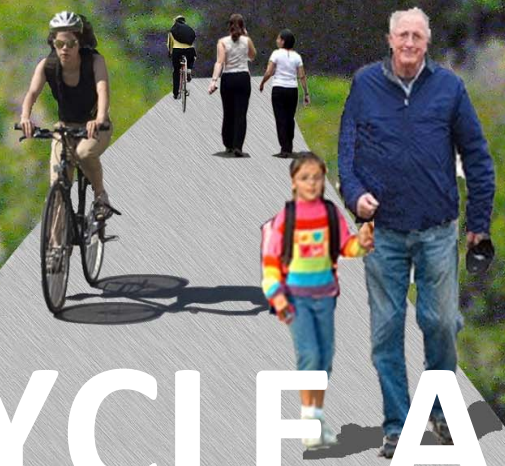
RURAL SANGAMON COUNTY



BICYCLE AND PEDESTRIAN PLAN

July 31, 2013

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RURAL SANGAMON COUNTY
BICYCLE AND PEDESTRIAN PLAN

Draft: May 15, 2013

Final: July 31, 2013

Sangamon County, Illinois

Rural Sangamon County Bicycle and Pedestrian Plan Steering Committee

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Illinois Department of Natural Resources	**Amy Madigan, Greenways & Trails**
Illinois Department of Transportation - District 6	**Dan Mlacnik, Geometric Engineer and District 6 Bike Coordinator (Alternate: Sal Madonia)**
Sangamon County Highway Department	**Brian Davis, Planning Engineer/Brian Wright, Planning Engineer**
Springfield Bicycle Club	**Lynn Miller, Legislative Co-Chair**
Village of Buffalo	**Tom Paige, Village Trustee**
Village of Illiopolis	**Cindy Wilson, Citizen**
Village of Pleasant Plains	**Jim Verkuilen, Village President**
Village of Thayer	**Nancy Hunter, Citizen**
Village of Virden	**Suzanne Gray, Virden Chamber of Commerce**
Village of Williamsville	**Kevin Kuhn, Village Engineer/Mark Esker, Village Trustee**

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Vision Statement

Rural Sangamon County is envisioned as a place where residents and visitors are encouraged to bike and walk and can do so safely and comfortably on interconnected corridors within and between communities and desirable destinations; where existing infrastructure is utilized and expanded and new facilities are created to support bicyclists and pedestrians; and where residents realize the transportation, recreation, health, economic, and environmental benefits of these non-motorized modes of travel.

I. INTRODUCTION

In August 2012 the Springfield Area Transportation Study (SATS) adopted a bicycle and pedestrian plan for the urban area of Sangamon County. Although this plan addressed the needs of bicyclists and walkers in the core of Sangamon County, there was an unnatural break in connectivity at the metropolitan planning area boundary. Recognizing the importance of creating a network of active travel accommodations throughout the county and into surrounding counties, the Springfield-Sangamon County Regional Planning Commission was able to utilize Rural Comprehensive Regional Planning funds from IDOT to create a similar plan for the rural areas of the county. All rural communities were invited to engage in the planning process.

A. Steering Committee

To accomplish the task of creating this plan, a steering committee was created in the spring of 2012 with invitations to participate sent to all rural communities as well as other governmental bodies and organizations with expertise that would contribute to the successful development of such a plan. The villages of Buffalo, Illiopolis, Pleasant Plains, Thayer, Virden and Williamsville as well as Sangamon County joined the effort along with representatives from the Illinois Department of Natural Resources, the Illinois Department of Transportation, and the Springfield Bicycle Club. **As the plan was being finalized the City of Auburn also joined the effort.**

B. Public Engagement Workshops

Following the first Steering Committee meeting three public engagement workshops we held throughout the county to gather citizen input to plan creation. Workshops were held in Illiopolis, Thayer, and Pleasant Plains in an attempt to make the locations fairly convenient for people in the rural areas of the county. The structure of the workshops was open so attendees could drop in anytime over a 2 hour period. Maps were available to highlight suggested bicycle or pedestrian routes and opportunities were available to document desired destinations and to provide any additional comments. People attending the workshops tended to engage in discussion regarding opportunities and issues they perceived related to bicycling and walking which proved very informative and helpful to identifying preferred routes and local needs.

C. Coordination with Existing Plans

Utilizing existing area plans was seen as essential to the planning process. The following documents were reviewed to assure a coordinated and comprehensive approach to this cooperative effort.

Village of Williamsville Comprehensive Plan: The Williamsville Comprehensive Plan was updated in 2011 and states: “Building complete streets is one strategy to increase public safety while also giving people better access to more economical forms of transportation such as biking and walking.” The need to provide safe accommodations for bicyclists and pedestrians is discussed in the plan and specific areas of concern as well as bike lane and trail opportunities are highlighted.

Route 66 Trail Concept Plan: The Route 66 Trail Executive Council was formed by the Illinois Department of Natural Resources to develop a plan for creation of a bike trail that will use the historic Route 66 highway where possible and trails and local roads when necessary to provide a continuous trail through Illinois from Chicago to St. Louis. Route 66 was designated a scenic byway in 2005 and generates much tourist activity. The plan was finalized in 2010 and shows the trail passing through Sangamon County.

Sangamon County Greenspaces: Lost Opportunities or Corridors to the Future?: This Greenways and Trails plan was prepared in 1997 by the Springfield-Sangamon County Regional Planning Commission with guidance from The Sangamon Valley Greenways & Trails Advisory Committee. The plan identifies potential off-road trail corridors.

SATS Bicycle and Pedestrian Plan: The Springfield Area Transportation Study adopted a bicycle and pedestrian plan in August 2012 for the urban area of Sangamon County. Connecting with the recommended urban networks is essential for facilitating county-wide bicycle and pedestrian travel.

Adjacent Counties' Plans: A review of all bicycle and pedestrian plans adopted by counties adjacent to Sangamon County was performed to identify opportunities for greater connectivity throughout the central Illinois area.

D. Existing Facilities

When development of this plan was undertaken there were limited designated bikeways existing in the rural areas of Sangamon County, these being paths to and through the park in Williamsville and some wide shoulders on state highways. All communities that are a party to this plan had some pedestrian facilities, although these were mostly isolated rather than interconnected. Illiopolis had recently made sidewalk improvements that connect students to the schools utilizing Safe Routes to School funding.

E. Plan Philosophy

Developers of this plan were cognizant of the fact that implementation would be a long-term effort and that to be useful, a bicycle and pedestrian plan must be comprehensive, coordinated and continuing. The plan is comprehensive in taking a long-term approach that builds on existing facilities to create an interconnected network of travel for bicyclists and walkers. As the road and highway system was not created overnight, neither will the system suggested here. As events unfold, we will find our envisioned system affected by both anticipated and unanticipated constraints and opportunities. However, adopting an area-wide vision for our system allows projects to be implemented over time through the coordinated actions of different communities and agencies working together to continuously envision, design and implement a logical, realistic and connected system.

Regardless of their scale, if implemented in a comprehensive and cooperative way, these improvements will collectively build toward the system envisioned. This approach will allow for both constraints and opportunities to be identified, options considered, and advancements toward the envisioned system made over time.

II. VISION STATEMENT

After initial discussion and review of public input Steering Committee members developed a vision statement for the plan which expresses the reasons for and desired results of creating a bicycle and pedestrian plan.

"Rural Sangamon County is envisioned as a place where residents and visitors are encouraged to bike and walk and can do so safely and comfortably on interconnected corridors within and between communities and desirable destinations; where existing infrastructure is utilized and expanded and new facilities are created to support bicyclists and pedestrians; and where residents realize the transportation, recreation, health, economic, and environmental benefits of these non-motorized modes of travel."

Active forms of transportation have been getting people where they need to go for millennia. With the advent and affordability of the personal automobile however, transportation planning activities and community development have centered on the movement of motorized vehicles. In effect, this has created an environment where bicyclists and pedestrians are left to fend for themselves and oftentimes are required to travel in situations putting them in conflict with car and truck traffic. This either creates a dangerous scenario or keeps people from using these modes of travel.

This plan recognizes the many desirable results of providing corridors of travel for bicyclists and pedestrians including:

- Designated bikeways and pedestrianways improve the safety of travelers by providing off-road passage and driver awareness where paths cross.
- Health benefits accrue from the associated exercise whether the purpose is recreational or destination-driven.
- The cost of biking and walking is much less than driving.
- People who do not drive or who cannot afford a vehicle have access to jobs, goods, and services when they can safely and comfortably bike or walk.
- There is less damage to the environment and fewer resources consumed when non-motorized modes of travel are used.
- People are more connected to their community, neighbors, and environment when they are out of their cars and interacting with others as they travel.
- Visitors to our communities can have a more local and enjoyable experience when they are not isolated in their cars.
- Active transportation modes are accessible to all income levels, education levels, age groups, mobility levels, and lifestyles.

This plan envisions a network of safe and efficient bicycle and pedestrian ways that link bicyclists and walkers to jobs, stores, services, schools, recreation facilities, tourist attractions, social events, and nearby communities and that also provide opportunities for recreation and exercise. Development of this network would enhance livability, health, welfare, and economic vitality in our communities, leading to a higher quality of life for all.

III. GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

To plot a course for realizing the agreed upon vision, three goals were developed along with objectives to meet these goals. Performance measures, quantifiable ways to assess the progress of plan implementation, were also identified. The following goals, objectives, and performance measures were established.

Goal 1: To provide safe corridors of travel for bicyclists and pedestrians.

OBJECTIVE	PERFORMANCE MEASURE
1.1 Establish a network of bicycle and pedestrian corridors throughout Sangamon County.	Number of miles of bicycle and pedestrian corridors identified in the plan that have been constructed.
1.2 Provide pedestrian connections to schools, parks, public facilities, and historic sites.	Percentage of schools, parks, public facilities, and historic sites accessible by pedestrians from participating communities.
1.3 Educate bicyclists and motorists on sharing the road, responsibly using trails, adhering to rules, and observing mutual respect.	Number of programs presented and materials distributed.

Goal 2: To create bicycle and pedestrian connections to people and places.

OBJECTIVE	PERFORMANCE MEASURE
2.1 Create a coalition to work on implementing the Bicycle and Pedestrian Plan and to prioritize and coordinate project grant applications so communities are working together rather than competing.	Establishment of coalition including facilitation logistics and appointment of a chair, establishment of a regular meeting schedule.
2.2 Reach out to communities and townships to coordinate on network routes through their area.	Number of non-participating communities and townships joining coalition.
2.3 Create bicycle connections between rural communities and Springfield and other nearby	Number of intercommunity bicycle connections created.

communities.	
2.4 Connect bicycle corridors to those in adjacent counties.	Number of bicycle corridors connected to those in adjacent counties.
2.5 Mentor smaller communities to encourage involvement and provide guidance on the stages of developing bicycle and pedestrian accommodations.	Establishment of mentorship program for the smaller communities.

Goal 3: To preserve corridors for future development.

OBJECTIVE	PERFORMANCE MEASURE
3.1 Encourage communities and landowners to consider themselves as stakeholders in securing and preserving off-road corridors.	Number of miles of corridors preserved.

IV. BICYCLE NETWORK

Developing a bicycle network plan in the rural areas of the county involved 1) the identification of existing roadways that could be used or improved to accommodate bicyclists and of corridors where multi-use trails could be constructed to provide: travel throughout the area, connections between communities and to adjacent counties, and recreational opportunities and 2) recommendations for on-road and off-road facilities for each participating community to facilitate travel within and through these villages.

The plan consultant toured the county and made initial recommendations on appropriate bicycle routes. Planning Commission staff then worked with each community/jurisdiction to finalize the bikeway network plan keeping in mind input received through the public engagement workshops.

The county-wide recommended bicycle network is shown on page 8 with maps for the individual communities following. The network consists of existing and recommended bicycle routes that will facilitate travel throughout the planning area and in some cases providing connections to communities not a party to the plan. Each proposed bicycle route is shown with a facility type based on current recommendations. In some cases, future circumstances or design engineering results may indicate a different facility type is more appropriate. Additionally, implementation of all projects is contingent upon funding being available.

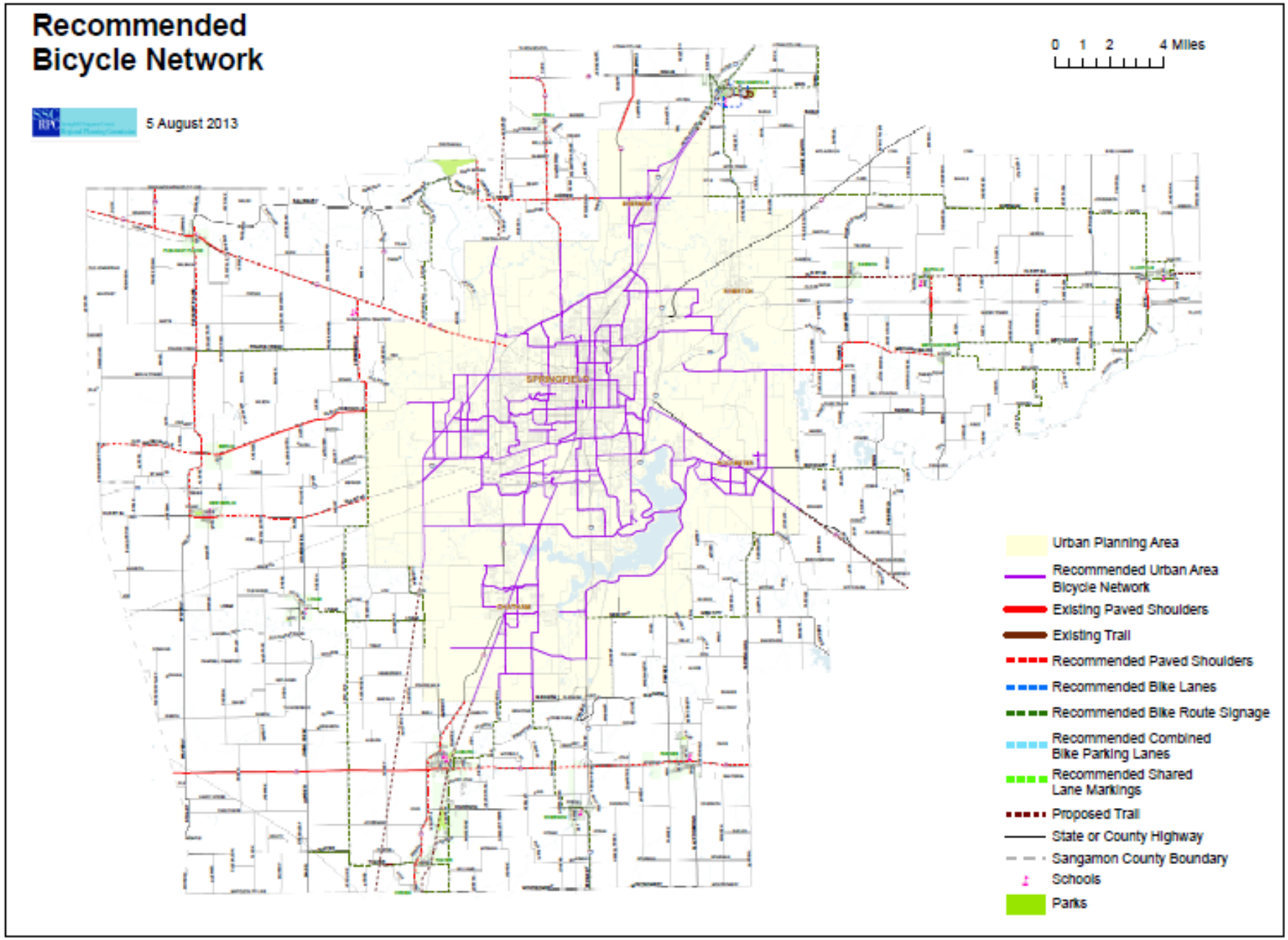
Many projects identified are relatively easy to undertake and could most likely be implemented in the short-term. These include:

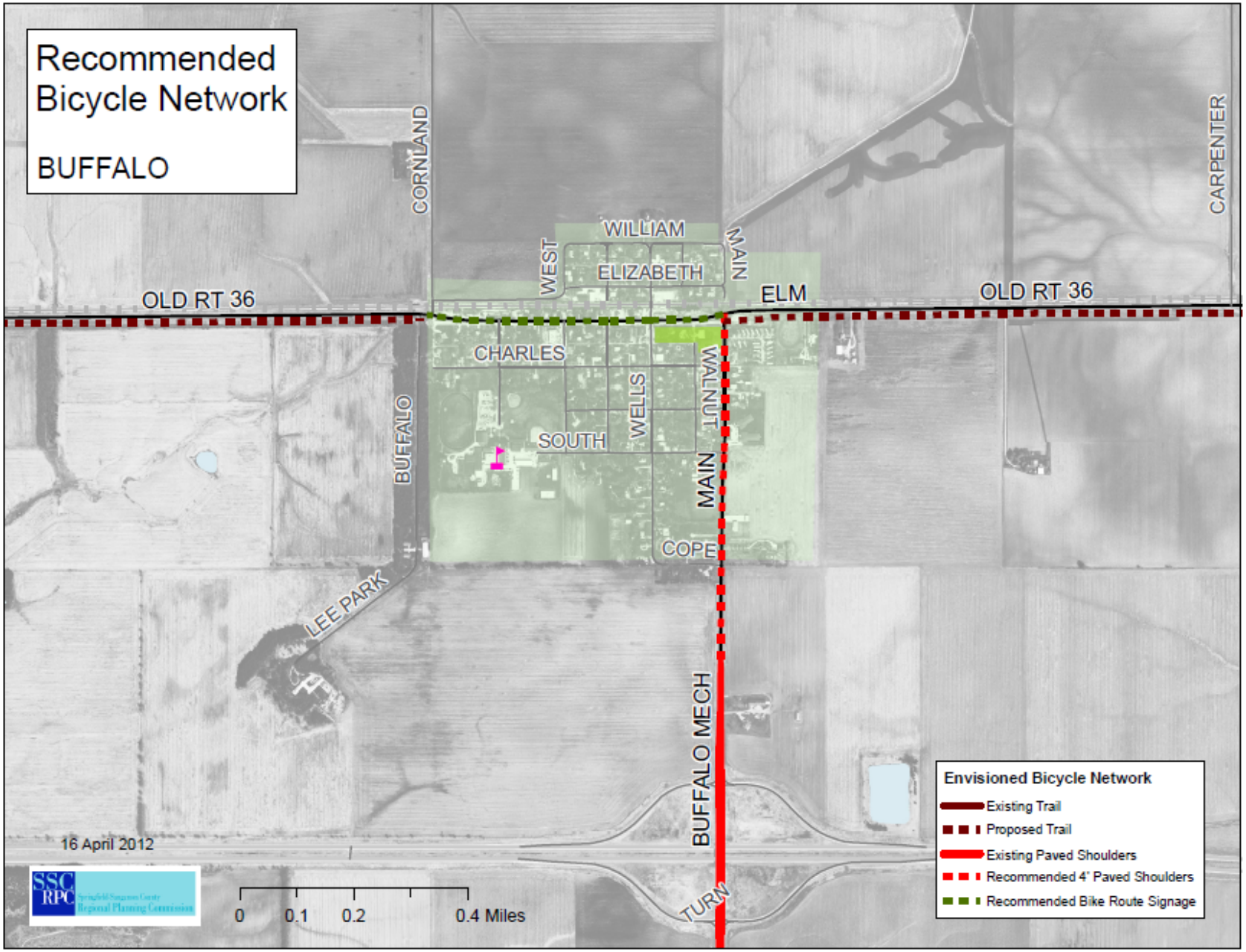
- restriping a road to include bike lanes
- posting wayfinding signs
- marking shared bike/car lanes

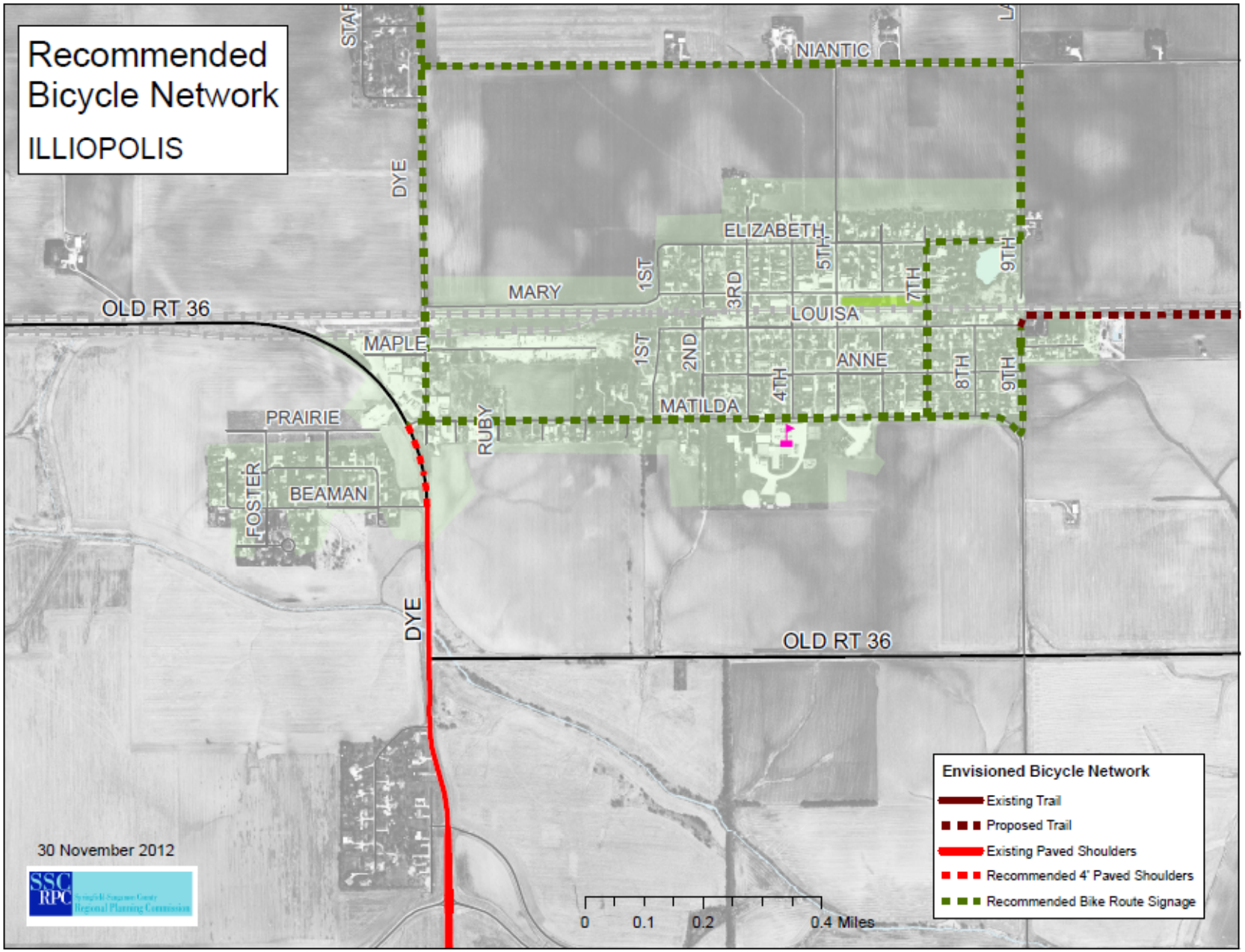
Other projects involve larger endeavors and may be implemented in conjunction with an associated road project or as funding becomes available. These include:

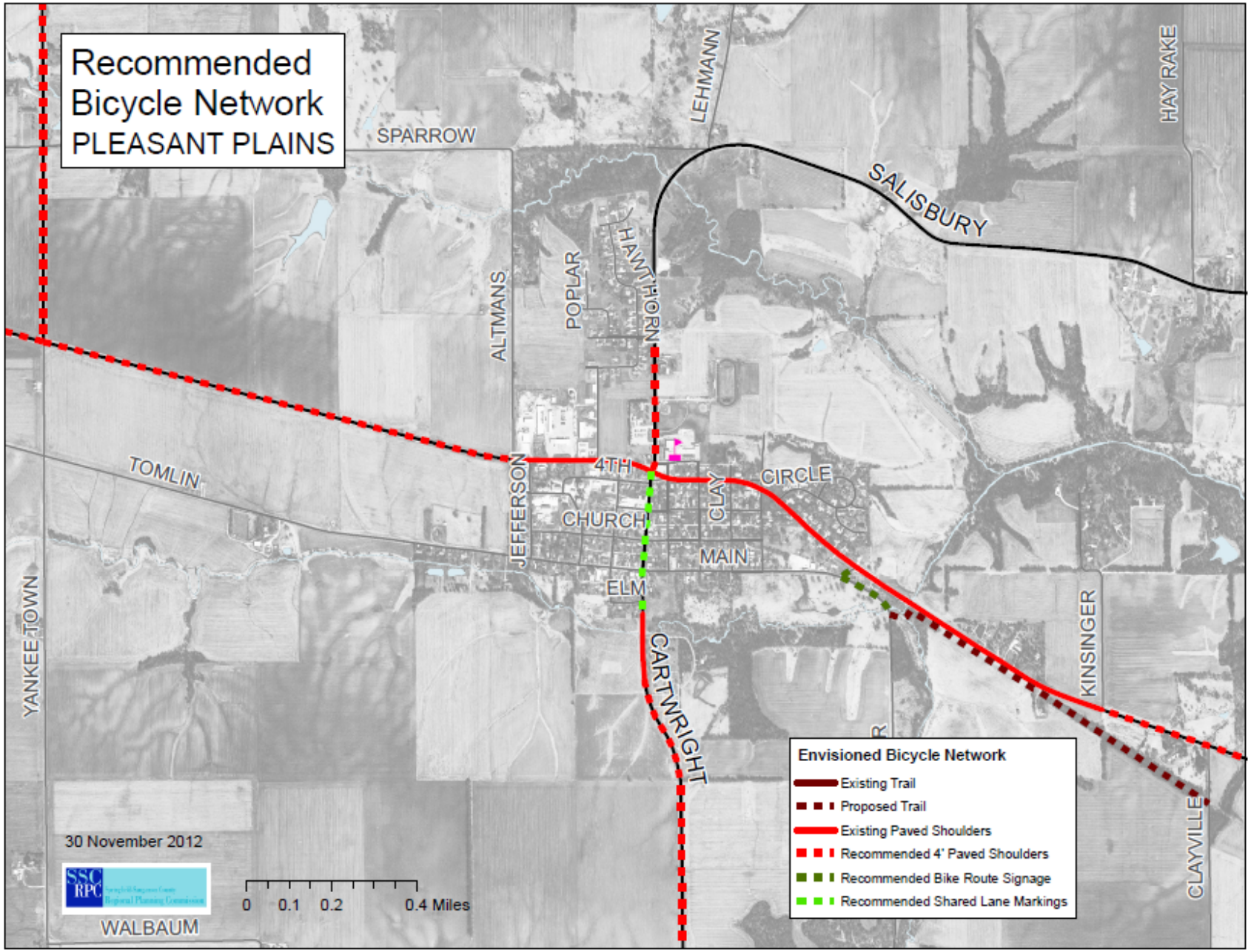
- adding paved shoulders
- adding bike lanes
- constructing sidepaths
- extending and building trails

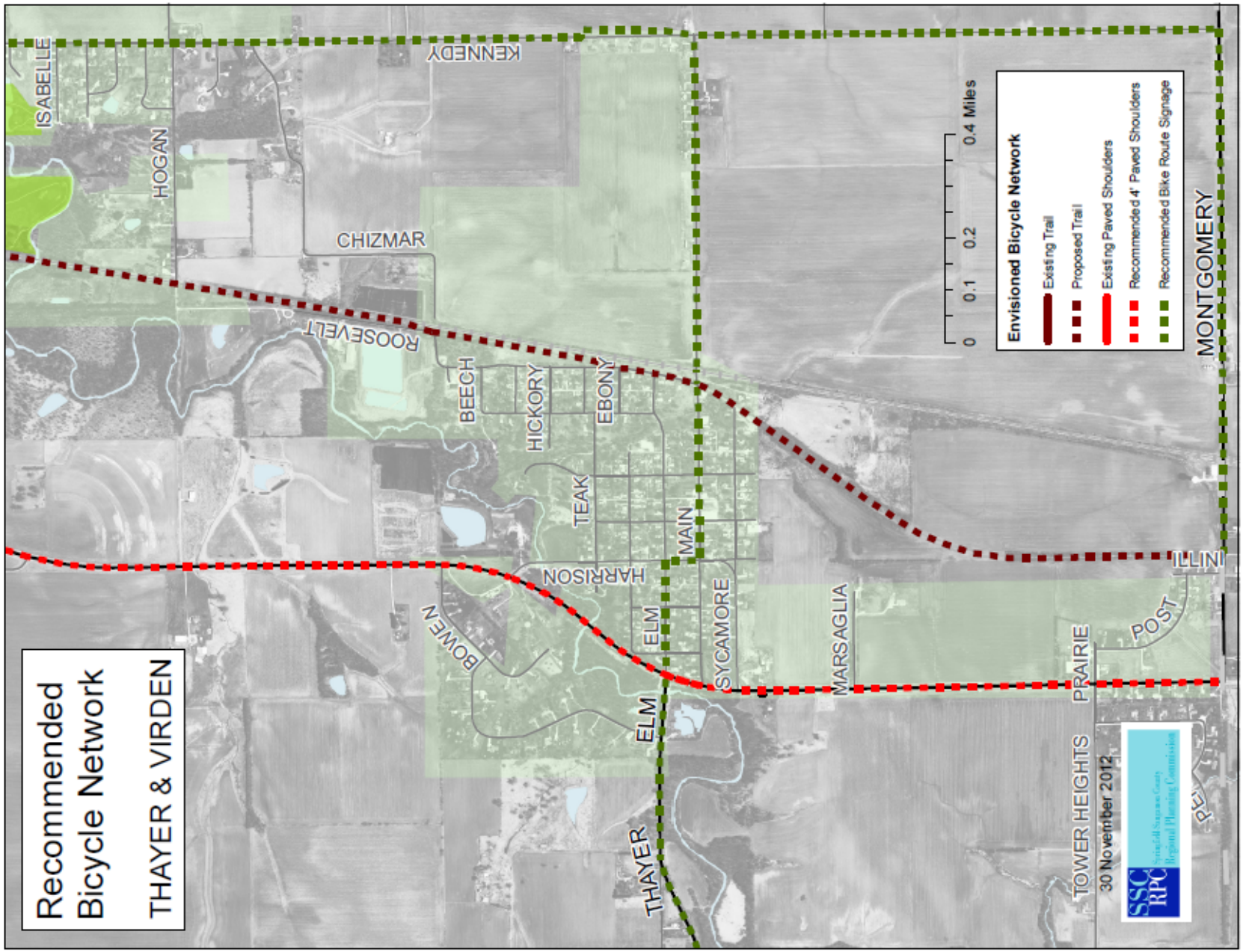
The *Guide for the Development of Bicycle Facilities*[1] forms the technical basis for the plan's specific project recommendations. These guidelines are generally recognized by the industry – and the court system – as the standard for bicycle facility design. The Illinois Department of Transportation encourages communities to consult these guidelines and the federal *Manual of Uniform Traffic Control Devices*[2] when developing bicycle plans. An overview of bicycle facility types is in Appendix B.

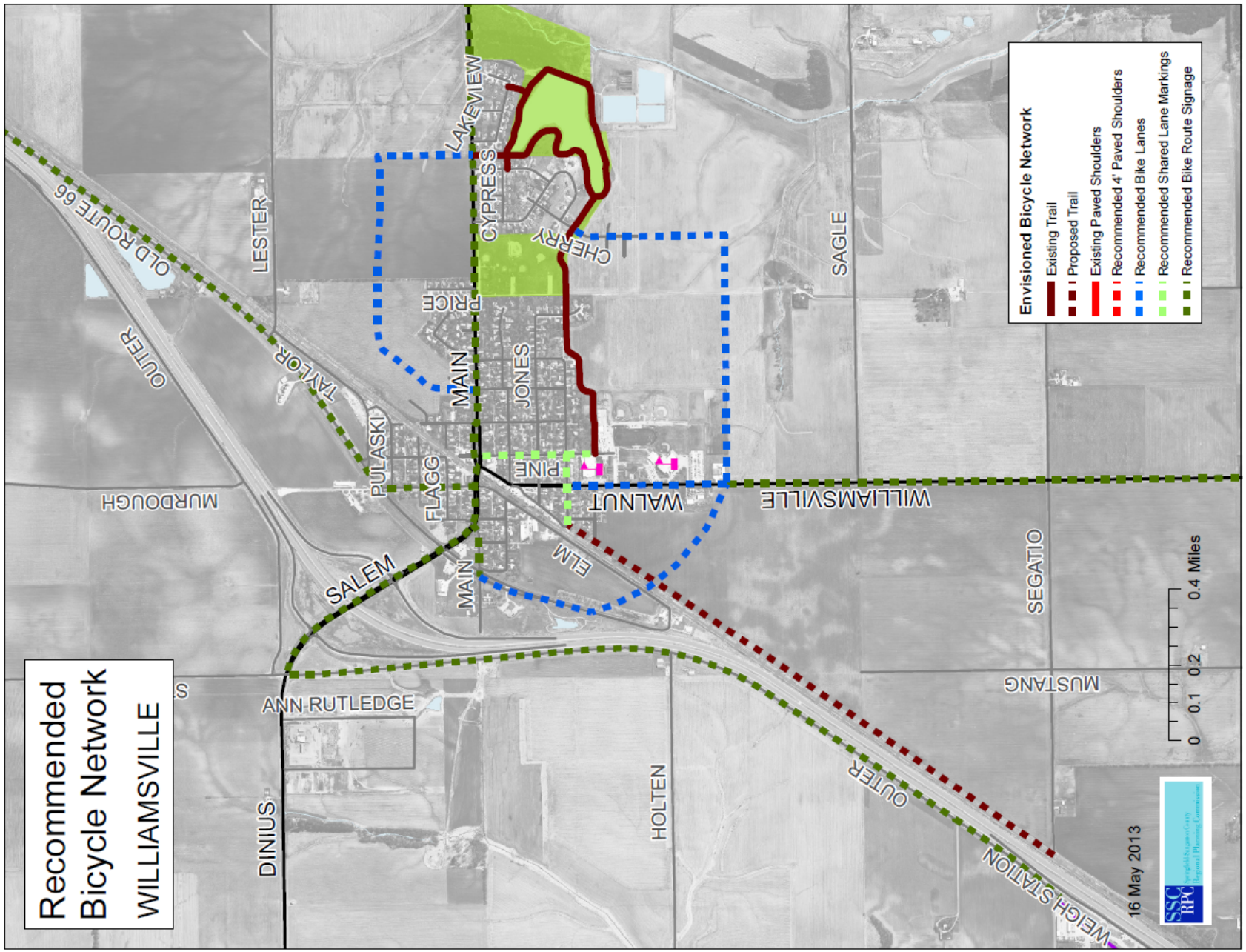

Recommended
Bicycle Network
5 August 2013
0 1 2 4 Miles
Urban Planning Area
Recommended Urban Area Bicycle Network
Existing Paved Shoulders
Existing Trail
Recommended Paved Shoulders
Recommended Bike Lanes
Recommended Bike Route Signage
Recommended Combined Bike Parking Lanes
Recommended Shared Lane Markings
Proposed Trail
State or County Highway
Sangamon County Boundary
Schools
Parks


Recommended
Bicycle Network
BUFFALO
CORNLAND
CARPENTER
WILLIAM
WEST
ELIZABETH
MAIN
OLD RT 36
ELM
OLD RT 36
CHARLES
WALNUT
WELLS
BUFFALO
SOUTH
MAIN
COPE
LEE PARK
BUFFALO MECH
TURN
16 April 2012
0
0.1
0.2
0.4 Miles
Envisioned Bicycle Network
Existing Trail
Proposed Trail
Existing Paved Shoulders
Recommended 4' Paved Shoulders
Recommended Bike Route Signage


Recommended Bicycle Network
ILLIOPOLIS
NIANTIC
DYE
ELIZABETH
MARY
1ST
3RD
5TH
7TH
9TH
OLD RT 36
LOUISA
MAPLE
2ND
ANNE
8TH
MATILDA
4TH
PRAIRIE
RUBY
FOSTER
BEAMAN
DYE
OLD RT 36
30 November 2012
0 0.1 0.2 0.4 Miles
Envisioned Bicycle Network
Existing Trail
Proposed Trail
Existing Paved Shoulders
Recommended 4' Paved Shoulders
Recommended Bike Route Signage


Recommended
Bicycle Network
PLEASANT PLAINS
SPARROW
LEHMANN
HAY RAKE
SALISBURY
ALTMANS
POPLAR
HAWTHORN
TOMLIN
4TH
JEFFERSON
CHURCH
CLAY
CIRCLE
MAIN
ELM
YANKEE TOWN
CARTWRIGHT
KINSINGER
CLAYVILLE
WALBAUM
30 November 2012
0 0.1 0.2 0.4 Miles
Envisioned Bicycle Network
Existing Trail
Proposed Trail
Existing Paved Shoulders
Recommended 4' Paved Shoulders
Recommended Bike Route Signage
Recommended Shared Lane Markings


Recommended
Bicycle Network
THAYER & VIRDEN
Envisioned Bicycle Network
Existing Trail
Proposed Trail
Existing Paved Shoulders
Recommended 4' Paved Shoulders
Recommended Bike Route Signage
0
0.1
0.2
0.4 Miles
30 November 2012
ISABELLE
HOGAN
KENNEDY
CHIZMAR
ROOSEVELT
BEECH
HICKORY
EBONY
TEAK
MAIN
HARRISON
BOWEN
ELM
SYCAMORE
MARSAGLIA
PRAIRIE
POST
ILLINI
MONTGOMERY
TOWER HEIGHTS
THAYER


Recommended
Bicycle Network
WILLIAMSVILLE
Envisioned Bicycle Network
Existing Trail
Proposed Trail
Existing Paved Shoulders
Recommended 4' Paved Shoulders
Recommended Bike Lanes
Recommended Shared Lane Markings
Recommended Bike Route Signage
OLD ROUTE 66
LESTER
OUTER
TAYLOR
PULASKI
MURDOUGH
FLAGG
MAIN
SALEM
ANN RUTLEDGE
DINIUS
HOLTEN
LAKEVIEW
CYPRESS
CHERRY
RICE
JONES
PINE
WALNUT
ELM
SAGLE
WILLIAMSVILLE
SEGATIO
MUSTANG
WEIGH STATION
0 0.1 0.2 0.4 Miles
16 May 2013

V. PEDESTRIAN NETWORK

Unlike the recommended bicycle network which runs throughout the county, the recommended pedestrian networks are generally contained within or close by each community with two exceptions: the proposed multi-use trails and the Lincoln Trail which is a long-established route along Irwin Bridge Road, Stagecoach Road, and Hazlett Road used by boy scouts to walk from New Salem in Menard County to Stuart Park in Springfield.

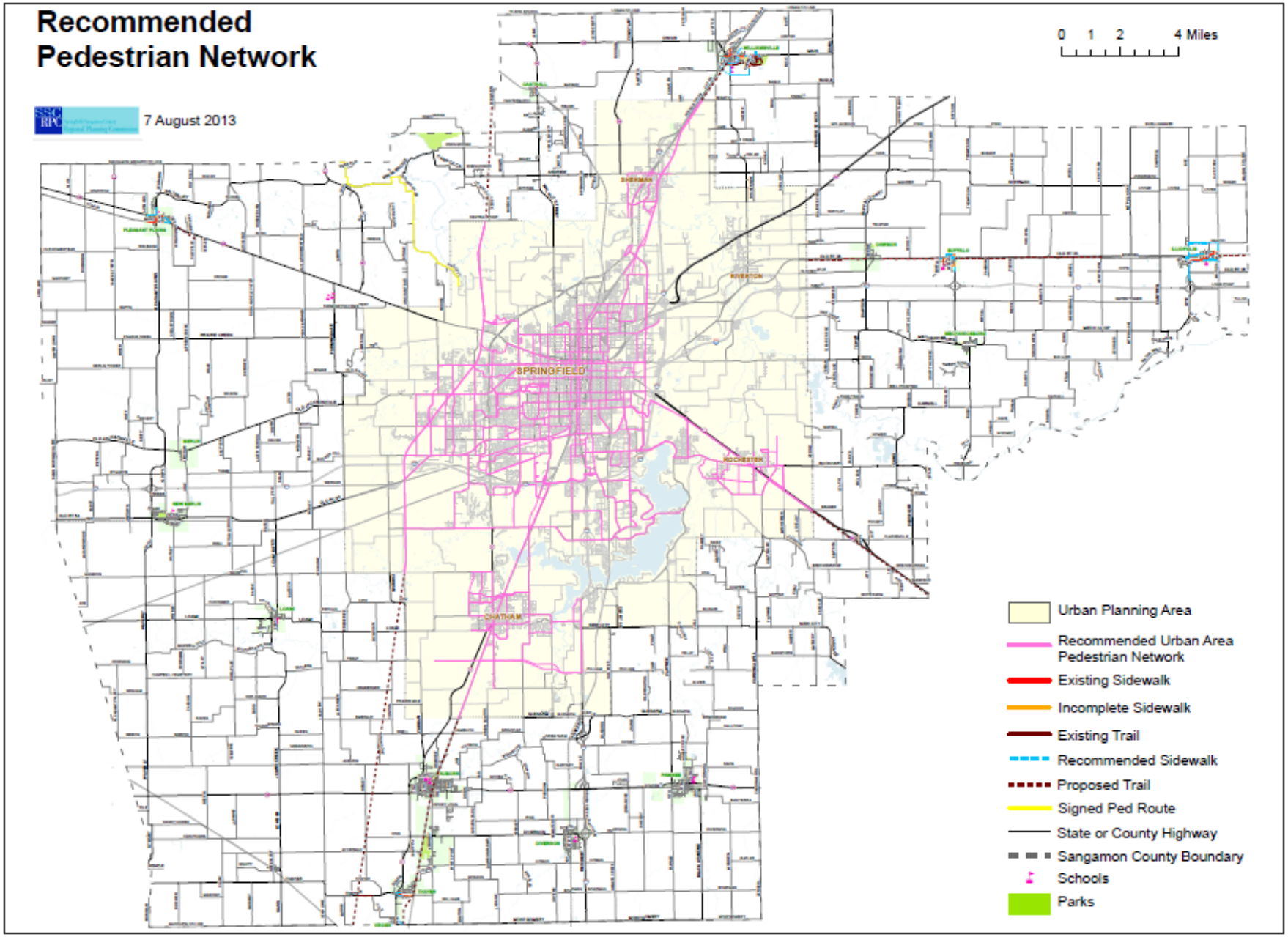
Although safe pedestrian corridors are desirous in all areas, this plan identifies corridors that can create continuous routes so people can travel to destinations such as schools, village buildings, businesses, and activities and be afforded recreational opportunities using limited funding availability most effectively. The identified corridors utilize existing sidewalks and note where improvements or construction are needed.

Appendix C contains guidelines for sidewalk construction and provides descriptions of sidewalk characteristics that make them safe and comfortable for walkers. The appropriateness of each characteristic will be dependent on the location.

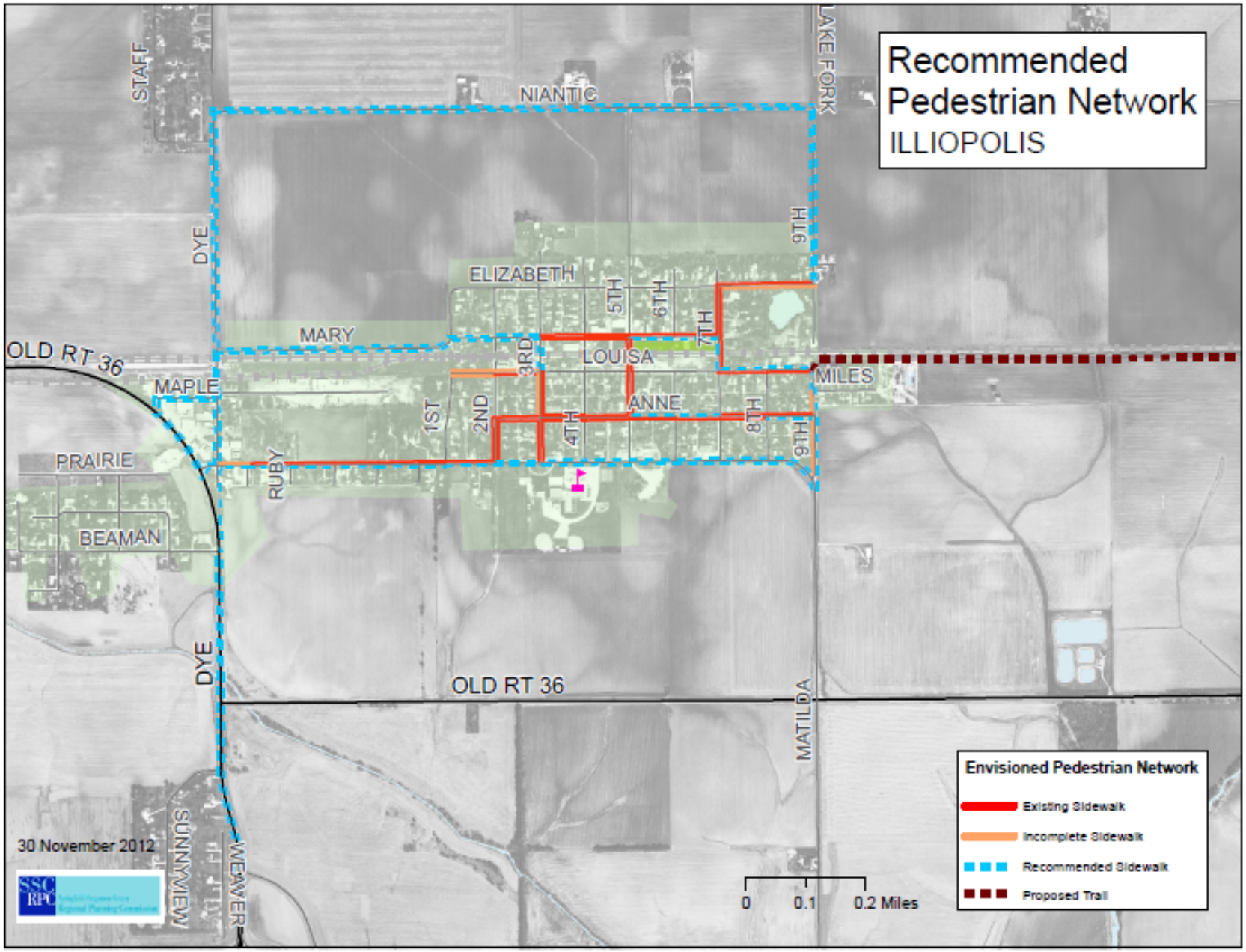
The Pedestrian Network for the entire county is shown on the following map with segments of the corridors identified as Existing, Incomplete (existing but with gaps), or Recommended (not existing at this time). Individual community maps follow. Construction of all projects is contingent upon funding being available.

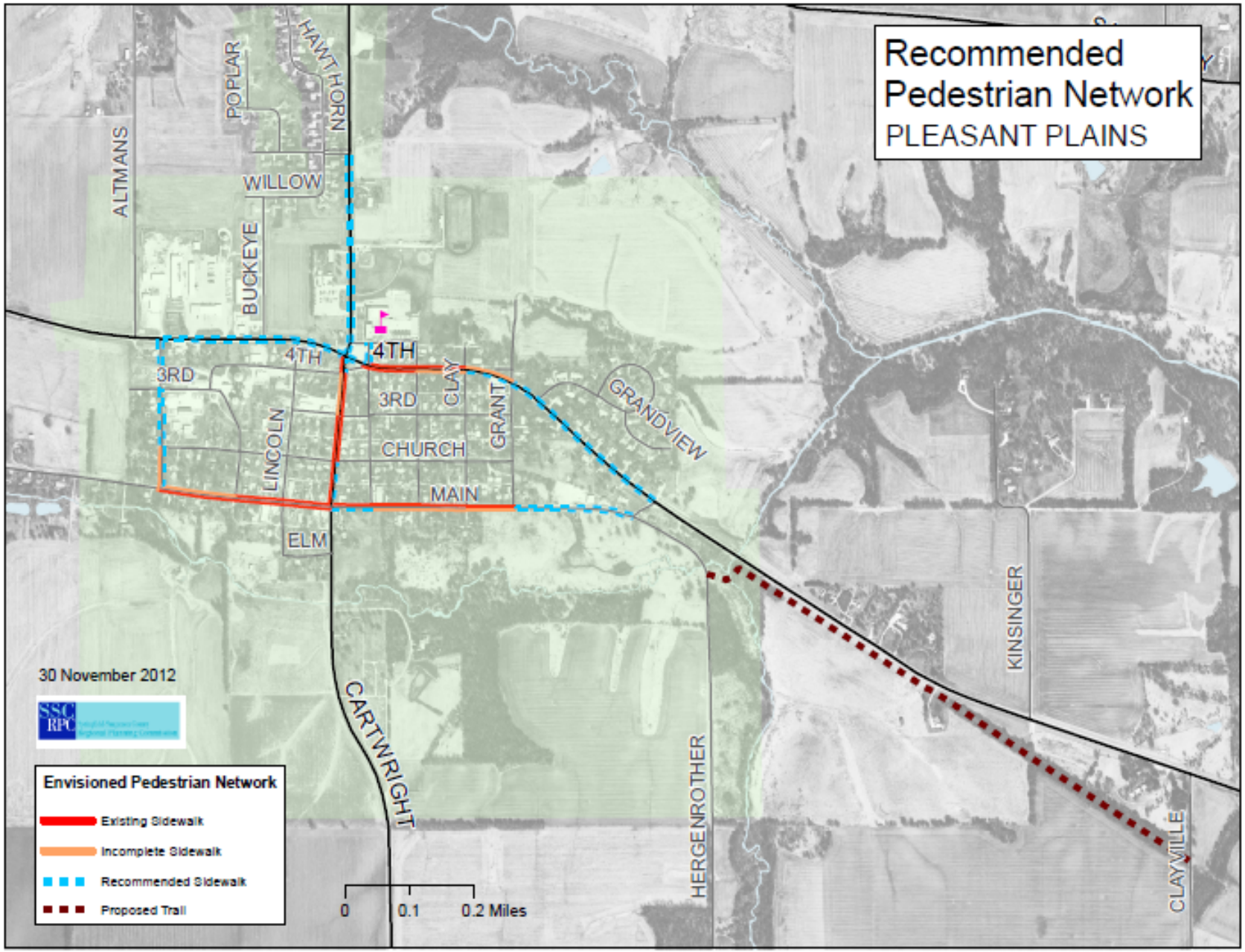
Even well-designed, accessible sidewalks degrade as sidewalks deteriorate from use and exposure to weather. A regular maintenance program to assess and repair damage is a necessary component of ensuring a safe, accessible pedestrian network. Not only does regular clearing of debris, overgrown vegetation, ice, and snow keep the pedestrian network usable, such maintenance also can lengthen sidewalk longevity.

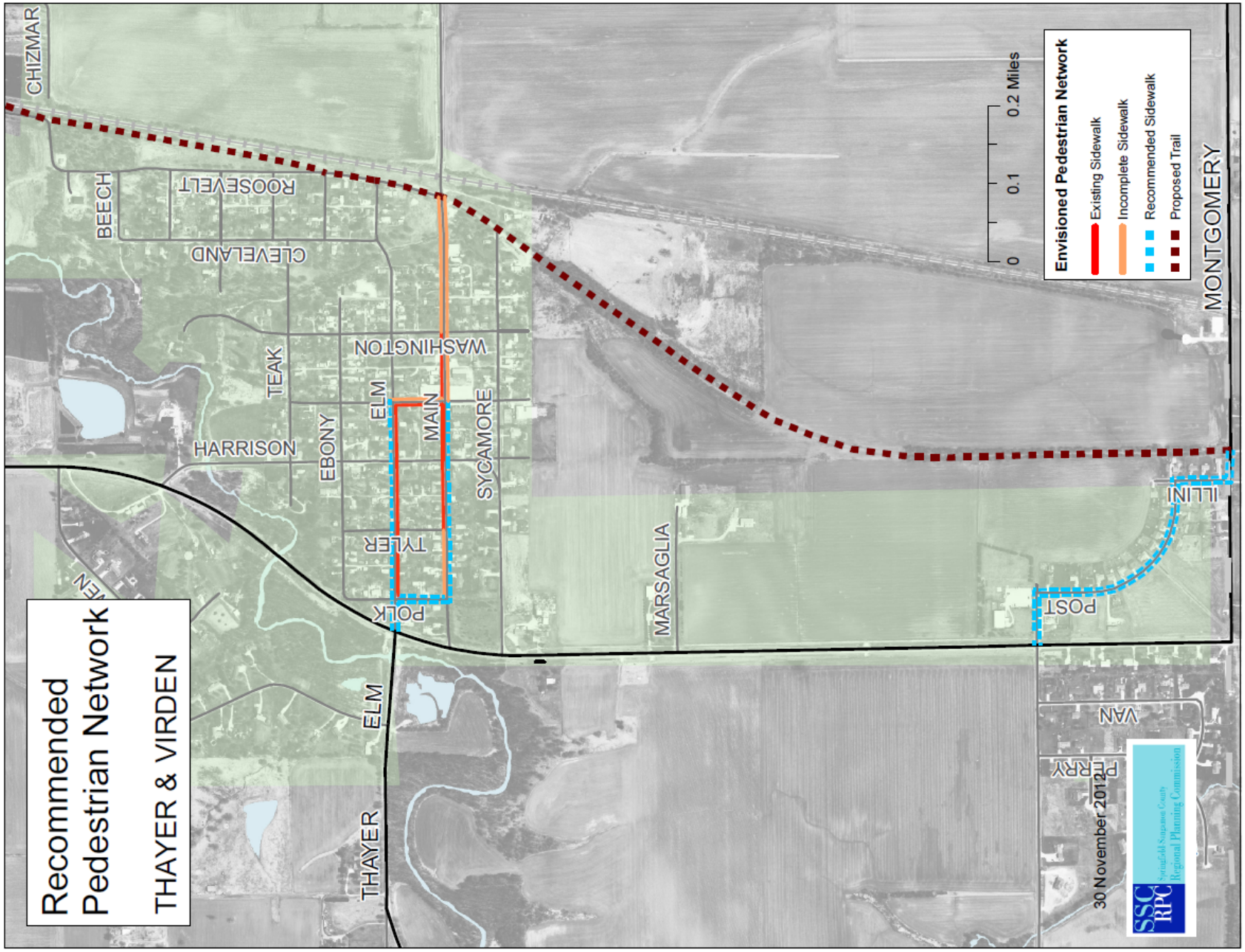
To be effective, maintenance must be planned and occur regularly. Any prioritization plan should include a defined maintenance plan with benchmarks to ensure the safety and accessibility of existing facilities.

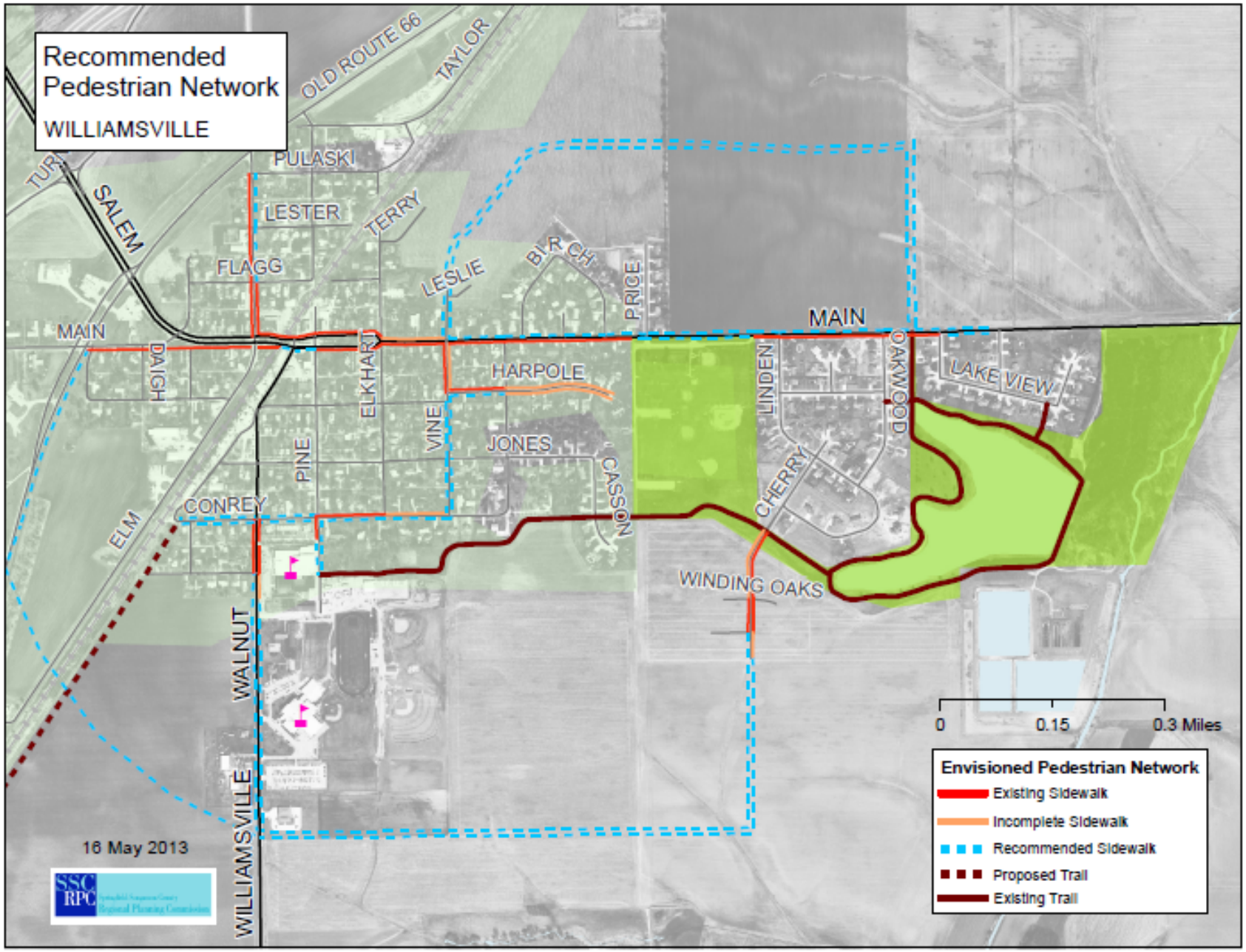

Recommended
Pedestrian Network
7 August 2013
0 1 2 4 Miles
SPRINGFIELD
CHATHAM
ROCHESTER
SHERMAN
RIVERTON
Urban Planning Area
Recommended Urban Area Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Existing Trail
Recommended Sidewalk
Proposed Trail
Signed Ped Route
State or County Highway
Sangamon County Boundary
Schools
Parks


Recommended Pedestrian Network
BUFFALO
WILLIAM
WEST
ELIZABETH
MAIN
OLD RT 36
OLD RT 36
ELM
CARPENTER
CHARLES
CARTER
WALNUT
WEST
MCMANUS
BUFFALO
SOUTH
WELLS
MAIN
COPE
30 November 2012
0
0.05
0.1 Miles
Envisioned Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Recommended Sidewalk
Proposed Trail


Recommended
Pedestrian Network
ILLIOPOLIS
NIANTIC
LAKE FORK
STAFF
DYE
9TH
ELIZABETH
5TH
6TH
7TH
MARY
OLD RT 36
3RD
LOUISA
MILES
MAPLE
1ST
2ND
4TH
ANNE
8TH
9TH
PRAIRIE
RUBY
BEAMAN
DYE
OLD RT 36
MATILDA
SUNNYVIEW
WEAVER
30 November 2012
0
0.1
0.2 Miles
Envisioned Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Recommended Sidewalk
Proposed Trail


Recommended
Pedestrian Network
PLEASANT PLAINS
ALTMANS
POPLAR
HAWTHORN
WILLOW
BUCKEYE
4TH
4TH
3RD
3RD
CLAY
GRANT
LINCOLN
CHURCH
MAIN
ELM
GRANDVIEW
KINSINGER
CARTWRIGHT
HERGENROTHER
CLAYVILLE
30 November 2012
Envisioned Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Recommended Sidewalk
Proposed Trail
0
0.1
0.2 Miles


Recommended Pedestrian Network
THAYER & VIRDEN
Envisioned Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Recommended Sidewalk
Proposed Trail
0
0.1
0.2 Miles
CHIZMAR
BEECH
ROOSEVELT
CLEVELAND
TEAK
WASHINGTON
HARRISON
EBONY
ELM
MAIN
SYCAMORE
TYLER
POLK
ELM
THAYER
MARSAGLIA
POST
ILLINI
MONTGOMERY
VAN
PERRY
30 November 2012


Recommended
Pedestrian Network
WILLIAMSVILLE
OLD ROUTE 66
TAYLOR
PULASKI
LESTER
TERRY
FLAGG
LESLIE
BIRCH
PRICE
MAIN
SALEM
DAIGH
ELKHART
HARPOLE
VINE
JONES
PINE
CASSON
LINDEN
OAKWOOD
LAKE VIEW
CHERRY
CONREY
ELM
WALNUT
WINDING OAKS
WILLIAMSVILLE
16 May 2013
0
0.15
0.3 Miles
Envisioned Pedestrian Network
Existing Sidewalk
Incomplete Sidewalk
Recommended Sidewalk
Proposed Trail
Existing Trail

VI. MULTI-USE TRAIL NETWORK

The safety and efficiency offered by off-road trails makes them attractive to bike riders and walkers. Additionally, an extensive trail system provides a draw for tourists to visit or stay longer in the area.

A. Trail System

Currently in Sangamon County all multi-use trails are located in the urban area. These existing trails are listed below.

Existing Trail	Miles	Trail End Points
Interurban Trail	8.4	Junction Circle (Springfield) to Walnut Street (Chatham)
Lost Bridge Trail	5.5	Dirksen Parkway (Springfield) to Cardinal Hill Road (Rochester)
Sangamon Valley Trail	5.5	Centennial Park (Springfield) to Stuart Park (Springfield)
Wabash Trail	2.0	Robbins Road (Springfield) to Junction Circle (Springfield)

Each individual trail provides a unique environment and local access but the extension of the trails would create a more extensive travel network for bicyclists and walkers and enhance recreational opportunities. Additionally, two opportunities for new trails in the rural areas have been identified. Following is a brief description of each built-out or new trail and a map showing their locations.

Clayville Trail: The Village of Pleasant Plains is interested in utilizing an abandoned rail corridor behind the Clayville Historical Site to develop an approximately one mile trail between the village and Clayville.

Illiopolis Trail: To the east of Illiopolis is about .8 mile of abandoned Interurban corridor along the south side of an active rail line. Creating a trail along this corridor would align with the Decatur Metro Greenway Plan showing a trail running west along this corridor from the city to the county line.

Interurban Trail: The Interurban Trail extends south from Springfield to Chatham, following the old interurban railway line. The trail is connected to the Wabash Trail at MacArthur Boulevard via the Wabash Trail-Interurban Trail Connection. Plans include the extension of the trail south of Chatham, continuing along the abandoned railway line to the Sangamon County border and beyond. If completely built the trail would be 16.2 miles in Sangamon County. With the sale of some segments of the corridor to private owners however, the trail may need to include on-road portions.

Lost Bridge Trail: The Lost Bridge Trail is the area's first trail and currently stretches from the City of Springfield into the Village of Rochester. The trail was constructed by IDNR along a railway corridor formerly owned by the Baltimore and Ohio Railroad. Future phases of the trail call for a continuation along the former rail line to Taylorville. The total length in Sangamon County would be 12.6 miles.

Old Route 36 Trail: Running parallel on the south side of Old Route 36 from west of Illiopolis to Riverton is a vacated railroad right-of-way that creates a great opportunity for a rail-to-trail conversion. Much of the corridor is owned by the State (including all of the stretch west of Buffalo) with some segments in railroad ownership and one small parcel in private ownership. Much interest was expressed by citizens and communities in the area to develop a trail along this corridor.

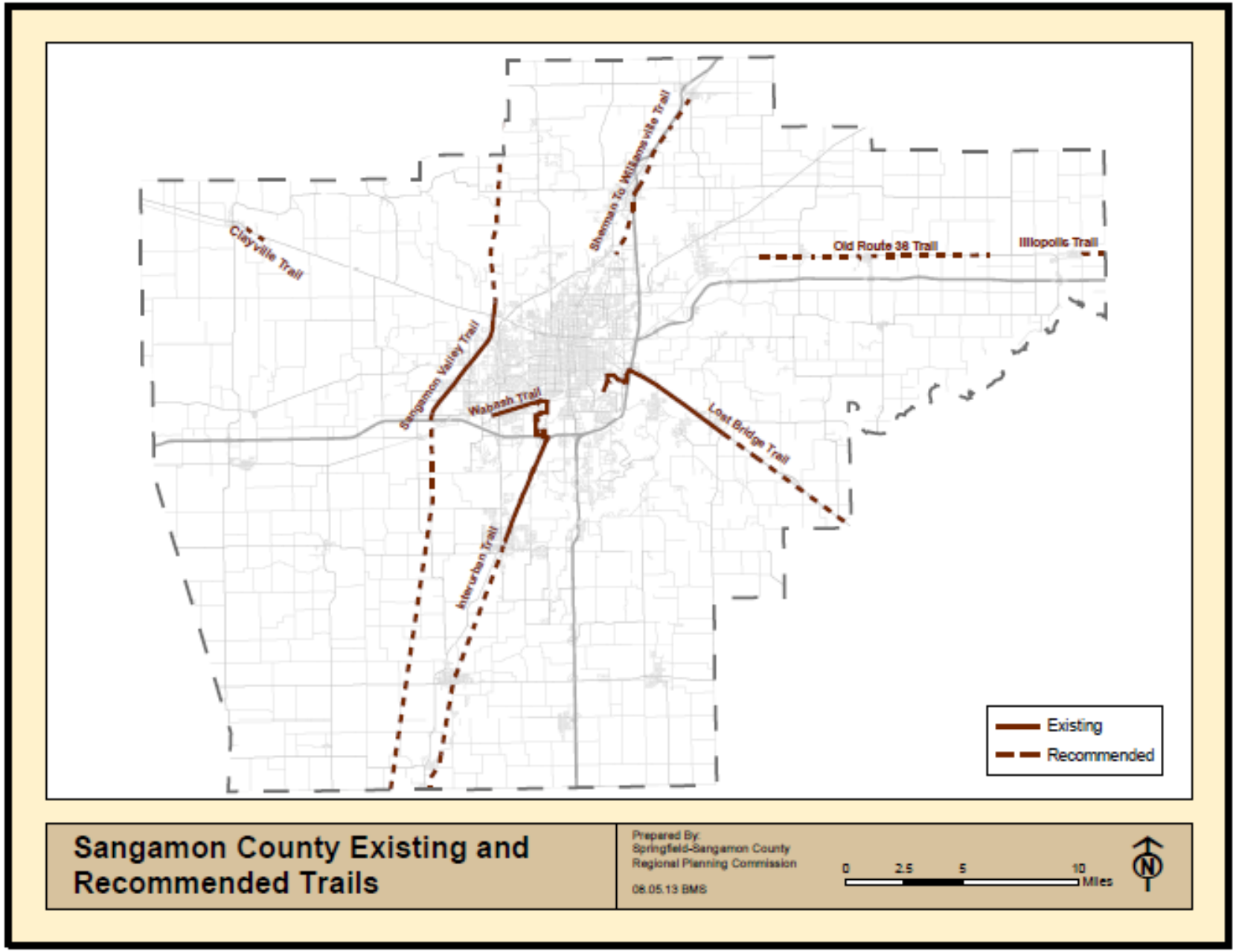
Sangamon Valley Trail (SVT): The SVT corridor runs along the abandoned Chicago & Northwestern Railroad line that traverses Sangamon County from the Menard County line northwest of Cantrall to the Macoupin County line at Virden. Plans also include extension of the trail into each county. The length of the trail in Sangamon County when completely built will be 33 miles.

Williamsville to Sherman Trail: The Williamsville to Sherman Trail will run from Conrey Street in the Village of Williamsville to Andrew Road in Sherman along the abandoned Illinois Terminal Company Railroad Corridor currently owned by Ameren Illinois for a length of 4.5 miles. Design engineering is underway at this time.

Williamsville to Sherman Trail/Sangamon Valley Trail Connection: A 6 mile link would connect the Williamsville to Sherman Trail to the Sangamon Valley Trail via sidepaths and paved shoulders on Andrew Road.

B. Trail Amenities

Amenities that are desired along trails are parking areas, restroom facilities, water fountains, benches, bike racks, mile markers, and trail maps. These all add to the enjoyment and usefulness of the multi-use trails and should be included in trail expansion efforts. Also helpful to trail users would be directional signs to goods and services easily accessed from the trail. These could be tastefully designed and funded by local businesses.


Clayville Trail
Sherman To Williamsville Trail
Old Route 36 Trail
Illiopolis Trail
Sangamon Valley Trail
Wabash Trail
Lost Bridge Trail
Interurban Trail
Existing
Recommended
Sangamon County Existing and Recommended Trails
Prepared By:
Springfield-Sangamon County
Regional Planning Commission
08.05.13 BMS
0
2.5
5
10
Miles
N

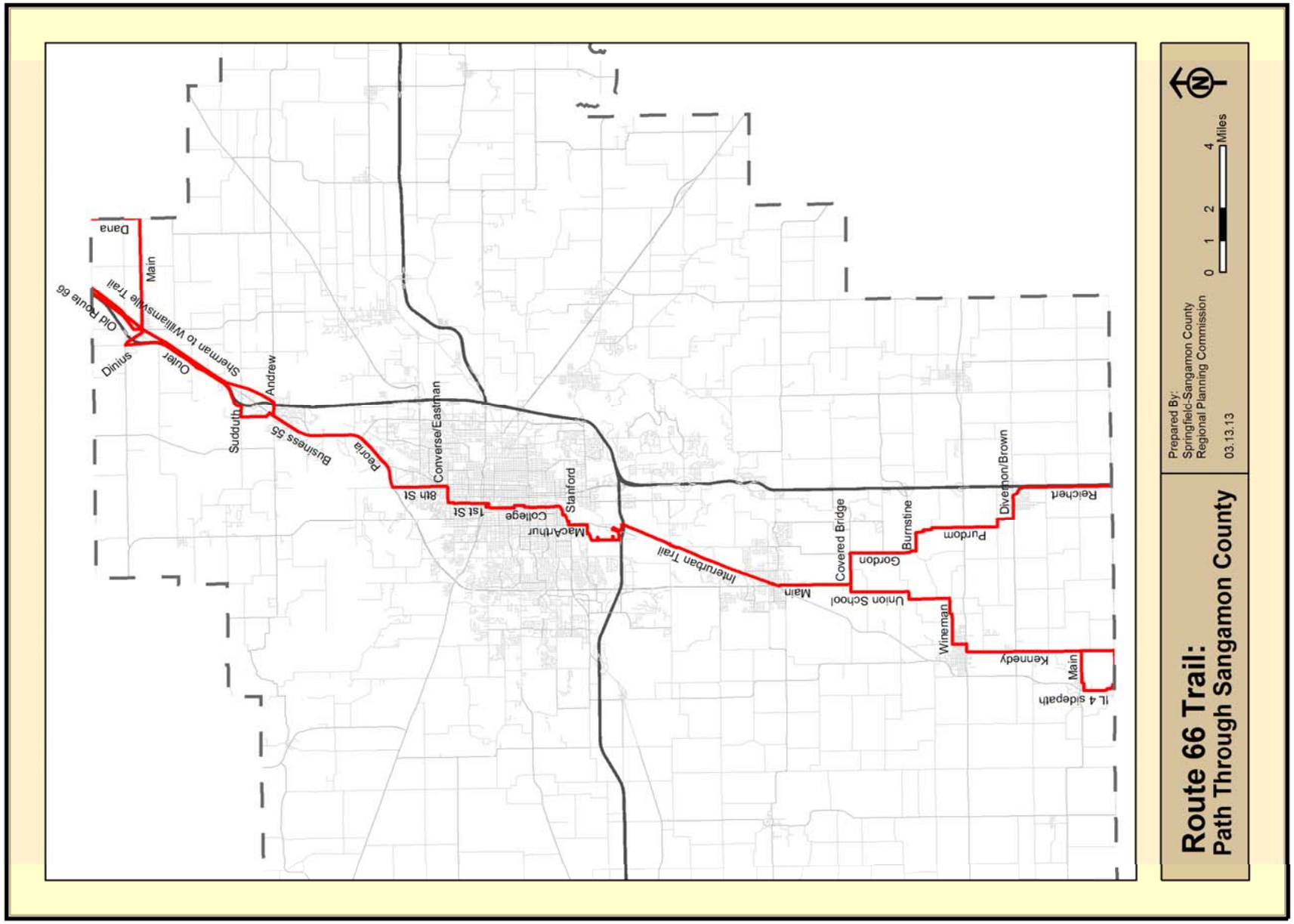
VII. THE ROUTE 66 TRAIL

In 2010 the Route 66 Trail Executive Council, facilitated by the Illinois Department of Natural Resources, finalized a concept plan establishing the vision of a recreational and learning experience for non-motorized travel along the historic Route 66 highway in Illinois. A continuous 430-mile trail has been designated from Chicago to St. Louis along on-road and off-road corridors, as close to the historic road as feasible. The trail route enters Sangamon County at Williamsville; continues through Sherman, Springfield, and Chatham; then splits south of Chatham to provide the opportunity of exiting the County either through Divernon or Auburn. Once completed, the Sangamon Valley Trail will be used as an alternative route through the County. A map of the Route 66 Trail is shown on the next page.

In December 2010 the Adventure Cycling Association announced a new initiative to promote biking Route 66, recognizing there are bicyclists from across the globe who are drawn to ride this historic highway. Illinois is the first state to have a designated Route 66 trail with a brochure providing specific route directions including nearby attractions and accommodations. Bike tours are offered along the entire length of Route 66, and for many the logical starting point is Chicago. Local support and promotion of the trail creates a defined, safe, and welcoming experience for these travelers. Once here they can take advantage of the many services and tourist attractions that we have to offer.

The Route 66 Trail Concept Plan was created as a general guide for the entire trail corridor with communities encouraged to "undertake development and management actions that best serve their areas". Improvements recommended for Sangamon County and how they are addressed in the Rural Sangamon County Bicycle and Pedestrian Plan are indicated in the following table.

Route 66 Trail Concept Plan	Rural Sangamon County Bicycle and Pedestrian Plan
From Logan County through Williamsville	Install signage
Williamsville to Sherman Trail – construction	Included in Plan
Through metropolitan planning area	Included in SATS Bicycle and Pedestrian Plan
From Covered Bridge Road to county line along two separate legs	Install signage Alternative route in Thayer to proposed Interurban Trail extension rather than Route 4


Route 66 Trail:
Path Through Sangamon County
Prepared By:
Springfield-Sangamon County
Regional Planning Commission
03.13.13
0 1 2 4 Miles
Dana
Main
Old Route 66
Outer
Sherman to Williamsville Trail
Dirius
Andrew
Sudduth
Business 55
Peoria
Converse/Eastman
8th St
1st St
College
Stanford
MacArthur
Interurban Trail
Main
Covered Bridge
Gordon
Burnstine
Purdom
Diversion/Brown
Reichert
Union School
Wineman
Kennedy
Main
IL 4 sidepath

VIII. BICYCLE PARKING

Style: A good bicycle rack provides support for the bike frame and allows both the frame and wheels to be secured with one lock. The most common styles include the inverted "U" and the wave or continuous curve style (more than two). The preferred option for multiple spaces is a series of inverted "U" racks, situated parallel to one another. These can be installed as individual racks, or as a series of racks connected at the base, which is less expensive and easier to install and move, if needed.

Old-fashioned "school racks," which secure only one wheel, are a poor choice for today's bicycles. Securing both the wheel and frame is difficult, and bicycles are not well supported, sometimes resulting in bent rims.

Installation: There are various factors that should be taken into account when installing bicycle racks at specific locations.

The ideal placement for bicycle parking is:

- near main building entrances
- conveniently located
- highly visible
- lit at night
- protected from the weather

When placing a bicycle rack in the public right-of-way or in a parking lot, it should:

- be removed from the natural flow of pedestrians
- avoid the curb
- avoid the area adjacent to crosswalks
- be a minimum of 6 feet from other street furniture
- be at least 15 feet away from other features, such as fire hydrants or bus stop shelters

Additional installation recommendations:

- Anchor racks into a hard surface
- Install racks a minimum of 24" from a parallel wall
- Install 30" from a perpendicular wall (as measured to the closest inverted U.)
- Allow at least 24" beside each parked bicycle for user access, although adjacent bicycles may share this access.
- Provide a 6 feet aisle from the front or rear of a bicycle parked for access to the facility.

Figure 1. Inverted U, single (top) and in a series (bottom)

IX. PLAN IMPLEMENTATION

The Bicycle and Pedestrian Plan lays out a long-term vision for friendly, safe, and efficient travel for bicyclists and pedestrians. Little by little, project by project, the county and our communities will become more "walkable" and "bikeable". Achieving this vision however will take financial resources, community effort, public support, and progress assessment. Implementation strategies are discussed below.

A. Bicycle and Pedestrian Plan Coalition

Recognizing that, just as the development of this plan involved the coordination and cooperation of multiple jurisdictions, the implementation of the plan will best be accomplished through a joint effort, the steering committee will evolve into a coalition to continue the work to improve bicycle and pedestrian travel in rural Sangamon County. The coalition will share knowledge, prioritize projects, provide support for plan implementation activities, and track progress of plan implementation.

The coalition will appoint a chair, co-chair, and secretary and establish a regular meeting schedule. Meetings will be held at a mutually accessible location.

B. Costs and Funding

Recommendations in this plan range from low- or no-cost improvements to major capital investments. Some of the more expensive bicycling and pedestrian improvements can be constructed as part of associated road projects. Some projects, such as striping of bike lanes, would have no additional cost when done as part of a road overlay project. This plan does not provide a cost estimate for each project, but general estimates for the type of projects recommended in this plan are taken from the Pedestrian and Bicycle Information Center website, as shown below. The cost of a project can depend upon a myriad of factors: the estimates from the Pedestrian and Bicycle Information Center provide an indication of the level of expenditure associated with particular types of projects.

- **Signed Bike Routes and Shared Lane Markings:** Signs and pavement stencils are less expensive than designated bike lanes. Shared lane markings can be done with other roadwork, while sign installation can be done at any time.
- **Bike Lanes:** The cost of installing bike lanes ranges from $5,000 to $50,000 per mile.
- **Trail or Sidepath:** The cost of developing trails varies according to land acquisition costs, new structures needed, the type of trail surface, the width of the trail, and the facilities that are provided for trail users.
- **Sidewalks:** Typical costs for sidewalk to be constructed on both sides of a street can vary between around $150,000 to $250,000 per mile. Important considerations that can raise costs are the existence of right-of-way, the number of driveway or roadway crossings requiring ramps or landing areas, and the presence of curb and gutter.
- **Curb Ramps:** An ADA-compliant textured ramp costs anywhere from $800 to $1,500 for either new or retrofitted construction.

Implementing agencies may dedicate a portion of their annual budget for development of the bicycle and pedestrian networks. One strategy could entail a smaller first-year budget for the highest priority projects as a way to build momentum for following years. Projects in this Plan can be incorporated into other municipal ordinances to be implemented opportunistically when a new residential subdivision or commercial development is undertaken.

An agency may find it easier, faster, and perhaps even less expensive to fund the Plan's lower-cost improvements internally. But, larger cost improvements may require external funding. Implementation of any project will be contingent upon funding being available.

Some of the most commonly used funding sources for bicycle and pedestrian projects are listed below. The funding landscape is always evolving, and is dependent on federal and state legislation. The League of Illinois Bicyclists' website (www.bikelib.org) keeps an updated list of these funding opportunities.

- **Transportation Alternatives Program (TAP)**

This federal program administered by the Illinois Department of Transportation was created under the current transportation bill, Moving Ahead for Progress in the Twenty-first Century (MAP-21), and consolidates three former programs, Transportation Enhancement, Safe Routes to School, and Recreational Trails. IDOT is still in the process of determining how to move forward with distributing this funding.

With more stringent federal engineering standards and long review processes, this source is better suited for larger ($400K to $1M+) bikeway projects and those requiring substantial engineering work, such as bridges.

- **Illinois State Bike Grant Program**
  - State source (Illinois Department of Transportation) with 50% state, 50% local cost shares.
  - Reimbursement grant administered annually (March 1) by IDNR.
  - Averages $2.5 million per year, with a $200,000 limit (except for land acquisition projects). The program was put on hold for 2008-2012 due to the State's financial crisis but was resurrected in 2013.
  - Typically a 2:1 ratio of applications to grants.
  - Only off-road trails and bikeways are eligible.

Much simpler process and standards as these remain local, not IDOT, projects. Good for simpler projects and those that can easily be phased. Many agencies prefer these over ITEP, even though the cost share is higher, due to less grant administrative burden, lower project costs, and faster implementation.

- **Non-Government Sources**

The following non-governmental sources are all potential funding partners, particularly for high profile projects and projects that directly impact them. Many organizations, such the Robert Wood Johnson Foundation, are committing resources to projects that promote public health.
  - Private foundations
  - Private and non-profit environmental land trusts

- Local businesses
- Local citizen groups and individual donors
- Developers

C. Community Strategies

- Perhaps the most important implementation strategy is the dedication of some fraction of a community staff member's time as the bicycle and pedestrian coordinator. This individual would work on plan implementation projects and other active transportation issues as well as serve on the Bicycle and Pedestrian Plan Coalition. Also, the coordinator would regularly collaborate with other staff and relevant agencies to ensure their efforts conform to the goals of the Plan. Appendix A lists resources for this work.
- This plan recommends a variety of strategies that range from adopting policies, to coordinating with other agencies, to implementing projects. One of the first steps of plan implementation for each relevant agency should be to consider the listed recommendations in their jurisdiction and draft a five year work plan. Projects that do not get completed in a given year move into a future year's work plan. Dividing plan implementation across a span of years makes it more manageable, especially in terms of funding.
- Community ordinances and policies, such as comprehensive plans, subdivision ordinances, and zoning ordinances, can provide guidelines to ensure new developments contribute to the Bicycle and Pedestrian Plan's goals. Here are some sample guidelines.
  - Considering bicycle and pedestrian traffic and facilities during the traffic impact analysis process.
  - Installing sidewalks and bikeways as part of any required roadway improvements, per the recommendations in Appendix B and C.
  - Installing sidewalks (with a minimum preferred width of 5 feet) according to the FHWA New Sidewalk installation guidelines shown in Appendix C.
  - Considering pedestrian and bicycle access within the development as well as connections to adjacent properties.
  - Considering connectivity between developments for pedestrians and bicyclists to minimize short-distance trips by motor vehicles. These can be provided as "cut through" easements in suburban cul-de-sac developments and as part of connected street grids in traditional neighborhood development.
  - Building out pedestrian and bicycle facilities concurrent with road construction, or in an otherwise timely manner, to prevent gaps due to undeveloped parcels.
- Bicycle and pedestrian facilities do need regular maintenance which requires equipment that some municipalities may not possess. Opportunities for communities to cooperatively purchase or share costly equipment such as sweepers should be explored.

D. Educational Strategies

Bicyclists: Distribute safety materials, such as the following, through schools and PTAs, at public places such as city halls and libraries, and on municipal and park district websites:

- *Kids on Bikes in Illinois* (www.dot.state.il.us/bikemap/kidsonbikes/cover.pdf), a free pamphlet from IDOT's Division of Traffic Safety.
- League of Illinois Bicyclists' single-page summaries for children and their parents at http://www.bikelib.org/safety-education/kids/bike-safety-sheet/ .

- *Safe Bicycling in Illinois* (www.dot.state.il.us/bikemap/safekids/cover.pdf), a free booklet directed to teens and adults, from IDOT Traffic Safety.
- *Bicycle Rules of the Road*, a free guide from the Illinois Secretary of State: http://www.sos.state.il.us/publications/pdf_publications/dsd_a143.pdf .

Other resources for kids and adults are listed at http://www.bikelib.org/safety-education. These range from bike safety classes to videos and also include a bike rodeo guide.

Pedestrians: Emphasize pedestrian safety in new project media releases and events. Add pedestrian safety information to existing maps and fact sheets. Target safety campaigns at older adults, children, and other higher risk populations. Engage schools, parent groups, and senior centers to help communicate safety information and market safety events. Some resources for programs to assist in pedestrian education efforts follow.

- Pedestrian Safety Program from the U.S DOT, Federal Highway Administration (http://safety.fhwa.dot.gov/local_rural/pedcampaign/), Features a complete guide on establishing a pedestrian safety coalition and includes an extensive set of outreach materials.
- Pedestrian Safety Workshop (http://www.rsa.unc.edu/psw/), web-based training modules focusing on safety issues for older pedestrians.
- National Center for Safe Routes to School Online Guide: Education (http://guide.saferoutesinfo.org/education/index.cfm), Education strategies towards children covering both pedestrian and bicycle travel.

Motorists: Educate motorists on sharing the road with bicyclists and avoiding common mistakes that lead to collisions with bicyclists and pedestrians. Include a link to the League of Illinois Bicyclists' "Share the Road: Same Road, Same Rights, Same Rules" video (http://www.bikelib.org/safety-education/motorists/driver-education and available as a DVD) on municipal websites. Encourage local high schools and private driver education programs to include the video and other materials from LIB's driver education lesson plan.

Short articles meant to educate the public on bicycling safety issues are available on the League of Illinois Bicyclists website. These are suitable for newspapers, newsletters, and websites. Pedestrian outreach materials, including press releases, newspaper articles, television public service announcements, brochures, posters, and radio announcements can be found at the Federal Highway Administration Pedestrian Safety Program website listed above.

E. Encouragement Strategies

Suggestions for encouraging visitors or residents to explore the area by bicycle include:

- Organize bicycling and/or walking events or incorporate them into existing events.
- Work with school districts to observe International Walk and Bike to School Day, the first Wednesday of each October.
- Promote bicycle route connections between historic sites.

F. Enforcement Strategies

A vital component of a safe pedestrian and bicycling environment is law enforcement with education to reduce car-bike and car-pedestrian collisions. According

to Illinois law, bicycles have both the rights and responsibilities of other vehicle users. Many bicyclists do not know about the law as it applies to bicycles, and how following the law leads to safe cycling. Other cyclists ignore the law while riding in traffic, not only creating dangerous situations but also causing motorist resentment toward other cyclists trying to share the road safely. Police are encouraged to stop cyclists if the situation dictates, to provide information and to issue warning citations or tickets when appropriate. Resources include Illinois bike law cards and sample warning citations from the League of Illinois Bicyclists. See www.bikelib.org/safety-education/enforcement-resources

Police are encouraged to learn enforcement techniques that help ensure safer roads for bicycling. The League of Illinois Bicyclists offers a Safe Roads for Bicycling police training presentation, including the video: "Share the Road: Same Road, Same Rights, Same Rules" (www.bikelib.org/safety-education/motorists/driver-education and available as a DVD).

Many people believe pedestrians have the right of way any time they cross a roadway. This is not the case. In order to have right of way, pedestrians must cross at an intersection or crosswalk and not present an immediate hazard. Drivers also bear responsibility for pedestrian safety and must exercise due care to avoid hitting a pedestrian.

G. Evaluation Strategies

The three goals of this plan include a number of objectives, or activities, to help meet each goal. Each objective has an associated performance measure to track the implementation of the objectives in a quantifiable way. At the end of each year the coalition should prepare a progress report to share with communities and the public. Every five years an update to the plan will be prepared. Modifications to the plan can be made if other communities join the coalition or other major changes develop.

APPENDIX A
Technical Resources

Manuals and Guidelines

- *AASHTO Guide for the Development of Bicycle Facilities*, 3rd Edition, 2012 available at www.transportation.org
- *AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004, available at https://bookstore.transportation.org/item_details.aspx?id=119*
- *Accessible Rights-of-Way: A Design Guide, 1999 (new version draft currently under public review),* available at http://www.access-board.gov/prowac/guide/PROWGuide.htm
- *Bicycle Parking Guidelines, 2nd Edition: A Set of Recommendations from the Association of Pedestrian and Bicycle Professionals***,** 2010, available at www.apbp.org.
- *Manual on Uniform Traffic Control Devices*, 2009, available at http://mutcd.fhwa.dot.gov/
- Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, an ITE Recommended Practice, 2010, available at http://www.ite.org/emodules/scriptcontent/Orders/ProductDetail.cfm?pc=RP-036A-E

Professional Organizations

- The Pedestrian and Bicycle Information Center: Offers a wealth of information on engineering, encouragement, education and enforcement, including archived webinars and quarterly newsletters: www.pedbikeinfo.org
- The Association of Pedestrian and Bicycle Professionals: provides continuing education, technical resources and an online forum for exchanging questions and ideas. www.apbp.org
- League of Illinois Bicyclists: A planning and advocacy resource, with many on-line materials focused on best practices nationally as well as issues unique to Illinois: www.bikelib.org
- U.S. Department of Transportation: Federal Highway Administration, Bicycle and Pedestrian Program website. http://www.fhwa.dot.gov/environment/bikeped/index.htm
- America Walks: A walking advocacy group who, in partnership with the National Center for Safe Routes to School, provides SRTS information and webinars. http://americawalks.org/programs/srts/

APPENDIX B
Guidelines for Bicycle Facility Options

Suggested Bicycle Accommodation in Road Designs

Minor urban 25-30 mph roads			
	No parking	*Sparse: <10% parking*	*Significant parking*
Local Residential	None	None	None
(Preferred route)	SLM-4	CBPL	SLM-11
Minor Collector	None	None	None
(Preferred route)	SLM-4 (or BL-5*)	CBPL	SLM-11 (or BL-5*)

Arterial or Major Collector *(Urban unless noted)*			
	2000-8000 ADT	*8000-15000 ADT*	*Over 15000 ADT*
<35 mph	BL-5	BL-5 (or BL-6*)	BL-6 (or SP)**
35-40 mph	BL-5 or SP**	SP (or BL-6)**	SP (or BL-6)**
>40 mph	SP	SP	SP
55 mph rural	SH-4 (or SH-6*)	SH-6 (or SH-8*)	SH-8

(Parentheses) indicate the secondary recommendation, if certain conditions are met.

* Indicates the secondary recommendation may be used at the higher ends of a range and/or where the needs are greater

** As the frequency of crossings (side streets, driveways) increases, the choice of bike lanes or sidepath moves closer to bike lanes.

BL-5 or BL-6: Bike Lanes of width 5 or 6 ft, respectively, with pavement stencils and signage per AASHTO. Where there is no parallel on-road parking next to the bike lane, indicate through signage that parking is not permitted in the bike lane.

CBPL: Combined Bike/Parking Lanes, solid stripes 7' from curb faces. Parking permission indicated with signage. D1 or D11 wayfinding signage preferred as a supplement.

SH-4, SH-6, or SH-8: Paved shoulders of width 4, 6, or 8 ft, respectively. Any rumble strips should have longitudinal breaks and a minimum 4 ft clear zone for bikes.

SLM-4: Shared Lane Markings 4' from curb faces. MUTCD D1 or D11 wayfinding signage preferred as a supplement.

SLM-11: Shared Lane Markings 11' from curb faces (on-street parking present). D1 or D11 wayfinding signage preferred as a supplement.

SP: Off-road sidepath trail designed per AASHTO, on at least one side of road.

BICYCLE FACILITY TYPES

Multi-Use Trails

Multi-use trails are physically separated from motor vehicle traffic, except at road crossings. Trails accommodate a variety of users, including bicyclists, walkers, runners, and roller-bladers, for both recreation and transportation purposes. Trails away from roads, on easements or their own rights-of-way, tend to be pleasant and popular.

AASHTO recommends a width of 10 feet for most two-way trails, although conditions may allow for 8 feet or suggest more than 10 feet. While a soft surface such as limestone screenings is an option, bicyclists usually prefer a hard surface such as asphalt or concrete (if sawcuts are used to reduce the size of the concrete gaps). The higher cost of concrete may be recovered through reduced maintenance. Particularly for trails longer than a few miles, amenities such as the occasional water fountain, bench, garbage receptacle, and restroom, as well as mile markers, are appreciated and desired by users.

Multi-use trail.

Sidepaths

Sidepaths are trails running immediately parallel to a roadway, essentially a widened sidewalk. Like other trails, the recommended width is 10 feet, but certain low-use conditions allow for the exception of 8 feet. Away from intersections, the sidepath should be at least 5 feet from the road or have a railing if the buffer is less than 5 feet.

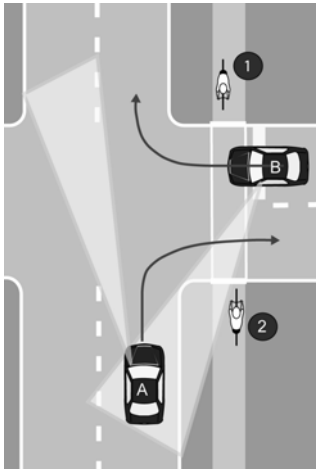


Figure 1. Right turns across sidepaths.

Many believe sidepaths or sidewalks are *always* safer than on-road bicycling. Surprisingly, this is *not* the case where there are many side streets, residential driveways, and commercial entrances – especially for "contra-flow" cyclists biking against the flow of traffic. Figures 1 and 2 illustrate the visibility problems leading to intersection conflicts. Note that in each case, an on-road cyclist on the right side of the road is within the motorist's viewing area.

In Figure 1, Car B crosses the sidepath to turn right onto the parallel street. Rarely do motorists stop at the stopline – usually stops are in the crosswalk or at the street edge. Many do not fully stop. Many will look only to their left. Cyclist 2 might be seen. Cyclist 1 is much less likely to be seen. Car A turns right off the parallel road then crosses the sidepath. Again, Cyclist 2 might be seen but Cyclist 1 is less visible. Particularly where a large turning radius permits fast turns, many motorists do not yield to cyclists entering or already in the crosswalk.

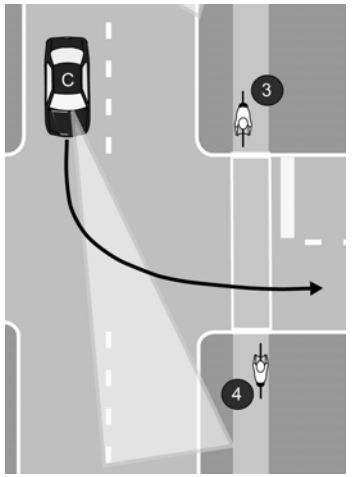


Figure 2. Left-turns across sidepath.

In Figure 2, Car C looks ahead, waiting for a traffic gap to turn left, then accelerates through the turn while crossing the crosswalk. Cyclist 4 might be seen. Again, the contra-flow cyclist (3) is less likely to be seen. If the traffic gap is short, sudden stops would be difficult.

The AASHTO guide describes these and other sidepath issues in discouraging their use in inappropriate locations. In general, sidepaths may be better choices than on-road bikeways for faster, busier roads without lots of crossings and with well-designed intersections. Sidepath conflicts can be reduced by:

- Bringing the sidepath closer to the road at intersections, for better visibility during all turning motions and better stopline adherence for right-turners
- Using pedestrian refuge islands to break up major crossings and right-in-right-out entrances – right-turn corner islands ("porkchops") are particularly effective
- Using high visibility crosswalks or color differences – at commercial entrances, too
- Using bike lane signs
- Occasional police enforcement and publicity of stopline adherence at sidepath crossings

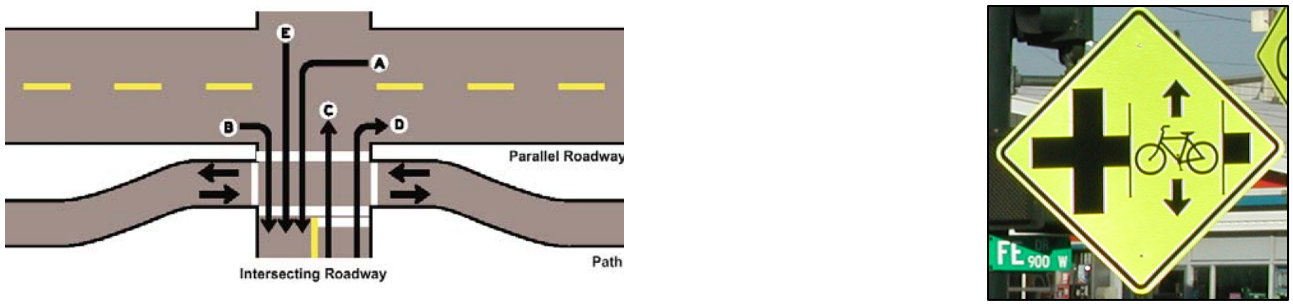


Figure 3. Intersection design methods to reduce sidepath conflicts.
Left: bringing crossing closer. Right: warning signage.

Bike Lanes

Bike lanes are portions of the roadway designated for bicyclist use. Bike lanes are between five and six feet wide (including gutter pan) on each side of the road with a white stripe, signage, and white pavement markings. Cyclists in each bike lane travel one-way with the flow of traffic. Sample results around the country for roads with bike lanes include:

- More predictable movements by both cars and bikes.
- Better cyclist adherence to laws about riding on the right side of the road.
- Dramatic increase in bike usage with lower car-bike crash rates.
- Decreased car-car crashes, possibly from a traffic calming effect.

Parking is not permitted in designated bicycle lanes. When a road has bike lanes and adjacent parking, the bike lanes should be striped between the parking space and the travel lanes. Regular sweeping is important, as bike lanes tend to collect debris.

Figure 4. Bike Route signs.

Signed Bike Routes

Some roads may be identified by green signage as preferred bike routes, because of particular advantages to using these routes compared to others. These "signed shared roadways" may be appropriate where there is not enough room or less of a need for dedicated bike lanes. A road does not require a specific geometry to be signed as a Bike Route, providing flexibility. A Bike Route may be striped with white paint, be an unstriped street, or be a road with paved shoulders.

It is recommended to use the updated signage styles available in the *Manual of Uniform Traffic Control Devices (MUTCD)*. Some signs can also provide wayfinding assistance at intersections with supplemental destination plates and arrows placed beneath them. The 2009 version of the MUTCD includes signs that combine bike route designation with wayfinding information. Some Illinois towns have put two or three destinations on a single sign, with mileages. Figure 4 illustrates some examples.

Wayfinding signs are useful throughout the bikeways network, whether along a trail, sidepath, bike lane, or other route. Consult the MUTCD for spacing and placement specifications.

Shared Lane Markings (SLM)

White pavement markings inform cyclists of optimum lane positioning. Also, markings are more effective than signage alone in reminding drivers of the possibility that they will see a cyclist in the road.

Bicycle positioning on the roadway is key to avoiding crashes with cars turning at intersections and doors opening on parked cars. Figure 5 shows a Shared Lane Marking (or "sharrow"), approved in the MUTCD.

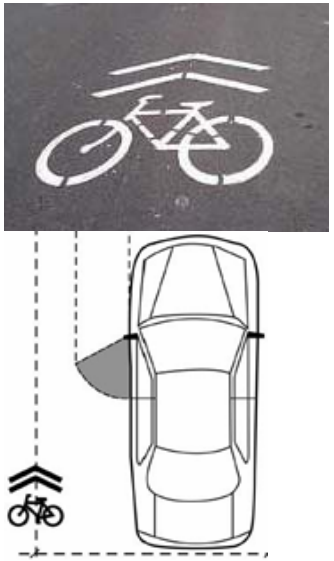


Figure 5. Shared Lane Marking (or "Sharrow").

The SLM is used primarily for streets with insufficient width for bike lanes, with speed limits below 40mph. On such roads with significantly occupied on-street parallel parking, the center of the marking shall be 11 feet (or more) from the curb; with no occupied parking, the center of the marking shall be 4 feet (or more) from the curb. Along diagonal parking, SLMs are recommended to be in the center of the travel lane. The markings should be placed right after an intersection and spaced at intervals of 250 feet thereafter. See MUTCD chapter 9 for more installation guidance, and supplement SLMs with wayfinding signage. Finally, the shared lane marking also can be used where bike lanes have been temporarily dropped, perhaps due to turn lanes at intersections.

Paved Shoulders

Besides providing benefits in vehicular safety and extending travel lane pavement life, white-striped paved shoulders make significant rural roads more bicycle-friendly.

Paved shoulders, on both sides of the road, should have a minimum width depending on traffic conditions. IDOT's original bicycle policy provided a good minimum standard, used in this plan:

- 4 feet, for daily traffic counts between 1000-2999
- 4-6 feet, for daily traffic over 3000; with 6 feet used where posted speeds are 55 mph or greater, or 45+ mph in areas with high truck, RV, or bus traffic or where usage by inexperienced bicyclists is expected

Where rumble strips are used for vehicular safety, the paved shoulders should be sufficiently wide to provide a minimum 3 feet smooth width (clear zone) to the outside of the rumble strip. Otherwise, cyclists will be unable to use the paved shoulders, often to the (unknowing) consternation of motorists. Similarly, paved shoulders become less useful to cyclists if too much debris collects, leading to flat tires. Occasional sweeping may be necessary.

APPENDIX C
Guidelines for a Pedestrian Network

The application of universal design principles and ADA design guidance will help ensure that everyone, including people with mobility, vision, and hearing issues, can safely travel on the pedestrian networks. Additionally, because children cannot safely bike on roads with higher traffic volumes and speed they are also considered pedestrians for this Plan.

Federal Highway Administration's Guidelines for New Sidewalk Installation

Roadway Classification and Land Use	Sidewalk Requirements	Future Phasing
Highway - Rural	Minimum 5' shoulders required.	Secure/preserve ROW for future sidewalks.
Highway - Rural/Suburban (less than 1 dwelling unit /acre)	One side preferred. 5' shoulders required.	Secure/preserve ROW for future sidewalks.
Highway - Suburban (1 to 4 dwelling units/acre)	Both sides preferred. One side required.	Second side required if density becomes > 4 dwelling units/acre.
Major Arterial - Residential	Both sides required.	
Collector and Minor Arterial -Residential	Both sides required.	5'
Local Street - Residential (less than 1 dwelling unit /acre)	One side preferred. 5' shoulders required.	Secure/preserve ROW for future sidewalks.
Local Street - Residential (1 to 4 dwelling units/acre)	Both sides preferred. One side required.	Second side required if density becomes > 4 dwelling units/acre.
Local Street - Residential (more than 4 dwelling units/acre)	Both sides required.	
All Streets - Commercial	Both sides required.	
All Streets - Industrial	Both sides preferred. One side required.	

There are many characteristics that enhance a pedestrian network. Some of these characteristics, such as connectivity and completeness, are vital throughout the network while others are relative to location, such as lighting and benches.

Sidewalk Width

Adequate sidewalk width is an important pedestrian corridor characteristic, particularly for accommodating people with mobility issues. The Federal Highway Administration (FHWA)[3], Illinois Department of Transportation (IDOT)[4], and the Institute of Transportation Engineers (ITE)[5] all support the federal Americans with Disabilities Act (ADA) sidewalk width recommendation of 5 feet. That distance allows for 180-degree wheelchair turning and bi-directional traffic including children on bicycles.

Wide, smooth, well-maintained walkway

Sidewalk Condition

Sidewalks and paths should have a smooth, unbroken, and level surface to accommodate all pedestrians. Changes in level, cracks, gaps, and vegetation can potentially render a sidewalk impassible for some users. Both proper design and effective regular maintenance are necessary for a safe and accessible pedestrian network.

Tree-lined buffer with adequate space and drainage

Buffer Type

Sidewalk buffers are the area between the sidewalk and roadway. They provide pedestrians some protection from traffic and make a walkway more desirable. Tree-lined buffers also can provide relief from weather conditions such as intense sun and rain if a tree's canopy provides coverage over the sidewalk. However, damage to sidewalks by root structures is a common problem as trees mature. Any trees in buffers should be properly selected and spaced to allow for long-term growth that maintains the sidewalk's integrity.

Obstructions

Obstructions can be temporary or permanent. Overgrown vegetation is the leading type of temporary obstruction. Parked cars and garbage cans are other common temporary obstructions. An effective maintenance program and local ordinances can reduce temporary obstructions. Maintenance and clearing is vital and should be emphasized. Permanent obstructions in existing sidewalks, such as signs and poles, should be identified and removal options evaluated.

Accessible connections in each crossing direction

Connectivity

Connectivity means connections between individual sidewalk segments. An interconnected sidewalk network provides smooth transitions across roadways. Robust pedestrian networks have high connectivity, indicating a relatively large number of pedestrian route options and reachable destinations. Having sidewalks on both sides of a roadway, when possible, is important. Sidewalks on only one side of a street can effectively add two more points of potential conflict with motorized traffic, as well as leave destinations on one side of the street inaccessible to some users. Roadway crossings are critical points for all pedestrians and should have ADA-compliant curb ramps to provide safe opportunities to cross streets.

Completeness

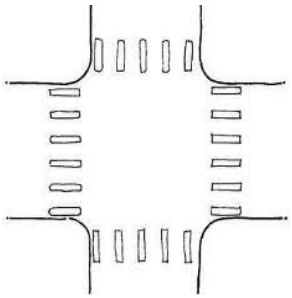
Complete sidewalk segments are those without gaps and that extend fully to roadway crossings. They help to ensure that pedestrians have a developed surface along their route and reduce the likelihood pedestrians will have to travel on roadways. Development ordinances usually have provisions that allow local government to enforce standards that ensure sidewalks in new subdivisions and site developments are completely built in a reasonable amount of time.

Examples of Pedestrian Road Crossing Accommodations

There are numerous sources of design guidance available to planners and engineers when considering locations where pedestrian and vehicular traffic intersect (see Appendix A). The following accommodation descriptions are intended to provide general information and guidance regarding commonly found design considerations related to the safety of pedestrians when crossing roadways. These facilities represent only a subset of the available pedestrian infrastructure and design options that may be applicable to a particular project. Planners and roadway engineers should consider each project's context and review current regulations, design guidance, and research.

Crosswalks

Crosswalks indicate the roadway area designated for pedestrians to cross the crosswalk markings, have implied pedestrian crossing areas. However, some pedestrian route to cross traffic. The MUTCD details where crosswalks should be FHWA recommends the continental crosswalk design, also referred to as ladder visible to motorized traffic. They also highly recommend enhancing the crossing in advance of the crosswalk. Crosswalks are recommended at all intersections in network.



street. All streets, regardless of the existence of crossings require markings to designate the safest considered and provides design guidance. The striping, as research has shown it is the most with flashers and/or advance warning treatments the PPN to reinforce the significance of the

Pedestrian/Bike Tunnel

Grade separated crossings

Grade separated crossings enable pedestrians to traverse busy transportation corridors while avoiding non-pedestrian traffic. To benefit pedestrians, the crossing designs should minimize slope, feel open, and be well lit. Lighting and openness is particularly important for underpass design. Where possible, slopes should not exceed the American with Disabilities Act Accessibility Guidelines maximum of 8.33%.

Midblock Pedestrian Crossing

Midblock Crossing

Midblock crossings are designated pedestrian crossing areas between intersections. They provide marked crossings where heavy pedestrian traffic is anticipated. In addition to crosswalk marking and signage to alert drivers, other features, such as curb extensions, signaling devices, raised crossings and audible crossing alerts can enhance midblock crossing safety.

Medians

Medians provide a refuge area between traffic flows on multi-lane roadways, effectively reducing the crossing distance between protected areas. The FHWA recommends raised medians with accessible curb ramps and landing areas on multi-lane roads to increase driver awareness of pedestrians.

Bumpout

Neckdowns/Bumpouts/Chokers

These design treatments use curb extensions at some point along the road to narrow the roadway. Chokers occur mid-block, neckdowns are used at medians, and bumpouts extend pedestrian areas at intersections. Their benefits include slowing traffic, enhancing pedestrian visibility, and reducing pedestrian crossing distances. Neckdowns also reduce traffic speed by increasing turning radius. When these design elements include landscaping or beautification amenities, the height of these amenities should be kept low enough to assure pedestrians are visible to drivers.

Overpasses & Bridges

Overpasses and bridges should include dedicated pedestrian space for crossing and include either pedestrian rails or guardrails. Where traffic speeds are high, barriers to protect pedestrians from traffic should be considered.

Pedestrian Zone Signs

Pedestrian Zone signs alert motorists to expect pedestrians crossing the roadway. However, an FHWA study found pedestrian zone signs did not have an impact on driver speeds at pedestrian crossings.[6] Thus, to increase driver awareness, it is recommended that pedestrian zone signs be coupled with other measures, such as flashers or in-street crossing signs. In-street crossing signs are placed at non-signalized crossings. Their placement location also may have a minor traffic calming effect.

In-street Pedestrian Zone Signs

Flashing Signals

Flashing signals can improve a motorist's ability to recognize pedestrian crossings. There are a number of ways to add flashing signals in a pedestrian design, including flashing signals over the crosswalk, flashing embedded in the crosswalk surface, and flashing pedestrian signs.

APPENDIX D
Public Comments on Draft Plan with Steering Committee Response

The draft plan was available for public review from May 22 – July 15, 2013. The Steering Committee members appreciated the comments submitted and reviewed them at the final committee meeting on July 31, 2013. The comments received and the responses from the Steering Committee are shown below.

I just reviewed the draft of the Rural Sangamon County Plan, and once again you and your team have done an excellent job! I just wanted you to know that your efforts are appreciated!
- Springfield

As a county resident and a bicyclist, I am encouraged by the efforts of local government to accommodate bicyclists and pedestrians in county traffic plans. I'd like to express my thanks for past efforts and support for future efforts in this direction. I'd also like to voice specific support for the proposed extension of the Sangamon Valley Trail going north from Stuart Park. I live off Cantrall Creek Rd and that extension would allow me to commute to work in the warmer months without having to ride on IL-29. In fact, because I work on the west side of Springfield, nearly my entire commute could be made in the safety of a dedicated trail. I realize that as distances from Springfield increase, the number of residents served decreases and the priority for some of these projects fades. However, I would love to be able to safely commute to Springfield on my bicycle and I'd bet I'm not the only one out there. Please consider this when making recommendations concerning bike and pedestrian route planning.
- Cantrall
Steering Committee Response: The Sangamon Valley Trail extension is included in the plan. The Sangamon County Highway Department is actively pursuing grant funding for the northern segment to Cantrall Creek Road.

I was just wondering if there has ever been any thought about coming our way with a trail?
- Pawnee
Steering Committee Response: The Village of Pawnee did not participate in this plan so the area was not looked at in detail. Extension of wide shoulders on IL 104 from Auburn east to the Christian County line has been added to the recommended bicycle network. During development of the plan every effort was made to identify abandoned rail corridors in the county to explore their potential for trail development. None were identified in the vicinity of Pawnee.

This letter is in response to a request for comments on the May 15, 2013, draft of the Sangamon County Pedestrian and Bicycle Plan. I appreciate the opportunity to offer input and have the following to offer:
1. I am encouraged that all Interstate corridors and most State routes have improvements on - or nearly parallel/similar routings available - for non-motorized traffic. Noted exceptions were ingress/egress routes near the county line such as Rt. 54 west of New Berlin, Rt. 97 north of Salisbury, and along Rt. 54 from Riverton to the northeast.

Steering Committee Response: With existing wide shoulders on parts of Old Jacksonville Road and to coordinate with bike route planning efforts in Morgan County, Old Jacksonville Road has been included as the bicycle route connector to the west. In coordination with a representative from Menard County IL

123 was chosen as the bicycle route connector to that county with specific consideration given to accessing New Salem State Park. Paved shoulders on state highways are typically added only when the average daily traffic volume is 3,000 or greater. With the number of vehicles on Route 54 northeast of Spaulding averaging 1,200 this corridor does not meet the criteria for paved shoulders and therefore is not included as part of the recommended bicycle network.

2. For clarity and continuity, it might help to show the planned extension of the Sangamon County Trail within the "Urban Planning Area" on both the *Recommend Bicycle Network* and *Recommended Pedestrian* Network exhibits.

Steering Committee Response: The recommended extensions of existing trails in the urban area were inadvertently left off the draft map. The Sangamon Valley Trail, Interurban Trail, and Sherman to Springfield Trail have been added to the map.

3. Including the Sangamon River Fish and Wildlife Area as a park graphic symbol on the two recommended network exhibits (where Irwin Bridge Road crosses the Sangamon River) might enhance support and purpose for the routing shown there…just a thought.

Steering Committee Response: This park has been added to the map.

4. I am encouraged to see the Route 66 and the Boy Scout Lincoln trails incorporated into the plan for not only their obvious transportation function, but also historic purpose and tourism potential. Another historical trail the county might want to consider including in this pedestrian and bicycle plan for similar reasons is the route of the 1838 Potawatomi Trail of Death. The portions within Sangamon County include Oak Crest Road to the east, through Springfield, then west along Old Jacksonville Road. Several markers/monuments currently mark this route and a tourism potential might be there if promoted.

Steering Committee Response: With finalization of this plan the Steering Committee will evolve into the Rural Sangamon County Bicycle & Pedestrian Plan Coalition and will explore this potential.

5. Like many others, I have bicycled from Springfield to either of the two state parks which lie just beyond the county's boundaries. Yet routing all the way to the county line does not appear to be afforded in this plan. For Lake Sangchris State Park, suggest that road signage be added from Rochester/Lost Bridge Trail to the county line toward Lake Sangchris. For New Salem State Park, propose a similar signage plan addition along Irwin Bridge and Salisbury Cemetery roads toward the state park. By creating a routing between these two state parks through Sangamon County, there may also be an economic benefit to our county from those traveling between the two facilities.

Steering Committee Response: Promotion of bicycling in and through Sangamon County will be addressed by the Coalition.

6. I would encourage your office to further research the potential of any other abandoned railway, utility or unused right of way in the county that might be developed into future off road trails which could be incorporated into this plan.

Steering Committee Response: Every effort was made during development of this plan to identify potential corridors for multi-use trails.

7. The plan does a very good job of linking most Sangamon County communities via some means of non-motorized routing. A noted exception is Pawnee. Consideration to including a routing to this municipality, as well as the southeast corner of the county, would be recommended.

Steering Committee Response: Pawnee did not participate in this plan so was not specifically addressed. IL 104 is recommended for wide shoulders through the southeast corner of the county.

Overall, the plan appears comprehensive and well thought out. The proposal shows vision, yet is practical in terms of its development. I support the developments depicted and believe they will enhance the quality of life here in Sangamon County.

- Springfield

Hello! I'm here in Jacksonville, and from our standpoint I'd like to know are you using US 36 or Old Jacksonville Road to connect west? I could not tell on the online maps.
We would like to plan our county's network to tie in with the Sangamon system.
36 comes into town and turns into Morton and is a 4-lane+ business strip. Old Jacksonville Road/Old State Road comes into the older part of Jacksonville and goes into the heart of the city. Also goes past significant historical sites, will link with a planned bike path, and is tons safer for bikes.
We just want to make sure we line up with what you're planning.
Really impressed with your work - we already love the bike paths you have, and would love a safe way to bicycle to/in & around Springfield. We shop and pay sales taxes in Springfield/Sangamon County, glad to see that money going to good use.
- Jacksonville
Steering Committee Response: With this information from Morgan County, Old Jacksonville Road was selected as the bicycle connector into that county.

I looked at the agenda for tonight's meeting. I am unsure of what will be discussed specifically so forgive me if my comment is not on target. I have ridden many of the Sangamon County roads since I moved here in '92. My background is that I am cyclist that has raced for many years and because of that I have trained many miles on these roads. If you are looking for a particular road to start improving that will impact a lot of people that cycle and also hike, I would start with Boy Scout Trail Road that connects New Salem with Springfield. It is a very scenic road with plenty of challenge to it, so many cyclists include it as a favorite route. It is also used every year by the Boy Scouts for their annual pilgrimage from New Salem to Springfield by way of foot. Over the last few years it has gotten patched and repatched. I have ridden it a couple of times in the last two weeks and it has some decent sized pot holes that need attention.
It's probably already on your list, but the bike path from Woodside road to the bypass needs the foliage trimmed.
- Springfield
Steering Committee Response: The Boy Scout Trail is included in the Recommended Pedestrian Network. At this time North Cantrall Creek Road and IL 123 are recommended for bicycle routes into Menard County.

APPENDIX E
Endnotes

[1] American Association of State Highway and Transportation Officials (AASHTO), "Guide for the Development of Bicycle Facilities", 2012.

[2] Federal Highway Administration, "Manual of Uniform Traffic Control Devises", 2009.

[3] United States Department of Transportation, Federal Highway Administration. "Environment: Chapter 4 – Sidewalk Design Guidelines and Existing Practices." Last accessed September 15, 2011. http://www.fhwa.dot.gov/environment/sidewalks/chap4a.htm

[4] Illinois Department of Transportation. "Bureau of Design and Environment Manual: Chapter 17 – Bicycle and Pedestrian Accommodations." Last accessed September 15, 2011. http://www.dot.state.il.us/desenv/BDE%20Manual/BDE/pdf/chap17.pdf

[5] Institute of Transportation Engineers. "Traditional Neighborhood Development Street Design Guidelines: Recommended Practice." Washington, D.C., October 1999.

[6] United States Department of Transportation, Federal Highway Administration. "Pedestrian Safety Engineering and ITS-Based Countermeasures Program for Reducing Pedestrian Fatalities, Injury Conflicts, and Other Surrogate Measures Final System Impact Report." Last accessed September 15, 2011. http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_scdproj/sys_impact_rpt/chap_2.cfm