

# Mount Prospect Bicycle Plan



ACTIVE TRANSPORTATION  
ALLIANCE



SAM SCHWARTZ  
ENGINEERING





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# Mount Prospect Bicycle Plan

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Presented by the Active Transportation Alliance and Sam Schwartz Engineering, October 10, 2011

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Approved by the Mount Prospect Village Board of Trustees: February 7, 2012

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S A M S C H W A R T Z  
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# Contents

|   |           |  |           |
|---|-----------|--|-----------|
| <b>Executive Summary</b>                          | <b>3</b>  | <b>6 Appendices</b>  | <b>51</b> |
| <b>1 Background and Introduction</b>              | <b>7</b>  | 6.1 Appendix A: Projected Energy Savings                   | 52        |
| 1.1 Introduction                                  | 8         | 6.2 Appendix B: Community Bicycle Network Maps             | 58        |
| 1.2 Why a Bike Plan for Mount Prospect            | 8         | 6.3 Appendix C: Funding Resources                          | 63        |
| 1.3 The Benefits of Bicycling                     | 8         | 6.4 Appendix D: Pedestrian and Bicycle Facilities Guidance | 64        |
| 1.4 Plan Methodology and Community Outreach       | 9         | 6.5 Appendix E: Sample Bicycle Parking Ordinance           | 65        |
| 1.5 Projected Energy Savings Analysis             | 12        | 6.6 Appendix F: Sample Distracted Driver Ordinance         | 66        |
| 1.6 Biking in Mount Prospect Today                | 13        | 6.7 Appendix G: Sample Complete Streets Policy             | 67        |
| 1.7 Existing Facilities                           | 14        | 6.8 Appendix H: Crash Map                                  | 68        |
| 1.8 Regional Context                              | 14        | 6.9 Appendix I: Bike Plan Task Force                       | 69        |
| <b>2 Bicycle Network</b>                          | <b>17</b> |  |           |
| 2.1 Bicycle Level of Service                      | 18        |  |           |
| 2.2 Glossary of Potential Treatments              | 20        |  |           |
| 2.3 Bike Network Recommendations                  | 21        |  |           |
| 2.3.A Phase I                                     | 23        |  |           |
| 2.3.B Phase II                                    | 27        |  |           |
| 2.3.C Phase III                                   | 29        |  |           |
| 2.4 Additional Bicycle Infrastructure             | 31        |  |           |
| <b>3 Bicycle-Friendly Policies and Ordinances</b> | <b>35</b> |  |           |
| 3.1 Timeframe                                     | 36        |  |           |
| 3.2 Bicycle-Friendly Ordinances                   | 37        |  |           |
| 3.3 Bicycle-Friendly Policies                     | 38        |  |           |
| <b>4 Programming</b>                              | <b>39</b> |  |           |
| 4.1 Education                                     | 40        |  |           |
| 4.2 Encouragement                                 | 42        |  |           |
| 4.3 Enforcement                                   | 44        |  |           |
| <b>5 Evaluation and Implementation</b>            | <b>45</b> |  |           |
| 5.1 Transportation Safety Commission              | 46        |  |           |
| 5.2 Collect and Analyze Cycling Data              | 46        |  |           |
| 5.3 Review Progress                               | 46        |  |           |
| 5.4 Commitment to Funding                         | 47        |  |           |
| 5.5 Become a Bicycle-Friendly Community           | 47        |  |           |
| 5.6 Project Schedule                              | 48        |  |           |

*Unless otherwise noted, all images courtesy of Active Transportation Alliance and Sam Schwartz Engineering*

# Executive Summary

## Executive Summary

The Mount Prospect Bicycle Plan establishes a vision for bicycling in the Village of Mount Prospect. To “shift gears” toward a more bicycle-friendly, more livable community, the plan sets forth an integrated set of recommendations regarding safety, education and encouragement programs, as well as bicycling-related infrastructure, including a comprehensive bikeway network.

A central goal in the development of the Mount Prospect Bicycle Plan was to actively involve members of the public, Village staff, and key stakeholders in all phases of the study. Key activities included a kick-off meeting with Village staff, a community bike ride, a public open house meeting, two focus group meetings, surveys, and the creation of a website and a Facebook site to distribute information and gather feedback used to guide the development of the plan.

### Vision

The vision for the Mount Prospect Bicycle Plan is to create a safe, comfortable and bicycle-friendly environment in Mount Prospect, which encourages people of all ages to use bicycles for everyday transportation and enjoyment.

### Primary Objectives

*The primary objectives of the Mount Prospect Bicycle Plan are:*

- To develop a comprehensive biking and walking network consisting of marked on-street bikeways, signed routes, and multi-use trails where possible;
- To develop a safety and education plan for the Village of Mount Prospect; and
- To understand the energy savings and greenhouse gas reductions of a fully implemented bicycle network

The Village of Mount Prospect partnered with consultants from Active Transportation Alliance and Sam Schwartz Engineering to produce the Bicycle Plan. The Plan is organized around four key strategies, which, when integrated, will help Mount Prospect achieve its primary objectives and realize its vision of a bicycle-friendly community.

*Those four key strategies are:*

1. Building the Bikeway Network and Amenities
2. Adopting Bicycle-Friendly Ordinances and Policies
3. Establishing Bicycle Education, Encouragement and Enforcement Programs
4. Committing to Evaluation and Implementation

## Recommendation Summary

The following recommendations are the “heart” of the Mount Prospect Bicycle Plan. They represent a reasonable and practical strategy to achieve a bicycle-friendly vision for Mount Prospect. The Bicycle Plan creates a toolbox of treatments and an evaluation of Mount Prospect streets. Many of the treatments will need to be studied in greater detail prior to implementation. The continued support and participation by the Village and all Mount Prospect residents and stakeholders will ensure that this vision can be achieved.

### 1. Bikeway Network

The bike network proposed in this plan provides door-to-door safe access to the key places in Mount Prospect. Highlights of the network include 30 miles of on and off street facilities, connections to neighboring communities, use of innovative design, and a bicycle information system.

### 2. Bicycle-Friendly Ordinances and Policies

Increasing use of the bicycle network requires the adoption and administering of ordinances and policies that facilitate safe use of these facilities. Amending policies and ordinances to support the construction of bicycle facilities, and increased on-road safety will encourage more people to use the bike network.

### 3. Programming to Support Biking

The plan provides guidance on the development of locally tailored programs. These programs promote biking through safe cycling and bicycle maintenance education initiatives, distribution of information and community events to encourage bicycling, and enforcement of safe cycling laws and rewarding positive behaviors.

### 4. Evaluation and Implementation

The planning process continues beyond adoption of this plan. It will require years of implementation and the dedication of key stakeholders. Involved and thoughtful residents are key to the implementation of the Mount Prospect Bicycle Plan. Funding from both the Village as well outside resources is needed to implement the recommendations, and additional outreach and data collection will show progress of the plan.



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## Executive Summary (Continued)

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### Implementing the Plan

The Mount Prospect Bicycle Plan encompasses an ambitious but achievable set of strategies to encourage more people in Mount Prospect to bike more often. Central to implementing the plan is the need for an on-going Village commitment to fund programs and infrastructure improvements. Implementation of the plan will require coordination between various Village departments and other agencies. Recommendations from the Bicycle Plan will be implemented with strong consideration for previously adopted policies and procedures of the Village, including the Neighborhood Traffic Calming Program. Finally, ongoing monitoring and evaluation of the progress toward implementing the recommended programs and improvements will be a key to the overall success of the plan.

Implementation of the plan will, in time, see Mount Prospect's streets, greenways and parks become more bicycle-friendly. The existing and proposed bikeway network will allow all Mount Prospect residents convenient access to a safe and comfortable bikeway system. Measures will be implemented to assist cyclists in crossing physical barriers such as busy roads and railroad tracks.

Mount Prospect will be recognized as a community where many people can combine biking and transit on their commute to and from work, and where safe and secure bicycle parking is available throughout the community. It will be a community that is more livable for its residents, and one that respects and promotes the environmental, social and economic benefits that cycling can offer. It will be a leader in promoting the use of the bicycle, and also delivering traffic safety and education programs to both motorists and cyclists of all ages. Mount Prospect will be a community where cyclists and motorists are more respectful of each other.

This plan is a vision for the future of bicycling in Mount Prospect and recommendations will be considered with regard for the safety of all roadway users and available funding.





# Background and Introduction

|   |    |
|---|----|
| 1.1 Introduction                            | 8  |
| 1.2 Why a Bike Plan for Mount Prospect      | 8  |
| 1.3 The Benefits of Bicycling               | 8  |
| 1.4 Plan Methodology and Community Outreach | 9  |
| 1.5 Projected Energy Savings Analysis       | 12 |
| 1.6 Biking in Mount Prospect Today          | 13 |
| 1.7 Existing Facilities                     | 14 |
| 1.8 Regional Context                        | 14 |

# 1

## 1.1 Introduction

The Village of Mount Prospect prides itself on a high quality of life grounded in safe neighborhoods, excellent schools, independently-owned businesses, tree-lined streets and service-oriented government led by community involvement. Situated along the Union Pacific/Northwest Metra Line and near the Des Plaines River Trail and Busse Woods Forest Preserve, Mount Prospect is well positioned to become a more bicycle friendly community.

The Mount Prospect Bicycle Plan, funded by the U.S. Department of Energy, Energy Efficiency Conservation Block Grant Program (EECBG), lays out a systematic way to support bicycling in the community. A dedicated group of appointed officials, public employees, and interested stakeholders have helped to shape this plan.

Putting in place infrastructure improvements and implementing policies and programs to encourage Mount Prospect residents to bicycle more often, especially for utilitarian trips, will improve the health and livability of the community. The Mount Prospect Bicycle Plan is comprised of four implementation tracts that, when employed in concert, will establish a physical and cultural environment that supports and encourages safe and comfortable travel throughout the city and into surrounding communities.

It is anticipated that the changes to the physical and cultural environment will result in greater numbers of Mount Prospect residents choosing bicycling as their preferred mode of transportation for many local trips. This choice will lead to healthier lifestyles, improved air and water quality, and a more energy efficient transportation system.

The chart below illustrates the four implementation tracks in the plan. Each track may move forward independently as resources allow. However, it is the integration and implementation of all four tracts that will result in Mount Prospect being recognized as a bicycle-friendly community.

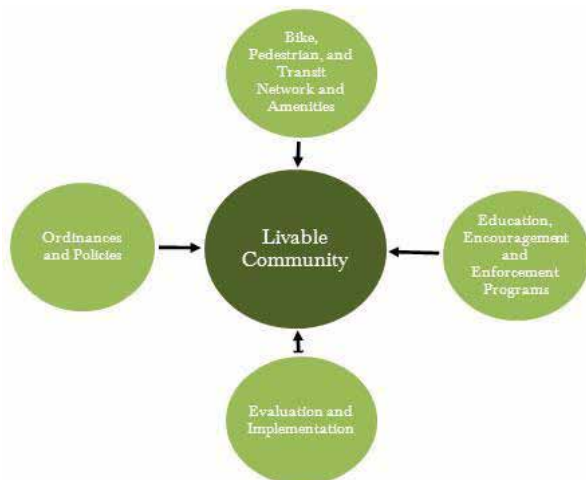


Figure 1

## 1.2 Why a Bike Plan for Mount Prospect

### 1.2 Why a Bike Plan for Mount Prospect?

Mount Prospect, like many other communities, is looking for ways to be more economically and environmentally sustainable and more socially vibrant. While the quality of schools, suburban values, and cost of living attract individuals and families to Mount Prospect, people's life choices are increasingly influenced by wellness, sustainability and mobility considerations. Many Mount Prospect residents already choose to use a bicycle to get to work or school, to run errands and for recreation purposes, and the number is growing<sup>1</sup>. With good proximity to county forest preserves and regional trails, Metra commuter rail service, and a growing cycling base, Mount Prospect is poised to benefit from an improved bicycling network.

This plan intends to chart a course for developing a safe and relevant bike network for Mount Prospect that will allow residents of all ages to feel comfortable getting around by bike throughout the community.

*The objectives of the Mount Prospect Bicycle Plan are:*

- To develop a comprehensive biking and walking network consisting of marked on-street bikeways, signed routes, and multi-use trails where possible;
- To develop a safety and education plan for the Village of Mount Prospect; and
- To understand the energy savings and greenhouse gas reductions of a fully implemented bicycle network

## 1.3 The Benefits of Bicycling

Using the bicycle to move about Mount Prospect is an increasingly popular mode of transportation, due in part because of the many benefits cycling offers.

*These benefits include the following:*

### Mobility

Costs related to transportation are a household's highest expense after housing costs<sup>2</sup>. Improving accommodations in Mount Prospect for bicyclists will make it easier for people to get around without a car, particularly for shorter distance trips. This may allow some families to reduce the number of vehicle miles traveled by members of their household and the number of cars that they own.

1 Source: Carfree Census Database. Accessed: <http://www.bikesatwork.com/carfree/carfree-census-database.html>

2 Source: Consumer Price Index for Chicago Metropolitan Statistical Area. Accessed: <http://www.bls.gov/cex/2009/msas/midwest.pdf>

## 1.3 The Benefits of Bicycling

### Economy

Bicyclists are also consumers. Making Mount Prospect more bicycle friendly will encourage cyclists to frequent local businesses, whether they are downtown or at large shopping centers. Bicycle-friendly accommodations increase cyclists' access to businesses. Providing bicycle-friendly infrastructure improvements will encourage more residents to travel by bike to purchase goods and services at local shops, rather than travelling by car to spend money in another town.

### Health

Sedentary lifestyles contribute to record levels of obesity and health issues, including heart disease, stroke, diabetes, and other weight-related problems. Active living is a solution. Traveling by bike, whether for commuting or recreational purposes, is an inexpensive and convenient way to integrate healthy, physical activity into everyday life.

### Environment

Improving bicycle infrastructure and encouraging more bicycling activity has the potential to reduce the number of vehicle trips and vehicle miles travelled in Mount Prospect. Fewer cars on the road means less traffic congestion, reduced vehicle exhaust emissions, cleaner air, and a reduced reliance on finite energy resources.



Figure 2: Mount Prospect Family Bike Ride, August 2010

## 1.4 Plan Methodology and Community Outreach

### 1.4 Plan Methodology and Community Outreach

The project team has worked closely with Village staff, key stakeholders and more than 100 residents to learn about the community and to get a local perspective on biking in Mount Prospect. The following is a summary of the outreach activities that have occurred. These activities and the feedback received are the key drivers behind the recommendations contained in this plan.

#### 1.4.A Kickoff Meeting with Task Force

The work to create the Mount Prospect Bicycle Plan officially kicked off on August 13, 2010 at a meeting with Village staff. The Mount Prospect team, which included staff from the Village manager's office, and the Community Development, Public Works, and Police Departments, met with representatives from Active Transportation Alliance and Sam Schwartz Engineering to discuss the process and expectations for the bike plan.

#### 1.4.B Family Bike Ride

The project team staff attended the Mount Prospect Family Bike Ride hosted by the Mount Prospect Police Department on August 28, 2010. The project team advertised an upcoming open house and rode around the community getting to know the people and the streets of Mount Prospect.

#### 1.4.C Community Open House

A community open house was held on October 6, 2010. The open house was a key activity in the process to develop the bike plan. Participants were able to express their opinions regarding the opportunities and challenges to developing an improved bike network in Mount Prospect. They were the "local experts" who knew their own streets quite well, knew which intersections are challenging to cross, which streets are most difficult to bike on now, and which destinations they most want to travel to by bike.



Figure 3: Community Open House, October 2010

## 1.4 Plan Methodology and Community Outreach (Continued)

Approximately 25 residents attended the community open house. The project team members explained the history and purpose of the project, and the bike planning process.

*Attendees broke into groups and participated in a mapping exercise where they were asked the following questions:*

- Where do you bike now?
- Where do you wish you could bike?
- What would encourage you and your neighbors to bike more often?
- What would make you feel safer when biking?

Participants at the open house were asked to comment on safety and encouragement programs, and infrastructure improvements that would enhance their biking experience in Mount Prospect. The following lists summarize the programming and bike amenities they would like to see in their community. These suggestions were used to recommend a series of education, encouragement and enforcement programs, and infrastructure improvements to promote biking in Mount Prospect.

### *Education, Encouragement and Enforcement*

- Bike safety education through the schools
- Bike special events such as community rides
- Parent support for kids walking and biking to school
- More available/accessible information about biking in the community
- Shower facilities at workplaces
- Increase train station parking costs to encourage biking to Metra
- Additional bike racks at all destinations and Metra stops
- Enforcement of traffic laws for cyclists and drivers

### *Infrastructure*

- Bike route signs
- Improved connections to existing regional bike paths
- More water stations/fountains on trails
- Designated bike lanes
- Bikes allowed on Metra at all times
- Re-stripe crosswalks
- Improve crossings for bicycles on major arterial streets

### 1.4.D Additional Outreach Activities

#### **Community Connections Center**

On November 2, 2010 the project team visited the Community Connections Center to talk about biking with residents on the south side of the Mount Prospect. Some residents talked about bicycles as their main mode of transportation and they commented that safety was their primary concern. Residents expressed a desire to feel safe and not at risk while commuting by bike. Six residents at the Community Connections Center responded to a survey about their biking preferences, including where they bike, where they would like to bike, and what would encourage them to bike more often.

*The following is a summary of responses received from respondents at the Community Connections Center:*

- Half of all respondents biked daily or weekly.
- All respondents considered themselves intermediate or advanced cyclists.
- Busse and Algonquin Roads were the most common places for these respondents to bike.
- Enforcement of rules of the road, improved intersections and crossings, and separated bike lanes were equally popular requests among respondents.
- On-street bike lanes were the most requested infrastructure to encourage biking.
- Incentives for commuting by bike and easier access to information were the most popular ways to encourage respondents to ride more.

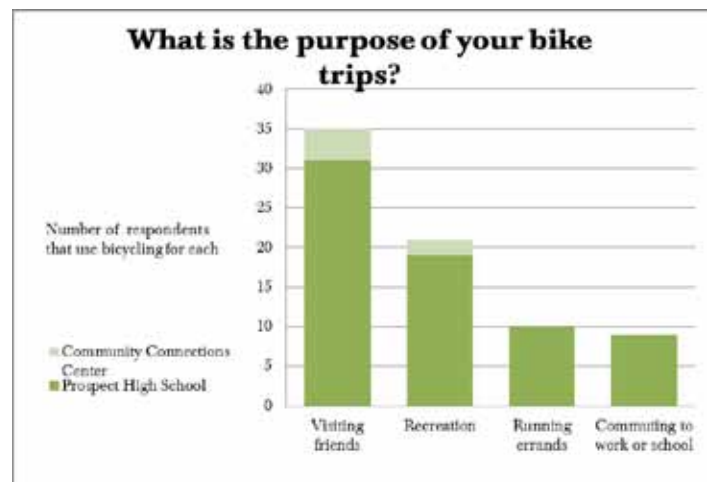


Figure 4: People in Mount Prospect bicycle for transportation and recreation.



## 1.4 Plan Methodology and Community Outreach (Continued)

### Prospect High School Students and Staff

On November 4, 2010, the project team visited Prospect High School to talk to students, faculty and staff about biking to the school and around the community. The project team set up a table in the student lounge during the lunch periods to talk with students. A total of 44 students and 2 faculty, responded to a survey about their biking preferences, including where they bike, where they would like to bike, and what would encourage them to bike more often.

*The following is a summary of responses received from Prospect High School students and faculty:*

- More than half of all respondents bike daily or weekly.
- Nearly all (43 out of 46) respondents considered themselves intermediate or advanced cyclists.
- The most popular streets to bike on are residential streets, Northwest Highway, Elmhurst Road/Route 83/Main Street, Kensington Road, Central Road, and Arlington Heights Road.
- Kensington Road, Elmhurst Road/Route 83/Main St, and Golf Road are the top streets respondents wish they could bike on.
- More than 2/3 of respondents use their bike to visit friends, but less than 1/4 bike to work or school.
- Building separated bike lanes was seen as the infrastructure improvement that would improve safety and encourage the most people to bike more.
- Rules of the road education for drivers was the most demanded educational opportunity by respondents.
- An incentive for biking was the most requested encouragement technique, followed closely by signed bike routes and special events for biking.

Both groups said that bike lanes, like those found on the streets of Chicago or a dedicated bicycle facility, like the separated cycle tracks used in New York or Portland, would make them feel much safer.

### 1.4.E Existing Conditions Report and Field Work

The project team compiled an existing conditions report summarizing their outreach, research and findings about the bicycle network in Mount Prospect. The report was shared with Village staff, and report findings were used to write this plan.

As part of the existing conditions report, the project team completed a field survey of the majority of streets in Mount Prospect. Data collected included roadway widths, speed limits,

condition of pavement, and the bikeability of each roadway. The data was used to evaluate the comfort level for biking on the streets surveyed and to recommend bicycle accommodations to improve the comfort level for biking on some streets.



Figure 5: People in Mount Prospect would like to see safety improvements to their bike network.

### 1.4.F Community Bike Ride

The project team held a bike ride on August 23, 2011 to introduce residents and elected officials to the recommendations contained in this plan. Approximately 25 people attended the ride and discussed future bicycling improvements.



Figure 6: Mount Prospect residents discuss bicycling in their community and proposed changes.

## 1.5 Projected Energy Savings Analysis

### 1.5 Projected Energy Savings Analysis

One of the many positive benefits of commuting by bicycle is the energy savings and environmental impact of shifting trips from car to bicycle. In the last two decades, an ever increasing number of people are choosing the bicycle as a mode of transportation. A combination of additional infrastructure, educational, encouragement and safety factors have contributed to this increase. As additional facilities for bicycling are built, bicycle usage is likely to continue increasing.

Funding for the Mount Prospect Bike Plan was obtained through the United States Department of Energy's Energy Efficiency Conservation Block Grant Program (EECBG). The primary objective of this funding source is to document energy savings and environmental benefits that might be achieved with the implementation of this plan.

One way to quantify the value of bicycling and its benefits for the community is by looking at the projected reduction in Vehicle Miles Traveled (VMT) as residents substitute trips taken by car for trips taken by bicycle. For each vehicle mile not traveled, there is a resulting energy savings.

Currently available US Census transportation data estimates show that 0.53% of trips in Mount Prospect are taken on a bicycle. This portion of trips taken by a particular mode of travel is called mode share. Based on these existing conditions and the proposed changes to Mount Prospect's bicycle network, 2% is the goal for bicycle mode share, an increase of 1.47%. At the time of complete build-out of this bicycle plan, a total of 13,324 miles per day will be saved, resulting in 656 gallons of gas and 117,096 fewer kilograms of greenhouse gases emitted due to this reduction in VMT.

*For a complete report on the Projected Energy Savings Analysis, see Appendix F.*

| Daily Energy Savings        |   |                     |                           |  |
|-----------------------------|---|---------------------|---------------------------|--|
| Bicycle Mode Share          | Reduction in Vehicle Miles Traveled (VMT) | Gas Saved (Gallons) | CO2 Reduction (Kilograms) | Other Greenhouse Gases Reduction (Kilograms) |
| Existing Conditions         | 0.53%                                     | 139                 | 7                         | 60   |
| Phase I Complete            | 1%  | 360                 | 18                        | 156  |
| Phase I & II Complete       | 1.50%                                     | 5,393               | 266                       | 2,338  |
| Phase I, II, & III Complete | 2%  | 13,324              | 656                       | 5,776  |

Figure 7: Daily energy savings from bicycling.

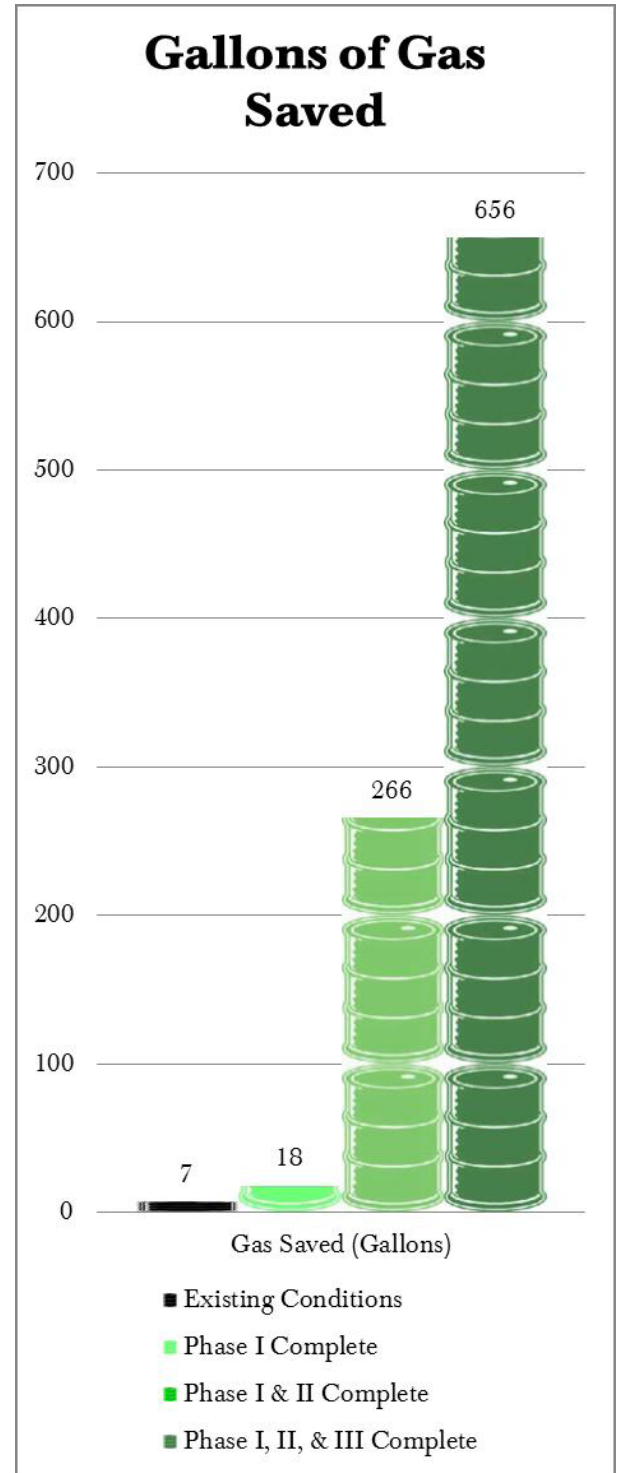


Figure 8: Gallons of gas saved every day by bicycling instead of driving.

## 1.6 Biking in Mount Prospect Today

### 1.6 Biking in Mount Prospect Today

Biking is an increasingly popular form of transportation and recreation for the people of Mount Prospect. On a typical day, bikes can be found parked in front of the Metra station, the public library, and schools throughout the Village. Children are often seen riding to their friends' houses, adults use bikes to commute, run errands and meet up with friends. There are organizations, businesses and programs that support and encourage both adults and children to bike in Mount Prospect. These include:

#### 1.6.A Mt. Prospect Bike Club

The Mt. Prospect Bike Club is a group of residents from Mount Prospect and nearby suburbs that ride together in the spring, summer and fall. They offer two group rides per week: one on Thursday nights and one on a weekend morning. Rides start at Lion's Park in Mount Prospect or at Frontier Park in Arlington Heights. Club members range from novice to experienced and many participate in invitational rides sponsored by other bike clubs throughout the Midwest. The club does not host any competitive rides, but does participate in community events and regularly offers safety and maintenance tips to its members.

There are also bike clubs that meet in neighboring communities, including the Wheeling Wheelmen in Wheeling and the Arlington Heights Bicycle Club in Arlington Heights.



Figure 9: Bike Route Sign on Emerson Street in Mount Prospect

#### 1.6.B Bike Shops

The Village is currently home to one full-service bike shop, Prospect Bikes and Trains. This bike shop has been a fixture in the community since 1959. Bicycles can be purchased from other retailers in the community such as Sports Authority, Wal-Mart, Costco, and other stores.

There are also full-service bike shops in the nearby communities of Arlington Heights and Elk Grove Village. These shops offer maintenance and repair classes, sponsor competitive racing teams and provide bicycle sales and service.

#### 1.6.C Safe Routes to School

Safe Routes to School (SRTS) is a federal funding program administered by the Illinois Department of Transportation to encourage children in grades K-8 to walk or bike to school. The Village of Mount Prospect has partnered with school districts to successfully apply for funding from the SRTS Program. The funds have been used to educate parents and students regarding the many benefits of biking or walking to school, to encourage such activities, to build infrastructure to accommodate safe biking and walking routes to schools, and to enforce rules of the road in school zones.

To date, there have been calls for Safe Routes to School projects in 2007, 2008 and 2010. In 2007 the Village partnered with Community Consolidated School District #59 to construct sidewalks, create a crossing guard program, establish a student/parent patrol program, and teach safety skills to both students and parents. In 2008, the Village partnered with River Trails School District #26 to start parent-led walk to school groups at Euclid Elementary, Indian Grove Elementary, and River Trails Middle School. The Village did not apply for Safe Routes to School funding in 2010. The next call for funding applications will be in the Fall of 2012.

#### 1.6.D Other School Initiatives

##### International Walk to School Day

In addition to Safe Routes to School programs, Mount Prospect's Lions Park Elementary School participated in the 2009 and 2010 International Walk to School Day events. This event is part of a global day when all children and families are encouraged to celebrate walking to school.

##### School Service Areas, Neighborhood School Model or Grade Center School Model

River Trails School District #26 and Prospect Heights District #23 have considered switching from community-centered schools to a grade center school model where each school building will host a limited number of grades. The grade center model has the potential to save school districts money on staffing by consolidating resources. However, grade center elementary schools may discourage parents with more than one child from choosing walking or biking because the parent may be able to walk with one child, but has to drop another child off because the school is too far away.

District #26 has chosen to maintain its neighborhood elementary schools. District #23 will change to a grade center model for its schools beginning in Fall 2011.



## 1.7 Existing Facilities

### 1.7 Existing Facilities

#### 1.7.A Existing Routes

A number of residential streets in Mount Prospect already have signs marking them as preferred bike routes. These designated streets were signed 15-20 years ago and provide more than 15 miles of on street bike routes and 5 miles of off street paths. The on-street routes are primarily on residential roadways.

#### 1.7.B Bike Parking

Both downtown Mount Prospect and the Mount Prospect Metra station have bicycle parking. During warmer months of the year, bike parking is often full at the Metra station and commuters lock their bikes to fences, light poles and signs. The majority of bike racks near the Metra station are located on the south side of the tracks, with fewer bike racks located on the north side of the tracks. None of the Metra bike parking is covered.



Figure 10: Crowded bike racks at the Mount Prospect Metra Station

Downtown Mount Prospect has a limited number of bike racks. Most racks are located at street intersections, in front of municipal buildings, and inside the municipal parking garage. Few, if any, of the retail centers outside the downtown area offer bike parking.

#### 1.7.C Bikes on Metra

Metra only allows bicycles on its trains during off-peak hours and on weekends. A maximum of 20 bikes are allowed on the train at any time and bikes must be secured in designated bicycle areas. Mount Prospect residents that commute inbound, toward Chicago, in the morning and people who work in Mount Prospect coming into the community from communities farther northwest are not permitted to take bikes on the train, unless they are folding bikes. Metra commuters affected by these rules sometimes maintain bikes on both ends of their journey. However, for many people the “first and last miles” of a journey to work prevent them from choosing the bike-train alternative for their commute.



Figure 11: Bicycles are allowed on Metra only during off-peak commute times

#### 1.7.D Existing Trails

Mount Prospect has several local trails serving the community. The Commonwealth Edison Trail, the Kensington Business Center Trail, the Melas Park Trail and the Clearwater Park Trail provide for recreational rides within the community. The Prospect Heights Bike Trail on the north side of Mount Prospect connects to Prospect Heights and Wheeling. The two closest regional trails are located in the Busse Woods Forest Preserve to the southwest and in the Des Plaines River Forest Preserve to the east. Both of these trails are difficult to access by bike from Mount Prospect because residents must ride on or cross one or more arterial roadways to access these trails.

## 1.8 Regional Context

#### 1.8.A Connecting to Neighboring Communities

In order to build a connected bicycle network throughout the Northwest Suburbs, existing and planned routes connecting Mount Prospect to neighboring communities must also be considered. The following is a summary of the bike planning completed in nearby communities. Bicycle maps for each neighboring community are available in the Appendix B.

##### Arlington Heights

Arlington Heights adopted a bicycle plan in 1996, and updated their map in 2009. The most recent map shows connections to Mount Prospect via Grove Street and Gregory Street connecting to Prospect High School, along Northwest Highway, along Davis Street through Melas Park, at Lincoln Street, and a planned connection at Falcon Drive.

##### Des Plaines

Des Plaines has a bike map that was updated in 2010 that highlights existing and proposed bike routes in the community. The map identifies Wolf Road, Central Road, Northwest Highway, and Golf Road as planned bicycle routes connecting Des Plaines and Mount Prospect. The Commonwealth Edison Right of Way Path also connects Des Plaines and Mount Prospect. The City of Des Plaines received a federal grant to update their bicycle and pedestrian plan, and work began in March 2011.

##### Elk Grove Village

Elk Grove Village has a bike map for their community illustrating existing routes as of January 2011. It does not identify any existing connections to Mount Prospect. However, older maps identified a connection on the south side of I-90 also in the Commonwealth Edison Right of Way.



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## 1.8 Regional Context (Continued)

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### **Glenview**

Glenview released a village bike map in January 2011. It includes routes that are existing, programmed in their budget, and planned. Glenview plans to improve the Lake Street/Euclid Avenue corridor to include a bicycle facility. This corridor provides an east-west connection to Mount Prospect.

### **Prospect Heights**

Prospect Heights has not completed any bike plans or maps. The Prospect Heights Bike Path connects to Mount Prospect with access points just west of the Euclid Avenue/Wolf Road and Camp McDonald Road/Wolf Road intersections.

## 1.8.B Regional Plans

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### **Northwest Municipal Conference Bike Plan**

The Northwest Municipal Conference (NWMC) adopted a Regional Bike Plan in December 2010. The plan was developed with input from member communities in the NWMC. The Bike Plan identifies 16 corridors of regional significance that connect communities and destinations. Member communities have agreed that these corridors are the highest priority for improving with bicycle infrastructure. Three of the corridors (Northwest Highway, Algonquin/Glenview/Central Roads, and Golf Road) and one alternative alignment (Howard/Sibley alignment via the ComEd ROW, Linneman Road, and Willow Road) extend through Mount Prospect. The map (Figure 12) identifies these regional corridors, as well as existing, planned and programmed local bike networks in Mount Prospect and its neighboring communities.

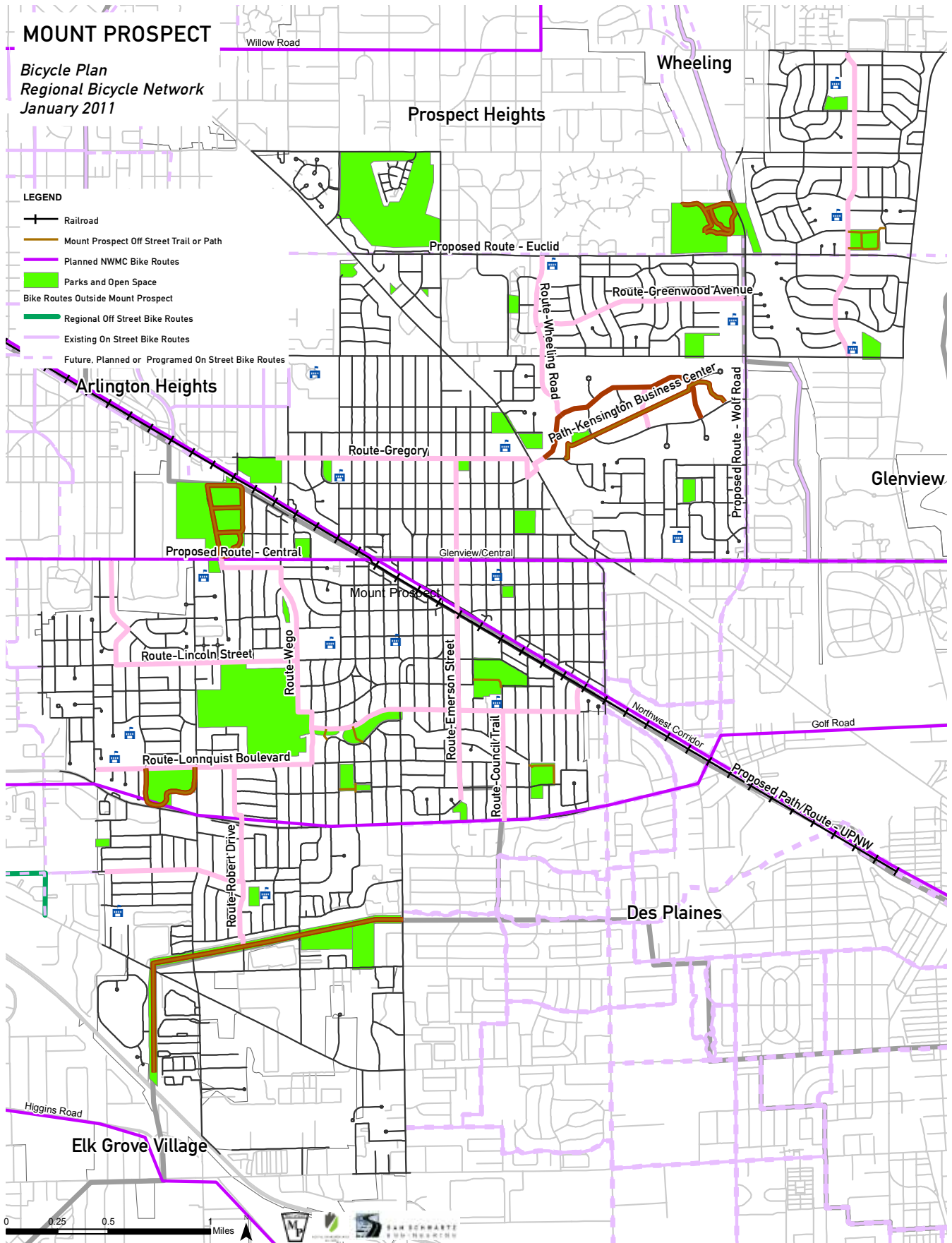


Figure 12: Regional Bicycle Network

# Bicycle Network

|                                       |    |
|---------------------------------------|----|
| 2.1 Bicycle Level of Service          | 18 |
| 2.2 Glossary of Potential Treatments  | 20 |
| 2.3 Bike Network Recommendations      | 21 |
| 2.3.A Phase I                         | 23 |
| 2.3.B Phase II                        | 27 |
| 2.3.C Phase III                       | 29 |
| 2.4 Additional Bicycle Infrastructure | 31 |

# 2

## 2.1 Bicycle Level of Service

Mount Prospect's bike network starts at the front door of each home and business. The primary purpose of the network is similar to any other transportation system; connect people to destinations, such as transit, schools, parks, retail, and employment. However, unlike a roadway network, a bike network can't simply be laid out based on the most direct path or designed for a single user type. It must be designed to provide safe routes that encourage as much bicycle activity as possible for all ages, not just expert riders. This section of the study details the development of the Mount Prospect Bike Network.

### 2.1 Bicycle Level of Service

The most common way to quantify the suitability of any roadway for biking is to utilize Bicycle Level of Service (BLOS). BLOS is a methodology developed by the Transportation Research Board to measure how comfortable a roadway is for bicyclists. *BLOS considers the following variables to assess the bicycle friendliness of a roadway, including:*

- Through-lanes per direction
- The width of the curb traffic lane
- Presence of paved shoulder, bike lane, or marked parking area
- Bi-directional traffic volume
- Posted speed limit (mph)
- Percentage of heavy vehicles
- Pavement condition rating
- Percentage of road segment with occupied on-street parking
- On-street parking time limit

The evaluation for each roadway provides a numerical result which is then assigned a letter grade, either A, B, C, D, E, or F.

*A brief discussion of what each letter grade means is provided below.*

**LOS A** – Roadways with a BLOS A are typically considered very bikeable because they have slow speed limits, low volume of traffic, and provide space for bicyclists. These are typically neighborhood streets.

**LOS B** – Roadways with a BLOS B are still very appealing to all bicyclists but there is typically more vehicular traffic on these roadways. These are typically residential roadways and local collectors.

**LOS C** – Roadways with a BLOS C may not be used by all bicyclists. There may be more vehicular traffic on these roadways and there may be issues with the surface conditions of the roadway. These are typically collector roadways.

**LOS D** – Roadways with a BLOS D are typically only used by experienced riders. They have higher speeds, higher vehicular volumes which discourages bicycling activity. These roadways occasionally do have small shoulders to provide bicyclists some buffer from vehicles. These are typically minor arterial roadways.

**LOS E** – Roadways with a BLOS E typically have minimal bicycling activity. They have high speeds, high vehicular volumes, and a lack of space for bicyclists. These are typically arterial roadways.

**LOS F** – Roadways with a BLOS F are typically major arterial roadways that are dangerous for bicyclists. They have high speeds, very high vehicular volumes, and do not provide any space for bicyclists. These are typically regional arterial roadways.

A poor LOS (D,E,F) does not mean that bicycling should be prohibited on the roadway. It just means that most bicyclists will choose not to ride on that route and improvements are necessary to make the roadway friendlier to most bicyclists.

The project team worked with the Village to determine which roadways were analyzed as part of the BLOS analysis. The roadways selected include the proposed bike network and the arterial roadways that run through the Village. Figure 13: Bicycle Level of Service displays the results of the BLOS analysis for the streets that were chosen to be analyzed. In general, the residential streets generally have good levels of service (A, B, or C) and the arterials have poor levels of service (D, E, or F).



## 2.1 Bicycle Level of Service

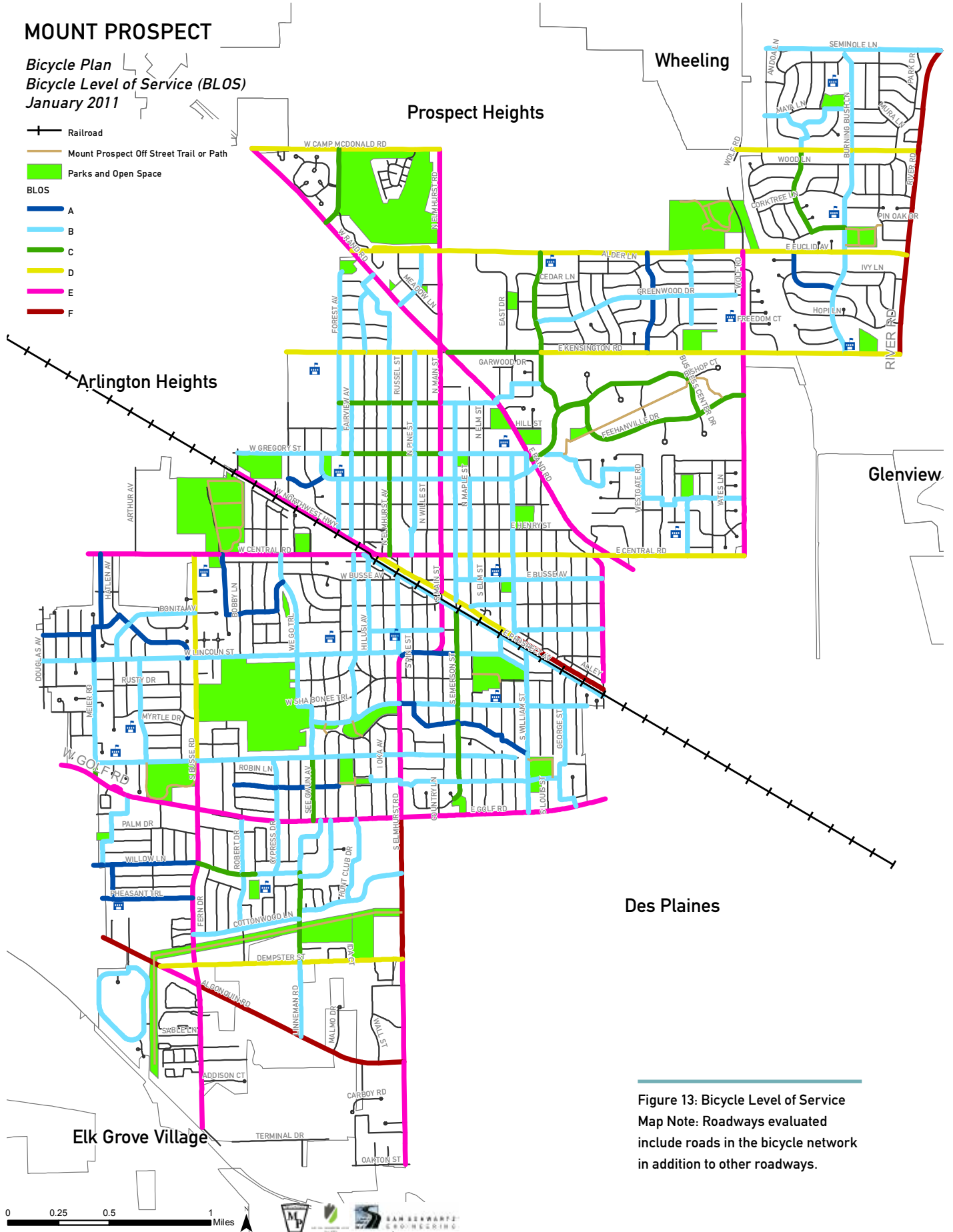


Figure 13: Bicycle Level of Service  
Map Note: Roadways evaluated include roads in the bicycle network in addition to other roadways.

## 2.2 Glossary of Potential Treatments

### 2.2 Glossary of Potential Treatments

The existing bicycling infrastructure in Mount Prospect includes signed routes and off-street shared trails. In order to create a complete bike network in the Village, there will be a need to implement additional infrastructure and consider new concepts. This section introduces some of the infrastructure and concepts that will be discussed in the recommendations section of the bike network.

#### 2.2.A Signed Route

A signed route is a bicycle route that is identified by appropriate bicycle signage. Route signage can be placed on multi-use paths, shared roadways, or roadways that are suggested for bicycling. Signed routes often link disconnected bicycle paths or lanes, connect to areas of high bicycle demand, or present the bicyclist with a safer path option. Best practices dictate that the bicycle signage have destinations posted on the signs to give bicyclists a reason to use the route<sup>1</sup>, and that there must be clear advantage to using the signed bicycle route, such as biking along streets with lower automobile traffic<sup>2</sup>. Distance to the destination and a directional arrow further guides cyclists along a designated route and to their destination.



Figure 14: Example of a bike route sign

#### 2.2.B Bicycle Boulevard

A bicycle boulevard is a shared roadway that has been designed for lower traffic speed and volumes in order to provide for more comfortable bicycling conditions. This is often achieved by traffic calming, signage, pavement markings, and bicycle-friendly intersection design. These measures not only make bicycling more inviting, but they also discourage non-local trips by motor vehicles, though motor vehicles still have access to bicycle boulevards<sup>3</sup>. This type of treatment is appropriate for cyclists of all ages, especially those who are uncomfortable riding near automobile traffic.

1 Source: <http://www.bicyclinginfo.org/engineering/facilities-roadways.cfm>

2 Source: [http://www.sccrtc.org/bikes/AASHTO\\_1999\\_BikeBook.pdf](http://www.sccrtc.org/bikes/AASHTO_1999_BikeBook.pdf)

3 Source: <http://www.ibpi.usp.pdx.edu/media/BicycleBoulevardGuidebook.pdf> (also picture)



Figure 15: Example of a bicycle boulevard<sup>3</sup>

#### 2.2.C Bike Lane

A bike lane is a section of the roadway that has been striped, marked, or denoted by a different color pavement in order to provide exclusive space for bicyclists. A bike lane requires a width of four feet on roadways with no curb or gutter and a width of five feet when adjacent to on-street parking. Furthermore, bike lanes should be on the right side of the road, carrying bicyclists in the same direction as the adjacent travel lane<sup>4</sup>.



Figure 16: Example of a bike lane

4 Source: <http://www.bicyclinginfo.org/engineering/facilities-bikelanes.cfm>

## 2.2 Glossary of Potential Treatments

### 2.2.D Marked Shared Lane

A marked shared lane is a roadway that carries both vehicular and bicycle traffic, with no exclusive space for either. However, marked shared lanes encourage bicyclists to bike on the right side of the roadway, often through the use of shared lane markings (sharrows). Shared lane markings are generally only appropriate for lower-speed and lower-volume streets<sup>5</sup>.



Figure 17: Example of a marked shared lane<sup>5</sup>

### 2.2.E Road Diet

A road diet is a design approach that alters roadways by removing a travel lane or reducing a travel lane's width. This is done to create more space for pedestrians and bicyclists, slow traffic, and improve safety. Space from motor vehicle travel lanes is often converted to bike lanes when road diets are implemented. Road diets are particularly appropriate for four-lane roads that do not carry the traffic volume to warrant four lanes, and a conversion to three or two lanes would allow for improved bicycle and pedestrian facilities<sup>6</sup>.



Figure 18: Example of a road diet<sup>7</sup>

<sup>5</sup> Source: <http://bike-pgh.org/campaigns/bicycle-advocacy/shared-lane-markings/> (also picture)

<sup>6</sup> Source: <http://www.bicyclinginfo.org/faqs/answer.cfm?id=3479>

<sup>7</sup> Source: <http://publicola.com/wp-content/uploads/2010/05/StoneWaybeforeafterFINAL1.pdf>

## 2.3 Bike Network Recommendations

### 2.3 Bike Network Recommendations

Mount Prospect's residential street network displays a number of characteristics that are conducive to a good bicycle network. The residential streets have low traffic volumes and slow speeds, which encourage people to ride on-street. The grid system provides direct connectivity, as opposed to many suburbs which are broken up by cul-de-sacs. Many of the Village's parks and schools are located on these residential streets, making it easy for people living in the neighborhood to bike to these popular destinations. All of these aspects provide a strong foundation to build a Village bike network.

However, there are also a number of challenges to building a complete bike network using residential streets in Mount Prospect. The arterial roadways that run through the Village are not only difficult to ride on, which was made apparent by our observations and the level of service analysis, but they can also be difficult for bicyclists to cross without a protected crossing. Many of these arterials do not have the necessary right-of-way to construct off-street paths. And although most of the residential streets have operating characteristics that are friendly to bicyclists, they are typically not wide enough to provide dedicated on- or off-street facilities.

*The development of Mount Prospect's bike network was built upon a number of principles. These include:*

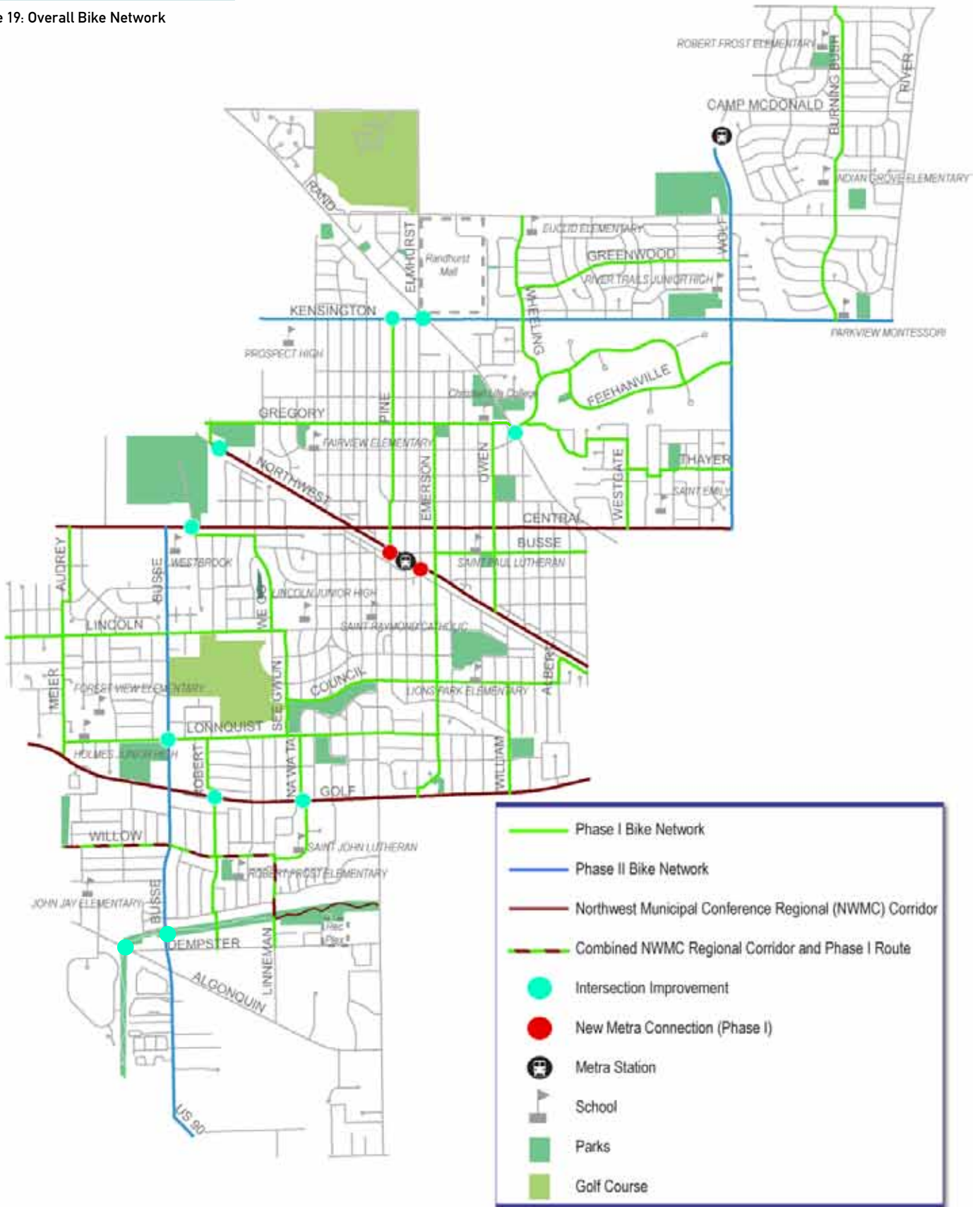
- Use of existing bike routes when possible
- Prioritize connections to schools and parks
- Cross arterial roadways at signalized intersections
- Incorporate the input from the public open house and resident surveys
- Use the results from the BLOS Analysis
- Provide local and regional connections

The project team also recognized that implementing the bike network is not going to occur overnight. A number of the recommendations will take longer to receive approval and funding. But the success of this plan cannot solely hinge on these recommendations; there also must be recommendations to implement in the next few years. The Bicycle Plan provides the Village with a toolbox of treatments throughout town that will build a complete bicycle network.

The project team developed two phases of implementation for the Bike Network. The Phase I Bike Network includes improvements that can be completed in the near term, while the Phase II Bike Network includes intermediate and long-term projects. A Phase III Bike Network was also identified to include potential regional connections along arterials roadways.

## 2.3 Bike Network Recommendations (Continued)

Figure 19: Overall Bike Network





## 2.3 Bike Network Recommendations (Continued)

### 2.3.A Phase I Bike Network

Phase I of the Mount Prospect Bike Network is intended to connect the primary destinations in the Village utilizing residential streets and be implemented in the immediate term. These recommendations can be completed quickly due to the lower costs and minimal coordination with outside agencies.

For the overall bike network, bike signage is recommended to give riders information on distance, destination, and direction. All of the treatment recommendations are in addition to the signage. Additional discussion on signage is provided in the next section of the study.

*The description of each treatment is listed below. Figure 23 displays the Phase I Bike Network treatments in map form.*



Figure 20: Example of striped parking and sharrow in travel lane

#### 2.3.A.1 Striping Parking/Shared Lane Markings

While parking is provided on most wide collector streets, it was rarely observed being used during any time of the day, mainly because most of the single family homes also have driveways. Because of the lack of on-street parking demand, most bicycling activity was observed in the area allocated for parking. For residential streets with a width of at least 35', it is recommended that the on-street parking be striped. This will provide a dedicated travel lane for cars and allow bicyclists to use the protected parking lane when available. Shared lane markings (sharrows) could also be striped on the travel lanes to alert drivers to the presence of bicyclists and to share the road, as well as serve as a wayfinding system for the network.

*This treatment is recommended for further evaluation in the following locations:*

- Lincoln Street, between Douglas Avenue and See Gwun Avenue
- Lonnquist Boulevard, between Meier Road and Elmhurst Road
- Meier Road, Golf Road to Connie Lane

#### 2.3.A.2 Signed Bike Routes

A number of the residential streets provide on-street parking on both sides, but have a width under 35'. If the on-street parking was striped on these streets, the travel lanes would be less than 10' which is not sufficient for a two-way, shared use roadway. These streets are still very comfortable for bicyclists and are recommended as part of the bike network. Signage may be installed on these streets to alert drivers of the presence of bicyclists and to share the road, as well as make bicyclists aware that these streets are suggested for riding.

## 2.3 Bike Network Recommendations (Continued)

*This treatment is recommended for the following locations:*

- Albert Street, between Prospect Avenue and Council Trail
- Audrey Lane, between Central Road and Connie Lane
- Burning Bush Lane, between Seminole Lane and Kensington Road
- Busse Avenue, between Weller Lane and We Go Trail
- Busse Avenue, between Emerson Street and Mount Prospect Road
- Church Road, between Willow Lane and Linneman Road
- Connie Lane, between Meier Road and Audrey Lane
- Council Trail, between See Gwun Avenue and Albert Street
- Country Lane, between Emerson Street and Golf Road
- Emerson Street, between Gregory Street and Country Lane
- Greenwood Drive, between Wheeling Road and Wolf Road
- Gregory Street, between Waterman Avenue and William Street
- Linneman Road, between Golf Road and Dempster Street
- Lonnquist Boulevard, between Elmhurst Road and Emerson Street
- Na Wa Ta Avenue, between Golf Road and Lonnquist Boulevard
- Owen Street, between Gregory Street and Northwest Highway
- Prospect Avenue, between Albert Street and Mount Prospect Road
- Pine Street, between Kensington Road and Northwest Highway
- Redwood Drive, between Cottonwood Lane and Dempster Street
- Robert Drive, between Lonnquist Boulevard and Cottonwood Lane
- See Gwun Avenue, between Lincoln Street and Lonnquist Boulevard
- Waterman Avenue, between Gregory Street and Northwest Highway
- We Go Trail, between Busse Avenue and Lincoln Street
- Weller Lane, between Central Road and Busse Avenue
- Wheeling Road, between Kensington Road and Euclid Avenue
- William Street, between Council Trail and Golf Road
- Willow Lane, between Tamarack Drive and Linneman Road
- Westgate Road, between Central Road and Cardinal Lane
- Thayer Street, between Wolf Road and Marcella Road
- Marcella Road, between Ardyce Lane and Thayer Street
- Ardyce Lane, between Westgate Road and Macella Road
- Cardinal Lane, between Westgate Road and Eric Avenue
- Eric Avenue, between Cardinal Lane and Autumn Lane
- Autumn Lane, between Eric Avenue and Harvest Lane
- Harvest Lane, between Autumn Lane and Business Center Drive

### 2.3.A.3 Bike Lanes

Business Center Drive, between Wheeling Road and Lakeview Court, and on Feehanville Drive, between Business Center Drive (west) and Wolf Road are appropriate locations for separated bike lanes. Both roadways provide one lane of travel and each has a total width of 38'; each roadway could accommodate a 5' bike lane, a 2' buffer between the bike lane and travel lanes, and a 12' travel lane in each direction. Consideration should be given to constructing a physical barrier in the buffer to provide additional protection for bicyclists from vehicles. These bike lanes will allow people to access the businesses located on these roadways.



Figure 21: Potential new bike parking locations near the Metra station and new connection (top). Example of covered bike parking (bottom)<sup>8</sup>

<sup>8</sup> Top Image courtesy of Dero

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## 2.3 Bike Network Recommendations (Continued)

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### 2.3.A.4 Metra Connections

Currently, bicyclists must access the Mount Prospect Metra Station by parking their bikes in the area around Main Street and Northwest Highway. While this does put them very close to the station, it can be challenging at times to access that location as a bicyclist due to the volume of traffic at the intersection and the width of the roadways. The project team recommends developing three new local connections to the Metra Station; one at Pine Street and one at Emerson Street, and one at the Maple Street commuter parking lot. Though these access points are further from the Metra Station, they provide safe and easy access for bicyclists to cross Northwest Highway. It is also recommended that new bike parking be installed in the Metra parking lots at these locations. The parking will provide shelter from the weather and be secure. By providing the protected bike parking at these locations, bicyclists will be encouraged to park their bikes and walk as opposed to riding through the parking lots.

### 2.3.A.5 Improving Signage to Trails

Signage at parks will direct bicyclists to the network in Mount Prospect. Directional signage is recommended along the bike network. These parks include:

- Aspen Trails Park
- Bluett Park
- Busse Park
- Countryside Park
- Emerson Park
- Fairview Park
- Hill Street Park
- Kopp Park
- Lions Park
- Meadows Park
- Melas Park
- Owen Park
- Robert Frost Park
- Robert T Jackson Clearwater Park
- Sunrise Park
- Sunset Park
- Tamarack Park
- Weller Creek Park
- Woodland Trails Park

### 2.3.A.6 Intersection Improvements

The arterial roadways in Mount Prospect present a challenge for completing a full network. The bicycle network is designed to minimize the amount of uncontrolled crossings, but there are still some locations that do not have any form of traffic control to protect bicyclists that want to cross the arterial roadway.

*In order to encourage bicyclists to use the entire network, the project team proposes the following solutions at crossings in the Phase I network.*

- Rand Road/Business Center Drive: There is currently a traffic signal at the intersection of Rand Road/Business Center Drive and Gregory Street does not connect to Rand Road. A sidewalk is provided to connect pedestrians from Gregory Street to Rand Road. The recommended action is to improve a shared use path with signage to direct bicyclists to use this path to access Kensington Business Center. A crosswalk may be striped on the south leg of Rand Road and countdown pedestrian signal heads may be provided on both legs of Rand Road.
- Busse Road/Lonnquist Boulevard: The intersection of Busse Road and Lonnquist Boulevard is currently uncontrolled. The recommendations for this area are to stripe new crosswalks, preferably international style, on Busse Road with signage to alert drivers of the presence of bicyclists and pedestrians and to stop when these users are crossing. The Village may also consider installing rapid flash beacons on Busse Road at this location.
- Golf Road/Robert Drive: The intersection of Golf Road and Robert Drive is currently under two-way stop control in the north-south directions. The recommendation for this area is to stripe crosswalks at Golf Road with signage to alert drivers to the presence of bicyclists and pedestrians and to stop when these users are crossing.
- Golf Road/Na Wa Ta Avenue/Linneman Road: The intersection of Golf Road and Na Wa Ta Avenue/Linneman Road is currently under two-way stop control in the north-south directions and is not aligned. A mountable median is currently provided on Golf Road between Na Wa Ta Avenue and Linneman Road. The recommendation for this intersection is to stripe crosswalks at Golf Road with signage to alert drivers to the presence of bicyclists and pedestrians and to stop when these users are crossing. An additional recommendation is to include signage to cross at the correct location.

## 2.3 Bike Network Recommendations (Continued)

- **Central Road/Weller Lane:** The intersection of Central Road and Weller Lane currently has a crosswalk that provides access to Melas Park. However, bicyclists must cross over six lanes of traffic to access the park. The recommendation for this intersection includes installing a pedestrian refuge island to provide a two phased crossing for pedestrians and bicyclists, and signage to alert drivers to stop for pedestrians and bicyclists in the crosswalk.

### 2.3.A.7 Road Diet

Almost all of the roadways under the jurisdiction of the Village are two-lane, residential roadways.

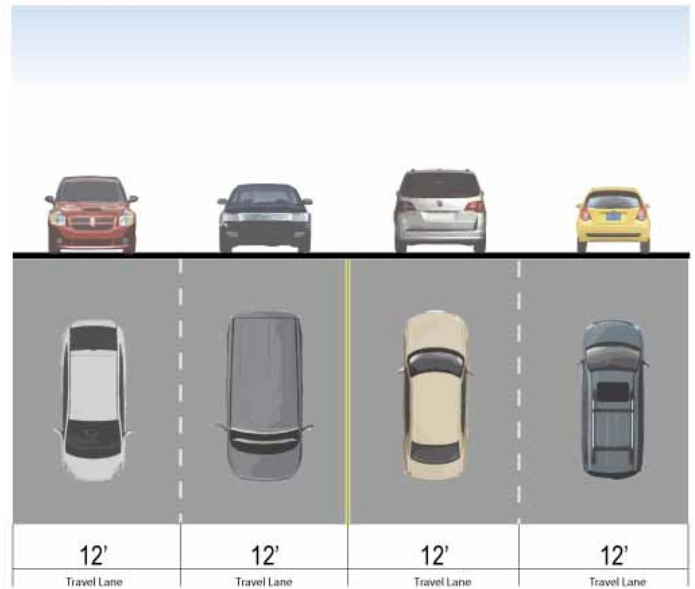
*There are two opportunities to implement a road diet on Village streets:*

- **Business Center Drive, between Rand Road and Wheeling Road:** Business Center Drive is currently a four lane roadway that is 48' wide at this location and does not carry a large daily traffic volume (less than 11,000 vehicles). The Village may consider reducing the roadway to a three-lane, 34' cross section that provides one lane of travel and a center left-turn lane. The additional space may be used to provide a 5' on-street bike lane on each side of the street, and a 2' buffer between the bike lane and the travel lane.

*Figure 22 displays the road diet on Business Center Drive.*

- **Wheeling Road, between Kensington Road and Business Center Drive:** Wheeling Road is a four lane roadway that is 38' wide at this location; however, it narrows to two lanes north of Kensington Road. It does not appear that Wheeling Road needs this width in this location and consideration should be given to reducing Wheeling Road to a two-lane, 24' cross section that provides one lane of travel in each direction. The additional space may be used to provide a 5' on-street bike lane and a 2' buffer between the bike lane and the travel lane on each side of the street.

### Existing Conditions Business Center Drive



### Road Diet Business Center Drive

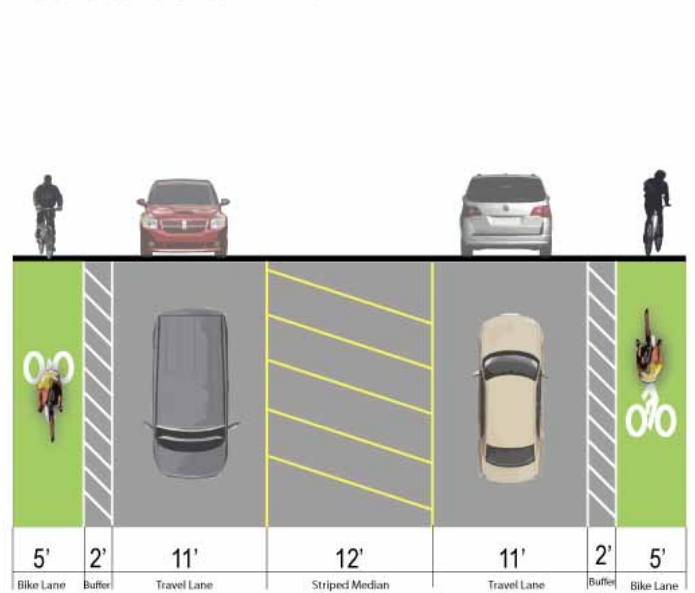
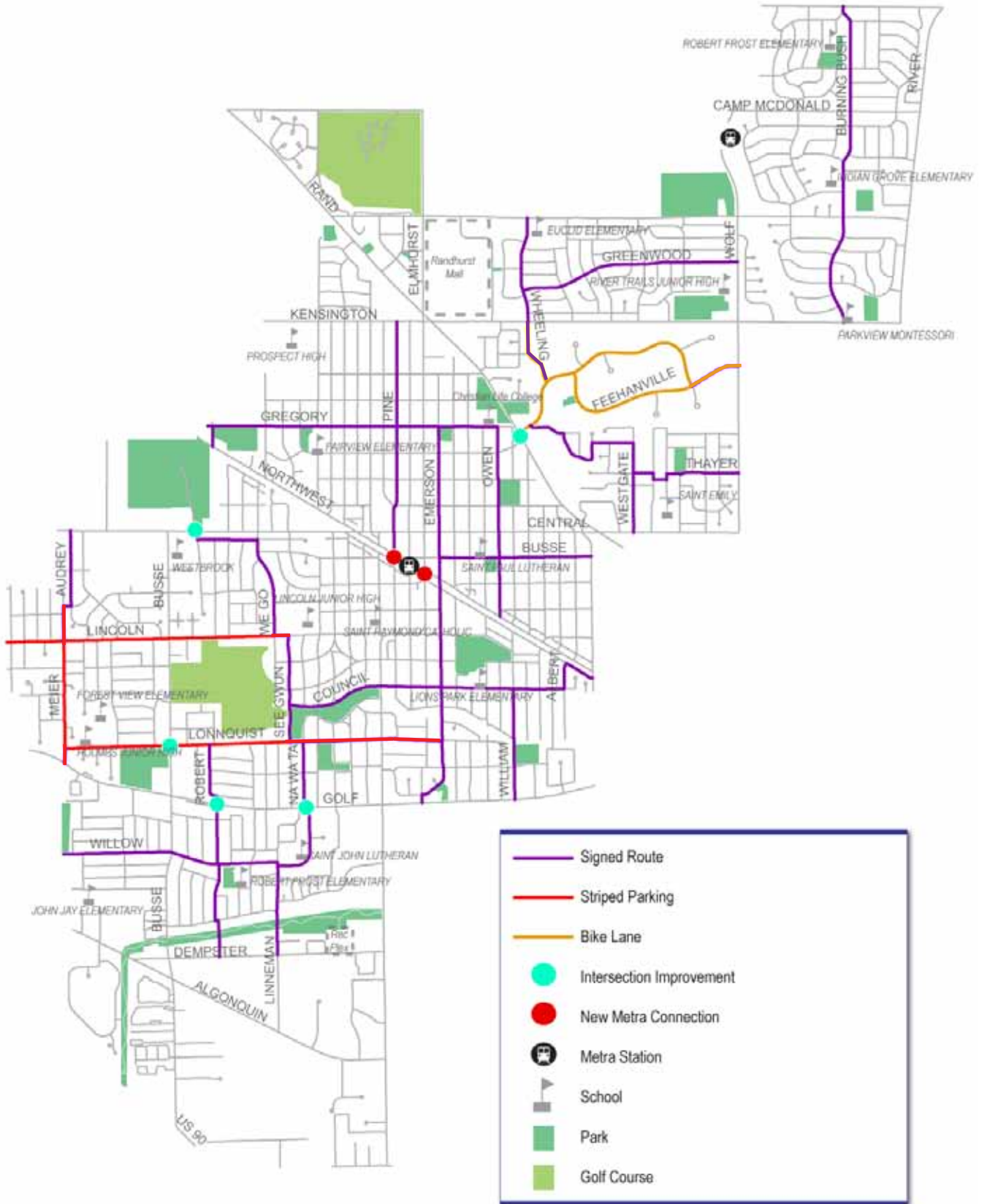


Figure 22: Existing conditions and proposed road diet on Business Center Drive



## 2.3 Bike Network Recommendations (Continued)

Figure 23: Phase I Bike Network





## 2.3 Bike Network Recommendations (Continued)

### 2.3.B Phase II

The purpose of Phase I of the Bike Network is to provide a village-wide connected network that can be implemented in the near term. However, there are many other local and regional connections that are necessary to make Mount Prospect a great bicycling community. Many of these connections will take much longer to complete due to issues relating to funding, approval and coordination with other agencies. This section details the additional connections that may be considered in the long-term. Figure 26 displays the Phase II treatments.

#### 2.3.B.1 NWMC Regional Corridors

The Northwest Municipal Conference (NWMC) is proposing to construct regional bicycle corridors. A total of 12 corridors and several alternative routes have been selected as regional priority routes. A number of these pass through Mount Prospect. They include:

- Northwest Highway
- Central Road
- Golf Road
- Howard/Sibley Corridor (using Com Ed right-of-way)

Communities throughout the NWMC collaborated on selecting these corridors of regional importance. Feasibility studies are underway on some, but there is no current plan for how these will be constructed. The selected corridors will provide regional connectivity beyond the borders of Mount Prospect, and the Mount Prospect bike network will connect to these routes to provide both regional and local connectivity.

#### 2.3.B.2 Sharrows

Sharrows are pavement markings that can alert drivers when to expect bicyclists and to share the road. In Chicago, these markings are typically used on routes that bicycle commuters use that are not wide enough for a full bike lane and alert drivers to share the road. In Mount Prospect, striping sharrows would help make drivers more aware that they are driving on a bicycle route. Sharrows are recommended to initially be striped at the following locations:

- Emerson Street
- Gregory Street
- Burning Bush Lane
- Council Trail

If the sharrows at these locations are found to be successful, the Village may consider expanding the program to more roadways in the bike network.

#### 2.3.B.3 New Shared Use Paths

There are a number of locations in the Village that have the potential to have a shared use path for bicyclists and pedestrians.

- Kensington Road, from Forest Avenue to River Road: A 12-16' shared use path may be constructed on Kensington Road, between Forest Avenue and River Road, on the north side of the road. This represents a great opportunity to build a complete east-west connection through the Village that also connects to the Des Plaines River. This path would be a dedicated facility that would be available to be used by bicyclists and pedestrians. It would provide connections to the Des Plaines River, Randhurst Mall, a number of schools, as well make it easy for residents in the northeast portion of the Village to bike to downtown and to other destinations to the south. Right-of-way is available on Kensington Road to accomplish this project. However, there will still continue to be issues with crossing Kensington Road at its intersections with Rand Road and Elmhurst Road until the traffic signal controller is upgraded.
- Busse Road, from Interstate 90 to Central Road: Busse Road runs north-south along almost the entire west side of the Village. A shared use path along Busse Road would provide the most connect north-south connection in this area.
- Wolf Road, from Central Road to Camp McDonald Road: Wolf Road is a north-south roadway that connects to Des Plaines and the Prospect Heights Metra Station. A shared use path along Wolf Road would make it easier for bicyclists from the south to access this Metra Station.

#### 2.3.B.4 South Mount Prospect

Unlike most of the Village, the portion of Mount Prospect located to the south of Algonquin Road and to the west of Busse Road is not connected as part of the grid network. The residents in this area are served by circular roads that do not connect to anything. Suggested improvements to the locations that the Com Ed trail intersects with Algonquin Road and Busse Road will tremendously improve the connection to this area of the Village. Figure 24 displays the location of the improvements.

- At Algonquin Road, the trail is offset without potential to provide a signalized crossing here due to the proximity to the Algonquin Road's intersection with Dempster Street. Additional signage at Dempster may direct bicyclists to cross at the traffic signal. Physical barriers, such as landscaping, along Algonquin Road may be considered to prevent dangerous crossings. The recommendation for this area is to relocate the trail on the north side of Algonquin Road to the east, closer to Dempster Street.

## 2.3 Bike Network Recommendations (Continued)



Figure 24: South Mount Prospect recommendations

- At Busse Road, the trail is offset and there is no crosswalk for bicyclists. The trail on the east side of Busse Road is recommended to be relocated to the south to align with the trail on the west side. A proposed new crossing is recommended with a refuge island, international crosswalk, and signage that alerts drivers to stop for pedestrians and bicyclists

### 2.3.B.5 Intersection Improvements

The arterial roadways in Mount Prospect present a challenge for completing a full network. The bicycle network is designed to minimize the amount of uncontrolled crossings, but there are still some locations that do not have any form of traffic control to protect bicyclists who want to cross the arterial roadway.

*In order to encourage bicyclists to use the entire network, the project team proposes the following solutions at crossings in the Phase II network.*

- Rand Road/Elmhurst Road/Kensington Road: This intersection is very difficult to cross due to the volume of traffic on the roadway and the fact that there are three separate intersection locations. The traffic signal controller

is currently “maxed out,” so additional signal phases for pedestrians cannot currently be accommodated at the intersection without replacing the traffic signal controller. When the controller is eventually replaced, pedestrian signal heads may be included at each intersection. Because a shared path is recommended on Kensington Road, signage is recommended near the intersection to make drivers aware of the presence of pedestrians and bicyclists.

- Busse Road/Lonnquist Boulevard: Traffic signal warrant studies have been conducted at Busse Road/Lonnquist Boulevard in the past, but the requirements have not been met due to the low volume of left-turning traffic on Lonnquist Boulevard. But one of the reasons that this volume is low may be due to the lack of a traffic signal at the intersection. There are two potential infrastructure solutions at this intersection to improve bicycle safety. The first is to construct a roundabout at the intersection. This would allow vehicular traffic to continuously move through the intersection, albeit at a slower speed, and provide safe crossing for bicyclists and pedestrians. This is a common solution to this issue across the country and roundabouts are becoming popular in Illinois. The other

## 2.3 Bike Network Recommendations (Continued)

solution is to provide a pedestrian hybrid beacon, which would stop vehicular traffic on Busse Road when the signal was actuated by a bicyclist or a pedestrian. If this solution is pursued, actuation buttons may be provided for both bicyclists and pedestrians.

- **Golf Road/Robert Drive:** Consideration may be given to providing a pedestrian/bicyclist actuated signal to allow these users to safely cross Golf Road. This signal would not be actuated by vehicles.
- **Kensington Road/Pine Street:** The intersection of Kensington Road and Pine Street is currently under stop control in the northbound direction. In order to connect Pine Street to the future path on Kensington Road, it is recommended that crosswalks be striped across Kensington Road with signage provided to alert drivers to the presence of bicyclists and pedestrians and stop when these users are crossing. If a left-turn lane is ever constructed in the westbound direction on Kensington Road, the construction of a pedestrian refuge island is also recommended. .
- **Northwest Highway, between Meadows Park and Melas Park:** North of Central Road, it is difficult to cross Northwest Highway due to the absence of signalized intersections or grade separated rail crossings. A new crossing could be installed to connect Meadows Park and Melas Park. Linking these two greenspaces will provide many more recreational opportunities within the Village and will also connect to the future Northwest Highway bicycle facility. An overpass, underpass or a signalized intersection is recommended.
- **Central Road/Weller Lane:** Providing a pedestrian/bicyclist actuated signal is recommended to allow these users to safely cross Central Road. This signal would not be actuated by vehicles. Consideration should also be given to removing the westbound right-turn lane on Central Road to reduce the distance the bicyclists and pedestrians have to cross.

### 2.3.B.5 Removing On-Street Parking

As bicycling activity grows in the Village, consideration may be given to providing more space and priority for bicyclists. One way to accomplish this would be to remove on-street parking and replacing it with separated bicycle lanes. Based on the project team's observations, the demand for on-street parking in the Village is quite low because most single family homes have driveways. This treatment would be similar to some of the residential roadways in Schaumburg that have bike lanes on them. This plan is not proposing to remove any on-street parking; however, the treatment is included as part of the plan's tools for future consideration.

### 2.3.B.6 Bicycle Boulevards

The majority of the Mount Prospect bike network utilizes residential roadways because of the low traffic volumes and speeds that are on them. These streets also provide the best connections to many of the Village's assets, like its schools and parks. The treatments that have been recommended only include striping and signage. A growing number of communities are going one step further with residential streets and providing additional infrastructure to discourage cut through vehicular traffic and prioritize bicyclists. This treatment has a number of different names, but the most common is bicycle boulevards. Municipalities have utilized a number of different methods to discourage cut-through traffic and encourage more bicycling activity on these roadways, including speed bumps, traffic diverters, neckdowns, chicanes, and different types of striping. As bicycling activity grows in Mount Prospect and the demand for infrastructure increases, the Village can consider implementing similar treatments on those streets that qualify per the guidelines of the Village's Neighborhood Traffic Calming Program.

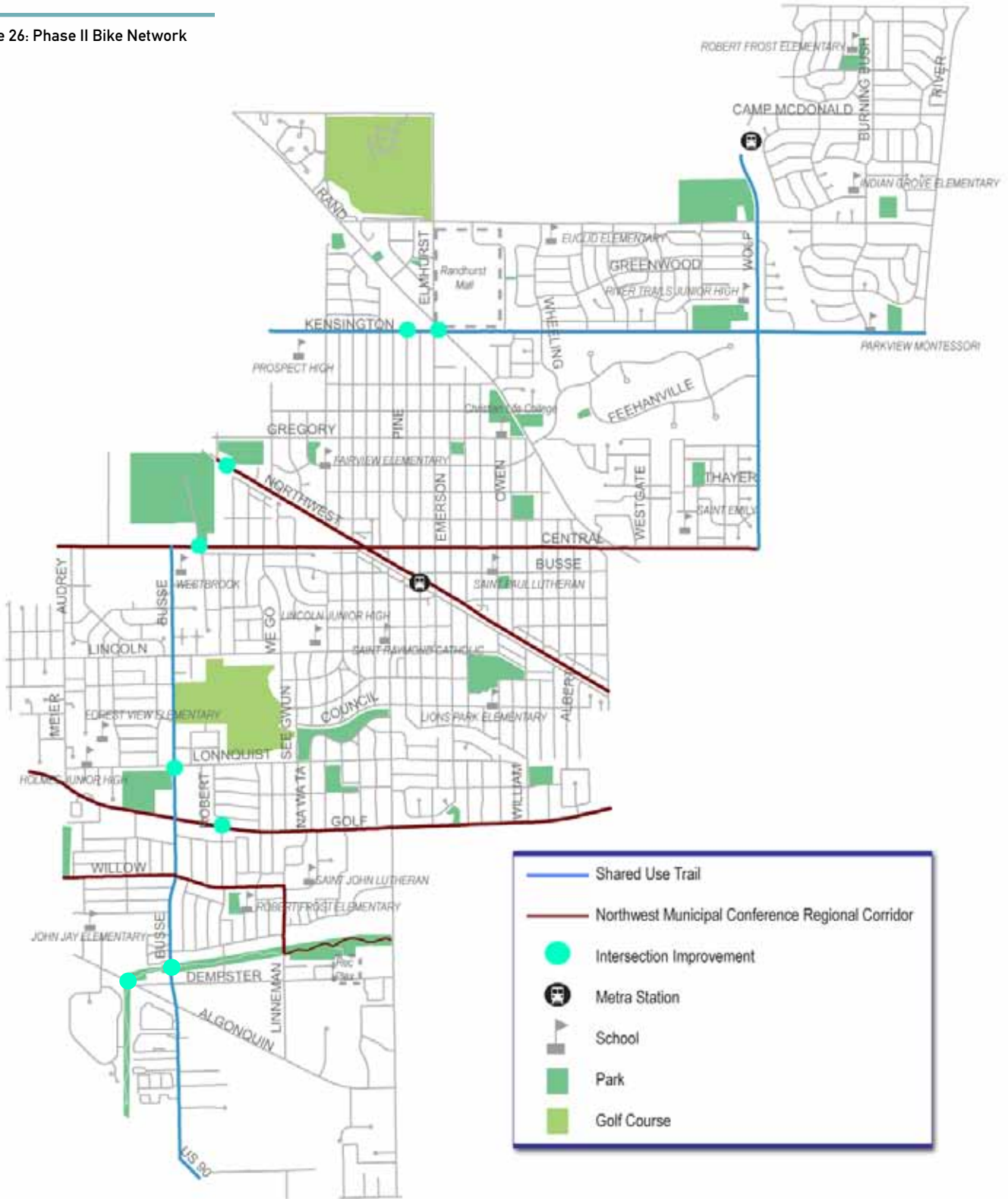


Figure 25: Weathersfield Way in Schaumburg provides one lane of travel and a bike lane in each direction. No parking is provided on street.



## 2.3 Bike Network Recommendations (Continued)

Figure 26: Phase II Bike Network



## 2.3 Bike Network Recommendations (Continued)

### 2.3.C Phase III

A number of regional roadways in the Village were not included in the first two phases of the bike network because they are either not under Village jurisdiction, have limited right of way, and/or run through multiple municipalities. Providing recommendations for these roadways will require multiple municipalities and agencies to develop bicycle facilities on these roadways. As future projects are planned on these roadways (widening, re-construction, or re-surfacing), the Village will continue to work with neighboring municipalities to determine how new bicycle facilities and connections may be provided. It is unknown when or if these connections will be possible. These roadways include, but are not limited to:

- Seminole Lane
- Camp McDonald Road
- Euclid Avenue
- Dempster Street
- Rand Road
- Algonquin Road
- Elmhurst Road/Main Street
- Mount Prospect Road
- River Road

### 2.4 Additional Bicycle Infrastructure

In addition to the bike network, additional infrastructure may be provided to encourage more bicycling activity in Mount Prospect.

#### 2.4.A Bike Parking

Like automobile parking, bicyclists require facilities to store their vehicles once they have arrived at their destination. The ideal location for bicycle parking is convenient and highly visible areas. This will both encourage use and deter theft. Planning for bicycle parking is increasingly being incorporated to shopping and employment areas, as it both a crucial component of bicycling and also space efficient: one automobile parking space can accommodate up to 12 bicycles. It is recommended that the installation of new bicycle parking be focused in areas of high demand: downtown, the Kensington Business Park, Randhurst Mall, and at schools and parks. To best determine locations for parking, the Village may consider including a section on their website to allow residents to request bicycle parking.

There are many styles of bicycle parking racks available, but best practices state that a rack should be securely anchored to the ground and allow both the frame and at least one wheel to be locked to the rack<sup>9</sup>. Bike parking should be located approximately 50' from the entrance of buildings.



Figure 27: Example of bike parking

<sup>9</sup> Source: <http://www.bicyclinginfo.org/engineering/parking.cfm>



## 2.4 Additional Bicycle Infrastructure

### 2.4.B Signage

Signage is an important component of informing bicyclists of destinations that are accessible by bike. Signage should be placed at intersections and decision points along bicycle routes. Best practices state that there are “3 D’s” of signage: distance, destination, and direction. These components give even first-time visitors confidence to reach their destination.

An added benefit of signage is that motorists see the signs as well, which heightens awareness of bicyclists on the road. The Manual of Uniform Traffic Control Devices (MUTCD) states regulations to ensure consistency and continuity in signage. The Northwest Municipal Conference is currently conducting a signage plan for the regional corridors. It is recommended that the Village sign the bike routes in Phase I using standard signage from the Manual of Uniform Control Traffic Devices, but wait to install any additional signage until the NWMC project is complete.



Figure 28: Example of bike route signage

### 2.4.C Signalized Crossings

There are a number of improvements that will improve crossings for bicyclists and pedestrians. Placing the vehicle stop line farther back from the crosswalk can improve the view pedestrians and bicyclists have of approaching traffic<sup>10</sup>. Bike boxes have this effect as well, in addition to giving bicyclists a clear space in the intersection<sup>11</sup>. Another common technique to improve crossings involve curb extensions, also called bulb outs, which give more space to pedestrians, slow traffic, and shorten crossing distances for pedestrians<sup>8</sup>. In addition to the specific

<sup>10</sup> Source: : <http://www.walkinginfo.org/engineering/crossings-enhancements.cfm>

<sup>11</sup> Source: : <http://www.streetsblog.org/2007/06/19/new-bike-boxes-send-cyclists-to-the-front-of-the-line/> (photo of bike box)

intersection improvements discussed earlier, the Village may continue to improve signalized intersections for pedestrians and bicyclists.



Figures 29 and 30: Example of a bike box (top, 29) and bump out (bottom, 30)

### 2.4.D No Right-on-Red Signs

Right-turns-on-red can create conflicts for pedestrians and bicyclists, as drivers tend to look over their left shoulder while making the turn instead of the direction they are traveling. One report estimated that allowing right-turn-on-red increased bicyclist crashes by over 70%<sup>12</sup>. In the US, it is often assumed that right-turn-on-red is allowed unless there is signage present, which is why signs prohibiting or limiting right-turns-on-red are important in areas with many pedestrian and bicyclists. Prohibiting right-turns-on-red in downtown Mount Prospect and at all signalized intersections in the bicycle network is recommended for consideration.

<sup>12</sup> Source: Preusser, D. F., Leaf, W. A., DeBartolo, K. B., Blomberg, R. D., & Levy, M. M. (1982). The effect of right-turn-on-red on pedestrian and bicyclist accidents. *Journal of Safety Research*, 13(2), 45-55. doi:10.1016/0022-4375(82)90001-9

## 2.4 Additional Bicycle Infrastructure(Continued)



Figure 31: Example of a no turn on red sign<sup>13</sup>

### 2.4.E Crosswalk Countdown Signals

Crosswalk countdown signals notify pedestrians of the amount of time left to cross street. While it is preferred that the signal displays the time remaining at the beginning of the phase, many countdown timers display the time remaining in the clearance phase (the flashing “Don’t Walk” or hand signal)<sup>14</sup>. Countdown timers are particularly helpful for discouraging pedestrians to enter the crosswalk during the clearance phase when insufficient time is available, and studies have confirmed their effectiveness<sup>15</sup>. Countdown signals are required at all new traffic signals.



Figure 32: Example of a crosswalk countdown signal

<sup>13</sup> Photo source: [http://www.nj.com/hobokennow/index.ssf/2008/06/no\\_turn\\_on\\_red.html](http://www.nj.com/hobokennow/index.ssf/2008/06/no_turn_on_red.html).

<sup>14</sup> Source: <http://www.walkinginfo.org/engineering/crossings-signals.cfm#pedestrian-signal-timing>

<sup>15</sup> Source: <http://www.walkinginfo.org/library/details.cfm?id=4420>

### 2.4.F Actuated Crosswalk Signals

There are different methods that are used to activate the “walk” phase at signalized intersections, including push buttons, timed signals, and automatic pedestrian detection. While timed signals are common for intersections or areas with steady pedestrian activity, push buttons or automatic pedestrian detection can be used for areas with infrequent or irregular pedestrian volumes. Pedestrian activated signals should be in locations that are also accessible for bicyclists to easily use, meaning that if push-buttons are used, they should be near the roadway.



Figure 33: Example of an actuated crosswalk signal

### 2.4.G Uncontrolled Crossings

Uncontrolled crossings can be particularly challenging for pedestrians, as vehicles do not stop as in signalized intersections or in the presence of a stop sign. Crosswalks alert the driver of possible pedestrians, but pedestrian refuges, or pedestrian islands, offer greater protection than just a crosswalk alone. Pedestrian refuges are raised areas in the middle of the crosswalk that allow pedestrians to cross the street in phases and offer protection in the street while waiting to complete the crossing. Studies have confirmed their effectiveness in improving pedestrian safety.



Figure 34: Example of an uncontrolled crossing

# Bicycle-Friendly Ordinances and Policies

|                                 |    |
|---------------------------------|----|
| 3.1 Timeframe                   | 36 |
| 3.2 Bicycle-Friendly Ordinances | 37 |
| 3.3 Bicycle-Friendly Policies   | 38 |

# 3

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## 3.1 Timeframe

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In addition to a robust bicycle network, Mount Prospect needs ordinances and policies in place to promote safe, convenient and comfortable biking for people with a wide range of experience levels. The adoption and administration of local bicycle-friendly ordinances and policies will help encourage community members to bike more often and feel safer while biking, as well as improve driver awareness of bicyclists.

This section lays out ordinance and policy recommendations that will help sustain Mount Prospect's vision for active transportation. In addition to design and planning guidance, ordinances and policies improve the transportation environment in ways that infrastructure cannot, by prioritizing safety through legislation.

The project team recommends that the following bicycle-friendly ordinances and policies be adopted by the Village of Mount Prospect to support the building of bicycle infrastructure and to enhance the safety, convenience and comfort of cyclists.

### 3.1 Timeframe

These timeframes can help the Village coordinate efforts with staffing and work plans, and budgets.

#### Near-term

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The timeframe for near-term projects is less than two years. These projects involve little to no start-up costs and long-term planning prior to implementation. Many education and encouragement initiatives are proposed for near-term implementation to build support for later projects.

#### Mid-term

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Although mid-term means completion is expected in 3-5 years, some projects will require preliminary work in the near-term. These projects may have initial start-up costs and coordination with community organizations. Mid-term projects generally involve more planning.

#### Long-term

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These projects, expected to begin implementation after five years, frequently depend on the completion of earlier projects and local support.

#### Opportunistic Implementation

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While this plan offers a guide to prioritizing these recommendations as near-, mid-, or long-term priorities, the Village may actively seek out opportunities to coordinate implementation with private development and public projects. Private development can often trigger the need to improve the corridor frontage areas, and state and county construction and maintenance priorities can overlap with this plan's recommendations. It is recommended that the Village work with other implementing agencies to remain aware of opportunities and seek to coordinate the implementation of this plan with parallel county and regional efforts. *(See the Appendix for funding and programmatic resources.)*



## 3.2 Bicycle-Friendly Ordinances

### 3.2 Bicycle-Friendly Ordinances

#### 3.2.A Street Design Standards and Guidelines

*Time Frame: mid or long term*

Mount Prospect sets standards for roadway construction through its adopted design guidelines and street design regulations. The Village can update its Street Design Standards to incorporate bicycle facilities as well as the principles of Complete Streets. This will provide a consistent standard for street construction or improvement projects completed in the community. (See appendix D for a list of resources.)

#### 3.2.B Bicycle Parking Ordinance

*Time Frame: near-term*

Bicycle parking is an essential amenity for any bicycle transportation network. Residents are less likely to use their bike to reach businesses unless they can safely lock it at their destination. To promote the use of the network and to boost local commerce, Mount Prospect may adopt a zoning ordinance to require bike parking at retail, commercial, multi-family residential and industrial sites. See appendix E for sample ordinance language and formulas for calculating minimum bike parking requirements.

#### 3.2.C Distracted Driver Ordinance

*Time Frame: near-term*

As Mount Prospect continues to build on-street bicycle facilities and encourage biking, there will be more potential for car-bike crashes. Local and national trends show that distracted driving is a significant contributor to roadway tragedies, and many communities are targeting this behavior with tough penalties and targeted enforcement. The Village may consider adopting a distracted driver ordinance restricting the use of handheld mobile phones while driving on local roadways to increase the safety of on-road cyclists. (See appendix F for sample ordinance language.)

#### 3.2.D Safe Park Zones Ordinance

*Time Frame: mid term*

Residents of all ages are drawn to Mount Prospect's numerous parks. As havens for physical activity and recreation, parks are destinations for all community members, especially children. Traffic safety can be a major barrier for children walking and biking to parks. Mount Prospect can improve access to parks by adopting Safe Park Zones.

Similar to School Zones, Safe Park Zones are streets adjacent to parks where traffic safety is prioritized with lower speed limits

and higher fines for speeding and disobeying stop signs and stoplights when children are present. Under Illinois Vehicle Code section 5/11-605.3, revenue from the higher fines can be used to establish and maintain safety infrastructure within the zone and to fund safety programming. Safe Park Zone streets must be designated by local ordinance and marked with signs. Several communities in Chicagoland are currently drafting policy and will be adopting Safe Park Zones Ordinances in 2011.

#### 3.2.E Update Development Codes

*Time Frame: long term*

The redevelopment of the United Airlines Property and the Metra Suburban Transit Access Route (STAR) Line are two major future developments in the area. With these future developments in mind, the Village may update their municipal zoning and subdivision codes to require bicycling accommodations and on-site amenities.

The design of facilities within private developments plays a significant role in how they are accessed by active transportation. Mount Prospect may consider updating their municipal code to ensure connectivity and access for pedestrians, cyclists and transit users in all new developments.

*Examples include:*

- Require short and long-term bicycle parking, showers and locker rooms at workplaces.
- Create minimum standards for bicycle parking accommodations at commercial and workplace destinations.
- Increase flexibility on the required number of car parking spaces.
- Allow for greater integration of land use types, thereby decreasing distance barriers for walking and bicycling.
- Require public sidewalks adjacent to large developments and continuous sidewalk connectivity from the public sidewalk to the building entrance.
- Require a maximum setback distance for building entrances, ensuring shorter trips through parking lots for cyclists and pedestrians.
- Require street connectivity for housing developments in order to improve the directness of routes, again decreasing distance barriers for walking and bicycling.



## 3.3 Bicycle-Friendly Policies

### 3.3 Bicycle-Friendly Policies

#### 3.3.A Complete Streets Policy

*Time Frame: near-term*

Complete streets are designed to enable safe access for all users of the transportation network regardless of age, ability or travel mode. A complete street has no predefined facilities requirements, but is optimized within its surrounding context to promote safe, convenient active transportation options for the community.

To ensure that Complete Streets principles play a lasting role in the development of the Mount Prospect bicycle network, the Village may consider adopting a Complete Streets policy. Adopting this policy means committing to the consideration of bicyclists, pedestrians and transit users as well as motor vehicles in all new transportation, construction, and maintenance projects.

Both the State of Illinois and Cook County have adopted Complete Streets policies. It is recommended that the Village develop the policy based on national best practices. (*See appendix G for a sample policy.*)

#### 3.3.B Bike Facility Maintenance and Clearing Policy

*Time Frame: mid-term*

As Mount Prospect continues to implement bicycle facilities, the Village will also need to consider maintenance and clearing of these facilities. Cyclists ride year-round and need a clean, clear place to ride. Examples of policies include: bike lanes in their regular street sweeping schedule, ensure the lanes are plowed after a snowfall, and modify municipal code to allow for citation of vehicles stopped or parked in a bike lane.

#### 3.3.C Joint Use Agreements

*Time Frame: opportunistic*

Joint Use Agreements are formal agreements that encourage shared use of facilities. This type of agreement allows the schools, park districts and the Village to hold events and activities in each neighborhood, closer to where participants live. Examples of joint use of facilities include community use of school facilities during non-school hours and school use of park facilities during the school day. By adopting joint use agreements, Mount Prospect, the school districts, and the park districts can maximize use of community facilities, use land more efficiently, preserve community-centered institutions, increase opportunities for physical activity and encourage more active transportation while participating in community activities.

There are many of these types of agreements already in place between the schools, park districts, Village and library, but future opportunities may also be considered.

#### 3.3.D Safe Routes to Schools

*Time Frame: near to mid-term*

Schools are a part of this plan because thousands of students live in Mount Prospect yet only a fraction of these students walk or bike to school. The schools' policy recommendations in this plan hinge on the creation of a school and municipal partnership that works to develop institutional changes that support increased opportunities for walking and bicycling to school.

Safe Routes to School (SRTS) is a federally funded program that provides funding for education, encouragement, enforcement and engineering projects aimed at making the trip to school safe, fun and convenient for students in elementary and middle school. A local match is not required.

The Village of Mount Prospect has partnered with school districts to successfully apply for funding. In order to apply for this type of funding, each applying school district developed a school travel plan which addresses various ways that students get to school and the challenges they face.

Writing or updating a school travel plan is the primary way school districts and the Village can work together to identify school related initiatives that will encourage increased participation in walking and biking to school. Mount Prospect may continue reaching out to school districts in the community to organize Safe Routes to School Committees and develop or update school travel plans for each school or school district.

# Programming

|                   |    |
|-------------------|----|
| 4.1 Education     | 40 |
| 4.2 Encouragement | 42 |
| 4.3 Enforcement   | 44 |

## 4.1 Education

Education and encouragement programs are designed to motivate "interested but concerned" residents to ride a bicycle confidently and safely. These programs help residents view bicycling as a reasonable transportation option and give them the opportunity to try bicycling in a setting in which they are comfortable. By participating in these programs, residents gain more bicycling experience. With experience comes confidence, and with confidence bicyclists will ride in more varied settings. Eventually, they become regular cyclists and will maximize the number of trips they make by bicycle rather than driving. The primary purposes of education and encouragement programs are to:

- Reach out to Mount Prospect's "interested but concerned" residents to help make bicycling their first choice for transportation.
- Attend to the service and information needs of current bicycle riders to help them ride safely and comfortably while making biking even more convenient.

Enforcement strategies and actions are a key component of bicycle and traffic safety and education. *A listing of funding and other resources for implementing education, encouragement and enforcement programs can be found in the appendix.*

### 4.1 Education

Education is a powerful tool for promoting healthy and safe behaviors. Users of a bike network need to be aware of how to protect themselves and others. As more people walk and bike for transportation and health, education can come in a variety of forms to reach all network users. Youth, teens and adults alike benefit from education programs focusing on pedestrian and bicycle safety and the rules of the road. The following recommendations are meant to reach all community members and include messages tailored to each specific audience.

*Curriculum materials and further guidance can be found through Active Transportation Alliance, League of Illinois Bicyclists and the Illinois Safe Routes to School program.*

#### 4.1.A Bike Ambassadors

**The Objective:** To train children and adults in basic bike traffic safety, develop awareness of all road and trail users, and raise the profile of cycling as a healthy, smart, and valid choice of transportation within the community.

**The Program:** The Mount Prospect Bicycle Ambassadors, a small group of trained volunteers deliver bicycle safety demonstrations to kids, teens and adults; educate motorists and non-motorists; and assist with the development of local cycling activities and events.

**The Benefits:** Through appearances by the Bike Ambassadors at community events, schools, and summer camps, bicycle education becomes extremely accessible for Mount Prospect residents. Training local residents as bicycle ambassadors is a long term investment in bicycle education.

**How it Works:** The Mount Prospect Police Department and/or Active Transportation Alliance or League of Illinois Bicyclists trainers educate teens and/or adults as Bicycle Ambassadors.

*Once trained, the ambassadors can:*

- Be deployed as instructors to Mount Prospect Park District bicycle safety classes and local Safe Routes to School programs where they can provide helmet fitting, basic bicycle safety checks, and basic bicycle and crosswalk skills instruction.
- At motorized/non-motorized conflict points, distribute "Share the Road" and awareness literature to drivers as well as bicyclists and pedestrians.
- Capitalize on local bicycling events such as the annual fall family bike ride by providing safety demonstrations for participants and spectators.
- Be a safety/support resource for events as ride marshals or course marshals.

*The ambassadors might also:*

- Design their own literature for cyclists, walkers and drivers
- Write a guest column for local news, update the Bike Mount Prospect Facebook page or website, and produce biking and driving awareness videos
- Organize family and competitive bike rides in conjunction with other Mount Prospect community-wide events

#### 4.1.B Bicycle Academy

**The Objective:** To begin normalizing the broad-based delivery of safe bicycling education to children and their parents in a fun, engaging way, and to mitigate growing school traffic.

**The Program:** Make completion of a safe bicycling course taught at the end of second grade a prerequisite for the privilege of bicycling to school.

**The Benefits:** Children – and their parents – will begin seeing bicycling as a rite of passage rewarded with a new privilege, which can be a powerful motivator. A culture of responsible cycling to school would spread into middle school. Mount Prospect's involved parents would absorb the safe cycling lessons as well, and feel more comfortable about their children riding to school after they have learned some basic safety lessons.

## 4.1 Education (Continued)

**How it Works:** Elementary schools adopt travel policies that limit bicycling to school to third grade and above, and establish an end-of-year “bicycle academy” integrated into second grade physical education classes. Children learn basic bicycling skills, how to perform a bicycle safety check, helmet fit, and appropriate traffic cycling skills such as crossing roads, driveway dangers, and negotiating sidewalks. Children completing the academy receive a “license” permitting them to bicycle to school in third grade. All students attending the bicycling academy would bike to school on that day. The program would include the identification of safe bicycle routes to school. A similar program teaching students safe routes and age appropriate bike skills could be repeated at the end of fifth and eighth grades as students graduate to new school buildings.

### 4.1.C Build a Bike Program

**The Objective:** To teach youth how to build, repair and maintain their own bicycles, and make bicycling accessible for families at all income levels.

**The Program:** Young teens participate in an after school program that teaches bike safety and basic bike maintenance and repair. At the end of the program, each participant earns a bicycle that they will be able to keep and maintain on their own.

**The Benefits:** Many older children use bicycles for transportation to get to school, to friends houses, and to after school activities. Kids will feel a sense of ownership and responsibility if the bicycle they ride is one they built or repaired themselves. They will also be able to save their family time and money if they can maintain their own mode of transportation.

**How it Works:** The Village, park districts or Middle Schools offer a weekly class for middle school age children to learn about bike maintenance, safety, mechanics, health and fitness related to bicycling. At the end of the class, students who complete the program successfully will earn their own bicycle. Instructors for the class can be found by contacting local bicycle advocacy organizations.

### 4.1.D Teens Encouraging Teens

**The Objective:** To encourage high school age youth to bicycle and walk to school and to other destinations.

**The Program:** High school students participate in a contest where they propose their own ideas for how to encourage their peers to walk and bike to school and to other destinations. The winning student or group of students is allowed to execute their idea.

**The Benefits:** High school students are heavily influenced by their peers. Making walking and biking to school seem cool and rewarding is most likely accomplished through the influence of

other teenagers. Students who participate in the contest learn business, marketing and organizational skills along with the economic, health and environmental benefits of riding their bicycle or walking.

**How it Works:** Students at Prospect High School form teams to pitch ideas for how to encourage their peers to walk and bicycle to school and to other destinations. Each team creates a project proposal and pitches their idea to a group of faculty and administration. The faculty chooses a winning proposal and that team’s proposal is funded and carried out by the students. The winning team could also receive a nominal college scholarship. Local civic groups such as Lions Club, Jaycees or Rotary may wish to collaborate for funding and student advising.

### 4.1.E Mobility Education

**The Objective:** To educate student drivers regarding alternative transportation choices and how to share the road with bicyclists.

**The Program:** Drivers education classes in most high schools typically only cover automobile use and rules. Most curriculums do not address how to use other modes of transportation, or how drivers, pedestrians and cyclists can interact safely. The mobility education program will integrate education on other transportation choices, and how drivers can safely interact with bicyclists and pedestrians into the Prospect High School drivers education curriculum.

**The Benefits:** Mount Prospect has great access to many transportation choices beyond the automobile. As teenagers obtain their drivers licenses and gain access to automobiles, they will daily be faced with choices on how to get from place to place. With students having many options beyond a car, mobility education helps students recognize the options available in their community and shows them they need not rely on an automobile to get around. Understanding basic rules for sharing the road with bicyclists and pedestrians will make Mount Prospect streets safer for all users.

**How it Works:** Mobility education lessons are either integrated directly into the current driver education curriculum or provided as a supplement. Lessons will reinforce the education they received in their Bicycle Academy instruction and will teach students how to make appropriate transportation choices based on their destination (or how to get around without a car). Additional lessons may also be integrated into subject areas that further reiterate the benefits of using all the transportation options available to students.

*In the State of Illinois, students with disabilities that prevent them from obtaining a drivers license are still required to attend the classroom portion of drivers education. Learning about other mobility options adds value to students who may be unlikely to ever drive a car.*



## 4.2 Encouragement

### 4.2 Encouragement

Knowledge about when and where to bike and walk safely leads to increased use of active transportation. Giving Mount Prospect residents access to information, social events and other incentives will encourage people to start riding or ride more often.

#### 4.2.A Mount Prospect Bicycle Map

**The Objective:** To distribute a public bicycle map to residents, workers and visitors in Mount Prospect identifying current bicycle routes and other streets comfortable for bicycling.

**The Program:** A map of current bicycle routes and trails, with an emphasis on connectivity to community and neighboring destinations using existing infrastructure.

**The Benefits:** One of the biggest impediments to bicycling as a desired mode of transportation is the lack of knowledge regarding comfortable routes to move about the community. The best bicycling maps include the entire street network as a base, and recommended bicycle routes. A great map also includes basic traffic cycling safety and trails etiquette information, including equipment choice, helmet information, locking information, and advice on riding with traffic.

**How it Works:** Maps could be made available for distribution at Village Hall, the police department, park districts, Community Connections Center, the train station, the post office, interested businesses, and the library. The map may be a stand-alone document that is accessible online through the Village's website or part of an existing community map. The online map can be updated every time new bicycle facilities are installed, and the print version could be updated periodically as the network grows.

When the map is launched, the Village could partner with local media outlets to generate excitement and awareness about cycling in Mount Prospect. The map can be paired with other publications already targeting residents' mailbox for efficiency and coverage, like Park District publications, utility bills and community newsletters.

#### 4.2.B Information Access Through Online Social Media

**The Objective:** To give residents and visitors better access to information regarding bicycling classes and events in Mount Prospect and a place to meet and discuss biking in the Village

**The Program:** Make information about bicycling infrastructure improvements, programming and bicycling related events more accessible to residents by maintaining the Bike Mount Prospect Facebook Page and website.

**The Benefits:** Using social media will foster a conversation around the shared vision of a biking-friendly community. The payoff is community buy-in, a rich source of viewpoints, a ready company of potential volunteers, and a qualified audience for programming and events.

**How it Works:** The Facebook page and website could offer a calendar of biking related events in the area, bicycle safety information, local bicycling related classes, an explanation of the Bike Task Force and meeting minutes, and updates regarding grant awards and efforts to improve the built environment. The page could be complimented by links to become a fan of the Bike Mount Prospect Page on Facebook.

#### 4.2.C Commuter Challenge

**The Objective:** To increase the number of local employees using alternative modes of transportation for their commute to work.

**The Program:** Invite Mount Prospect's companies and organizations to challenge peers (by size, business category and/or organization type), to a contest over how many employees try getting to work by bicycling, walking or taking transit during National Bike to Work Week.

**The Benefits:** The two Metra stations in or near Mount Prospect already bring workers into Mount Prospect and drop workers about one mile from the Kensington Business Center. A commuter challenge program leverages this activity to expand awareness of transit, bicycling and walking connections to the workplace and generate excitement among Mount Prospect's corporate community around the health and well-being benefits of cycling and/or walking to work.

**How it works:** Companies, organizations, and other job centers appoint a Commuter Challenge Team Leader who signs up co-workers to try biking, walking or taking transit to work at least once during Bike to Work Week. The team leader also becomes the liaison to the program's organizers and a distribution point for safety materials and encouragement items such as maps and fitness gear. During Bike to Work Week, the Team Leader tracks which employees tried walking, biking or taking transit to work each day, and reports to the program organizer. When the week is over, the program organizers tally the counts and award prizes to winners in each category as well as an overall winner.

#### 4.2.D Small Scale Social Rides/Business Social Rides

**The Objective:** To expand the role of cycling in Mount Prospect by incorporating recreational activities outside of fitness, such as shopping, parks and recreation programming, and dining to create excitement and support around everyday local cycling.

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## 4.2 Encouragement (Continued)

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**The Program:** Through the park districts, local civic or social organizations, such as the Mount Prospect Bike Club, or grassroots organizing, hold community events that incorporate cycling into everyday activities. Examples of these events are bike and dine, a progressive dinner where participants travel between restaurants on bike, and house hunting by bike, where prospective home buyers tour the Village on bike with stops at homes for sale and other points of interest in the community.

**The Benefits:** Social events centered on biking will create awareness for biking and encourage residents who do not often bike to start doing so by participating in a special event. Social rides not only encourage biking, but also provide opportunities for community members to come out and get to know their neighbors, spend money locally, learn and explore their community.

**How it works:** An organizer, which could be a local organization, the park districts or chamber of commerce, invites restaurants, Realtors or other hosts to participate in the social rides. Social rides should not have more than 30 participants due to the difficulty of managing large groups. Participants ride as a group to different destinations. Ambassadors and bicycle-mounted officers could provide ride support, and a following squad car could be used for additional support.

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### 4.2.E Ongoing Encouragement Program/Shop by Bike

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**The Objective:** To encourage cycling as a mode of travel for errands and short local trips.

**The Program:** Local businesses reward residents and shoppers with a discount or other incentive if they use transit, walk or ride their bike to complete their shopping trip.

**The Benefits:** Mount Prospect has several restaurants, bars and retail shops that are easy to access without a car. By rewarding residents and shoppers with incentives, they will be more likely to shop or dine locally and without a car. Nationally, statistics show that about 40 percent of our daily trips are less than two miles in length, but 90 percent of those trips are taken by car. An average person can bicycle two miles in about the same amount of time it takes to make that trip by car. The benefits of making those trips by bicycle include healthier living, cleaner air, less cost, and reduced traffic on Mount Prospect's roads.

**How it Works:** The last Friday of every month, Mount Prospect celebrates a walk/ride day. On that day people are encouraged to use a mode of transportation other than their car. Stores and restaurants in Mount Prospect give customers a discount for participating.

## 4.3 Enforcement

### 4.3 Enforcement

Successful implementation of this plan will result in an increase in active transportation users and create new challenges for enforcement of laws. At the same time, traffic safety laws are only as good as the enforcement of those laws. Mount Prospect may enforce laws that deter reckless behavior by road users and reward those who observe the law. In addition to receiving regular updates on changes to current traffic laws, the police can participate in enforcement events and offer rewards to residents “caught doing good” observing the law. Funding for the events and programs in this section can be obtained through the Illinois Department of Transportation Division of Traffic Safety, Highway Safety Grants.

#### 4.3.A Caught Doing Good Campaign to Reward Safe Biking Behavior

**The Objective:** Cyclists, especially children and teens, who are following the rules of the road and wearing a helmet could be rewarded. Even a small reward will significantly increase good behavior and encourage more people to engage in safe cycling.

**The Program:** Police issue “tickets”—in this case, the fine is free cookies at Central Continental Bakery or a scoop of Capannari Ice Cream for the offender—to resident cyclists “caught” following the rules of the road. “Tickets” can be issued for any number of good biking behaviors including wearing a helmet, stopping at stop signs and red lights, and crossing the street at a permitted location.

**The Benefits:** It engages a real strength of the community—the police force—in a positive public relations campaign that will reward residents for doing the right thing and riding safely. It will also encourage residents to be engaged with the police. Actually, many children will probably ride around, looking for police to show their helmets to.

**How it works:** Residents obey rules of the road. Police issue free ice cream or cookie ticket. Resident gets ice cream or cookie. This program would be most effective if conducted after the bicycling academy or other bike education event. It will reinforce lessons learned by rewarding children for putting their new skills into practice. Also consider a second ticket for residents without helmets that offers a discount at a local bike shop or an option to purchase a low-cost helmet through the Village. Helmets can be found for bulk order price of less than \$4 and resold at cost.

#### 4.3.B Police Crosswalk Enforcement Events

**The Objective:** To improve the safety and comfort level of street crossings by changing the behavior of motorists to comply with state law requiring motorized traffic to stop for the pedestrian or cyclist in the crosswalk.

**The Program:** Police enforcement events at marked crosswalks and trail crossings provide direct contact that can educate and change motorists driving behavior. Initial contact would include a warning and distribution of educational materials. Repeated contact would initiate a fine. Any revenue beyond cost of enforcement can be used to fund the ambassadors and other educational programs explained above.

**The Benefits:** Surveys show that crossing streets are a top safety priority for the Mount Prospect walking and biking community. The police department can leverage IDOT highway safety funding for sting operations at targeted high risk, high pedestrian or trail use crosswalks.

**How it works:** One example of a crosswalk enforcement event involves a public information campaign, a week of educating and issuing warnings, a week of hard enforcement, a video camera, bike ambassadors, and police officers.

1. Week one—a public information week promoting the events as a response to Mount Prospect’s residents demanding a safer bicycling and walking community. Motorists will be educated regarding the state law requiring stopping for users in the crosswalk. The information may include a few quick facts on the responsibilities of drivers, cyclists and pedestrians. The Village could work with local media outlets to promote awareness of the stings.
2. Week two—at selected high risk/high use crossings, one person dressed in street clothes crosses within a marked crosswalk (during the walk cycle if signalized) while another person films driver behavior. If a driver turns or crosses and fails to stop for the pedestrian, he is pulled aside by a police officer for a warning and education. At the end of the week, news outlets are provided video clips and a press release that includes a reminder of hard enforcement beginning the following week.
3. Week three—hard enforcement at targeted locations, including issuing traffic fines.

*The crosswalk enforcement events should focus on the following intersections:*

- Dempster, Algonquin and Busse
- Central and Emerson
- Central and Cathy
- Busse and Lonnquist
- Mount Prospect and Lincoln
- Northwest Hwy. and Maple
- Emerson and Busse

# Evaluation and Implementation

|   |    |
|---|----|
| 5.1 Transportation Safety Commission    | 46 |
| 5.2 Collect and Analyze Cycling Data    | 46 |
| 5.3 Review Progress                     | 46 |
| 5.4 Commitment to Funding               | 47 |
| 5.5 Become a Bicycle-Friendly Community | 47 |
| 5.6 Project Schedule                    | 48 |

# 5



## 5.1 Transportation Safety Commission

The Mount Prospect Bicycle Plan is an ambitious program that requires an appropriate organizational structure for implementation. Parallel to implementing the bikeway network, a structure is needed to develop and implement all elements of the plan

### 5.1 Transportation Safety Commission

The Transportation Safety Commission was recently redefined to include bicycle and pedestrian issues. In order to incorporate these new responsibilities, the commission should include members with a strong interest in bicycle and pedestrian issues.

The commission should monitor implementation of the plan as necessary, promote events celebrating active transportation in the Village and encourage residents and visitors to use the improved active transportation network. The commission can also serve as a hearing body to gather early public input regarding the design and construction of bicycle and pedestrian infrastructure.

A Transportation Safety Commission Liaison, a staff member from the Mount Prospect Engineering Department, serves as the primary contact for the commission and assists in implementing the plan with a focus on infrastructure. Village staff from the Police, Fire, and Public Works Departments that serve on the Commission, along with other municipal staff and outside organizations can work to implement other elements of this plan by offering bicycle education and encouragement programming and seeking funding for the recommendations described in this plan.

### 5.2 Collect and Analyze Cycling Data

Assessing the impact of the active transportation plan is easiest when reliable data is available. Many free and low cost data sets are available to assist with evaluation. The Transportation Safety Commission Staff Liaison could be charged with reviewing data on an annual basis.

*Data sets might include information gathered from:*

- Bicycle traffic counts to monitor cycling trends
- User surveys focused on specific cycling issues and opportunities
- Public attitude surveys
- Annual bicycle collision data

The application for the League of American Bicyclists Bicycle-Friendly Community recognition program offers excellent guidance to establish baseline data. Other resources include traffic crash reports from Illinois Department of Transportation, and the data compiled by the consultants for this plan. Mount Prospect could conduct bicycle and pedestrian traffic counts on an annual basis. The National Center for Safe Routes to School offers a free student traffic count tool and free analysis.

### 5.3 Review Progress

Evaluating the progress of the Mount Prospect Bicycle Plan is the cornerstone of the implementation strategy. The Project Schedule is provided for identifying infrastructure, policy and programming initiatives to guide those who will implement the plan.

It is recommended that the Transportation Safety Commission regularly review the Project Schedule, set achievable goals to measure the success in implementing the recommendations set out in the plan, identify changes in direction and priorities for the upcoming year, and confirm budget requirements.

## 5.5 Become a Bicycle-Friendly Community

### 5.4 Commitment to Funding

Full implementation of the plan will require a commitment to funding over an extended period of years. It will be important for Mount Prospect to anticipate and plan for projects in advance of grant funding cycles, and to have committed matching funds through its annual budget process. The primary funding source for the treatments and programs in this plan is grants. As local funds become available, the Village should develop strategic sections of the network or programs.

*A listing of funding sources is included in Appendix C.*

### 5.5 Become a Bicycle-Friendly Community

Improving Mount Prospect's bicycle network will make the Village an even better place to live, work, shop, and play. National recognition of these efforts is a source of pride for the community. The Bicycle-Friendly Community Program (BFC) led by League of American Bicyclists provides incentives, hands-on assistance, and award recognition for communities that actively support cycling. Becoming a Bicycle-Friendly Community will show the Village's commitment to bicycling as a form of recreation and transportation. By showing its commitment to bicycling, the Village is showing that it is committed to healthy, sustainable lifestyles.

By adopting this plan and beginning to implement the recommendations, the Village has taken a major step toward becoming a Bicycle-Friendly Community. This award, given annually to communities throughout the country recognizes a community's commitment to actively support bicycling. The application reviews a community's commitment to each of the 5 key elements: engineering, education, encouragement, enforcement, and evaluation. An annual update and a short renewal process every 4 years are required to maintain bicycle-friendly community status.



Figure 35: This is the placard awarded by the League of American Bicyclists to communities that receive Bicycle-Friendly Community designation.

## 5.6 Project Schedule

| Bicycle Network            | Chapter Reference | Project Name  | Timeframe                        | Estimated Cost      | Lead Department or Agency |              |
|----------------------------|-------------------|---|----------------------------------|---------------------|---------------------------|--------------|
| On Street Bicycle Facility | 2.3.A.1           | Striping parking/shared lane markings                             | near term/mid term               | \$40,000            | Public Works              |              |
|                            | 2.3.A.2           | Striping sharrows   | near term                        | \$10,000 - \$50,000 | Public Works              |              |
|                            | 2.3.A.3           | Bike lanes on Business Center                                     | near term                        | \$30,000            | Public Works              |              |
|                            | 2.3.A.4           | Metra connections and bike parking                                | near term                        | \$10,000            | Public Works              |              |
|                            | 2.3.A.6           | Rand Road/Business Center Drive/Isabella Street                   | near term                        | \$15,000            | Public Works              |              |
|                            | 2.3.A.6           | Busse Road/Lonnquist Boulevard                                    | near term                        | \$5,000             | Public Works              |              |
|                            | 2.3.A.6           | Camp McDonald Road/Burning Bush Lane                              | near term                        | \$5,000             | Public Works              |              |
|                            | 2.3.A.6           | Golf Road/Robert Drive  | near term                        | \$5,000             | Public Works              |              |
|                            | 2.3.A.6           | Golf Road/Na Wa Ta Avenue/Linneman Road                           | near term                        | \$5,000             | Public Works              |              |
|                            | 2.3.A.7           | Business Center Drive Road Diet                                   | mid term                         | \$20,000            | Public Works              |              |
|                            | 2.3.A.7           | Wheeling Road Road Diet   | mid term                         | \$20,000            | Public Works              |              |
|                            | 2.3.B.2           | Kensington Road Shared Use Path                                   | long term                        | \$3,300,000         | Public Works              |              |
|                            | 2.3.B.2           | River Road Shared Use Path  | long term                        | \$1,500,000         | Public Works              |              |
|                            | 2.3.B.2           | Busse Road Shared Use Path  | long term                        | \$2,800,000         | Public Works              |              |
|                            | 2.3.B.2           | Wolf Road Shared Use Path   | long term                        | \$2,400,000         | Public Works              |              |
|                            | 2.3.B.3           | South Mount Prospect Connection - Algonquin Road                  | long term                        | \$20-\$100,000      | Public Works              |              |
|                            | 2.3.B.3           | South Mount Prospect Connection - Busse Road                      | long term                        | \$400,000           | Public Works              |              |
|                            | 2.3.B.4           | Rand Road/Elmhurst Road/Kensington Road                           | long term                        | \$1,000,000         | Public Works              |              |
|                            | 2.3.B.4           | Busse Road/Lonnquist Boulevard                                    | long term                        | \$600,000           | Public Works              |              |
|                            | 2.3.B.4           | Kensington Road/Pine Street                                       | long term                        | \$20,000            | Public Works              |              |
|                            | 2.3.B.4           | Northwest Highway, connection between Meadows Park and Melas Park | long term                        | \$3,100,000         | Public Works              |              |
|                            | 2.3.B.6           | Bicycle Boulevards  | long term                        | \$100,000 per mile  | Public Works              |              |
|                            | Bicycle Amenities | 2.4.A   | Bike parking                     | near term           | \$200 per rack            | Public Works |
|                            |                   | 2.4.B   | Signage                          | near term           | \$500 per sign            | Public Works |
|                            |                   | 2.4.D   | Signalized crossing improvements | mid term            | \$10-\$100,000            | Public Works |
|                            |                   | 2.4.E   | No right-turns on red            | near term           | \$2,000 per location      | Public Works |
|                            |                   | 2.4.F   | Crosswalk countdown signals      | near term           | \$10,000 per signal       | Public Works |
|                            |                   | 2.4.G   | Actuated crosswalk signals       | near term           | 30000                     | Public Works |
| 2.4.H                      |                   | Improved uncontrolled crossings                                   | near term                        | \$5 - \$200,000     | Public Works              |              |

\*Bicycle facilities and amenities recommended in this plan are eligible for funding through state or federal grants. A listing of funding sources is found in Appendix C.

## 5.6 Project Schedule (Continued)

| Policies and Ordinances | Chapter Reference | Project Name                                  | Timeframe     | Estimated Cost    | Lead Department or Agency          | Outside Agencies | Potential Funding Source*             |
|-------------------------|-------------------|---|---------------|-------------------|------------------------------------|------------------|---------------------------------------|
| Ordinances              | 3.2.A             | Street Design Standards and Guidelines        | mid term      | 10-15 staff hours | Public Works                       |                  | General Fund/Capital Improvement Fund |
|                         | 3.2.B             | Bicycle Parking Ordinance                     | near term     | 10-15 staff hours | Community Development              |                  | General Fund/Capital Improvement Fund |
|                         | 3.2.C             | Distracted Driver Ordinance                   | near term     | 10-15 staff hours | Police                             |                  | General Fund/Capital Improvement Fund |
|                         | 3.2.D             | Safe Park Zones Ordinance                     | mid term      | 10-15 staff hours | Police                             |                  | General Fund/Capital Improvement Fund |
|                         | 3.2.E             | Update Development Codes                      | long term     | 30-40 staff hours | Community Development              |                  | General Fund/Capital Improvement Fund |
| Policies                | 3.3.A             | Complete Streets Policy                       | near term     | 30-40 staff hours | Public Works/Community Development |                  | General Fund/Capital Improvement Fund |
|                         | 3.3.B             | Bike Facility Maintenance and Clearing Policy | mid term      | 10-15 staff hours | Public Works                       |                  | General Fund/Capital Improvement Fund |
|                         | 3.3.C             | Joint Use Agreements                          | opportunistic | 10-15 staff hours | various                            |                  | General Fund/Capital Improvement Fund |
|                         | 3.3.D             | Safe Routes to Schools                        | near term     | 10-15 staff hours | Public Works/Community Development | school districts | General Fund/Capital Improvement Fund |

| Programming  | Chapter Reference | Project Name                                       | Timeframe | Estimated Cost                | Lead Department or Agency                     | Outside Agencies   | Potential Funding Source* |
|--|-------------------|--|-----------|-------------------------------|---|--|---------------------------|
| Enforcement, Encouragement, and Education; Encouragement and | 4.1.A             | Bike Ambassadors                                   | near term | Varies based on project scale | Police  | Active Transportation Alliance or League of Illinois Bicyclists  | 402 Program               |
|  | 4.1.B             | Bicycle Academy                                    | near term | Varies based on project scale | Community Development                         | K-8 school districts   | SRTS                      |
|  | 4.1.C             | Build a Bike Program                               | near term | Varies based on project scale | Community Development, Police                 | Community Connections Center, Park Districts or School Districts |                           |
|  | 4.1.D             | Teens Encouraging Teens                            | near term | Varies based on project scale | Community Development                         | Prospect High School, civic groups                               |                           |
|  | 4.1.E             | Mobility Education                                 | mid term  | Varies based on project scale | Community Development                         | Park Districts or School Districts                               |                           |
|  | 4.1.F             | Mount Prospect Bicycle Map                         | near term | 2,000-\$2,000                 | Community Development or Public Works         |  | CMAQ                      |
|  | 4.2.A             | Program on Access Through Online Social Media      | near term | 10 hours per month            | Village Manager's Office, Television Services | Chamber of Commerce  |                           |
|  | 4.2.B             | Program on Access Through Online Social Media      | near term | 50 hours per month            | Community Development                         | Chamber of Commerce  |                           |
|  | 4.2.C             | Program on Access Through Online Social Media      | near term | 10 hours per event            | Community Development                         | Chamber of Commerce, businesses                                  |                           |
|  | 4.2.D             | Social Scale Social Rides/Village Spotlight Rides  | near term | Varies based on project scale | Community Development                         | Chamber of Commerce  |                           |
|  | 4.2.E             | Ongoing Encouragement Program/Shop By Bike         | near term | Varies based on project scale | Community Development                         |  |                           |
|  | 4.3.A             | Bike Right Campaign to Reward Good Biking Behavior | near term | Varies based on project scale | Police  |  | 402 Program               |
|  | 4.3.B             | Police Crosswalk Enforcement Events                | mid term  | Varies based on project scale | Police  |  | 402 Program               |

\*Policies, ordinances, and programming recommendations are eligible for grant funding. A list of funding sources is found in Appendix C.





# Appendices

|  |    |
|--|----|
| 6.1 Appendix A: Projected Energy Savings                   | 52 |
| 6.2 Appendix B: Community Bicycle Network Maps             | 58 |
| 6.3 Appendix C: Funding Resources                          | 63 |
| 6.4 Appendix D: Pedestrian and Bicycle Facilities Guidance | 64 |
| 6.5 Appendix E: Sample Bicycle Parking Ordinance           | 65 |
| 6.6 Appendix F: Sample Distracted Driver Ordinance         | 66 |
| 6.7 Appendix G: Sample Complete Streets Policy             | 67 |
| 6.8 Appendix H: Crash Map                                  | 68 |
| 6.9 Appendix I: Bike Plan Task Force                       | 69 |

# 6

## 6.1 Appendix A: Projected Energy Savings

A primary objective of the Mount Prospect Bike Plan is to identify the energy savings and related environmental benefits that might be achieved with the implementation of this plan. This objective is also a requirement under the plan's funding source, the United States Department of Energy's Energy Efficiency Conservation Block Grant Program (EECBG). One way to quantify the value of bicycling and its benefits for the community is by looking at the projected reduction in Vehicle Miles Traveled (VMT) as residents substitute trips taken by car for trips taken by bicycle. For each vehicle mile traveled on a bicycle instead of car, there is a resulting energy savings.

One of the many positive benefits of commuting by bicycle is the energy savings and environmental impact of shifting trips from car to bicycle. In the last two decades, the portion of travelers using bicycles for transportation, known as bicycling "mode share" has increased.<sup>1</sup> A combination of additional infrastructure, educational, encouragement and safety factors have contributed to this increase. As additional facilities for bicycling are built, bicycle usage is likely to continue increasing.

This plan is based on a phased series of recommendations. As each phase is completed, there will be additional bicycle facilities, and thus additional opportunities for bike trip to be substituted for car trips.

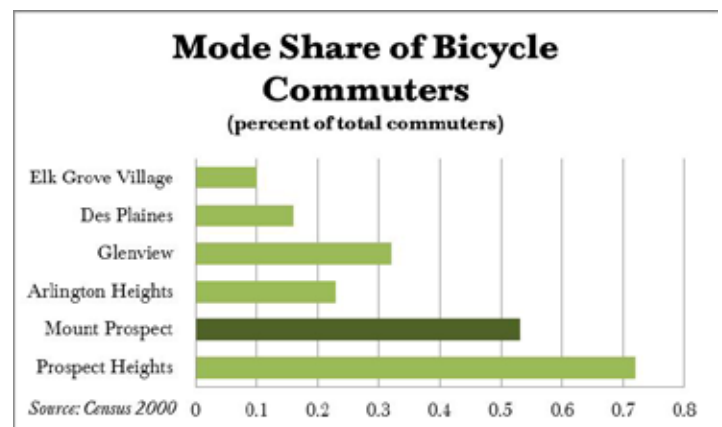
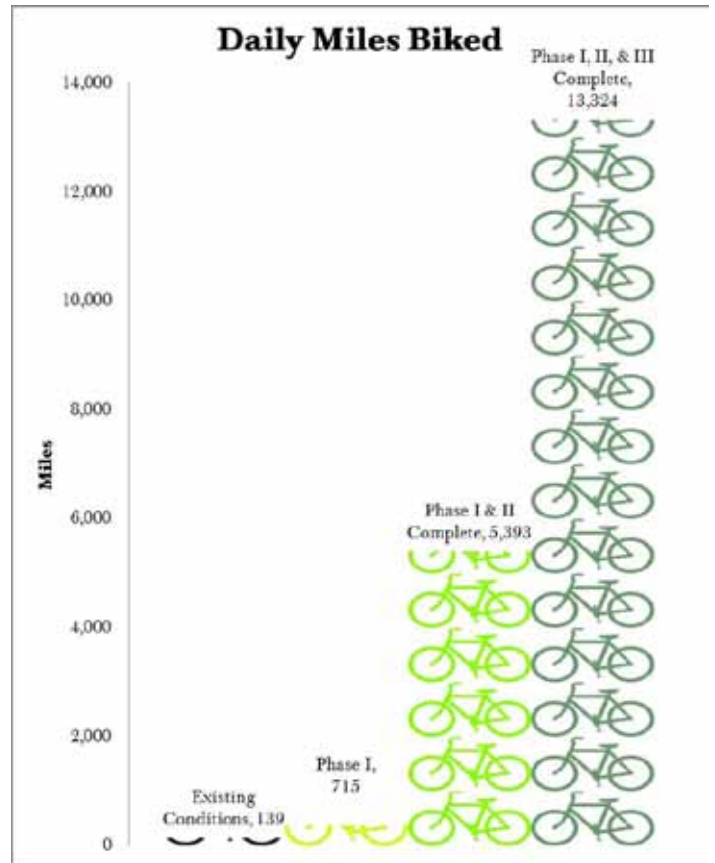
### Current Bicycle Commuting Rates

In order to understand the environmental impact of additional bicycling facilities, it is helpful to begin by reviewing current levels of bicycling. Reviewing current levels of bicycling will inform projections of additional bike ridership.

There are two methods of comparison for bicycling rates. One method is to compare communities with similar population. Another method is to compare neighboring communities. Making both comparisons helps to understand factors such as differentiation in land use pattern, density residential and job density, road patterns, and access to trails and transit. Neighboring communities are likely to have similar demographics and development patterns, but dissimilar population counts.

Using either method of comparison, Mount Prospect is one of the leading bicycling communities, with 0.53% mode share for bicycling. Compared to other Chicagoland municipalities with 40,000 to 70,000 residents (Census 2000), Mount Prospect possesses the third highest mode share for bicycling. Compared to neighboring municipalities, Mount Prospect has the second highest portion of bicyclists, with only Prospect Heights having a higher mode share (0.72%).

<sup>1</sup> US Census 1990, 2000 and CMAP Travel Tracker Survey 2008.



## 6.1 Appendix A: Projected Energy Savings (Continued)

### Chicago area municipalities with 40,000 to 70,000 residents

| Commuter Mode Share |                       |               |             |             |                        |                         |                              |
|---------------------|-----------------------|---------------|-------------|-------------|------------------------|-------------------------|------------------------------|
| Rank                | Place                 | Population    | Bike (%)    | Walk (%)    | Use Public Transit (%) | Don't Drive To Work (%) | Households without a car (%) |
| 1                   | Wheaton               | 55,439        | 0.73        | 4.41        | 8.93                   | 14.07                   | 3.33                         |
| 2                   | Oak Park              | 52,524        | 0.53        | 4.22        | 22.94                  | 27.69                   | 12.5                         |
| <b>3</b>            | <b>Mount Prospect</b> | <b>56,706</b> | <b>0.53</b> | <b>2.16</b> | <b>6.12</b>            | <b>8.81</b>             | <b>6.1</b>                   |
| 4                   | Palatine              | 65,156        | 0.44        | 1.43        | 4.83                   | 6.7                     | 5.32                         |
| 5                   | Downers Grove         | 48,638        | 0.42        | 1.66        | 11.18                  | 13.26                   | 7.35                         |
| 6                   | Hoffman Estates       | 50,352        | 0.37        | 1.3         | 3.36                   | 5.03                    | 4.21                         |
| 7                   | Glenview              | 41,679        | 0.32        | 1.57        | 8.52                   | 10.41                   | 3.17                         |
| 8                   | Skokie                | 63,320        | 0.31        | 2.32        | 8.41                   | 11.04                   | 9.35                         |
| 9                   | Berwyn                | 54,016        | 0.3         | 3.27        | 11.02                  | 14.59                   | 13.96                        |
| 10                  | Elmhurst              | 42,959        | 0.29        | 3.18        | 7.75                   | 11.22                   | 6.17                         |
| 11                  | Tinley Park           | 48,327        | 0.17        | 0.79        | 10.33                  | 11.29                   | 4.78                         |
| 12                  | Lombard               | 41,859        | 0.17        | 1.61        | 6.56                   | 8.34                    | 6.07                         |
| 13                  | Des Plaines           | 58,695        | 0.16        | 1.5         | 6.88                   | 8.54                    | 9.31                         |
| 14                  | Bolingbrook           | 56,454        | 0.15        | 0.99        | 4.19                   | 5.33                    | 3.22                         |
| 15                  | Oak Lawn              | 55,391        | 0.03        | 1.8         | 8.42                   | 10.25                   | 8.08                         |
| 16                  | Orland Park           | 51,103        | 0.03        | 1.1         | 6.64                   | 7.77                    | 4.18                         |
| 17                  | Buffalo Grove         | 42,591        | 0           | 0.91        | 5.72                   | 6.63                    | 2.24                         |

Source: US Census 2000

### Mount Prospect and neighboring municipalities

| Commuter Mode Share |                       |               |             |             |                        |                         |                              |
|---------------------|-----------------------|---------------|-------------|-------------|------------------------|-------------------------|------------------------------|
| Rank                | Place                 | Population    | Bike (%)    | Walk (%)    | Use Public Transit (%) | Don't Drive To Work (%) | Households without a car (%) |
| 1                   | Prospect Heights      | 17,541        | 0.72        | 1.29        | 4.74                   | 6.75                    | 6.44                         |
| <b>2</b>            | <b>Mount Prospect</b> | <b>56,706</b> | <b>0.53</b> | <b>2.16</b> | <b>6.12</b>            | <b>8.81</b>             | <b>6.1</b>                   |
| 3                   | Arlington Heights     | 76,098        | 0.23        | 1.75        | 8.09                   | 10.07                   | 6.18                         |
| 4                   | Glenview              | 41,679        | 0.32        | 1.57        | 8.52                   | 10.41                   | 3.17                         |
| 5                   | Des Plaines           | 58,695        | 0.16        | 1.5         | 6.88                   | 8.54                    | 9.31                         |
| 6                   | Elk Grove Village     | 34,758        | 0.10        | 0.93        | 3.54                   | 4.57                    | 4.84                         |

Source: US Census 2000

### Probable Increase in Bicycling Due to Infrastructure Change

Several studies, including the California Department of Transportation (Caltrans) Air Resources Board<sup>2</sup> suggest that a reasonable mode share target for bicycles in suburban communities with complete bicycle networks is 2%. University towns have an even higher suggested mode share target of 6.8%. This figure is determined by the ratio of bicycle routes and lanes to arterial and highway lane miles. If the ratio of bicycle lane miles to arterial/freeway miles is more than .35, a 2% mode share for bicycles should be used.

In its current state, there are about 20 miles of bike routes or trails. When it is built out, there will be 50 miles of bicycle routes, lanes or trail – including facilities on many higher-traffic roads that currently lack a bicycle facility. There are

<sup>2</sup> Source: Emissions Reduction Calculation Methodologies <http://www.dot.ca.gov/hq/transprog/federal/cmaq/CMAQCAL.pdf>

approximately 32 miles of highway, arterial and major local roads. At full build out, there will be about 1.6 miles of bicycle facilities for every mile of major roadway.

As a comparison, North Cook County was cited as having a 1.5% mode share for bicyclists for all trips taken by people of all ages, in a 2008 survey conducted the Chicago Metropolitan Agency for Planning (CMAP). This is one of the highest mode shares for the Chicagoland region, second only to central (2%) Chicago.

Nationwide, bike friendly communities such as Portland, OR (6%), Minneapolis, MN (4%) and Seattle, WA (3%) were recognized as cities with highest bicycle mode share according to the US Census American Community Survey for 2005-2009 lists. Data is not available for smaller cities.<sup>3</sup>

<sup>3</sup> Source: [http://www.bikeleague.org/resources/reports/pdfs/2009\\_bike\\_2000\\_2009.pdf](http://www.bikeleague.org/resources/reports/pdfs/2009_bike_2000_2009.pdf)



## 6.1 Appendix A: Projected Energy Savings (Continued)

### Daily Energy Savings

|                             | Bicycle Mode Share | Reduction in Vehicle Miles Traveled (VMT) | Gas Saved (Gallons) | CO2 Reduction (Kilograms) | Other Greenhouse Gases Reduction (Kilograms) |
|-----------------------------|--------------------|---|---------------------|---------------------------|--|
| Existing Conditions         | 0.53%              | 139                                       | 7                   | 60                        | 3  |
| Phase I Complete            | 1%                 | 360                                       | 18                  | 156                       | 8  |
| Phase I & II Complete       | 1.50%              | 5,393                                     | 266                 | 2,338                     | 123  |
| Phase I, II, & III Complete | 2%                 | 13,324                                    | 656                 | 5,776                     | 304  |

Considering the recommended mode share target from Caltrans, the expected growth in Mount Prospect's bicycle network and the most recent mode share statistics from CMAP, 2% is the goal for bicycling mode share for Mount Prospect's bicycling network at time of build out.

To reach this goal, Mount Prospect will be completing its bicycle network in phases. With each phase constructed, the bicycle network will become more complete and connect to more destinations. As a result, ridership will gradually increase toward the 2% mode share goal.

Since the plan includes programmatic and policy recommendations that educate and encourage bicycling and enforcement of cycling safety, it can be assumed that these efforts will also contribute to the projected increase in ridership.

#### Estimated Bicycle Miles Traveled

Using the current traffic counts on each corridor and assumption of a 2% mode share goal for bicycles, an estimate of the daily total miles traveled by bicycle in Mount Prospect was made. To calculate the energy savings for each project, the number of miles traveled by bicycle was converted to show gallons of gasoline saved, and greenhouse gas emissions rate.

#### Bicycle Miles Traveled Per Project

[Cars per day on the roadway] x [length of proposed bicycle facility] x [% bicycle traffic]

#### Energy Savings Rates<sup>4</sup>

|                                      |       |
|--------------------------------------|-------|
| Average Miles Per Gallon of Gasoline | 20.3  |
| CO2 Per Gallon of Gas (kilograms)    | 8.8   |
| Other Greenhouse Gases (kilograms)   | 0.463 |

*A summary table (above) illustrates the daily energy savings at the complete build out of each project phase as well as a total energy savings for the Mount Prospect bicycle network.*

*Calculations for each individual project can be found on the following pages.*

<sup>4</sup> Source: US EPA <http://www.epa.gov/otaq/climate/420f05004.htm>

## 6.1 Appendix A: Projected Energy Savings (Continued)

### Existing Conditions, 0.53% Bicycle Mode Share

| Corridor Name         | Existing Conditions                       |                           | Mode Shift<br>Current Bicycle<br>Mode Share | Daily Energy Savings                            |                        |                              |  |
|-----------------------|---|---------------------------|---|---|------------------------|------------------------------|--|
|                       | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |   | Reduction in<br>Vehicle Miles<br>Traveled (VMT) | Gas Saved<br>(Gallons) | CO2 Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| Burning Bush          | 1,500                                     | 1.5                       | 0.53%                                       | 12  | 0.59                   | 5                            | 0.3  |
| Business Center Drive | 1,800                                     | 1.1                       | 0.53%                                       | 11  | 0.52                   | 5                            | 0.2  |
| Council Trail         | 1,500                                     | 1.9                       | 0.53%                                       | 15  | 0.74                   | 7                            | 0.3  |
| Emerson Street        | 2,500                                     | 1.6                       | 0.53%                                       | 21  | 1.04                   | 9                            | 0.5  |
| Greenwood Drive       | 500                                       | 1.0                       | 0.53%                                       | 3   | 0.13                   | 1                            | 0.1  |
| Gregory Street        | 1,600                                     | 1.4                       | 0.53%                                       | 12  | 0.58                   | 5                            | 0.3  |
| Lincoln Street        | 2,500                                     | 1.4                       | 0.53%                                       | 19  | 0.91                   | 8                            | 0.4  |
| Lonnquist Boulevard   | 1,500                                     | 1.1                       | 0.53%                                       | 8   | 0.41                   | 4                            | 0.2  |
| Robert Drive          | 600                                       | 1.6                       | 0.53%                                       | 5   | 0.25                   | 2                            | 0.1  |
| We Go Trail           | 800                                       | 0.5                       | 0.53%                                       | 2   | 0.10                   | 1                            | 0.0  |
| Wheeling Road         | 7,500                                     | 0.8                       | 0.53%                                       | 32  | 1.57                   | 14                           | 0.7  |
| <b>Total</b>          |   | <b>13.86</b>              |   | <b>139</b>                                      | <b>6.86</b>            | <b>60</b>                    | <b>3</b>   |

### Phase I Projects, 1% Bicycle Mode Share

| Corridor Name         | Existing Conditions                       |                           | Mode Shift<br>Projected Bicycle<br>Mode Share | Daily Energy Savings                            |                        |                              |  |
|-----------------------|---|---------------------------|---|---|------------------------|------------------------------|--|
|                       | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |   | Reduction in<br>Vehicle Miles<br>Traveled (VMT) | Gas Saved<br>(Gallons) | CO2 Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| Lincoln Street        | 2,500                                     | 1.1                       | 1%  | 28  | 1.35                   | 12                           | 0.6  |
| Lonnquist Boulevard   | 1,500                                     | 1.8                       | 1%  | 27  | 1.33                   | 12                           | 0.6  |
| Meier Road            | 2,500                                     | 0.7                       | 1%  | 18  | 0.86                   | 8                            | 0.4  |
| Gregory Street        | 1,600                                     | 1.4                       | 1%  | 22  | 1.10                   | 10                           | 0.5  |
| William Street        | 300                                       | 0.1                       | 1%  | 0   | 0.01                   | 0                            | 0.0  |
| Isabella Street       | 1,900                                     | 0.1                       | 1%  | 2   | 0.09                   | 1                            | 0.0  |
| Willow Lane           | 1,500                                     | 1                         | 1%  | 15  | 0.74                   | 7                            | 0.3  |
| Burning Bush          | 1,500                                     | 1.5                       | 1%  | 23  | 1.11                   | 10                           | 0.5  |
| Busse Avenue          | 500                                       | 0.3                       | 1%  | 2   | 0.07                   | 1                            | 0.0  |
| Weller Lane           | 500                                       | 0.1                       | 1%  | 1   | 0.02                   | 0                            | 0.0  |
| Council Trail         | 1,500                                     | 1.3                       | 1%  | 20  | 0.96                   | 8                            | 0.4  |
| Audrey Lane           | 900                                       | 0.35                      | 1%  | 3   | 0.16                   | 1                            | 0.1  |
| Connie Lane           | 300                                       | 0.1                       | 1%  | 0   | 0.01                   | 0                            | 0.0  |
| Robert Drive          | 600                                       | 0.8                       | 1%  | 5   | 0.24                   | 2                            | 0.1  |
| Redwood Drive         | 600                                       | 0.2                       | 1%  | 1   | 0.06                   | 1                            | 0.0  |
| We Go Trail           | 800                                       | 0.5                       | 1%  | 4   | 0.20                   | 2                            | 0.1  |
| See Gwun Avenue       | 750                                       | 0.5                       | 1%  | 4   | 0.18                   | 2                            | 0.1  |
| Pine Street           | 1,600                                     | 1.1                       | 1%  | 18  | 0.87                   | 8                            | 0.4  |
| Emerson Street        | 2,500                                     | 1.8                       | 1%  | 45  | 2.22                   | 20                           | 1.0  |
| Country Lane          | 500                                       | 0.1                       | 1%  | 1   | 0.02                   | 0                            | 0.0  |
| William Street        | 1,400                                     | 0.5                       | 1%  | 7   | 0.34                   | 3                            | 0.2  |
| Wheeling Road         | 7,500                                     | 0.8                       | 1%  | 60  | 2.96                   | 26                           | 1.4  |
| Greenwood Drive       | 500                                       | 1                         | 1%  | 5   | 0.25                   | 2                            | 0.1  |
| Maple Street          | 500                                       | 0.1                       | 1%  | 1   | 0.02                   | 0                            | 0.0  |
| Church Road           | 500                                       | 0.1                       | 1%  | 1   | 0.02                   | 0                            | 0.0  |
| Linneman Road         | 3,000                                     | 0.4                       | 1%  | 12  | 0.59                   | 5                            | 0.3  |
| Na Wa Ta Avenue       | 400                                       | 0.3                       | 1%  | 1   | 0.06                   | 1                            | 0.0  |
| Owen Street           | 800                                       | 0.9                       | 1%  | 7   | 0.35                   | 3                            | 0.2  |
| Busse Avenue          | 700                                       | 0.7                       | 1%  | 5   | 0.24                   | 2                            | 0.1  |
| Business Center Drive | 1,800                                     | 0.65                      | 1%  | 12  | 0.58                   | 5                            | 0.3  |
| Feehanville Road      | 2,300                                     | 0.6                       | 1%  | 14  | 0.68                   | 6                            | 0.3  |
| <b>Total</b>          |   | <b>20.9</b>               |   | <b>359.7</b>                                    | <b>17.7</b>            | <b>155.9</b>                 | <b>8.2</b>   |

Phase I projects include upgrades to the existing bicycle network

## 6.1 Appendix A: Projected Energy Savings (Continued)

### Phase I Projects, 1.5% Mode Share

| Corridor Name         | Existing Conditions                       |                           | Mode Shift<br>Projected<br>Bicycle<br>Mode Share | Daily Energy Savings                               |                        |                                 |  |
|-----------------------|---|---------------------------|--|--|------------------------|---------------------------------|--|
|                       | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |  | Reduction in<br>Vehicle Miles<br>Traveled<br>(VMT) | Gas Saved<br>(Gallons) | CO2<br>Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| Lincoln Street        | 2,500                                     | 1.1                       | 1.5%   | 41   | 2.03                   | 18                              | 0.9  |
| Lonnquist Boulevard   | 1,500                                     | 1.8                       | 1.5%   | 41   | 2.00                   | 18                              | 0.9  |
| Meier Road            | 2,500                                     | 0.7                       | 1.5%   | 26   | 1.29                   | 11                              | 0.6  |
| Gregory Street        | 1,600                                     | 1.4                       | 1.5%   | 34   | 1.66                   | 15                              | 0.8  |
| William Street        | 300                                       | 0.1                       | 1.5%   | 0  | 0.02                   | 0                               | 0.0  |
| Isabella Street       | 1,900                                     | 0.1                       | 1.5%   | 3  | 0.14                   | 1                               | 0.1  |
| Willow Lane           | 1,500                                     | 1                         | 1.5%   | 23   | 1.11                   | 10                              | 0.5  |
| Burning Bush          | 1,500                                     | 1.5                       | 1.5%   | 34   | 1.66                   | 15                              | 0.8  |
| Busse Avenue          | 500                                       | 0.3                       | 1.5%   | 2  | 0.11                   | 1                               | 0.1  |
| Weller Lane           | 500                                       | 0.1                       | 1.5%   | 1  | 0.04                   | 0                               | 0.0  |
| Council Trail         | 1,500                                     | 1.3                       | 1.5%   | 29   | 1.44                   | 13                              | 0.7  |
| Audrey Lane           | 900                                       | 0.35                      | 1.5%   | 5  | 0.23                   | 2                               | 0.1  |
| Connie Lane           | 300                                       | 0.1                       | 1.5%   | 0  | 0.02                   | 0                               | 0.0  |
| Robert Drive          | 600                                       | 0.8                       | 1.5%   | 7  | 0.35                   | 3                               | 0.2  |
| Redwood Drive         | 600                                       | 0.2                       | 1.5%   | 2  | 0.09                   | 1                               | 0.0  |
| We Go Trail           | 800                                       | 0.5                       | 1.5%   | 6  | 0.30                   | 3                               | 0.1  |
| See Gwun Avenue       | 750                                       | 0.5                       | 1.5%   | 6  | 0.28                   | 2                               | 0.1  |
| Pine Street           | 1,600                                     | 1.1                       | 1.5%   | 26   | 1.30                   | 11                              | 0.6  |
| Emerson Street        | 2,500                                     | 1.8                       | 1.5%   | 68   | 3.33                   | 29                              | 1.5  |
| Country Lane          | 500                                       | 0.1                       | 1.5%   | 1  | 0.04                   | 0                               | 0.0  |
| William Street        | 1,400                                     | 0.5                       | 1.5%   | 11   | 0.52                   | 5                               | 0.2  |
| Wheeling Road         | 7,500                                     | 0.8                       | 1.5%   | 90   | 4.43                   | 39                              | 2.1  |
| Greenwood Drive       | 500                                       | 1                         | 1.5%   | 8  | 0.37                   | 3                               | 0.2  |
| Maple Street          | 500                                       | 0.1                       | 1.5%   | 1  | 0.04                   | 0                               | 0.0  |
| Church Road           | 500                                       | 0.1                       | 1.5%   | 1  | 0.04                   | 0                               | 0.0  |
| Linneman Road         | 3,000                                     | 0.4                       | 1.5%   | 18   | 0.89                   | 8                               | 0.4  |
| Na Wa Ta Avenue       | 400                                       | 0.3                       | 1.5%   | 2  | 0.09                   | 1                               | 0.0  |
| Owen Street           | 800                                       | 0.9                       | 1.5%   | 11   | 0.53                   | 5                               | 0.2  |
| Busse Avenue          | 700                                       | 0.7                       | 1.5%   | 7  | 0.36                   | 3                               | 0.2  |
| Business Center Drive | 1,800                                     | 0.65                      | 1.5%   | 18   | 0.86                   | 8                               | 0.4  |
| Feehanville Road      | 2,300                                     | 0.6                       | 1.5%   | 21   | 1.02                   | 9                               | 0.5  |
| <b>Total</b>          |   | <b>20.9</b>               |  | <b>540</b>   | <b>26.58</b>           | <b>234</b>                      | <b>12</b>  |

### Phase II Projects, 1.5% Mode Share

| Corridor Name     | Existing Conditions                       |                           | Mode Shift<br>Projected<br>Bicycle<br>Mode Share | Daily Energy Savings                               |                        |                                 |  |
|-------------------|---|---------------------------|--|--|------------------------|---------------------------------|--|
|                   | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |  | Reduction in<br>Vehicle Miles<br>Traveled<br>(VMT) | Gas Saved<br>(Gallons) | CO2<br>Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| River Road        | 17,500                                    | 1.5                       | 1.5%   | 394  | 19                     | 171                             | 9  |
| Wolf Road         | 21,100                                    | 2.4                       | 1.5%   | 760  | 37                     | 329                             | 17   |
| Kensington Road   | 7,500                                     | 3                         | 1.5%   | 338  | 17                     | 146                             | 8  |
| Busse Road        | 18,000                                    | 2.8                       | 1.5%   | 756  | 37                     | 328                             | 17   |
| Central Road      | 20,000                                    | 3.2                       | 1.5%   | 960  | 47                     | 416                             | 22   |
| Northwest Highway | 13,000                                    | 2.1                       | 1.5%   | 410  | 20                     | 178                             | 9  |
| Golf Road         | 33,000                                    | 2.5                       | 1.5%   | 1,238  | 61                     | 536                             | 28   |
| <b>Total</b>      |   | <b>17.5</b>               |  | <b>4,854</b>                                       | <b>239</b>             | <b>2,104</b>                    | <b>111</b>   |

## 6.1 Appendix A: Projected Energy Savings (Continued)

### Phase I Projects, 2% Mode Share

| Corridor Name         | Existing Conditions                       |                           | Mode Shift<br>Projected<br>Bicycle Mode<br>Share | Daily Energy Savings                               |                        |                              |  |
|-----------------------|---|---------------------------|--|--|------------------------|------------------------------|--|
|                       | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |  | Reduction in<br>Vehicle Miles<br>Traveled<br>(VMT) | Gas Saved<br>(Gallons) | CO2 Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| Lincoln Street        | 2,500                                     | 1.1                       | 2.0%   | 55   | 2.71                   | 24                           | 1.3  |
| Lonnquist Boulevard   | 1,500                                     | 1.8                       | 2.0%   | 54   | 2.66                   | 23                           | 1.2  |
| Meier Road            | 2,500                                     | 0.7                       | 2.0%   | 35   | 1.72                   | 15                           | 0.8  |
| Gregory Street        | 1,600                                     | 1.4                       | 2.0%   | 45   | 2.21                   | 19                           | 1.0  |
| William Street        | 300                                       | 0.1                       | 2.0%   | 1  | 0.03                   | 0                            | 0.0  |
| Isabella Street       | 1,900                                     | 0.1                       | 2.0%   | 4  | 0.19                   | 2                            | 0.1  |
| Willow Lane           | 1,500                                     | 1                         | 2.0%   | 30   | 1.48                   | 13                           | 0.7  |
| Burning Bush          | 1,500                                     | 1.5                       | 2.0%   | 45   | 2.22                   | 20                           | 1.0  |
| Busse Avenue          | 500                                       | 0.3                       | 2.0%   | 3  | 0.15                   | 1                            | 0.1  |
| Weller Lane           | 500                                       | 0                         | 2.0%   | 0  | 0.00                   | 0                            | 0.0  |
| Council Trail         | 1,500                                     | 1.3                       | 2.0%   | 39   | 1.92                   | 17                           | 0.9  |
| Audrey Lane           | 900                                       | 0.35                      | 2.0%   | 6  | 0.31                   | 3                            | 0.1  |
| Connie Lane           | 300                                       | 0.1                       | 2.0%   | 1  | 0.03                   | 0                            | 0.0  |
| Robert Drive          | 600                                       | 0.8                       | 2.0%   | 10   | 0.47                   | 4                            | 0.2  |
| Redwood Drive         | 600                                       | 0.2                       | 2.0%   | 2  | 0.12                   | 1                            | 0.1  |
| We Go Trail           | 800                                       | 0.5                       | 2.0%   | 8  | 0.39                   | 3                            | 0.2  |
| See Gwun Avenue       | 750                                       | 0.5                       | 2.0%   | 8  | 0.37                   | 3                            | 0.2  |
| Pine Street           | 1,600                                     | 1.1                       | 2.0%   | 35   | 1.73                   | 15                           | 0.8  |
| Emerson Street        | 2,500                                     | 1.8                       | 2.0%   | 90   | 4.43                   | 39                           | 2.1  |
| Country Lane          | 500                                       | 0.1                       | 2.0%   | 1  | 0.05                   | 0                            | 0.0  |
| William Street        | 1,400                                     | 0.5                       | 2.0%   | 14   | 0.69                   | 6                            | 0.3  |
| Wheeling Road         | 7,500                                     | 0.8                       | 2.0%   | 120  | 5.91                   | 52                           | 2.7  |
| Greenwood Drive       | 500                                       | 1                         | 2.0%   | 10   | 0.49                   | 4                            | 0.2  |
| Maple Street          | 500                                       | 0.1                       | 2.0%   | 1  | 0.05                   | 0                            | 0.0  |
| Church Road           | 500                                       | 0.1                       | 2.0%   | 1  | 0.05                   | 0                            | 0.0  |
| Linneman Road         | 3,000                                     | 0.4                       | 2.0%   | 24   | 1.18                   | 10                           | 0.5  |
| Na Wa Ta Avenue       | 400                                       | 0.3                       | 2.0%   | 2  | 0.12                   | 1                            | 0.1  |
| Owen Street           | 800                                       | 0.9                       | 2.0%   | 14   | 0.71                   | 6                            | 0.3  |
| Busse Avenue          | 700                                       | 0.7                       | 2.0%   | 10   | 0.48                   | 4                            | 0.2  |
| Business Center Drive | 1,800                                     | 0.65                      | 2.0%   | 23   | 1.15                   | 10                           | 0.5  |
| Feehanville Road      | 2,300                                     | 0.6                       | 2.0%   | 28   | 1.36                   | 12                           | 0.6  |
| Total                 |   | 20.8                      |  | 718  | 35.39                  | 311                          | 16   |

### Phase II Projects, 2% Mode Share

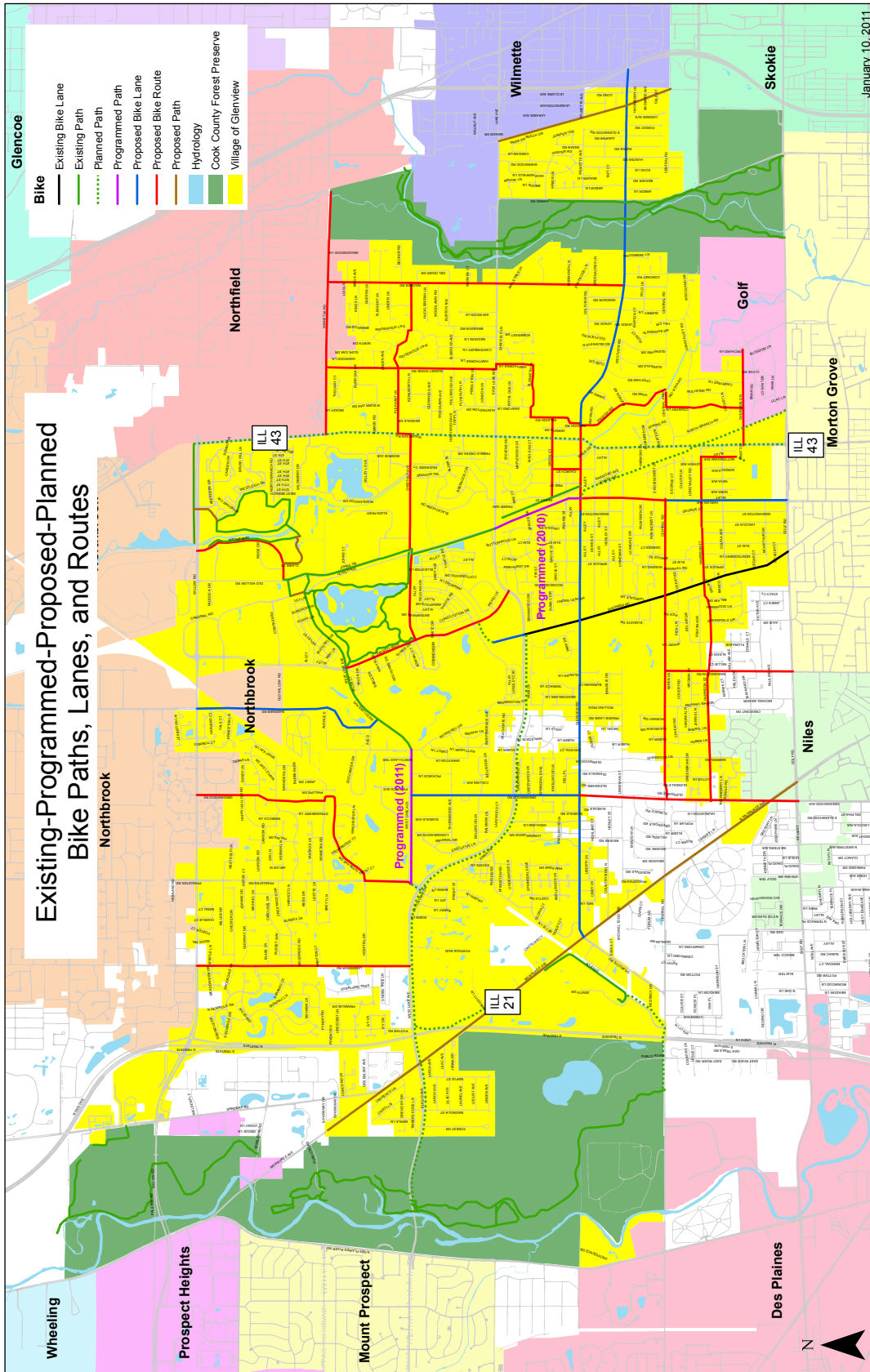
| Corridor Name     | Existing Conditions                       |                           | Mode Shift<br>Projected<br>Bicycle Mode<br>Share | Daily Energy Savings                               |                        |                              |  |
|-------------------|---|---------------------------|--|--|------------------------|------------------------------|--|
|                   | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |  | Reduction in<br>Vehicle Miles<br>Traveled<br>(VMT) | Gas Saved<br>(Gallons) | CO2 Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| River Road        | 17,500                                    | 1.5                       | 2.0%   | 525  | 26                     | 228                          | 12   |
| Wolf Road         | 21,100                                    | 2.4                       | 2.0%   | 1,013  | 50                     | 439                          | 23   |
| Kensington Road   | 7,500                                     | 3                         | 2.0%   | 450  | 22                     | 195                          | 10   |
| Busse Road        | 18,000                                    | 2.8                       | 2.0%   | 1,008  | 50                     | 437                          | 23   |
| Central Road      | 20,000                                    | 3.2                       | 2.0%   | 1,280  | 63                     | 555                          | 29   |
| Northwest Highway | 13,000                                    | 2.1                       | 2.0%   | 546  | 27                     | 237                          | 12   |
| Golf Road         | 33,000                                    | 2.5                       | 2.0%   | 1,650  | 81                     | 715                          | 38   |
| Total             |   | 17.5                      |  | 6,472  | 319                    | 2,806                        | 148  |

### Phase III Projects, 2% Mode Share

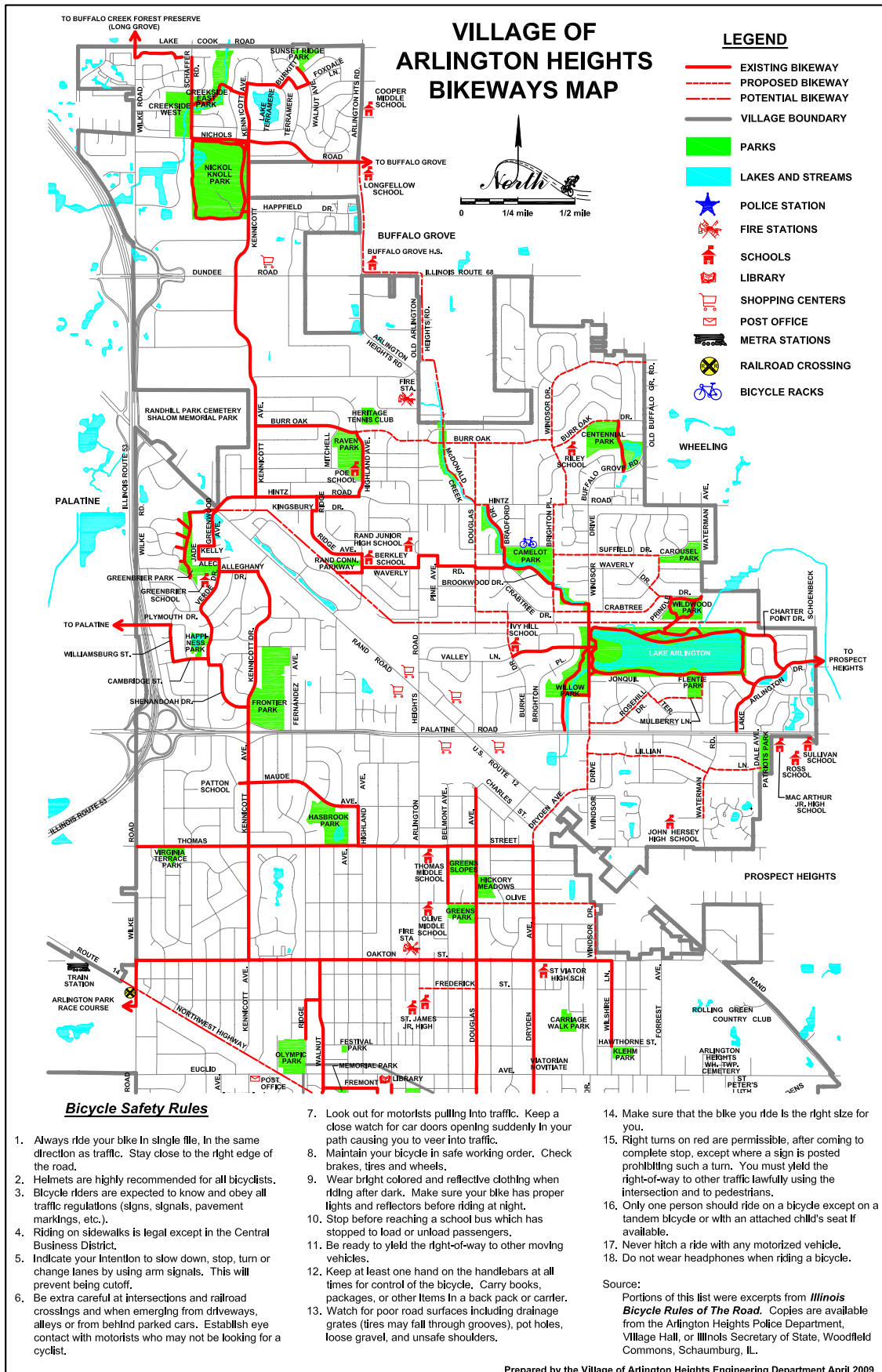
| Corridor Name             | Existing Conditions                       |                           | Mode Shift<br>Projected<br>Bicycle Mode<br>Share | Daily Energy Savings                               |                        |                              |  |
|---------------------------|---|---------------------------|--|--|------------------------|------------------------------|--|
|                           | Current<br>Average Daily<br>Traffic (ADT) | Project length<br>(miles) |  | Reduction in<br>Vehicle Miles<br>Traveled<br>(VMT) | Gas Saved<br>(Gallons) | CO2 Reduction<br>(Kilograms) | Other Greenhouse<br>Gases Reduction<br>(Kilograms) |
| Main Street/Elmhurst Road | 20,000                                    | 5.2                       | 2%   | 2,080  | 102                    | 902                          | 47.5   |
| Rand Road                 | 25,000                                    | 2.4                       | 2%   | 1,200  | 59                     | 520                          | 27.4   |
| Euclid Avenue             | 20,000                                    | 2.7                       | 2%   | 1,080  | 53                     | 468                          | 24.6   |
| Mount Prospect Road       | 13,700                                    | 1                         | 2%   | 274  | 13                     | 119                          | 6.3  |
| Dempster Street           | 30,000                                    | 1.1                       | 2%   | 660  | 33                     | 286                          | 15.1   |
| Algonquin Road            | 30,000                                    | 1.4                       | 2%   | 840  | 41                     | 364                          | 19.2   |
| Total                     |   | 13.8                      |  | 6,134  | 302                    | 2,659                        | 140  |



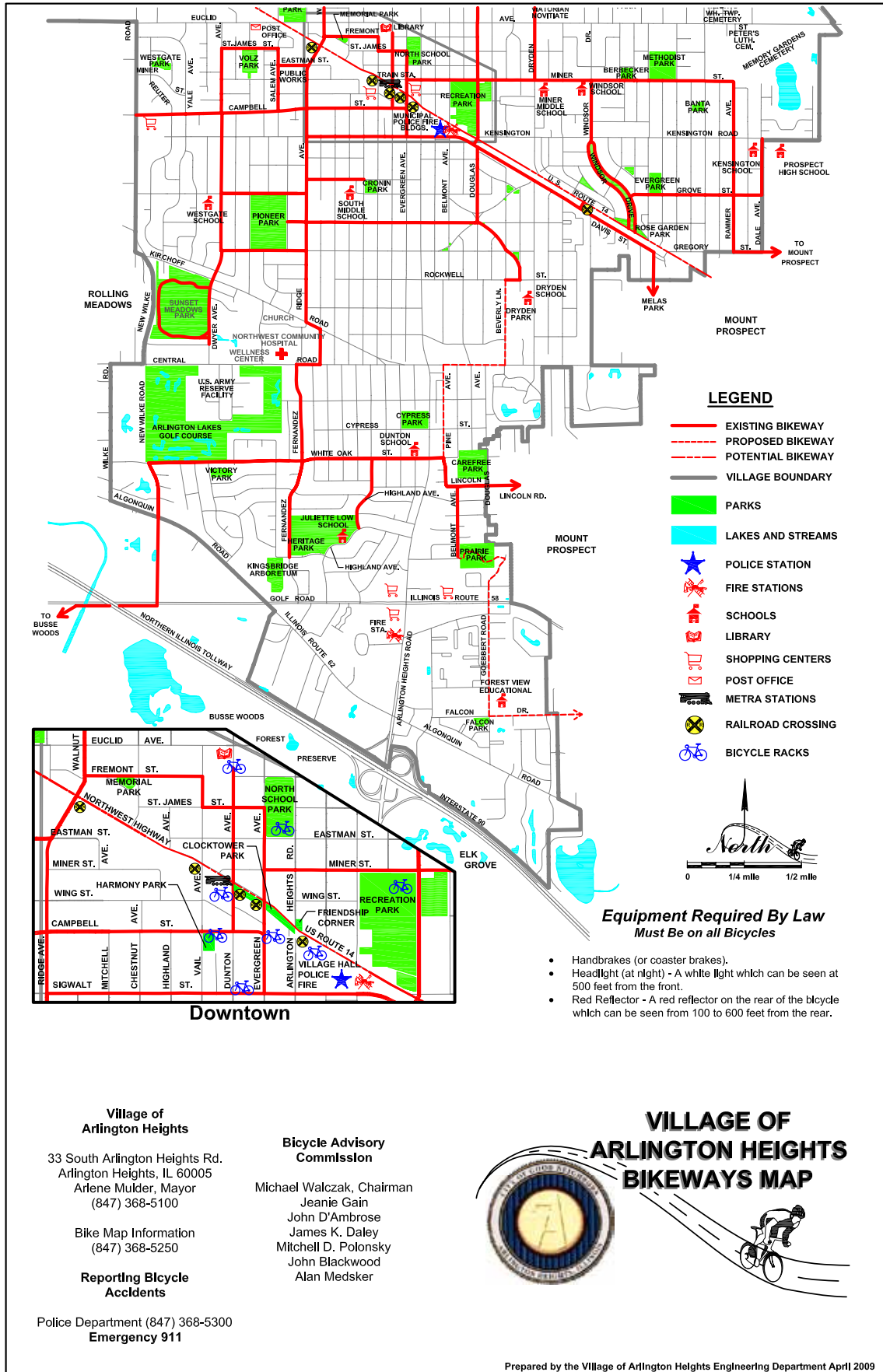
## 6.2 Appendix B: Community Bicycle Network Maps



Glenview Bike Map

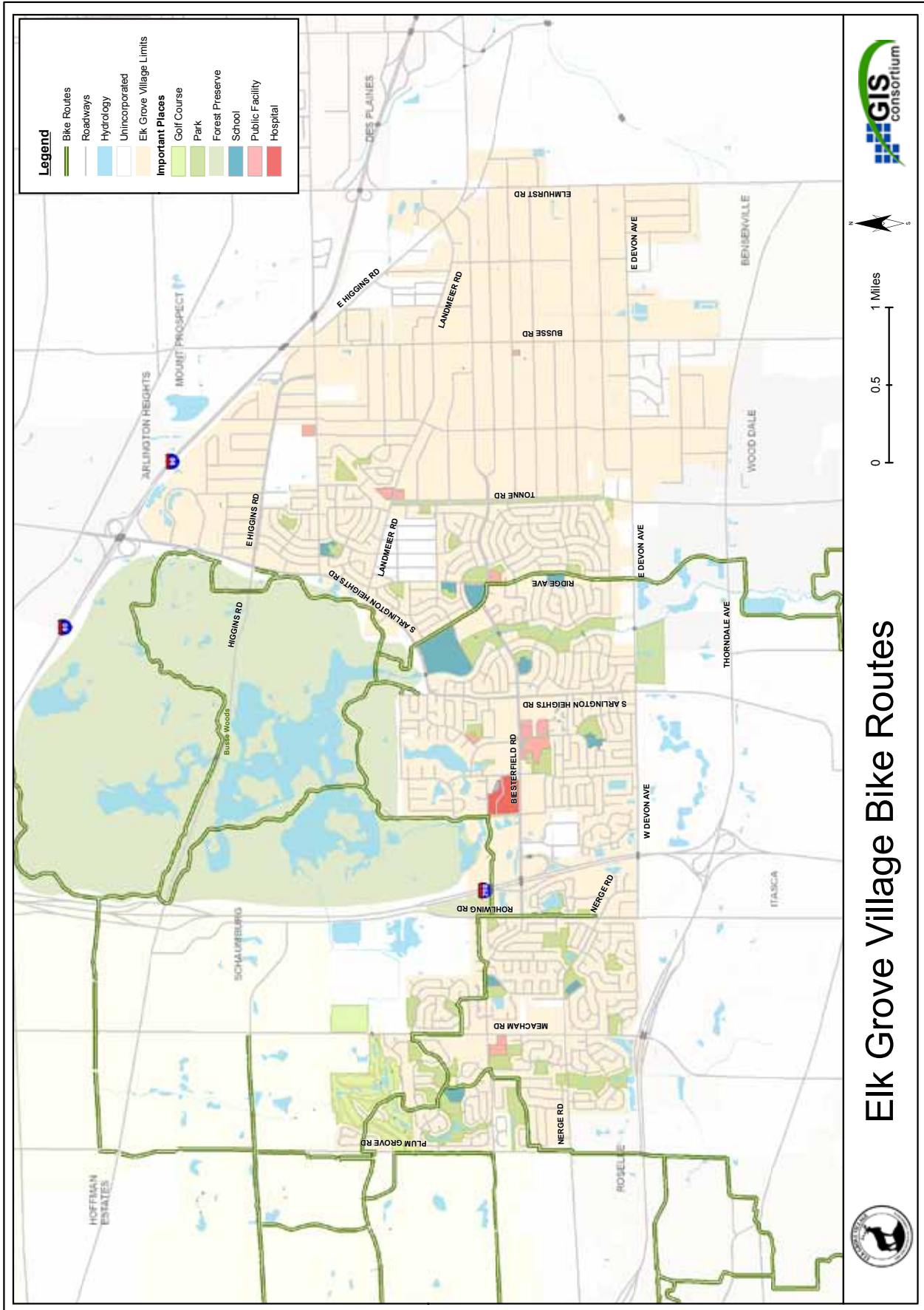


## 6.2 Appendix B: Community Bicycle Network Maps

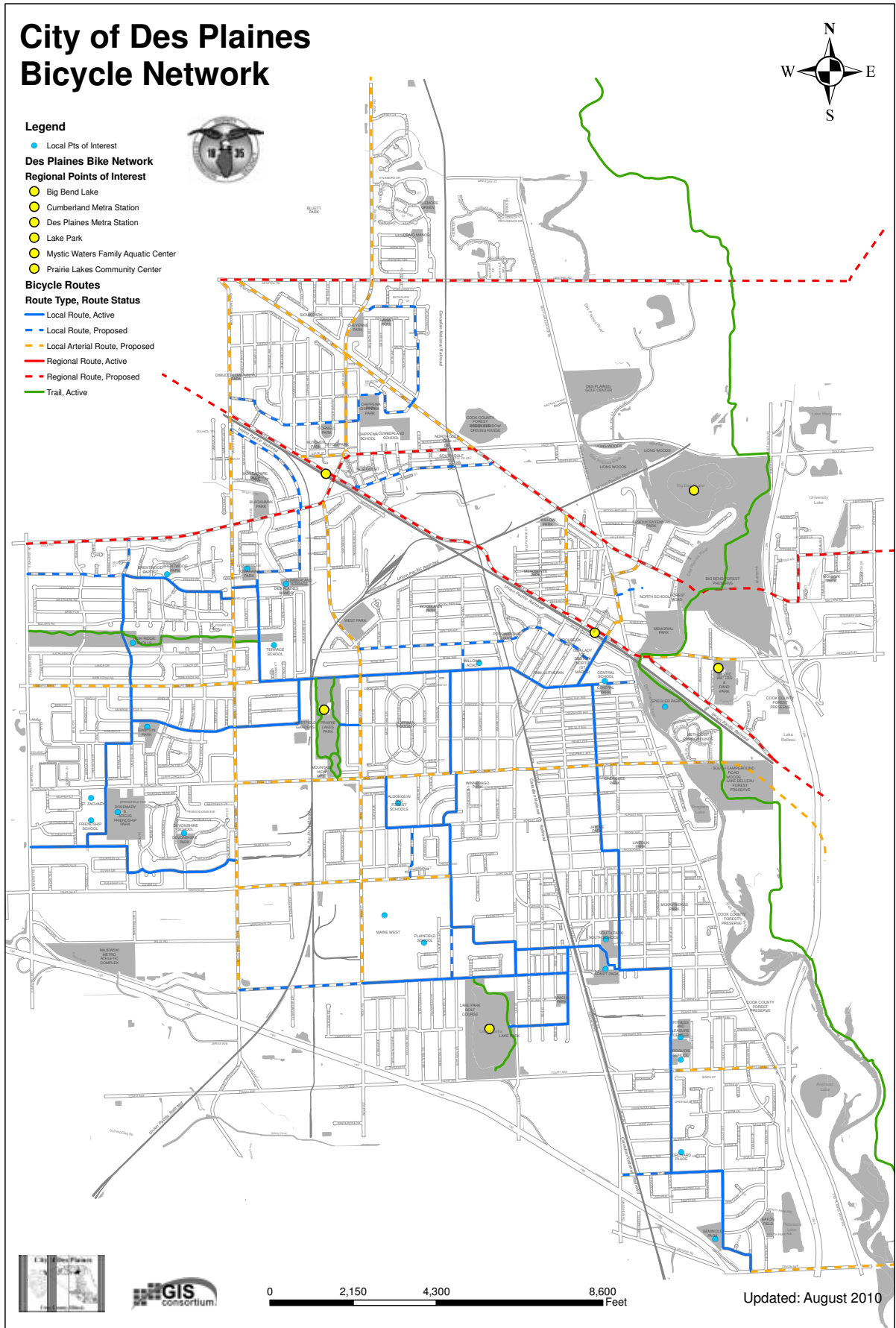




## 6.2 Appendix B: Community Bicycle Network Maps



Elk Grove village Bike Map





Primary Funding Sources for Local Transportation Projects

| Local Grant Administrator          | Transportation Enhancements  | High-Priority Projects  | Congestion Mitigation and Air Quality Improvement  | Surface Transportation Program                                       | Safe Routes to School  | Recreational Trails Program   | Highway Safety Improvement Program   | Section 402--State and Community Highway Safety Grant Program   | Motor Fuel Tax   |
|------------------------------------|--|---|--|--|--|---|--|---|--|
|                                    | IDOT   | State or Federal Government   | CMAP   | Northwest Council of Mayors  | IDOT   | IDNR  | IDOT   | IDOT  | IDOT   |
| <b>Program Purpose</b>             | To foster cultural, historic, aesthetic, and environmental aspects of our transportation infrastructure        | To fund key transportation projects deemed important by elected officials (earmarks)      | To improve air quality and reduce traffic congestion in areas that do not meet air quality standards     | To fund state and local road and transit projects                    | To enable and encourage children to walk and cycle to school through education, encouragement, enforcement, engineering, and evaluation strategies | To develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses  | To fund highway infrastructure safety projects aimed at reducing highway fatalities and serious injuries               | To create safety programs aimed at reducing traffic crashes   | To fund state and local road and transit projects  |
| <b>Eligible Infrastructure</b>     | All bike/ped infrastructure that has a relationship to surface transportation (as opposed to recreation alone) | All bike/ped infrastructure or as dictated in the authorizing legislation                 | Most bike/ped infrastructure, including bike paths, lanes, racks, lockers, and bike sharing programs     | All bike/ped infrastructure within a two-mile radius of a K-8 school | Bike trails, trailside, and trailhead facilities, both development and maintenance   | Bike lanes, bike parking, crosswalks, and signage   | None   | None  | Most bike/ped infrastructure   |
| <b>Eligible Non-Infrastructure</b> | Safety and educational programs for pedestrians and cyclists   | As dictated in the authorizing legislation  | Most bike/ped safety and education programs  | None   | Encouragement, enforcement, and education activities, for children in grades K-8   | Safety and environmental education; assessment of trail conditions; state program administration  | States can spend 10% of their HSIP funds on public awareness campaigns, education programs, and enforcement activities | Safety programs such as bike or pedestrian safety education, helmet distribution, or distribution of safety information | None   |
| <b>Key Project Requirements</b>    | Must relate to surface transportation  | No official requirements  | 1) Must be spent in non-attainment and maintenance areas; 2) Will be evaluated on air quality            | N/A  | Requires a state-approved school travel plan   | 30% of state's funding must be used for nonmotorized trail projects; 30% for motorized; 40% for projects that encourage diversity of use of trail corridor. trailhead, etc.; projects encouraged to have environmental benefit and use youth conservation and service corps | Project must address goals written in State Highway Safety Plan  | Project must address goals written in State Highway Safety Plan   | Minor distinctions between allowable uses for counties, townships, and municipalities specified in statute |
| <b>Application Process</b>         | Irregular schedule at call of Illinois Department of Transportation  | Specified in federal surface transportation bill (may be change in annual appropriations) | Timing under review. Generally, an annual call for proposals by Chicago Metropolitan Agency for Planning | Varies at call of local council of governments                       | Irregular schedule at call of Illinois Department of Transportation  | Irregular schedule at call of Illinois Department of Natural Resources  | Annual updates to plan and calls for proposals by IDOT Division of Traffic Safety                                      | Generally each spring at call of IDOT Division of Traffic Safety  | Funds distributed by IDOT on monthly basis to counties and certain local governments on a formula basis    |
| <b>Local Match Required</b>        | Typically 20%  | None  | Typically 20%  | 20%  | None   | Typically 20%; some 50%   | 10%  | Typically 20%   | No match required but local government is required to have certain minimum tax rate                        |

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## 6.4 Appendix D: Pedestrian and Bicycle Facilities Guidance

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### Pedestrian Facilities

Guide for the Planning, Design, and Operation of Pedestrian Facilities

American Association of State Highway and Transportation Officials (AASHTO), 2004  
<http://www.transportation.org>

Designing Sidewalks and Trails for Access  
U.S. DOT Federal Highway Administration  
<http://www.fhwa.dot.gov/environment/sidewalks/index.htm>

### Bicycle Facilities

Guide for the Development of Bicycle Facilities, 3rd Edition  
American Association of State Highway and Transportation Officials (AASHTO), 1999  
<http://www.transportation.org>

Urban Bikeway Design Guide  
National Association of City Transportation Officials  
<http://nacto.org/cities-for-cycling/design-guide/>

Bike Lane Design Guide  
City of Chicago and the Active Transportation Alliance, 2002  
[http://www.chicagobikes.org/pdf/bike\\_lane\\_design\\_guide.pdf](http://www.chicagobikes.org/pdf/bike_lane_design_guide.pdf)

### Bike Parking

Association of Bicycling and Pedestrian Professionals  
Bicycle Parking Design Guidelines  
<http://www.apbp.org/?page=Publications>

Bike Parking for Your Business  
Active Transportation Alliance, 2003  
[http://www.chicagobikes.org/pdf/bike\\_parking\\_business.pdf](http://www.chicagobikes.org/pdf/bike_parking_business.pdf)

### Other Resources

Active Transportation Alliance  
<http://www.activetrans.org>

Complete Streets  
National Complete Streets Coalition  
<http://www.completestreets.org>

Manual for Uniform Traffic Control Devices  
Federal Highway Administration, 2009  
<http://mutcd.fhwa.dot.gov/>

Pedestrian and Bicycle Information Center  
U.S. Department of Transportation  
<http://www.pedbikeinfo.org>

Bicycle and Pedestrian Accommodations  
Bureau of Design & Environment Manual – 2010 Edition  
Illinois Department of Transportation  
<http://www.dot.state.il.us/desenv/BDE%20Manual/BDE/pdf/Chapter%2017%20Bicycle%20and%20Pedestrian.pdf>

Roundabout information  
Turner-Fairbank Highway Research Center  
<http://www.tfhrc.gov/safety/00068.htm>

Safety Benefits of Raised Medians and Pedestrian Refuge Areas  
Federal Highway Administration  
[http://safety.fhwa.dot.gov/ped\\_bike/tools\\_solve/medians\\_brochure/](http://safety.fhwa.dot.gov/ped_bike/tools_solve/medians_brochure/)

Safety Benefits of Walkways, Sidewalks, and Paved Shoulders  
Federal Highway Administration  
[http://safety.fhwa.dot.gov/ped\\_bike/tools\\_solve/walkways\\_brochure/](http://safety.fhwa.dot.gov/ped_bike/tools_solve/walkways_brochure/)

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## 6.6 Appendix E: Sample Bicycle Parking Ordinance

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Base the number of bicycle parking spaces on 5 percent of required motor vehicle spaces (minimum 4 bicycle parking spaces/maximum 40 bicycle parking spaces, depending on proximity to bike path system). Exemptions: Single and two-family dwellings; warehousing and distribution; mortuaries; auto service; day care centers; car washes; drive-up establishments and airports.

### *Location and Design Elements*

- Inverted-U structure preferred
- Should accommodate U-locks/chains and shall support a bicycle at two locations
- Thermoplastic powder coating on racks and must be anchored securely to ground per manufacturers specifications
- Bicycle parking should be separated from vehicle parking grade differences, landscaping, poles, etc.)
- Spaces shall be 30" x 6' per bicycle with a 5'-wide access aisle from behind. Sidewalk adjacent may serve as access site.
- Spaces should be within 50' of entrance and clearly safe and convenient (lit if necessary)
- Parking areas may be shared by two venues within 50' of one another
- Parking areas should be easily accessible from trails,

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## 6.6 Appendix F: Sample Distracted Driver Ordinance

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Source: City of Evanston, Ill.

(A) Definitions: For purposes of this section the following terms shall be applicable:

1. “Hands-free device” shall mean an external device that connects to a mobile telephone that allows the user to engage in a telephone call without touching the user’s mobile telephone.
2. “Mobile telephone” shall mean a cellular, analog, wireless, or digital telephone capable of sending or receiving telephone messages without an access line for service.
3. “On-board communications device” shall mean a communications system or device that is hard-wired into the motor vehicle.
4. “Use” shall mean talking or listening to another person, text messaging, sending, reading or listening to an electronic message, or browsing the internet.

(A) Except as otherwise provided in subsection (B) of this section, no person shall operate a motor vehicle while using a mobile telephone.

(C) The provisions of this section shall not apply to:

1. Any person using a mobile telephone or on-board communications device for non-personal use in the course of ordinary business in their employment with a city, state or federal agency or authority.

Penalty: Any person who violates subsection (b) of this section shall be subject to a fine of \$50.00, provided however, that if a violation occurs at the time of a traffic accident, the driver may be subject to an additional fine not to exceed \$200.00.

## 6.7 Appendix G; Sample Complete Streets Policy

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Source: City of Chicago, 2006

The safety and convenience of all users of the transportation system including pedestrians, bicyclists, transit users, freight, and motor vehicle drivers shall be accommodated and balanced in all types of transportation and development projects and through all phases of a project so that even the most vulnerable—children, elderly, and persons with disabilities—can travel safely within the public right of way.

*Examples of how the policy may be implemented:*

- Design and construct right-of-way improvements in compliance with ADA accessibility guidelines.
- Incorporate features that create a pedestrian friendly environment, such as
  - Narrower traffic lanes
  - Median refuges
  - Curb extensions (“bulb-outs”)
  - Countdown pedestrian signals
- Improve pedestrian accommodation and safety at signalized intersections by:
  - Using good geometric design to minimize crossing distances and increase visibility between pedestrians and motorists
  - Timing signals to minimize pedestrian delay and conflicts, and balancing competing needs of vehicular level of service and pedestrian safety (e.g., 2009 version of MUTCD to reduce design walking speed from 4ft./sec. to 3.5 ft./sec.)
- Reclaim street space for other uses through “road diets”
  - E.g., convert 4-lane roadway to 3-lane roadway with marked bike lanes





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## 6.9 Appendix I: Bicycle Plan Task Force

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*The following individuals comprise the bike plan task force:*

- Mike Dallas, Administrative Analyst
- Brian Simmons, Deputy Director of Community Development
- Matt Lawrie, Project Engineer
- Clare O'Shea, Senior Planner
- Greg Sill, Mount Prospect Police Department
- Randy Uidl, Fire Department Shift Commander
- Lou Ennesser, Mt. Prospect Park District



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