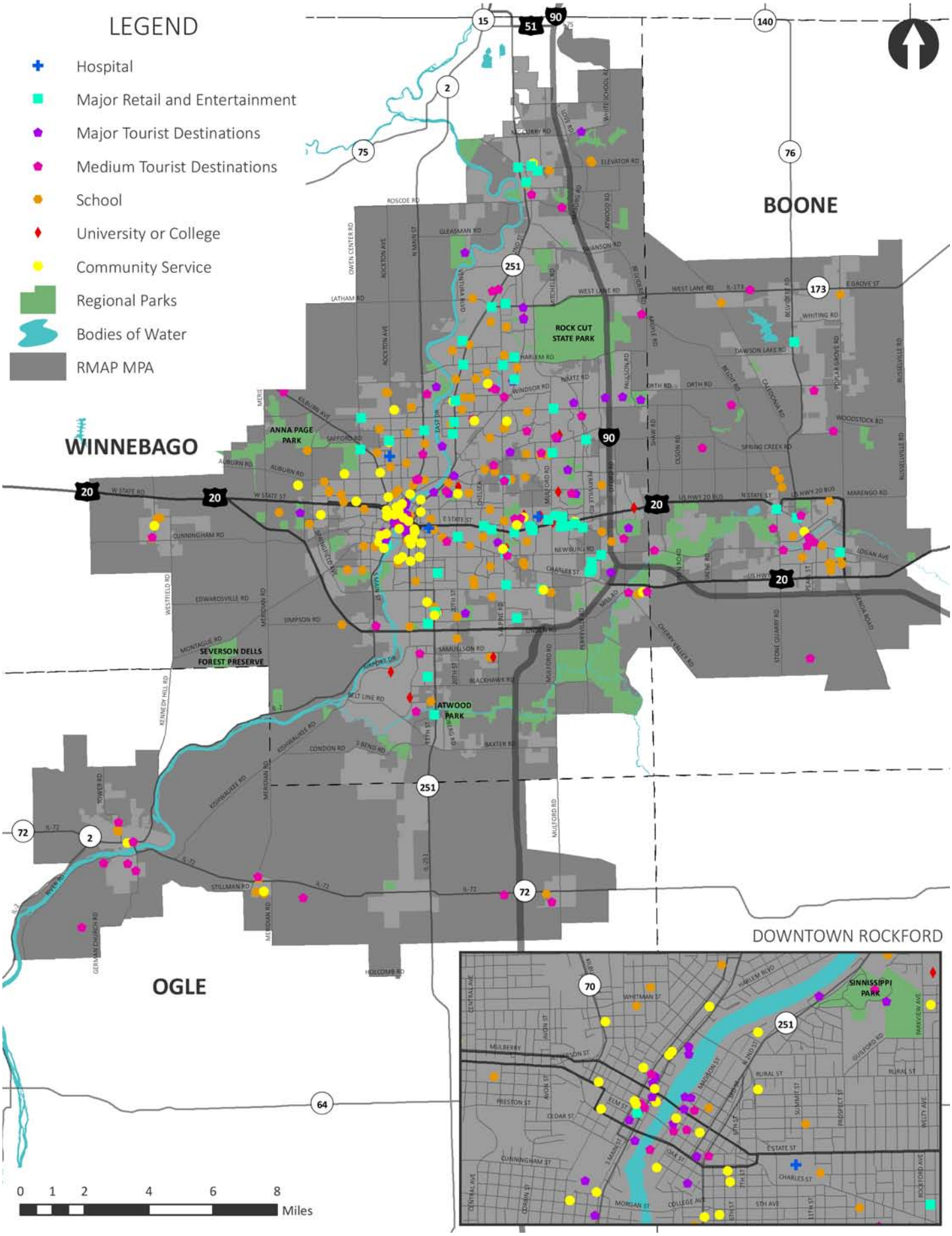
A large component of a well-connected bicycle network is how residents are able to get from their homes to parks, grocery stores, social service centers, work, and to see friends and relatives. Bicycle network demand is highly influenced by the concentrations of where people live and work, also known as generators or origins. However, generators are only one component of the demand analysis. Where people want to ride to or where they would likely ride to, if adequate facilities exist, is the second component of the demand analysis.

A bicycle demand analysis was conducted to provide a snapshot of bicycle demand based on the density of the bicycle trip generators and attractors. Demand factors were chosen to estimate the potential demand for a variety of bicycling trips, including utilitarian, commuting, and recreational trips. Demand factors can be organized into five overarching categories: live, work, learn, play/shop, and transit. Figure 28 shows the factors calculated into the demand analysis. While Map 9 shows the locations of attractors.

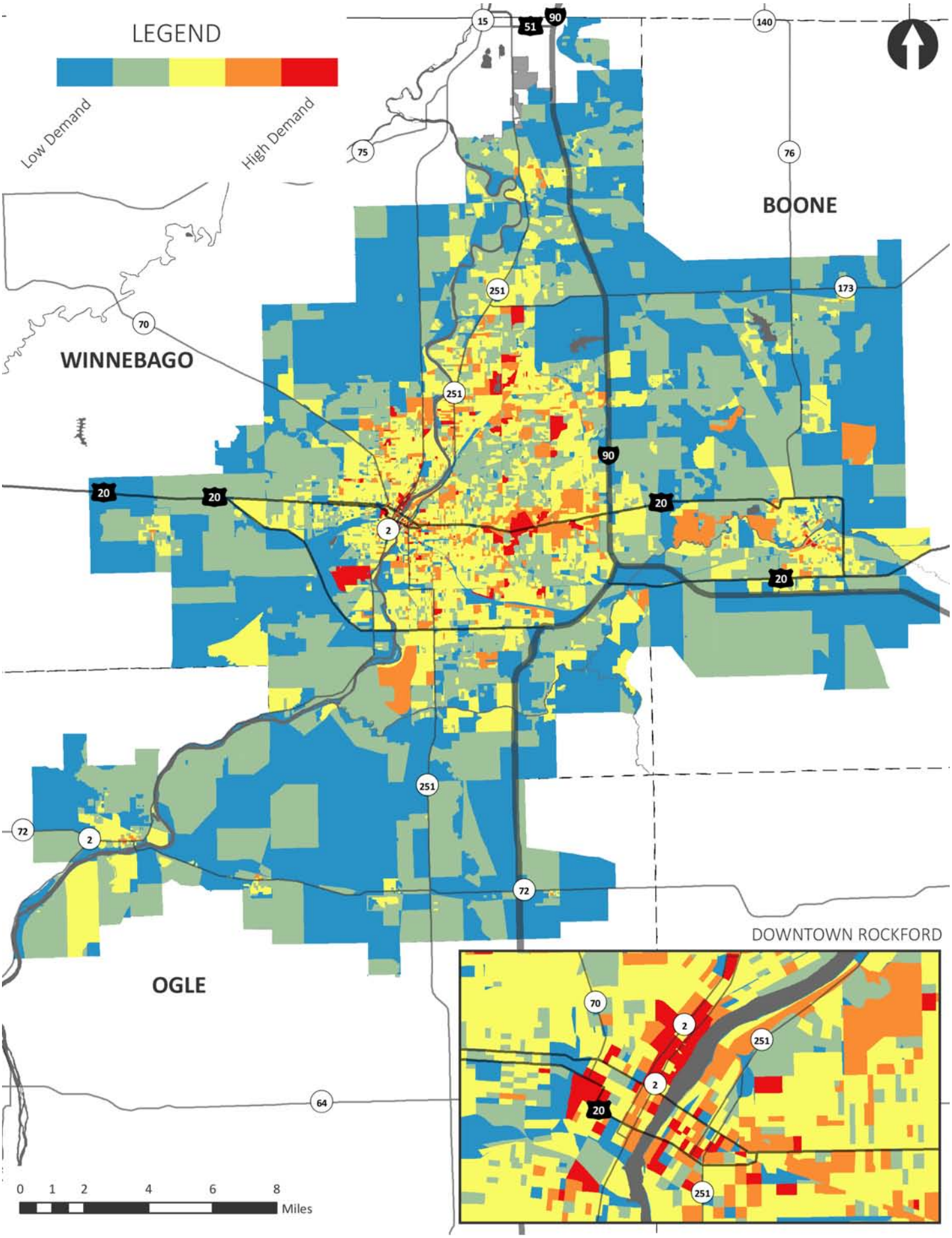
FIGURE 28: DEMAND ANALYSIS FACTORS

The primary hotspots of the demand analysis were in downtown Rockford (west of the Rock River), along the East State Street corridor in Rockford (near Rockford University and major commercial developments), and the Forest Hills Road and Windsor Road area of Loves Park. Other hot spots include downtown Belvidere, the IL-173/West Lane business corridor in Machesney Park, and northeastern Rockford near Rock Valley College. These hot spots can be seen in Map 10. Connecting these hotspots via low-stress bikeways within each hotspot are priorities of this plan.

MAP 9. DEMAND ANALYSIS: ATTRACTORS



MAP 10. DEMAND ANALYSIS RESULTS



Constraints and Barriers

Many constraints in the bicycle network cause accessibility issues for the bicycling community. Bicyclists face physical obstacles that may impede a preferred route. These obstacles may create such a substantial barrier that bicycling becomes dangerous or altogether impossible. Not only are physical barriers an inconvenience but they can create unsafe and stressful environments for travel. Physical barriers lead to more injuries and collisions and may place cyclists in a situation that makes compliance to laws and ordinances difficult. If cyclists do not feel safe riding in traffic, they may end up taking their chances illegally riding on a sidewalk. This is why modern on-street bike facilities are so important. Constraints and barriers to the bicycle network include:

WHITMAN & NORTH MAIN STREET INTERSECTION, ROCKFORD

- System Connectivity and Gaps
- Active and Inactive Railroads
- High Speed and High Volume Traffic
- Psychological and Social Barriers
- Environmental Barriers
- Policy Barriers

System Connectivity and Gaps

The lack of connectivity, i.e. gaps in connecting facilities, is the most troublesome issue facing the goal of increasing the use of the current system. It has been identified through various planning initiatives that the region specifically lacks east to west routes. Further development and incorporation of these east-west routes would provide greater mobility through the region and connect to existing bicycle and pedestrian infrastructure.

According to the FHWA, the provision of connected and consistent facilities for pedestrians and bicyclists can reduce conflicts among modes and encourage higher levels of walking and bicycling. Walking and biking routes should form a comfortable network for all ages and abilities throughout a region, with a focus on the urban environment and making logical connections to places of employment, social services, public transportation and other important points of interests. The Rockford Metropolitan Area's network must enable a comfortable trip from beginning to end to maximize overall use. To accomplish this we must identify disconnected on street bike routes, barriers such as major roads or rail, areas of known bicycle and pedestrian accidents, and connections to existing systems. A holistic approach should be taken in order to successfully achieve this.

Active and Inactive Railroads

Active and inactive railroad tracks can be a barrier in the bicycle network. If at all possible, bike routes should not cross an active railroad at the same grade. Preferably bicycle routes and paths should be at a separated grade.[2] However, often times there are no other options. In these instances, best practices and preferred design methods can help a cyclist safely navigate rail crossing as they bisect a corridor with established bicycle facilities or routes. Bicycle tires can become stuck in rail flanges when in-street railroad tracks are crossed at too low of an angle, thus causing an inherent safety issue. Particular attention must be paid where streetcar tracks turn or bend, where light rail tracks cross a street, or where bicycle lanes or bicycle turning movements cross a track.

There are a variety of design techniques that can be implemented to prevent these injury-causing falls by directing bicyclists to cross tracks at a higher angle, and by guiding riders to stay a safe distance from on street parallel rail lines while riding alongside them.[3] A good example of a street with parallel and angled rail tracks is Madison Street, in downtown Rockford, where the Rockford Park District operates a passenger trolley car.

MADISON STREET CORRIDOR RAILROAD TRACKS, ROCKFORD

High Speed & High Volume Roads

Roads with higher speed limits, such as arterial and collector level roads, are inherently less safe to bicycle on than roads with lower speed limits. Speed limits are one of the ways of distinguishing between different types of streets:

- Neighborhood streets with low speed limits, between 15 and 20 mile per hour (mph);
- Busy urban streets with many intersections, with speeds of 30 mph; and
- Major roadways with few intersections and more limited access points, with speeds between 35 to 45 mph.

Generally speaking, streets where cars are traveling at a lower speed are the safest for bicyclists to ride. Riding on the sidewalk is known to be the least safe location for cycling.[4] It puts the rider, vehicle operators, and pedestrians at increased risk for injury. Many of the local roadways that have been built with 30 mph speed limits have very wide lanes.

2 NACTO. "BICYCLE RAIL CROSSINGS" *TRANSIT STREET DESIGN GUIDE*. 2016. HTTP://NACTO.ORG/PUBLICATION/TRANSIT-STREET-DESIGN-GUIDE/INTERSECTIONS/INTERSECTION-DESIGN/BICYCLE-RAIL-CROSSINGS/

3 NACTO. "BICYCLE RAIL CROSSINGS" *TRANSIT STREET DESIGN GUIDE*

4 "RIDING ON THE SIDEWALK." LEAGUE OF AMERICAN BICYCLISTS. MAY 21, 2013. HTTP://BIKELEAGUE.ORG/CONTENT/RIDING-SIDEWALK.

Historically, roads in the region were built with the maximum standard widths rather than the minimal. These wider streets increase sight distance and the available room a car has to drift left or right in a lane. As a result, drivers often speed through these roadways. Research has shown that wider lanes create the environment for vehicle speeds above what they can safely handle.

MADISON STREET, ROCKFORD

For decades, the United States has prioritized high-speed travel which is arguably one of the greatest obstacles to pedestrian and cyclist safety today. This conventional prioritization of speed through the design process has encouraged engineers to design roads for higher speeds than drivers are actually meant to travel.[5]

More recent roadway design guidelines recommend setting a low design speed, sometimes referred to as a target speed, and using design cues to encourage low-speed travel wherever possible to do so. It makes particular sense to design roadways with these lowers speed limits and other traffic calming features along routes that are designated as on-street bicycle routes.[6] Overall travel times are only slightly effected by such design changes, but the resulting safety benefits can be big.

Psychological and Social Barriers

A major psychological barrier for many individuals nationwide is the fear of riding a bicycle on city, or even neighborhood streets. This fear is particularly based on where the individuals live or where they need to travel to. Locally, 46 percent of individuals, who completed RMAP's Bicycle and Pedestrian Survey, listed "I don't feel safe riding a bicycle in traffic" as one of the main factors for not frequently riding a bicycle in their city.

FIGURE 29. BICYCLE & PEDESTRIAN SURVEY: "I DON'T FEEL SAFE RIDING A BICYCLE IN TRAFFIC"

While this psychological barrier is shared by all groups, this fear was noted at different rates by racial and ethnic groups. According to the League of American Bicyclists' *The New Majority: Pedaling Towards Equity*, 26 percent of people of color said they would like to ride more but worry about safety in

5 DARREN FLUSCHE. "SPEEDY ROAD DESIGN UNDERMINES SAFETY." ***NEWS FROM THE LEAGUE***. (NOV. 2014) HTTP://WWW.BIKELEAGUE.ORG/CONTENT/SPEEDY-ROAD-DESIGN-UNDERMINES-SAFETY.

6 FLUSCHE. "SPEEDY ROAD DESIGN UNDERMINES SAFETY.".

traffic, while 19 percent of white respondents reported that they would like to ride more but worry about safety in traffic.[7]

Another major barrier for individuals is bicycle ownership. Ownership of a bicycle includes the initial purchase, possibly a lock and a helmet, other safety gear such as appropriate lights by local law, repairs and maintenance, and even having room for storage may be a consideration in the purchase of a bicycle. According to a study conducted by People for Bikes, adults who know they want to ride more are about 25 percent more likely than the population average at large to have at least one working adult bike in their home. But, even among these interested individuals, 35 percent still have no bike. This problem is dramatically higher for low-income families.[8]

Environmental Barriers

Weather, time of day, and the changing seasons can all have a negative effect on a cyclist's commute. As a part of the Great Lakes region, the metropolitan area faces challenges of extreme temperatures in both summer and winter months. However, it should be noted that many bicyclists continue to ride during these times.

Policy Barriers

RMAP has and will continue to work closely with municipal planning staff and engineers to ensure the transportation planning process proactively includes cycling elements in plans and policies where appropriate. Within RMAP's Metropolitan Planning Area, some municipalities have provided comprehensive and neighborhood plans that may have a section that describe bicycle facility initiatives for future planning goals. However, bicycle facility planning initiatives on streets are often an after thought once staff has realized that a bicycle facility is needed due to frequent use of the street as a route.

CYCLIST ON HUNTER AVE , ROCKFORD

7 ANDONIA LUGO, ELIZABETH MURPHY, AND COROLYN SZEPANSKI, *THE NEW MAJORITY: BIKE EQUITY TODAY* (MAY 2013): 6

8 MICHAEL ANDERSON. "HERE'S WHAT KEEPS PEOPLE FROM RIDING A BIKE." *GREATER GREATER WASHINGTON*. (MARJCH 16, 2015). HTTPS://GGWASH.ORG/VIEW/37584/HERES-WHAT-KEEPS-PEOPLE-FROM-RIDING-A-BIKE

Opportunities

There are numerous opportunities within RMAP's metropolitan planning area for establishing bicycle facilities by building upon the efforts and plans already in place. Some of the opportunities for the region's bicycle network include:

- Future Road Improvements
- Greenways
- Jurisdictional Plans
- Traffic Regulations
- Shifting Culture/Advocacy Groups

Future Road Improvements

As mentioned above, many of the streets within the MPA were built with the maximum standard widths in the region rather than the minimum. In some cases, roads with wide lanes can be narrowed or reduce the number of lanes, through road diets or other traffic calming methods, to install bicycle facilities. To determine which roads are appropriate for lane reductions, traffic studies would be needed to evaluate existing traffic volumes and future traffic projections.

Greenways

A major asset to the region is the extensive greenways network. Greenways are interconnected linear open spaces that provide many benefits to the region, including environmental, economic, aesthetic, and transportation via regional trails and paths. Regional trail options offer residents and tourists a place for recreational opportunities, exercise and non-motorized mobility, and commuting options. Many of the larger trail systems that cut through the Rockford Metropolitan Area are connected via local trails. Local trails act as the connections between larger trails systems and communities that may be divided from one another by major roads.

MIDWAY VILLAGE PATH, ROCKFORD

LONG PRAIRIE PATH, POPLAR GROVE

Jurisdictional Plans

While bicycle facilities are sometimes an afterthought, the state and local governments are ensuring that bicyclists are protected users of the transportation system by incorporating them into policies and plans. Bicycles now have the same rights on a roadway as a motor vehicle; this also means cyclists must obey the same traffic laws, signs and signals that apply to motorists. On August 12th, 2016, Illinois Governor Bruce Rauner signed legislation that will strengthen the rights of cyclists in Illinois. House Bill 5912 amends the state's vehicle code to assign the same right-of-way privileges to cyclists that vehicle operators have. Also known as the "Dennis's Law," the stimulus for the law came after a judge's ruling on a 2015 fatal accident in which 68-year-old Hampshire, Illinois resident, Dennis Jurs, was killed in a collision with a vehicle.[9] In essence, it clarifies that bicycles are legitimate users of the transportation system. The law passed the Illinois House and Senate nearly unanimously, with only one vote against it and 164 in favor.[10] The new bicycle law went into effect on January 1st, 2017.

In addition to the State of Illinois's recent laws, many of the local municipalities have provided comprehensive and neighborhood plans that have sections describing bicycle facility initiatives as future planning goals. Future routes need to be identified, evaluated, and assessed in order to prioritize projects with the ultimate goal of securing funding for construction. Coordination between jurisdictions becomes essential to create a fully connected and efficient network of bicycle and pedestrian facilities (See Table 9). RMAP helps the planning and facilitation of these projects on a regional basis.

TABLE 9. BICYCLE FACILITIES & SHARED USE PATHS IN JURISDICTIONAL PLANS

			PLAN ADDRESSES:			
JURSIDICTION	PLAN	DATE OF PLAN	COMPLETE STREETS	MULTI-MODAL NETWORK	SHARED-USE PATHS/TRAILS	ON-STREET BICYCLE FACILITIES
BOONE COUNTY & BELVIDERE	BELVIDERE/BOONE COUNTY COMPREHENSIVE PLAN	2006		YES		
BELVIDERE	WEST HILLS NEIGHBORHOOD PLAN	1997		YES	YES	
	KISHWAUKEE RIVERFRONT PLAN	1997			YES	
DAVIS JUNCTION	COMPREHENSIVE PLAN	2007			YES	
LOVES PARK	COMPREHENSIVE PLAN	1997			YES	
MACHESNEY PARK	COMPREHENSIVE PLAN	2010	YES	YES	YES	YES
MONROE CENTER	COMPREHENSIVE PLAN	2010				
OGLE COUNTY	COMPREHENSIVE PLAN	2012		YES		
POPULAR GROVE	COMPREHENSIVE PLAN	2009			YES	
ROCKFORD	COMPREHENSIVE PLAN	2004			YES	
ROSCOE	COMPREHENSIVE PLAN	2009			YES	YES*

* PAVED SHOULDER SPECIFICALLY IDENTIFIED

9 "BICYCLE RIDER KILLED IN COLLISION NEAR HAMPSHIRE." *THE COURIER-NEWS*. (MAY 19, 2015). HTTP://WWW.CHICAGOTRIBUNE.COM/SUBURBS/ELGIN-COURIER-NEWS/NEWS/CT-ECN-HAMP-FATAL-ST-0520-20150519-STORY.HTML

10 MICHAEL KEATING. "WHY THE NEW ILLINOIS BICYCLE LAW,, "DENNIS'S LAW", IS IMPORTANT FOR ALL BICYCLISTS". (AUGUST 25, 2016). HTTP://WWW.ILLINOISBICYCLELAW.COM/2016/08/NEW-ILLINOIS-BICYCLE-LAW.HTML

Throughout the MPA, communities have developed requirements and regulations guiding non-motorized circulation. For the most part, all of the comprehensive plans within the MPA incorporate initiatives to develop a pedestrian and non-motorized circulation infrastructure system. These comprehensive plans set forth goals and objectives for pedestrian and bicycle planning in short-term and long-term development. Table 9 provides a comprehensive list of how municipalities are currently addressing bicycle and pedestrian planning in the metropolitan area. Jurisdictions not listed do not currently have specific references to bicycles.

Traffic Regulations

Within most municipalities, bicycle use and bicycle parking are prohibited on sidewalks in order to safeguard persons and property. Other municipalities permit bicycle use on the sidewalk and require bicyclists to yield to the right-of-way of the sidewalk and give audible warning as seen practical. Overarching safety guidelines for bicycle use apply. General traffic code applies to bicycle use on the roadway as well. Bicyclists and pedestrians are subject to general traffic and vehicle ordinances of each municipality. Persons using bicycles are required to adhere to local and state statutes when using marked bicycle routes. Consideration to roadway use is prioritized for the lawful movement of traffic and pedestrians are discouraged from congregating along paths or roadways in such a way that interferes with general traffic flow on sidewalks, roadways or highways. Table 10 lists the ordinance with references to bicycles; jurisdictions not listed do not currently have specific references to bicycles.

TABLE 10. BICYCLE FACILITIES & SHARED USE PATHS IN JURISDICTIONAL ORDINANCES

JURSIDICTION	SAME PROVISIONS AS MOTOR VEHICLES APPLY	BICYCLE REGISRATION	RIDING ON SIDEWALK ALLOWED	CONDITION/EQUPMENT OF BICYCLE IS ADDRESSED
BELVIDERE	YES	YES		
BYRON	YES			
LOVES PARK	YES	YES	YES*	YES
ROCKFORD	YES		YES**	YES
ROSCOE			YES*	
STILLMAN VALLEY	YES		YES*	YES

*WHERE PERMITTED

**RESTRICTIONS ARE OUTLINED, (E.G. NO PERSON OVER AGE 16 YEARS)

Shifting Culture/Advocacy Groups

The MPA, like many other regions its size, has seen more citizens urging city planners and engineers to install pedestrian and bicycle amenities throughout the region. Requests have ranged from sidewalks and shared use paths along busy corridors, to the maintenance of existing rural rail trails in Boone County.

Since revitalization projects within the urban cores have begun, there has been an increased interest from organizations and advocacy groups, both established and new, to incorporate more pedestrian and bicycle amenities into corridor revitalization projects. Highlighted below are some of the bicycle organizations in the region.

Blackhawk Bicycle and Ski Club

Blackhawk Bicycle Club is one of the region's more established organizations. Their mission is to promote and encourage safe bicycling and cross-country skiing for recreation, health, and transportation purposes. They provide instructions in all aspects of road cycling and cross-country skiing. They are a very active club, having scheduled bicycle rides every day of the week.

I Bike Rockford

I Bike Rockford is a public group on Facebook whose page is meant for the community of bicycle riders to share what's going on in the Rockford cycling community. They hold events aimed at socializing, riding trips, fundraisers, and increasing awareness for the local cycling community. They have a very active organization that tries to meet at least every month and more often in warmer weather. Their public Facebook group page has 638 members.

Team Fur Bandit

As described on the organizations website, this organization aims at stealing the attention away from the negativity in the world and works to renew the interest in fun, fur, and philanthropy. The organization is all about good deeds, a good time and creating a connected cycling community. They have made it their personal responsibility to look out for the wellbeing of the community and those around it. The Fur Bandits like to be easily seen by automobile drivers so they are known for covering their bicycles with lots of fake fur, gadgets and other interesting items. They officially formed in 2010 and have given back to many organizations in the Rockford Region. They donate money raised from riding events, donate bicycles, and many hours service to the community through charity events. In fact, Team Fur Bandit has recently collected, fixed, and donated 22 bicycles to the Rockford Rescue Mission in January 2017. The donation was to provide individuals in need of transportation, a mode to get to jobs, buy groceries, and run errands.[11]

Rockford Area Mountain Biking Alliance

This mountain bike oriented group is a volunteer based organization of riders mostly located in the Rockford area. They organize and post information on their Facebook page. They are an active group that meet regularly to ride various trails and paths both in the Rockford system, as well as other communities and occasional group outings to Wisconsin trails.

11 SABRINA BENNETT. "LOCAL BIKE ORGANIZATION GIVE THE GIFT OF TRANSPORTATION TO A LOCAL SHELTER." WIFR. (JANUARY 5, 2017). HTTP://WWW.WIFR.COM/CONTENT/NEWS/409830245.HTML

Existing Conditions: Pedestrian Network

Sidewalks and appropriate pedestrian crossings are essential in creating a walkable and livable region. Since the adoption of the 2008 Bicycle and Pedestrian Plan, a deeper look at creating safe and desirable pedestrian ways throughout the region has increased. While the region has made significant progress increasing the number of sidewalks and improving the accessibility of sidewalks, there is still a need for improvement.

As a part of the Plan update, RMAP undertook a large analysis project, called the Pedestrian Suitability Index, to determine the quality of the current pedestrian facilities, as well as studying the current roadway network to determine which roads would be appropriate to build additional pedestrian facilities. In addition to the Pedestrian Suitability Index, an in depth review of several other elements were examined to determine the health of the pedestrian network. The elements covered in this section of the Plan include:

- A brief overview of the steps and factors examined for the Pedestrian Suitability Index;
- An analysis of demand in different areas of the region;
- An examination of the constraints and barriers that exist with the network; and
- The opportunities that might shape how pedestrian infrastructure, policies, and programs are dealt with in the future.

The data used to analyze the existing conditions is derived from multiple sources, including geographical information system (GIS), municipal and county comprehensive plans, local ordinances, and surveys completed by municipal, county, and agency staff. Additional data sources include the Illinois Department of Transportation's Illinois Traffic Crash Reports, as well as the online public survey that was opened from June 1st, 2016 to July 31st, 2016.

Pedestrian Suitability Index

A pedestrian suitability index was developed for this plan to determine the quantity and quality of the pedestrian facilities along the primary street segments and intersections in the Rockford Metropolitan Planning Area (MPA). Modified from Memphis' version of the Pedestrian Suitability Index, the index provides a qualitative method for assessing pedestrian environmental categories related to the demand, traffic patterns, and design. The Pedestrian Suitability Index looks only at major roadways in the MPA, e.g. roads functionally classified as Collector or above. A three-part GIS analysis was used to complete the Pedestrian Suitability Index, including a demand analysis, pedestrian network analysis, and an intersection analysis. The results of the Index have been used to develop the existing conditions portion of this plan. More information on the Pedestrian Suitability Index methodology can be found in Appendix B.

Part 1: Demand Analysis

The demand analysis identifies the expected pedestrian activity areas by utilizing geographic data related to pedestrian attractors and generators. Pedestrian generators are based on demographic data, related to U.S. Census Blocks, to determine the potential volume of pedestrians based on where people live and work. Areas that contain a greater number of people living or working within them are more likely to have more people walking.

Additionally, pedestrian attractors were examined to determine destinations that have the potential to generate large numbers of pedestrians in the region. The results of the demand analysis are based on the following factors:

- Population Density
- Employment Density
- Proximity to Educational Centers
- Proximity to Community and Tourist Attractions
- Proximity to Transit

RUNNERS, DOWNTOWN ROCKFORD

Part 2: Pedestrian Network Analysis

To complement the demand analysis, the pedestrian network analysis examines the design characteristics and the traffic patterns of the roadway, as well as the pedestrian environment adjacent to the roadway. Map 11 illustrates the results of the analysis, illustrating the composite score of the pedestrian network score, based on factor scores and weights. Higher scores indicate a more suitable environment for pedestrians. The following factors were used for the pedestrian network analysis:

- Posted Speed Limit
- Vehicle Lanes
- Truck Routes
- Traffic Volumes
- Presence of Sidewalk
- Width of Sidewalk
- Sidewalk Buffer
- Mid-Block Crossings

STATE STREET, BELVIDERE

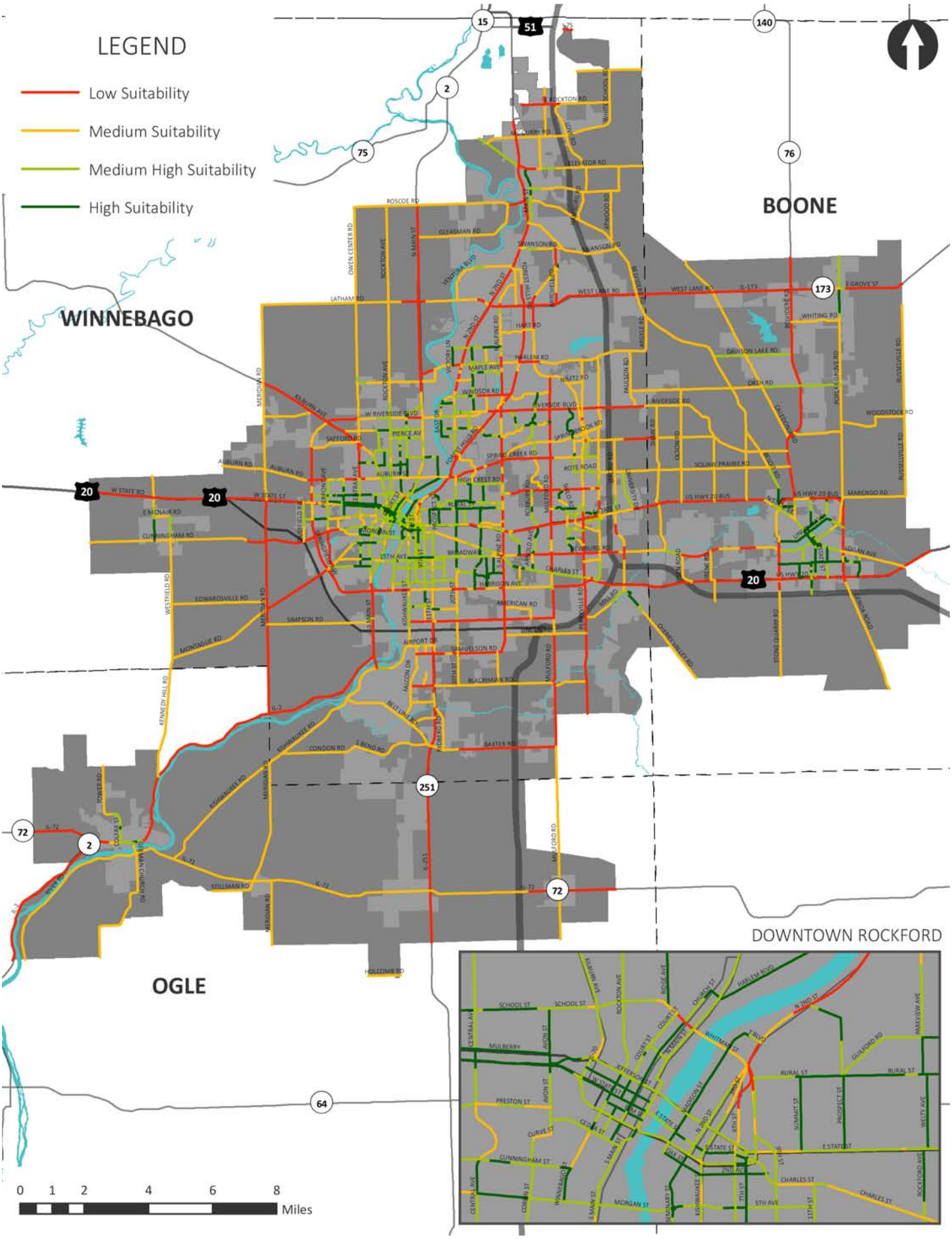
Part 3: Intersection Analysis

Intersections are usually the preferred crossing location for pedestrians. Similar to the pedestrian network analysis, the intersection analysis looks at both the roadway characteristics and the pedestrian elements at a given intersection. Each leg of the intersections was examined and scored, based on the factors listed below. However, the final overall score of the intersection is based on the lowest scoring leg. Higher scores indicate the most suitable intersections for pedestrian crossings. Map 12 illustrates the results of the analysis based on factor scores and weights. Factors considered for intersections include:

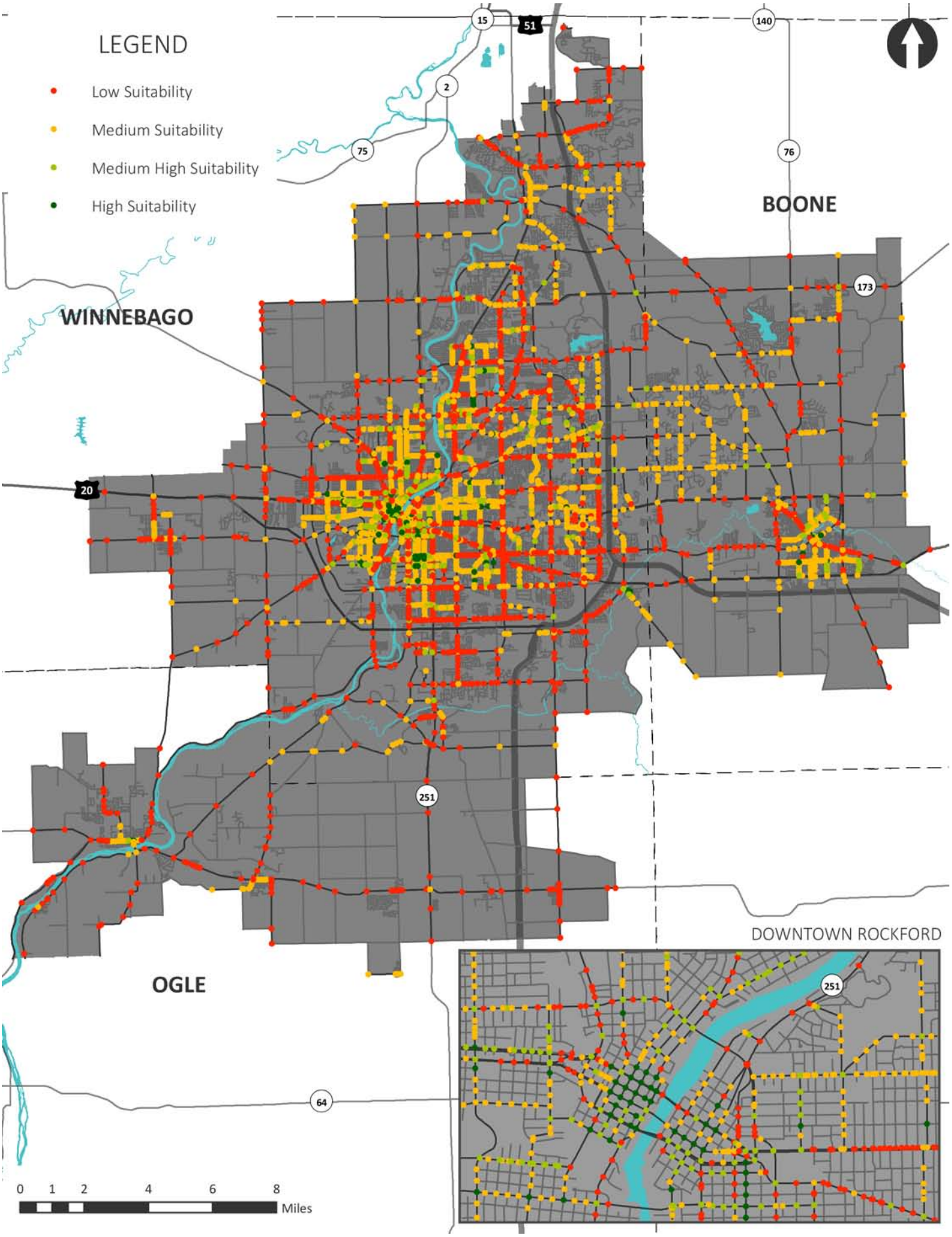
E. MENOMONIE STREET, BELVIDERE

- Posted Speed Limit
- Vehicle Lanes
- Traffic Volumes
- Traffic Control Devices
- Crosswalks
- Curb Ramps
- Refuge Islands

MAP 11. PEDESTRIAN SUITABILITY INDEX: PEDESTRIAN NETWORK ANALYSIS RESULTS



MAP 12. PEDESTRIAN SUITABILITY INDEX: INTERSECTION ANALYSIS RESULTS



Pedestrian Existing Infrastructure

An overview of the existing infrastructure in the Rockford MPA is needed to identify key constraints and opportunities in the pedestrian network. This inventory provides a discussion about the physical barriers, policy level constraints, and safety concerns of pedestrian facilities in the Rockford region. Additionally, it provides a snapshot of future improvements to physical infrastructure, potential local government opportunities, and current pedestrian advocacy initiatives in the community. This analysis of the pedestrian network helps identify maintenance and construction priorities that will create a more complete pedestrian network. Data analysis of the existing pedestrian network in this plan will assist RMAP staff, municipalities, and citizens to make equitable investments towards a multi-modal transportation system.

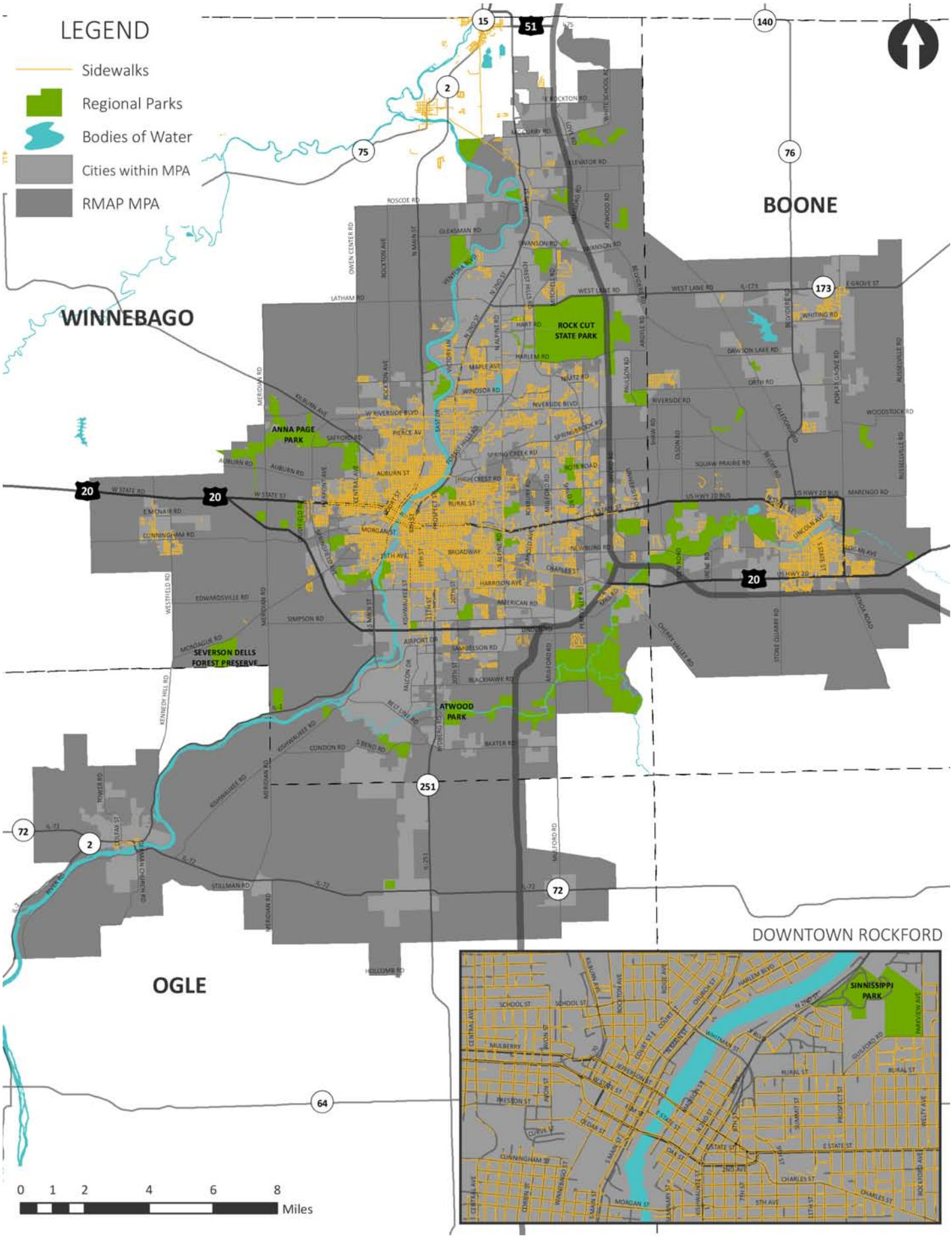
ROCKFORD CITY MARKET

In the previous 2008 RMAP Bicycle and Pedestrian Plan, 458.4 miles of arterial and collector roadways, as well as bus routes, were analyzed for the existence of sidewalks. Pedestrian priority areas were designated from land uses that initiate pedestrian activity including public facilities, educational institutions, major employers, commercial centers and bus routes using a half mile to a quarter mile radius. Miles of sidewalk within these priority areas was also collected through similar geographic information systems and aerial photography analysis. In 2008, of the total 458.4 miles of sidewalk analyzed, 227.8 miles were within the designated pedestrian priority areas.

As of 2015, RMAP's MPA has approximately 1,233 miles of existing sidewalk, including local roads. Using geographic information systems (GIS) analysis, RMAP staff was able to identify segments of the sidewalk network from an aerial view. This analysis is limited to digital aerial photographs and municipalities are recommended to further develop this analysis through individual field work and site visits to provide the most complete, comprehensive summary of the existing sidewalk network (See Table 11).

SOUTH STATE STREET, BELVIDERE

MAP 13. SIDEWALKS IN THE RMAP METROPOLITAN PLANNING AREA



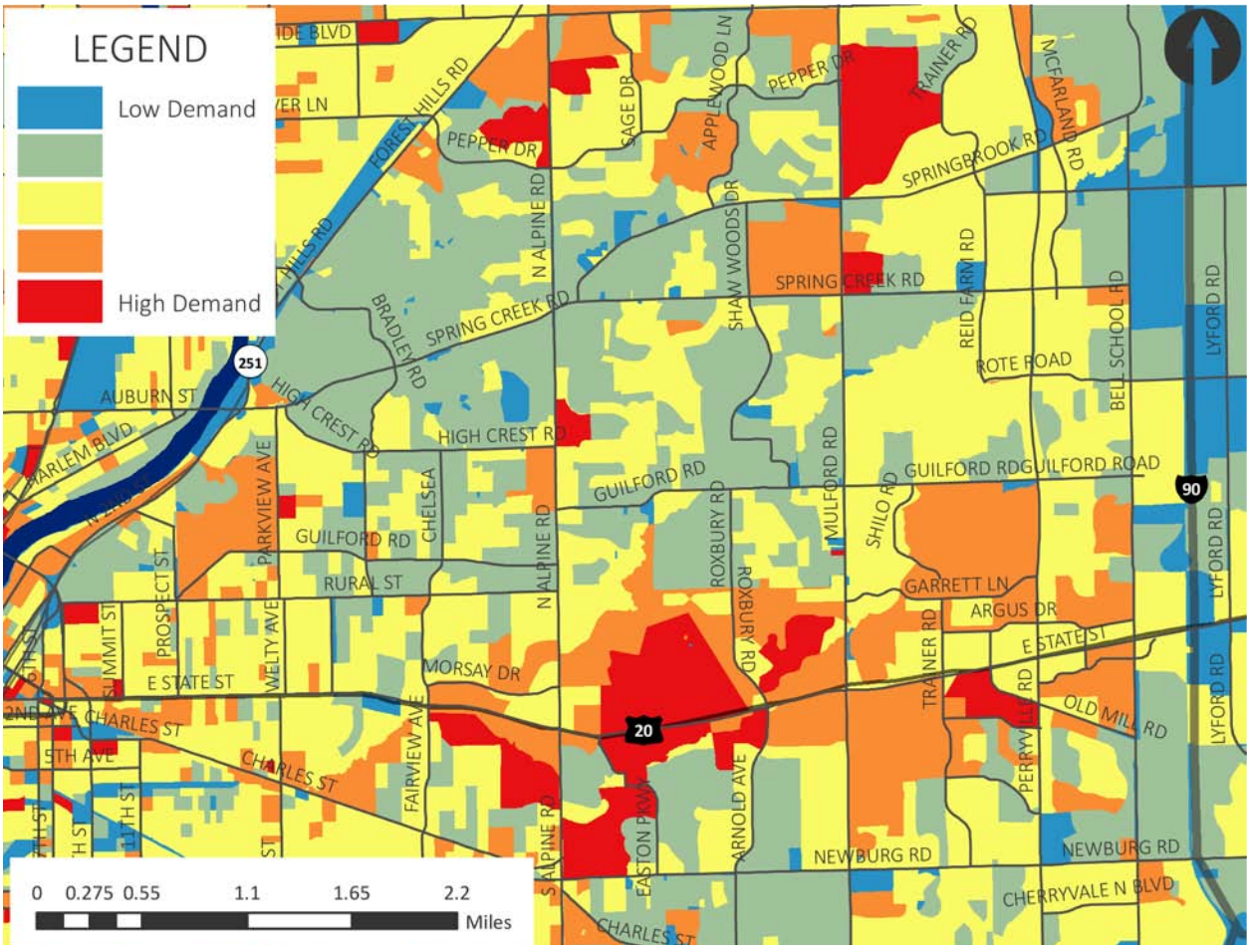
Demand

As discussed previously in Existing Conditions: Bicycle Network, a large component of a well-connected multi-modal network is demand. The most walkable cities have a comprehensive network of sidewalks and intersection crossings where people live and work, as well as where they want to travel to. The pedestrian network is highly influenced by its proximity to generators and attractors.

A pedestrian demand analysis was conducted as a part of the Pedestrian Suitability Index to provide a snapshot of pedestrian demand. The same categories and weights for the Bicycle Demand Analysis and the Pedestrian Demand Analysis were used.

As such, the primary hotspots of the demand analysis were in downtown Rockford (west of the Rock River), along the East State Street corridor in Rockford (near Rockford University and major commercial developments), and the Forest Hill Road and Windsor Road area of Loves Park. Other hot spots include downtown Belvidere, the IL-173/West Lane business corridor in Machesney Park, and northeastern Rockford near Rock Valley College. These hot spots in downtown Rockford and East State Street can be seen in Map 14.

MAP 14. DEMAND ANALYSIS RESULTS: E. STATE STREET, ROCKFORD



Constraints and Barriers

Many constraints to the pedestrian network create accessibility issues in the community. Existing public infrastructure, active land uses, and current traffic patterns affect the safety, usability, and convenience of pedestrian facilities. Many of the major corridors in the Rockford region lack complete, multimodal facilities to accommodate all modes of transportation. Constraints to the pedestrian network and walkability include:

- Physical Infrastructure
- System Connectivity and Gaps
- Active and Inactive Railroads
- Infrastructure Maintenance
- Perceived Safety Concerns
- Land Use Patterns and Sprawl
- Multi-modal Conflicts

Physical Infrastructure

A major constraint in the existing pedestrian network is the physical infrastructure of the sidewalk network. The lack of adequate pedestrian facility infrastructure can also lead to poor user experience. Adequate pedestrian travel user experience is measured by average pedestrian space (i.e. circulation area) and average pedestrian speed.[1] Circulation area is based on the amount of sidewalk available to pedestrians and pedestrian speed is based on how quickly a pedestrian can safely and comfortable cross a road segment. These experience measures are impacted by specific factors of transportation infrastructure as well as its surrounding land uses. A list of major factors that act as barriers to the pedestrian facility infrastructure is summarized below:

- Multi-lane roadways;
- Increased volume and speed of auto traffic;
- Lack of space and buffering available to pedestrians on sidewalk;
- Difficulty crossing at intersections and crosswalks; and
- Inadequate sidewalk width.

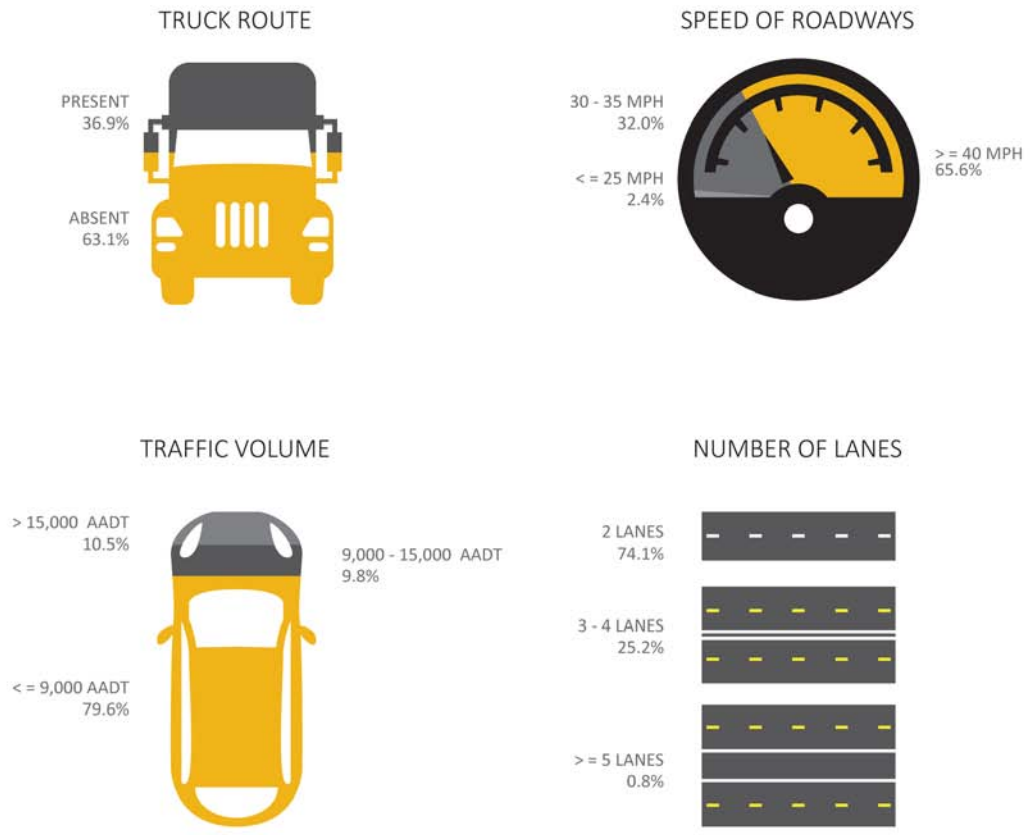
Based on the results of the Pedestrian Network Analysis, only 8.2 percent of the major roadway network in the MPA is currently highly suitable for pedestrians. The two highest scoring areas were downtown Belvidere and downtown Rockford. As shown in Figure 30, the highest portion

1 FEHR AND PEERS. "MULTI-MODAL LEVEL OF SERVICE TOOLKIT." HTTP://ASAP.FEHRANDPEERS.COM/WP-CONTENT/UPLOADS/2014/08/MMLOS-TOOL-HCM-2010-PEDESTRIAN.PDF (2010).

of roads in the region are currently listed as being somewhat suitable for pedestrians, just under 49 percent. A large portion of the roadway segments that are somewhat suitable, scored high in the roadway characteristics such as number of lanes, lower volume, and lower speeds. However, they scored low in relation to the pedestrian network, e.g. lacking sidewalk presence, inadequate sidewalk widths, and no buffer between the sidewalk and the travel lanes.

While the region is currently lacking the necessary pedestrian facilities, particularly sufficient sidewalks, a large portion of the roadway network appears to be suitable for such facilities to be built upon. Of the 718.7 miles of major roadways examined, approximately 74 percent, 532.4 miles, of the roads are only two lanes and 79.6 percent of the roadways have an Average Annual Daily Traffic (AADT) volume of less than 9,000.

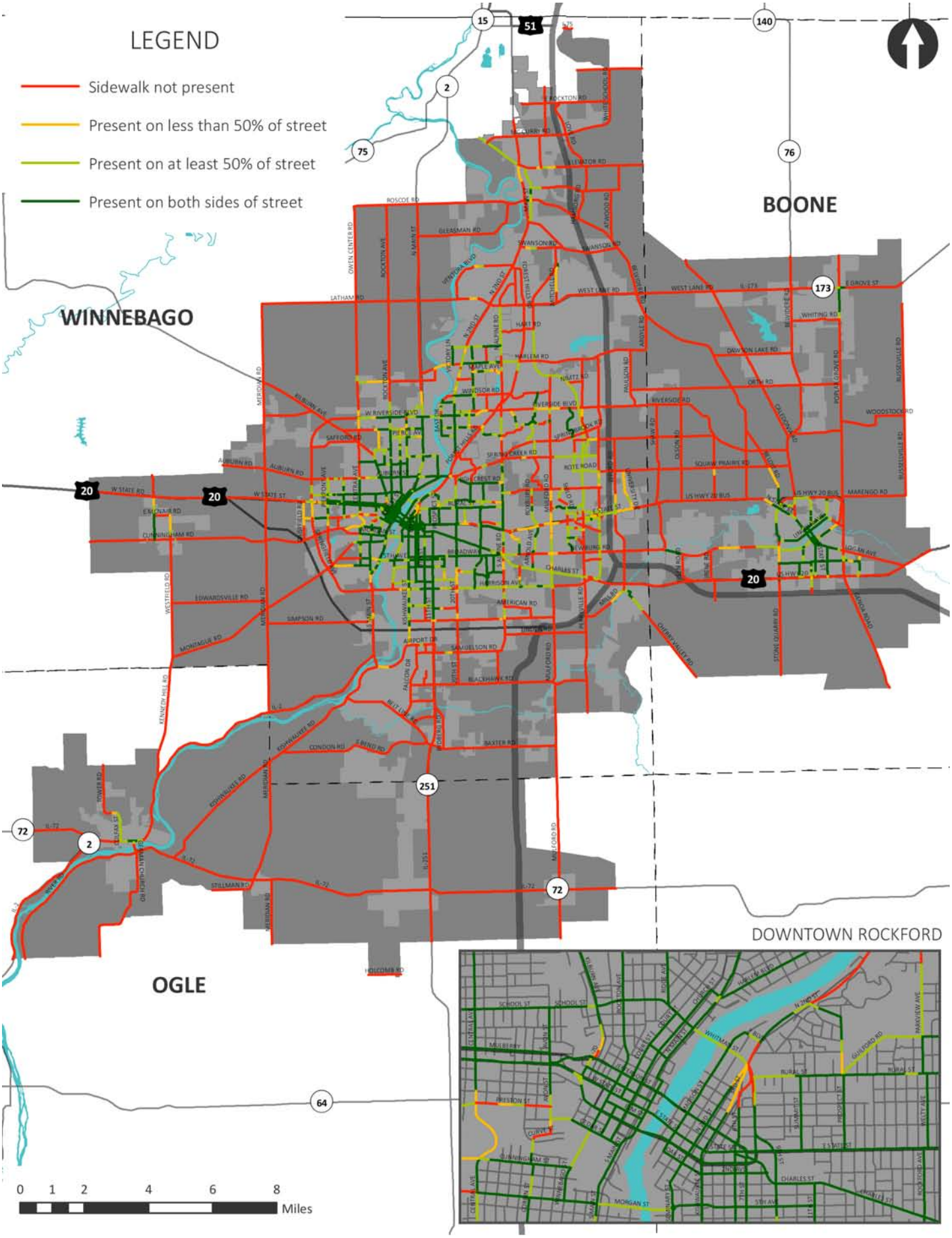
FIGURE 30. PEDESTRIAN SUITABILITY INDEX: PEDESTRIAN NETWORK ANALYSIS RESULTS



System Connectivity and Gaps

A major barrier to the pedestrian network includes incomplete and irregular street patterns which do not provide adequate walking connections. Many sections of the built environment in the Rockford region are independent and have segregated parking lots which are not comfortable, inviting, or convenient to travel across other than by automobile. Residential streets in suburban

MAP 15. PEDESTRIAN SUITABILITY INDEX: PRESENCE OF SIDEWALKS



areas of the region often have dead-ends or cul-de-sacs, thereby abruptly ending the sidewalk network and perpetuating a network lacking continuity. As a result, it prohibits safe and convenient travel for many pedestrians and bicyclists.

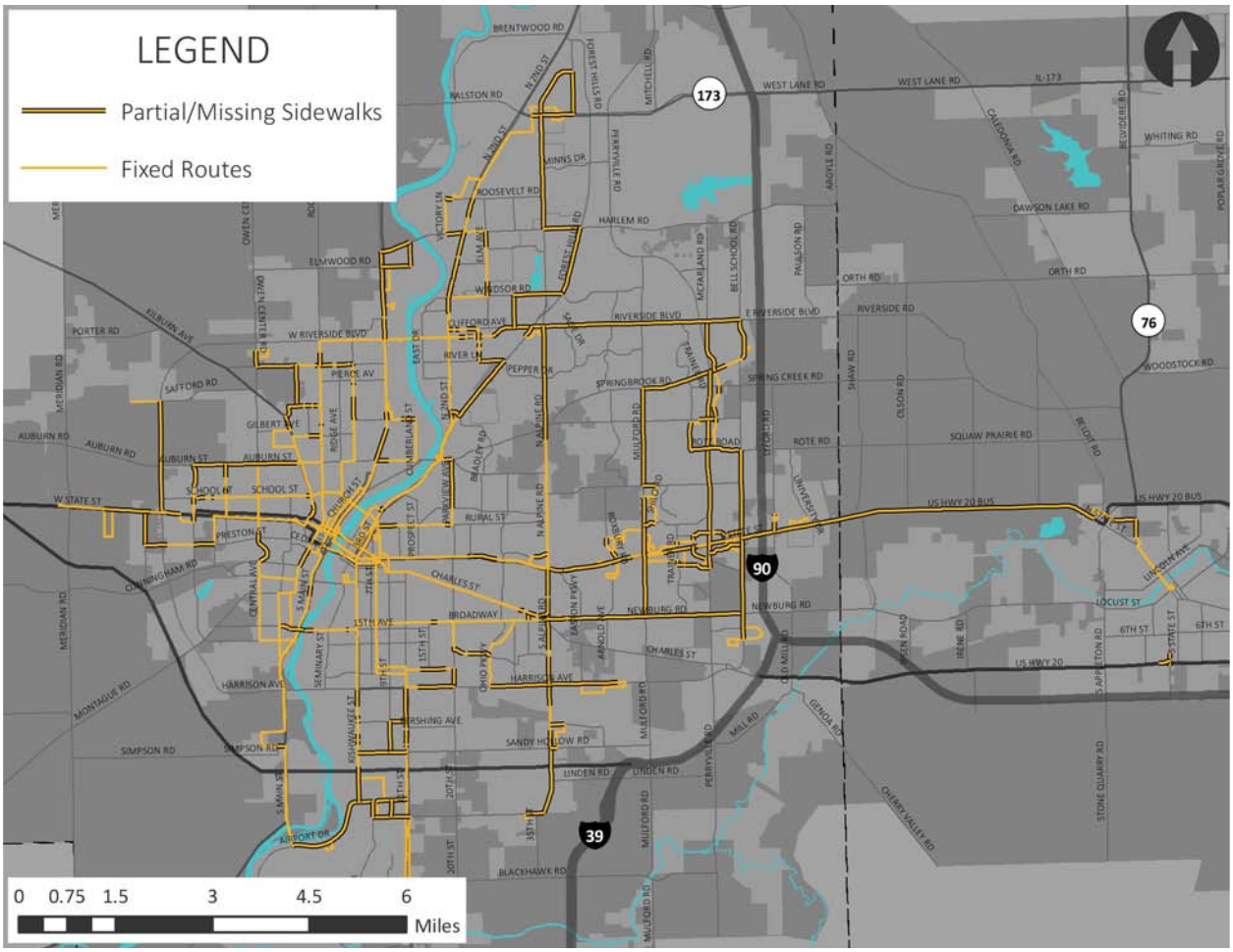
According to the Pedestrian Suitability Index, only 15.9 percent of the major roadways within the MPA has a sidewalk present on both sides of the street. Approximately 69 percent of the major roadways within the MPA do not have a sidewalk. Map 15 shows the gaps in the current sidewalk network. Some major roadways, particularly within the rural areas of the MPA, may not be appropriate to build sidewalks based on the demand and physical characteristics of the roadway.

TABLE 11. PEDESTRIAN SUITABILITY INDEX: PRESENCE OF SIDEWALKS

	MILES OF ROADWAY	PERCENT
COMPLETE SIDEWALK	114.2	15.9%
PARTIAL SIDEWALK	78.8	11.0%
LITTLE SIDEWALK	32.4	4.5%
NO SIDEWALK	493.4	68.6%
TOTAL	718.7	

Following the best practices laid out by Federal Highway Administration, context sensitive solutions should be used in prioritizing areas and roadways. Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within

MAP 16. SIDEWALK GAPS ALONG FIXED TRANSIT ROUTES



MISSING SIDWALK AT BUS STOP, EAST STATE ST, ROCKFORD

which a transportation improvement project will exist.

Studies throughout the years have shown a relationship exists between built environment and an individual's travel mode choices, specifically the decision to drive versus walk, bike, or use public transit. However, for certain populations the choice between driving and using public transit does not exist. For many transit agencies, one of the longest running challenges is how to effectively get people from their home or work to the nearest transit stop, often called the first-last mile. As seen in Map 16, a large amount of sidewalk gaps exist along Rockford Mass Transit District's fixed route system. These gaps create potential safety and mobility issues for residents and can deter potential transit riders from using the system.

Construction can also cause obstructions that temporarily close these pedestrian facilities until building or road construction is complete. Alternative routes may or may not be included. As a result, it creates temporary gaps in the pedestrian network that discourages overall pedestrian use.

Active and Inactive Railroad

Furthermore, active and inactive railroads are permanent parts of the transportation infrastructure and can act as barriers to the pedestrian network. Continuity of the pedestrian network is vital to its usability for the public. Railways create two types of barriers to pedestrian accessibility: gaps within the physical facility and gaps to the overall pedestrian network. Additionally, active railways extend travel time both pedestrians and automobile users. Active railways in the Rockford region include Canadian National/ Illinois Central Railway, Union Pacific Railroad, Canadian Pacific Ry. Co., and the Illinois Railway LLC.

Railroad tracks often create barriers to wheelchair accessibility and cause tripping hazards for pedestrians. For example, flangeway in the railroad tracks creates gaps along the pathway of railroad crossing areas. A railroad crossing can become a hazardous area for pedestrians, wheelchair and scooter users as well as bicyclists due to the typically half an inch opening in a railroad track due to flangeways.

RAILROAD CROSSING ON WHITNEY BOULEVARD, BELVIDERE

Infrastructure Maintenance

Maintenance barriers to sidewalk use also includes weather conditions that create obstructions to safe sidewalk use (e.g. snow removal). Sidewalk maintenance and snow removal are key factors of comprehensive facility management of the pedestrian network. These maintenance measures are generally the responsibility of the property owners. In addition, the Illinois General Assembly statute states that owners and others in residential units are responsible for snow removal on their sidewalks (745 ILCS 75/1). Table 12 below shows the maintenance ownership of sidewalks and sidewalk facility structure.

TABLE 12. SIDEWALK MAINTENANCE AND SNOW REMOVAL

	PARTY RESPONSIBLE FOR:	
MUNICIPALITY	SNOW REMOVAL	SIDEWALK MAINTENANCE
BELVIDERE	PROPERTY OWNERS	PROPERTY OWNERS
BOONE COUNTY	PROPERTY OWNERS	PROPERTY OWNERS
MACHESNEY PARK*	MUNICIPALITY	PROPERTY OWNERS
ROCKFORD PARK DISTRICT**	MUNICIPALITY	N/A
WINNEBAGO COUNTY	N/A	N/A
CHERRY VALLEY	N/A	MUNICIPALITY
WINNEBAGO FOREST PRESERVE	N/A	N/A
POPLAR GROVE	PROPERTY OWNERS	BOTH

*ONLY ON RECREATIONAL PATHS

**ONLY ON MADISON STREET, NEAR RIVERVIEW ICE HOUSE ON WHITMAN STREET

Perceived Safety Concerns

A major deterrent for residents and visitors of the region is perceived safety concerns. According to respondents of RMAP's Bicycle and Pedestrian Survey, crossing major intersections during the daytime felt dangerous and unsafe, due to high volume traffic at shared use path crossings. Additionally, respondents commented that even at intersections with marked crosswalks and pedestrian traffic signaling, they did not find it convenient or safe to cross certain multi-lane roadways. Respondents highlighted the following key corridors and major thoroughfares that they perceived as unsafe, including Riverside Boulevard, State Street, Mulford Road, and Alpine Road. Overall improvements to pedestrian and roadway facilities are vital to providing a safe environment for pedestrians and other non-motorized activity.

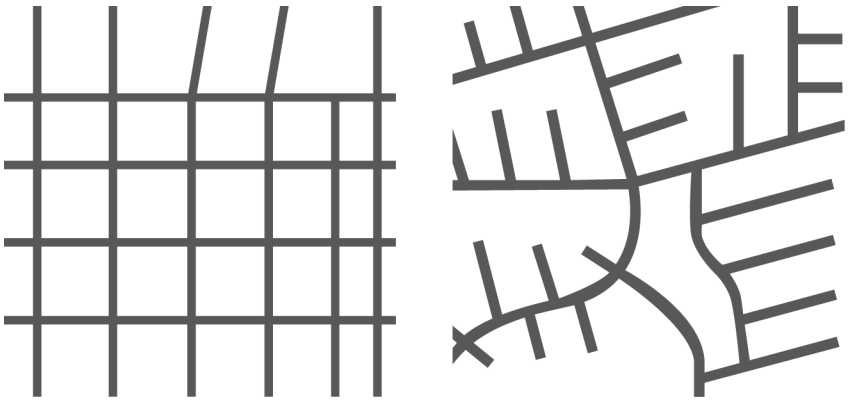
WIDE INTERSECTION CROSSING AT SPRING BROOK & PERRYVILLE ROADS, ROCKFORD

Land Use Patterns and Sprawl

Additionally, sprawl has created constraints in the pedestrian network by expanding the distances between residential neighborhoods and commercial activity centers. In particular suburban areas, opportunities for pedestrian walkability are limited. Many of these suburban communities were developed in a manner that created a built environment where walking is not a practical option for commuting or recreational use. In these situations, driving is a more convenient alternative to walking and bicycling which further creates a disincentive to develop pedestrian facilities.

Different land uses offer a variety of barriers to the pedestrian network in the urban, suburban, and rural context. Gaps in the suburban context often are the result of segregated land uses including industrial parks, residential subdivisions, or strip malls. Rural settings are also very low density, making walking and bicycling travel times too lengthy to conveniently travel from one area to another. Areas of land use that are in a state of transition also act as a barrier to the pedestrian network. In rural areas that are beginning to be developed, the lack of neighboring development breaks the continuity of the existing pedestrian network.

FIGURE 31. URBAN VS. SUBURBAN STREET PATTERNS



URBAN GRID PATTERN SUBURBAN CIRCULAR PATTERN

Multi-Modal Conflicts

Crashes, tripping hazards, and gaps are all components of pedestrian accessibility that influence pedestrian network safety, including multi-modal conflicts. Pedestrian safety significantly affects vulnerable groups of users, such as children and older adults. For instance in 2013, 16 percent of pedestrians killed were 65 years and older nationwide. The highest number of pedestrian injuries ranged from ages 10-14 years old and totaled approximately nine percent of all pedestrian injuries. Furthermore, 21 percent of children killed in traffic crashes were pedestrians.[2] Nationwide, 40 percent of crashes are intersection related.[3]

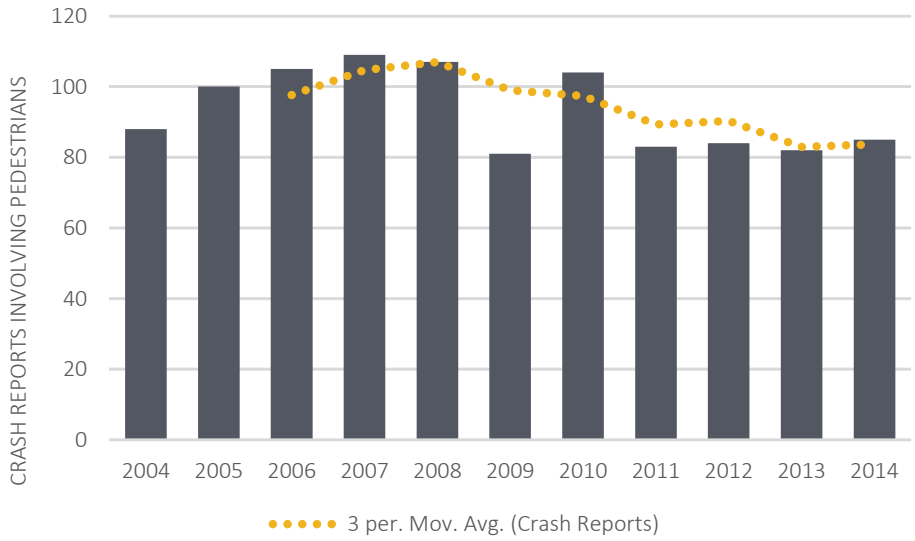
Safety issues like these prevent residents from using existing facilities even when these areas are statistically not the most dangerous part of the roadway. For instance, 60 percent of pedestrian fatalities were non-intersection related and 72 percent of total pedestrian fatalities occurred in the dark. While crashes at intersections are more frequent, pedestrian fatalities do not historically

2 "TRAFFIC SAFETY FACTS: 2013 DATA.". NATIONAL HIOGHWAY TRAFFIC SAFETY ADMINSTRATION. (2013) P. 3.
3 "CRASH FACTORS IN INTERSECTION-RELATED CRASHES: AN ON-SCENE PERSPECTIVE." NATIONAL TRAFFIC SAFETY ADMINSTRATION. (SEPTEMBER 2010) P. V.

occur at intersections.[4]

According to traffic crash incident data from the Illinois Department of Transportation (IDOT), there are more injuries than fatalities that occur in the Rockford MPA region. Specifically, more pedestrian crashes occurred than pedalcyclist crashes (see Figure 32). Overall in Illinois, 12.6% of total traffic crash fatalities were pedestrian fatalities (125 out of 991) in 2013.[5]

FIGURE 32. CRASH REPORTS INVOLVING PEDESTRIANS (THREE COUNTY TOTAL)



SOURCE: ILLINOIS DEPARTMENT OF TRANSPORTION. COUNTY CRASH STATISTICS.

Traffic Regulations and Ordinances

Many traffic regulations offer a minimum requirement for pedestrian safety measures. For instance, most of the municipalities in the RMAP MPA include enforcement of crossing roadways only at marked crosswalks and maintaining the right of way. While these regulations and guidelines are important in the municipal code, enforcement is harder to execute. Lack of education and prevalence of active transportation programs influence drivers and pedestrians obeying traffic laws. Pedestrians are urged to do the following:

- Obey all traffic and pedestrian control signals (audible, visual etc.) when crossing roadways;
- Drivers shall yield the right-of-way to pedestrians;
- Unlawful pedestrian crossings, including jaywalking, is prohibited in both rural and urban areas of the RMAP MPA; and
- Pedestrian use of sidewalks must afford others to easily pass by.

While these traffic regulations are in place, motorized and non-motorized users may not be fully educated on the rules of the road. Pedestrians and automobile users share the roadway and

4 NATIONAL HIGHWAY SAFETY ADMINSTRATION. *TRAFFIC SAFETY FACTS 2012*. (WASHINGTON D.C.: 2013).
5 *TRAFFIC SAFETY FACTS 2012*

education on roadway safety is critical in promoting a safe, user friendly pedestrian network. Influencing behavior of all users through education and programming is the proceeding strategy to enforcing pedestrian and bicycle codes/regulation. Therefore, the combination of traffic regulation awareness and pedestrian programming participation will provide substantial influence on local culture and perceived safety of the pedestrian network.

Opportunities

There are numerous opportunities within the RMAP MPA for expanding the pedestrian network through current efforts and plans already occurring throughout the region. Some of the opportunities for the region's pedestrian network include:

- Future Road Improvements
- New Developments
- Existing Road Widths
- Current Enhancement Projects
- Jurisdictional Comprehensive Planning
- Future Roads Improvements

LONG PRAIRIE PATH CROSSING AT IL-173, POPLAR GROVE

Future road improvements that are planned for construction offer a wide range of opportunities to include pedestrian accommodations. Using planned future improvement projects to incorporate pedestrian facilities can reduce overall installation infrastructure costs. Often, planned future road improvements are maintenance related and include low cost solutions such as restriping the pavement and resurfacing.

Reconstructing existing facilities is more frequent and has a lower cost estimate than providing new construction. Future improvements of this type could streamline the improvement process of pedestrian facilities. Many pedestrian friendly elements that can be included in the roadway are not major infrastructure installations. For example, restriping pavement can reduce multi-lane roads and accommodate pedestrian pathways without significant infrastructure construction or high cost estimates.

New Developments

New development and the rehabilitation of urban cores provide opportunities for expanding the pedestrian network, as well as connecting sidewalks to existing facilities. As such, new development should be required to include pedestrian facilities including sidewalks on both sides of the roadway as appropriate. Without the construction of these facilities, it creates significant gaps in the pedestrian network. Using zoning and development regulations to require pedestrian facilities can further expand pedestrian accessibility in the RMAP region.

Existing Road Widths

Many roadways in the Rockford region are multi-lane and fitted to primarily accommodate automobiles. According to recent studies, excessive roadway widths that only accommodate automobiles are not multi-modal and underutilize potential development for pedestrian facilities. For example, as mentioned in the previous section, traffic calming methods can be used to reduce the number of lanes on a street and should be further studied. Many low cost infrastructure improvements are available to reduce lanes on a roadway including restriping and resurfacing for maintenance projects. Retrofitting existing roadways and reducing road width are high impact, low cost solutions to creating a more connected pedestrian network.

Current Enhancement Projects

As documented in the FY 2018-2021 RMAP Transportation Improvement Program (TIP), current enhancement projects in the Rockford region provide specific examples of opportunities to install pedestrian facilities. RMAP has a history of streamlining the planning process for project allocation funds. These funds are then allocated towards enhancement projects including pedestrian facility improvements. Implementation of these projects is then dependent upon municipal or county prioritization. Below is a list of enhancement projects, programmed in the RMAP FY 2018-2021 TIP, which will promote pedestrian safety and accessibility in the Rockford region:

- Pecatonica Prairie Path Trial Head
- Perryville Path- SE Connection
- Riverwalk Development (Whitman Street to Park Street; Beattie Park to State Street Bridge)
- East State Street Streetscape (Rock River to 1st Street)
- West Side Streetscape (North Main Street to South Main Street)
- City Center infrastructure in Downtown Rockford
- City-wide Pedestrian Crossing Improvements
- City-wide ADA Handicap Ramp Installation Program
- City-wide Sidewalk, Curb & Gutter Program
- City-wide Arterial Sidewalk Program
- Sandy Hollow Road Diet
- Rails to Trails Bridge Conversion over the Rock River

Jurisdictional Comprehensive Planning

As mention in the Existing Conditions: Bicycle Network, municipalities and counties have produced comprehensive and neighborhood plans that align with goals and objectives to address sidewalk and bicycle issues. Additionally, many of these entities have a code of ordinances outlining specific sidewalk construction metrics and maintenance guidelines.

The purpose of municipal and county comprehensive plans is to promote a safe, accessible and efficient multi-modal transportation system that serves the community. While most municipalities do not have a separate bicycle and pedestrian plan, many comprehensive plans outline key elements of bicycle and pedestrian network integration within recommended infrastructure and development in site specific, transportation, land use and local community plans.

Most comprehensive plans target areas of interest including connecting recreational activity centers and residential neighborhoods, extending current recreational paths, and developing diverse forms of multi-use bicycle trail system and pedestrian facilities. These efforts are crucial in working towards promoting a safe and walkable community. Cities and counties in the RMAP MPA set project specific initiatives and strategies for pedestrian facility implementation. Including a network of routes for pedestrian use that supports a better interconnected system for the region. Key overlapping themes from local and comprehensive plans from partner organizations in the RMAP MPA are listed below:

- Require sidewalks for all new developments;
- Extension of recreational paths;
- Support suitable development that accommodates a multi-modal system;
- Reduce urban sprawl;
- Provide paved linkages to support an interconnected system;
- Improve safety of pedestrian facilities and arterial roadways;
- Enhance walkability in residential neighborhoods; and
- Create a circulation system of sidewalks.

COMMON WORDS FOUND IN LOCAL PLANS RELATING TO BICYCLE & PEDESTRIAN PLANNING/ FACILITIES

Safe Routes to Schools

In 2005, President Bush signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This law designated $612 million over five years (FY 05-09) for Safe Routes to School (SRTS) programs in all 50 states. Each state's Department of Transportation was allowed to develop their own application guidelines for the state programs.[6] The STRS program in Illinois is administered by the Illinois Department of Transportation (IDOT). Illinois's program has three main goals:

1. To enable and encourage children, including those with disabilities, to walk and bicycle to school.

2. To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.

3. To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity (within two miles) of both public and private primary and middle schools (grades K-8). [7]

NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL LOGO

Safe Routes to School programs offers the opportunity to make walking and bicycling to school safer and more accessible for children, as well as increase the number of children who choose to walk or bicycle. SRTS programs can also enhance children's health and well-being. There are several benefits associated with successful Safe Routes to School programs, including:

- Reducing the number of children hit by cars.
- Reducing congestion around schools. Parents driving their children to school account for 20 percent to 25 percent of morning rush hour traffic.[8]
- Improving children's health though physical activity.
- Reducing air pollution.
- Saving money for schools, through a reduction of the need for bussing children who live close to school.
- Improving community security by increasing eyes on the street.
- Increasing children's sense of freedom.

6 "SAFE ROUTES TO SCHOOL STATE PROGRAMS". SAFE ROUTES TO SCHOOL NATIONAL PARTNERSHIP. HTTP://WWW.SAFEROUTESPARTNERSHIP.ORG/STATE/BESTPRACTICES/STATEPROGRAMS

7 "ILLINOIS SAFE ROUTES TO SCHOOL". IDOT. HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/LOCAL-TRANSPORTATION-PARTNERS/COUNTY-ENGINEERS-AND-LOCAL-PUBLIC-AGENCIES/SAFE-ROUTES-TO-SCHOOL/INDEX (2015).

8

- Teaching pedestrian and bicycle skills.[9]

Unfortunately, there are no longer funding opportunities available through IDOT's Safe Routes to School program. The last funding cycle was 2013-2014. However, several potential funding sources still existing for these types of programs including mini-grants, local funding, and private funding.

The United Way of Rock River Valley: Walking School Bus Program

In 2013, The United Way of Rock River Valley started the pilot Rockford Walking School Bus Program as part of their Strong Neighborhood's Initiative. The walking school bus was implemented in hopes to improve these aspects as well as increase school attendance and decrease tardiness. These place-based strategies take into account the local context and work with community leaders to impact the neighborhood in a positive way. The walking bus program is an adult-supervised, safe walking route for children attending school within a mile and a half of their elementary school. Lewis Lemon Elementary in Rockford School District #205 was the first program location to start the program for first through fifth graders. Many students who live in housing under a mile of their school were not on the bus route and have limited transportation options. The walking school bus offered a community-friendly pedestrian alternative to vehicle transportation, and is funded through the We Choose Health grant by the Affordable Care Act. With this grant, the pilot was advanced as a full time program the following year. As a Community Transformation Grant, it serves pedestrian needs and enhances the neighborhood. Overall, the program included a partnership between the Rockford Housing Authority, Winnebago County Health Department, YMCA of the Rock River Valley, Neighborhood Network, Rockford Human Services Department, RMAP and Youth Services Network.

Harlem School District's Mileage Club

In 2008, the Village of Machesney Park, in a partnership with the Harlem School District, received funding through IDOT's Safe Routes to School program for a twofold approach to make the routes to school safer for children. The Village and the school district received a $4,000 SRTS non-infrastructure grant for speed feedback signs along high traffic areas near five elementary schools, as well as a $1,429 non-infrastructure grant for motivation programs to encourage children to walk to school.

POSTCARD MADE BY THE NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL

The motivation program, called the Mileage Club, was designed around some of the existing incentive programs. The Mileage Club offers incentives for students to participate in the club and track their mileage. Students in the Mileage Club receive medals and rewards at the annual school's recognition ceremony.[10]

9 "ILLINOIS SAFE ROUTES TO SCHOOL". IDOT. HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/LOCAL-TRANSPORTATION-PARTNERS/COUNTY-ENGINEERS-AND-LOCAL-PUBLIC-AGENCIES/SAFE-ROUTES-TO-SCHOOL/INDEX (2015).

10

Engineering Recommendations

This regional bicycle and pedestrian plan is intended to serve as a comprehensive planning tool for the Rockford Metropolitan Planning Organization (MPO) and the local jurisdictions within the MPO's planning boundaries to develop a well-connected network of active transportation options and an increased standard for livable communities. The recommendations of this plan are related to five categories that are essential in making great places for bicycling and walking. These are known collectively as the "Five E's": Engineering, Education, Encouragement, Enforcement, and Evaluation. Both the League of American Bicyclists and the Walk Friendly Communities (WFC) promote use of the "Five E's" to foster a walk-friendly or bike-friendly community. Policies and programs that fit into these categories build on each other to approach walking and bicycling improvements in a holistic way. The "Five E's" are described below.

1. **Engineering**: Physical infrastructure and hardware to support bicyclists and pedestrians.

2. **Education**: Programs that ensure the safety, comfort, and convenience of bicyclists, pedestrians, and fellow road users.

3. **Encouragement**: Incentives, promotions, and opportunities that inspire and enable people to bike or walk.

4. **Enforcement**: Equitable laws and programs that ensure motorists and bicyclists are held accountable.

5. **Evaluation**: Processes that demonstrate a commitment to measuring results and planning for the future.

This section of the plan specifically focuses on the first of the "Five E's": Engineering. It provides recommendations for continuing the development of a well-connected active transportation network through physical infrastructure and amenities, as well as the policies that will serve as the impetus for increased infrastructure. Physical infrastructure is not limited to the development of shared use paths, sidewalks, and bicycle lanes. Physical infrastructure also includes the strategic placement of signage, wayfinding, and bike racks to enhance the connectivity and further encourage use of bicycle and pedestrian facilities to commercial centers and key locations.

Note: When determining the best locations and strategies for the following engineering recommendations, Rockford Metropolitan Agency for Planning and local jurisdictions should follow the Federal Highway Administration's context sensitive solutions (CSS) before implementation begins.

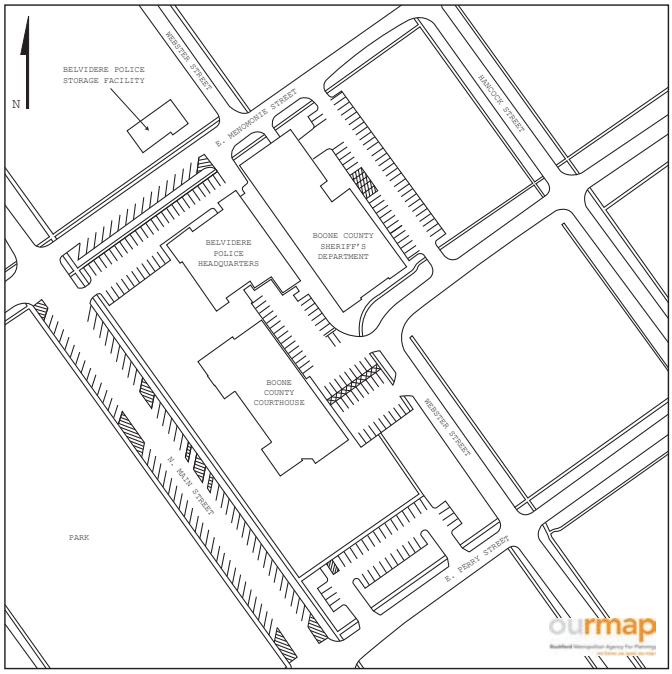
Policy Recommendations

Although each jurisdiction within the Rockford Metropolitan area is unique in their character and governance, the proposed policy changes in this plan should be considered equally for adoption into each jurisdiction's code of ordinances and regulations. The following policies are also recommended for adoption by MPO's Policy Committee.

Site Plan Review

It is recommended that municipalities throughout the RMAP region formalize a site review process for project development to include pedestrian infrastructure and facility design. The review process should take a modernized approach and incorporate development standards that outline facility design to accommodate non-motorized activity. The review process should also be formalized through a local policy or be outlined within development regulations of the zoning ordinance. This way municipalities can encourage development criteria throughout the implementation phase of future construction projects that is inclusive of all modes of travel including pedestrian.

For example, Boone County has a policy to ensure that a site plan review process is completed in order to identify non-motorized facilities within their Community Facility Plan. Through the site plan review process, developers are required to identify connections to major activity generators including schools, employment centers, recreational facilities, transportation facilities and public services. This process addresses the importance of interconnectedness of developments to allow the bicycle and pedestrian network to expand to new developments.



CURRENT CONDITIONS RENDERING FOR SITE PLAN, BELVIDERE

Other municipalities, like Monroe Center, are working on incorporating a complete streets policy into site specific improvements including new commercial and residential developments. In this example, Monroe Center uses the zoning code to require the development of pedestrian infrastructure when new commercial or residential developments are planned.

Complete Streets Policies

Many communities in the United States have started to prioritize Complete Streets design. At the core of the Complete Streets concept is a focus on providing safe access for users. A complete street can accommodate all forms of transportation including public transit, personal vehicles, bicycles and pedestrians. Safety and mobility are important factors that complete streets provide to users of varying mobility, income levels, and ages. With these concepts in mind, municipalities can make informed decisions on creating a better multi-modal transportation system that accommodates all types of users. A successful Complete Streets policy requires multi-jurisdictional commitment to these principles throughout the street design and implementation phases of road construction, maintenance, and enforcement. It is recommended that municipalities follow best practices as defined by the National Complete Streets Coalition to ensure that policy implementation is effective and sustainable. Specific recommendations on how to develop a Complete Streets policy are summarized below.

NORTH MAIN STREET, DOWNTOWN ROCKFORD

Adopt a Regional Complete Streets Policy

In developing a regional Complete Streets policy, it is important for the region to create a compelling vision to guide the development of pedestrian infrastructure. It must be able to resonate with multiple stakeholders and inspire community support. Much like the complete streets policy from the Mid-Ohio Regional Planning Commission (MORPC), adopted in 2010, complete streets policies are more than just transportation initiatives. They are regional standards enacted to guide livability and prosperity in a metropolitan area.[1] The MORPC Complete Streets vision/purpose is shown below:

"To create an equitable, balanced, and effective transportation system where every roadway user can travel safely and comfortably and where sustainable transportation options are available to everyone."

A regional Complete Streets policy should demonstrate a commitment to building transportation facilities that accommodate all modes and users through the scope of the project. It is recommended that a regional Complete Streets policy include language clearly stating that pedestrians and bicyclists have equal claim to the roadway as automobiles.[2] It should integrate complete street development standards for all phases of a project including incremental or long-term projects that need maintenance, repair, reconstruction etc. A regional policy should also consider possible exceptions in the construction process including situations when the cost of

1 CARISSA SCHIVELY SLOTTERBACK AND CINDY ZERGER. "COMPLETE STREETS FROM POLICY TO PROJECT: THE PLANNING AND IMPLEMENTATION OF COMPLETE STREETS AT MULTIPLE SCALES". (MINNEAPOLIS, MN: HUMPHREY SCHOOL OF PUBLIC AFFAIRS, UNIVERSITY OF MINNESOTA: 2013). P. 101

2 STEFANIE SESKIN. "COMPLETE STREETS: LOCAL POLICY WORKBOOK". SMART GROWTH AMERICA. (WASHINGTON, D.C.: 2013). P. 20-24.

pedestrian facility design is disproportionate to the facility use.

Adopt a Local Complete Streets Policy

After a regional Complete Streets policy is adopted, it is recommended that jurisdictions within the RMAP Planning Area adopt their own local Complete Streets policies to ensure full integration into the local community's transportation network. It is highly recommended that future bicycle and pedestrian infrastructure development at the local level expand beyond current minimum design standards. Specific performance measures should be identified in the local Complete Streets policy to track progress of its implementation. Some examples of local performance measures that reflect successful implementation of pedestrian infrastructure development are listed below:

- Linear feet of new or reconstruction sidewalk;
- Miles of new or restriped on-street bicycle facilities;
- Trip reduction of Vehicle Miles Traveled (VMT) or Single Occupancy Vehicle (SOV);
- Construction of pedestrian facilities on bridge projects;
- Increase pedestrian trips on sidewalks, multi-use paths etc.; and
- Adhere to state standards of maintenance for snow and ice removal on sidewalks.[3]

After these regional and local Complete Streets policies are adopted, political leaders should continue to advocate for complete streets initiatives throughout their jurisdictions. Much like the USDOT Mayor's Challenge for Safer People and Safer Streets Initiative, mayors and elected officials' involvement through the development of a complete streets policy are crucial for a municipality's long-term commitment to create safer and more accessible streets.[4]

DOWNTOWN BELVIDERE

3 SESKIN. "COMPLETE STREETS: LOCAL POLICY WORKBOOK". P. 38.
4 "MAYOR'S CHALLENGE FOR SAFER PEOPLE, SAFER STREETS". HTTPS://WWW.TRANSPORTATION.GOV/MAYORS-CHALLENGE-BACKGROUND, (APRIL 14, 2017).

Bicycle Network Recommendations

The region as a whole must be more proactive at adding additional miles to the bicycle network. If the region works toward strengthening our alternative modes of transportation it will have a large impact on the livability and attractiveness of the region as a whole. The number of bicyclists actively riding on paths and on-street facilities is directly related to the amount of bicycle facilities available to riders and the condition or quality of them.

At the same time, the region's bicycle facilities need to be developed with regional consistency through lane marking types, signage, and wayfinding guidelines. System consistency will add to the overall experience a user has on the system and will determine their level of safety and perception of being comfortable riding on both shared use paths and on-street facilities. It will make the region's bicycle network able to function for all levels and abilities of riders both for recreation and for transportation.

ROCK RIVER TRAIL AT THE YMCA OF ROCK RIVER VALLEY, ROCKFORD

Shared use paths should be more spread out than our on-street system and should cover the basic north to south and east to west connections through areas of the built environment that may otherwise act as a barrier. The region's shared use paths bicyclists act similar to the function of collector and arterial vehicular transportation system. While the region's on-street bicycle facilities should act as local roads. This way the shared use paths will allow for faster and safer throughway riding because they have limited access points, less conflicts, and only interact with vehicular traffic at-road crossings in a very controlled and predictable manner. Most shared use paths can often be found along major roadways, rivers and streams, canals, power corridors or through large parks and recreational parcels within the RMAP region.

Contrary to this, on-street bicycle facilities interact very intimately with vehicular traffic, there are many points of conflict, and in general there are more potential safety conflicts between bicycles and vehicles as they cross paths with one another. It is pertinent to provide proper on-street bicycle facilities in the form of protected bicycle lanes, such as those located on Spring

Brook Road in Rockford. The location and quality of bicycle facilities directly impact the number of cyclists a region's transportation system nurtures and accepts. Implementing a more robust and connected network of shared use paths and on-street facilities will foster more awareness and encourage more people to ride their bicycles as a form of transportation rather than solely for recreational purposes. Most people who already own a bicycle would ride it more frequently, for longer distances and times, while exploring new of the region at a slower pace, if it were easier to do so. Collectively as a region, various methods should be utilized to increase local funding to help support the addition of more bicycle facilities.

Looking at the current existing bicycle network it is evident that portions of the system are disjointed, disconnected, at times missing logical termini and lacks proper on-street signage, wayfinding or uniform signage. Most trailheads lack basic but important information such as a kiosk sign with a trail map and safety information. The region does have a good number of shared use paths miles, but the on-street bicycle network is drastically lacking comparatively. Not only are the total miles very low but nearly all the on-street system consists of only a sign on the side of the road designating it as a route. This means that often there is not even a sharrow painted on the pavement to let drivers know to be aware of cyclists and that they must share the road. Map 17 shows the current gaps in the bicycle network.

CYCLIST IN A BELVIDERE NEIGHBORHOOD

The following paragraphs describe recommendations for the bicycle network in the RMAP Planning Area that would help develop a well-connected network of on-street bicycle facilities and shared use paths, as well as improving safety for all roadway users.

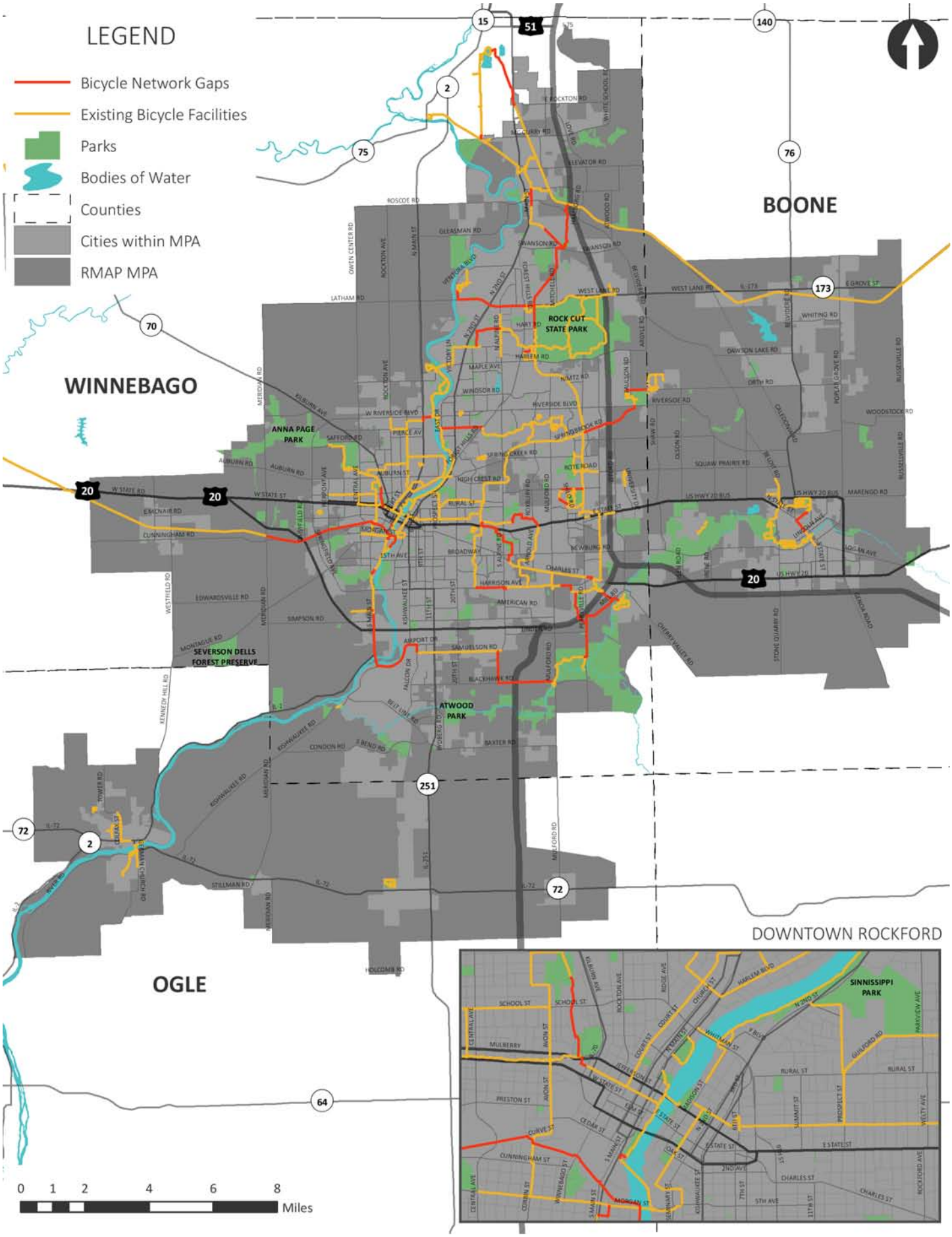
BIICYCLE LANE MARKING, OAK CREEK, WISCONSIN

Increase Mileage of Protected On-street Facilities

There is great need for more quality on-street bicycle facilities throughout the region. Specifically, more on-street facilities that are properly marked, signed, and adequately enforced or monitored by local law enforcement. Signage alone on the side of the road does not necessarily let motorists know they are supposed to be sharing the road and are required by law to yield at least three feet to cyclists riding on all roads and streets, except highways.[5] Currently, many cyclists in the region feel as if they are an after thought in the design and reconstruction of roadways. Providing appropriate on-

5 "ILLINOIS BICYCLE RULES OF THE ROAD". ILLINOIS SECRETARY OF STATE. (SPRINGFIELD, IL: 2015)

MAP 17. GAPS IN THE BICYCLE NETWORK



street facilities, as a part of maintenance or reconstruction of the roadways, this feeling can be elevated. The region has been slowly moving in the right direction with recent projects that have included upgraded pedestrian and bicycle facilities, namely in conjunction with state route projects. However, incorporating new on-street bicycle facilities do not always need a large construction project to piggyback off of. Sometimes all that is needed in order to accommodate a bicycle lane is reconfiguring the lanes through restriping. The region as a whole is encouraged to implement more out of the box ideas as more recent best management practices are introduced.

Separated Bike Lane Using Flexible Post or Paint Striping

Protecting bike lanes is a relatively simple yet fairly new concept in most American cities. It can be a very cost effective solution to improve safety and network connectivity between on-street routes and off-street facilities. Separated bicycle lane design is directly related to the corridors existing uses, roadway conditions including engineering, context, and other constraints. In order for a separated bike lane to be successful, a flexible design approach with viable options and different elements that range in dimension, design, and best practices should be utilized. Separated bicycle lanes are a low stress option for connecting and filling gaps in the current system and provides a much safer means to do so on a bicycle.[6]

Since a separated bike lane is purposefully delineated from vehicular traffic, bicyclists have an inherently safer area to ride in. In fact almost all users, 96 percent, feel safer as a result of traveling within a bicycle lane as compared to none.[7] Therefore, by installing a separated bike lane, the numbers of cyclists using the corridor will increase and new users (of varying abilities) are attracted.[8]

CYCLIST ILLEGALLY IN CROSSWALK AT WHITMAN AND NORTH MAIN STREET INTERSECTION, ROCKFORD

Intersection Improvements

Bike routes and shared use paths that cross through an intersection generate a conflict between cyclists and motorists that potential has a high propensity for accidents resulting in injury. In fact, the majority of bicycle crashes involving motor vehicles occur at intersections.[9] Intersection improvements for bicycle safety should be considered during regular road rehabilitation, general street design, or reconstruction projects. Proper intersection design makes bicycling safer and therefore makes cycling more attractive. Intersections with design considerations for bicyclists also reduces vehicle speed and directly contributes to less crashes and injuries.

6 FHWA. *SEPARATED BIKE LANE PLANNING AND DESIGN GUIDE*. WASHINGTON D.C., 2015. P. 27-34.
7 "LESSONS FROM THE GREEN LANES: EVALUATING PROTECTED BIKE LANES IN THE U.S." NATIONAL INSTITUTE FOR TRANSPORTATION AND COMMUNITIES (2014).
8 MICHAEL ANDERSON. "THE PROTECTED BIKE LANE RIDERSHIP BUMP, CITY BY CITY." HTTP://WWW.PEOPLEFORBIKES.ORG/BLOG/ENTRY/EVERYWHERE-THEY-APPEAR-PROTECTED-BIKE-LANES-SEEM-TO-ATTRACT-RIDERS. (JUNE 03, 2014).
9 M. ANNE HARRIS. ET AL. "COMPARING THE EFFECTS OF INFRASTRUCTURE ON BICYCLING INJURY AT INTERSECTIONS AND NON-INTERSECTIONS USING A CASE - CROSSOVER DESIGN." *INJURY PREVENTION*. (2013) P. xxii

Protected bike lanes reduce bike-related intersection injuries by about 75 percent, compared to crossings without bicycle infrastructure present.[10] Marking a bike lane through an intersection raises the awareness of both motorists and cyclists to obey traffic laws and be respectful of each other's right of way. These pavement markings remind motorists that bicyclists at uncontrolled intersections have the right-of-way and priority over turning vehicles or vehicles entering the roadway from a driveway, alley, or cross street. It also helps to guide cyclists through the intersection, therefore letting motorists know where cyclists will be, thus reducing the likelihood of a cyclists veering too far from the bike lane. This establishes a level of predictability from cyclists and promotes our region's transportation network in an equitable fashion for all users.

Bike Boxes

Bike boxes may be used at intersections that see a large volume of bicycle traffic, or may have a high rate of accidents between users. A bike box is simply a colored box designated for cyclists to wait at before an intersection, between the stop bar and crosswalk, while the light changes. Bike boxes put the cyclists out in the front, ahead of the first vehicle waiting in line to progress through the intersection. Bike boxes allow cyclists to be very visible to all vehicles in the intersection and allows cyclists to get a head start when the light turns green. This directly decreases the number of crashes from motorists turning in front of a through cyclists movement, which is illegal. Bike boxes also improve pedestrian safety and visibility by requiring motorists to stop further back from the crosswalk and prevent motorists from turning on red when a cyclists or pedestrian is present, as they have the right of way.[11]

Signage and Wayfinding

Bicycle specific signage, language, and wayfinding can serve more than one purpose. For instance, it can be used to set the feel for a certain section of trail or path that may be historic or have special cultural significance. Signs may also be used to alert bicyclists of a danger, a roadway safety issue, a change in condition, or a detour. Most of the time bicycle specific signage lets users know what amenities or points of interest are ahead, or off the route but are near. These can also include other trails and connections to nearby on-street and shared use path systems.

It is important to plan the signage system with enough of the right information, but not too much. The information needs to be clear and understandable, limited only to the location and distance. Kiosks should be used at trail heads or other important route junctions to display additional route information. This may often times include historical context, cultural information, or additional resources about the area. Signs that are along a road must also conform to the 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD), a manual written by the Federal Highway Administration used to govern and control all traffic control devices and signs.[12]

While on-street signs and information helps a person get from place to place, the information that is painted on the pavement is even more important because it is one of the leading contributors to how vehicular traffic will act around cyclists riding on street. The more apparent and obvious a bike route is to a vehicle operator, the more likely the driver will notice and yield to cyclists

10 HARRIS. "COMPARING THE EFFECTS OF INFRASTRUCTURE ON BICYCLING INJURY AT INTERSECTIONS AND NON-INTERSECTIONS USING A CASE - CROSSOVER DESIGN." P. xxii

11 HARRIS. "COMPARING THE EFFECTS OF INFRASTRUCTURE ON BICYCLING INJURY AT INTERSECTIONS AND NON-INTERSECTIONS USING A CASE - CROSSOVER DESIGN." P. XXV

12 FEDERAL HIGHWAY ADMINISTRATION. *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS*. 2009 EDITION. WASHINGTON D.C., 2009.

EXISTING SIGNAGE ON STONE BRIDGE TRAIL, ROSCOE

traveling in the same lane. Painted street routes, lanes, and shared lane markers or sharrows, all need to be visible and well maintained. This should be done on a rotating schedule and of course as needed other places.

Signage may also be temporary and can serve other functions such as safety or education. For instance, small decals or stickers can be placed on the back of existing street signs to notify a cyclist they are traveling the wrong direction; as they are only viewable from one direction of travel. This lets bicyclists know they should cross to the other side of the street or travel on another street if the one they are on is a one way road. Signs can also be placed in temporary locations to alert drivers of new bicycle facilities or even to organize an educational campaign targeting motorists on the rules of the road.

Bicycle Signals

Bicycle intersection signals are signals at a marked traffic intersection that are specific to bicyclists only. Generally, they are found at busy intersections used by both bicycle and vehicular traffic. Often times signals are used to give cyclists a head start before vehicles begin their movement so they can be through areas of conflict sooner. A bicycle signal will look similar to a traffic light but will have either a brightly lit green or red bicycle silhouette depending on who has the right of way. Strategically placed bike signals can be effective at reducing the number of instances a cyclists runs a red light at areas where this may occur often. It can be used as a deterrent as well as a safety measure.[13]

Additionally, signal timing and signal design should accommodate bicyclists. City engineers need to take the entire transportation system into account and must ensure that bicyclists are planned for as part of the regional transportation network. Signalized intersections with actuation devices should be equipped with a method to detect bicycles as well as they do (microwave, video detection, or loop system).

Electric bicycle signals should be considered at intersection locations with heavy conflicts between bicycle and motor vehicles and where conflicts have already occurred. Bicycle signals are separated from regular traffic control devices and positioned to control bicycle movement through an intersection. The bicycle signals also need to be coordinated with pedestrian movement whenever possible in order to increase safety and minimize the delay to automobiles.

13 HARRIS. "COMPARING THE EFFECTS OF INFRASTRUCTURE ON BICYCLING INJURY AT INTERSECTIONS AND NON-INTERSECTIONS USING A CASE - CROSSOVER DESIGN." P. xvii

Bicycle Racks

Bicycle racks are a necessity for urban cyclists wanting the opportunity to dismount their bicycle and enter into a business or shopping center. But it is not just the sufficient number of bike racks that is important, it is also the accessibility that plays a key role. For example, there are very few store fronts with bicycle racks in downtown Rockford. The same can be said for a majority of public places, such as parks, playgrounds, and bike paths, within the city's urban core. Bicycle racks need to be placed near the entrance of a store front for ease of use and for security purposes while shopping or conducting business. Bicycle racks may actually dictate whether a cyclists will stop and spend money at a business or not and should be considered when redesigning urban public spaces in the future. Many cities have found success in partnering with local businesses to sponsor themed bicycle racks in front of their business. For example, a coffee cup bike rack in front of a breakfast cafe, etc.

Dedicated Maintenance Funds

With limited resources and funding streams available for the construction of bicycle facilities in the region, a multi-faceted and dedicated funding program needs to be developed to ensure equitable multi-modal transportation planning and implementation is occurring in Boone, Ogle, and Winnebago Counties. While various funding sources from federal, state and local sources exist today to create new facilities and maintain existing ones, in all of the cities with robust and exceptional bicycle transportation networks, a majority of the funding stems from local sources. For a more complete explanation of funding opportunities and strategies, see the Funding Section in the Plan Implementation Section.

CUSTOMIZED BIKE RACK, BELOIT, WISCONSIN

CYCLISTS USING UTILITY POLE AS BIKE RACK, ROCKFORD

Pedestrian Network Recommendations

As stated in the Existing Conditions: Pedestrian Network section, the region has an insufficient sidewalk network. A large number of arterial and collector streets that serve as commercial corridors lack complete sidewalks, while others have major gaps. Based on the Suitability Index results, RMAP highly recommends that local jurisdictions focus on correcting sidewalk gaps, especially along transit routes and areas of high demand. Map 18 shows the sidewalk gaps along major corridors throughout the region. A complete ranking of priority areas based on the identified gaps can be found in the following section, Plan Implementation.

While the Suitability Index analysis has identified gaps, it does not assess the condition of the existing sidewalks. Where sidewalks are missing, inadequate, or eroded, pedestrians are forced to walk in the street. This causes both perceived and real safety concerns for users of those sidewalks. To determine the condition of the sidewalks, an in-depth sidewalk inventory and assessment program would need to be carried out.

While connecting gaps and improving the overall sidewalk network are important in improving the overall pedestrian network, additional engineering techniques can be used to improve the overall safety and experience for pedestrians throughout the metropolitan area. The following strategies and techniques are recommended for use by jurisdictions to improve the pedestrian experience.

Traffic Calming

Specific design techniques can be applied to improve the physical infrastructure of the street. In the RMAP region, the majority of the roadway network is comprised of roads, with a posted speed limit of 30 miles per hour (MPH) or higher. It is recommended that these auto-centric, high speed areas use traffic calming elements, where appropriate, to enhance and protect pedestrian travel. Two types of traffic calming measures that have been very successful are speed cushions and curb extensions, which are summarized below:

Speed Cushion

Speed cushions are either speed humps or speed tables, that reduce the speed of single-occupancy vehicles while still ensuring that emergency vehicles can navigate safely through by providing wheel cutouts. Speed cushions can be used in major commercial areas that share the roadway with thoroughfares used for freight. Other examples of appropriate locations to install speed cushions include areas with a high amount of traffic or emergency response routes.[14]

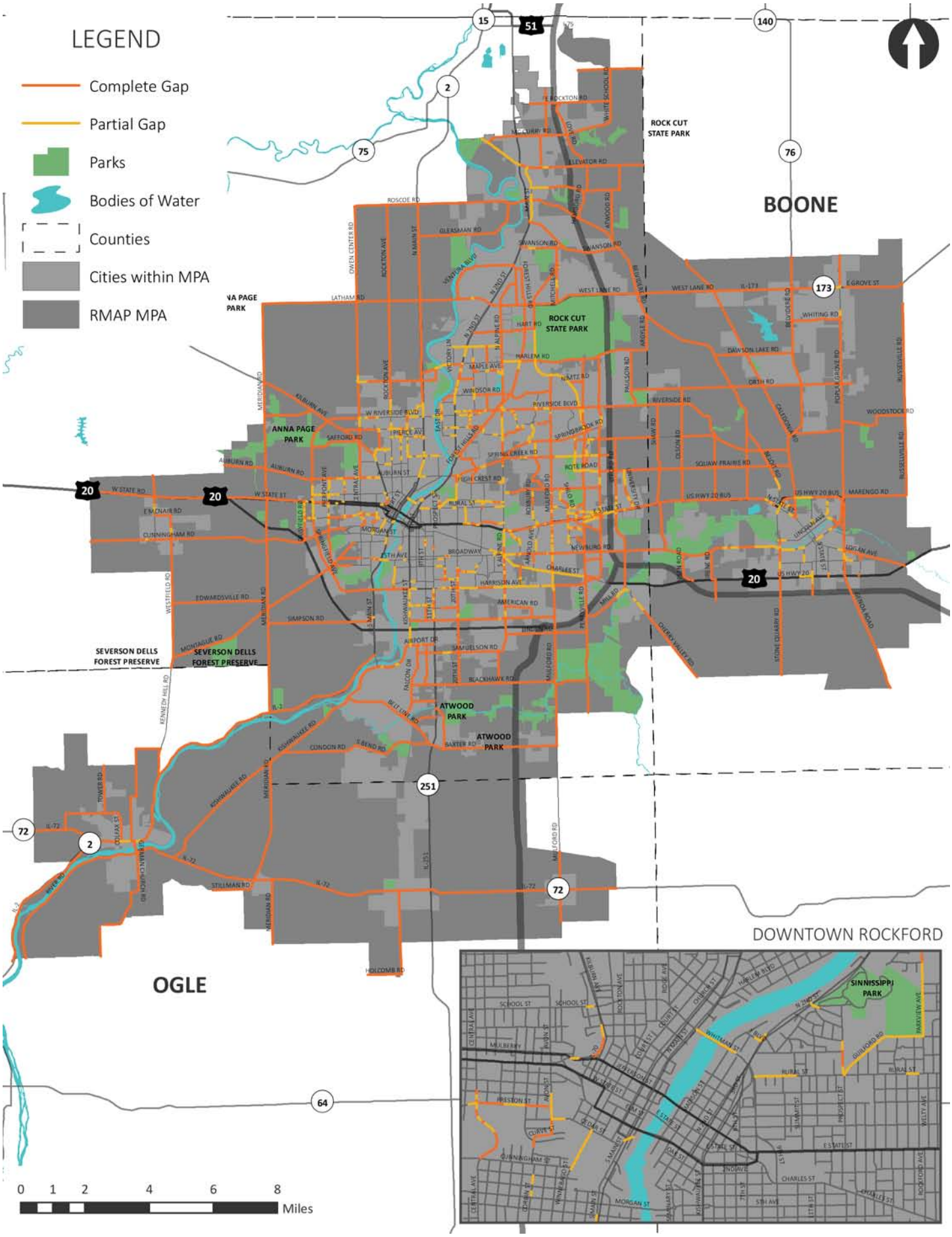
SPEED CUSHION DESIGN

Curb Extensions

Curb extensions are street treatments designed to decrease the width of the roadway in order to protect pedestrians and other vulnerable users. Curb extensions improve safety at pedestrian crossings by reducing the

14 NACTO. "SPEED CUSHION." *URBAN STREET DESIGN GUIDE*. 2013. HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/STREET-DESIGN-ELEMENTS/VERTICAL-SPEED-CONTROL-ELEMENTS/SPEED-CUSHION/

MAP 18. SIDEWALK GAPS ALONG MAJOR CORRIDORS



pedestrian crossing distance and improving the ability for pedestrians and motorists to see each other. Curb extensions offer flexible, low cost solutions to calm traffic. In addition, they are only appropriate where there is on-street parking lanes and must not extend into travels lanes, bicycle lanes, or shoulders. Curb extensions also increase the space for street furniture, benches, plantings, and trees.[15] Various types of curb extensions are listed below.

CURB EXTENSION IN DOWNTOWN BELVIDERE

- Neckdowns are curb extensions at intersections that reduce roadway width from curb to curb. When installed to mark the entrance of a residential area, they are called gateways. They have the capacity to become place-making nodes and highlight areas of the local community. The goal is to increase visibility of pedestrians to motorists and reduce length of unmarked or unprotected crossing distances for pedestrians. Elements of the gateway curb extension can greatly enhance the public realm through adding street furniture, planters and lighting.[16] Shown in Figure 33.

- Pinchpoints are curb extensions placed midblock to narrow the street to facilitate midblock pedestrian crossings on low-volume streets (see Figure 34).

FIGURE 33. CURB EXTENSIONS: NECKDOWN

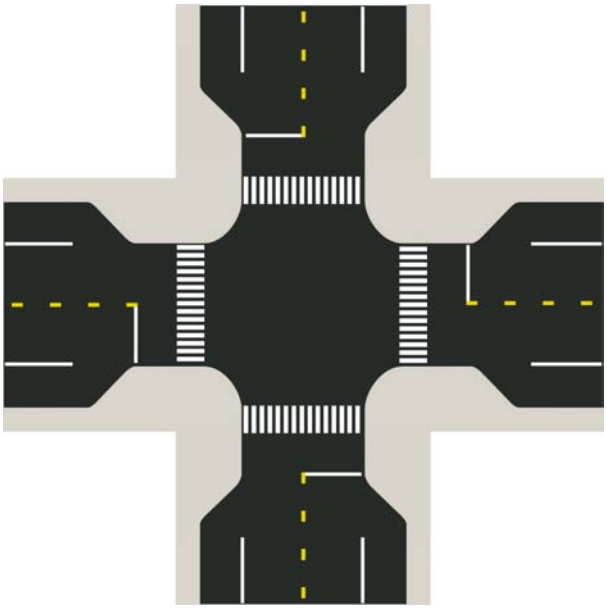
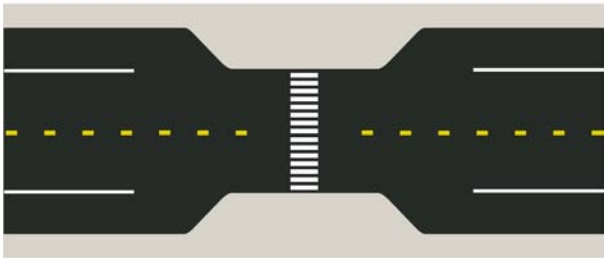


FIGURE 34. CURB EXTENSIONS: PINCHPOINT



15 NACTO. "CURB EXTENSIONS." *URBAN STREET DESIGN GUIDE*. 2013. HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/STREET-DESIGN-ELEMENTS/CURB-EXTENSIONS/

16 NACTO. "GATEWAY." *URBAN STREET DESIGN GUIDE*. 2013. HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/STREET-DESIGN-ELEMENTS/CURB-EXTENSIONS/GATEWAY/

Pinchpoints are also referred to as chokers.

- Chicanes are off-set curb extensions that realign straight streets to form S-shaped curves. They are designed as a series of lateral shifts to slow traffic speeds.

- Bus Bulbs are curb extensions that align the bus stop with the parking lane, allowing buses to stop and board passengers without leaving the travel lane. Bus bulbs should have a length of two buses for a route with frequent service and the length of one bus for routes with less frequent service.[17]

Railway Right-of-Way Development

Creating connections along the right-of-way of abandoned railways is recommended to utilize existing transportation infrastructure. Programming shared use path construction along the rights-of-way of existing railroads can transform and connect various land uses. According to FHWA, the barriers to the pedestrian network that railroad crossings create can be mitigated by various improvements to the right-of-way and railroad crossing areas. As listed in previous sections, railway barriers like flangeway gaps and openings can be mitigated by a variety of alternative options including widening the sidewalk, using material that can withstand the weathering condition of the railroad, and raising approaches to the railroad track. Improvements to the pedestrian pathway across the railroad crossings address key hazard mitigation concerns and create a more connected network.

Intersection Traffic Control

For pedestrians and vulnerable populations (i.e. younger children, elderly adults, and persons with disabilities), intersections are areas of high activity on the roadway and need appropriate traffic control. Appropriate intersection traffic control mechanisms should be installed at intersections to inform pedestrians when to cross the roadway safely and to alert automobiles that pedestrian activity will occur ahead. Installation of the intersection traffic control mechanisms as listed below are highly recommended to address issues of wide arterial roads in the RMAP region. These mechanisms will provide a broader time window for pedestrians to cross.[18]

- Channelized right turn lanes are separated from the rest of the intersection by painted lines or raised barriers, usually in the shape of a triangular islands. These can be installed at one or more approaches at a signalized intersection. Used to aid pedestrians in crossing fewer travel lanes and provide refuge for slower pedestrians.[19]

- Smaller curb radii guides vehicles in turning corners and separates vehicular traffic from intersection corners. This shortens the length of pedestrian crosswalks. It also increases pedestrian visibility to drivers and reduces pedestrian crossing distance as well as vehicular speed.[20]

17 NACTO. "BUS BULB." *URBAN STREET DESIGN GUIDE*. 2013.HTTP://NACTO.ORG/PUBLICATION/URBAN-STREET-DESIGN-GUIDE/STREET-DESIGN-ELEMENTS/CURB-EXTENSIONS/BUS-BULBS/

18 KELLY DAVILKA, ET AL. SIOUX CITY ACTIVE TRANSPORTATION PLAN. (MAY 2015) P. 65.

19 *DESIGNING WALKABLE URBAN THOROUGHFARES: A CONTEXT SENSITIVE APPROACH.* (WASHINGTON D.C.: INSTITUTE OF TRANSPORTATION ENGINEERS, 2010) P. 187

20 *DESIGNING WALKABLE URBAN THOROUGHFARES: A CONTEXT SENSITIVE APPROACH.* (WASHINGTON D.C.: INSTITUTE OF TRANSPORTATION ENGINEERS, 2010) P. 184

- Leading pedestrian intervals typically give pedestrians a 3-7 second head start during an all-red phase to cross the street and reinforces the pedestrian right-of-way to turning vehicles.

- Signal phasing can be used to protect pedestrian movement from multiple directions, especially reducing crashes from left-turn movements. Signal phasing times the traffic signals appropriately to accommodate for pedestrian traffic during high volume times for pedestrian activity. Often, an activation button is available.

Rectangular Rapid Flash Beacon (RRFB)

Over the years, RRFB's have been effective at reducing the number of pedestrian injuries and fatalities at intersections. Recently, this technology has also begun to make its way into bicycle infrastructure projects throughout the nation. RRFBs are user-actuated amber LED lights that supplement warning signs at unsignalized intersections or mid-block crosswalks. RRFBS use an irregular flash pattern that is similar to emergency flashers on police vehicles to grab the attention of drivers. They help to strengthen and solidify the signs that are already in place by drawing new or additional attention to them. An RRFB can be programed to operate only during specific times, such as while public schools are getting out, during peak traffic periods, or possibly during special events.[21] A great example of a successful RRFB installation is in the Village of Wilmette, Illinois, at the intersection of Wilmette Avenue and Prairie Avenue. A potential location for the installation, pending on other traffic engineering considerations, of an RRFB would be at the North Main and Auburn round-a-bout in Rockford. This intersection is hard to navigate and it is forecasted that there will be increased use of this intersection by pedestrians and cyclists as redevelopment projects continue to occur here, namely the roadway reconstruction and installation of a shared use path along North Main Street.

NORTH MAIN & AUBURN ROUND-A-BOUT, ROCKFORD

21 "RECTANGULAR RAPID FLASH BEACON (RRFB)". FEDERAL HIGHWAY ADMINISTRATION. HTTPS://SAFETY.FHWA.DOT.GOV/INTERSECTION/CONVENTIONAL/UNSIGNALIZED/TECH_SUM/FHWASA09009/, (SEPTEMBER 4, 2014).

High Intensity Activated Crosswalk Beacon (HAWK)

The pedestrian hybrid beacon (also known as the High intensity Activated crossWalK, or HAWK), is a pedestrian-activated warning device located on the roadside or on mast arms over a midblock pedestrian or bicycle crossing. HAWK devices are almost always placed midblock and it must be user activated with a manual push button operation.[22] The mast arm will contain MUTCD approved signage with specific language. On either side of the sign, a beacon head is placed that consists of two red lenses above a single yellow lens. The beacon head is in the "dark" until a cyclists or pedestrian is ready to cross and presses the activation button. Once pressed, the beacons will begin flashing and display a warning signal to traffic in both directions that they must yield. The device will then display a solid red signal, indicating that drivers must come to a stop, while the pedestrian or cyclists will see a walk or bicycle symbol, or both, indicating that they now have the right of way to cross. Generally, HAWK devices are used at pedestrian crossings, but they are now also being designed with cyclists in mind.[23] A potential location where this would work well is the Willow Creek Shared Use Path where it crosses Forest Hills Road in Loves Park.

WILLOW CREEK SHARED USE PATH CROSSING FOREST HILLS ROAD, LOVES PARK

Comply with ADA Accessibility Standards

The Americans with Disabilities Act (ADA) of 1990 requires that all pedestrian facilities must be accessible to persons with disabilities. It is recommended that ADA accessible infrastructure elements (i.e. curb ramps, truncated dome pads, etc.) be installed at all necessary locations of the transportation network to provide an interconnected pedestrian network and to ensure that users have equal accessibility and mobility.

22 "PEDESTRIAN HYBRID BEACON." FEDERAL HIGHWAY ADMINISTRATION. HTTPS://SAFETY.FHWA.DOT.GOV/PROVENCOUNTERMEASURES/FHWA_SA_12_012.CFM (FEBURARY 1, 2017).

23 "PEDESTRIAN HYBRID BEACON." FEDERAL HIGHWAY ADMINISTRATION

Program Recommendations

As mentioned previously, each jurisdiction within the Rockford Metropolitan Planning Area (MPA) is unique in their character and governance. All of the jurisdictions within the MPA, however, are working with RMAP to move towards a cohesive regional model. This plan is intended to serve as a guide for the region's jurisdictions to align policies and programs that will enhance active and non-motorized transportation. The recommended policies and programs promote bicycling and walking; educate bicyclists, pedestrians, and motorists; and set standards to provide well designed facilities. Building off of the engineering recommendations, this section of the plan provides recommendations for programs directed at improving conditions for walking and bicycling, related to the remaining "Five E's".

This section is divided into the following four sections: Education, Encouragement, Enforcement, and Evaluation. To recap,

- **Education** is related to the programs that ensure the safety, comfort, and convenience of bicyclists, pedestrians, and fellow road users;

- **Encouragement** programs provide incentives, promotions, and opportunities that inspire and enable people to bike or walk;

- **Enforcement** deals with the equitable laws and programs that ensure motorists and bicyclists are held accountable; and

- **Evaluation** programs and processes can demonstrate a commitment of local agencies to measure results and plan for the future.

It is also important to note that many programs can fall into more than one of the "Five E's" outlined above and have been placed within the category believed to be the best fit. Examples of various outreach and encouragement initiatives offer a spectrum of opportunities that could fit into the jurisdictions within the RMAP Planning Area.

Education

Building bike lanes, shared use paths, and other facilities is important, but a major component of an efficient network is the public-at-large knowing how to drive alongside bicyclists and how to safely use the facilities. Education is an important component of improving the overall safety of all roadway users by raising awareness of bicycles and pedestrians on roads. Education programs are relatively low in cost when compared to a major trail project or bike plan implementation, however it is labor intensive and needs to occur on a regular basis to have a lasting effect.

Successful education programs utilize strong and lasting partnerships. Within the Rockford Metropolitan Area, there exist many groups and organizations that will be great partners for bicycling and pedestrian education, as these groups already promote health, education and safety. These partnerships can range from sponsoring courses to assisting with running programs. Partners can also act as intermediaries who regularly interact with a targeted group, such as bilingual advocacy groups. Potential partners include government organizations, county health departments, schools, police and fire departments, local businesses, and bicycle and pedestrian advocacy groups.

Education programs should be available in an array of forums and curriculums tailored to specific audiences. Education programs can include general public and targeted campaigns, general skills practices and instruction, and specific training programs for targeted user groups such as children, adolescents, commuters, seniors, and transportation officials and decision makers.

The following list describes education programs that can be created or expanded upon to enhance walking and biking in the area and foster a safe and comfortable environment for all users.

Public Awareness Campaign

Creating a cohesive public awareness campaign targeted for all users of the road will assist in making sure stakeholders and other local interest groups can easily share and educate a wide range of people on the importance of safety and courtesy on the roadway in a consistent and identifiable way. The Rockford Metropolitan Agency for Planning (RMAP) and all of its partner agencies should convey a singular message throughout the region.

The public awareness campaign will lay the ground work for future pedestrian and bicycle initiatives and increases the success of subsequent programs. A successful public awareness campaign should accomplish the following: creates interest, develops concern and awareness, provides information, engages actions, and results in behavioral or attitude change.[1]

Successful bicycle- and pedestrian-related public awareness campaigns throughout the United States have included the following elements:

- Targets emotions rather than relying on information or acronyms;
- Personalize and humanize bicyclists and/or pedestrians;

1 "ELEMENTS OF A GOOD PUBLIC AWARENESS CAMPAIGN: AT A GLANCE". GLOBAL ROAD SAFETY PARTNERSHIP. HTTP://LEGACY.GRSPROADSAFETY.ORG/CONTENT/PUBLIC-AWARENESS-CAMPAIGN

- Avoids fear tactics;
- Delivers easy-to-understand message to a wide range of people, including both motorist and bicyclists;
- Indirectly encourages more people to cycle or walk;
- Explains bicyclists and/or pedestrian behavior; and
- Remembers all parts of the community, e.g. use bilingual messages in areas with a significant non-English speaking population.[2]

A set of campaign materials with a recognizable identity should be developed. These materials can be delivered via local media such as television, radio, billboards, bus wraps, and posters, as well as non-media methods such as classroom programs and partnering with community events.

ILLINOIS 'S "SHARE THE ROAD" CAMPAIGN LICENCE PLATES

U.S. DEPARTMENT OF TRANSPORTATION'S "EVERYONE'S A PEDESTRIAN" SAFETY CAMPAIGN

U.S. DEPARTMENT OF TRANSPORTATION'S "FITTING YOUR BIKE HELMET" SAFETY CAMPAIGN

2 "A REVIEW OF BICYCLE SAFETY CAMPAIGNS: PRIMARILY IN THE U.S." PRESENTATION. BIKES BELONG FOUNDATION.

Bike Rodeo

A bike rodeo is a clinic to teach children the skills and precautions to ride a bicycle safely. Bike rodeos were designed to be a fun educational activity for children and is intended to increase their knowledge about traffic safety, practice skills, and decision-making while walking or riding a bicycle, and motivate participants to want to learn and engage more in walking and bicycling. Bike rodeos can be designed as large, municipal events with skill activities and exhibits. Large community rodeos will require a large group of volunteers, some with specialized skills, and can last half a day. Smaller rodeos can also be conducted as part of a gym class. These smaller rodeos can be conducted in a school gymnasium with just a few bicycles and a handful of volunteers.[3]

A key component of an effective bicycle safety education program is skilled instructors and community partners. Children can often times see right through those who do not know what they are talking about. Local bicycle clubs are a great resource for finding skilled cyclists. Potential community partners include: police and fire departments, hospitals, health departments, schools, parent-teacher organizations, service clubs, bike shops, libraries, local businesses, and local youth agencies.

Bike rodeos should be designed to address the behaviors that most often result in crashes for children, such as riding out of a driveway without stopping, failing to stop at stop signs, suddenly swerving without looking back, and riding on the wrong side of the street. Rodeos address these behaviors by creating a set of stations for participates to complete. Some examples of stations include bike inspection, bicycle and helmet fit, hand signals, rules of the road, and handling skills course. An additional station can be added to address pedestrian safety, such as teaching participants how to read pedestrian signals at intersections.

Case Study: Lena-Winslow Jaycees Bike Rodeo in Lena, IL

A Bike Rodeo was held in Lena, IL with the goal of educating youth and their parents on bicycle safety, rules of the road, health benefits, and driver-bicycle awareness on the roadways. Attendees were fitted for helmets, provided with helmets (if they didn't already own one), and given bicycle adjustments by a local bike shop. In addition, an interactive presentation was given on the rules of the road by local law enforcement and safety personnel with a bike riding course at the end to test the children's skills.

The entire day was a combination of donated time and money by several local organizations and government entities. The bike rodeo was a success in Lena because of the dedication of local volunteers, an interactive and engaging lesson, and the total number of participants. The program can be a model for other communities in engaging and teaching children and their parents about bicyclists' safety.

More Information can be found at *http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/safe-routes-to-school/index.*

3 REBECCA GOMEZ. "RODEO 101: BIKE AND PEDESTRIAN SAFETY EDUCATION AND CELEBRATION." CITY OF MINNEPOLIS BIKE WALK AMBASSADOR PROGRAM. HTTP://WWW.BIKEMN.ORG/ (2011).

Bicycle and Safe Routes Ambassador Programs

Bicycle and Safe Routes Ambassador programs have been proven successful in a number of cities throughout the United States, such as Chicago and Fort Collins. Ambassador programs offer bicycling and pedestrian education on a variety of topics though various formats such as presentations, workshops, classes, and at events. The goal of establishing Bicycle and Safe Routes Ambassador Programs is to:

- Encourage more residents and visitors to try bicycling or walking;
- Educate bicyclists, drivers, and pedestrians on the safe use of roads, sidewalks, and trails;
- Reduce barriers that prevent people from bicycling or walking;
- Provide resources to make the choice to travel by bike an easy and safe one; and
- Model good behavior and respectful, safe road use for everyone.[4]

Each program has its own set of criteria for becoming an Ambassador. For example, the Bicycle Ambassador Program of Northern Colorado has three tiers of ambassadors: Bronze, Silver, and Gold. Each tier has its own unique set of requirements and responsibilities. To become a Silver Level ambassadors in Northern Colorado's program, a volunteer must complete Bronze Level membership requirements, interview with a Bicycle Ambassador Program team member, complete Smart Cycling classes, and shadow another Ambassador before teaching classes.[5]

Case Study: Bicycling & Safe Routes Ambassadors Program in Chicago, IL

Since 2001, with funding from the Chicago Department of Transportation, IDOT, federal grants, and private business sponsorships, the Bicycling and Safe Routes Ambassadors Program has been helping Chicago bicyclists and pedestrians use the streets more safely. The Ambassadors attend local events throughout the entire city in order to reach the greatest number of people possible. While attending the events, the Ambassadors teach safety tips and hand out safety information to attendees. In 2016, 800 events were attended and over 100,000 people were directly educated.

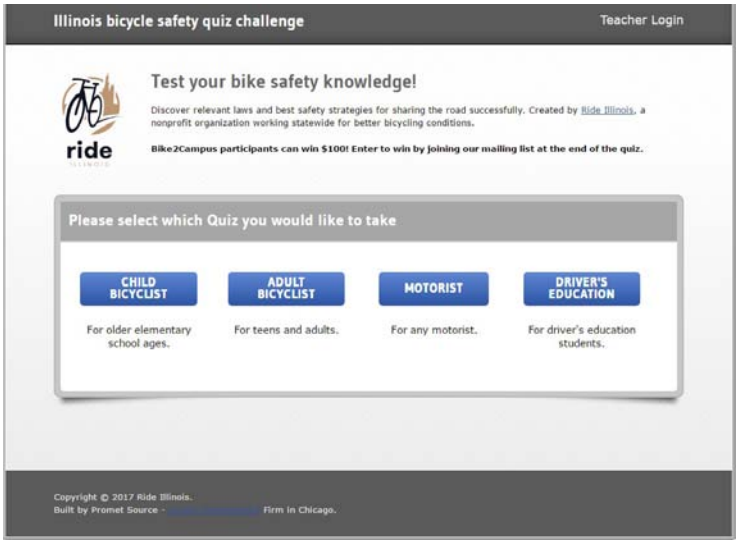
Chicago has also started a peer-to-peer bicycle and pedestrian safety education program, called Junior Ambassadors. Junior Ambassadors complete a six-week training course on communicating bike safety messages. Working with full-time staff members, the Junior Ambassadors partner with the Chicago Park District Day Camp program to reach 6-12 year-old children throughout the city. Junior Ambassadors also attend community events and perform safety education on the Lakefront Trail.

More information can be found at *http://chicagocompletestreets.org/safety/education/.*

4 "D.C. BIKE AMBASSADOR". WASHINGTON AREA BICYCLISTS ASSOCIATION. HTTP://WWW.WABA.ORG/PROGRAMS/D-C-BIKE-AMBASSADOR/
5 "BE A BIKE AMBASSADOR". BICYCLE AMBASSADOR PROGRAM. HTTP://BICYCLEAMBASSADORPROGRAM.ORG/

Education In Lieu of Punishment

Some communities have found success with offering a bicycle and pedestrian course as an alternative for bicyclists who are first-time offenders of bicycle and pedestrian related rules of the road. Many cities in Illinois are participating in Ride Illinois's Ticket Diversion program. Ticket diversion programs encourages and educates residents on active and non-motorized transportation in several unique ways. First, it increases the number of bicyclists voluntarily participating in education programs on traffic and safety laws. Second, violation fines can discourage adolescents and low-income individuals who are more likely to use active transportation. It also encourages traffic law enforcement and discourages violations. Ticket diversion offers a fair enforcement option, which led to more violators receiving citations, and subsequently a decrease in violations.



RIDE ILLINOIS'S BIKE SAFETY QUIZ USED FOR SEVERAL BICYCLE DIVERSION PROGRAMS

Several Illinois cities have started bicycle ticket diversion programs, however use different approaches. The Town of Normal and the City of Urbana use a city ordinance model. Working with their local police departments, the city has added bicycle infractions into their city ordinances. The infraction is not an Illinois Vehicle Code violation and will not go against violator's driving record. There are three options to settle a bicycle violation: (1) pay a fine by mail or at the Finance Department 14 days prior to the date the Notice to Appear (NTA) was issued; (2) appear in court on the date on the NTA, where the violation can be contested or plead guilty; or (3) if this is their first bicycle violation, they may be eligible to participate in the Bicycle Diversion Program. The program typically includes taking an online safety course, hosted by Ride Illinois and turning in a certificate of completion into the legal department, at which time the violation is dropped.[6]

Bicycle & Pedestrian Resource Website

A comprehensive online website for bicycle and pedestrian-related materials will create a "one-stop shop" for existing and potential active transportation users to find the information they may need. An interactive regional bike and pedestrian map should be provided, as well as end of trip facilities and amenities inventory such as showers, bicycle racks, water fountains, and restrooms. Residents and visitors would be able to easily plan walking or biking trips or find the best routes to a particular destination. The resource website would also act as a guide to education and safety information, such as facility types and rules of the road, as well as a guide to different community events or groups that promote bicycling and walking.

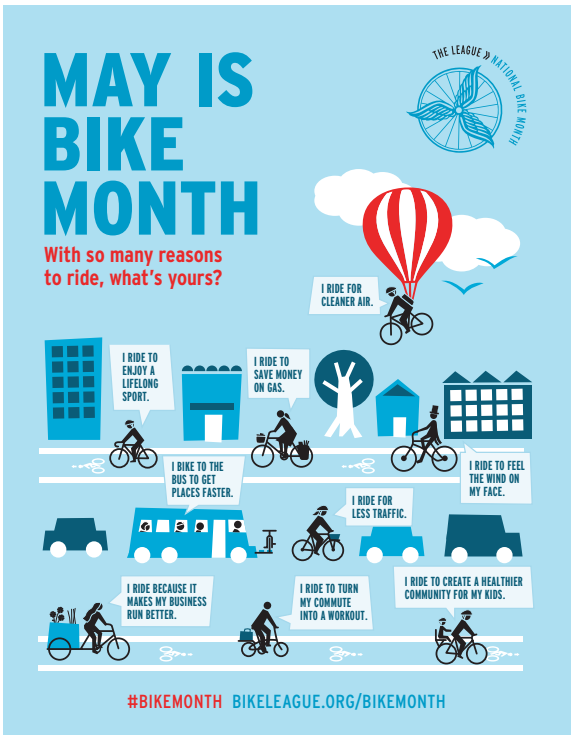
A resource guide could also be geared toward businesses and organizations with information on

6 "BICYCLE VIOLATIONS". TOWN OF NORMAL. HTTPS://WWW.NORMAL.ORG/1070/BICYCLE-VIOLATIONS.

how to encourage and promote walking and biking for their customers and employees, as well as learn how active transportation can be good for their businesses. Examples of good resource websites include the City of Chicago, California Active Transportation Resource Center, and the Puget Sound Regional Council. Each of these websites provide information on existing projects, safety, resources, and ways to get involved.

Encouragement

Encouragement plays a large role in the creation of a bicycle- and pedestrian-friendly community when partnered with education and enforcement programs. Encouragement programs increase bicycle and pedestrian trips by providing incentives, recognition, or services that make bicycling a more convenient transportation mode. This type of programming not only provides incentives for people to start walking or biking, they also increase visibility by creating comfort, confidence, and safety on streets. Motivating people to choose biking and walking as valid modes of transportation, through fun and interesting activities, will help build support for more walkable and bikeable places in the Rockford Metropolitan Area.



PROMOTIONAL MATERIAL FROM THE LEAGUE OF AMERICAN BICYCLISTS

Similar to education programs, encouragement programs work best when strong partnerships are utilized and can be used to help sponsor or help promote an event. Local advocacy groups are a starting point for communities that realize there are things needed to be done to encourage bicycling and walking. The most successful bicycle friendly communities have strong and effective advocacy groups, hosting events, rides, and activities.

There are a wide variety of programs that can be used to encourage people to walk or bike. The following encouragement programs are recommended for implementation in the region to foster a bicycle- and pedestrian-friendly community:

Bike to Work Day/Bike Month

May is National Bike Month, sponsored by the League of American Bicyclists and celebrated in communities from coast to coast since 1956. The month serves as a catalyst for communities to showcase the benefits of bicycling and encourage more people to try biking. National Bike to Work Week and Bike to Work Day are often cited as the month's flagship events, occurring the third week and third Friday of May, respectively. While many communities follow the national month, some communities have taken an initiative to host their own Bike to Work Day – Denver's bike to work event is in June, while Arizona hosts theirs in March. The region can build off of this

Case Study: Curb Your Commute Challenge in Springfield, IL

For eight years, the Sangamon County Regional Planning Commission, Springfield Bicycle Advisory Council, and local organizations have put together the Curb Your Car Week. Each spring, local employers are encouraged to have their employees participate in leaving their car at home for the week and taking an alternative form of transportation to work. After the challenge is complete, each person who participated is encouraged to visit the activity's website to register the alternative trips they accomplished. Prizes are awarded to businesses and individuals based on number of participants, number of trips, etc.

The challenge has been a success in getting people to think about alternative forms of transportation and increase roadway safety (when registering participants must take the Adult Bike Safety Quiz to be eligible for the program prizes).

More information can be found at *https://www.illinois.gov/cms/agency/recycling/pages/bike_to_work.aspx*

momentum to create our region's very own Bike Month celebration.

The League of American Bicyclists' National Bike Month Guide provides activities and promotional materials, steps to success, statistics, and success stories. The guide includes a variety of events that can be planned to encourage bicycling, such as bicycle tune-up events, local bike challenge, Ride with the Mayor Event, bicycling town hall, and Ride of Silence to honor those who have been injured or killed while cycling in the community.

Open Streets Event

An Open Streets event temporarily closes streets to automobiles so that people may use them for healthy and fun physical activities like walking, jogging, biking and dancing. Open Streets events should not be confused with block parties, street fairs, or other similar event. The objectives of an Open Street event is encourage sustained physical activity, increase community engagement, and build support for broader transportation options.[7]

The Open Street Project is an advocacy project led by The Street Plans Collaborative and partnered by the Alliance for Biking and Walking. The project began in early 2010 to examine the breadth and diversity of open street initiatives in the United States and Canada. Over 90 Open Streets Initiatives exist in the United States and Canada. While each open streets initiative is uniquely adapted to the local social, political, economic, and physical context in which it is implemented, several common models have emerged in the United States and Canada.[8] Table 13 gives a summary of the seven models that have emerged.

7 "ABOUT OPEN STREETS". OPEN STREETS PROJECT. HTTP://OPENSTREETSPROJECT.ORG/ABOUT/ABOUT-BENEFITS-OF-OPEN-STREETS/.
8 "OPEN STREETS MODELS". OPEN STREETS PROJECT. HTTP://OPENSTREETSPROJECT.ORG/OPEN-STREETS-MODELS/

TABLE 13. OPEN STREET INITIATIVE MODELS

MODEL	ORGANIZING ENTITY	FUNDING	SETTING	SUPPORTING ACTIVITIES	OTHER CITIES USING MODEL
CLEVELAND	NON-PROFIT	PRIVATE		YES	CHICAGO, IL MINNEAPOLIS, MN
KENTUCKY	PUBLIC-PRIVATE PARTNERSHIP	PUBLIC & PRIVATE	STATEWIDE	YES	
PORTLAND	PUBLIC	PUBLIC & PRIVATE		YES	ST. LOUIS, MO SAN ANTONIO, TX
SAN FRANCISCO	PUBLIC-PRIVATE PARTNERSHIP	PUBLIC & PRIVATE	CITYWIDE	YES	OAK FOREST, IL MADISON, WI
SEATTLE	PUBLIC	PUBLIC	PARKS	NO	ANN ARBOR, MI KANSAS CITY, MO
SAVANNAH	PUBLIC-PRIVATE PARTNERSHIP	PRIVATE		YES	MISSOULA, MT LINCOLN, NE
WINNEPEG	NON-PROFIT	PUBLIC & PRIVATE		YES	FERGUSON, MO FARGO, ND

SOURCE: OPEN STREETS PROJECT BY THE ALLIANCE FOR BIKING & WALKING & STREET PLANS

Safe Routes to School

Safe Routes to School aims to create safe, convenient, and fun opportunities for children to bike and walk to and from schools. Safe Routes to School programs can also enhance children's health and well-being. There are several benefits associated with successful Safe Routes to School programs, including reducing the number of children hit by cars, reducing congestion around schools, improving children's health though physical activity, reducing air pollution, saving money for schools through a reduction of the need for bussing children who live close to school, improving community security by increasing eyes on the street, increasing children's sense of freedom, and teaching students pedestrian and bicycle skills.[9]

PROMOTIONAL MATERIAL BY THE NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL

As mentioned previously in the Existing Condition section, several Safe Routes to School programs have been created in the metropolitan area. It is recommended that these, programs should be expanded upon throughout the region.

9 "ILLINOIS SAFE ROUTES TO SCHOOL". IDOT. HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/LOCAL-TRANSPORTATION-PARTNERS/COUNTY-ENGINEERS-AND-LOCAL-PUBLIC-AGENCIES/SAFE-ROUTES-TO-SCHOOL/INDEX (2015).

Bicycle Valet Parking

Convenient, secure bike parking at large events can make bicycling to an event a more attractive option. Offering bicycle valet parking or bike corrals at large community events provides secure, temporary facilities for the storage of bicycles. Bicycle valet parking services generally work like a coat check: the cyclist gives the bicycle to an attendant, who tags the bicycle with a number and gives the cyclists a claim stub. Bicycle valet parking reduces problems for other pedestrian traffic trying to get to the event, as well as creates a gathering point for cyclists attending the event – encouraging more people to ride to the event in the future.

ROCKFORD AREA BICYCLE MAP, 2012

Route Maps

One of the most effective ways of encouraging people to bike or walk is by distributing maps to show that the infrastructure exists, demonstrates how easy it is to access different parts of the community by bike, and highlights unique areas, shopping districts, or recreational areas. In 2012, the League of Illinois Bicyclists, now known as Ride Illinois, produced a "Rockford Area Bicycle Map" in coordination with RMAP and several other local agencies. This map serves as a start to producing an updated map after the completion of this plan. The map should be available on paper and online. Additionally, an update schedule should be in place for comprehensive updates of the map, since new bicycle facilities are added annually.

Bike Share

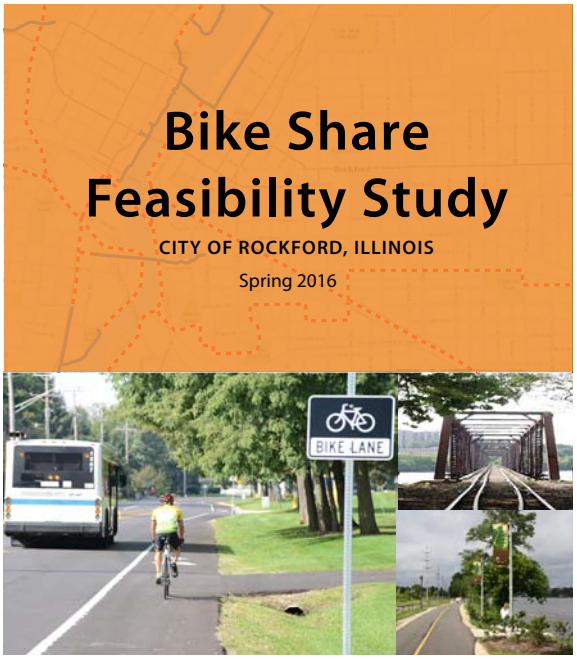
A bike share program can transform cities into a more desirable place for both residents and visitors due to the associated health, environmental, mobility, transportation, social, and safety benefits. Other bike share programs have positively contributed to the improved outlook, increased physical activity, and improvement in sociability of their communities.

A bike share program is a network of shared bicycles available to individuals on a short-term basis. Generally, a system consists of stations, usually placed ¼-mile to ½-mile distance from each other, with a kiosk-style machine to rent the bikes. A user simply rents a bicycle, rides to a station near their target destination, and then safely docks the bicycle for someone else to use. Customers will range from one-time users, such as tourists, to long-term subscribers. Bike sharing systems differ from bike rental programs in that bike sharing emphasizes shorter trips from point "A" to point "B", while bicycle rental programs emphasize casual rides over several hours.

In Spring 2016, the Rockford Metropolitan Agency for Planning completed a Bike Share Feasibility Study for the City of Rockford. After reviewing the benefits, business models, local context,

demand analysis, and feedback, RMAP believes that a bike share program would be feasible for the City of Rockford in the future after improvements are made to the existing bicycle infrastructure. Investments need to be in place to ensure that the implementation process leads to a sustainable program. RMAP recommended that the following steps be taken before the City of Rockford implements a bike share program:

1. Form an advisory committee;
2. Increase investment in bicycle and pedestrian infrastructure;
3. Develop a unified regional Complete Streets policy, developed by the MPO through coordination with all MPO member organizations;
4. Focus on downtown Rockford for the initial implementation area; and
5. Secure funding for implementation and initial operations.



BIKE SHARE FEASIBILITY STUDY, 2016

A bike share program, however, is not limited to only the City of Rockford. They can be implemented on small or large scales with opportunities to expand into the surrounding communities. All interested local agencies and groups in the region should collaborate to develop a regionally consistent bike sharing program.

Enforcement

Enforcement identifies the needed cooperation between the law enforcement community and the bicycling community to ensure that the basic laws and regulations needed to govern bicycling and the rules of the road are followed. Enforcement fosters mutual respect between all roadway users and improves safety. Enforcement strategies are most effective when targeting typical types of unsafe behaviors. Typical types of unsafe behaviors are summarized in Table 14.[10] Unlike education and encouragement programs, enforcement programs are not likely to have a long-term effect when used alone. It is more effective in changing behaviors when enforcement strategies are combined with educational programs.

Most enforcement strategies will need to be undertaken by different law enforcement agencies and public officials throughout the metropolitan area. The Winnebago County Sheriff's Office, Boone County Sheriff's Department, and Ogle County Sheriff's Department are responsible for enforcement on unincorporated areas of their counties, respectively. The local police departments in the incorporated cities and villages are responsible for enforcement of roadways within their jurisdictions. Many of the bike paths within the urban core of the metropolitan area are under

10 "EFFECTIVE PEDESTRIAN PROGRAMS." HAWAII DEPARTMENT OF TRANSPORTATION. *HAWAII PEDESTRIAN TOOLBOX.* HTTP://HIDOT.HAWAII.GOV/HIGHWAYS/STATEWIDE-PEDESTRIAN-MASTER-PLAN-AND-HAWAII-PEDESTRIAN-TOOLBOX/ (2013)

TABLE 14. TYPICAL TYPES OF UNSAFE BEHAVIORS THAT CAN BE ADDRESSED BY ENFORCEMENT

DRIVERS	BICYCLISTS	PEDESTRIANS
Speeding on residential streets and through school zones.	Riding into traffic without looking left, right, and left again.	Failing to look left, right, and left again before crossing the street.
Failing to yield to pedestrians, especially in crosswalks.	Riding against traffic instead of with the traffic flow.	Crossing a street at an undesirable location.
Running red lights or stop signs.	Turning left without looking and signaling.	Darting out between parked motor vehicles.
Passing stopped vehicles (such as school buses).	Failing to obey traffic signs and signals.	Wearing dark clothes when there is poor lighting.
Parking or stopping in crosswalks.	Failing to yield for pedestrians.	Talking, texting, or web browsing while walking.
Talking, texting, or web browsing while driving.	Riding out from a driveway or between parked vehicles.	
	Failing to wear a bike helmet.	

SOURCE: HAWAII DEPARTMENT OF TRANSPORTATION. *HAWAII PEDESTRIAN TOOLBOX.* (2013)

the jurisdiction of the Rockford Park District Police.

While many enforcement strategies and programs are led by law enforcement agencies, community members can improve safety behaviors in many ways. By incorporating citizens into potential enforcement strategies, the strain of limited law enforcement resources can be reduced.

The following list summarizes enforcement recommendations that can be created or expanded upon to improve safety and reduce bicycle and pedestrian related collisions and conflicts. Recommendations have been grouped into two categories: law enforcement strategies and community enforcement programs.

Law Enforcement Strategies

Law enforcement officers are the only ones who can enforce laws for motorist, bicyclists, and pedestrians and it is necessary to gain their buy-in to assure successful programs. All of the law enforcement agencies are recommended to work together to create unified enforcement strategies that are consistent across jurisdictional boundaries.

Traffic Complaint Hotline

Traffic complaint hotlines allow community members to report traffic problems directly to police. The intent of a hotline is to provide an easy way for citizens to contact their local police department and express traffic concerns. Traffic complaint hotlines enables police to quickly identify the worst traffic problem areas and most frequent traffic complaints. Citizens are able

to call a hotline number or fill out an online form 24 hours a day, seven days a week. Complaints are assigned to a traffic investigator for follow-up after the complaint was received and provide documentation of the enforcement results. Traffic complaint hotlines can create a stronger connection between police officers and the community-at-large as residents see their complaints being addressed.

Bicycle Light Campaign

Many bicyclists ride without lights or with dysfunctional lights and are unaware that during darkness, lights are required by Illinois law. Illinois law requires bicycles must have a front light visible from a distance of at least 500 feet and a rear red reflector visible for up to 600 feet.[11] Bicycling without proper lights can reduce bicyclist's vision at night and decreases the bicyclist's visibility to motor vehicles, which can lead to an increase risk of bicyclists being involved in accidents.

A bike light enforcement campaign can be an effective method to address this issue. Often called "Light the Night" or "Be Bright" campaigns, bike light enforcement programs are educational programs, such as bike light giveaway campaigns sponsored by police departments and local bicycle advocacy groups. In areas of high bicycle traffic, police officers stop bicyclists that do not have appropriate lighting. No citations are written, instead police officers educate individuals on the laws, while volunteers install free light sets onto the bike. These campaigns typically take place at an undisclosed location to focus efforts on people not using bike lights and last one to two days.

Case Study: "Be Bright" Campaign in Madison, WI

In 2011, the UW-Madison Police Department began hosting a "Be Bright" campaign to make sure bicyclists had appropriate lighting when biking at night, as required by Wisconsin law. The UW-Madison Police Department partnered with Safe Communties in 2014 to obtain a grant from the Dane County Bike Association. With grant funds, the department was able to purchase 115 bike light sets.

The campaign was held over two nights in October 2014. UW-Madison police officers stopped bicyclists who did not have appropriate lighting. Officers did not hand out citiations to the bicyclists they stopped. Instead the officers educated the bicyclists about the laws, while a volunteer installed a light set on the bicycle - at no cost to the bicyclists.

More information on the campaign can be found at *https://uwpd.wisc.edu/news/be-bright-campaign-a-success/*.

PHOTO CREDIT: UW-MADISON POLICE DEPARTMENT

11 "ILLINOIS BICYCLE RULES OF THE ROAD". ILLINOIS SECRETARY OF STATE. (SPRINGFIELD, IL: 2015)

Crosswalk Enforcement Campaign

In Illinois, drivers are required to stop for pedestrians crossing the street in a crosswalk, yet this law is often violated. Crosswalk enforcement campaigns can successfully address this behavior. While crosswalk enforcement campaigns vary per municipality, many cities use decoy operations to address crosswalk violations. In decoy operations, plainclothes officers pose as pedestrians at crosswalks. If the oncoming driver fails to yield to the pedestrian, as required by law, the vehicle is pulled over by a police spotter further down the street. In addition to the use of decoy pedestrians, there are several elements of a successful crosswalk enforcement campaign according to the Center of Education and Research on Safety. Some of these elements include:

- Warnings and Citations: Warnings should precede citations in jurisdictions that do not have a history of sustained crosswalk enforcement and warnings can be given to four to five times as many drivers as citations.

- Enforcement Flyers: These flyers can be used to educate drivers on the magnitude of the pedestrian safety problem in their community, to provide reasons why their behavior is dangerous to pedestrians, and explain why the problem should be taken seriously.

- Associating Enforcement with Warning Signs: Signs that remind motorists of their duty at crosswalks and intersections are most effective when they are introduced at the same time as enforcement.

- Schedule of Enforcement: The schedule of enforcement should be regular at first, and then irregular, to produce and sustain changes in driver behavior.[12]

CROSSWALK IN FRONT OF VILLAGE HALL, ROSCOE

12 "APPENDIX 17: THE CERS ENFORCEMENT PROGRAM." CENTER FOR EDUCATION AND RESEARCH IN SAFETY. HTTP://WWW.CERS-SAFETY.COM/PEP.HTM.

Community Enforcement Programs

While law enforcement agencies are the only ones who can enforce the law, enforcement strategies are not exclusively for police officers. The community-at-large can also enhance traffic safety through various programs partnered with local police departments and government agencies.

Neighborhood Speed Watch Programs

Neighborhood Speed Watch programs, a traffic-related variation of Neighborhood Watch or Crime Watch, is a public awareness and education program that allows concerned citizens to actively participate in encouraging slower speeds in their neighborhood. In these programs, police train a small group of volunteers from the neighborhood. The residents record speed data in their neighborhood using radar units borrowed from the law enforcement agency. The data collected includes the speed and the license plate information. The information is then used by the police department to send a letter to the owner of the vehicle, informing them of the observed violation and encouraging them or other drivers of their vehicle to drive at or below the posted speed limit. Neighborhood speed watch programs are intended to encourage some speeding motorist to slow down and learn that residents will not tolerate speeding in their neighborhood.

School Crossing Guards

Adult school crossing guards play an important role in the safety of children who bike or walk to school. Crossing guards help children safely cross the street at key locations and remind motorists of the presence of children. Well trained school crossing guards can help discourage children from behaving unsafely near traffic, use existing gaps in traffic to help students cross safely, alert motorist that pedestrians are in the process of using the crosswalk, and observe and report any incidents or conditions that present a potential safety hazard to the students or crossing guard, themselves.[13]

SCHOOL ZONE SIGN, ROSCOE

The design and implementation of a school crossing guard program is largely up to the local community and the school. The ideal development of a program involves a partnership that includes the expertise of law enforcement agencies, traffic engineers, planning departments, school systems, and parents. The local committee can then identify locations where guards are needed, hiring and training guards, providing uniforms and equipment to help guards effectively perform their duties, and securing funds to manage the program.[14]

13 "THE ROLE OF THE ADULT SCHOOL CROSSING GUARD." SAFE ROUTES TO SCHOOL GUIDE. HTTP://GUIDE.SAFEROUTESINFO.ORG/. (JULY 2015).
14 "ELEMENTS OF AN ADULT SCHOOL CROSSING GUARD PROGRAM." SAFE ROUTES TO SCHOOL GUIDE. HTTP://GUIDE.SAFEROUTESINFO.ORG/.

Pace Car Program

A city pace car program is a citizen-based traffic calming initiative aimed at making neighborhoods safer for pedestrians, bicyclists, and motorist. Pace car drivers pledge to drive within the speed limit, drive courteously, yield to pedestrians, and be mindful of bicyclists and others on the street. Residents who take the pledge are typically given a decal identifying them as a motorist who has taken the pledge to become a pace car.

Case Study: Pace Car Program in Columbus, OH

The City of Columbus began a collaboration effort between residents and the City in a targeted area to effectively address speeding in their neighborhoods through a Pace Car Program. The Pace Car Program is a resident-based traffic calming initiative coordinated by the Division of Traffic Management within the Department of Public Service. To become a Pace Car driver, the resident signs a pledge to obey all City of Columbus traffic laws, posted speed limits, and to be courteous of other road users.

Residents who commit to the Pace Car Pledge display a Columbus Pace Car vinyl decal in their vehicle's rear window to alert other motorists to be aware of and obey the speed limit. Additionally, if 60% of the residents in a targeted neighborhood commit to participate in the Pace Car Program, the City of Columbus will recognize the community's effort. A Neighborhood Pace Car sign will be installed to recognize the neighborhood's commitment to speed reduction and a safer neighborhood for everyone.

More information on this program can be found at *https://www.columbus.gov/PaceCar/*.

Evaluation

The final category that is essential in making great places for bicycling and walking is evaluation and planning. Evaluation refers to data collection and analysis. Evaluations and planning can aide in determining the effectiveness of bicycle and pedestrian related programs and help guide future actions.

Evaluation strategies are typically tied to specific plans or programs to measure performance and effectiveness. The best evaluation programs involve ongoing collection and analysis of data and research to document changes and results before and after implementation of a program. Successful evaluation programs also leverage existing data sources, such as data on public health and safety from the Federal and State governments.

Evaluation activities are not limited to strictly data collection on bicycle counts or health statistics. Evaluation strategies include evaluating potential funding sources and implementation opportunities through planning efforts. Reporting on progress and convening community stakeholder groups are also methods for monitoring efforts and for holding agencies accountable to the public.

The following activities and strategies are recommended for implementation in the region to evaluate and plan existing and future programs that will help the region move towards becoming a more bicycle- and pedestrian-friendly community:

MPO Bicycle & Pedestrian Subcommittee

Bicycle and pedestrian advisory committees (BPAC) are critical components of the evaluation and planning process of active transportation programs and facilities. BPACs can play an important role in helping local officials create, implement, and prioritize bicycle and pedestrian programs, facilities, and policies. The Rockford Metropolitan Agency for Planning will oversee the development of a regional Bicycle and Pedestrian Sub-Committee as a part of the MPO's structure and report to the MPO's Technical and Policy Committees. Input from the sub-committee will play a pivotal role in the decisions made related to the implementation of the recommendations found in this plan.

RMAP MOBILITY SUBCOMMITTEE

In addition to overseeing the implementation of the recommendations in this plan, the sub-committee will review other transportation plans and projects for non-motorized mobility and safety, as well as provide a forum to discuss the issues affecting bicyclists and pedestrians in the region. Following the success of other bicycle and pedestrian committees, the committee should be comprised of representatives from local governments, law enforcement agencies, bicycling/pedestrian advocacy organizations, bicycling/running clubs, transit agencies, local colleges and universities, and private non-profits in order to provide multiple perspectives from a broad cross section of the community.

Bicycle and Pedestrian Friendly Recognitions

The League of American Bicyclists' Bicycle Friendly Community program provides a roadmap to improve conditions for bicycling and guidance on making a community's vision for a better, bikeable community a reality. There are two applications each year for the Bicycle Friendly Community program. Applications include questions on general community profile as well as the community's engineering, education, encouragement, enforcement, and evaluation efforts. The application questions are designed to provide a holistic picture of the applicant community's work to promote bicycling. Once the application is submitted, a group of local cyclists and bike advocates are sent the applications for comments. After local feedback is obtained, League of American Bicyclists staff reviews each application. Communities can receive recognition in one of following five categories:

- Platinum: These communities are usually communities that have a comfortable and safe bike network along with great bike programs and supportive law enforcement. Cities with this distinction include: Boulder, Colorado; Davis, California; Fort Collins, Colorado; Madision, Wisconsin; and Portland, Oregon.

BICYCLE FRIENDLY AMERICA LOGO

- Gold: Typically, these communities have strong bike cultures but still need to complete their bike network or increase Safe Routes to School programs. Cities with this distinction include: Urbana, IL; Minneapolis, Minnesota; and Bloomington, Indiana.

- Silver: Communities with this designation are somewhat welcoming to bikes and are easy to navigate but need to work on 2 or 3 of the five E's. Cities with this distinction include: Chicago, IL; Evanston, IL; Iowa City, IA; and La Crosse, Wisconsin.

- Bronze: These communities might not necessarily feel bike friendly but are taking important steps in all five E's but particularly one or two E's. Illinois cities with this distinction include: Aurora, Champaign, DeKalb, Naperville, Normal, and Schaumburg.

- Honorable Mention: These category is designed for communities that are just starting to address the needs of cyclists.[15]

Similar to the League of American Bicyclists' program, the Walk Friendly Communities is a national recognition program developed to encourage towns and cities across the country to establish a high priority for supporting safer walking environments. This program is sponsored by FedEx and FHWA. It is maintained by the UNC Highway Safety Research Center's Pedestrian and Bicycle Information Center. Assessment is based on a general community profile, status of walking, planning, education and encouragement, engineering, enforcement, and evaluation. Communities can receive recognition in one of following five categories: Platinum Level, Gold Level, Silver Level, Bronze Level, and Honorable Mentions.

By encouraging local governments to work towards achieving a Bicycle- and/or Pedestrian-Friendly Recognitions, the Rockford Metropolitan Area is making a commitment to increase the safety and prevalence of active transportation in the region. RMAP is an eligible applicant of the League of American Bicyclists' Bicycle Friendly Community program.

WALK FRIENDLY COMMUNITIES'S LOGO

15 "GETTING STARTED." THE LEAGUE OF AMERICAN BICYCLISTS. HTTP://BIKELEAGUE.ORG/.

Walking & Biking Audits

An audit is an unbiased evaluation of the walking and biking environment. Walking and biking audits capture both the qualitative and quantitative data on active transportation infrastructure at specific locations through surveys. Audits are useful because they highlight how many people use existing infrastructure and demonstrate the level of need for improved infrastructure to decision makers. Audits also facilitate partnerships with community groups, schools, and the community-at-large by inviting those groups to participate in the active transportation planning process. Pedestrian audits or walking audits focus on the sidewalk existence, maintenance condition, crossing points, levels of stress, and perceptions of safety. Bicycle audits focus on the roadway infrastructure, bicycle parking, and crossing points, as well as access from streets to off-road trail networks.[16] A wide variety of audits and checklists can be utilized as a guide for walking and biking audits, including the Federal Highway Administration's (FHWA) Road Safety Audit (RSA) Guidelines and Prompt Lists.

Progress Reports

The Rockford Metropolitan Agency for Planning will periodically provide updates on the progress made toward implementing the goals, policies, and programs of this plan.

Case Study: Citizen's Accessibility Evaluation Tool in Hillsborough County, Florida

The Florida State Department of Transportation was planning to resurface a major high traffic volume corridor that ran through Hillsborough County, Florida called Busch Boulevard. Realizing the opportunity to improve the corridor for pedestrian travelers, the Hillsborough County Metropolitan Planning Organization's (MPO) Transportation Disadvantages Coordinating Board decided to get involved.

The tool focused on four intersections along the corridor for evaluation. Using an assessment sheet, public participants from all walks of life identified and documented barriers they observed. After all responses were compiled, a formal document was created by the MPO. It detailed existing conditions and recommendations for a multitude of topics related to accessibility along the corridor.

More information on this project can be found at *http://www.pedbikeinfo.org/cms/downloads/pbic_case_study_compendium.pdf*

Hillsborough MPO
Metropolitan Planning for Transportation

16 "HOW TO CONDUCT WALKING AND BIKING AUDITS." GO HUMAN SOUTHERN CALIFORNIA. HTTP://GOHUMANSOCAL.ORG/DOCUMENTS/TOOLS/TOOLBOX_AUDIT.PDF.

Plan Implementation

Implementation describes the process of how the Rockford MPO and its partner organizations responsible for implementation can turn the vision of a diverse and safe active transportation network into a reality. Implementation needed to achieve this vision involves both physical changes to the existing roadway network, as well as policy changes by local jurisdictions. As such, significant support from local jurisdictions will be needed. However, support from the community-at-large and local advocates will also play a large role in the success of this plan.

This section of the plan covers the following elements:

- A plan of action for achieving the goals and objectives;
- Top priority projects for bicycle and pedestrian infrastructure; and
- Potential funding sources for the construction and maintenance of bicycle and pedestrian projects and programs.

The strategies proposed in this section are not exclusive and flexibility must be afforded when implementing projects or programs outlined throughout this document. Many bicycle and pedestrian improvements are often a part of a larger roadway project, which could provide new opportunities to expand the region's active transportation network. Additionally, unforeseen issues related to planning and engineering could arise, hindering high priority projects within this plan. The strategies are intended to act as a guide focusing bicycle and pedestrian efforts moving forward. As a guide, each section of this plan contains important information that should be considered when attempting to achieve the vision and goals for active transportation in the Rockford Metropolitan Area.

Action Plan

As mentioned previously, setting clear goals and objectives is a critical foundation for creating a successful bicycle and pedestrian plan. While the goals focus on the broad desired outcomes, the objectives are the approaches needed to achieve the goal. By developing an action plan, based on the goals and objectives developed by the Bicycle and Pedestrian Advisory Committee, RMAP hopes to turn the vision of this plan into reality and increase efficiency and accountability within the region. The action plan presents the following elements for the Plan's objectives:

- Action Step: Activities or tasks that are needed to achieve the objective;
- Lead Agency: Recommended agencies and/or organizations who could take action on the task;
- Support: Agencies and/or organizations that can provide support to accomplish the task; and
- Time Frame: When should this task be completed or significantly addressed.

This action plan is not meant to include all possible strategies or activities that can be used to improve the pedestrian and bicycle needs in the region, but identify possible solutions RMAP and its partner agencies can use to make a difference.

TABLE 15. ACTION PLAN FOR THE BICYCLE & PEDESTRIAN PLAN

ACTION STEP	LEAD AGENCY	SUPPORT	TIMEFRAME
Adoption of the Bicycle & Pedestrian Plan for the RMAP MPA	RMAP Policy Committee	RMAP	Short Term (1-2 Years)
Create official MPO Bicycle and Pedestrian Subcommittee	RMAP Policy Committee	RMAP	Short Term (1-2 Years)
Develop a bike share program in downtown Rockford	Business Districts	RMAP, City of Rockford	Short Term (1-2 Years)
Encourage local municipalities to adopt Complete Streets Policies	Local Municipalities	Bicycle and Pedestrian Subcommittee	Short Term (1-2 Years)
Adoption of a regional Complete Streets Policy	RMAP Policy Committee	RMAP	Short Term (1-2 Years)
Conduct a bicycle parking study	RMAP	RMAP Partner Agencies	Short Term (1-2 Years)
Develop a long term funding strategy	Bicycle and Pedestrian Subcommittee	RMAP and Partner Agencies	Short Term (1-2 Years)
Promote an adopt-a-sidewalk program	Local Municipalities	Advocacy Groups, Businesses, Residents	Short Term (1-2 Years)
Establish a "Be Bright" campaign to provide free lights for bicyclists riding at night	Advocacy Groups	Local police departments, school districts	Short Term (1-2 Years)

TABLE 15. ACTION PLAN FOR THE BICYCLE & PEDESTRIAN PLAN, CONTINUED

ACTION STEP	LEAD AGENCY	SUPPORT	TIMEFRAME
Create a "one-stop shop" bicycle and pedestrian resource website	Bicycle and Pedestrian Subcommittee	RMAP, WinGIS, Advocacy Groups	Short Term (1-2 Years)
Update bicycle and pedestrian database	RMAP	Bicycle and Pedestrian Subcommittee	Ongoing
Publish annual progress reports	RMAP	Bicycle and Pedestrian Subcommittee	Ongoing
Encourage walking and biking audits throughout the region	Bicycle and Pedestrian Subcommittee	Residents, Advocacy Groups	Ongoing
Create a regional biking and walking map	RMAP	WinGIS, Bicycle and Pedestrian Subcommittee	Ongoing
Ensure bicycle and pedestrian planning efforts are integrated regionally	Bicycle and Pedestrian Subcommittee	RMAP	Ongoing
Find additional funding sources for Safe Routes to School planning and development	School Districts	RMAP and Partner Agencies	Ongoing
Continue to make regional bicycle and pedestrian connections based facility prioritization	Local Municipalities	Bicycle and Pedestrian Subcommittee	Ongoing
Work with businesses to develop public-private partnerships to fund bicycle and pedestrian projects	Local Municipalities	Bicycle and Pedestrian Subcommittee	Ongoing
Consider regional design standards for bicycle and pedestrian facilities	Bicycle and Pedestrian Subcommittee	Local municipalities	Mid-Term (3-5 Years)
Perform bus stop access improvement study	RMTD	RMAP	Mid-Term (3-5 Years)
Apply for Bicycle Friendly Community recognition(s) at municipality-level	Local Municipalities	RMAP	Mid-Term (3-5 Years)
Apply for Bicycle Friendly Community recognition at regional-level	RMAP	Bicycle and Pedestrian Subcommittee	Mid-Term (3-5 Years)
Add the development of new bicycle and pedestrian facilities into Capital Improvement Plans (CIP)	Local Municipalities		Mid-Term (3-5 Years)
Designate a regional walk/bike-to-work or school day	Bicycle and Pedestrian Subcommittee	School Districts, Advocacy Groups	Mid-Term (3-5 Years)
Strengthen the safety of intersection through a "Stop for Pedestrian in Crosswalk" enforcement campaign	Local Police Departments	Local Municipalities	Mid-Term (3-5 Years)
Develop an education outreach program for school-age childern	School Districts & Advocacy Groups	Local Municipalities	Mid-Term (3-5 Years)
Develop a public awareness campaign on bicycle rules of the roads.	Bicycle and Pedestrian Subcommittee	Local Municipalities, Local Police Departments	Mid-Term (3-5 Years)
Promote an adopt-a-bus stop program	RMTD and Local Municipalities	Advocacy Groups Businesses, Residents	Long-Term (5+ Years)

TABLE 15. ACTION PLAN FOR THE BICYCLE & PEDESTRIAN PLAN, CONTINUED

ACTION STEP	LEAD AGENCY	SUPPORT	TIMEFRAME
Promote an adopt-a-trail program	Local Forest Preserves and Park Districts	Advocacy Groups Businesses, Residents	Long-Term (5+ Years)
Identify and secure funding for high priority projects	RMAP, Local municipalities	Bicycle and Pedestrian Subcommittee	Long-Term (5+ Years)
Encourage Bicycle and Pedestrian Master Plans as a part of Comprehensive Plans	Local Municipalities	RMAP	Long-Term (5+ Years)
Establish a easy-to-use and well-publicized traffic complaint hotline	Local Police Departments	Neighborhood Watch Groups, Local Municipalities	Long-Term (5+ Years)
Reevaluate priorities based on what has been completed thus far and as new opportunities may arise	Bicycle and Pedestrian Subcommittee	RMAP	Long-Term (5+ Years)
Develop a Pace Car Program	Local Municipalities	Neighborhood Watch Groups, Local Municipalities	Long-Term (5+ Years)
Identify potential corridors for "traffic calming" techniques	RMAP and Local Municipalities	Bicycle and Pedestrian Subcommittee	Long-Term (5+ Years)

Project Prioritization

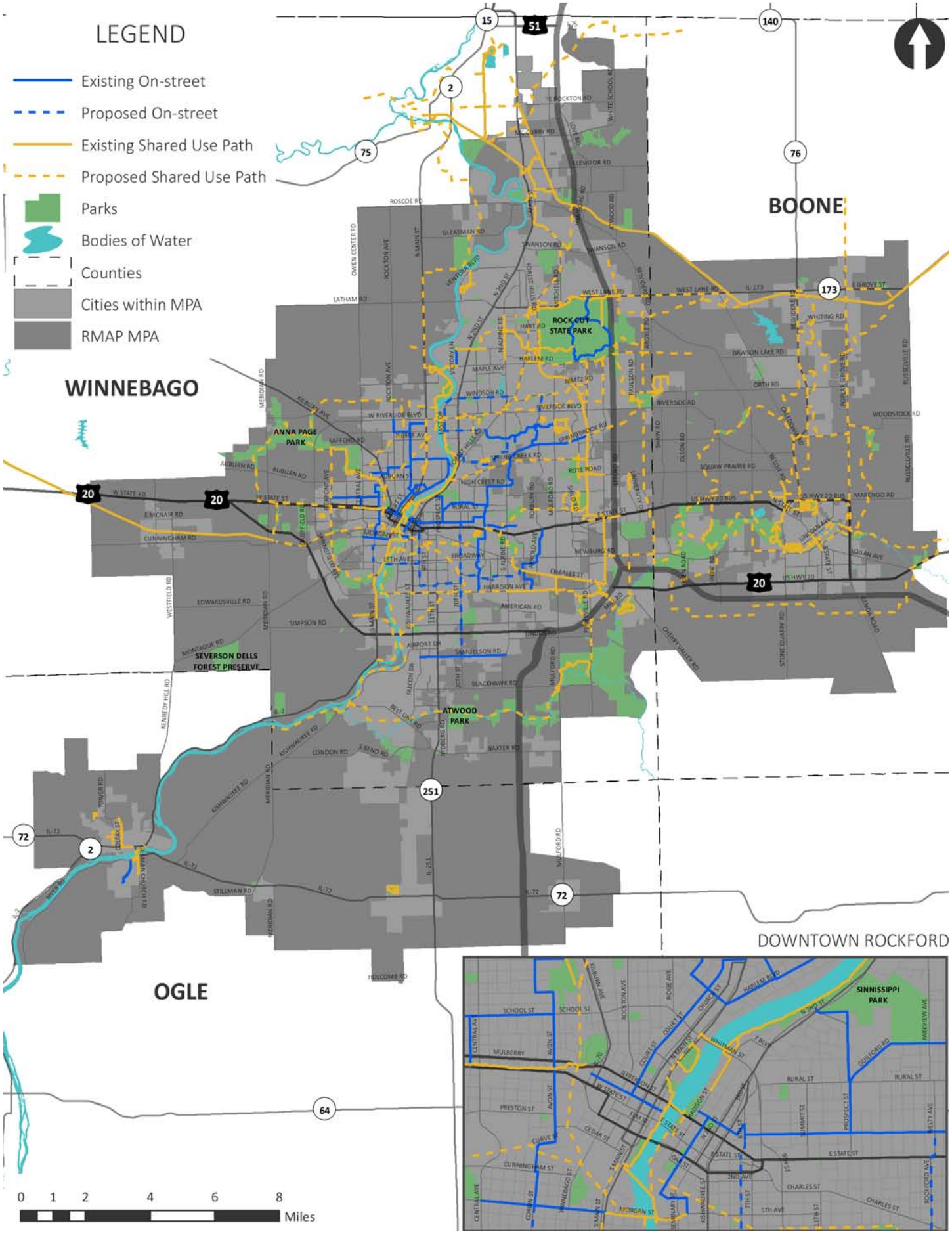
As with any prioritization methodology, exceptions and other information will need to be considered. It will be up to local government agencies within the metropolitan area to determine which bicycle and pedestrian facilities should be priorities, as they are responsible for the development and construction of the facilities. However, this prioritization process serves as a guide to recommend facilities that should be built in the near future in order to increase the connectivity of the bicycle and pedestrian network.

The ActiveTrans Priority Tool has been utilized by RMAP for the first time to develop the priority ranking list found below. The ActiveTrans Priority Tool (APT) was recently developed by professionals in the planning field and allows planners to input a variety of data and assigned weights to prioritize new infrastructure. Using this tool provides an analytical and data-driven component to prioritization that was never previously incorporated in a plan for the Rockford Metropolitan Area. More information on the methodology and findings of the ActiveTrans Priority Tool can be found in Appendix C.

Bicycle Facilities

Previous plans and municipal governments are already proposing more than 19.4 additional miles of on-street bicycle corridors and 228.5 miles of shared use paths in the MPA. These corridors are located along major roadways, in open spaces (forest preserves, conservation districts, parks, etc.) and along waterways. Many corridors have already been proposed as potential sites for both on-street and shared use paths. The proposed corridors came from various sources, such as the previous Bicycle and Pedestrian Plan, *Greenways: A Green Infrastructure Plan for Boone*

MAP 19. PROPOSED ON-STREET BICYCLE FACILITIES & SHARED USE PATHS



and Winnebago Counties, and local municipal comprehensive plans. Map 19 shows all of the proposed bicycle facilities and their connections to the existing system.

ActiveTrans Priority Tool

In addition to the proposed facilities, major corridors were also analyzed using the ActiveTrans Priority Tool (APT) to determine if additional corridors would be suitable for bicycle facilities. Bicycle corridors, unlike pedestrian corridors, cannot be divided into uniform segments following the streets within municipal blocks. Proposed corridors, therefore, consist of segments of various lengths. Typically, a proposed segment was defined as a continuous line stretching between major intersections or where roadway characteristics changed, such as a change in the number of lanes or speed.

The following criteria were used to prioritize each corridor for implementation:

- Provides a connection to existing bicycle facilities or shared use paths;
- Identified in an adopted plan, such as a comprehensive plan;
- Received a number of public comments;
- Has a number of bicycle-related crashes, including severe or fatal crashes;
- Identified as having a number of characteristics of a low-stress network, such as lower speeds;
- Within a high population density area;
- Proximity to a major retail area, public facility, or school; and
- Within an area with a high proportion of children under 18, minority population, and low-income families.

BAUMANN PARK, CHERRY VALLEY

In addition, on-street facilities can be implemented at a faster rate than off-street facilities. This is primarily due to cost; on-street facilities are typically less expensive than off-street shared-use paths. Due to this condition, priority was given to on-street bicycle facilities that could serve as connections within the bicycle network until shared-use paths can be built.

Segments were analyzed according to the criteria mentioned above and their overall performance as a network. Of all the criteria used to rate the proposed segments, connectivity of existing

paths was determined to be the most important. Connectivity is a concept identified in RMAP's *Transportation for Tomorrow (2040): A Long Range Transportation Plan for the Rockford Region* and was a goal discussed in the public participation process.

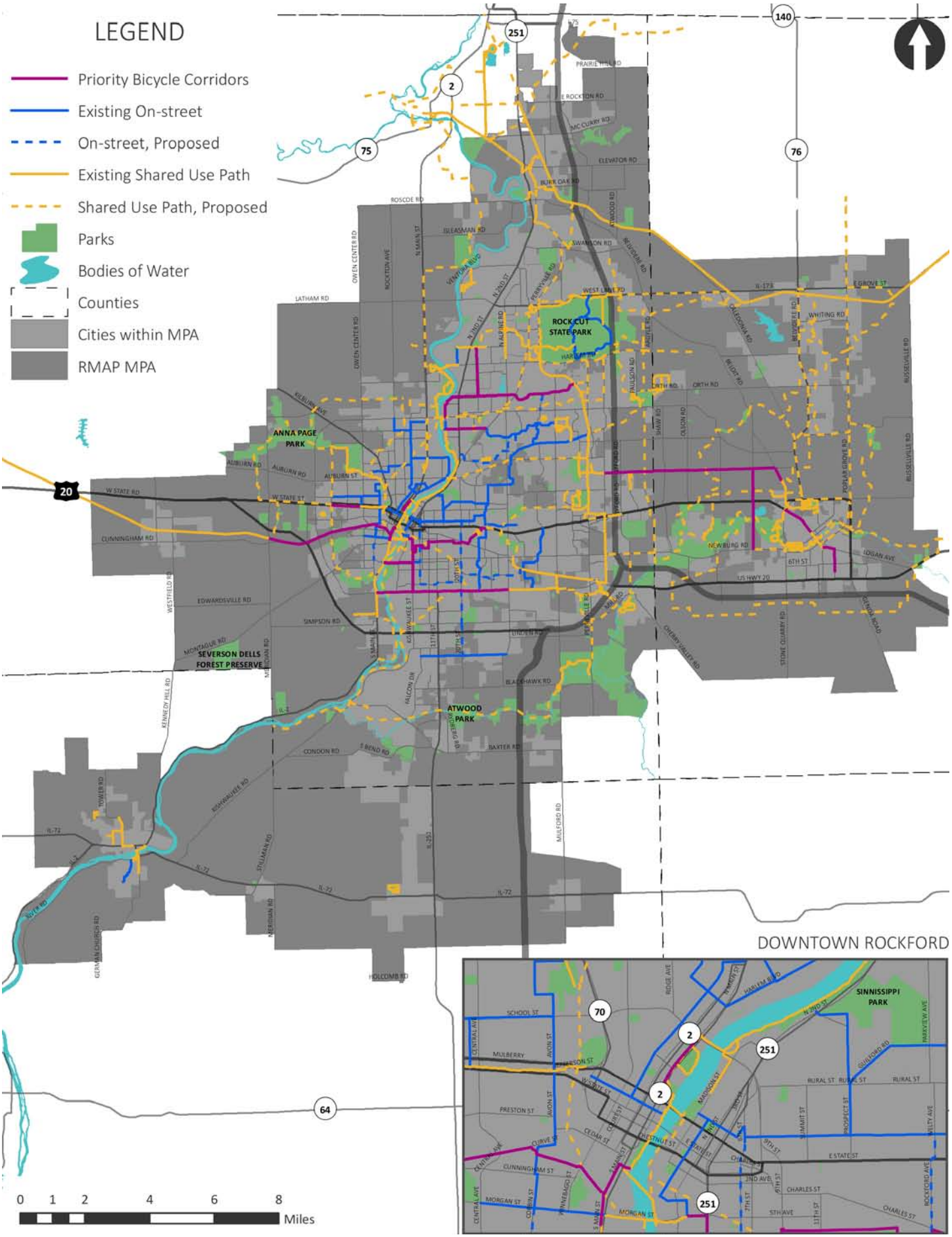
Priority Bicycle Corridors

Through an in-depth look at the current bicycle network, proposed bicycle facilities, and the results of the ActiveTrans Priority Tool, RMAP has created a list of priority bicycle corridor for the metropolitan area, found in Table 16. It should be noted that Table 16 does not match the results of the full the APT ranked list. Instead the priority list below takes into account various factors such as proposed facilities from partner agencies and the *Greenways: A Green Infrastructure Plan for Boone and Winnebago Counties*, connections between existing and proposed facilities, logical termini, public comment, etc. The corridors listed are not currently in any particular order. Map 20 shows the priority bicycle corridors.

TABLE 16. TOP PRIORITY CORRIDORS FOR BICYCLE FACILITIES

LOCATION	EXTENT		WITHIN
	FROM	TO	
WEST STATE STREET	PIERPONT AVENUE	SUNSET AVENUE	ROCKFORD
WINDSOR ROAD	ELM AVENUE	PERRYVILLE PATH	LOVES PARK
TOWN HALL ROAD	SQUAW PRAIRIE ROAD	NEWBURG RD	BOONE COUNTY
RIVER LANE	EAST DRIVE	FOREST HILLS ROAD	LOVES PARK
LOGAN AVENE	SOUTH STATE STREET	EAST AVENUE	BELVIDERE
15TH AVENUE	SOUTH MAIN STREET	6TH ST	ROCKFORD
PARKRIDGE ROAD/EAST DRIVE	IL-251	FOREST HILLS ROAD	LOVES PARK
KISHWAUKEE STREET	MORGAN AVENUE	HARRISON AVENUE	ROCKFORD
ELM AVENUE	ROOSEVELT ROAD	WINDSOR ROAD	LOVES PARK/ MACHESNEY PARK
HARRISON AVENUE	SOUTH MAIN STREET	SOUTH ALPINE ROAD	ROCKFORD
NORTH MAIN STREET	PARK AVENUE	WHITMAN STREET	ROCKFORD
KEITH CREEK	KISHWAUKEE STREET	EAST STATE STREET	ROCKFORD
PECATONICA PRAIRIE PATH	MERIDIAN ROAD	SOUTH MAIN STREET	WINNEBAGO COUNTY/ ROCKFORD
NORTH STATE STREET	APPLETON ROAD PATH	MADISON STREET	BELVIDERE
COLLEGE AVENUE	3RD STREET	KISHWAUKEE STREET	ROCKFORD
SOUTH MAIN STREET	ROCK RIVER RECREATION PATH	MORGAN STREET	ROCKFORD
WINDSOR ROAD	PARKRIDGE ROAD	IL-251	LOVES PARK
EAST AVENUE	LOGAN AVE	BELVIDERE HIGH SCHOOL	BELVIDERE
ROTE ROAD/SQUAW PRAIRIE ROAD	PERRYVILLE PATH	BELOIT ROAD	WINNEBAGO & BOONE COUNTIES
BELOIT ROAD	SQUAW PRAIRIE ROAD	BELVIDERE NORTH HS	BOONE COUNTY

MAP 20. TOP PRIORITY CORRIDORS FOR BICYCLE FACILITIES



Priority Sidewalk Areas

There is a large amount of mileage of major roads within rural areas where sidewalks are not considered practical. While these areas were identified in the suitability index, they are not included in the prioritization process. To prioritize locations where sidewalks should be targeted, only roadways with in the Census defined urbanized areas (UA) were ranked within this planning process. The following criteria were used to prioritize each segment for implementation:

- Presence of landscape buffer or on-street parking;
- Identified as having a number of characteristics of a low-stress network, such as lower speeds and traffic volumes;
- Has a number of pedestrian-related crashes, including severe or fatal crashes;
- Within a high population and employment density area;
- Proximity to a major retail area, public facility, or school;
- Provides a connection to existing shared use paths or facilities;
- Within a high population density area; and

TABLE 17. TOP PRIORITY CORRIDORS FOR PEDESTRIAN FACILITIES AS IDENTIFIED THROUGH ACTIVETRANS PRIORITY TOOL

		EXTENT		
RANK	ROAD NAME	FROM	TO	LENGTH (FEET)
1	WESTCHESTER DR	GUILFORD RD	RURAL ST	1023
2	E STATE ST	NEW TOWNE DR	ROXBURY RD (ARNOLD AVE)	1655
3	HARRISON AVE	COLORADO RD	COLORADO RD	45
4	MC CURRY RD	CLUB CT	NORTH GATE RD	1735
5	AIRPORT DR	IL-251	IL 251 FRONTAGE RD	232
6	CUNNINGHAM RD	HIDDEN OAK TRL	S MERIDAN RD	3355
7	CLIFFORD AVE	ELM AVE	BROWNS PKWY	342
8	OLD MILL RD	ALAN CT	TRUDY RD	445
9	CORBIN ST	BLAKE ST	KENT ST	401
10	AVON ST	CEDAR ST	SELDON ST	317
11	MAPLE AVE	VENUS ST	ORION ST	317
12	CENTRAL AVE	HARDING ST	LINCOLN AVE	573
13	MC DONALD RD	WILLOWBROOK RD	WILDFLOWER LN	1592
14	SPRINGBROOK RD	MCFARLAND RD	N PERRYVILLE RD	445
15	SPRINGFIELD AVE	LYDIA AVE	W STATE ST	420
15	LINDEN RD	RAINBOW RIDGE	REDWOOD DR	743
17	KISHWAUKEE ST	SOUTH AVE	SCORE ST	476
18	CLIFFORD AVE	N 2ND ST (IL-251)	DALE AVE	803
19	RIDGE AVE	JONATHAN AVE	PIERCE AVE	335
20	BLACKHAWK RD	LOCKWOOD DR	ABRAHAM DR	1274

- Within an area with a high proportion of children under 18, minority population, and low-income families.

Cost Estimates and Funding

Successful implementation of the facility and program recommendations in this plan will rely on several strategies to acquire funding. This portion of the Plan describes the estimated costs of elements to implement the regional bicycle and pedestrian network. The following cost estimates are intended to act as a guide for planning and budgeting. Final costs are to be determined by engineering staff of local municipalities.

Estimates are intended to illustrate the magnitude of the costs associated with upgrading and improving the bicycle and pedestrian system within the MPA. Additionally, this section of the Plan presents potential funding sources that could be available in raising sufficient financing for bicycle and pedestrian facilities and supporting regional programs within the Rockford Metropolitan Area.

Cost Estimates

Costs for pedestrian and bicycle infrastructure varies greatly from city to city. The costs estimates used in this plan were developed by the University of North Carolina (UNC) at Chapel Hill's Highway Safety Research Center. Their document, *Costs for Pedestrian and Bicyclist Infrastructure Improvements*, was prepared for FHWA to provide meaningful estimates of infrastructure costs. The Highway Safety Research Center collected up-to-date, countrywide cost information to provide information that can be used for any state or city. It should also be noted that since costs can vary from city to city and even site-to-site, the cost estimates listed below should be used only for estimating purposes and not necessarily for determining actual bid prices for specific

TABLE 18. BICYCLE FACILITY COST ESTIMATES

PAY ITEM	AVG. UNIT COST	UNIT
INFRASTRUCTURE*		
PAVED SHOULDER - ASPHALT	$5.56	SQ. FOOT
SIGNED BICYCLE ROUTE	$25,070	MILE
BICYCLE LANE**	$133,170	MILE
SHARED USE PATH - PAVED	$481,140	MILE
SIGNS, SIGNALS, & MARKINGS		
BIKE ROUTE SIGNAGE	$160	EACH
SHARED USE PATH/TRAIL REGULATION SIGN	$160	EACH
WAYFINDING/INFORMATION SIGN	$1,350	EACH
SHARED LANE/BICYCLE MARKING	$180	EACH
SHARED USE PATH - PREPARATION BREAKDOWN		
EXACAVATION	$55	FOOT
GRADING	$2,000	ACRE
CURB/GUTTER REMOVAL	$5	LINEAR FOOT
CURB/GUTTER INSTALLATION	$21	LINEAR FOOT

*COST FOR INFRASTRUCTURE ARE ASSUMED TO INCLUDE ALL COSTS INCLUDING PREPARING THE SITE

** COST ASSUMED FOR A FIVE (5) FEET IN WIDTH

TABLE 19. PEDESTRIAN FACILITY COST ESTIMATES

PAY ITEM	AVG. UNIT COST	UNIT
INFRASTRUCTURE		
ASPHALT SIDEWALK	$35	LINEAR FOOT*
CONCRETE SIDEWALK	$32	LINEAR FOOT*
RAISED CROSSING	$8,170	EACH
CURB RAMP: TRUNCATED DOME/DETECABLE WARNING	$42	SQUARE FOOT
CURB RAMP: WHEELCHAIR RAMP	$12	SQUARE FOOT
MARKINGS		
STRIPED CROSSWALK	$9	LINEAR FOOT
HIGH VISIBILITY CROSSWALK**	$2,540	EACH
ADVANCE STOP/YIELD LINE	$320	EACH
PEDESTRIAN CROSSING	$360	EACH
SCHOOL CROSSING	$470	EACH
SIGNALS		
FLASHING BEACON	$10,010	EACH
RECTANGULAR RAPID FLASH BEACON (RRFB)	$22,250	EACH
PEDESTRIAN HYBRID BEACON (HAWK)	$57,680	EACH
AUDIBLE PEDESTRIAN SIGNAL	$800	EACH
COUNTDOWN TIMER MODULE	$740	EACH
ENTIRE SIGNAL UNIT	$550	EACH
PUSH BUTTON	$350	EACH
SIGNS		
IN-PAVEMENT YIELD PADDLES	$240	EACH
"NO TURN ON RED" SIGN	$220	EACH
STOP/YIELD SIGNS	$300	EACH

* ASSUMING THAT SIDEWALKS ARE FIVE (5) FEET IN WIDTH

**HIGH VISIBILITY TYPES INCLUDE LADDER, TRANSVERSE LINES, AND ZEBRA AMONG OTHERS

projects. Costs estimates are provided for bicycle routes, lanes, and shared use paths in Table 18, as well as additional elements such as signs and signals. Table 19 summarizes the cost estimates for pedestrian-related facilities and amenities, including signs and markings.

Funding Sources

As illustrated above, costs associated with constructing the bicycle and pedestrian facility recommendations within this plan will require an extensive amount of financial resources. To alleviate some of the financial burden, this part of the plan identifies the numerous sources which can be used for bicycle and pedestrian projects. Most of the recommendations in this plan will be implemented by the local governments in which they are located. However, this is not to say that the local jurisdictions within the RMAP MPA will bear the full financial responsibility of the projects.

There are a variety of federal assistance programs that are available for bicycle and pedestrian-related projects and programs. Bicycle- and pedestrian-related projects have been eligible for federal funding since 1992 with the passage of the Intermodal Surface Transportation Efficiency Act for the 21st Century (ISTEA). Between 1992 and 2012, states have spent a total of $7.2 billion

on 22,000 dedicated bicycle and pedestrians projects, not including active transportation projects that were included in larger road projects. Under the Fixing America's Surface Transportation (FAST) Act, federally-funded projects on the National Highway System are required to consider access for alternative modes of transportation and allows for greater design flexibility to do so. Federal-aid funding programs have specific requirements that projects must meet and eligibility is determined on a case-by-case basis.

Additional funding through the state government can often be found in the departments of health, parks, conservation, and transportation. The Illinois Department of Natural Resources (IDNR) offers several grant opportunities for the development of recreational trails. Unfortunately at the time in which this document was being written, IDNR's Bikeways Program for bike trail enhancement and development was suspended. Funding from the State of Illinois is still available through the Illinois Department of Transportation (IDOT).

While a large portion of funding can be found at the state and federal level, local governments throughout the country have found some common funding sources. These local sources include allocations from specific departments or as an item in their capital improvement program (CIP) budget. Having local funding sources for bicycle and pedestrian projects are also important because in many cases, federal and state grants will only provide up to 80 percent of the total project costs; a local match of 20 percent is required.

Local

The funding sources listed below are common local sources that can provide funding to help implement the projects in this plan:

Impact Fees: Regulated by county and municipal policies, impact fees require new development project leaders to provide sites, improvements, and/or funds to support public facilities, such as open space and shared use facilities. Impact fees can be allocated to a particular bicycle or pedestrian project, if a dedicated fund has already been established to help develop a

"RAIL TO TRAIL" BRIDGE CONVERSION (AWARDED 2014 ITEP CYCLE FUNDS), ROCKFORD

county-wide or citywide bicycle and pedestrian network.

Non-Profit Grants: Several non-profit organizations and company foundations provide assistance for bicycle and pedestrian programs. Many grants have specific topics in which the non-profit or company would like to fund, such as open space preservation, community development, and community health. To receive larger contributions, applicants need to write full project proposals that illustrate the community-wide value of a specific bicycle and pedestrian facility or program.

Public-Private Partnerships: Forming partnerships between local governments and private companies can be a creative and successful strategy for building and maintain facilities and programs in the region. Partnerships can also help in building community pride and cooperation. However, there needs to be benefits for both parties, such as participating companies receiving publicity for their cooperation, etc.

JEFFERSON STREET BRIDGE UNDERPASS (AWARDED ITEP CYCLE 12 FUNDS), DOWNTOWN ROCKFORD

Taxes and Bonds: Many communities throughout the country have used self-imposed increases in sales tax, local gas tax, and bonds to fund bicycle- and pedestrian-related projects. Municipal bonds is a debt security issued by a jurisdiction to finance its capital projects. The voter-passed bond initiatives have been used successfully to pay for bicycle and pedestrian facilities. Cities, such as Chicago and Nashville, have used bonds to pay for protected bike lane projects on busy corridors.

Tax Increment Financing (TIF): Many cities have found success in utilizing TIF dollars towards the funding upgrades to or the development of new bicycle and pedestrian facilities. However, in order to use this method the project must be located in a TIF District and city government must be supportive of using the funding source. Tax increment financing is a public financing method that is used as a subsidy for redevelopment, infrastructure, and other community-improvement projects. TIF funds usually are a small portion of the overall project costs and are meant to close the gap between conventional bank financing, the owner's funds, and the project's costs. TIF funds often make previously infeasible development projects possible.

State

Within the State of Illinois, several funding sources are available through the Illinois Department of Transportation (IDOT), include the following:

Illinois Transportation Enhancement Program (ITEP): ITEP provides funding for community based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. The Federal Surface Transportation Block Grant (STBG) program set-aside provides funding for the ITEP. More information on the STBG or the transportation alternatives set-aside can be found below under Federal Funding Sources. ITEP funding can be used for cultural, historic, aesthetic, and environmental improvements related to transportation infrastructure and fall into one of nine eligible categories, including bicycle and pedestrian facilities. To be eligible, projects under the bicycle and pedestrian facilities category must provide transportation from one destination to another; be included in a local, regional, or statewide plan; be constructed in reasonable, useable segments; and include signage in bikeway projects for directions and permitted users. Numerous projects in the region have been funded using this source.

PERRYVILLE PATH EXTENSION (AWARDED ITEP CYCLE 12 FUNDS), WINNEBAGO COUNTY

Illinois Motor Fuel Tax (MFT): The MFT Fund is derived from a tax on all volatile liquids compounded or used for fueling motor vehicles for the privilege of operating motor vehicles upon public highways. The current state motor fuel tax rate is 19 cents per gallon of gasoline/ gasohol and 21 cents per gallon of diesel fuel. Sidewalks and pedestrian paths are a permissible use and work items for MFT funds under the Illinois Highway Code (605 ILCS 5/7-202.15). Right-of-way and curb ramp construction are also permissible uses for MFT funds under The Bureau of Local Roads and Streets Manual (BLRS Man. Sect. 4-3.03(b)). However, project selection for MFT funds require approval and supervision from IDOT through the form of a local ordinance or resolution detailing project type, extent and location of proposed construction.

Federal

The following list indicates some of the potential federal funding sources for bicycle and pedestrian projects under the U.S. Department of Transportation's surface transportation funding program:

WILLOW CREEK PATH CONNECTION & TRAIL HEAD, (AWARDED 2014 ITEP CYCLE FUNDS), LOVES PARK

Federal Transit Administration Funds (FTA): Multiple Federal Transit Administration funding programs can be used to invest in bicycle infrastructure. However, projects funded with FTA programs must provide access to transit. Specifically, bicycle infrastructure plans and projects must be within a three mile radius of a transit stop or station, while pedestrian infrastructure projects must be within a ½ mile radius of a transit stop or station. Some eligible bicycle activities include bicycle routes to transit, bike racks, shelters and equipment, and projects that facilitate multimodal connectivity and accessibility.

Highway Safety Improvement Program (HSIP): Established as a core program, the Highway Safety Improvement Program allows states flexibility to address their most critical safety needs. To be eligible for HSIP funds, projects must be consistent with the State's Strategic Highway Safety Plan and must either address a highway safety problem or correct/improve a hazardous road location or feature. Some of the eligible projects and activities for HSIP funding are road diets, on-street bicycle facilities, shared use paths, sidewalks, signs and signals, traffic calming, lighting, and crosswalks.

NORTH ALPINE ROAD SHARED USE PATH (AWARDED TAP FUNDS IN 2014), MACHESNEY PARK

National Highway Performance Program (NHPP): The purpose of the National Highway Performance Program is to provide support for the condition of and performance of the National Highway System (NHS), provide support for the construction of new facilities on the NHS, and ensure investment to support the achievement of performance targets. To be eligible for NHPP funds the project or activity must be associated with an NHS facility. Some eligible projects or activities include on-street bicycle facilities, crosswalks, lighting, road diets, shared use paths, sidewalks, signs and signals, and traffic calming.

Recreational Trail Program (RTP): The Recreational Trail Program provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail use. As defined by FHWA, recreational uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. The FAST Act reauthorized the RTP as a set-aside of funds from the Transportation Alternatives (TA) Set-Aside under the Surface Transportation Block Grant (STBG) Program. Each state administers its own program. Eligible program and activities include crosswalks, lighting, sign improvements and construction of recreational trails, sidewalks, and separated bicycle lanes.

Surface Transportation Block Grant (STBG): The FAST Act, passed in 2015, converted the Surface Transportation Program (STP) into the Surface Transportation Block Grant Program. The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address state and local transportation needs. A specific percentage of funds used from the

STBG must be set aside for transportation enhancement activities and transportation alternative projects. More information on the Transportation Alternatives (TA) Set-Aside can be found below. An example of an eligible activity for STBG funding includes recreational trails projects for bicycle and pedestrian facilities that comply with the Americans with Disabilities Act and Safe Routes to School.

Transportation Alternatives (TA) Set-Aside: As mentioned above, the FAST Act replaced the former Transportation Alternatives Program (TAP) with a set-aside of funds under the STBG. The TA Set-Aside authorizes funding for programs and projects including on- and off-road pedestrian and bicycle facilities; infrastructure projects for improving non-driver access to public transportation and enhanced mobility; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways. While FHWA administers the TA set-aside, states and MPO's that represent urbanized areas with populations with over 200,000, such as RMAP, are involved in the project selection. The TA set-aside has the largest variety of eligible projects and activities.

For a full list of Federal funding opportunities for bicycle and pedestrian activities, please visit https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/.

This page intentionally left blank.

References

"A REVIEW OF BICYCLE SAFETY CAMPAIGNS: PRIMARILY IN THE U.S." PRESENTATION. *BIKES BELONG FOUNDATION*. HTTP://WWW.ISSUELAB.ORG/RESOURCES/3783/3783.PDF.

"ABOUT OPEN STREETS". *OPEN STREETS PROJECT*. LAST ACCESSED MARCH 27, 2017. HTTP://OPENSTREETSPROJECT.ORG/ABOUT/ABOUT-BENEFITS-OF-OPEN-STREETS/.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, *GUIDE FOR PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES*, 2004. WASHINGTON, DC: AASHTO, 2004.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, *GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2012*. WASHINGTON, DC: AASHTO, 2012.

ANDERSON, MICHAEL AND MARY LAURAN HALL. *BUILDING EQUITY: RACE, ETHNICITY, CLASS, AND PROTECTED BIKE LANES*. BOULDER, CO: PEOPLE FOR BIKES, 2015.

ANDERSON, MICHAEL. "HERE'S WHAT KEEPS PEOPLE FROM RIDING A BIKE." *GREATER GREATER WASHINGTON*. LAST MODIFIED MARCH 16, 2015. HTTPS://GGWASH.ORG/VIEW/37584/HERES-WHAT-KEEPS-PEOPLE-FROM-RIDING-A-BIKE.

ANDERSON, MICHAEL. "THE PROTECTED BIKE LANE RIDERSHIP BUMP, CITY BY CITY." *PEOPLE FOR BIKES.* LAST MODIFIED JUNE 3, 2014. HTTP://WWW.PEOPLEFORBIKES.ORG/BLOG/ENTRY/EVERYWHERE-THEY-APPEAR-PROTECTED-BIKE-LANES-SEEM-TO-ATTRACT-RIDERS.

AXELSON, PETER W., ET AL. *DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART II OF II: BEST PRACTICES DESIGN GUIDE.* WASHINGTON, D.C.: FEDERAL HIGHWAY ADMINISTRATION, 2001.

"BE A BIKE AMBASSADOR". *BICYCLE AMBASSADOR PROGRAM.* LAST ACCESSED MARCH 27, 2017. HTTP://BICYCLEAMBASSADORPROGRAM.ORG/.

BENNETT, SABRINA. "LOCAL BIKE ORGANIZATION GIVE THE GIFT OF TRANSPORTATION TO A LOCAL SHELTER." *WIFR*. LAST MODIFIED JANUARY 5, 2017. HTTP://WWW.WIFR.COM/CONTENT/NEWS/409830245.HTML.

"BICYCLE RIDER KILLED IN COLLISION NEAR HAMPSHIRE." *THE COURIER-NEWS*. MAY 19, 2015. HTTP://WWW.CHICAGOTRIBUNE.COM/SUBURBS/ELGIN-COURIER-NEWS/NEWS/CT-ECN-HAMP-FATAL-ST-0520-20150519-STORY.HTML .

"BICYCLE VIOLATIONS". *TOWN OF NORMAL*. LAST ACCESSED MARCH 23, 2017. HTTPS://WWW.NORMAL.ORG/1070/BICYCLE-VIOLATIONS.

CLIFTON, KELLY, ET AL. "CONSUMER BEHAVIOR AND TRAVEL CHOICES: A FOCUS ON CYCLISTS AND PEDESTRIANS." PRESENTATION AT THE 92ND ANNUAL MEETING OF THE TRANSPORTATION RESEARCH BOARD, WASHINGTON, D.C., JANUARY 2013.

"COMPLETE STREETS POLICIES NATIONWIDE." *SMART GROWTH AMERICA*. LAST ACCESSED FEBRUARY 10, 2017. HTTPS://SMARTGROWTHAMERICA.ORG/PROGRAM/NATIONAL-COMPLETE-STREETS-COALITION/POLICY-DEVELOPMENT/POLICY-ATLAS/.

"COMPLETE STREETS POLICIES." A*CTIVE TRANSPORTATION ALLIANCE*. LAST ACCESSED NOVEMBER 28, 2016. HTTP://ATPOLICY.ORG/COMPLETE-STREETS-POLICIES-INDEX/.

CORTRIGHT, JOE. *WALKING THE WALK: HOW WALKABILITY RAISES HOME VALUES IN U.S. CITIES*. CHICAGO: CEOS FOR CITIES, 2009.

"CRASH FACTORS IN INTERSECTION-RELATED CRASHES: AN ON-SCENE PERSPECTIVE." WASHINGTON, D.C,: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINSTRATION, 2010.

DAVILKA, KELLY, ET AL. *SIOUX CITY ACTIVE TRANSPORTATION PLAN*. IOWA CITY: THE UNIVERSITY OF IOWA, 2015.

"D.C. BIKE AMBASSADOR". *WASHINGTON AREA BICYCLISTS ASSOCIATION*. LAST ACCESSED MARCH 27, 2017. HTTP://WWW.WABA.ORG/PROGRAMS/D-C-BIKE-AMBASSADOR/.

DESIGNING WALKABLE URBAN THOROUGHFARES: A CONTEXT SENSITIVE APPROACH. WASHINGTON D.C.: INSTITUTE OF TRANSPORTATION ENGINEERS, 2010.

DOLLMAN, J. AND N. LEWIS. "ACTIVE TRANSPORT TO SCHOOL AS PART OF A BROADER HABIT OF WALKING AND CYCLING AMONG SOUTH AUSTRALIAN YOUTH", ABSTRACT, *JOURNAL OF SCIENCE AND MEDICINE IN SPORT*. 19(4), (2007): 436-443.

"EFFECTIVE PEDESTRIAN PROGRAMS." *HAWAII PEDESTRIAN TOOLBOX*. HAWAII DEPARTMENT OF TRANSPORTATION, 2013 HTTP://HIDOT.HAWAII.GOV/HIGHWAYS/STATEWIDE-PEDESTRIAN-MASTER-PLAN-AND-HAWAII-PEDESTRIAN-TOOLBOX/.

"ELEMENTS OF A GOOD PUBLIC AWARENESS CAMPAIGN: AT A GLANCE". *GLOBAL ROAD SAFETY PARTNERSHIP*. HTTP://LEGACY.GRSPROADSAFETY.

ORG/CONTENT/PUBLIC-AWARENESS-CAMPAIGN

"ELEMENTS OF AN ADULT SCHOOL CROSSING GUARD PROGRAM." *SAFE ROUTES TO SCHOOL GUIDE*. LAST MODIFIED JULY 2015. HTTP://GUIDE.SAFEROUTESINFO.ORG/.

FLUSCHE, DARREN. "BICYCLING MEANS BUSINESS: THE ECONOMIC BENEFITS OF BICYCLE INFRASTRUCTURE", *ADVOCACY ADVANCE*. JULY 2012.

FLUSCHE, DARREN."SPEEDY ROAD DESIGN UNDERMINES SAFETY." *NEWS FROM THE LEAGUE*. NOVEMBER 2014. HTTP://WWW.BIKELEAGUE.ORG/CONTENT/SPEEDY-ROAD-DESIGN-UNDERMINES-SAFETY.

FRANK, LAWRENCE D., ET AL. "MANY PATHWAYS FROM LAND USE TO HEALTH" *JOURNAL OF THE AMERICAN PLANNING ASSOCIATION* 72.1 (2006): 75-87.

GARDNER, GARY. "POWER TO THE PEDALS." *WORLD WATCH MAGAZINE*. JULY-AUG. 2010.

"GETTING STARTED." *THE LEAGUE OF AMERICAN BICYCLISTS*. HTTP://BIKELEAGUE.ORG/.

GOLDBERG, DAVID, ET AL. *NEW DATA FOR A NEW ERA: A SUMMARY OF THE SMARTRAQ FINDINGS*. VANCOUVER: THE UNIVERSITY OF BRITISH COLUMBIA, 2007.

GOMEZ, REBECCA. "RODEO 101: BIKE AND PEDESTRIAN SAFETY EDUCATION AND CELEBRATION." *CITY OF MINNEPOLIS BIKE WALK AMBASSADOR PROGRAM*. LAST MODIFIED IN 2011. HTTP://WWW.BIKEMN.ORG/.

"GREENHOUSE GAS EMISSIONS FROM A TYPICAL PASSENGER VEHICLE". *ENVIRONEMENTAL PROTECTION AGENCY*. LAST ACCESSED MARCH 25, 2016. HTTPS://WWW.EPA.GOV/GREENVEHICLES/GREENHOUSE-GAS-EMISSIONS-TYPICAL-PASSENGER-VEHICLE-0.

HALUPKA, PAUL, ET AL. *COMPLETE STREETS COMPLETE NETWORKS: A MANUAL FOR THE DESIGN OF ACTIVE TRANSPORTATION*. CHCIAGO: ACTIVE TRANSPORTATION ALLIANCE, 2012.

HAMER, M. AND Y. CHIDA. "ACTIVE COMMUTING AND CARDIOVASCULAR RISK", ABSTRACT. *PREVENTIVE MEDICINE* 46(1) (JANUARY 2008): 9-13.

HARRIS, M. ANNE, ET AL. "COMPARING THE EFFECTS OF INFRASTRUCTURE ON BIYCLING INJURY AT INTERSECTIONS AND NON-INTERSECTIONS USING A CASE - CROSSOVER DESIGN." *INJURY PREVENTION*. (2013) P. XXII

HILKEVITCH, JON. "CITY SAYS DEARBORN BIKE SIGNALS KEEPING CYCLISTS IN LINE". *CHICAGO TRIBUNE*. LAST MODIFIED JUNE 10, 2013. HTTP://ARTICLES.CHICAGOTRIBUNE.COM/.

"HOW TO CONDUCT WALKING AND BIKING AUDITS." *GO HUMAN SOUTHERN CALIFORNIA*. HTTP://GOHUMANSOCAL.ORG/DOCUMENTS/TOOLS/TOOLBOX_AUDIT.PDF.

"ILLINOIS BICYCLE RULES OF THE ROAD". SPRINGFIELD, IL: ILLINOIS SECRETARY OF STATE, 2015.

"ILLINOIS SAFE ROUTES TO SCHOOL". *ILLINOIS DEPARTMENT OF TREANSPORTATION*. LAST MODIFIED IN 2015. HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/LOCAL-TRANSPORTATION-PARTNERS/COUNTY-ENGINEERS-AND-LOCAL-PUBLIC-AGENCIES/SAFE-ROUTES-TO-SCHOOL/INDEX.

KEATING, MICHAEL. "WHY THE NEW ILLINOIS BICYCLE LAW, "DENNIS'S LAW", IS IMPORTANT FOR ALL BICYCLISTS". *ILLINOIS BICYCLE LAW*. LAST MODIFIED ON AUGUST 25, 2016. HTTP://WWW.ILLINOISBICYCLELAW.COM/2016/08/NEW-ILLINOIS-BICYCLE-LAW.HTML.

L. CHEN, ET AL., "EVALUATING THE SAFETY EFFECTS OF BICYCLE LANES IN NEW YORK CITY", *AMERICAN JOURNAL OF PUBLIC HEALTH*. 102(6) (2012) :1120-7.

LITMAN, TODD ALEXANDER AND ERIC DOHERTY. *TRANSPORTATION COST AND BENEFIT ANALYSIS*. VICTORIA: VICTORIA TRANSPORT POLICY INSTITUTE, 2009.

LUGO, ANDONIA, ELIZABETH MURPHY, AND COROLYN SZEPANSKI, *THE NEW MAJORITY: BIKE EQUITY TODAY.* MAY 2013

MAIZLISH, N., ET. AL.. "HEALTH COBENEFITS AND TRANSPORTATION-RELATED REDUCTIONS IN GREENHOUSE GAS EMISSIONS IN THE SAN FRANCISCO BAY AREA", ABSTRACT. *AMERICAN JOURNAL OF PUBLIC HEALTH* 103(4), (APRIL 2013): 703-709.

MAKING COMPLETE STREETS A REALITY: A GUIDE TO COMPLETE STREETS POLICY DEVELOPMENT. TRENTON, NJ: NEW JERSEY DEPARTMENT OF TRANSPORTATION, 2012.

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. 2009 EDITION. WASHINGTON D.C.: FEDERAL HIGHWAY ADMINSTRATION, 2009.

"MAYOR'S CHALLENGE FOR SAFER PEOPLE, SAFER STREETS". *US DEPARTMENT OF TRANSPORTATION*. LAST MODIFIED SEPTEMBER 22, 2016. HTTPS://WWW.TRANSPORTATION.GOV/MAYORS-CHALLENGE-BACKGROUND.

MENSCHIK, D., ET. AL. "ADOLESCENT PHYSICAL ACTIVITIES AS PREDICTORS OF YOUNG ADULT WEIGHT." *ARCHIVES OF PEDIATRICS & ADOLESCENT MEDICINE* 162(1), (JANUARY 2008): 29-33.

MONSERE, CHRIS, ET AL. *LESSONS FROM THE GREEN LANES: EVALUATING PROTECTED BIKE LANES IN THE U.S.* PORTLAND, OR: NATIONAL INSTITUTE FOR TRANSPORTATION AND COMMUNITIES, 2014.

"MULTI-MODAL LEVEL OF SERVICE TOOLKIT." *FEHRANDPEERS.COM*. LAST MODIFIED AUGUST 2014. HTTP://ASAP.FEHRANDPEERS.COM/WP-CONTENT/UPLOADS/2014/08/MMLOS-TOOL-HCM-2010-PEDESTRIAN.PDF

NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS. *TRANSIT STREET DESIGN GUIDE*. WASHINGTON, D.C.: ISLAND PRESS, 2016.

NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS. *URBAN BIKEWAY DESIGN GUIDE*. 2ND EDITION. WASHINGTON, D.C.: ISLAND PRESS, 2014.

NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS. *URBAN STREET DESIGN GUIDE*. WASHINGTON, D.C.: ISLAND PRESS, 2013.

"OPEN STREETS MODELS". *OPEN STREETS PROJECT*. LAST ACCESSED MARCH 27, 2017. HTTP://OPENSTREETSPROJECT.ORG/OPEN-STREETS-MODELS/.

"PEDESTRIAN HYBRID BEACON." *FEDERAL HIGHWAY ADMINSTRATION*. LAST MODIFED FEBRUARY 1, 2017. HTTPS://SAFETY.FHWA.DOT.GOV/PROVENCOUNTERMEASURES/FHWA_SA_12_012.CFM.

"PEDESTRIAN SIGNALS". *PEDESTRIAN AND BICYCLE INFORMATION CENTER*. LAST ACCESSED MARCH 15, 2017. HTTP://WWW.PEDBIKEINFO.ORG/PLANNING/FACILITIES_CROSSINGS_PEDSIGNALS.CFM.

"QUICK FACTS 2015". *NATIONAL HIGHWAY TRAFFIC SAFETY ADMINSTRATION*. LAST MODIFIED 2016. HTTPS://CRASHSTATS.NHTSA.DOT.GOV/#/.

"RECTANGULAR RAPID FLASH BEACON (RRFB)". *FEDERAL HIGHWAY ADMINSTRATION*. LAST MODIFIED SEPTEMBER 4, 2014. HTTPS://SAFETY.FHWA.DOT.GOV/INTERSECTION/CONVENTIONAL/UNSIGNALIZED/TECH_SUM/FHWASA09009/.

"RIDING ON THE SIDEWALK." *LEAGUE OF AMERICAN BICYCLISTS*. LAST MODIFIED MAY 21, 2013. HTTP://BIKELEAGUE.ORG/CONTENT/RIDING-SIDEWALK.

"SAFE ROUTES TO SCHOOL STATE PROGRAMS". *SAFE ROUTES TO SCHOOL NATIONAL PARTNERSHIP*. HTTP://WWW.SAFEROUTESPARTNERSHIP.ORG/STATE/BESTPRACTICES/STATEPROGRAMS.

SAFETY BENEFITS OF RAISED MEDIANS AND PEDESTRIAN REFUGE ISLANDS. WASHINGTON D.C.: FEDERAL HIGHWAY ADMINSTRATION, 2013.

SEPARATED BIKE LANE PLANNING AND DESIGN GUIDE. WASHINGTON D.C.: FEDERAL HIGHWAY ADMINSTRATION, 2015.

SESKIN, STEFANIE. *COMPLETE STREETS: LOCAL POLICY WORKBOOK*. WASHINGTON, D.C.: SMART GROWTH AMERICA, 2013.

SIERRIA CLUB. "PEDALING TO PROSPERITY". OAKLAND: SIERRA CLUB, 2012.

SLOTTERBACK, CARISSA SCHIVELY AND CINDY ZERGER. "COMPLETE STREETS FROM POLICY TO PROJECT: THE PLANNING AND IMPLEMENTATION OF COMPLETE STREETS AT MULTIPLE SCALES". MINNEAPOLIS, MN: HUMPHREY SCHOOL OF PUBLIC AFFAIRS, UNIVERSITY OF MINNESOTA, 2013.

"THE CERS ENFORCEMENT PROGRAM." *CENTER FOR EDUCATION AND RESEARCH IN SAFETY*. LAST ACCESSED MARCH 29, 2017. HTTP://WWW.CERS-SAFETY.COM/PEP.HTM.

"THE ROLE OF THE ADULT SCHOOL CROSSING GUARD." *SAFE ROUTES TO SCHOOL GUIDE*. LAST MODIFIED JULY 2015. HTTP://GUIDE.SAFEROUTESINFO.ORG/.

TRAFFIC SAFETY FACTS 2012. WASHINGTON, D.C,: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINSTRATION, 2013.

TRAFFIC SAFETY FACTS: 2013 DATA. WASHINGTON, D.C,: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINSTRATION, 2013.

WOLFSON, H. "MEMORANDUM ON BIKE LANES". *CITY OF NEW YORK, OFFICE OF THE MAYOR*. LAST MODIFIED MARCH 21, 2011. HTTP://WWW.PEOPLEFORBIKES.ORG/STATISTICS/CATEGORY/FACILITIES-STATISTICS.

Appendices

Appendix A. Bicycle & Pedestrian Survey Results

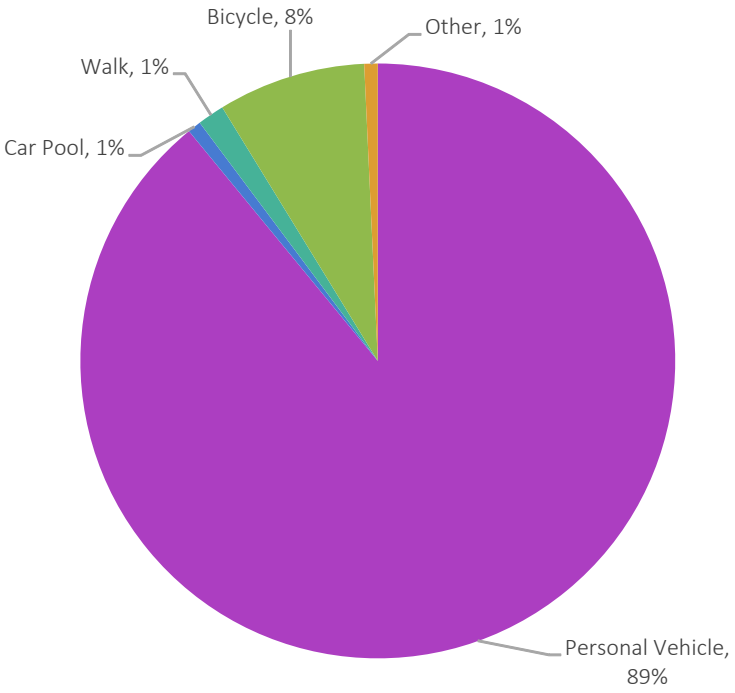
About the Survey

The public survey was available through Survey Gizmo beginning on June 1st, 2016. Links to the survey were on the Bicycle & Pedestrian Plan Facebook page and RMAP's website. An additional press release was sent out to media outlets on June 24th, 2016. In addition to the online survey, hardcopies were available at the three public open houses hosted on June 1st, 8th and 9th, 2016. On July 31st, 2016, the survey was closed. RMAP received a total of 120 complete surveys and 39 partial surveys with a completion rate of 75.5%.

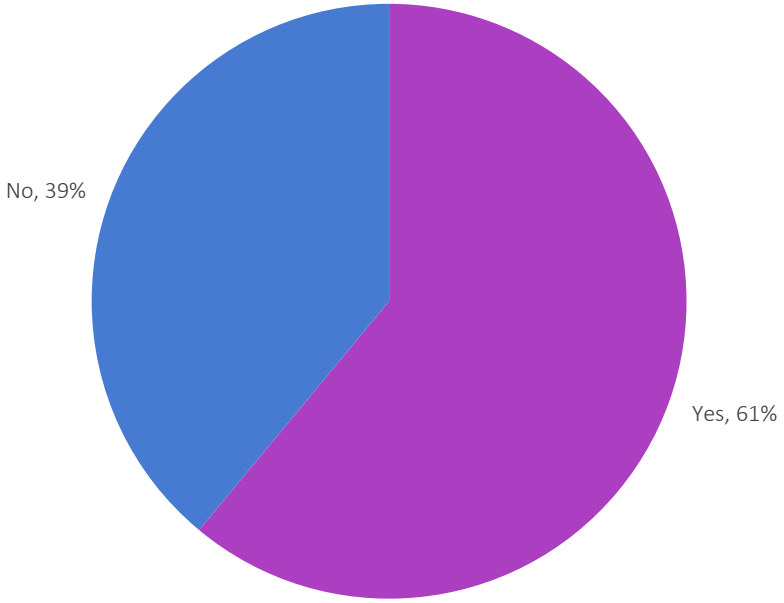
The survey included questions regarding transportation access, pedestrian travel, bicycle travel, and demographic information. In total, the respondents were asked to answer 16 questions regarding their transportation habits, preferences, and importance of active transportation. An additional four questions were asked to determine if the survey results reflected the population characteristics of our region.

The following report provides the questions and responses recieved from the survey. Please note that the responses to questions 16, 21, and 22 have been left out of this report.

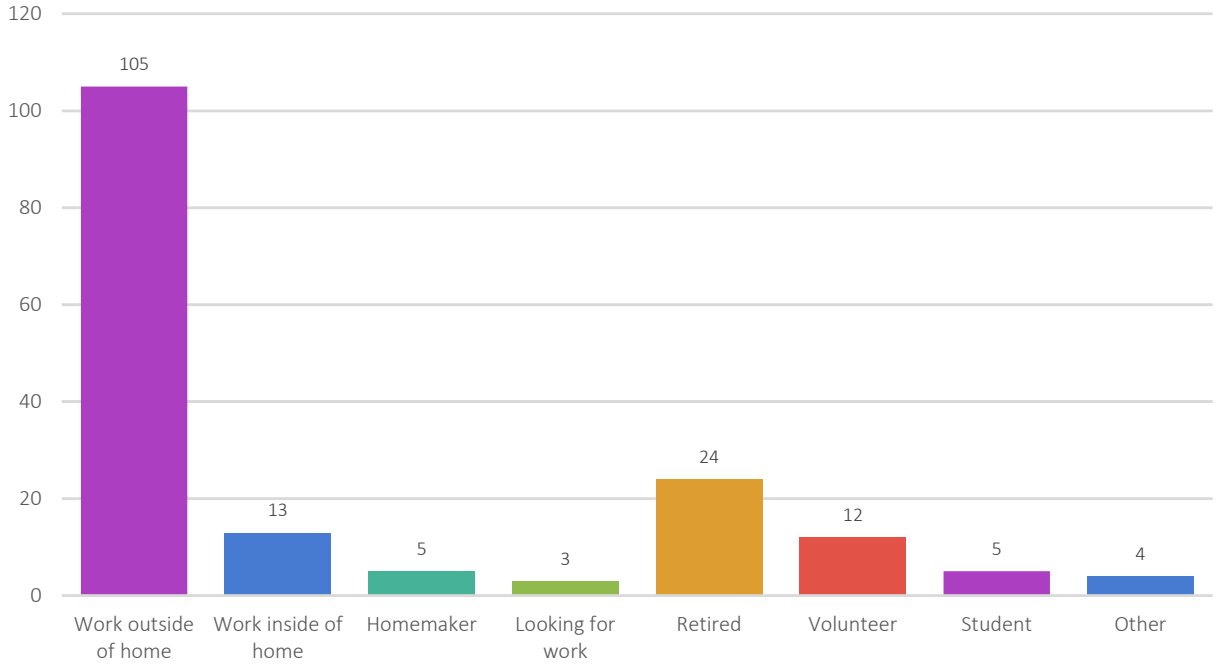
1. What is your primary mode of transportation?



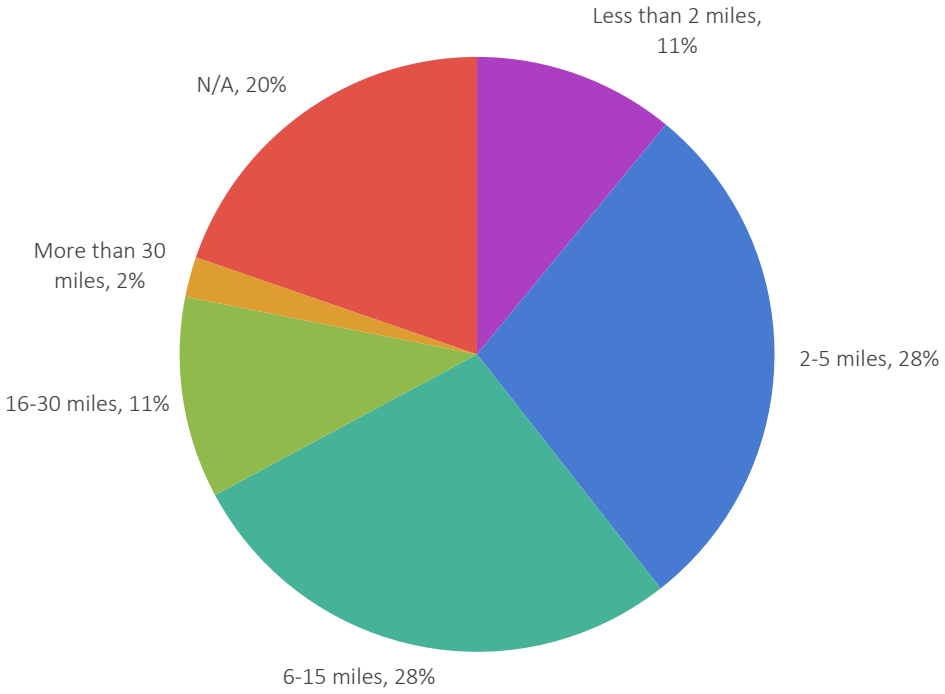
2. Do you have access to public transit?



3. What best describes you? (Check all that apply)



4. How long is your regular commute to work or school?



5. What do you consider the most important reasons for investing in cycling and walking? Please rate the importance of each on a three (3)-point scale from "not at all important" to "extremely important."

	Not at all important	Somewhat important	Extremely important
Providing an independent transportation option for youth, senior citizens, people with disabilities and others with limited access to a private vehicle	6 4.5%	36 26.9%	92 68.7%
Increasing health and physical activity	1 0.7%	22 16.2%	113 83.1%
Improving safety for walking and cycling	2 1.5%	11 8.1%	123 90.4%
Improving facilities in center cities, town center and main streets and near transit stops	9 6.6%	51 37.2%	77 56.2%
Support the environment by offering low-impact transportation options	10 7.5%	47 35.3%	76 57.1%
Creating safe routes for walking or bicycling to schools	2 1.5%	16 11.6%	119 86.9%
Supporting tourism and economic development	12 8.8%	52 38.2%	72 52.9%
Providing affordable transportation option for low-income citizens	11 8.1%	50 37.0%	74 54.8%
Enhancing access to and experience of natural environment	7 5.3%	46 34.6%	80 60.2%

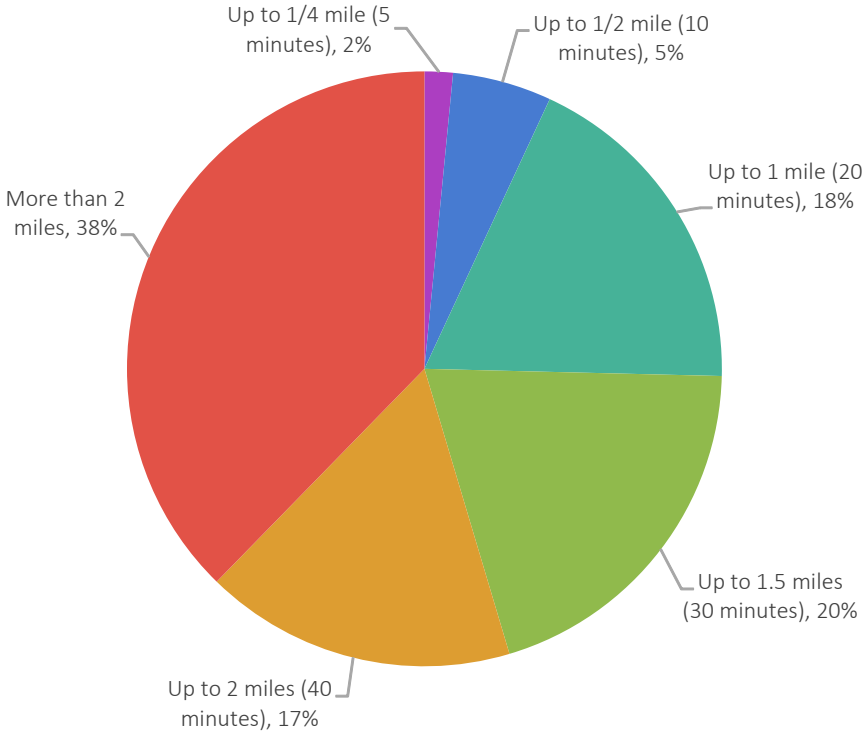
Other- Please Specify, 24 responses

6. Please select how often you typically are a pedestrian for the following trip purposes.

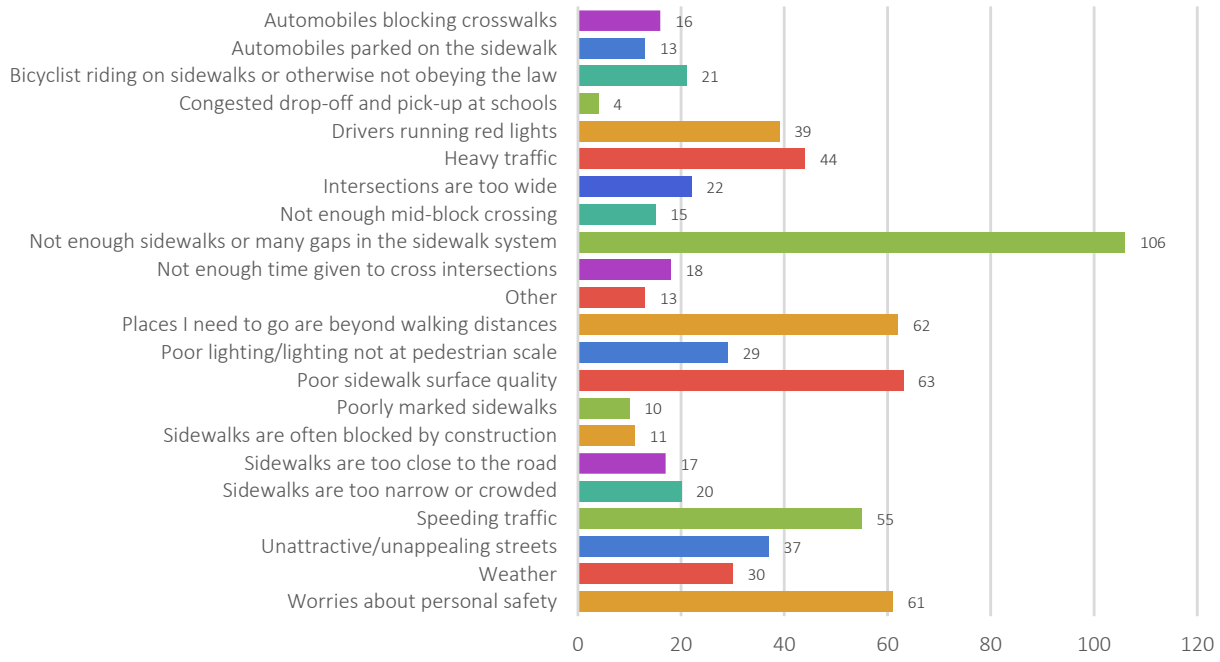
	Not at all important	Somewhat important	Extremely important
Providing an independent transportation option for youth, senior citizens, people with disabilities and others with limited access to a private vehicle	6 4.5%	36 26.9%	92 68.7%
Increasing health and physical activity	1 0.7%	22 16.2%	113 83.1%
Improving safety for walking and cycling	2 1.5%	11 8.1%	123 90.4%
Improving facilities in center cities, town center and main streets and near transit stops	9 6.6%	51 37.2%	77 56.2%
Support the environment by offering low-impact transportation options	10 7.5%	47 35.3%	76 57.1%
Creating safe routes for walking or bicycling to schools	2 1.5%	16 11.6%	119 86.9%
Supporting tourism and economic development	12 8.8%	52 38.2%	72 52.9%
Providing affordable transportation option for low-income citizens	11 8.1%	50 37.0%	74 54.8%
Enhancing access to and experience of natural environment	7 5.3%	46 34.6%	80 60.2%

Other- Please Specify, 12 responses

7. For a typical walk, what distance is comfortable for you?



8. Generally speaking, which of the following factors make it difficult or unpleasant for you to be a pedestrian in your city? Please choose up to five factors.

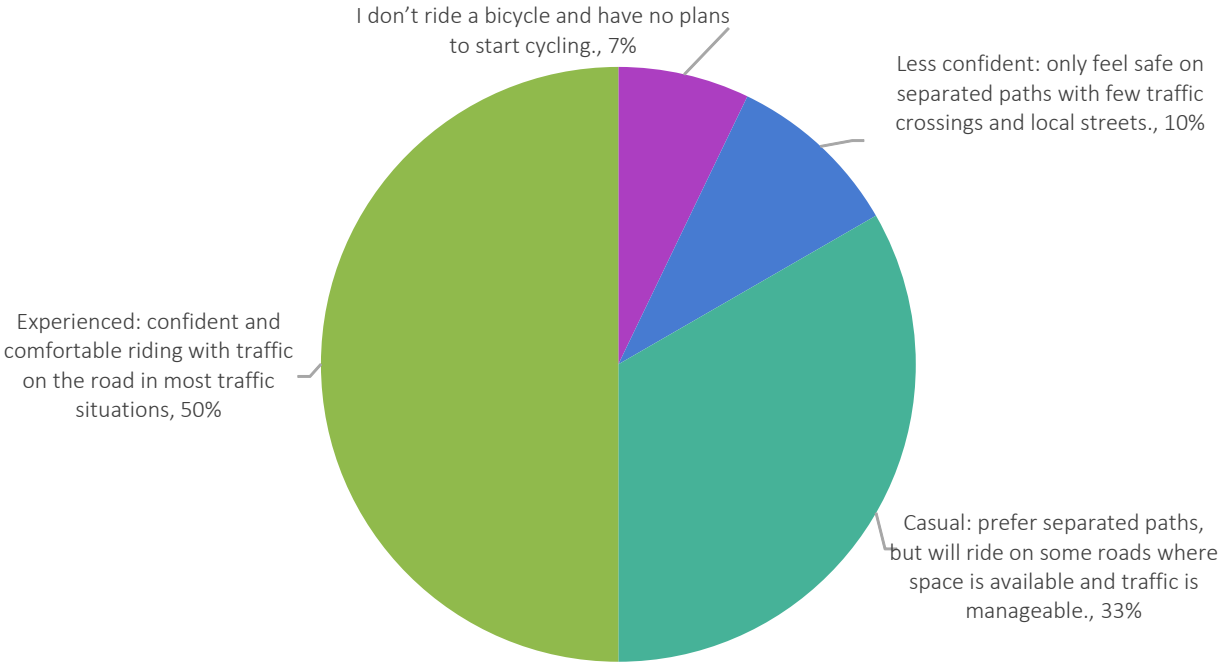


9. What facilities or programs are most needed to promote walking in your community? Please rate the importance of each on a three (3)-point scale from "not at all important" to "extremely important."

	Not at all important	Somewhat important	Extremely important
Improved pedestrian crossings (signals, crosswalks, warning signs)	7 5.4%	56 43.4%	66 51.2%
Improved curb ramps and accessibility for people with disabilities	7 5.4%	62 48.1%	60 46.5%
Slower traffic	29 22.7%	64 50.0%	35 27.3%
Improved sidewalks (wider, fewer obstructions, and more buffer from vehicles)	5 3.9%	37 28.9%	86 67.2%
Fill in gaps in the sidewalk system	2 1.5%	32 24.2%	98 74.2%
Improved pedestrian access to transit stops and stations	16 12.5%	63 49.2%	49 38.3%
Better lighting or security measures	9 7.0%	64 50.0%	55 43.0%
Better sidewalk maintenance (repair of infrastructure, or removal of snow/debris)	2 1.5%	42 32.1%	87 66.4%
More walking paths and trails	4 3.1%	20 15.5%	105 81.4%
Increased education and enforcement of pedestrian traffic laws	26 20.3%	54 42.2%	48 37.4%

Other- Please Specify, 13 responses

10. How would you describe your level of comfort or confidence bicycling?

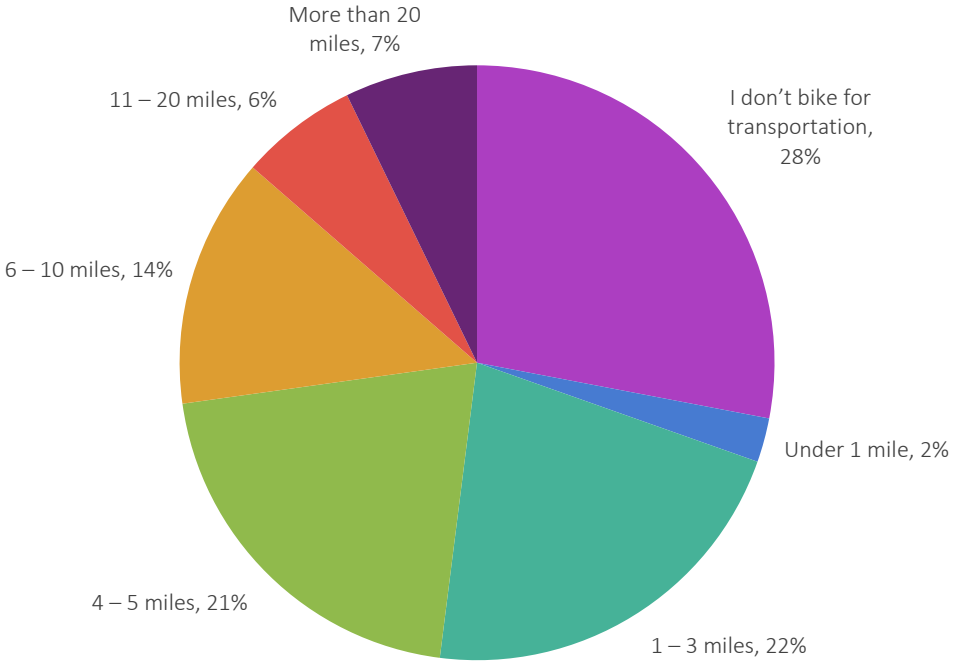


11. Please select how often you bicycle for each of the various trip purposes listed below:

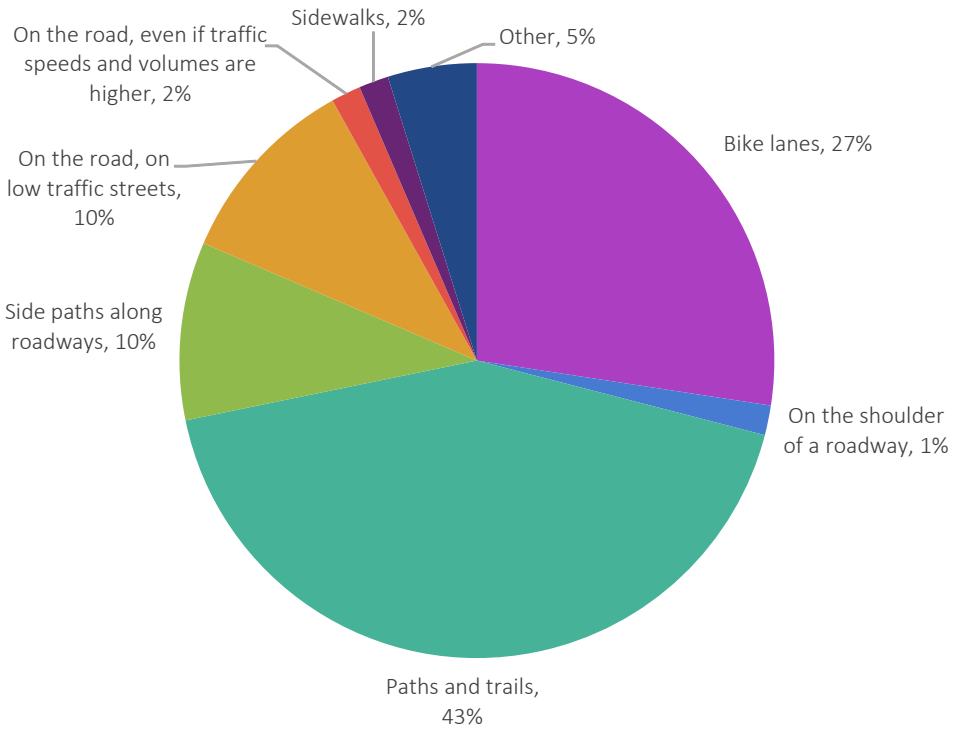
	1 or more times a day	1-6 times a week	1-3 times a month	Very rarely	Never
Leisure/fitness	17 13.7%	74 59.7%	16 12.9%	8 6.5%	9 7.3%
Shopping, errands, dining	3 2.4%	29 23.4%	29 23.4%	27 21.8%	36 29.0%
To get to transit	1 0.8%	4 3.2%	4 3.2%	17 13.7%	98 79.0%
Commuting to school	2 1.6%	5 4.1%	5 4.1%	9 7.3%	102 82.9%
Commuting to work	6 4.8%	15 12.1%	18 14.5%	15 12.1%	70 56.5%
Worship, community events	2 1.6%	9 7.3%	21 16.9%	25 20.2%	67 54.0%
Visiting friends	3 2.4%	17 13.7%	31 25.0%	35 28.2%	38 30.6%

Other- Please Specify, 8 responses

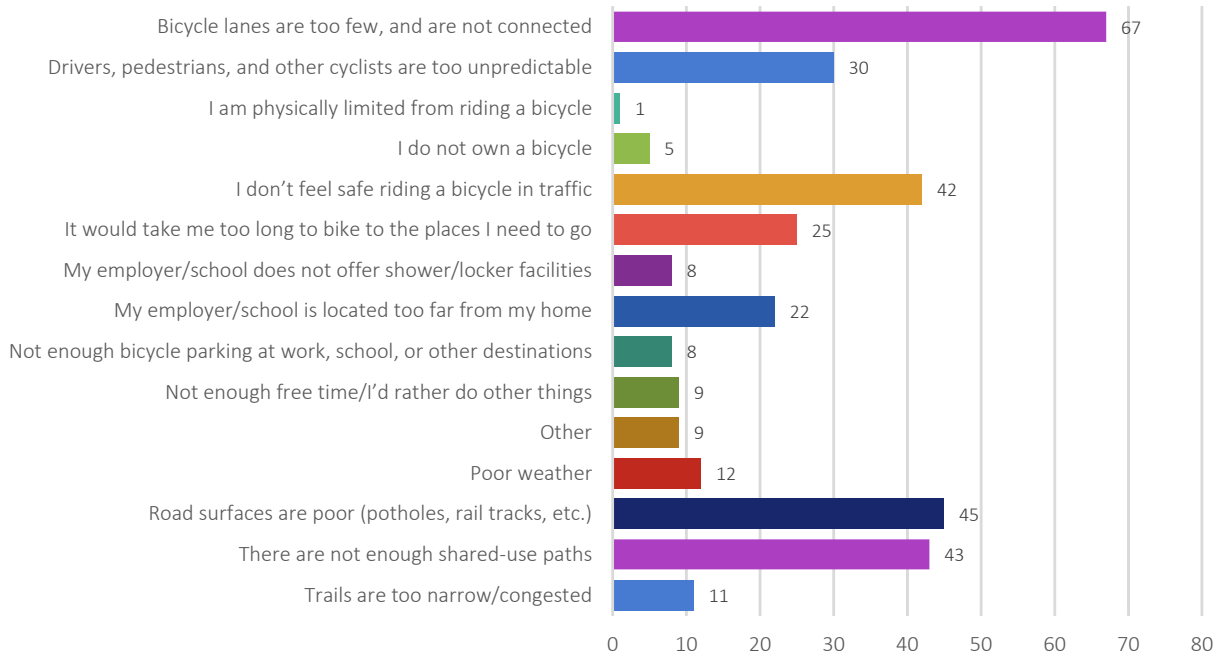
12. What is the distance of your typical ride for transportation purposes (i.e., not including fitness and leisure riding)?



13. What types of facilities do you prefer to ride on?



14. If you have not bicycled in your city or do not bicycle frequently in your city, which factors most prevented you from doing so? Please choose up to five factors.



15. What facilities or programs are most needed to promote bicycling in your community? Please rate the importance of each on a three (3)-point scale from "not at all important" to "extremely important."

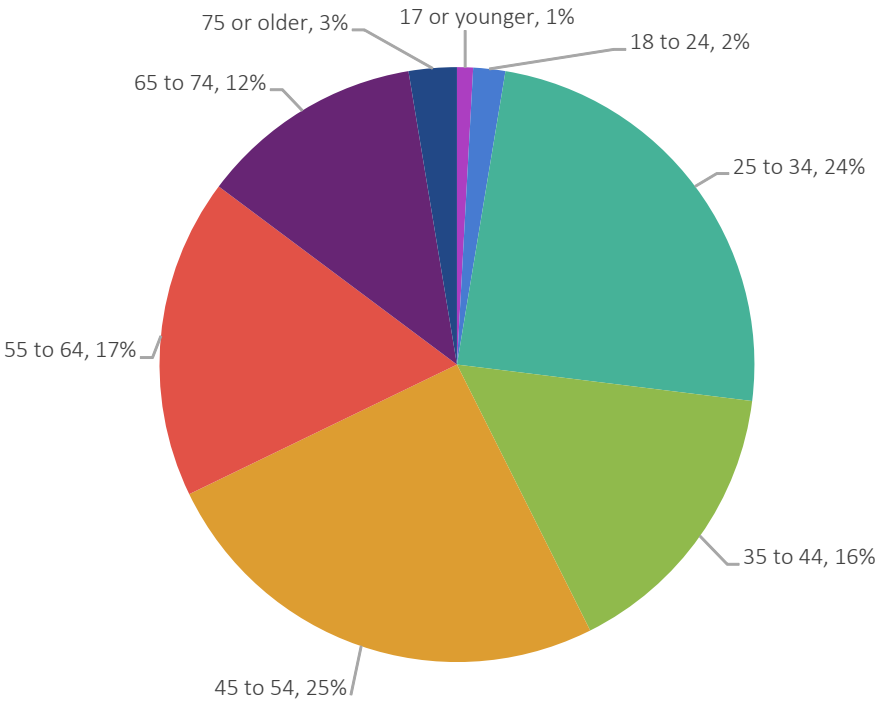
	Not at all important	Somewhat important	Extremely important
More bike lanes on major streets	6 5.1%	20 16.9%	92 78.0%
More bike lanes on minor streets	13 10.9%	47 39.5%	59 49.6%
More bicycle paths and trails	5 4.2%	10 8.4%	104 87.4%
Paved shoulders on narrow roads	6 5.1%	37 31.6%	74 63.2%
More wide outside lanes (easier to share with cars)	11 9.5%	41 35.3%	64 55.2%
More shared lane markings (sharrows) in travel lanes	14 12.2%	44 38.3%	57 49.6%
Improved buffers between bicyclists and vehicles	5 4.2%	35 29.4%	79 66.4%
Better bicycle parking, storage and workplace amenities	14 12.0%	57 48.7%	46 39.3%
Better access to transit stations and bus stops	38 32.8%	58 50.0%	20 17.2%
More on-road bike signage (share the road signs/bike may use full lane signs)	11 9.4%	53 45.3%	53 45.3%
Better bicycle accommodation through intersections and interchanges	7 6.0%	37 34.6%	73 62.4%
Slower traffic	27 23.1%	62 53.0%	28 23.9%
More and better bike route wayfinding signs and bike maps	13 11.1%	38 32.5%	66 56.4%
Increased maintenance (street sweeping/repair of roads)	5 4.3%	50 43.1%	61 52.6%
Increased enforcement and education of traffic laws	13 11.2%	47 40.5%	56 48.3%
A bike sharing program	41 35.3%	51 44.0%	24 20.7%

Other- Please Specify, 5 responses

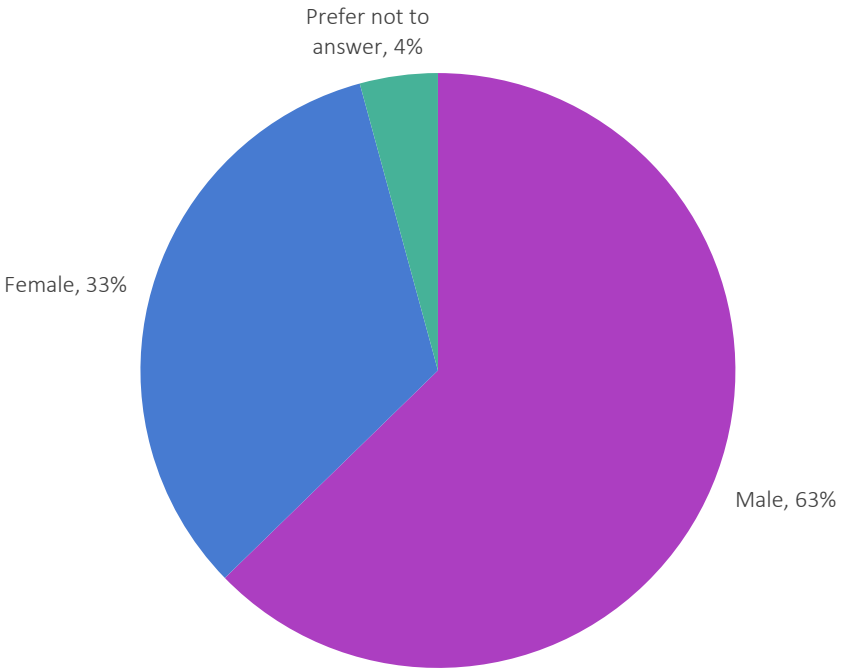
17. Please tell us the zip code in which you live.

17. Please tell us the zip code in which you work.

19. Please tell us you age.



20. Gender



Appendix B. Pedestrian Suitability Index Methodology

A pedestrian suitability index was developed for the Bicycle and Pedestrian Plan to determine the quantity and quality of the pedestrian facilities along the primary street segments and intersections in the Rockford Metropolitan Planning Area (MPA). Modified from Memphis' version of the Pedestrian Suitability Index, the index provides a qualitative method for assessing the pedestrian environment related to the demand, traffic patterns and design. The Pedestrian Suitability Index analyzes only major roadways in the MPA, e.g. roads functionally classified as Collector or above.

The Pedestrian Suitability Index (PSI) uses both supply and demand factors to quantify the pedestrian walkability of a given roadway or intersection. It combines key data and attributes of the physical infrastructure (supply) with pedestrian generator data (demand) to score and compare an urbanized area's transportation network.

PSI and other similar models have been used in a variety of bicycle and/or pedestrian related plans all across the country. The version that most heavily influenced this plan's analysis was the one used in the Memphis Pedestrian School Safety Action Plan (2015) written by Alta Planning and Design. However, RMAP made several significant modifications to Alta's version of the PSI in order to best fit the region's infrastructure inventory and available data. The modifications were to the demand analysis, supply criteria, organization of the category groupings, and the scoring values.

A three-part geographic information system (GIS) analysis was used to complete the Pedestrian Suitability Index: a demand analysis, pedestrian network analysis, and an intersection analysis. The demand analysis identifies the expected pedestrian activity areas by utilizing geographic data related to pedestrian attractors and generators. Areas that contain a greater number of people living or working within them are more likely to have more people walking. The supply analysis for the PSI was separated into two parts: the pedestrian network analysis and the intersection analysis. Both parts produced separate results for the suitability of the given roadway segment, intersection, or census tract based on various characteristics that influence the ability for pedestrians to move safely and comfortably. The supply analysis results are individually mapped in the Existing Conditions: Pedestrian Facilities section of the Plan.

In total, the model's results display, quantify, and rank the pedestrian network based upon walkability and demand. It locates areas where there are gaps in the network and allows for a more analytically driven prioritization effort of future infrastructure investments that could have the greatest impacts network-wide.

Part 1: Demand Analysis

A large component of a well-connected network is how residents are able to get from their homes to parks, grocery stores, social service centers, work, and to see friends and relatives. The Demand Analysis encompasses all of these influences by analyzing where concentrations of people live and work, in conjunction with proximity to significant pedestrian trip generators. The combination of these two calculations was organized into five indicators: live, work, learn, play/shop, and transit. The table below shows the factors calculated into the demand analysis and their weights.

Methodology

The initial process for the demand analysis was collecting data for each factor from the various sources and entering it all into GIS. Each factor was scored and grouped into the five overarching categories, as shown in Figure B-1. Each of the categories were weighed equally at twenty percent. Each category's weighted score was then calculated to produce a composite score for each U.S. Census Block in the RMAP MPA. Using GIS, RMAP was able to run calculations and display the results.

FIGURE B-1. DEMAND ANALYSIS FACTORS & SCORES

	FACTOR	SCORE	WEIGHT
LIVE	Total Population	1-5	20%
WORK	Total Employment	1-5	20%
LEARN	Higher Education	1	20%
	Elementary School	1	
	Middle School	1	
	High School	1	
PLAY & SHOP	Major Generators	1	20%
	Parks	1	
	Retail & Entertainment	1	
	Medium Generators	1	
	Hospitals	1	
	Community Services	1	
TRANSIT	Bus Stops	1	20%

Below are descriptions for the factors and categories used to determine demand.

Live

Data from the U.S Census Bureau 2010 – 2014 American Community Survey (ACS) was used to determine the population density for each of the Census blocks within RMAP's Metropolitan Planning Area (MPA). Census blocks were broken into percentile groups based on their population density and assigned points for the percentile in which they fell, e.g. top percentile = 5/5, bottom percentile = 1/5. Points were then multiplied by the category weight of twenty percent to give a final score.

Work

Similar to Live, the work category was based on the employment densities of each block. Employment data came from the Origin-Destination Employment Statistics (LODES) from the U.S. Census Bureau. Census blocks were categorized into percentile groups based on their employment density and assigned points based on the percentile in which they fell, e.g. top percentile = 5/5, bottom percentile = 1/5. Points were then multiplied by the category weight of

twenty percent to give a final score.

Learn

The location of schools was based on information from the Winnebago County Geographic Information System (WinGIS) and RMAP. It was used as another potential attractor for pedestrians. Census blocks were assigned points if higher education facilities, high schools, middle schools, and elementary schools fell within its boundaries. Each educational facility was worth one point. For example, if an elementary school and a college satellite location were located within a single census block, it received two points. Points were then multiplied by the category weight of twenty percent to give a final score.

Play/Shop

This category was broken into six potential pedestrian generators: major generators, retail and entertainment, medium generators, regional parks, hospitals, and community services. The total number of each generator that is located within that census block equals the total number of points it received. Points were then multiplied by the category weight of twenty percent to give a final score.

Major Generators

Major generators were defined as tourist attractions within the region with a total annual visitor count of 500 or more for the calendar year 2014. Tourist locations and counts were provided through the Rockford Area Convention and Visitors Bureau and Visit Northern Illinois websites.

Medium Generators

Medium generators were defined as tourist attractions within the region as found on the Rockford Area Convention and Visitors Bureau and Visit Northern Illinois websites, but did not have a visitor count over 500 for the calendar year 2014.

Retail/Entertainment

Retail/entertainment locations for Winnebago County were defined by WinGIS as points of interest. Retail and entertainment locations for Boone and Ogle Counties were identified by RMAP through research.

Community Services

Community services were defined by WinGIS as points of interest in Winnebago County, while community services in Boone and Ogle Counties were identified by RMAP through research.

Regional Parks

Regional parks were defined as parks and forest preserves open to the public that cover an area of thirty acres or more. Entrances into the parks and preserves were identified via the Forest Preserves of Winnebago County, Rockford Park District, Byron Park District, Belvidere Park District, and the Boone County Conservation District.

Hospitals

The large main campuses of the three major hospitals were used as the designated hospital locations. Small clinics and satellite offices were not included in this particular analysis.

Transit

The final data source used was bus stop locations based on information collected by RMAP, using Rockford Mass Transit District's designated stops and aerial photos. If at least one bus stop was located in that census block, then it received a total score of 1. Conversely, if there were no bus stops in the block, it received a 0. Points were then multiplied by the category weight of twenty percent to give a final score.

Key Findings

The results of the demand analysis are displayed in Figure B-2. The composite scores for the U.S. Census Block within the Rockford Region ranged between 0 to 3.2. Those values are then combined with the supply analysis results to illustrate where there are gaps in the existing and planned network, in addition to what infrastructure investments could have the greatest impacts region-wide.

The primary hot spots of the demand analysis:

- Downtown Rockford (west of the Rock River), located along the Rock River and North Main Street near the Whitman Street Bridge;
- Along the East State Street corridor in Rockford, near Rockford University and major commercial Forest Hill Road and Windsor Road area of Loves Park.

Other hot spots include:

- Downtown Belvidere;
- IL-173/West Lane business corridor in Machesney Park; and
- Northeastern Rockford near Rock Valley College.

FIGURE B-2. DEMAND ANALYSIS RESULTS - MPA

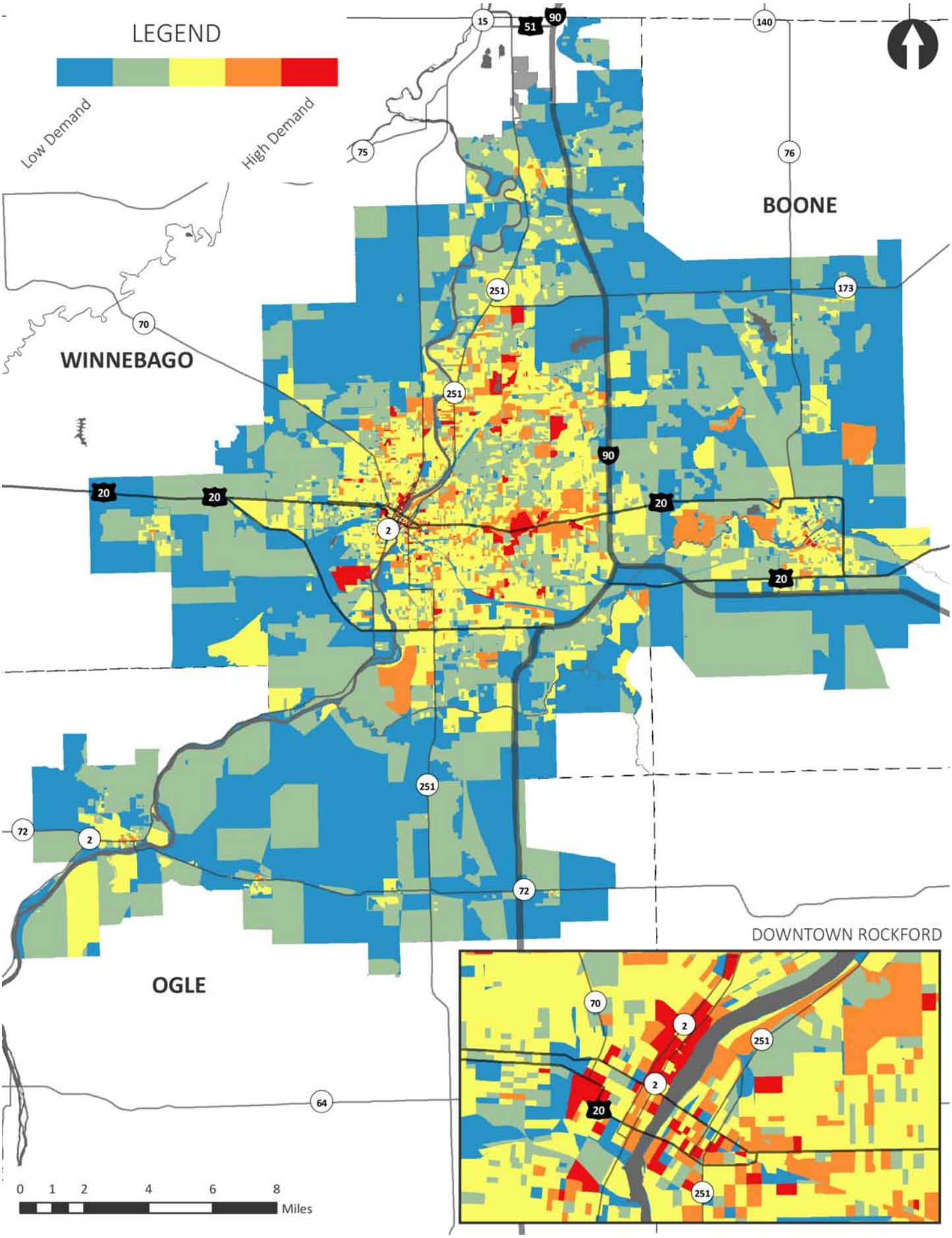


FIGURE B-3. DEMAND ANALYSIS RESULTS - BELVIDERE

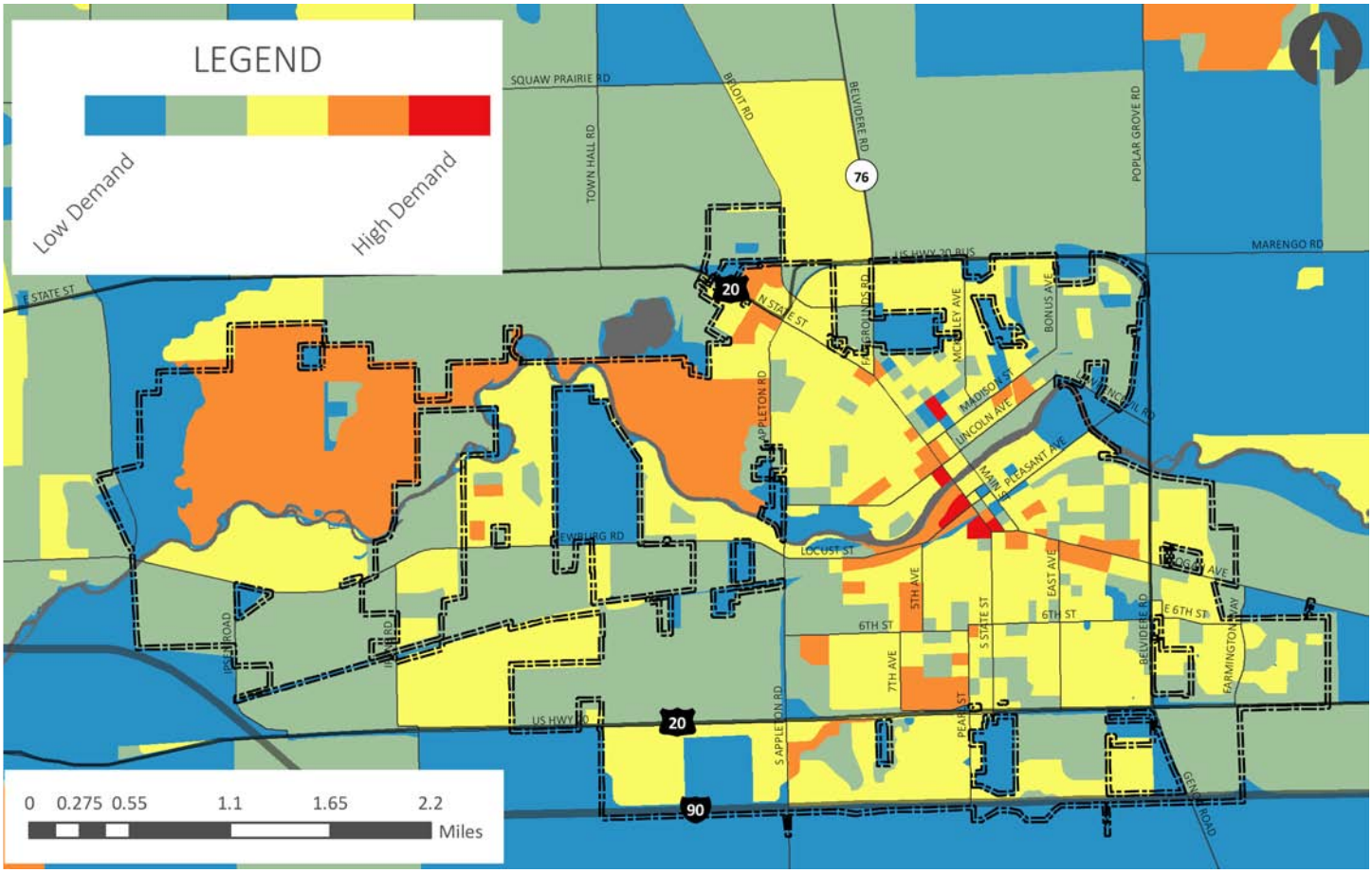


FIGURE B-4. DEMAND ANALYSIS RESULTS - MACHESNEY PARK

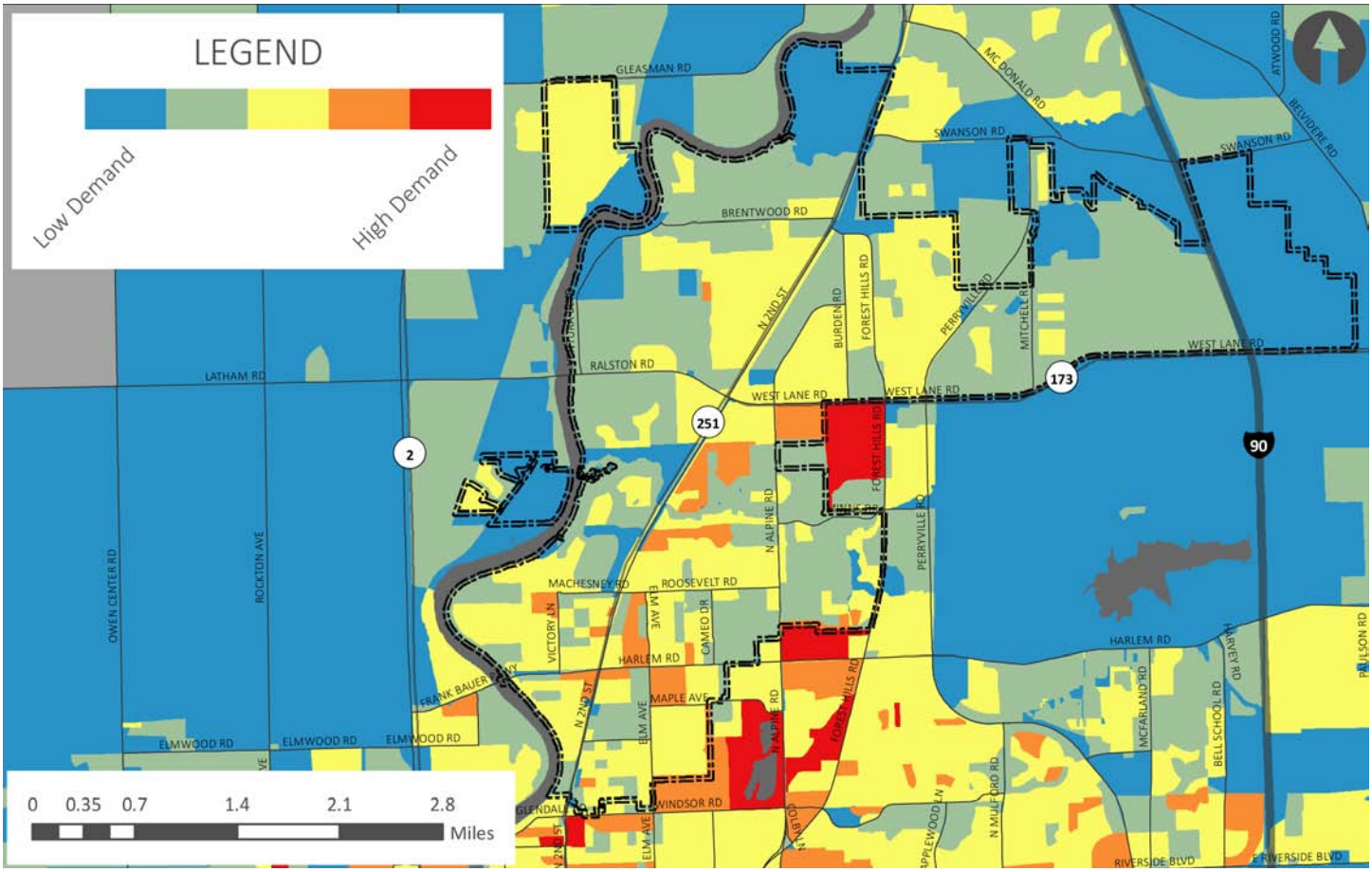


FIGURE B-5. DEMAND ANALYSIS RESULTS - LOVES PARK

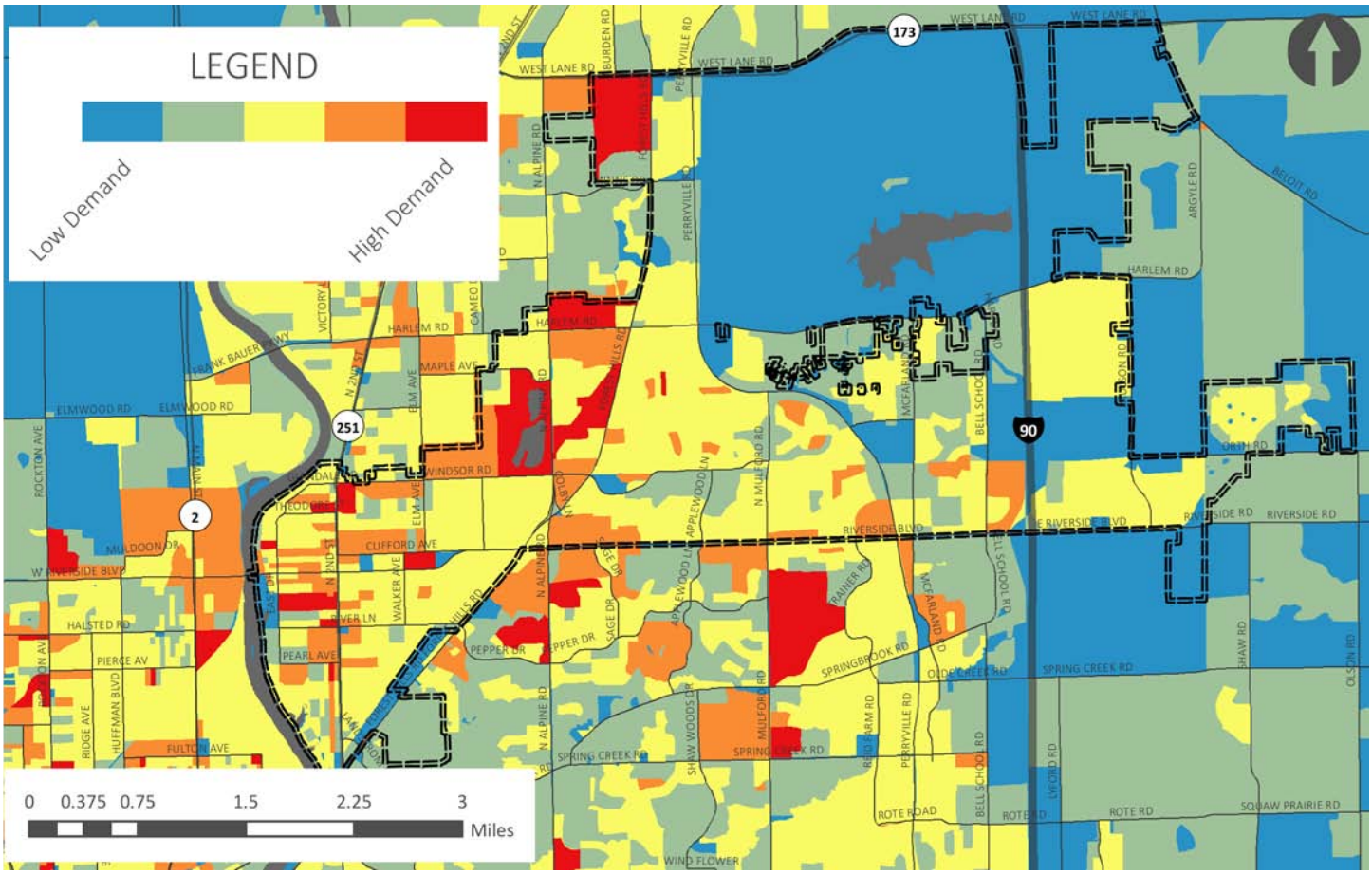
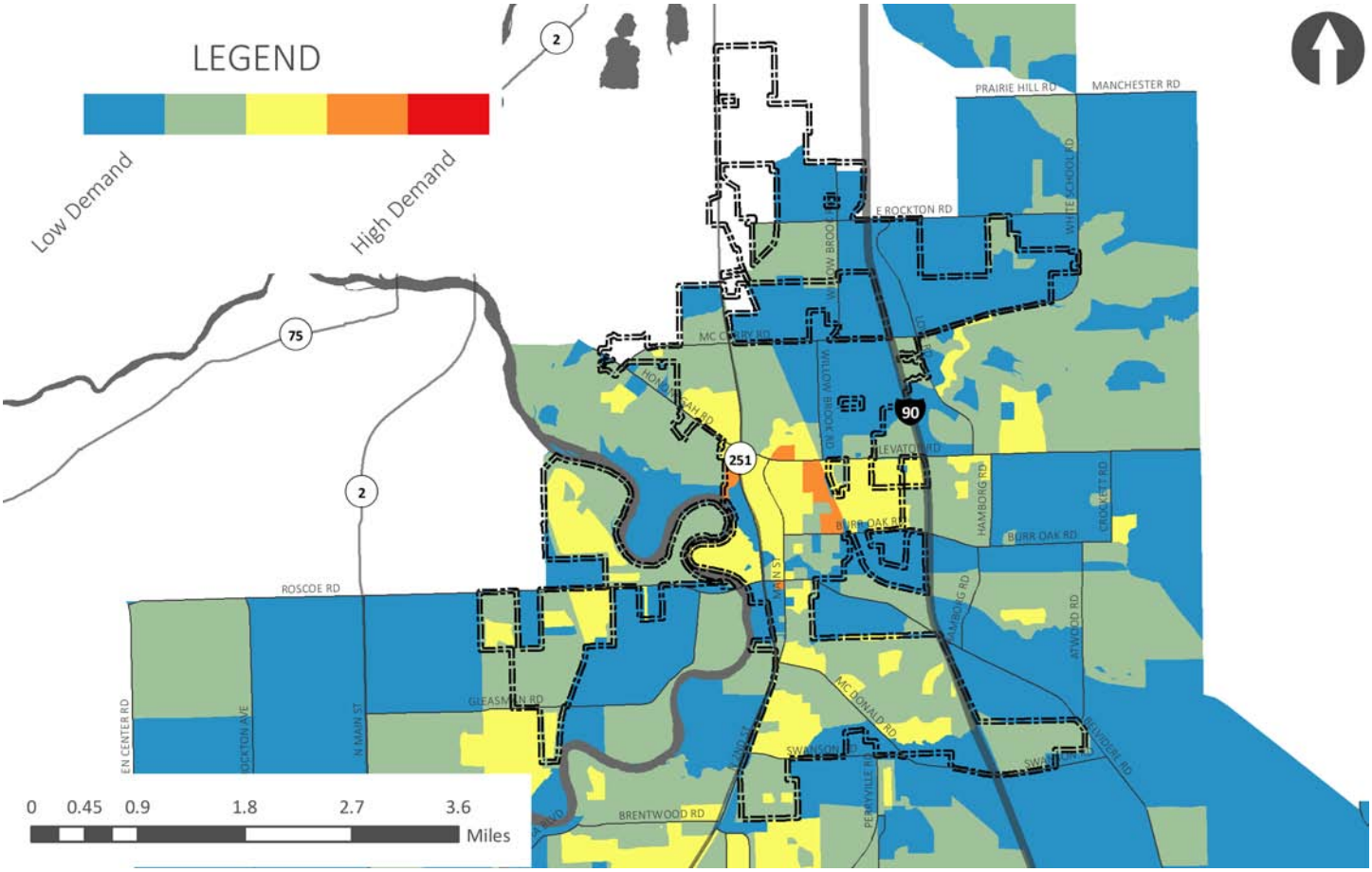


FIGURE B-6. DEMAND ANALYSIS RESULTS - ROSCOE



Part 2: Pedestrian Network Analysis

To complement the demand analysis, the pedestrian network analysis examines the design characteristics and the traffic patterns of the roadway, as well as the pedestrian environment adjacent to the roadway.

Methodology

Similar to the Demand Analysis, major roads within the MSA were given a composite score between 0 to 100 based on various roadway and sidewalk characteristics, which can be found below. Higher scores indicate a more suitable environment for pedestrians. Major roadways, with a functional classification of Collector or above, were broken into street segments between two given intersections.

The factors for the pedestrian network suitability were grouped into two infrastructure categories: roadway characteristics, with a maximum score of 55 points and pedestrian space, with a maximum score of 45 points. Figure B-7 shows each of the factors and its assgined score. Figures B-8 and B-9 show the miles and percent of the roadway that fits into each factor's score method.

FIGURE B-7. PEDESTRIAN NETWORK ANALYSIS FACTORS & SCORES

	FACTOR	SCORE METHOD	SCORE
ROADWAY CHARACTERISTICS	Posted Speed Limit	< = 25 mph	20
		30-35 mph	10
		> = 40 mph	0
	Number of Lanes	2 lanes	15
		3-4 lanes	10
		> = 5 lanes	0
	Truck Routes	Absence of truck route	5
		Presence of truck route	0
	Traffic Volumes	< = 9,000 AADT	15
		9,000 - 15,000 AADT	10
		> 15,000 AADT	0
PEDESTRIAN SPACE	Sidewalk Presence	Complete Sidewalk	20
		Partial Sidewalk	10
		Little Sidewalk	5
		No Sidewalk	0
	Sidewalk Width	> = 10'	10
		5 - 10'	5
		< 5'	0
	Sidewalk Buffer	Buffer	10
		No buffer	0
	Mid-Block Crossing	Presence of midblock crossing	5
		Absence of midblock crossing	0

Roadway Characteristics

The following list provides factor descriptions and sources for each roadway characteristics:

Posted Speed Limit

The posted speed limit of the roadway effects both real and perceived safety concerns for pedestrians on that segment of roadway. Road segments with lower speeds received more points than roadways with higher speeds. Posted speed limits were collected from the Illinois Roadway Information System (IRIS).

Vehicle Lanes

Roads with a higher number of lanes enable higher vehicle speeds, which makes walking less comfortable. Road segments with lower number of lanes received more points than roadways with higher number of lanes. Number of vehicle lanes were collected from IRIS.

Truck Routes

A high volume of trucks can reduce the comfort of pedestrians within close proximity to the travel lanes. If a road segment was a part of a designated truck route, it did not receive points. Designated truck routes were collected from IRIS.

Traffic Volumes

Higher motor vehicle volumes can create noise and pollutants that reduce pedestrian comfort. Road segments with lower average daily traffic (ADT) counts received more points than roadways with higher ADT counts. Annual Average Daily Traffic counts were collected from IRIS.

FIGURE B-8. ROADWAY CHARACTERISTICS FACTORS BY MILES & PERCENT OF ROADWAY

	SCORE METHOD	MILES	PERCENT
POSTED SPEED LIMIT	< = 25 mph	17.1	2.4%
	30-35 mph	230.0	32.0%
	> = 40 mph	471.3	65.6%
NUMBER OF LANES	2 lanes	532.4	74.1%
	3-4 lanes	181.0	25.2%
	> = 5 lanes	5.4	0.8%
TRUCK ROUTES	Absence of truck route	453.4	63.1%
	Presence of truck route	265.4	36.9%
TRAFFIC VOLUMES	< = 9,000 AADT	572.2	79.6%
	9,000 - 15,000 AADT	70.8	9.8%
	> 15,000 AADT	75.8	10.5%
	TOTAL ROADWAY	718.7	

Pedestrian Space

The following list provides factor descriptions and sources for each of the pedestrian space characteristics:

Presence of Sidewalk

Sidewalks provide a dedicated facility for pedestrians separated from the roadway. For this analysis, sidewalk presence was divided into four subcategories: complete, partial, little, or none. “Complete sidewalks” were sidewalks present along both sides of the street for the entirety of the street segment. “Partial sidewalks” have either one side of the street entirely covered

in sidewalk or at least 50% of both sides of the street with sidewalks. "Little sidewalk" was any sidewalk that was present along the segment, but equaled less than 50% of both sides of the street. Finally, "no sidewalk" signified that there was a total absence of any sidewalk anywhere along the street segment. Sidewalk presence was determined using aerial maps from WinGIS and Google Street View.

FIGURE B-9. PEDESTRIAN SPACE FACTORS BY MILES & PERCENT OF ROADWAY

	SCORE METHOD	MILES	PERCENT
SIDEWALK PRESENCE	Complete Sidewalk	114.2	15.9%
	Partial Sidewalk	78.8	11.0%
	Little Sidewalk	32.4	4.5%
	No Sidewalk	493.4	68.6%
SIDEWALK WIDTH	> = 10'	16.1	2.2%
	5 - 10'	62.6	8.7%
	< 5'	640.1	89.1%
SIDEWALK BUFFER	Buffer	191.8	26.7%
	No buffer	527.0	73.3%
	TOTAL ROADWAY	718.7	

Width of Sidewalk

A sidewalk width of five feet is the accepted standard for the Americans with Disabilities Act (ADA). Five feet allows wheelchair users to turn around and pass other pedestrians who may be on the sidewalk. While this is a minimum, pedestrians tend to feel safer on wider sidewalks due to a sense of wider separation from vehicle travel lanes. As such, five feet was used as a standard for the sidewalk analysis. Road segments with wider sidewalks, at least ten feet wide, received the highest amount of points. While sidewalks between five and 10 feet received some points and sidewalks with widths less than five feet did not receive points. Sidewalk width was determined using aerial maps from WinGIS and Google Street View.

Sidewalk Buffer

On-street parking or a landscaped buffer serves as separation between pedestrians and adjacent traffic, increasing pedestrians' comfort. If a road segment had a buffer between the travel lanes and the sidewalk, it received points. Segments without a buffer received zero points. Sidewalk buffers were determined using aerial maps from WinGIS, Google Street View, and IRIS.

Mid-Block Crossings

Mid-block crossings provide crossing opportunities between signalized intersections and are typically present at areas with a lot of pedestrian activity, where shared use paths cross a street, or where there are long distances between signalized intersections. If a road segment had a midblock crossing, it received additional points. Mid-block crossing locations were found using aerial maps from WinGIS and Google Street View.

Key Findings

Figures B-10 and B-11 illustrate the composite scores of the pedestrian network score, based on factor scores and weights. The results of the composite scores of roadway characteristics and pedestrian space factors produced four different categories of overall roadway network suitability. The product of each segment's score fell into one of four categories: high (75-100 points), medium-high (55-70 points), medium (35-50 points), or low suitability (0-30 points).

FIGURE B-10. PEDESTRIAN NETWORK ANALYSIS RESULTS

SCORE	CLASS	MILES	PERCENT OF TOTAL MILEAGE
75-100	High Suitability	59.1	8.2%
55-70	Medium High Suitability	111.9	15.6%
35-50	Medium Suitability	351.7	48.9%
0-30	Low Suitability	196.1	27.3%
	TOTAL ROADWAY	718.7	100.0%

Key pedestrian network suitability findings for the region, include:

- Only 8.2% of the total MPA major roadway network is currently highly suitable for pedestrians;
- The two areas with the highest pedestrian suitability are downtown Belvidere and downtown Rockford;
- Some-what suitable is the rating that 49% of the network's roadways were categorized as, the largest percentage of any classification;
- Nearly 80% of the region's roadway network has an AADT of less than 9,000 vehicles; and
- Only 16% of major roadways have a sidewalk present on both sides of the street and approximately 69% do not have a sidewalk at all.

FIGURE B-11. PEDESTRIAN NETWORK ANALYSIS RESULTS

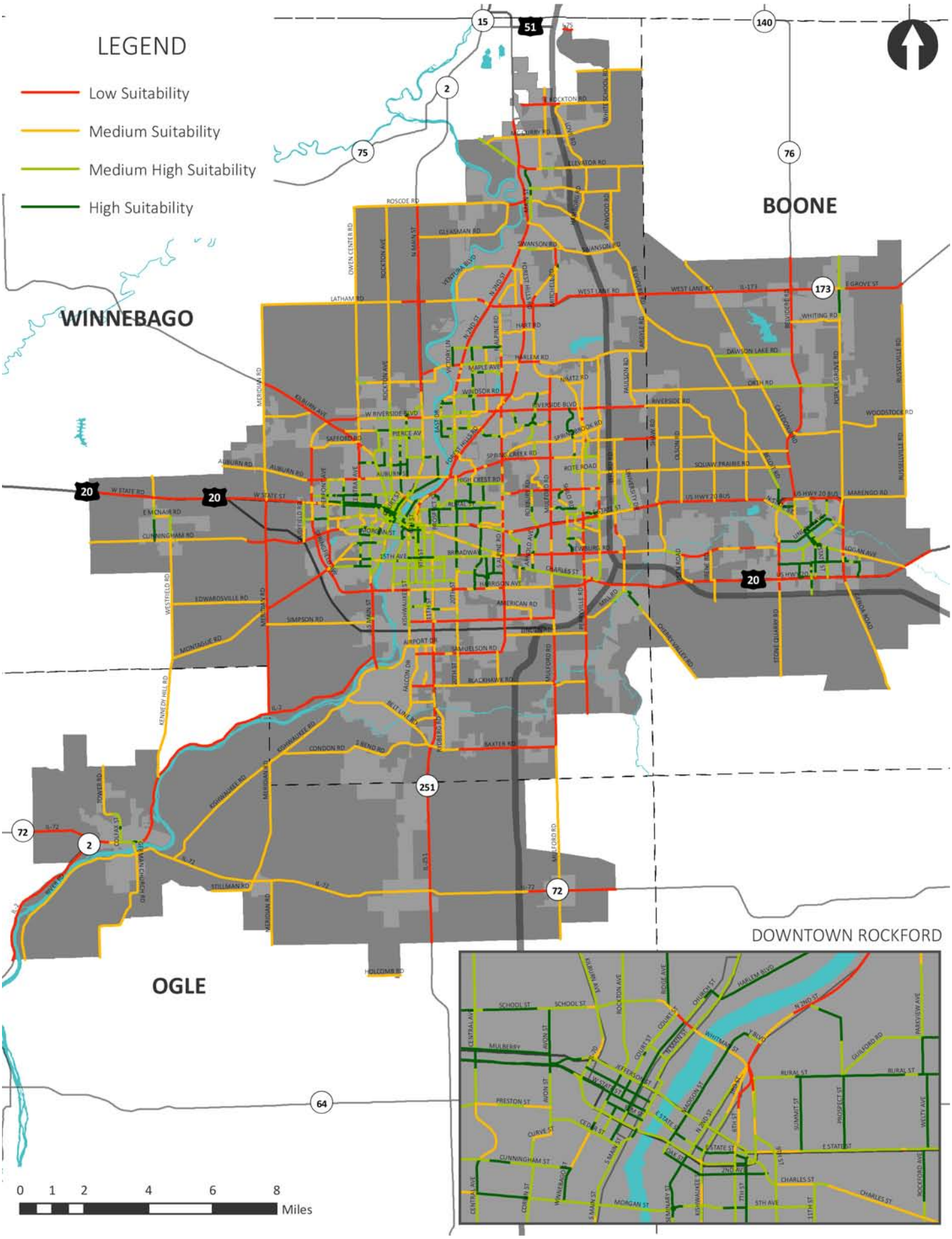


FIGURE B-12. PEDESTRIAN NETWORK ANALYSIS RESULTS- BELVIDERE

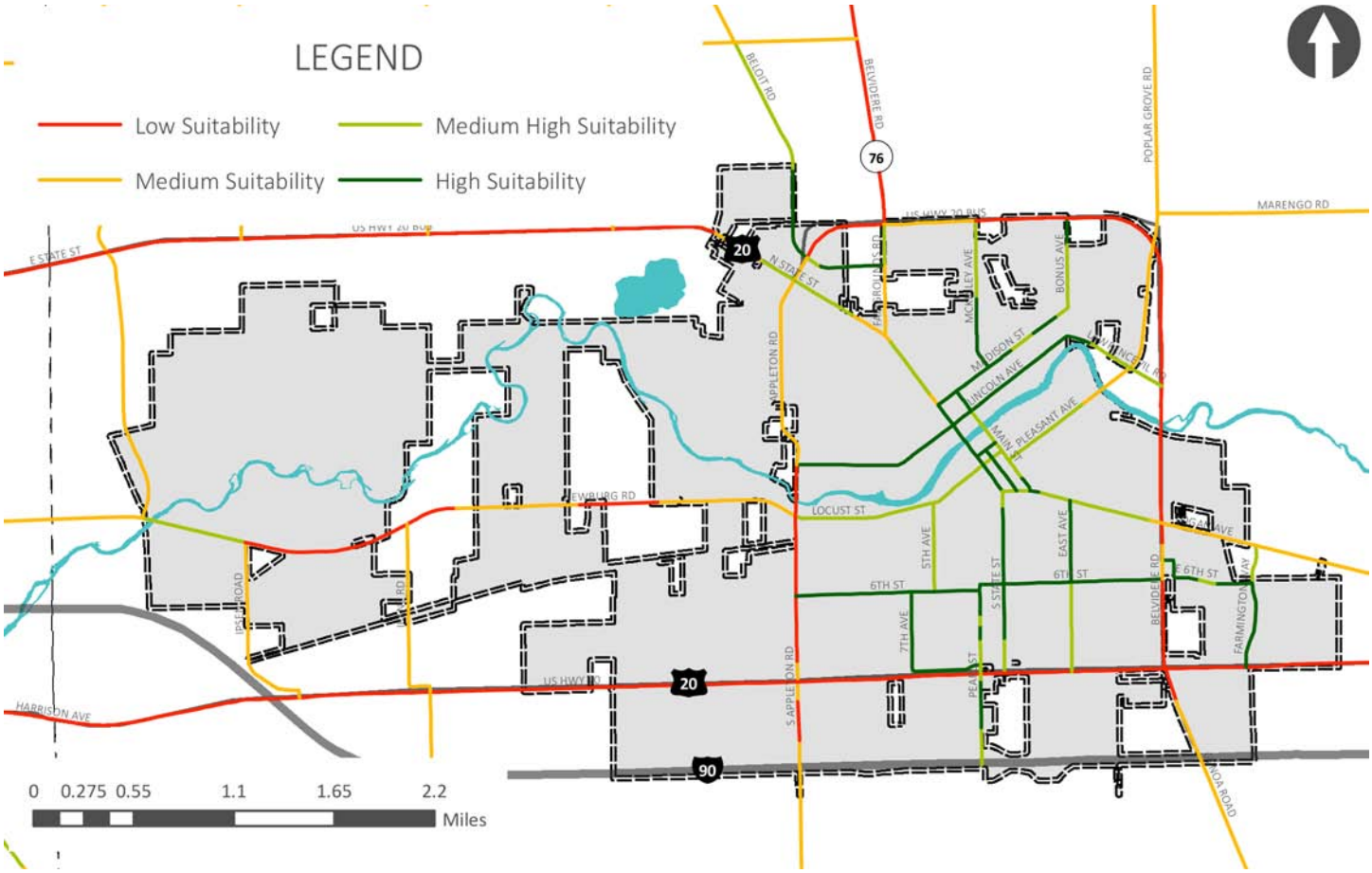


FIGURE B-13. PEDESTRIAN NETWORK ANALYSIS RESULTS - MACHESNEY PARK

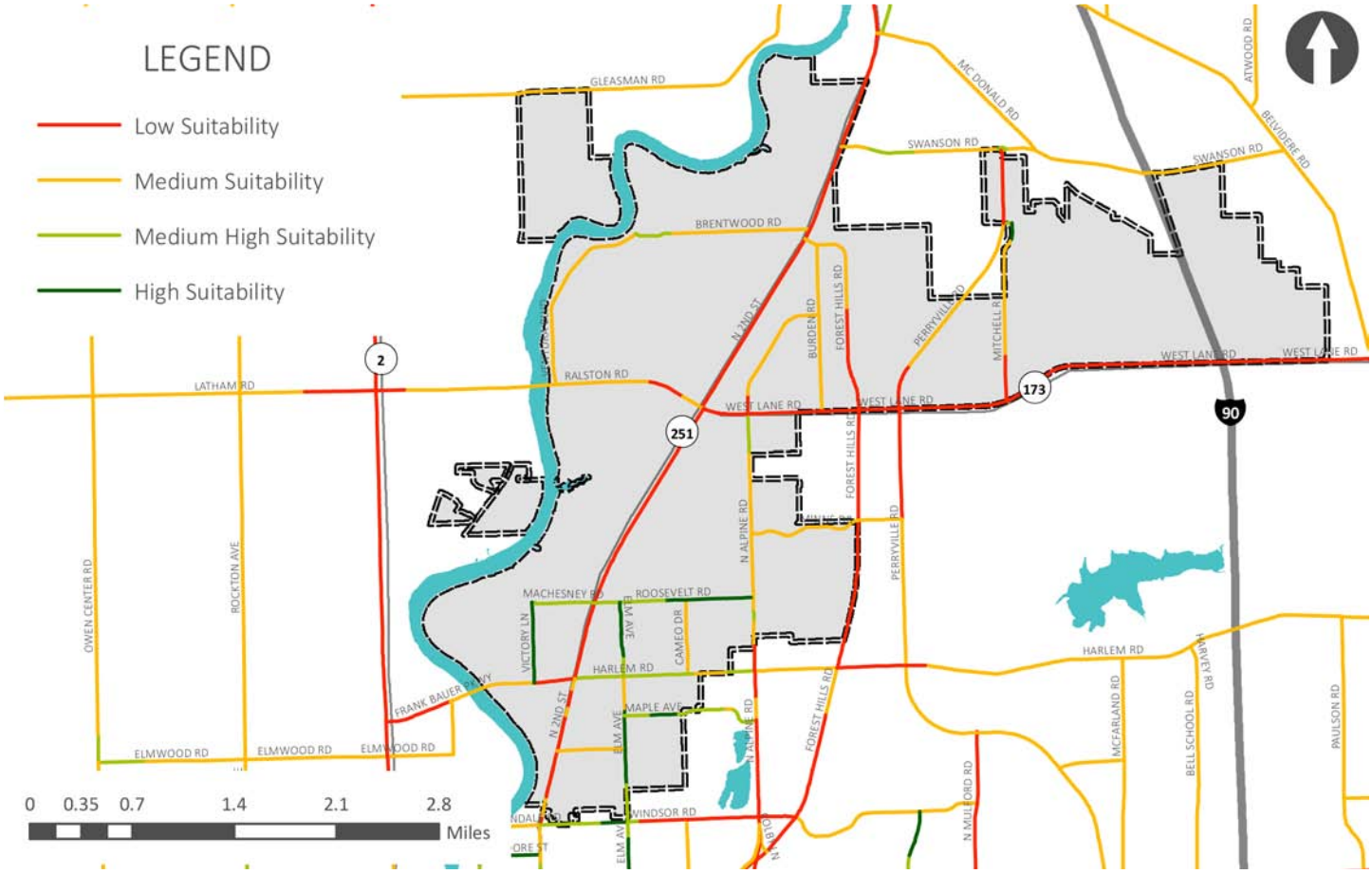


FIGURE B-14. PEDESTRIAN NETWORK ANALYSIS RESULTS - LOVES PARK

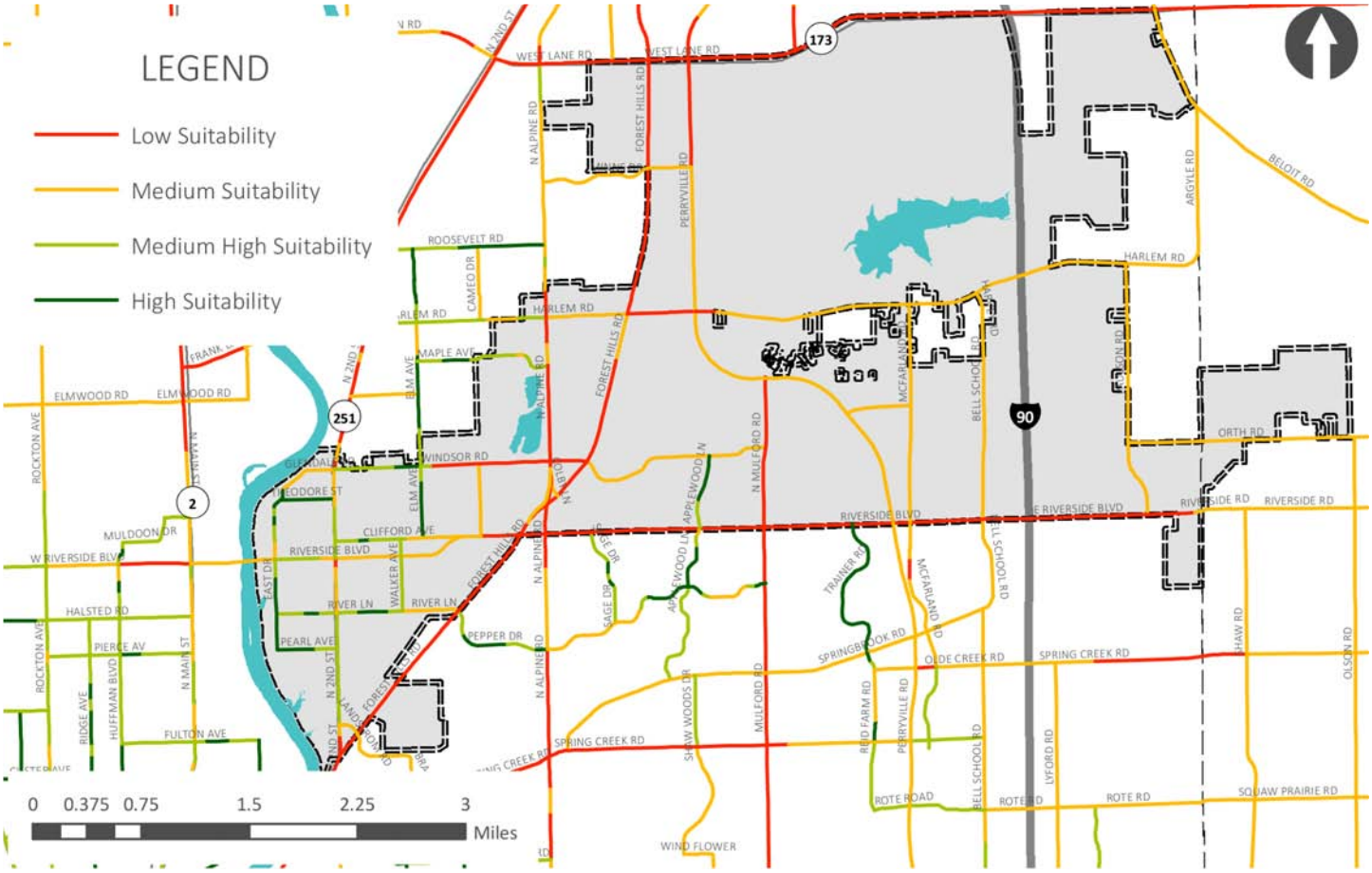
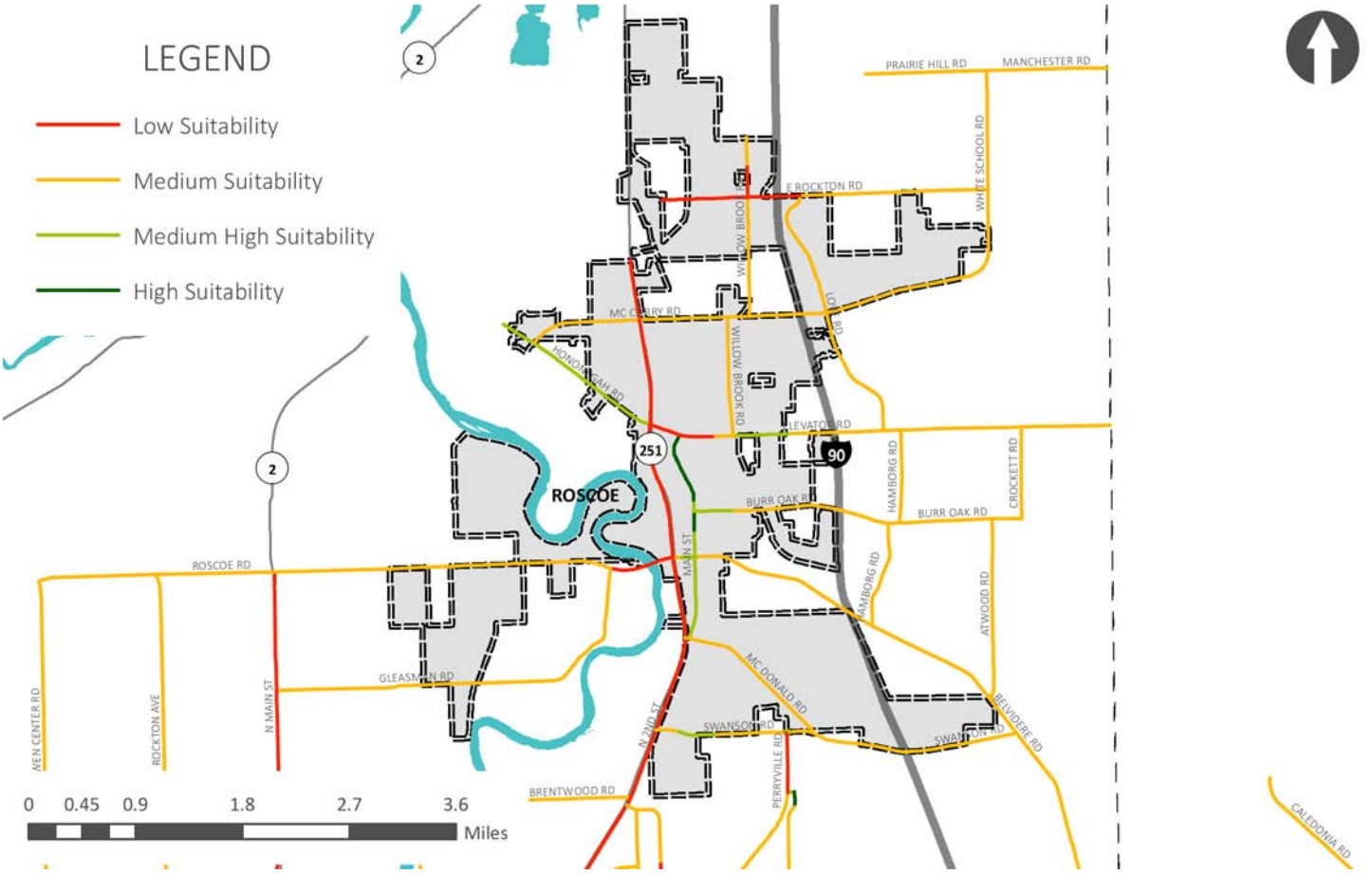


FIGURE B-15. PEDESTRIAN NETWORK ANALYSIS RESULTS - ROSCOE



Part 3: Intersection Suitability

The final step in quantifying the suitability of the overall pedestrian network was through the analysis of each intersection of the major roadway network. Generally, intersections are the preferred crossing location for pedestrians. Marked crosswalks and pedestrian signal heads serve to allocate the right-of-way to pedestrians and motorists, reducing the probability of a collision.

FIGURE B-16. ROADWAY CHARACTERISTICS FACTORS BY NUMBER OF & PERCENT OF INTERSECTIONS

	SCORE METHOD	COUNT	PERCENT
POSTED SPEED LIMIT	< = 25 mph	891	24.4%
	30-35 mph	1307	35.8%
	> = 40 mph	1454	39.8%
NUMBER OF LANES	2 lanes	2428	66.5%
	3-4 lanes	107	2.9%
	> = 5 lanes	1116	30.6%
TRAFFIC VOLUMES	< = 9,000 AADT	2695	73.8%
	9,000 - 15,000 AADT	491	13.4%
	> 15,000 AADT	466	12.8%
CONTROL DEVICES	Uncontrolled	3032	83.0%
	Stop	222	6.1%
	Signal	398	10.9%
	TOTAL INTERSECTIONS	3652	

Methodology

Similar to the pedestrian network suitability, the factors in the intersection suitability were divided into two categories: roadway characteristics, with a maximum score of 70 points, and pedestrian infrastructure, with a maximum score of 30 points. Each intersection's weighted totals are derived from data on the northern, southern, eastern, and western street segment that crosses within the intersections, known as intersection legs. The lowest pedestrian suitability score among the individual intersection leg scores was chosen to be the composite score for that intersection. Figure B-16 in the above shows each of the factors and the assigned score for each of the factors.

Roadway Characteristics

Many of the factors used for the roadway characteristics in the pedestrian network suitability were also used for the intersection suitability analysis, such as posted speed limit, number of lanes and traffic volumes. More information on these factors can be found above. However, the presence of traffic control devices were added to the roadway characteristics for intersections.

Traffic Control Devices

Traffic control devices stop vehicular traffic, allowing pedestrians to cross more easily. The presence of traffic signal at an intersection received the highest possible score for this factor, followed by a slightly lower score for stop signs. Traffic control devices were identified using data and aerial maps from WinGIS and Google Street View.

Pedestrian Space

The following three factors were used for the pedestrian space characteristics of intersections:

Crosswalks

Crosswalks provide a dedicated space for pedestrians to cross and alert motor vehicles of the potential presence of pedestrians. Crosswalks were defined as paint or markings placed in the street to delineate that section of roadway for pedestrian travel. Only intersections legs with a crosswalks present received points. Crosswalk presence was determined using aerial maps from WinGIS and Google Street View.

Curb Ramps

Curb ramps are important infrastructure whenever a sidewalk approaches an intersection. Curb ramps were identified as any sidewalk that met the grade of the street as it entered the intersection. Only intersections legs with curb ramps present received points. Curb ramp presence was determined using aerial maps from WinGIS and Google Street View.

FIGURE B-17. PEDESTRIAN SPACE FACTORS BY NUMBER OF & PERCENT OF INTERSECTIONS

	SCORE METHOD	COUNT	PERCENT
CROSSWALK	Not Marked	3375.0	92.4%
	Marked	277.0	7.6%
CURB RAMPS	Absent	2957.0	81.0%
	Present	695.0	19.0%
	TOTAL INTERSECTIONS	3652	

Refuge Islands

A median island provides a refuge for pedestrians crossing multi-lane streets, improving crossing safety. Refuge islands were defined as any area within an intersection where the pedestrian could be on a separate grade than the vehicle traffic. Raised medians and refuge islands were identified using aerial maps from WinGIS and Google Street View.

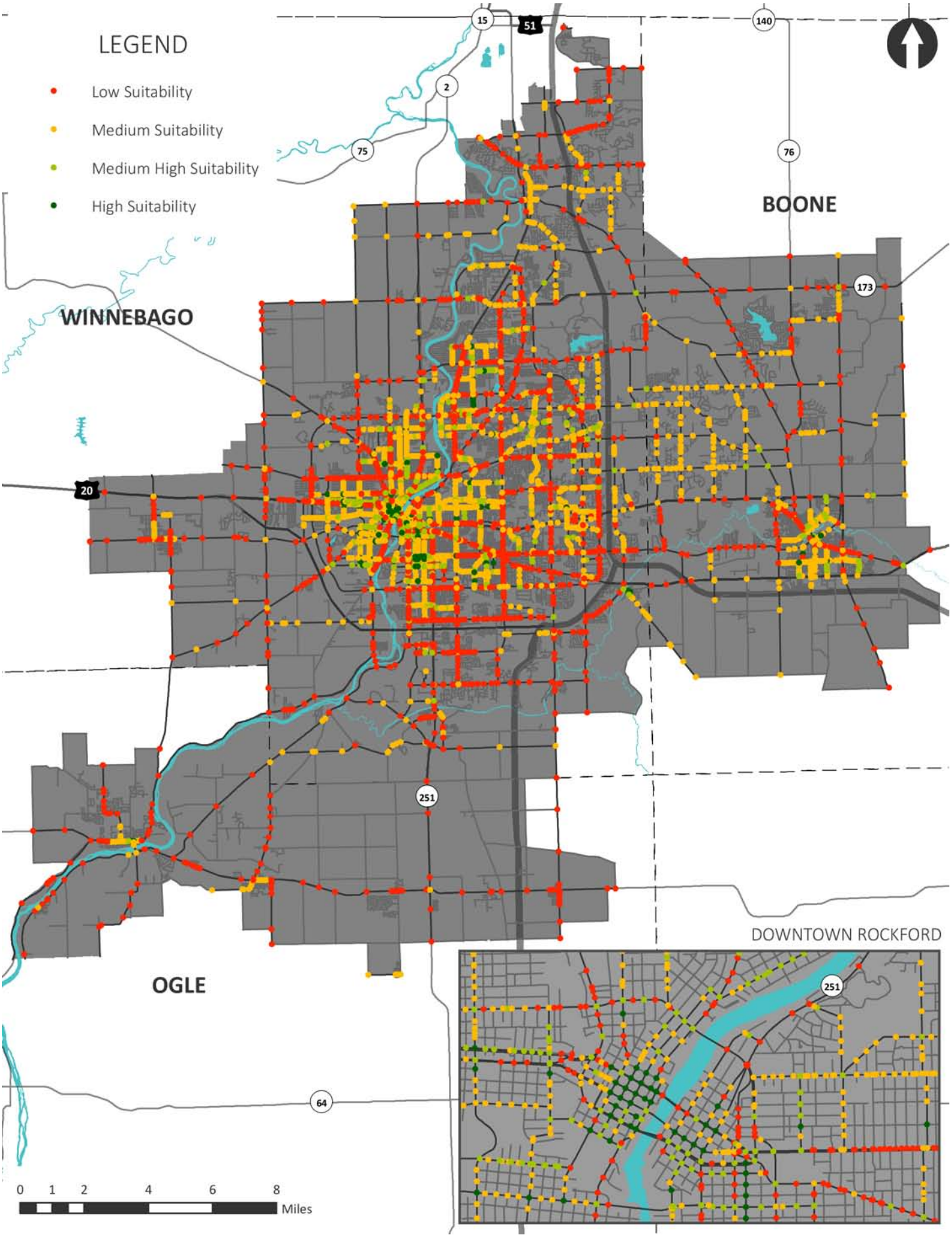
Key Findings

Figures B-18 and B-19 illustrate the results of the analysis, based on factor scores and weights. The results of the composite scores of roadway characteristics and pedestrian space factors produced four different categories of overall roadway network suitability. The product of each segment's score fell into one of four categories: high (75-100 points), medium-high (55-70 points), medium (35-50 points), or low suitability (0-30 points).

Key intersection suitability findings for the region, include:

- The highest concentration of highly suitable intersections is in downtown Rockford, especially the west side of the Rock River;
- Only 2.8% of the total intersections in the region have a high suitability index;

FIGURE B-18. INTERSECTION ANALYSIS RESULTS



- Some-what suitable is the rating that 45% of the network's intersections were categorized as, the largest percentage of any classification;
- 77.8% of intersections in the region have no marked crosswalks;
- 6% of intersections have all four legs of the crosswalk marked;
- 11.5% of intersections are signalized in at least one direction;
- 26% of intersections have at least two stop signs; and
- 16% of the total intersections have curb ramps on all legs of the intersection with sidewalks.

FIGURE B-19. INTERSECTION ANALYSIS RESULTS

SCORE	CLASS	COUNT	PERCENT OF TOTAL INTERSECTIONS
75-100	High Suitability	104.0	2.8%
55-70	Medium High Suitability	347.0	9.5%
35-50	Medium Suitability	1643.0	45.0%
0-30	Low Suitability	1558.0	42.7%
	Total Intersections	3652.0	100.0%

More information on the *Memphis Pedestrian School Safety Action Plan* (2015) can be found at: https://bikepedmemphis.files.wordpress.com/2015/06/memphis-ped-school-safety-action-plan-psi-final-031315-opt.pdf

Appendix C. ActiveTrans Priority Tool Methodology

The ActiveTrans Priority Tool (APT) was recently developed by professionals in the planning field. The tool allows for a variety of data to be combined in order to prioritize new infrastructure. This tool provides an analytical and data driven component to prioritization that was not previously incorporated in a plan for the Rockford Region. Its results, in combination with other sections of this plan, offers policy makers, government staff, and the general public a new way to analyze and prioritize infrastructure for the future. The following section outlines the process the Rockford Metropolitan Agency for Planning (RMAP) utilized to run the ActiveTrans Tool and the findings it produced.

Process

The ActiveTrans Priority Tool employs a variety of data to help prioritize the most suitable locations for new bicycle and pedestrian related infrastructure projects. In total, it is a tool that evaluates the entire regional pedestrian and roadway network to identify a clearly prioritized list that is flexible, transparent, and responsive.

There are 10 steps to the ActiveTrans tool.

1. Define Purpose
2. Select Factors
3. Establish Factor Weights
4. Select Variables
5. Assess Data
6. Assess Technical Resources
7. Set-Up Prioritization Tool
8. Measure and Input Data
9. Scale Variables
10. Create Ranked List

The U.S. Department of Transportation Federal Highway Administration (FHWA) hosts a Pedestrian and Bicycle Information Center online where the ActiveTrans tool spreadsheet, methodology, and related information all originate from. Each of the ten steps is laid out in the tool's spreadsheet, allowing the entire process to be more effectively streamlined for different analysis areas. RMAP used the available resources from this site in concert with regional knowledge to run the ActiveTrans tool for all arterial roadways in the Rockford Region related to pedestrian segment prioritizations and bicycle corridor prioritizations. The following steps outline the process implemented by RMAP staff, the choices that were made, and the specific data used.

Step 1: Define Purpose

Step 1 requires that a purpose be chosen for the tool. For the Rockford Region, RMAP selected

two different purposes to be analyzed the: pedestrian segments and bicycle corridors.

Step 2: Select Factors

Step 2 allows for any combination of nine different factors to be selected. Those factors include: stakeholder input, constraints (cost and legal), opportunities (upcoming projects), safety, existing conditions, demand, connectivity, equity, and compliance. Within the pedestrian segment prioritization analysis, stakeholder input, safety, existing conditions, demand, connectivity, and equity were chosen to be included. The bicycle corridor prioritization analysis included the same factors.

Step 3: Establish Factor Weights

Step 3 assigns weights on a scale of 0 to 10 depending on the importance that each particular factor should be given relative to the other factors. 0 was the lowest importance and 10 was the most important. Pedestrian segment factors were scored: stakeholder input (3), safety (10), existing conditions (10), demand (8), connectivity (10), and equity (6). Bicycle corridors factors were scored the same. These weights were chosen by RMAP because of feedback heard during the planning process, a local knowledge of infrastructure, and observed best practices from the planning profession.

Step 4: Select Variable

Step 4 determines what variables will be used to make up each factor. A list is provided inside of the tool with the ability to customize each factor with variables that are available and a best fit the region. See Figure C-1 and C-2 for the variables that were chosen.

Step 5 & 6: Assess Data & Technical Resources

Step 5 and 6 analyzes whether the data needed for each variable is available and can be utilized within the tool. RMAP chose to do this iteratively throughout the process by assessing the data available prior to reaching this step. There was some data that needed to be collected or combined, but it was done ahead of running the analysis in order to be most efficient.

Step 7: Setup Prioritization Tool

Step 7 requires the setting up of a spreadsheet to use the tool. The template used by RMAP was already created and hosted on the Pedestrian and Bicycle Information Center.

Step 8: Measure & Input Data

Step 8 is inputting the data into the spreadsheets (tool template) to be used in step 9 and 10. RMAP utilized GIS to uniformly combine the data sets for this step. Due to the fact that the data used for both infrastructure types were in a variety of forms, GIS was the most efficient way to combine them. It allowed staff to merge all of the data sets in a spatial format (segment layer)

in order to input them into the tool. Figure C-1 and Figure C-2 provides brief descriptions of the variables, source and how each data type was combined during this step. After all of the data was combined in GIS, the attribute tables were exported to excel and entered into the ActiveTrans Tool.

Step 9: Scale Variables

Step 9 scales the data so that all of the inputs are similar enough to compare. Each data set (entered in Step 8) has a different customized scale determined by RMAP. The ranges of the scales are different for each data set, but once they are entered, the tool averages each scaled value based on which factor it is in. The scaled averages for each factor are then used in Step 10 to generate the priority scores. Figure C-3 contains the scaled values assigned to each data set.

FIGURE C-1. PEDESTRIAN SEGMENT PRIORITIZATION: VARIABLES

FACTOR	VARIABLE	SOURCE	METHODOLOGY
SAFETY	Total Pedestrian Crashes	IDOT	100' buffer intersected by roadway segments
	Fatal and Severe Pedestrian Crashes	IDOT	100' buffer intersected by roadway segments
EXISTING CONDITIONS	Presence of On-Street Parking	IDOT	Joined shapefiles
	Number of Lanes	IDOT	Joined shapefiles
	Traffic Speed	IDOT	Joined shapefiles
	Traffic Volume	IDOT	Joined shapefiles
	Presence of a Buffer	RMAP	Joined shapefiles
	Presence of a Sidewalk	RMAP	Joined shapefiles
DEMAND	Population Density	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
	Employment Density	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
CONNECT-IVITY	Connects to Existing Infrastructure	RMAP	100' buffer intersected by roadway segments
EQUITY	Percentage Older than Age 64	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
	Percentage Younger than Age 18	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
	Percentage of Households with no Automobile	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
	Percentage of Households in Poverty	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments
	Percentage of Minority Households	American Community Survey (Block Group/Area)	Spatially joined census block groups with roadway segments

FIGURE C-2. BICYCLE CORRIDOR PRIORITIZATION: VARIABLES

FACTOR	VARIABLE	SOURCE	METHODOLOGY
STAKEHOLDER INPUT	Included in Adopted Plans	Local CIPs & Comprehensive Plans	100' buffer intersected by roadway segments
SAFETY	Total Bicycle Crashes	IDOT	100' buffer intersected by roadway segments
	Fatal and Severe Pedestrian Crashes	IDOT	Joined shapefiles
EXISITING CONDITIONS	Presence of Bicycle Lanes	RMAP	Joined shapefiles
	Presence of Buffer	IDOT	Joined shapefiles
	Number of Lanes	IDOT	Joined shapefiles
	Traffic Speed	IDOT	Joined shapefiles
	Traffic Volume	IDOT	Joined shapefiles
DEMAND	Population Density	American Community Survey (Block Group/Area)	Spatially joined census blocks with roadway segments
CONNEC-TIVITY	Connects to Multi-Use Path	RMAP	100' buffer intersected by roadway segments
	Connects to On-Street Facilities	RMAP	100' buffer intersected by roadway segments
EQUITY	Percentage Younger than Age 18	American Community Survey (Block Group/Area)	Spatially joined census blocks with roadway segments
	Percentage of Households with no Automobile	American Community Survey (Block Group/Area)	Spatially joined census blocks with roadway segments
	Percent of Households in Poverty	American Community Survey (Block Group/Area)	Spatially joined census blocks with roadway segments
	Percentage of Minority Households	American Community Survey (Block Group/Area)	Spatially joined census blocks with roadway segments

Step 10: Create Ranked List

Step 10 takes the averaged factor scores, weights them based on Step 3 inputs, and sums up the total for each roadway segment. That product is the prioritization score, which ranges from 0- 24.38.

FIGURE C-3. VARIABLE SCALE

VARIABLE	SCALE RANGE	SCALED VALUE ASSIGNED
PEDESTRIAN CRASHES OR PEDALCYCLISTS CRASHES	Yes	0.5
	No	0
FATAL AND SEVERE PEDESTRIAN CRASHES	Yes	1
	No	0
ON - STREET PARKING	Yes	1
	No	0
NUMBER OF TRAFFIC LANES	1 - 2 LANES	1
	3 - 4 LANES	0.5
	> = 5 LANES	0
TRAFFIC SPEED	< = 25 MPH	1
	30 - 35 MPH	0.5
	> = 40 MPH	0
TRAFFIC VOLUME	< = 9,000 AADT	1
	9,000 – 15,000 AADT	0.5
	> = 15,000 AADT	0
PRESENCE OF A BUFFER	Yes	1
	No	0
PRESENCE OF A SIDEWALK	Absent	1
	Little	2
	Incomplete	3
	Complete	0
POPULATION DENSITY	< = 25.6	0
	25.7 - 27,865.2	0.33
	27,865.3 to 459,107.4	0.66
	> = 459,107.5	1
EMPLOYMENT DENSITY	< = 0.5	0
	0.5 - 705.1	0.5
	> = 705.2	1
CONNECTS TO EXISTING FACILITIES	Yes	1
	No	0
PERCENTAGE OLDER THAN AGE 64	< 20%	0
	21% - 40%	0.33
	41% - 60%	0.66
	61% - 80%	1
PERCENTAGE YOUNGER THAN 18	< 20%	0
	21% - 40%	0.5
	41% - 60%	1
PERCENTAGE OF HOUSEHOLDS WITH NO AUTOMOBILE	< 20%	0
	21% - 40%	0.33
	41% - 60%	0.66
	61% - 80%	1
PERCENTAGE OF HOUSEHOLDS IN POVERTY	< 20%	0
	21% - 40%	0.33
	41% - 60%	0.66
	61% - 80%	1
PERCENTAGE OF MINORITY HOUSEHOLDS	< 20%	0
	21% - 40%	0.25
	41% - 60%	0.5
	61% - 80%	0.75
	> 80%	1

Appendix D: Public Participation

Public participation was critical in the development of the Plan. Open houses and engagement events created opportunities for public input and occurred throughout the planning process. The sessions were hosted throughout the region to enhance access of materials related to this plan/ planning process.

Public informational open houses were held at various locations to kick-off the Plan update, see Figure D-1. Preliminary open houses were held after initial data collection and some analysis of the existing conditions had been completed. The meetings focused on the existing conditions and the needs of pedestrians and bicyclists. Additional meetings were held for key stakeholders and the public after the Bicycle & Pedestrian Advisory Committee completed a draft of the vision statement and goals. The vision statement, goals, strategies, and prioritization methods were presented during these events. The feedback from members of the public was gathered and incorporated into the plan. A final series of public open houses will be held for feedback on this draft of the Bicycle & Pedestrian Plan. Comments from the draft plan open houses will be incorporated into the final adopted document.

On February 15th, 2017, members of the RMAP staff participated in a Community Conversation co-hosted by Transform Rockford at Veterans Memorial Hall in Rockford, Illinois. Eighty-seven community members attended the event. RMAP's presentation included information on the progress of the plan as well as information related to the existing conditions and needs of bicyclists and pedestrian in the RMAP Metropolitan Area. At the end of the presentation, the event was open to a Q & A session in which RMAP staff and three panelists answered any questions that attendees had.

Materials from the open houses and the Transform Rockford Event are included below.

ourrmap

Rockford Metropolitan Agency For Planning

PUBLIC INFORMATION OPEN HOUSE

ROCKFORD METROPOLITAN AGENCY FOR PLANNING (RMAP)
BICYCLE & PEDESTRIAN PLAN

A public informational open house will be held at three locations to kick-off the **Bicycle & Pedestrian Plan update for the Rockford Metropolitan Agency for Planning (RMAP)**. The purpose of the plan is to provide a regional vision for a comprehensive infrastructure system that will support and encourage walking and bicycling throughout the Rockford Metropolitan Planning Area (MPA). The plan will provide a framework for improving connectivity, safety, convenience, and attractiveness of bicycle and pedestrian networks. The public is invited to contribute their opinions on current and future pedestrian and bicycle facilities within the Rockford MPA. The current Bicycle & Pedestrian Plan was completed and adopted in 2008. Information regarding the current plan is available on the RMAP website www.rmapil.org.

Local, state and federal governments have the responsibility for constructing, operating and maintaining most of the transportation systems in the Rockford Metropolitan Planning Area. The Bicycle and Pedestrian Plan will align with RMAP's Transportation for Tomorrow (2040): Long Range Transportation Plan for the Rockford Region (LRTP). The LRTP was developed in the interest of promoting, developing and maintaining a safe and efficient transportation system that will meet the needs of the area's citizens, businesses and industries through the Year 2040. Providing for pedestrian and bicycle systems is an important part of the transportation planning process.

The overall goal of the plan is to promote a safe and efficient transportation system for people that provides a balanced multi-modal system that minimizes costs and impacts to the taxpayer, society and the environment. The plan will address the development of a region-wide system of on-street bicycle and pedestrian facilities to connect with existing shared use path facilities, existing and planned public transportation services and provide model development regulations and ordinances to promote and encourage bicycle and pedestrian friendly growth in the RMAP area.

The format of these open houses allows for an informal discussion between the public and RMAP staff.
The times are indicated below.

DATES

June 1, 2016 – Wednesday 3:00 PM to 6:00 PM Regional Center for Planning & Design 315 N. Main Street Rockford, IL 61101	June 8, 2016 - Wednesday 3:00 PM to 6:00 PM Belvidere City Hall 401 Whitney Blvd Belvidere, IL 61008	June 9, 2016 - Thursday 2:00 PM to 5:00 PM Loves Park City Hall 100 Heart Blvd Loves Park, IL 61111

PURPOSE:

View Graphic Displays, Discuss Study Goals and Objectives, Ask Questions and Obtain Public Comments and Input

SIGN-IN SHEET

Rockford Metropolitan Area Bicycle & Pedestrian Plan

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Wednesday, June 1st, 2016; 3:00 PM – 6:00 PM
PLACE/ROOM: Regional Center for Design, 315 N Main St., Rockford, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Sydney Turner	RMAP	
Scott Anderson	North Rockford	
Jim Keeling	Hinckley	
David Lickteig	Amarach Net	
TERRY INGRASSIA	CITIZEN	
Jon Paul Diipla	RMAP	
CAROLYN AREVALO		
Bob Campbell	ZION Dev	
John Tac Brantley	Renewal Turning Point	
Colin Belle	RMAP	
[illegible]	THE OLYMPIC TAVERN	
Tim [illegible]	RPO	
Tim Johnson	citizen	
Thomas Bona	RMAP	
Mike Kearney	Screw City food Co-op	
Lee Schreiner	Just Goods	
Charmaine Schreiner	JustGood	
Paula Sythyles	RMTD	
Susan Kotello	citizen	
Malak	citizen	
MICHAEL SCOTT	RESIDENT	
[illegible]	RMAP	
Gary W McIntyre	RMAP	

SIGN-IN SHEET

Rockford Metropolitan Area **Bicycle & Pedestrian Plan**

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Wednesday, June 8th, 2016; 3:00 PM – 6:00 PM
PLACE/ROOM: Belvidere City Hall, 401 Whitney Blvd., Belvidere, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Brent Anderson	City of Belvidere	
Lynne Emling		

SIGN-IN SHEET

Rockford Metropolitan Area Bicycle & Pedestrian Plan

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Thursday, June 9th, 2016; 2:00 PM – 5:00 PM
PLACE/ROOM: Loves Park City Hall, 100 Heart Blvd., Loves Park, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Bev Mace	Citizen	
Bernie Turner	WinGIS	
David Lickteig	Amarach Inc	
Steve Howlett	PDA Architecture	

COMMUNITY CONVERSATION: Bicycle and Pedestrian Path Planning

by the Rockford Metropolitan Agency for Planning and Transform Rockford

Free

JOIN US AT

Veterans Memorial Hall

211 N Main St

Rockford, IL 61101

DATE AND TIME

Wed, February 15, 2017

5:30 PM – 7:00 PM CST

Community Conversation: Bicycle and Pedestrian Path Planning

Transform Rockford and the Rockford Metropolitan Agency for Planning (RMAP) are holding a community conversation to share the Bicycle & Pedestrian Plan Update. The purpose of the plan is to provide a regional vision for a comprehensive infrastructure system that will support and encourage walking and bicycling throughout the community. The plan will provide a framework for improving connectivity, safety, convenience, and attractiveness of bicycle and pedestrian networks.

TRANSFORM ROCKFORD

ourrmap

SIGN-IN SHEET

ourmap
Rockford Metropolitan Agency For Planning
our future, our goals, our map

PROJECT: Community Conversation: Greenways, Bicycle, & Pedestrian Planning
FACILITATOR: Rockford Metropolitan Agency for Planning & Transform Rockford
MEETING DATE: Wednesday, February 15, 2017; 5:30 PM – 7:30 PM
PLACE/ROOM: Veterans Memorial Hall, 211 N Main Street, Rockford, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Dyanna Rose Waike	Resident	
DAN Rights	Resident	
Kpatrick Yorbrough	Resident	
Kendall Cramer	NCICG	
STEVE FORSS	RESIDENT	
Terry Walker	Resident	
SANDY PERPIGNANI	MIC-R/Resident	
Sarah Pfluger	Resident	
Richard Theyerl	Resident	
DENNIS HENDRICKS	ROCKFORD MASS TRANSIT RMTD	
DJ & Tricia Wilson	teamfurbandit @gmail.com	
Michael Head	RMAP	
Scott Capovilla	City of Rockford	
Michael O. Simmons	Rock River Recumbent Ride	
Sue Tucker	Resident	
Bill Tucker	Resident	
Jesse Woolman	Resident	
Susan Notello	"	
Ben Kohr	RMAP	
Jessica Irons	TR/Resident	
Sydney Baldwin	Resident	
Nancy Jenkins	Resident	

SIGN-IN SHEET

ourmap
Rockford Metropolitan Agency For Planning
our future, our goals, our map

PROJECT: Community Conversation: Greenways, Bicycle, & Pedestrian Planning
FACILITATOR: Rockford Metropolitan Agency for Planning & Transform Rockford
MEETING DATE: Wednesday, February 15, 2017; 5:30 PM – 7:30 PM
PLACE/ROOM: Veterans Memorial Hall, 211 N Main Street, Rockford, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Eric Nyman	Emergency Muscle Therapy / Blackhawk Bicycle Cl	
Christina Washington	RMAP	
Jan Paul Diiola	RMAP	
David Sidney	Transform Rockford	
Ralph Hoekstra	Bike Club	
David Lickteig	—	
Ivy Hood	RMAP	
Horace Johnson	Comm Trust Rockford	
Richard Toppe	—	
Brian Hoemke	WOODWARD	
Ashley Sarver	TEAM FUR BANDIT	
Chad Tyneberg	Tyneberg Asset Management	
Scott Garwick	—	
Sue Garwick	—	
Jim Keeling	TR	
Bob Peterson	—	
Dave Appino	NuBrick Partners	
Bob Krug	—	
Tom Johnson		
Mark Kuehl	Thermo Fisher	

SIGN-IN SHEET

ourmap
Rockford Metropolitan Agency For Planning
our future, our goals, our map

PROJECT: Community Conversation: Greenways, Bicycle, & Pedestrian Planning
FACILITATOR: Rockford Metropolitan Agency for Planning & Transform Rockford
MEETING DATE: Wednesday, February 15, 2017; 5:30 PM – 7:30 PM
PLACE/ROOM: Veterans Memorial Hall, 211 N Main Street, Rockford, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Jeff Sympson	self	
LEE JULIAND	"	
Arlesta Juliand	"	
TINA BRENZA	I BIKEROCKFORD	
ANGIE SCHMIDT		
Jeremy Heeren		
Mike MAPES	Rockford Road Runn	
David Noel	SELF.	
Wm Howard	self	
Ross Turneberg	Turneberg Asset Mgt	
ELLWYN ENGLOF	SELF	
CHRIS BURNS	self	
Mayra Pirages Reynolds	Planstormlemedy	
Todd Fagen	I Bike RF	
*Karen LINDSTROM	SELF	

Appendix E: Stakeholder Surveys

Rockford Metropolitan Agency for Planning
313 North Main St.
Rockford, IL 61101
779-348-7627

Pedestrian and Bicycle Plan Survey for Community Leaders

Background Information

Significant changes in land use development are occurring in the Rockford Metropolitan Planning Area (MPA). Recently, citizen expectations for an improved quality of life, including a desire for healthy and environmentally friendly opportunities to walk and bicycle, have created the need for a pedestrian/bicycle plan to help identify the present and future needs of the communities.

The Rockford Metropolitan Agency for Planning (RMAP) has initiated an effort to update the 2007 Pedestrian and Bicycle Plan and elements of the Long-Range Transportation Plan (LRTP).

In order to develop this plan, RMAP is conducting a survey of community leaders throughout the Rockford MPA. We seek your opinion concerning bicycle and pedestrian facilities within your community.

The results of this survey will be complied and included in the RMAP Bicycle and Pedestrian Plan update. In May 2016, RMAP will be hosting a workshop to discuss these results and gather input on the current Bicycle and Plan. If you have any questions, please contact one of the following RMAP staff members:

Colin Belle
Metropolitan Planner
Rockford Metropolitan Agency for Planning
779-348-7621 direct
colin.belle@rockfordil.gov

Sydney Turner
Research Associate
Rockford Metropolitan Agency for Planning
779-348-7622 direct
sydney.turner@rockfordil.gov

Demographics

1. Are you an appointed or an elected official?
   ☐ Appointed ☐ Elected

2. What is your jurisdiction?

   _____

3. Contact Information

   Name:

   Email: _____

Pedestrian and Bicycle Facilities Priorities

Sidewalks and bicycle facilities can encourage walking within a community and provide a connective network of routes between local destinations and other modes of transportation. Please rate the importance of the following factors by which your community should consider the construction of pedestrian and bicycle facilities:

1. Stakeholder Input. How important is public feedback in support of (or against) a pedestrian or bicycle improvement at a particular location when considering a project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

2. Constraints. How important is examining the relative level of difficulty or constraints (such as time, cost, environmental impacts, facility design, and staff resources) when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

3. Opportunities. How important is a community's ability to take advantage of financial or political resources that can support implementation when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

4. Safety. How important is accounting for the potential risk of a pedestrian or bicyclist being involved in a traffic accident when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

5. Existing Conditions. How important are examining the physical conditions that have an impact on pedestrian or bicycle safety, comfort, or demand (such as whether or not a sidewalk exists, the number of travel lanes, or presence of a buffer) when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

6. Demand. How important is measuring the pedestrian or bicycle activity level for a location, such as proximity to schools, parks, transit facilities, or major employers when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

7. Connectivity. How important is accounting for the degree to which a bicycle or pedestrian project allows pedestrians and bicycles to travel comfortably and continuously throughout their community?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

8. Equity. How important is examining the degree to which a bicycle or pedestrian project provides opportunities for safe and convenient pedestrian and bicycle travel evenly to all groups within a community.

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

9. Compliance. How important is capturing whether or not existing infrastructure is compliant with current pedestrian and bicycle standards and guidelines when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

10. In addition, please RANK the above criteria from 1 to 9, with 1 being the criterion most important to you.

_____ Stakeholder Input
_____ Constraints
_____ Opportunities
_____ Safety
_____ Existing Conditions
_____ Demand
_____ Connectivity
_____ Equity
_____ Compliance

Pedestrian Facilities

1. Do you feel that sidewalks should be placed on both sides of the streets in all new developments with 2 or more units per acre?

   ☐ Yes ☐ No

2. Do you feel that street furniture (i.e. lighting, benches, and landscaping) is present adequately in your community that would encourage residents walk?

Do Not Agree		Agree		Strongly Agree
1	2	3	4	5
☐	☐	☐	☐	☐

3. Are there places in your community where residents feel they are unable to walk due to the lack of sidewalks?
   ☐ Yes ☐ No

   a. If yes, please list the locations:

   _____

   _____

   _____

   _____

   _____

4. Are your community's schools adequately served by a sidewalk network?

Do Not Agree		Agree		Strongly Agree
1	2	3	4	5
☐	☐	☐	☐	☐

5. Are your community's commercial and retail centers adequately served by the sidewalk network?

Do Not Agree		Agree		Strongly Agree
1	2	3	4	5
☐	☐	☐	☐	☐

Bicycle Facilities

1. According to the RMAP Long Range Transportation Plan, bicycle systems encourage a healthy lifestyle, as well as being a reliable means of transportation for young, old, low-income, and disadvantaged residents of the metropolitan planning area.

   a. Would your community be willing to support initiatives to better serve the transportation needs and choices of these groups?
      ☐ Yes ☐ No

2. Are there places within your community where residents feel they are unable to bike due to the lack of facilities?
   ☐ Yes ☐ No

   a. If yes, please list the locations:

   _____

   _____

   _____

   _____

   _____

3. Would you be willing to support the construction of new off-road bicycle paths in your community?
   ☐ Yes ☐ No

   a. On-road bicycle facilities (i.e. bike lanes or signed bike routes)?
      ☐ Yes ☐ No

Funding

2. Does your community dedicate transportation funds to construct new sidewalks?
   ☐ Yes ☐ No

3. Does your community dedicate transportation funds to assist in the rebuilding sidewalks on private properties or right-of-ways?
   ☐ Yes ☐ No

4. Does your community dedicate transportation funds to bicycle facility improvements?
   ☐ Yes ☐ No

Policy

1. Do you believe transportation choices, such as bicycling and walking, should be provided by the local governments to meet the needs of the community?
   ☐ Yes ☐ No

   a. If yes, should new pedestrian and bicycle facilities be provided?
      ☐ Yes ☐ No

   b. Should existing roadways be retrofitted to add bike lanes on streets with adequate lane width?
      ☐ Yes ☐ No

2. Should your local government promote bicycling and walking as transportation choices to improve public healt and the overall quality of life within the community?
   ☐ Yes ☐ No

4. The RMAP Long Range Transportation Plan encourages the following objectives to local implementation organizations and units of government:
   - All new developments with densities of 2 or more units per acre to have a pedestrian system, preferably sidewalks on both sides of the street.
   - Programs to add and repair sidewalks.
   - Sidewalks and street connections that meet the Americans with Disabilities Act standards.
   - Corridor studies that promote pedestrian sidewalks and bicycle paths.
   - The overall development and implementation of the Regional Bikeway and Pedestrian Plan.

   Do you believe that your community should:

a. Support Complete Streets measures that would require all new or reconstructed roadways to accommodate bicycles and pedestrians?
☐ Yes ☐ No

b. Develop new education guides and design standards for pedestrians and bicyclists?
☐ Yes ☐ No

c. Prepare local land use plans and regulations that encourage pedestrian oriented development?
☐ Yes ☐ No

d. Prepare local land use plans and regulations that encourage bicycle oriented development?
☐ Yes ☐ No

e. Support education programs to encourage the use of pedestrian and bicycle facilities in your community?
☐ Yes ☐ No

Please share any additional comments.

Rockford Metropolitan Agency for Planning
313 North Main St.
Rockford, IL 61101
779-348-7627

Pedestrian and Bicycle Plan Survey for Municipal Staff

Background Information

Significant changes in land use development are occurring in the Rockford Metropolitan Planning Area (MPA). Recently, citizen expectations for an improved quality of life, including a desire for healthy and environmentally friendly opportunities to walk and bicycle, have created the need for a pedestrian/bicycle plan to help identify the present and future needs of the communities.

The Rockford Metropolitan Agency for Planning (RMAP) has initiated an effort to update the 2007 Pedestrian and Bicycle Plan and elements of the Long-Range Transportation Plan (LRTP).

In order to develop this plan, RMAP is conducting a survey of planning, public works, highway department staff throughout the Rockford MPA. We seek your opinion concerning bicycle and pedestrian facilities within your community.

The results of this survey will be complied and included in the RMAP Bicycle and Pedestrian Plan update. On May 2016, RMAP will be hosting a workshop to discuss these results and gather input on the current Bicycle and Pedestrian Plan. If you have any questions, please contact one of the following RMAP staff members:

Colin Belle
Metropolitan Planner
Rockford Metropolitan Agency for Planning
779-348-7621 direct
colin.belle@rockfordil.gov

Sydney Turner
Research Associate
Rockford Metropolitan Agency for Planning
779-348-7622 direct
sydney.turner@rockfordil.gov

Jurisdiction

1. What is your jurisdiction?

   _____

2. Contact Information

   Name:

   Email: _____

Pedestrian Facilities

1. Attached is a map identifying where sidewalks appear to be located on arterial and collector streets in your community. Please verify that the map accurately represents the existing conditions. Please mark any omissions and/or incorrect identifications, including any additional known gaps. (See Attachment A: Bike & Pedestrian Routes)

2. Is the municipality responsible for the maintenance of existing sidewalks?
   ☐ Yes ☐ No

3. If yes, does this include snow removal?
   ☐ Yes ☐ No

4. Does the municipality have a policy that requires snow removal by the property owners?
   ☐ Yes ☐ No

Bicycle Facilities

1. Attached is a map indicating current shared use paths. Please verify that the existing paths are identified correctly. If known, please mark any omissions and/or incorrect descriptions or placements. (See Attachment A: Bike & Pedestrian Routes)
2. Does the municipality install bicycle racks and/or storage facilities?
   ☐ Yes ☐ No
3. If so, at what types of locations have they been provided?

   _____

   _____

   _____

4. If not, are there specific locations where they should be placed?

   _____

   _____

   _____

Regulations and Policy

1. Attached is a brief summary of development regulations within the RMAP MPA concerning pedestrians and bicycles. Please confirm that the regulations for your community are described accurately. (See Attachment B: Development Regulations)
2. Attached is a brief summary of current traffic regulations that affect pedestrians and bicycles within the MPA. Please confirm that these statements represent the most up to date policies for your community and if necessary, identify any changes. (See Attachment C: Traffic Regulations)
3. Attached is a brief summary of current comprehensive plans for the Rockford Metropolitan Area. Please confirm that the information is accurate for your community and if necessary, identify any corrections. (See Attachment D: Comprehensive Plans)
5. Does your community record pedestrian and bicyclist incidents within accident data reports?
   ☐ Yes ☐ No
6. If yes, can the information be provided? This data will be used to determine the priority of constructing bicycle and pedestrian facilities in specific areas.
   ☐ Yes ☐ No

Funding

1. Does your jurisdiction dedicate transportation funds to construct new sidewalks?
   ☐ Yes ☐ No
   a. If so, what is the annual amount of transportation funds spent on sidewalk construction?
      $_____per year
   b. What is the source of funding?

      _____

      _____

      _____
2. Does your jurisdiction dedicate transportation funds to assist in the rebuilding sidewalks on private properties or right-of-ways?
   ☐ Yes ☐ No
   a. If so, what is the annual amount of transportation funds spent on sidewalk construction?
      $_____per year
   b. What is the source of funding?

      _____

      _____

3. Does your jurisdiction dedicate transportation funds to bicycle facility improvements?
   ☐ Yes ☐ No

   a. If so, what is the annual amount of transportation funds spent on bicycle facility improvements?
      $_____per year

   b. What is the source of funding?

Please share any additional comments.

Rockford Metropolitan Agency for Planning
313 North Main St.
Rockford, IL 61101
779-348-7627

Pedestrian and Bicycle Plan Survey for Township Highway Commissioners

Background Information

Significant changes in land use development are occurring in the Rockford Metropolitan Planning Area (MPA). Recently, citizen expectations for an improved quality of life, including a desire for healthy and environmentally friendly opportunities to walk and bicycle, have created the need for a pedestrian/bicycle plan to help identify the present and future needs of the communities.

The Rockford Metropolitan Agency for Planning (RMAP) has initiated an effort to update the 2007 Pedestrian and Bicycle Plan and elements of the Long-Range Transportation Plan (LRTP).

In order to develop this plan, RMAP is conducting a survey of township highway commissioners throughout the Rockford MPA. We seek your opinion concerning bicycle and pedestrian facilities within your community.

The results of this survey will be complied and included in the RMAP Bicycle and Pedestrian Plan update. In May 2016, RMAP will be hosting a workshop to discuss these results and gather input on the current Bicycle and Pedestrian Plan. If you have any questions, please contact one of the following RMAP staff members:

Colin Belle
Metropolitan Planner
Rockford Metropolitan Agency for Planning
779-348-7621 direct
colin.belle@rockfordil.gov

Sydney Turner
Research Associate
Rockford Metropolitan Agency for Planning
779-348-7622 direct
sydney.turner@rockfordil.gov

Jurisdiction

1. What is your jurisdiction?

   _____

2. Contact Information

   Name:

   Email: _____

Pedestrian and Bicycle Facilities Priorities

Sidewalks and bicycle facilities encourage walking within a community and provide a connective network of routes between local destinations and other modes of transportation. Please rate the importance of the following factors by which your community should consider the construction of pedestrian and bicycle facilities:

1. Stakeholder Input. How important is public feedback in support of (or against) a pedestrian or bicycle improvement at a particular location when considering a project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

2. Constraints. How important is examining the relative level of difficulty or constraints (such as time, cost, environmental impacts, facility design, and staff resources) when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

3. Opportunities. How important is a community's ability to take advantage of financial or political resources that can support implementation when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

4. Safety. How important is accounting for the potential risk of a pedestrian or bicyclist being involved in a traffic accident when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

5. Existing Conditions. How important are examining the physical conditions that have an impact on pedestrian or bicycle safety, comfort, or demand (such as whether or not a sidewalk exists, the number of travel lanes, or presence of a buffer) when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

6. Demand. How important is measuring the pedestrian or bicycle activity level for a location, such as proximity to schools, parks, transit facilities, or major employers when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

7. Connectivity. How important is accounting for the degree to which a bicycle or pedestrian project allows pedestrians and bicycles to travel comfortably and continuously throughout their community?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

8. Equity. How important is examining the degree to which a bicycle or pedestrian project provides opportunities for safe and convenient pedestrian and bicycle travel evenly to all groups within a community.

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

9. Compliance. How important is capturing whether or not existing infrastructure is compliant with current pedestrian and bicycle standards and guidelines when considering a bicycle or pedestrian facility project?

Not Important		Neutral		Very Important
1	2	3	4	5
☐	☐	☐	☐	☐

10. In addition, please RANK the above criteria from 1 to 9, with 1 being the criterion most important to you.

_____ Stakeholder Input
_____ Constraints
_____ Opportunities
_____ Safety
_____ Existing Conditions
_____ Demand
_____ Connectivity
_____ Equity
_____ Compliance

Pedestrian Facilities

1. Do you feel that sidewalks should be placed on both sides of the streets in all new developments with 2 or more units per acre?
   ☐ Yes ☐ No

2. Is your township responsible for the maintenance of existing sidewalks?
   ☐ Yes ☐ No

3. Does your township have a policy that requires snow removal on sidewalks by property owners?
   ☐ Yes ☐ No

Bicycle Facilities

1. According to the RMAP Long Range Transportation Plan, bicycle systems encourage a healthy lifestyle, as well as being a reliable means of transportation for young, old, low-income, and disadvantaged residents of the metropolitan planning area.

    a. Would your township be willing to support initiatives to better serve the transportation needs and choices of these groups?
    ☐ Yes ☐ No

    b. Would you be willing to support the construction of new off-road bicycle paths in your township?
    ☐ Yes ☐ No

    c. On-road bicycle facilities, such as bike lanes or signed routes?
    ☐ Yes ☐ No

Funding

1. Does your township dedicate transportation funds to construct new sidewalks?
    ☐ Yes ☐ No

    a. If so, what is the annual amount of transportation funds spent on sidewalk construction?
    $_____per year

    b. What is the source of funding?

    _____

    _____

    _____

2. Does your township dedicate transportation funds to assist in the rebuilding sidewalks on private properties or right-of-ways?
    ☐ Yes ☐ No

    a. If so, what is the annual amount of transportation funds spent on sidewalk construction?
    $_____per year

    b. What is the source of funding?

    _____

    _____

    _____

3. Does your township dedicate transportation funds to bicycle improvements?
   ☐ Yes ☐ No

   a. If so, what is the annual amount of transportation funds spent on bicycle improvements?
      $_____per year

   b. What is the source of funding?

Please share any additional comments.

Appendix F: Press Coverage

rrstar.com

Rockford Metropolitan Agency for Planning to hos

Friday
Posted May 27, 2016 at 9:01 AM

ROCKFORD — The Rockford Metropolitan Agency for Planning will host informational open houses in early June at various locations to open discussion about the RMAP Bicycle & Pedestrian Plan update.

Open houses will be held from 3 to 6 p.m. June 1 at the Regional Center for Planning & Design, 315 N. Main St.; 3 to 6 p.m. June 8 at Belvidere City Hall, 401 Whitney Blvd.; and 2 to 5 p.m. June 9 at Loves Park City Hall, 100 Heart Blvd.

The plan aims to provide a regional vision for a comprehensive infrastructure system that will support and encourage walking and bicycling throughout the Rockford Metropolitan Planning Area. The plan will provide a framework for improving connectivity, safety, convenience and attractiveness of bicycle and pedestrian networks.

For information: tinyurl.com/gr2ema8.

Rockford Metropolitan Agency for Planning looking for public input on bicycle and pedestrian plan

By Joseph Edwards CONNECT
Posted: Jun 27, 2016 4:28 PM CDT

ROCKFORD (WREX) - Which side of the wheel are you on; is Rockford bike-friendly, or not so much?

The Rockford Metropolitan Agency for Planning, or RMAP, is looking for public input on where Rockford stands for bicyclists and pedestrians alike. RMAP is updating their Bicycle and Pedestrian Plan, which is federally required.

RMAP officials say the plan is meant to promote a 'safe and efficient transportation system for people' that is balanced and minimizes costs to the taxpayer and the environment. Officials say the plan will address the development of a region-wide system of on-street bike and pedestrian areas that connect with existing and planned services and projects.

The survey ends July 31, and can be found here. For more information on RMAP and their Bicycle and Pedestrian Plan, click here.

rrstar.com

Rockford region's bike and pedestrian path plan g

Saturday
Posted Oct 29, 2016 at 4:00 PM

By **Isaac Guerrero**
Staff writer
Follow

ROCKFORD — If you like to bike, run or walk, you'll have several opportunities in the next few months to shape plans to enhance bicycle and pedestrian paths in the Rockford area.

This summer, **Rockford Metropolitan Agency for Planning**, or RMAP, began revising its regional bicycle and pedestrian path plan — an undertaking that happens once every decade. The agency is responsible for prioritizing the region's road, bridge and path projects.

"The process really just got started this summer and we'll have many more opportunities for public comment at open houses that we'll be hosting in the coming months," said RMAP planner Colin Belle.

There are no public meetings scheduled yet. A draft of the path plan will be ready early next year and the agency will adopt a final plan by next summer, Belle said. Until then, here are five path projects that are on the region's drawing board.

1. Jefferson Street bridge

Safety concerns prompted Rockford Park District last year to close the Jefferson Street bridge underpass, which provides pedestrian access across the Rock River in downtown Rockford. The steel and wood decking has slowly deteriorated since the underpass bridge debuted in June 1988.

In October, the district won a $2 million state grant to rebuild the bridge. The Park District will supplement the state grant with $500,000 of its own funds.

Design, engineering and construction may take an additional two years to complete, and even then there will be more work to do. The state grant does not cover costs associated with rebuilding the approaches to the pedestrian bridge on the east and west banks of the river.

2. Rock River Recreation Path

Among the region's most popular trails is the paved, 10-mile **Rock River Recreation Path**, which links Davis Park in downtown Rockford to Mercyhealth Sportscore One, a sprawling soccer and softball tournament park in northwest Rockford.

This fall, the city completed a $1.6 million conversion of an old railroad bridge over the Rock River to a pedestrian path that provides a link from Davis Park to the east bank of Rock River. It's not a perfect link. On the east side of the newly-converted bridge, an asphalt path extends north for several yards before it abruptly merges into a gravel path that runs north and south.

If you're heading south, you must follow the gravel path to the Morgan Street bridge, continue south under the bridge and then make a sharp left and scramble up a somewhat steep grassy embankment. From there, pedestrian path on the Morgan Street bridge takes you back west over the river. The path ends on the other side of the river. But follow Morgan Street west to South Main Street and you can pick up a path that follows South Main 2.8 miles south to the Blackhawk Fire Protection District station, 3738 S. Main St.

It's just as tricky to make your way north to the Rock River Recreation Path once you've traveled west across the new pedestrian bridge from Davis Park. Once on the east side of the river, follow the asphalt path and head south when the paved pathway turns to gravel. A chain-link fence will eventually obstruct the gravel pathway, forcing you to head west alongside the fence, and then around it, on a beaten, grassy path. From there, one can continue north to the Sports Factory.

A crosswalk near the Sports Factory parking lot entrance takes bikers and pedestrians north across Chestnut Street to an alley that leads north to East State Street. From that point, you can either head west on East State back to the river and follow the riverfront path northward. Or, you can follow the alley north of East State to Market Street, then head east to Madison Street and pick up the Rock River Recreation Path at the base of the Whitman Street bridge.

The next big enhancement of the Rock River Recreation Path could come as the city of Rockford, Rockford Park District and private developers turn their attention to the Madison Street corridor.

City planners have long envisioned a northward extension of Madison from the Sports Factory to College Avenue near the Morgan Street bridge. Extending Madison along that alignment would open up prime riverfront real estate that's perched atop a high bluff overlooking the river. A path accompanying such a Madison Street extension would provide a direct link to Morgan Street bridge as opposed to traveling under the bridge and up the grassy embankment.

The Park District is contemplating an expansion of Riverview Ice House, 324 N. Madison St., to satisfy increasing demand for its hockey and ice skating programs. Planners for the city of Rockford and the Park District will host a series of meetings this fall to brainstorm ideas for the Madison Street corridor, and a bike path will likely be part of those discussions.

"Extending the path along Madison would be huge for the culture and commerce of downtown Rockford," Belle said.

3. Long Prairie Trail

The 14.2-mile **Long Prairie Trail**, an asphalt path built upon the former Kenosha Division Line railroad bed, is one of the region's most significant segments of the Grand Illinois Trail.

The trail runs east and west between the Boone-McHenry County line to Roland Olson Forest Preserve in Roscoe. From there, bike riders and pedestrians can continue northwest for an additional 5.8 miles on the Stone Bridge Trail.

The Long Prairie Trail bisects northern Boone County, linking the villages of Caledonia, Poplar Grove and Capron and it snakes through woodlands, cultivated fields and native prairie.

Several stretches of the asphalt trail are severely deteriorated.

"It's one of the longest trails in our region and it's in drastic need of repairs," Belle said. "There are sections where the asphalt has settled and you need to walk around giant holes."

4. Perryville Path

The Winnebago County Highway Department nabbed a $984,960 state grant in October that will help pay for a two-part extension of the Perryville Path.

The first new leg of the path will stretch north from Hart Road along the east side of Perryville to an existing segment of the path at Illinois 173 and Perryville. From there, the Perryville Path runs north along Perryville to Anjali Way, near Showplace 14. The second segment of the planned extension would continue the northern route along Perryville to Willowbrook Lane, just east of Keiselberg Forest Preserve.

rrstar.com

Our View: Smoother streets, better routes would m more practical

Sunday
Posted May 14, 2017 at 4:39 PM

By The Editorial Board / Rockford Register Star

Hundreds of bicyclists in the Rock River Valley will treat this week like any other. They will ride their bikes to work because that's what they always do, day in and day out, rain or shine.

But for many of us, Bike to Work Week, which starts today, and Bike to Work Day, which is Friday, can help us justify doing what we wish we could do all year.

Bicycling to work is not for everyone, but for those of us who can do so safely it's efficient and great for the environment and saves us a couple of bucks on gas. Plus, it's great exercise and allows us to integrate exercise into our daily routines rather than struggling to fit in a workout before or after work.

The key is safety. For many riders in the Rockford region, bicycling to work is not an option because the safest routes often add too much time to the commute.

Paths, bike lanes and bike routes are great, but one of the best ways to make bicycling safer is to improve the condition of the streets. There are too many cracks, bumps and potholes to make bicycling easy and safe even if you just want to ride around in your neighborhood. A bicyclist could easily lose his balance and fall because he hit a rough spot on the road.

That's particularly a problem on Rockford's west side, where the streets are full of holes and the shoulders are narrow — if they exist at all. The path along West State Street is nice, but getting there can be a challenge.

We wish all bike lanes or shoulders could be as smooth as the ones on Spring Brook Road from Perryville to Mulford. It's pretty good west of Mulford, but once you hit Alpine the route ends and you have to find a different way to continue your westward trip.

More direct routes are needed. If you live on the east side of Rockford, you're only seven or so miles from downtown. However, the safest routes, like the one mentioned above, probably add four or five miles to the ride, which is great for burning calories, but not so great if you're pressed for time. If the Spring Creek path ever makes it off the drawing board and onto the pavement, that problem would evaporate.

Rockford has made strides in becoming a more bicycle friendly community with designated bike routes and bike lanes. The recreational path system is very good — for exercise and recreation. It's not so good as a way to get to a retail store or grocery or to work.

Even if you were able to get to the store on your bike, too many businesses do not have bike racks for you to park and lock up your bike.

There are 404 bicycle friendly communities in the United States as designated by the League of American Bicyclists. Washington is the No. 1 state for bicyclists and Illinois is ranked 14th. There are 15 bicycle friendly communities in Illinois. The nearest is DeKalb.

The League's Bicycle Friendly America program stresses five "E's for a Bicycle Friendly America."

Engineering: Creating safe and convenient places to ride and park.

Education: Giving people of all ages and abilities the skills and confidence to ride.

Encouragement: Creating a strong bike culture that welcomes and celebrates bicycling.

Enforcement: Ensuring safe roads for all users.

Evaluation and planning: Planning for bicycling as a safe and viable transportation option.

There's plenty of interest in making Rockford a better place for bicyclists. In February, about 100 people went to Memorial Hall to listen and respond to the Rockford Metropolitan Agency for Planning's process for developing a bicycle and pedestrian plan.

It was an engaged audience that offered many good suggestions on how to make it easier for bicyclists to get around town.

So let's fix up the streets — motorists would like that, too — improve the routes and make bicycling to work a way of life for more of Rockford's residents.

Addendum A: Public Comment Period, July - August 2017

The draft RMAP Bicycle and Pedestrian Plan for the Rockford Metropolitan Area was made available on July 20th, 2017 via the RMAP website at: http://www.rmapil.org/rmap-bicycle-pedestrian-plan/, as well as by contacting RMAP staff via the contact information found below. A thirty day public comment period for this Bicycle and Pedestrian Plan lasted from July 20, 2017 to August 21, 2017. A public notice was published in the Rock River Times on July 26, 2017.

During the thirty day comment period, public information open houses were held at three locations within the MPO planning area to obtain comment on the draft Bicycle and Pedestrian Plan. Additionally, at the request of a local bicycle organization, I Bike Rockford, RMAP staff presented the draft Plan to their members. The Bicycle and Pedestrian Plan update was also discussed at both the RMAP Technical Committee meetings and the RMAP Policy Committee meetings, which are open to the public. A list has been provided below with the dates in which the Bicycle and Pedestrian Plan was presented at RMAP committee meetings:

- January 19, 2017- RMAP Technical Committee Meeting
- March 30, 2017- RMAP Technical Committee Meeting
- July 20, 2017- RMAP Technical Committee Meeting

Additionally, RMAP staff created a Facebook page for the RMAP Bicycle and Pedestrian Plan update. The Facebook page was regularly updated to generate feedback and input for the plan, as well as promote attendence at the public open houses.

A total of fourteen (14) written comments were recieved during the thirty days, many of these comment covered several topics. Verbal comments recieved from the open house events have also been taken into consideration for this public comment section. The comments have been grouped into several categories based on the topics discussed.

RMAP staff recieved four (4) written comments related to bicycle and pedestrian network connectivity. A majority of these comments identified specific roadway corridors or shared-use paths. A couple of these comments focused on corridors in the southern portions of the City of Rockford, while others focused on the east-west connections. RMAP staff is aware of these connectivity gaps in the overall network and will continue to support efforts to identify ideal corridors for the increased bicycle facilities connectivity and increased sidewalk facilities.

RMAP staff recieved four (4) written comments related to the safety of the existing roadway system for bicyclists and pedestrians. Intersection safety or crossing major roadways was a concern relayed in several of the comments. Another comment addressed the lack of comfort riding on some of the major roadways. RMAP is constantly keeping up-to-date on bicycle safety countermeasures and passes this information onto implementation agencies through the RMAP Technical Committee meetings. Another comment suggested improving safety through bicycle awareness and educational information booths to inform the general population on the rules of the road for cyclists. RMAP has identified public awareness campaigns and educational programs as an action item in this plan.

RMAP staff recieved one (1) written comment on the improvement of a shared-use path condition. While RMAP is not in a position to perform shared-use path or roadway maintenance, RMAP does forward these comments, when recieved, onto local implementation agencies for roadway repair and maintenance.

RMAP staff recieved five (5) written comments related to plan implementation. Overall, the comments recieved were supportive of the recommendations and action plan presented in Plan Implementation section of the document. Several comments also identified work efforts by local bicycle groups that align with the items identified in the Action Plan. Another commment recieved suggested including on-street bicycle facilities during new roadway construction and maintenance projects. RMAP will continue to promote a comprehensive complete streets policy in order to help local municipalities plan and prepare for improving bicycle and pedestrian facilities and overall bicycle and pedestrian system connectivity.

RMAP staff received technical corrections. Corrections relating to typographical errors in the document have been fixed. Additional technical corrections to tables, maps, and text have been made accordingly throughout the document based upon feedback recieved.

Materials and comments recieved during the public commit period have been provided on the following pages. Public comment is welcome at any time on this document, as well as any MPO planning document. Comments and proposed refinements or changes should be directed as follows:

Rockford Metropolitan Agency for Planning
313 North Main Street
Rockford, IL 61101
Phone: 815.319.4180
Email: info@r1planning.org
Web: www.rmapil.org

LEGAL NOTICE

Draft Bicycle & Pedestrian Plan Now Available

RMAP has released a draft of its Bicycle and Pedestrian Plan for the Rockford Metropolitan Area, which is now available for public comment.

You may review the draft here:
http://www.rmapil.org/wp-content/uploads/bicycle_pedestrian_plan_draft.pdf

Public comment will be afforded for the Bicycle and Pedestrian Plan from July 20, 2017 until August 21, 2017. Comments can be submitted electronically by emailing RMAP staff, by sending written comments to the address provided below or by attending an RMAP public meeting.

The RMAP Bicycle and Pedestrian Plan is intended to promote a safe and efficient transportation network for people that provides a balanced multi-modal system that minimizes costs and impacts to the taxpayer, society and the environment. The plan addresses the development of a region-wide system of on-street bicycle and pedestrian facilities to connect with existing shared use path facilities, existing and planned public transportation services and provides design standards, as well as the promotion and encouragement bicycle and pedestrian friendly growth through program and engineering recommendations.

- Vision and goals to guide the development and implementation of the bicycle and pedestrian facilities and programs for the Rockford Metropolitan Area;
- Description of facilities types discussed in this plan to create a consistent description and design standards throughout the region;
- Assessment of the existing conditions for bicycle and pedestrian networks in the Rockford region, including the demand and suitability analysis for walking and bicycling in the region.
- Infrastructure recommendations to increase the connectivity and safety of the bicycle and pedestrian network, as well as education, encouragement, enforcement, and evaluation programs.
- Strategies for plan implementation including a select number of priority corridors identified for walking and bicycling facilities, as well as information on possible funding sources.

The RMAP Bicycle and Pedestrian Plan is tentatively scheduled for adoption, with the inclusion of comments made during the public comment period, at the September 28, 2017 meeting of the RMAP Policy Committee.

A public informational open house will be held at three area locations to obtain comment on the Draft Bicycle and Pedestrian Plan. The objective of these public open houses is to allow for the public to participate in the process and provide feedback on the draft document during the public comment period. The format of these open houses is to allow an informal discussion regarding the draft planning document between the public and RMAP staff. The dates, times, and locations are as follows:

Tuesday, August 1, 2017
4:00 to 6:00 PM
Boone County Administration Offices
1212 Logan Ave
Belvidere, IL 61008

Wednesday, August 2, 2017
4:00 PM to 7:00 PM
Regional Design Center
315 N Main St
Rockford, IL 61101

Thursday, August 3, 2017
5:00 to 7:00 PM
Machesney Park Village Hall
300 Roosevelt Rd
Machesney Park, IL 61115

For questions or comments about the Bicycle and Pedestrian Plan, the Public Open Houses, or other related matters, please contact:
Sydney Turner
Metropolitan Planner
Region 1 Planning Council
313 N. Main Street
Rockford, IL 61101
815-319-4185
sturner@r1planning.org

7843R TRRT 7/26

Certificate of publication

State of Illinois

County of Winnebago

City of Rockford

The Rock River Times certifies that it is a publisher of legal notices; that such paper is a secular newspaper of general circulation in said county; that it is published in the city, county and state aforesaid. It hereby further certifies that a notice, of which the attached notice is a true copy, has been legally published in said newspaper 1 time(s) for 1 consecutive week(s); that the first publication was on the 26th day of July , 2017; that the last publication was on the 26th day of July , 2017. It further certifies that The Rock River Times has been regularly published for one year prior to the first publication of said notice and is a newspaper as defined in the "Illinois Notice by Publication Act" 715 ILCS 5/0.01 et seq. In witness whereof The Rock River Times, publisher aforesaid, has hereunto caused its name to be signed on this 26th day of July , A.D. 2017, by any of its following duly authorized officers or agents and that a Corporate Resolution has been passed that the signature of said officer or agent may be represented by rubber stamp facsimile as his true and original signature:

By Joshua Johnson

Joshua Johnson

Publisher, The Rock River Times

COLLABORATIVE PLANNING FOR NORTHERN ILLINOIS

Press Release

For Immediate Release
July 27th, 2017

For more information, contact:
Sydney Turner
sturner@r1planning.org

Public Open House
RMAP Bicycle & Pedestrian Plan for the Rockford Metropolitan Area

A public information open house will be held at three locations to obtain comment of the **draft Bicycle and Pedestrian Plan for the Rockford Metropolitan Agency for Planning**. The purpose of the plan is to provide a regional vision for a comprehensive infrastructure system that will support and encourage walking and bicycling throughout the Rockford Metropolitan Planning Area (MPA) which is comprised of the urbanized portions of Boone and Winnebago and portions of northeast Ogle County. The plan will provide a framework for improving connectivity, safety, convenience, and attractiveness of bicycle and pedestrian networks. The public is invited to contribute their opinions on current and future pedestrian and bicycle facilities within the Rockford MPA.

The RMAP Bicycle and Pedestrian Plan is intended to promote a safe and efficient transportation network for people that provides a balanced multi-modal system that minimizes costs and impacts to the taxpayer, society and the environment. The plan addresses the development of a region-wide system of on-street bicycle and pedestrian facilities to connect with existing shared use path facilities, existing and planned public transportation services and provides design standards, as well as the promotion and encouragement of bicycle and pedestrian friendly growth through program and engineering recommendations.

The RMAP Bicycle and Pedestrian Plan contains the following information:

- Vision and goals to guide the development and implementation of the bicycle and pedestrian facilities and programs for the Rockford Metropolitan Area;
- Description of facilities types discussed in this plan to create a consistent description and design standards throughout the region;
- Assessment of the existing conditions for bicycle and pedestrian networks in the Rockford region, including the demand and suitability analysis for walking and bicycling in the region.
- Infrastructure recommendations to increase the connectivity and safety of the bicycle and pedestrian network, as well as education, encouragement, enforcement, and evaluation programs.
- Strategies for plan implementation including a select number of priority corridors identified for walking and bicycling facilities, as well as information on possible funding sources.

313 N. Main Street Rockford, Illinois 61101 R1planning.org p 815.319.4180

Winnebago County / Boone County / City of Rockford / City of Belvidere / City of Loves Park / Village of Machesney Park / Rockford Mass Transit District / IDOT District #2

The draft RMAP Bicycle and Pedestrian Plan for the Rockford Metropolitan Area is available on the RMAP website at: http://www.rmapil.org/rmap-bicycle-pedestrian-plan/ or by contacting RMAP staff via the contact information found below. The objective of the open houses is to allow the public to participate in the planning process and provide feedback on the draft document during the public comment period. The public comment period for this Bicycle and Pedestrian Plan lasts from July 20, 2017 to August 21, 2017.

The format of these open houses allows for an informal discussion between the public and RMAP staff.
The times are indicated below.

DATES

Tuesday, August 1, 2017	Wednesday, August 2nd, 2017	Thursday, August 3rd, 2017
4:00 PM to 6:00 PM	4:00 PM to 7:00 PM	5:00 to 7:00 PM
Boone County Administration Offices	Regional Design Center	Machesney Park Village Hall
1212 Logan Ave	315 N Main St	300 Roosevelt Rd
Belvidere, IL 61008	Rockford, IL 61101	Machesney Park, IL 61115

For questions or comments about the Bicycle and Pedestrian Plan, the Public Open Houses, or other related matters, please contact:

Sydney Turner
Metropolitan Planner
Region 1 Planning Council
313 N. Main Street
Rockford, IL 61101
815-319-4185
sturner@r1planning.org

SIGN-IN SHEET

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Tuesday, August 1st, 2017; 4:00 PM – 6:00 PM
PLACE/ROOM: Boone County Administration Building, 1212 Logan Ave., Belvidere

NAME	COMPANY/ORGANIZATION	EMAIL
SYDNEY TURNER	RI PLANNING	
Ken Terrinoni	Boone County	
Bev Moore	Bicycles for Illinois	
Ben Rohr	R1 Planning	

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Tuesday, August 1st, 2017
Boone County Administration Building
1212 Logan Avenue, Belvidere, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Bev Moore			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

Love the purple trails as bicycle lanes
Please label names of parks - (large ones)

ourmap
Rockford Metropolitan Agency For Planning
our future, our goals, our map

SIGN-IN SHEET

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Wednesday, August 2nd, 2017; 4:00 PM – 7:00 PM
PLACE/ROOM: Regional Center for Design, 315 N Main St., Rockford, IL

NAME	COMPANY/ORGANIZATION	EMAIL
Tom Hill	Rockford Park District	
Becky Lambert	Rockford Park District	
Christina Wales	Rockford Cyclists on 16	
Joe Vanderwerft Sr	Winn Co Hwy Dept	
Wayne Dust	City of Rockford	
Daniel Brophy	concerned citizen	
Jeremy Carter	COR	
Tim Hinkens	COR	
WALLY HAAS	Rockford Register Star	
Nate Plantz	Supply Core	
TIM BRAGG	RPD	
JIM REID	Rock Pk Dist	
Joe LaMantia	LSP Industries	
CHAD TUNEBERG	Alderman City of RKFD	
Deba Zbsevic	resident	
Michael Smith	resident	

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Wednesday, August 2nd, 2017
Regional Design Center
315 North Main Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Michael Smith (I Bike Rockford)			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

- Please encourage the City to adopt NACTO (nacto.org) standards for urban street design in general, and bicycle infrastructure in particular.
- Please work closely with I Bike Rockford. "Street-level" advocates who will be happy to advance 2-wheel interests.

ourmap
Rockford Metropolitan Agency For Planning

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Wednesday, August 2nd, 2017
Regional Design Center
315 North Main Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Rockford Cyclists on Instagram			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

- A connection between The river to Perryville would be essential to connect the city. of course the proposal for Spring Creek being the connecting route has been in the works for years, but this would help students going to Rock Valley College.

- South of town, using Sath Alpine to connect to Samuelson for students to ride to Jefferson.

- I believe our city would benefit from more bike awareness by educating our population. Many drivers have been disrespectful while on my bike — [redacted] showing they have no clue of the rules of the road for cyclists. Educating examples could be a booth at city market, advertisment, pairing w/ high schools, partnering w/ Kegels and/or Rockford Bicycle Company.

- A connection from Rockford to Pecatonica trail.

ourmap
Rockford Metropolitan Agency For Planning

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Wednesday, August 2nd, 2017
Regional Design Center
315 North Main Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Dan Brophy			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

Connecting patches

1) On East Riverside - West of the old K Mart and in front of PGA golf driving range. 60-70 feet of black top would conect Wal Mart to the Riverside bridge.

2) On E. Riverside West of East Dr. In front of Oliphant west to the bridge. 30 ft of blacktop eliminates a sloppy, muddy mess.

ourmap
Rockford Metropolitan Agency For Planning

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Wednesday, August 2nd, 2017
Regional Design Center
315 North Main Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Becky Lambert Rockford Park District			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

- Love the proposed trails near Atwood Park

- It looks like we could use more connectivity south of Samuelson in Rockford (11th or 20th street); Around the Airport

- It would be nice to connect Jefferson/Rock Valley to a bike trail/path

- Would like 1 or 2 paths proposed in the Southwest of Rockford

ourmap
Rockford Metropolitan Agency For Planning

SIGN-IN SHEET

Bicycle & Pedestrian Plan for the Rockford Metropolitan Area

PROJECT: Bicycle & Pedestrian Plan Open Houses
FACILITATOR: Rockford Metropolitan Agency for Planning
MEETING DATE: Thursday, August 3rd, 2017; 5:00 PM – 7:00 PM
PLACE/ROOM: Machesney Park Village Hall, 300 Roosevelt Rd., Machesney Park

NAME	COMPANY/ORGANIZATION	EMAIL
Josef Appell	Self	
Brad Milner	—	
Colin Belle	RMAP	—
Tim Hendricks	—	—
Jon Paul Diipla	RMAP	
Gordon & Anne Wenziker	—	
Anna Ma	RMAP	

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

I Bike Rockford Meeting - Presentation
Tuesday, August 8th, 2017
Prairie Street Brewhouse
200 Prairie Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Jessica Irons TR/I Bike RFD			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

* Really like that you're focused on recreation and transportation (including the last mile idea) that isn't cars.
* Illegal to ride on sidewalks?? N. main - is this a sidewalk or a shared use path??
* Lets get Rockford a designation related to the 5 E's!! ☺
* Bike Traffic Lights - yes!!
* I like the interactive map education resource idea.
* open streets - yes!!
* pace car idea - possible tie in w/ 815 choose civility - we are trying to promote civil driving behavior - pace cars view to do this ... maybe?? ☺
* who at the city/state/county sees your recommendations? ↳ i.e. how do we get these implemented?
* Do you ever get private donors to fund projects? We have some deep pockets here!
* Like the Bike Rodeo idea!

ourmap Rockford Metropolitan Agency For Planning

⇒

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

Bicycle and Pedestrian Plan Open House
Thursday, August 3rd, 2017
Machesney Park Village Hall
300 Roosevelt Road, Machesney Park, IL

Name Business/Organization	Address, City, & Zip	Phone	Email

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

- BRIDGE CONDITION (PARTICULARLY WILLOW CREEK)
- INTERSECTION SAFETY CONCERNS

ourmap
Rockford Metropolitan Agency For Planning

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

I Bike Rockford Meeting - Presentation
Tuesday, August 8th, 2017
Prairie Street Brewhouse
200 Prairie Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
BIKE ELVES			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

PLEASE FOCUS ON ADDING ON-STREET BIKE LANES DURING ALL ROAD NEW/OLD CONSTRUCTION.

ourrmap
Rockford Metropolitan Agency For Planning

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

I Bike Rockford Meeting - Presentation
Tuesday, August 8th, 2017
Prairie Street Brewhouse
200 Prairie Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Jennifer Smith I Bike Rockford			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

- Would really appreciate recommendations for on-street to be included w/ priority routes listing.

- ~~would be ideal to~~ I Bike Rockford is working on a bike parking plan for downtown & adjacent on request of City of Rockford staff. can we talk about this with you and share info / thoughts?

- I Bike Rkfd is working on one-stop website w/ maps and calendar of events. Can we talk about this and share info/thoughts?

- ## Is there a way to include, probably as appendix or supplement, existing priorities (both in terms of goals & infrastructure) of municipalities w/in the MPA? This way there is no

Bicycle & Pedestrian Plan For the Rockford Metropolitan Area

I Bike Rockford Meeting - Presentation
Tuesday, August 8th, 2017
Prairie Street Brewhouse
200 Prairie Street, Rockford, IL

Name Business/Organization	Address, City, & Zip	Phone	Email
Blackhawk Bicycle Ski Club			

Please provide your comments regarding the Draft of the Bicycle & Pedestrian Plan for the Rockford Metropolitan Area below. Use the back of the page or additional attached pages if necessary.

Thank you for Presentation and keeping us updated from 2008 to today!

Cycling improvements for Rockford Area.

YES!

ourmap
Rockford Metropolitan Agency For Planning

Sydney Turner

From: Clements, Joshua
Sent: Wednesday, July 26, 2017 3:19 PM
To: Sydney Turner
Subject: Rockford Metropolitan Area Bicycle & Pedestrian Plan

Good afternoon,

I am writing regarding our university listing with the Rockford Metropolitan Area Bicycle & Pedestrian Plan.

The University of Illinois campus at 1601 Parkview Ave actually hosts three financially separate colleges. College of Medicine, College of Pharmacy, and College of Nursing. College of Pharmacy for example has an enrollment of 128 students. This does not include College of Medicine's enrollment listed in the document.

Perhaps instead of being listed as College of Medicine, it should be listed under the official title of 'UIC Health Sciences Campus - Rockford'. If not, perhaps the titles of all three colleges could be listed in the document.

I can try to provide additional information or enrollment numbers upon request. I actually work in IT, but can get information from our Dean's office for College of Pharmacy.

Joshua Clements
Systems Administrator
Information Technology Unit

College of Pharmacy
The University of Illinois at Chicago

Sydney Turner

From: Christina Washington
Sent: Thursday, August 03, 2017 12:10 PM
To: Sydney Turner
Cc: Michael Dunn
Subject: FW: Walking and bike paths in Cherry Valley

FYI on public input

-----Original Message-----
From: Mary Anne Johnson
Sent: Thursday, August 03, 2017 11:52 AM
To: Michael Dunn <MDunn@r1planning.org>
Subject: Walking and bike paths in Cherry Valley

I will not be able to attend the meetings so I just wanted to give you my opinion.
The hwy. 39 under-pass off Valley woods drive to Swanson Park Recreation Path is a great walking and bike path. And now with the new elementary Cherry Valley school opening in 2018 off Perryville Rd. will be a great way for kids to get to school. The problem is it is slippery to walk under as it is always wet in summer or icy in winter. Is there a way to get it irrigated better and dry it out?
Second when you bike or walk through the path to go over to restaurants and the mall the path ends to go into food and mall area. Gets a bit dangerous crossing Harrison to get into mall area.
Thank you.
Mrs. Mary Anne Johnson

Sent from my iPhone

Sydney Turner

From: Dan Weston
Sent: Friday, August 04, 2017 9:31 AM
To: Sydney Turner
Subject: Machesney Park

Good morning!

We need a safe way to get across hwy 251 at 173. There is a large population on the west side of the highway that does not have safe bicycle access to Machesney's numerous bike paths near the high school and state park.

It seems we would need a bridge or tunnel.

Thoughts?

-Dan Weston

Sydney Turner

From: Ashley Baxter
Sent: Wednesday, August 09, 2017 3:48 PM
To: Sydney Turner
Subject: Bike/Ped plan

Hi, I have been unable to attend the meetings but I am a cyclist in Rockford and know a few others. Most of the things we would like to see happen are sidewalks, like from Blackhawk Springs to connect to Mulford's small bike path or parts of State Street going out to Walmart/movies has a couple miles where there's not even a shoulder, let alone sidewalks. There's just no sidewalks hardly anywhere, main streets like Harrison, Sandy Hollow and Alpine to side streets. I thought I could go out to Midway Village on Guilford but the sidewalks would alternate every other block and after a while, I just quit. It was hard and time consuming w/a bike.

I am from California and every street there has sidewalks for miles and it's just weird having been here for 7 years and seeing Pierpoint still w/nothing or streets where every other corner might not have a sidewalk. There needs to be more crosswalks too.

I bike on the sidewalk because unless there's protected bike lanes, I don't feel safe biking with just a strip of paint being my boundary on the road. The lanes, sidewalks and bike paths needs to connect and be a network, not just sporadically found throughout town. Yeah, Perryville Path is nice but it'd be nicer if it connected to and ran along State too so it doesn't mean catching the bus to get there. Rockford's cycling community more than the North End. I have cycling co-workers who bike from Broadway and from Rockford University and there's no biking infrastructure anywhere in this town but especially in those parts of town.
Thanks,
Ashley Baxter

ourmap
Rockford Metropolitan Agency For Planning

RMAP TECHNICAL COMMITTEE
Thursday, January 19, 2017 – 10:00 A.M.
City of Loves Park, City Hall
100 Heart Blvd-PW Conf. Room, Loves Park, IL

AGENDA

1. APPROVAL OF THE NOVEMBER 17, 2016 RMAP TECHNICAL COMMITTEE MEETING MINUTES

2. COMMUNICATIONS

3. AGENCY REPORTS:

VOTING MEMBERS

3.01 - Illinois Dept. of Transportation, District 2
3.02 - Winnebago County Highway Department
3.03 - City of Rockford, Public Works Dept.
3.04 - City of Loves Park, Public Works Dept.
3.05 - Village of Machesney Park
3.06 - Chicago/Rockford International Airport
3.07 - Rockford Mass Transit District
3.08 - City of Loves Park, Community Development Dept.
3.09 - Village of Cherry Valley
3.10 - City of Rockford, Community Development Dept.
3.11 - Winnebago County Planning and Economic Development Dept.
3.12 – not assigned
3.13 - Boone County Highway Dept.
3.14 - City of Belvidere, Public Works Dept.
3.15 - Village of Roscoe
3.16 - Village of Winnebago
3.17 - Rock River Water Reclamation District
3.18 - Forest Preserves of Winnebago County
3.19 - Boone County Conservation District
3.20 - Rockford Park District
3.21 - Winnebago County Soil & Water Conservation District
3.22 - Village of Poplar Grove

NON-VOTING MEMBERS

3.23 – Illinois Environmental Protection Agency
3.24 – Illinois State Toll Highway Authority
3.25 – IDOT, Division of Public Transportation
3.26 – IDOT, Division of Urban Program Planning
3.27 – Ogle County Highway Dept.
3.28 – Boone County Council of Aging
3.29 – State Line Area Transportation Study
3.30 – Federal Highway Administration, IL Division
3.31 – Economic Development District of Northern Illinois
3.32 – Growth Dimensions
3.33 – Stateline Mass Transit District
3.34 – Rockford Metropolitan Agency for Planning

4. **RMAP FY 2017-2020 TIP AMENDMENT – RMAP RESOLUTION 2017-01:** Amendment to the FY 2017-2020 Transportation Improvement Program at the request of the City of Belvidere, Village of Machesney Park, Rockford Park District and Winnebago County Highway Department for the modification of existing projects and addition of new projects. The RMAP Technical Committee is asked for its recommendation of Resolution 2017-01.

5. **RMAP REGIONAL BICYCLE & PEDESTRIAN PLAN:** Discussion regarding the progress of the plan update.

6. **RMAP COORDINATED PUBLIC TRANSIT – HUMAN SERVICES TRANSPORTATION PLAN (HSTP):** Discussion regarding the progress of the plan update.

7. PROGRESS REPORTS

8. OTHER BUSINESS

9. ADJOURNMENT

Opportunities for public comment will be afforded on all agenda items.

Persons who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact RMAP at 779-348-7627 at least two working days before the need for such services or accommodations.

our future, our goals, our map 313 North Main Street, Rockford, IL 61101 direct 779.348.RMAP fax 815.967.6913 web rmapil.org

ourmap
Rockford Metropolitan Agency For Planning

RMAP TECHNICAL COMMITTEE
Thursday, March 30, 2017 – 10:00 A.M.
City of Loves Park, City Hall
100 Heart Blvd-PW Conf. Room, Loves Park, IL

AGENDA

1. APPROVAL OF THE JANUARY 19, 2017 RMAP TECHNICAL COMMITTEE MEETING MINUTES

2. COMMUNICATIONS

3. AGENCY REPORTS:

VOTING MEMBERS

3.01 - Illinois Dept. of Transportation, District 2
3.02 - Winnebago County Highway Department
3.03 - City of Rockford, Public Works Dept.
3.04 - City of Loves Park, Public Works Dept.
3.05 - Village of Machesney Park
3.06 - Chicago/Rockford International Airport
3.07 - Rockford Mass Transit District
3.08 - City of Loves Park, Community Development Dept.
3.09 - Village of Cherry Valley
3.10 - City of Rockford, Community Development Dept.
3.11 - Winnebago County Planning and Economic Development Dept.
3.12 - Belvidere/Boone County Regional Planning Dept.
3.13 - Boone County Highway Dept.
3.14 - City of Belvidere, Public Works Dept.
3.15 - Village of Roscoe
3.16 - Village of Winnebago
3.17 - Rock River Water Reclamation District
3.18 - Forest Preserves of Winnebago County
3.19 - Boone County Conservation District
3.20 - Rockford Park District
3.21 - Winnebago County Soil & Water Conservation District
3.22 - Village of Poplar Grove

NON-VOTING MEMBERS

3.23 – Illinois Environmental Protection Agency
3.24 – Illinois State Toll Highway Authority
3.25 – IDOT, Division of Public Transportation
3.26 – IDOT, Division of Urban Program Planning
3.27 – Ogle County Highway Dept.
3.28 – Boone County Council of Aging
3.29 – State Line Area Transportation Study
3.30 – Federal Highway Administration, IL Division
3.31 – Economic Development District of Northern Illinois
3.32 – Growth Dimensions
3.33 – Stateline Mass Transit District
3.34 – Rockford Metropolitan Agency for Planning

4. **TIP AMENDMENT – RMAP RESOLUTION 2017-2:** Amendment to the RMAP FY 2017-2020 TIP at the request of the City of Rockford and the Illinois Department of Transportation for the modification of existing projects. The RMAP Technical Committee is asked for its recommendation of **RMAP Resolution 2017-2**.

5. **RMAP FY 2018 UNIFIED WORK PROGRAM (UWP):** Discussion of transportation planning activities for next year's (July 1, 2017-June 30, 2018) UWP draft.

6. **RMAP TRAVEL DEMAND MODEL AND REMI INTEGRATION**: RMAP has updated its computer-based transportation planning model for the Rockford Metropolitan Area, including the State Line Transportation Area Study (SLATS). RMAP will give a brief report on the update to the Regional Travel Demand Model that will cover the change in software, expansion of the model area, changes in socio-economic data variables, adding the transit mode split and extending the travel forecast year horizon from 2030 to 2040.

7. **RMAP COORDINATED PUBLIC TRANSIT- HUMAN SERVICES TRANSPORTATION PLAN UPDATE:** Discussion of the status of the draft update of the RMAP HSTP. The draft is proposed to include six sections, including an Introduction to the Plan, Demographics of the Region, an Assessment of Available Services, a discussion of the Transit Rider Survey performed at the end of 2016, an Assessment of Transportation Needs and Gaps, and Prioritized Strategies to reduce or eliminate gaps and meet needs.

8. **RMAP BICYCLE AND PEDESTRIAN PLAN UPDATE:** Discussion of the status of the draft update to the RMAP Bicycle and Pedestrian Plan. The Bicycle & Pedestrian Advisory Committee, the ad-hoc committee for the Plan, had their final meeting

our future, our goals, our map 313 North Main Street, Rockford, IL 61101 direct 779.348.RMAP fax 815.967.6913 web rmapil.org

RMAP TECHNICAL COMMITTEE
Thursday, July 20, 2017 – 10:00am
City of Loves Park, City Hall – 100 Heart Blvd

AGENDA

1. **APPROVAL OF THE MAY 18, 2017 RMAP TECHNICAL COMMITTEE MEETING MINUTES**

2. **COMMUNICATIONS**

3. **AGENCY REPORTS:**

VOTING MEMBERS

3.01 - Illinois Dept. of Transportation, District 2
3.02 - Winnebago County Highway Department
3.03 - City of Rockford, Public Works Dept.
3.04 - City of Loves Park, Public Works Dept.
3.05 - Village of Machesney Park
3.06 - Chicago/Rockford International Airport
3.07 - Rockford Mass Transit District
3.08 - City of Loves Park, Community Development Dept.
3.09 - Village of Cherry Valley
3.10 - City of Rockford, Community Development Dept.
3.11 - Winnebago County Planning and Economic Development Dept.
3.12 – *not assigned*
3.13 - Boone County Highway Dept.
3.14 - City of Belvidere, Public Works Dept.
3.15 - Village of Roscoe
3.16 - Village of Winnebago
3.17 - Rock River Water Reclamation District
3.18 - Forest Preserves of Winnebago County
3.19 - Boone County Conservation District
3.20 - Rockford Park District
3.21 - Winnebago County Soil & Water Conservation District
3.22 - Village of Poplar Grove

NON-VOTING MEMBERS

3.23 – Illinois Environmental Protection Agency
3.24 – Illinois State Toll Highway Authority
3.25 – IDOT, Division of Public Transportation
3.26 – IDOT, Division of Urban Program Planning
3.27 – Ogle County Highway Dept.
3.28 – Boone County Council of Aging
3.29 – State Line Area Transportation Study
3.30 – Federal Highway Administration, IL Division
3.31 – Economic Development District of Northern Illinois
3.32 – Growth Dimensions
3.33 – Stateline Mass Transit District
3.34 – Rockford Metropolitan Agency for Planning

4. **RMAP COORDINATED PUBLIC TRANSIT – HUMAN SERVICES TRANSPORTATION PLAN – RMAP RESOLUTION 2017-6:** Review and discussion regarding the final draft of the FTA required Coordinated Plan update. This plan was unanimously endorsed by the RMAP Mobility Subcommittee at their 7/11/17 meeting. The RMAP Technical Committee is asked for its recommendation of **RMAP Resolution 2017-6**.

5. **RMAP FY2017-FY2020 TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT – RMAP RESOLUTION 2017-7:** Amendment to the RMAP FY 2017-2020 TIP at the request of the City of Rockford and the City of Loves Park for the addition of projects and modification of existing projects. The RMAP Technical Committee is asked for its recommendation of **RMAP Resolution 2017-7**.

6. **IDOT LONG RANGE TRANSPORTATION PLAN:** Presentation by IDOT and discussion regarding the development of the Long Range Transportation Plan.

7. **RMAP BICYCLE & PEDESTRIAN PLAN:** Presentation and discussion of the update to the regional RMAP Bicycle & Pedestrian Plan.

313 N. Main Street Rockford, Illinois 61101 R1planning.org p 815.319.4180