



# **Acknowledgments**



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## Why a Trails Plan?

A recreational trail is a quality-of-life amenity highly desired by Champaign residents. In recent years both the Champaign Park District and City of Champaign Planning Department completed long range strategic plans which included surveys of Champaign residents. In both cases residents indicated they would like to see more trails throughout the community. A well-connected trail system provides many benefits. It promotes healthier lifestyles, provides recreational opportunities for all ages and abilities and links together different neighborhoods and community destinations. National studies also show that property values can be higher when located near a trail system. Although many trail segments have been built in the community throughout the years, there has yet to be a plan with a strategy to link them together and promote the construction of new trails.

The purpose of the Trails Plan is to provide a vision for a connected system throughout the community. The plan also sets clear expectations for where trails should be built and to what standard. The plan will influence the site design of development, provide direction for public works projects, and be a resource in applying for grant funding for new trail segments. Most importantly, the plan provides a common vision that can be supported and promoted by the broader community.

### Working Together to Create the Plan

The Trails Plan is a joint effort between the City of Champaign and the Champaign Park District. Both the City and Park District understand the quality-of-life benefits that can result from a well connected trail system in the community. During the creation of this plan these two units of government coordinated to better understand how the vision of this plan can be realized. The implementation of this plan (page 44) further outlines how the City and District will work together to achieve the vision of the plan with the construction and maintenance of new trails.





### How the Plan will be Used

The Trails Plan illustrates 17 different trail segments that would create a cohesive network of off-street facilities for recreational use. The Trails Plan is not necessarily a "bicycle plan". The City maintains a bicycle plan within the Transportation Master Plan, called *Champaign Moving Forward*. That plan maps on-street bicycle facilities including bike lanes, bike routes and "sharrows." While the bicycle plan promotes bicycling more as a mode of transportation, the Trails Plan places more emphasis on recreational use. However, the Trails Plan was developed in close coordination with the existing bicycle plan to ensure proper connections. It is envisioned that the Trails Plan will be used primarily by the following groups:

The City of Champaign when considering street improvement projects;

The Champaign Park District when considering new projects and applying for grants;

**Developers** when considering site layouts for new development; and

Future Residents when making choices on where to live and recreate.; and

Current Residents when walking, running and biking.

### Relationship to Other Planning Efforts

The Trails Plan is a product of several larger planning initiatives for the community. It is a "stand alone" plan but takes its direction from the following efforts:



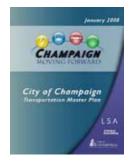
### Champaign Comprehensive Plan, Champaign Tomorrow, 2011

The Trails Plan is considered an "element" of the City's overall Comprehensive Plan which sets policy direction for the future growth and development of the community. The Comprehensive Plan, called *Champaign Tomorrow*, was adopted in 2011 and contains several guiding principles and strategies related to trails, parks and community recreation. Completing a trails plan is a stated implementation strategy of *Champaign Tomorrow*.



# Champaign Park District Strategic Plan 2005-2015 & Comprehensive Park and Open Space Plan, 2008

These strategic plans for the Champaign Park District provide an overall vision for the District along with specific recommendations to strengthen the operation and facilities of the District. A top priority of each plan is to develop a comprehensive path and trail system throughout the District.



### Champaign Transportation Master Plan, Champaign Moving Forward, 2008

This plan is also and element of the City's Comprehensive Plan and provides detailed recommendations for the City's transportation system. The plan provides a specific vision for the City's bicycle and pedestrian networks and suggests actions to improve them. A cohesive trail system contributes to these goals.



# Champaign County Regional Planning Commission Greenways and Trails Plan, 2008

This plan provides a *regional* strategy for greenways and trails. The Champaign Trails Plan is closely coordinated with this plan yet provides a greater level of detail that is specific to the City of Champaign. Most importantly, the Greenways and Trails effort produced specific trail design guidelines which are included as the appendix of this plan and intended to be the primary source for trail design.



## **Key Considerations**

## Who Builds the Trail System?

Completing the trail system as proposed in this plan is a long term endeavor. Some segments can be pursued in the short term but several segments will not be completed for years to come. Nevertheless, it's important to establish the vision today and stay focused into the future. Most of the trails envisioned on the maps will be built by either the City of Champaign, the Champaign Park District, or by a private developer with an eventual dedication to either the City or Park District. It is possible a non-profit group could also emerge and build trail segments as well. For the multi-use trails along city streets the trails would be built either by the City as a component of a larger street improvement project or by a developer as a requirement of a development plan. Similar to the Pipeline Trail, it is the intent of this plan to require construction of the trails shown in this plan when they are situated within or adjacent to a proposed development site. The wider trail may be required in lieu of the standard sidewalk requirement.



The Curtis Road Multi-Use Trail is an example of a trail within a street right-of-way maintained by the City of Champaign.

### Who Maintains the Trail System?

The implementation chapter of this plan details maintenance expectations. In general it is anticipated that the multi-use trails within the right-of-way (or adjacent easement) of City streets would be maintained by the City. Multi-use trails that are within dedicated Park District easements (such as the Pipeline Trail and portions of the North Champaign Multi-Use Trail) would be maintained by the Park District. It's possible the Kaskaskia River Greenway trail could be maintained by the Champaign County Forest Preserve District. The maintenance of railtrails and trails within the greenways will need to be determined at the appropriate time. Trails that may be private (such as some connector trails) would be privately maintained by the appropriate homeowner's association or business group. However, all of the trails identified in this plan are expected to be public trails.



The Pipeline Trail and its amenities are maintained by the Champaign Park District.



A variety of improvements can be implemented to make difficult crossings safer for bicycles and pedestrians.

### Handling Difficult Crossings

One of the biggest challenges for creating a continuous trail system in the community is dealing with the many difficult crossings the trails will encounter. These crossings include primarily busy arterial streets, interstates, railroads and in some case wide creeks or ditches. This is particularly challenging for Champaign since interstate highways bisect the community on both the north and west sides. It is not possible for this plan to propose detailed design solutions for all difficult crossings and further study will be needed for each trail segment. For arterial streets, many trails will need to cross at signalized intersections with pedestrians. The Greenways and Trails Design Guidelines provide design detail for crossing streets (see Appendix) .



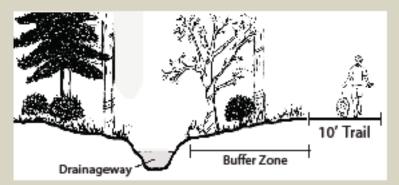
An example of a bicycle/pedestrian overpass bridge.

## **Crossing Interstates**

Crossing Interstates 57,74 and 72 on the north and west sides of Champaign is a challenge for all modes of transportation but most significantly for bicyclists and pedestrians. Many of the existing bridge structures are obsolete and only allow for two narrow vehicular travel lanes. This presents a difficult challenge for creating a connected trail system. This plan calls out the need for "complete street" improvements to several of the bridges crossing Interstate 57. These bridges are scheduled for replacement by the Illinois Department of Transportation and should include facilities for pedestrians and bicyclists. In other cases where bridges are not proposed to be replaced, a retrofit can be considered allowing for additional shoulder space to safely cross the bridge. Finally, this plan recommends a limited number of new bicycle/pedestrian-only bridge structures. This presents the safest, yet most expensive, option for fostering a safe crossing over the interstates.

# Greenways

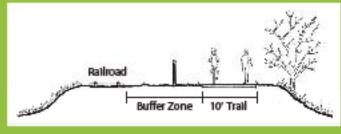
A "greenway" is a corridor that runs along a naturally sensitive area. For this plan, greenways are identified along four different drainageways including the Kaskaskia, the Copper Slough, the Boneyard and the Phinney Branch. A greenway contains the ditch itself, a buffer zone and then a ten-foot wide trail running parallel to the ditch. In this plan, a trail is only intended to run along one side of the drainage ditch. The width of the buffer zone will vary depending on the location and drainage needs. In most cases, the greenways identified in this plan have limited natural vegetation other than prairie grass along the banks. Establishing the greenway trail may include providing additional landscaping and/or stormwater detention in the buffer zones which would provide additional amenities for the trail.







# Railtrails





Railtrails are ten-foot wide trails that run within existing railroad rights-of-way. For this plan these include the City of New Orleans Railtrail, the Wabash Railtrail and the West Springfield Railtrail. In most cases a trail is proposed to run parallel to an existing railroad. For a portion of the Wabash Railtrail in downtown Champaign a trail is proposed within portions of abandoned railroad rights-of-way. In all cases the width of the trail is intended to be ten feet wide, consistent with the width of trails within greenways and multi-use trails. The appropriate distance of the trail from the railroad tracks will vary depending on location as well as screening between the two different activities.

# Multi-Use Trails

Multi-use trails are a minimum of 10-feet wide and will accommodate bicyclists and pedestrians. This plan identifies most multi-use trails to be located alongside arterial streets in lieu of a narrower sidewalk. However. in some cases multi-use trails do not follow arterial streets (examples include the Pipeline Trail and North Champaign Trail). Similar to sidewalks, multi-use trails will be separated from the curb-line of the street. The distance of separation will depend on the design of the street. A minimum of two feet on each side of the trail should be maintained for a clear zone. Multi-use trails do not need to be striped to separate bicyclists and pedestrians unless heavy use is anticipated.





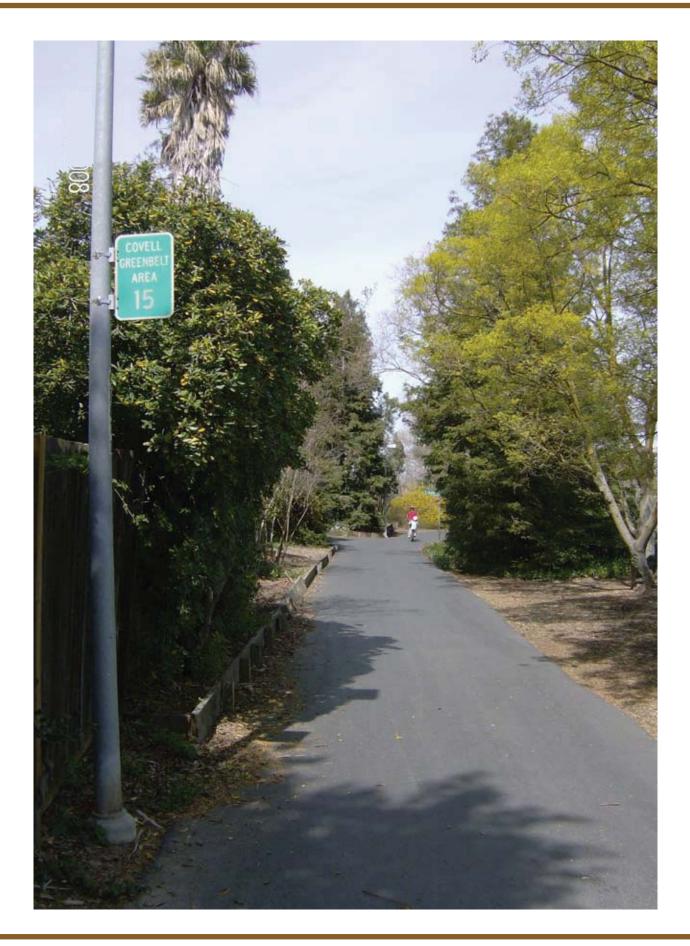


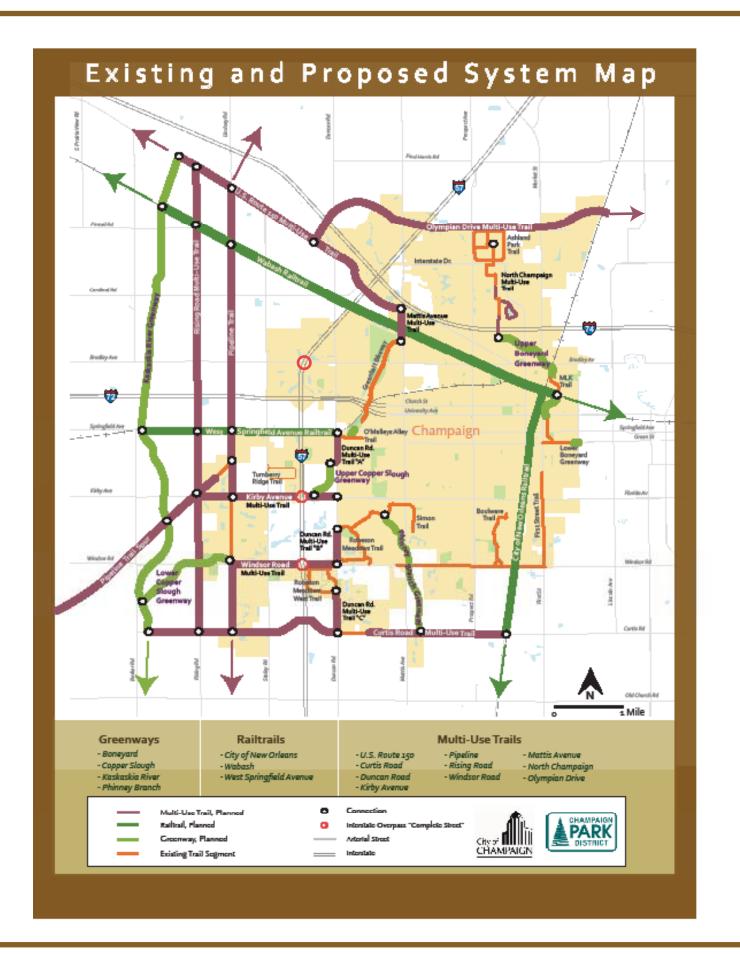
# Connector Trails

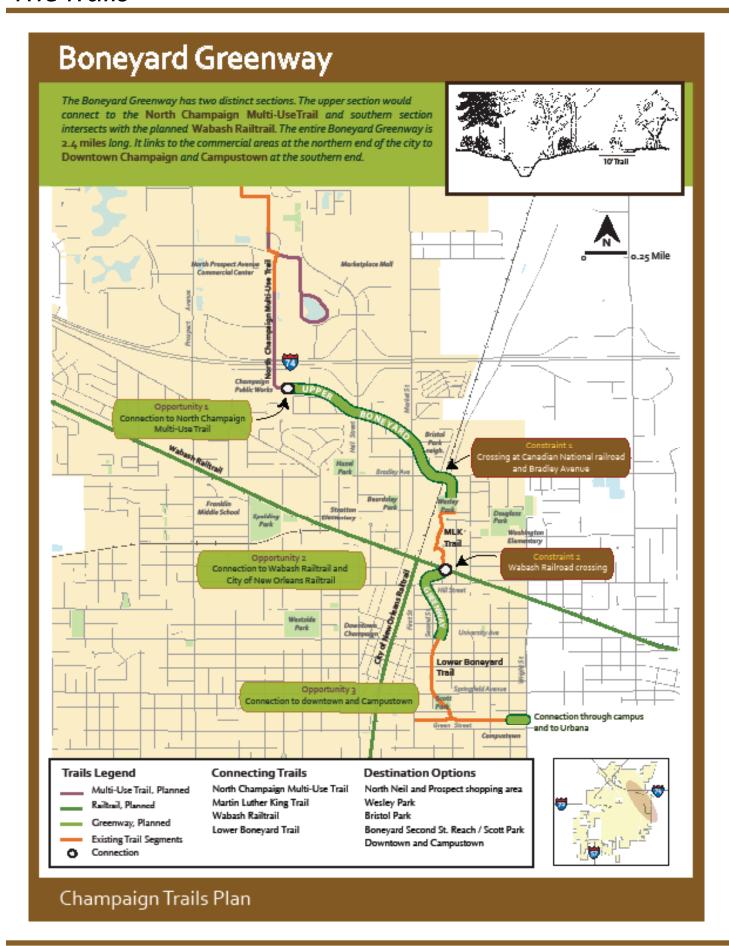




Connector trails are intended to connect a development to the larger trail system. They are not necessarily segments of the Trail system but rather connect residents to the system. They are not mapped in this plan because they would be considered in the site design of new development as proposed. Since these trails would not have the traffic of the larger trail system, they do not have to be 10-feet in width. Connector paths are an important function to the overall trail system because they provide a safe connection to the beginning and end points of each trip.







## Boneyard Greenway

## Opportunities



### Connection to North Champaign Multi-Use Trail

A proposed connection between the North Champaign Multi-Use Trail and the Boneyard Greenway will link areas north of I-74, Including major shopping centers and newly developing residential areas, with areas south of I-74, Including the University of Illinois campus and downtown Champaign. The key to this will be establishing a connection point near the City Public Works facility. Also, a pedestian / bicycle bridge would need to be provided over the Interstate as noted on page 5.



### Connection to Wabash and City of New Orleans Railtrails

The Upper Boneyard Greenway provides the opportunity to connect to two of the network's rathralls. The Greenway would connect with the Wabash Railtrail via the Martin Luther King Trail and to the City of New Orleans Railtrail at its Intersection with the Wabash Railtrail. These two trails provide multiple connections to other trail systems in the City thereby creating a continuous system of trails that can be used for both recreation and commuting.



### Connection to Downtown and Campustown

Downtown and Campus are two key destinations for many bicyclists. The Boneyard Greenway connects the northern areas of Champaign, Including the Market Place Mall and the North Prospect commercial center, to downtown Champaign and Campustown located at the southern end of the greenway. With additional Improvements to other trail segments, it would be possible for resident In Campustown and the east side of downtown to easily access shopping areas on the north side of the City.



This greenway travels through Scott Park and the Second Street Basin area connecting campus to downtown.



The Boneyard Greenway would connect to the North Champaign Multi-Use Trail at this location.

### Constraints



Bradley Avenue at the CN Railroad tracks. The Boneyard Greenway would need to cross the tracks at this location.



### Crossing at the CN Railroad and Bradley Avenue

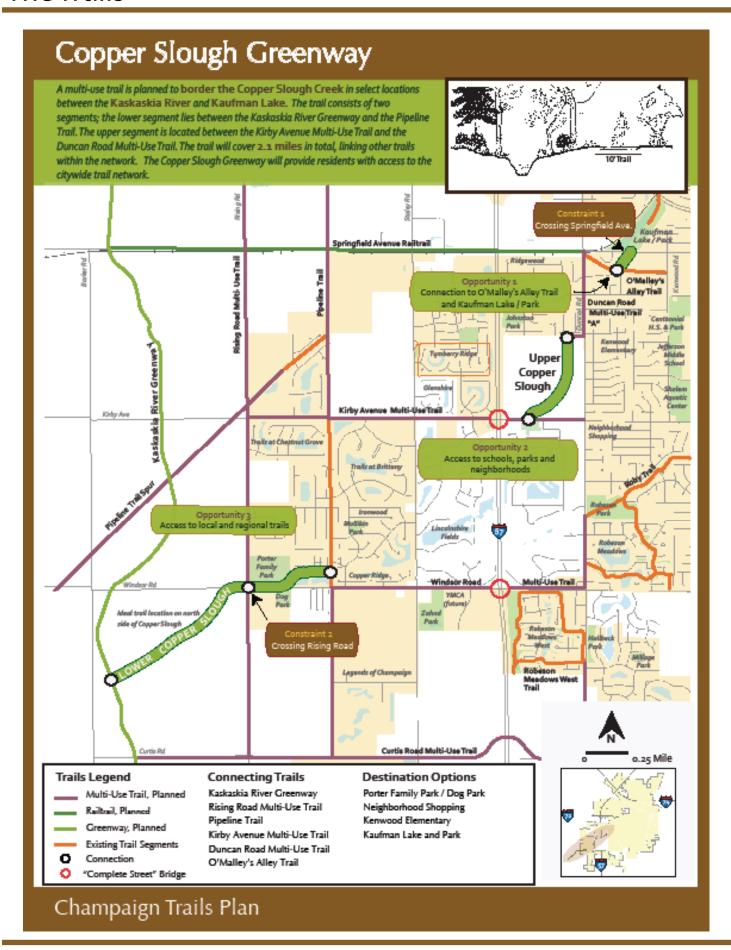
The Canadian National
Railroad is a significant heavy
rail line in the City of
Champaign. The Boneyard
Greenway would need to cross
the tracks to continue north.
The most logical crossing
location would be along
Bradley Avenue on the
existing pedestrian sidewalk.
However, this then presents
the challenge of crossing
busy Bradley Avenue without
an existing crosswalk or signal.
Consideration needs to be
given on how a safe crossing
can be provided.



## Wabash Railroad

Although less formidable than then the CN Railroad crossing, care needs to be given when crossing the Wabash Railroad since it is an active rail line.

As it approaches the Wabash Rail, it is proposed that the Boneyard Greenway head east alongside the tracks until it reaches Phillips Drive. The greenway can then cross the tracks alongside the pedestrian sidewalk and connect to the existing Martin Luther King Trail.



# Copper Slough Greenway

## Opportunities



Connection to O'Malley's Alley Trail and Kaufman Lake / Park

The Upper Copper Slough Greenway along with the Duncan Road Multi-Use Trail will provide a connection to the 0.5-mile O'Mailey's Alley Trail which connects to Kenwood Road. This will provide better access to Centennial Park, Centennial High School, Jefferson Middle School and the Sholem Aquatic Center. The Copper Slough Greenway will also provide better access to Kaufman Park and Lake via the existing Greenbelt Bikeway. Kaufman Park is 8 acres and the lake covers approximately 16 acres.



Access to schools, parks, and neighborhoods.

Both the Lower and Upper Copper Slough will connect to schools, parks, and neighborhoods. For the Lower Copper Slough, the neighborhoods to be linked Include Copper Midge, tronwood, Trails at Brittany and others. These areas would be able to connect to the Pipeline Trail and the Kaskaskia River Greenway without the need to ride along an arterial street. The Upper Copper Slough Greenway helps connect the residential area on the east side of Duncan Road at Kirby as well as Turnberry Ridge.



Access to local and regional trails.

The Lower Copper Slough Greenway has the opportunity to connect to several trails that each will eventually provide a key link in the regional trail network. These trails include the Pipeline Trail, the Rising Road Multi-Use Trail and the Kaskaskia River Greenway.



A trail extension through a parking let (background) will connect O Malley's Alley Test to Northean Lake and Park



The Lower Copper Slaugh looking west from the watering ripoline Trail

### Constraints



Crossing Springfield Avenue from the O'Mallay's Alley extension presents a challenge considering mere is no signalized intersection nearby, it is a busy street and a state route. The view in this photo is looking south from Raufman Luke across Springfied Avenue towards the O'Mailey's Alley Trulf



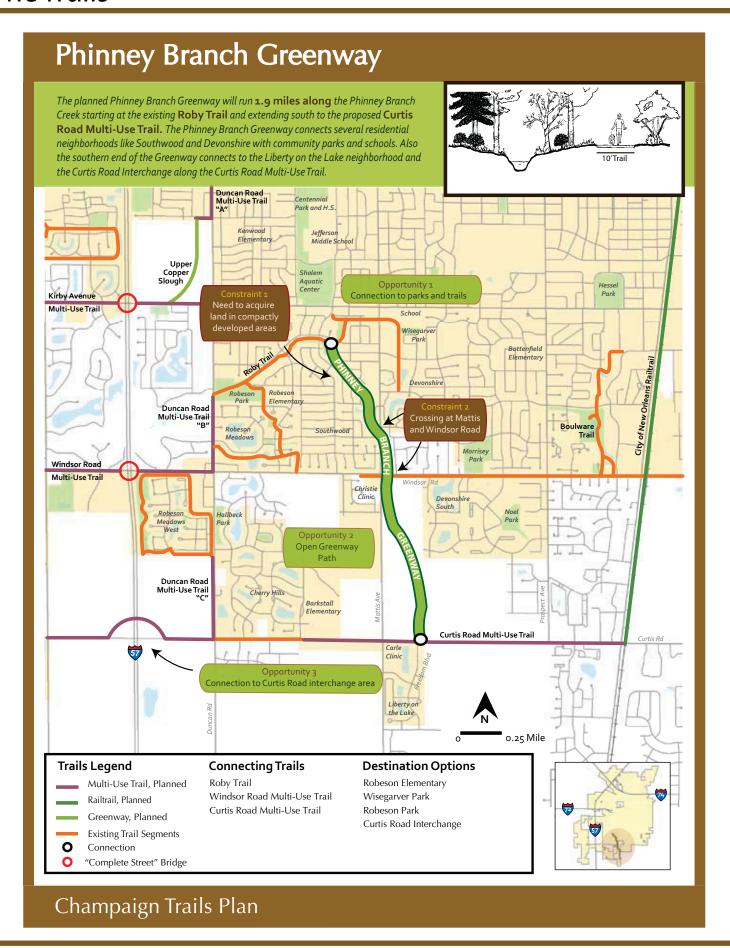
Crossing Springfield Ave.

An important link in the trail system is a short connection from O'hialley's Alley Trail north to Kaufman Park and Lake. The construction of this trail link is required under an agreement with the El Toro site developer. However, the bigger challenge will be crossing Springfield Avenue to reach Kaufman Lake and Park. There is not a signalized intersection close to this location. A safe mid-block crossing will be necessary.



Crossing Rising Road

The Lower Copper Slough
Greenway will intersect with
Rising Road just north of the
Windsor Road and Rising Road
Intersection. A crossing could
be at an improved intersection,
however, should the trail be
located on the north side of the
Copper Slough, a bridge will be
recessary to reach the intersection. Otherwise, a bike and
pedestrian crossing on Rising
Road just north of the intersection will need to be
considered. A crossing design
should be consistent with the
Champaign County Greenways
and Trails Plan Design
Guidelines.



# Phinney Branch Greenway

## Opportunities



### Connection to parks and trails

The Phinney Branch Greenway connects to the Roby Trail at the north end of the greenway. The Roby Trail further connects to Robeson Elementary, Carrie Busey Elementary and the Sholem Aquatic Center on the north side of Kirby Avenue. Centennial Park is located only a quarter mile north of the greenway.



## Open Greenway

The lower half of the Phinney Branch Greenway runs through undeveloped property between Windsor Road and Curtis Road.

Therefore, the trail's extension can be more easily routed without having existing development in place. Plans can be coordinated with future development or with current owner consent.



### Connection to Curtis Road Interchange area

The southern terminus of the Phinney Branch Greenway connects to the Curtis Road Multi-Use Trail which will provide a safe connection to the Curtis Road Interchange development area. This access will benefit neighborhoods such as Cherry Hills and Southwood.



hinney Branch near connection with the Roby Trail.



Existing vegetation along the greenway.



Phinney Branch looking north from its connection with Curtis Road.

### Constraints



Existing development along drainage ditches in the community can be compact leaving little room to establish a trail system along the ditch.



#### Need to acquire land in compact developed areas

The northern portions of the Phinney Branch Creenway run through areas that are already developed. In some sections homes have been placed very close to the ditch which will make it a challenge to establish a trail. Careful analysis will need to be given on the feasibility of acquiring easements for building the trail.



### Crossings at Mattis and Windsor Roads

Like many of the trails in the system, the trail within the Phinney Branch Greenway will need to cross major arterial streets at Windsor and Curtis Roads. Analysis will need to be given to determine the safest crossing. The trail may need to cross Windsor at the Mattis Avenue Intersection and terminate on the north side of Curtis Road.





# Kaskaskia River Greenway

## Opportunities



## North Champaign trail connections

The Kaskaskia River Greenway will contain a multi-use trail that will be easily accessible from neighborhoods on the north end of Champaign. The greenway will connect with the U.S. Route 150 Multi-UseTrail, providing a paved, off-road path leading to Mattis Avenue. The Kaskaskia River Greenway will also connect with the Wabash Railtrail. In future years the Wabash Railtrail could be extended to communities beyond Champaign.



# Residential neighborhood accessibility

The Kaskaskia River Greenway will be accessible from many newly developed residential neighborhoods in western Champaign. These neighborhoods include Boulder Ridge, Sawgrass, Jacob's Landing, Trails at Chestnut Grove, West Ridge and others. The trail will benefit not only these neighborhoods but future neighborhoods on the west side of the City.



## A regional attraction

The Kaskaskia River Greenway has the potential to not only be a local amenity but also a regional amenity. It has the potential to achieve the same level of popularity as the Constitution Trail in Bloomington-Normal. A greenway is where bicyclists, walkers and others can enjoy several uninturupted miles of trail while enjoying the scenery of neighborhing farmland and the Kaskaskia River itself.



The Kaskaskia River Greenway would offer rural landscapes as well as proximity to developing neighborhoods.



Landscaping along stream corridors can mature over time creating lush greenways in the future.

## Constraints



The Kaskaskia River running under Interstate 72



The Kaskaski River and Route 10 / Springfield Avenue



# Railroad pedestrian crossing

The Kaskaskia River Greenway must overcome several difficult crossings. One area where this crossing will be difficult is along Route 10 / Springfield Avenue. The trail must cross the Wabash Railtrail, and then almost immediately cross Route 10. While an overpass would have to be quite long and perhaps very expensive, an option to route the trail underneath these two barriers seems difficult to achieve as well. Further study will be needed to determine an optimal solution.



## Interstate crossing

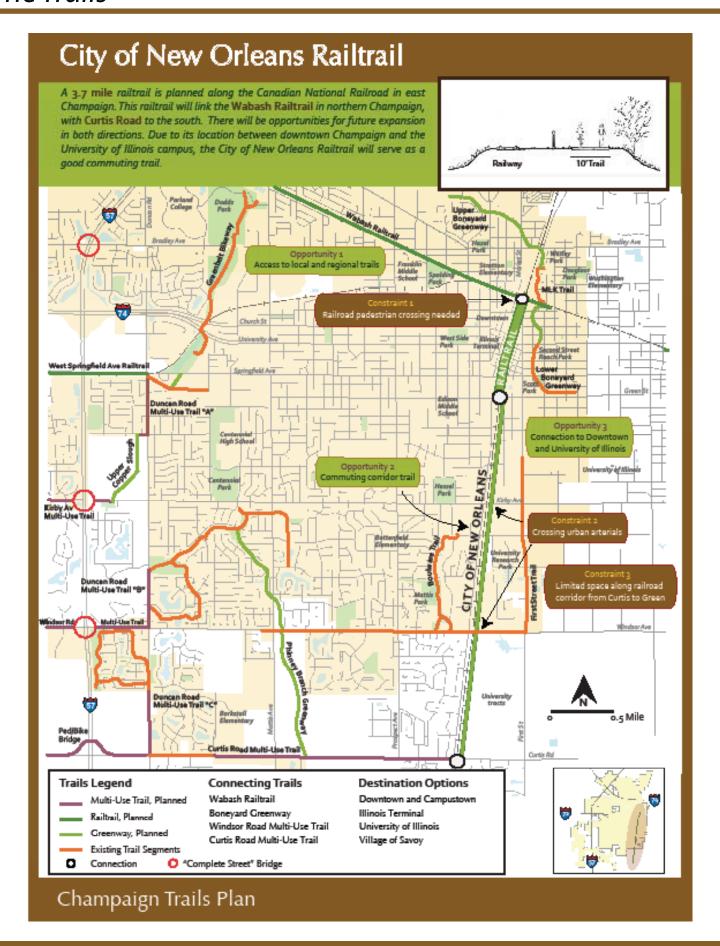
Route 10, the Kaskaskia
River Greenway must bridge
Interstate 72. The design
of this structure appears to
make it difficult to cross
underneath the interstate.
All options for a safe crossing
need to be considered
including potentially routing
the trail east to a crossing
near Rising Road.



### Need to acquire

The Kaskaskia River currently exists on private property. To establish a greenway and trail, conservation easements will need to be attained. These easements would have to be attained through building long-term relationships with property owners and having a clear vision for establishing the





# City of New Orleans Railtrail

## Opportunities



### Access to local and regional trails

The City of New Orleans Railtrail connects to several local trails including the Boneyard Greenway which leads to shopping areas on the north and the University of Illinois on the south. The City of New Orleans Railtrail also connects with two major east-west connector trails including the 5.5-mile Wabash Railtrail and the 5-mile Curtis Road Multi-Use Trail. The City of New Orleans Railtrail is the main north-south trail opportunity on the east side of the City.



### Commuting corridor trails

The City of New Orleans Railtrail serves as a good commuting trail because of its length. The railtrail connects to several residential neighborhoods with key employment destinations including downtown, the University of Illinois main campus and the South Research Park campus. The railtrail can serve as a main route to several schools and



### Connection to downtown and University of

The City of New Orleans Railtrail runs parallel to the University of Illinois campus and the campus can be accessed from many connect-Ing trails such as the Boneyard Greenway and the Windsor Road / First Street





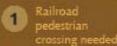
Connection into compus from Kirby Avenu

## Constraints





Example of limited space along existing rad line



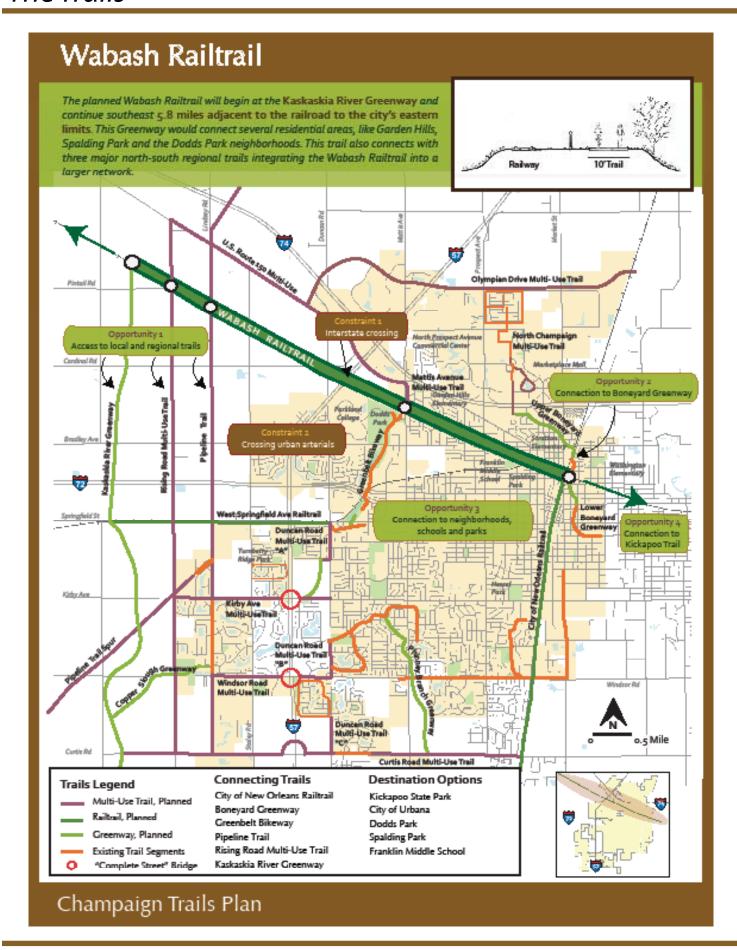
The City of New Orleans City of New Orleans is sti much an active rail line with many freight trains and traveling on the route daily Consideration will need to be given as to crossing the Wabash or simply ending the City of New Orleans Railtrail on the south end of the Wabash Railtrail

If the City of New Orleans Railtrail is not located within the existing railroad right-ofway, then it will need to be located in an easement adjacent to the rallroad right of way. In this case, the trail streets such as Windsor Road and Kirby Avenue at grade

## Limited space Curtis to Green

Right-of-way appears to be corridor from Curtis to Green As an alternative, the railtrail could run in an easement parallel to the railroad corridor. Most of this land is owned by the University of Illinois. Easements would need to be negotiated.





## Wabash Railtrail

## Opportunities



#### Access to local and regional trails

The Wabash Railtrail connects to the larger network through two major north-south trails on the west side of the City. These are the Kaskasia River Greenway and the Pipeline Trail. The Wabash Railtrail will also connect to the Rising Road Multi-Use Trail and the City of New Orleans Railtrail.



### Connection to Boneyard Greenway

The Wabash Railtrail provides and excellent connection opportunity on the east end to the Boneyard Greenway. The Boneyard Greenway then connects to the University of Illinois on the south and the shopping areas of Champaign on the north. This provides a vital link for many Champaign neighborhoods.



### Connection to neighborhoods, schools and parks

The Wabash Railtrail connects neighborhoods, schools and parks, the largest being Dodds Park. Dodds Park is a 110-acre community park facility with soccer fields, softball fields, concession stands, public restrooms and more. The Wabash Railtrail would connect with the existing Greenbelt Bikeway trail within Dodds Park.



### Connection to Kickapoo Trail

Perhaps the greatest opportunity for the Wabash Mailtrail is the connection through Urbana to the east and the Kickapoo Trail developing in east Urbana. This connection would provide a trail of regional significance and give C-U residents a recognizable recreational facility in the community.







Wabash Railtrail north of Dodds Park

## Constraints





Like many trails, the vvabash Railtrail will need to cross an interstate. In this case the interstate is 1-57 at Duncan Road. The existing railroad crosses over the interstate and there does not appear to be sufficient room on the bridge to fit a trail. A separate crossing of the interstate will need to be considered.



The Wabash Railtrail runs diagonally through the City. In doing so it crosses multiple arterial streets including Neil, Prospect, Mattlis, Duncan and Staley Roads. Consideration will need to be given for the safest crossing at each of these locations. In some instatuces the crossing can be accompodated at a signalized intersection.



Champaign Trails Plan



# West Springfield Avenue Railtrail

## Opportunities



Access to local and regional trails

The West Springfied Avenue Ratitrali connects to the larger regional network via the Kaskaskia River Greenway and the Pipeline Trail. These two major north-south trail connections provide links to many Champaign neighborhoods. The West Springfield Avenue Railtrail will also connect to the Rising Road Multi-Use Trail.



Connection to Kaufman Park / Lake and Greenbelt Bikeway

The West Springfield Avenue Ratitrati connects to Kaufman Park and Lake through the existing Greenbelt Bikeway. Kaufman Park is 8 acres and the lake covers about 10 acres. The park provides the community with outdoor recreational activities and is the current western entrance



Connection to O'Malley's Alley Trail

The 2.8-mile West Springfield Avenue Railtrall will connect to the existing O'Malley's Alley Trail thereby extending the east-west traff network another half mile. O'Malley' Alley Trail provides a connection to Jefferson Middle School and the Sholem Aquatic Center and the 74-acre Centennial





Space for a trail alongside the railroad



Kaufman Lake (photo credit: RATIO Architects, Inc.)

## Constraints





The West Springfield Avenue Interstate and there appears establish a trail in this location Further analysis is needed to confirm feasibility.



case, the biggest challenge pears to be at Staley Road and Rising Road. Mid-block crossing will need to be considered or the trail could be routed up to Springfield



The West Springfield Avenue Railtrail would run through some areas that are rather the Marathon Oil Storage Facility on Staley Road. Consideration should be given to providing a visual buffe between the trail and the industrial uses.



The West Springfield Avenue Railtrail will need to cross this intersection at Staley Road



# Pipeline Trail

## **Opportunities**



## Access to regional trails

The Pipeline Trail offers the most connections of any other trail in the network. The trail will connect to seven different local and regional trails. The regional trail connections include U.S. Route 150 Multi-Use Trail, the Wabash Railtrail, the West Springfield Avenue Railtrail and the Copper Slough Greenway which connects to the Kaskaskia River Greenway.



# Connection to neighborhoods and parks

The Pipeline Trail runs directly through several Champaign neighborhoods including Trails at Abbey Fields, Trails at Chestnut Grove, Cobblefield, Ironwood, Legends and others. The trail also leads to Porter Family Park and the Park District Dog Park. Through the Windsor Road Multi-Use Trail the Pipeline Trail connects to Zahnd Park.



## Southwest trail connections

The south end of the Pipeline
Trail is intersected by the
Lower Copper Slough which
forms an excellent connection
between two major
north-south trails; the
Kaskaskia River Greenway and
the Rising Road Multi-Use Trail.
The trail also connects to the
Windsor Road Multi-Use Trail
and the Pipeline Spur. These
connections provide an
excellent amenity for this area
of the community.



The Pipeline Trail looking south from Kirby Avenue



The Pipeline Trail built ahead of development



This land is proposed for development and the plans include construction of the Pipeline Trail within the existing easement.

### Constraints



Where the Pipeline Trail would meet the Wabash Railtrail



### Trail crossing at railroad

The Pipeline Trail crosses two railroads: the Wabash Railroad and the rail line along Route 10. The Pipeline Trail will connect with those respective trails at these locations but will also need to provide a safe crossing across the tracks



### Crossing arterial

The Pipeline Trail will cross up to six major streets. These streets include Cardinal Road, Bradley Avenue, Springfield Avenue, Kirby Avenue, Windsor Road and Curtis Road. A consistent design needs to be used for each of these points ensuring a safe



## Interstate

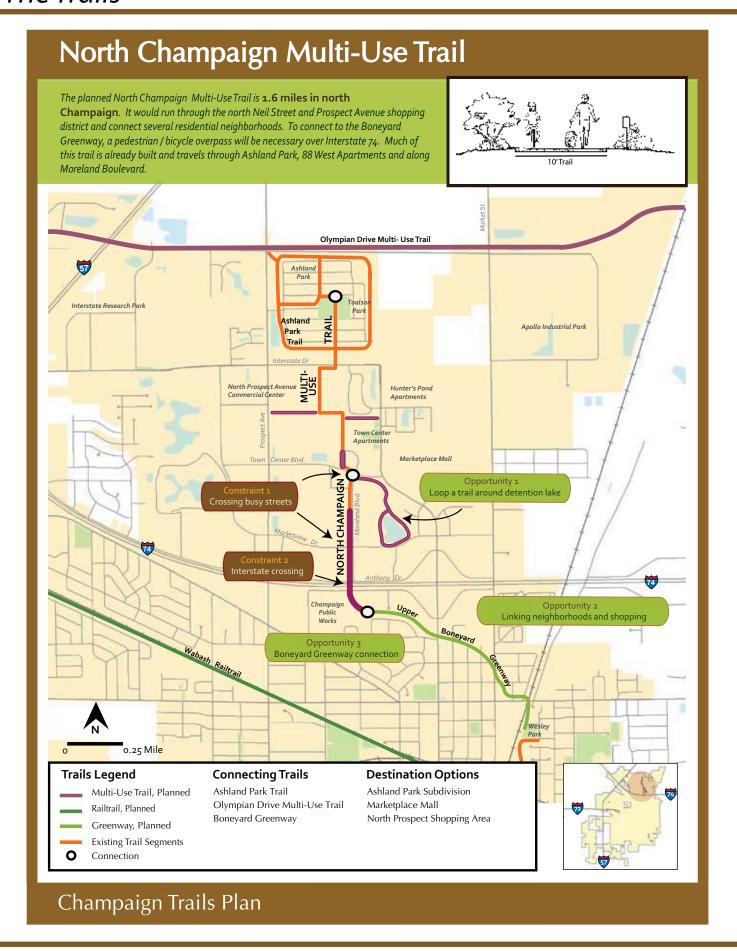
The Pipeline Trail will have to cross Interstate 72. The existing 50-foot wide easement does not provide any type of expanse across the interstate so a crossing would have to be a new structure. A dedicated bridge crossing should be coordianted with the Rising Road Multi-Use Trail so facilities can be shared



Interstate 72 at the Pipeline easemen



Champaign Trails Plan



# North Champaign Multi-Use Trail

## **Opportunities**



Use area around detention lake for open space / trail

This area of Champaign lacks park space. With a growing residential population more park space will be needed. One opportunity would be converting the existing detention basin on Marketview Drive and its surrounding open space to a park with a trail. The land is privately owned and analysis will need to be given as to the need for more retail use in the area.



Linking neighborhoods and shopping

The North Champaign Multi-Use Trail links residential areas both north and south of the interstate with the City's largest commercial areas. The neighborhood of Ashland Park and the apartment developments of 88 West and Town Center Apartments are provided direct links. A future bicycle and pedestrian bridge over I-74 would link neighborhoods south of I-74 as well.



Boneyard Greenway connection

The North Champaign Multi-Use Trail would connect with the Boneyard Greenway near the Champaign Public Works building. This link would then provide a connection from the University of Illinois campus up to the north Champaign shopping area. The key to this connection will be a bicycle and pedestrian bridge over Interstate 74.



A conceptual rendering of a open space and trail at the Marketview detention basin



An existing portion of the North Champaign Multi-Use Trail

### Constraints



View of I-74 from Moreland Blvd. looking south across the Interstate. Narrowing Moreland Blvd. would allow for a bridge landing

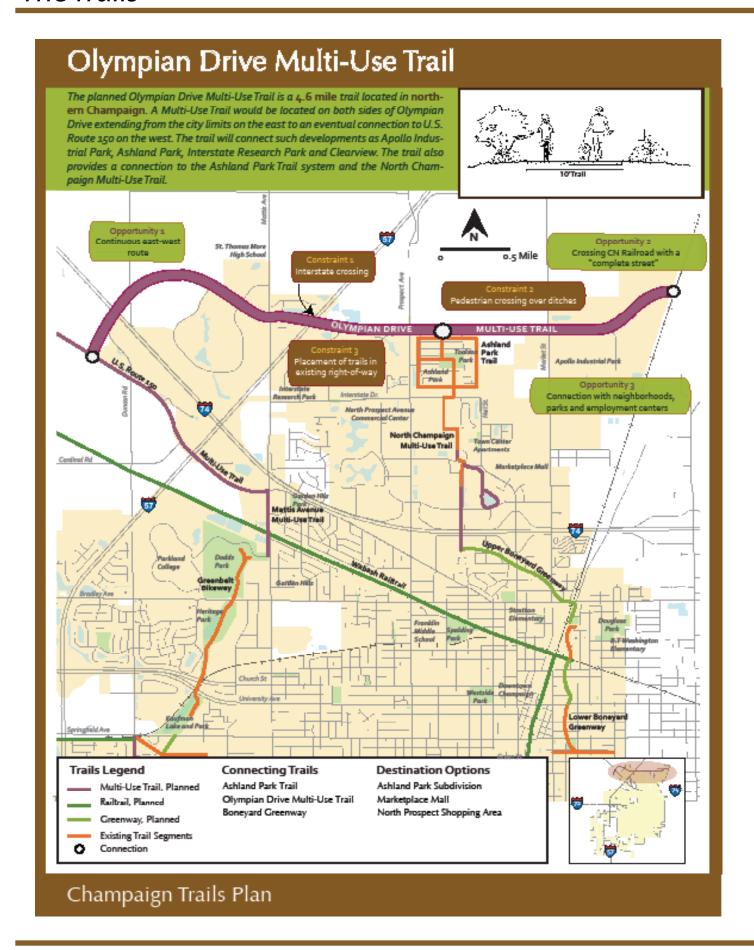


cross several busy streets. These include Interstate Drive, Town Center Boulevard. Marketview Drive and I-74.



with the shopping areas north





# Olympian Drive Multi-Use Trail

## Opportunities



## Continuous east-west route

The Olympian Drive Multi-Use Trail provides one of the only continuous east-west routes on the city's north side. Also, since Olympian Drive is a limited access road, there will be fewer interruptions along the trail. This trail has the opportunity to extend further as Olympian Drive is extended on both the east and west ends. Careful analysis will be needed to design the trail to cross the CN Railroad into Urbana.



### Crossing the CN Railroad

The extension of Olympian Drive from its current terminus near Apollo Drive into Urbana requires crossing the CN Railroad. This bridge crossing and the extension of the road has been a priority capital project of both Urbana and Champaign and funding exists. A "complete street" crossing at this location would provide the only crossing over the tracks between Bradley and Ford Harris Road.



### Connection with neighborhoods, parks and employment centers

North Champaign is not just a regional shopping area. It also contains large employment centers in Apollo and interstate Research Parks. Also, there are several growing residential developments including Ashland Park.

Subdivision and several multifamily developments. The Olympian Drive Multi-Use Trail will help tie these uses together.



Existing trail segment along Olympian Drive



Olympian Drive looking east where the extension would cross the CN Railroa

### Constraints



nterstate 57 and Olympian Drive overpass



Drainage ditch at Prospect Avenue and Olympian Drive



#### Interstate crossing

As the case with many of the trails in the system, the Olympian Drive Multi-Use Trail will need to cross interstate 57 and eventually interstate 74. Analysis is needed to determine how the existing roadway bridge across interstate 57 can be retrofit to accomodate bikes.



### Pedestrian crossing over

Stormwater along Olympian Drive is handled within large ditches running alongside the road. Therefore, trails located on the outside of the ditches will eventually need to bridge those ditches to cross intersections. A consistent technique for bridging these ditches will be needed.



# Placement of trails in existing

In some areas along the corridor there may not be space in the existing right-of-way to accommodate a trail. This is because the wider Olympian Drive along with drainage ditches take up quite a bit of the space already. Additional right-of-way will need to be acquired or trails can be established in easements.





## Rising Road Multi-Use Trail

## Opportunities



Access to regional trails

The Rising Road Multi-Use
Trail connects to several
regional trails in the network.
The regional trail connections
include U.S. Route 150 MultiUse Trail, the Wabash Railtrail,
the West Springfield Avenue
Railtrail and the Copper
Slough Greenway which
connects to the Kaskaskia
River Greenway. The trail will
mirror the Pipeline Trail but
will run alongside Rising Road
Instead of a separate easement.



Connection to neighborhoods and parks

The Rising Road Multi-Use Trail will connect several developing and future neighborhoods. Existing neighborhoods to be served include Jacob's Landing. Trails at Chestnut Grove and Will's Trace.



Southwest trail connections

Similiar to the Pipeline Trail and the Kaskaskia River Greenway, the Rising Road Multi-Use Trail will make several connections in southwest Champaign.

This trail would connect with Curtis Road at its most southern point.



Rising Road connection at the Wabash Railtrai



Rising Road and Curtis Road intersection



Rising Road looking south near U.S. Route 10 (Springfield Avenue)

### Constraints



Trail crossing at railroads

Similar to the Pipeline Trail, the Rising Road Multi-Use Trail will need to cross the Wabash railroad and the railroad alongside Springfield Avenue. As Rising Road is improved, these at-grade crossings will need to include the appropriate crossing for the 10-foot wide trail.



Interstat

Rising Road crosses interstate
72 as a two-lane unimproved roadway. When Rising Road is improved a new bridge structure will be necessary. This bridge structure should include shoulders. However, the trail design should also consider a route to connect to the nearby Pipeline Trail which is planned to have a dedicated bike/ped bridge.



Limited right-ofway on the east

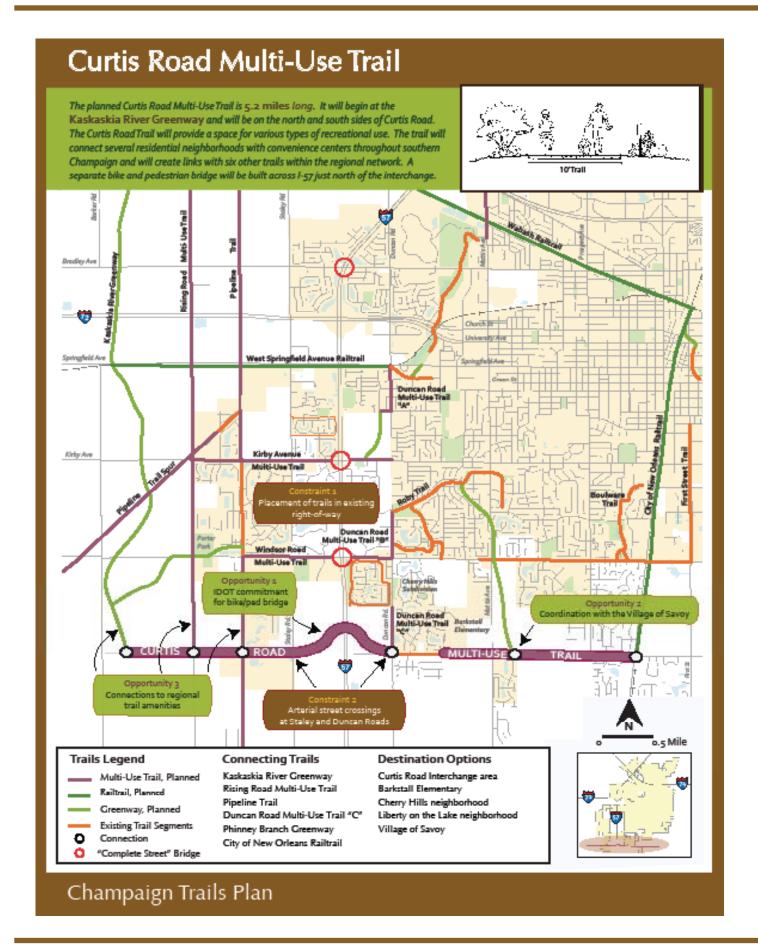
When Rising Road is improved, additional right-of-way will be necessary. However, portions of Rising Road are already developed and there will be limited opportunity to establish a trail on the east side of the street from Kirby to Windsor. Along this stretch a 10-foot wide trail may only work on the west side.



Crossing arteria streets

Rising Road is slated to be an urban arterial street in the future. Improving the road will include improvements to the various intersections. Careful design will be important to ensure the 10-foot wide trail safely crosses these intersections as well.





## Curtis Road Multi-Use Trail

## **Opportunities**



# IDOT commitment for Ped. / Bike bridge

The recently completed I-57 interchange at Curtis Road did not include bicycle and pedestrian facilities along Curtis Road. The overpass does contain shoulders but not the proper facilities for bicyclists and pedestrians. It was agreed upon by the City and IDOT during the design of the interchange that a separate bicycle and pedestrian bridge would be built by IDOT just north of the interchange at such time as there is a plan for trails leading up to the future bridge. Development of the tracts at the interchange will incorporate these plans.



# Coordination with the Village of Savoy

The City of Champaign's jurisdiction ends on Curtis Road immediately east of the Liberty on the Lake neighborhood. However, regional trail systems can only be successful if they can cross jurisdictional boundaries seamlessly. The Trails Plan creates the opportunity for the City and Village to work together to plan for a continuous trail that would ultimately link the interchange with U.S. Route 45 / Dunlap Road.



# Connection to regional trail amenities

The Curtis Road Multi-Use Trail will connect with several other trails that provide community and regional links. For example, the trail will connect with the Pipeline Trail, the Rising Road Multi-Use Trail, the Phinney Branch Greenway and the Kaskaskia River Greenway. As the areas of southwest Champaign continue to grow, these connections will become more valuable and will add to the quality of life for residents.



Curtis Road and Interstate 57 interchange



The Pipeline Trail will eventually connect to the

## Constraints



The intersection of Curtis Road and Duncan Road



1

# Placement of trails in existing

The cross-section design of Curtis Road changes in different locations depending on development and plans for managing stormwater. In some places the road uses a curb-and-gutter system. In other places it uses ditches for drainage. In the areas with ditches, the multi-use trail will need to be built "outside" the ditch. In some cases there may not be adequate right-of-way available and land will need to be acquired. For tracts that are developing, the 10-foot wide multi-use trail should be built in lieu of the standard 4-foot wide sidewalk

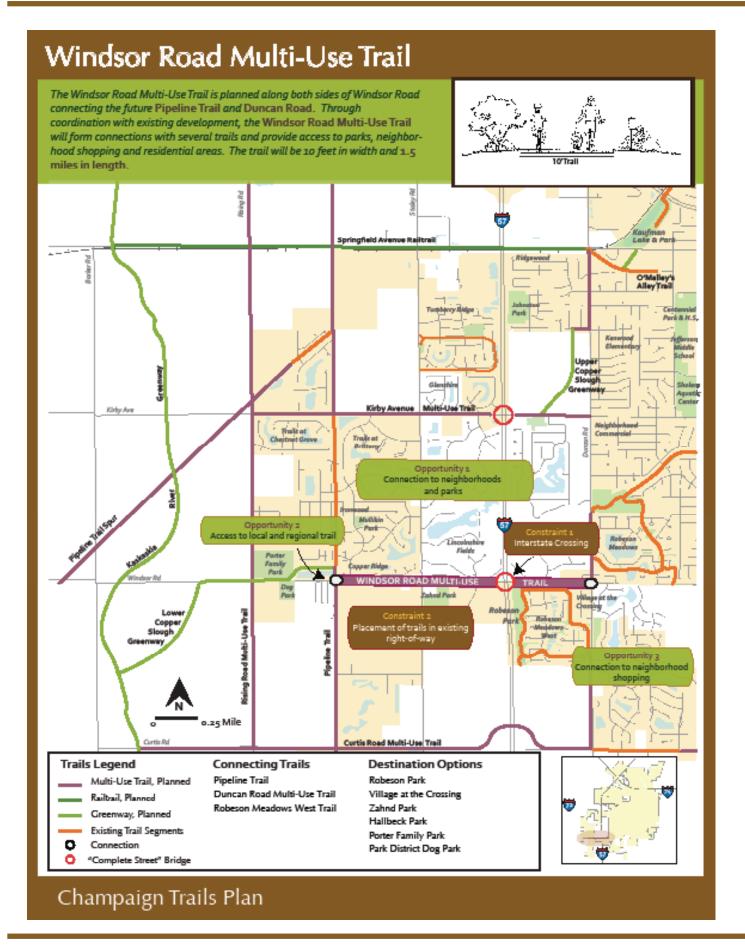


### Crossing Staley Road and Duncar

A continuous multi-use trail along Curtis Road has many advantages. However, since it will run alongside the road, it must cross several arterial streets with busy intersections. At these locations bicyclists need to act more like pedestrians and anticipate the traffic and many turning movements by vehicles. The intersection of Curtis and Duncan was recently improved with the completion on the interchange. Staley and Curtis is currently a four-way stop and will need signal improvements in the future as more development occurs

Wynstone Drive. A multi-use trail would need to be placed outside the existing drainage ditch (see page 7).

Curtis Road looking east from



## Windsor Road Multi-Use Trail

## Opportunities



### Connection to neighborhoods and parks

The Windsor Road Multi-Use Trail connects to the residential neighborhoods of Copper Ridge, Legends of Champaign, Robeson Meadows and Cherry Hills. The trail also serves Zahnd Park and the park in Robeson Meadows West Subdivision.



### Access to local and regional trails

The Windsor Road Multi-Use Trail connects to the larger regional trail system through one of the major north-south trails in the Pipeline Trail. The Pipeline Trail further connects to the Kaskaskia River Greenway and the Rising Road Multi-Use Trail, both of which are regional and local trails.



### Connection to neighborhood shopping

Village at the Crossing is located at the southwest comer of Windsor Road and Duncan Road. The Windsor Road Multi-Use Trail will serve the purpose of connecting several neighborhoods with this neighborhood shopping area. Village at the Crossing Includes several retail, restaurant and services uses.



Looking north along the Pipeline Trail from Windsor



Village at the Crossing neighborhood shopping area.



 $Winds or Road west of Duncan. \ The eventual improvement of this stretch of street should include a 10-foot wide multi-use trail.$ 

## Constraints



The existing Windsor Road bridge over Interstate 57 does not accommodate bicycles or pedestrians creating a hazardous situation for crossing. Bridge replacement should adhere to adopted City and State policies for "complete streets."



#### Interstate crossine

The Windsor Road overpass over I-57 is obsolete and does not accomodate bicycles and pedestrians. The Illinois Department of Transportation intends to replace the bridge in the near term. It is the expectation that the design of the new bridge will be compliant with state requirements to a "complete street."

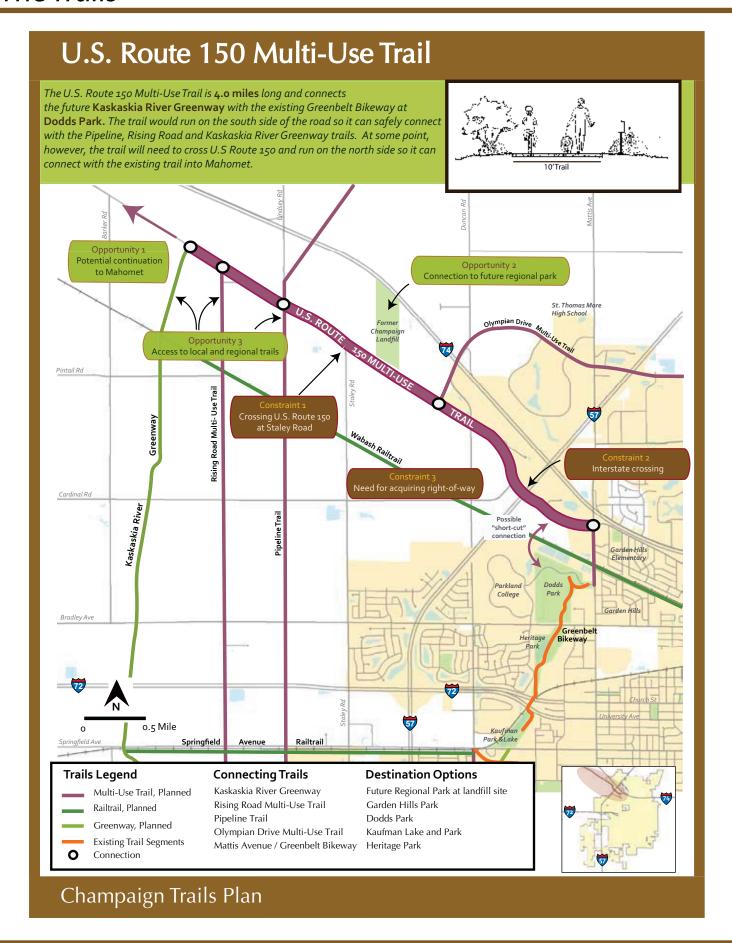


## Placement of trail in existing

Similar to other arterial streets, there may be segments of Windsor Moad where there is limited right-of-way to place a trail. In these cases either additional right-of-way will need to be purchased or the trail will need to be placed in an easement.



Limited space on the existing bridge over Interstate 57



## U.S. Route 150 Multi-Use Trail

## Opportunities



Potential continuation to Mahomet

This plan envisions the U.S. Route 150 Multi-Use Trail extending to the Kaskaskia River Greenway. However, there would be potential to coordinate with other entities to continue the trail along U.S.Route 150 to Mahomet and connect with other regional amenities such as Lake of the Woods and other trails in the Village.



Connection to future regional park (landfill site)

The 2008 Landfill Reuse Park Plan detailed a vision and design for a 90-acre public park at the former Champaign Landfill site. Proposed conceptual recreational uses include model aviation, non-motorized BMX track, a mountain bike skills course, disc-golf, and a dog park. Other amenities include internal trails, naturalized prairie and wildlife habitat, a sled hill, play area, picnic areas, and large gathering space. When built this park would serve as a regional amenity thus making it very desriable to connect to a regional trail system.



Access to local and regional trails

The U.S. Route 150 Multi-Use Trail would be the logical starting point for several local and regional trails. These include the 7.5-mile Kaskaskia River Greenway, the 6.5-mile Pipeline Trail, the 6.9-mile Rising Road Multi-Use Trail and the 4.6-mile Olympian Drive Multi-Use Trail. The trail would also connect to the Mattis Avenue connector trail.



Conceptual park design from Landfill Reuse Plan

## Constraints



U.S. Route 150 as it crosses Interstate 57



Steep topography leading to the drainage ditch along U.S. 150



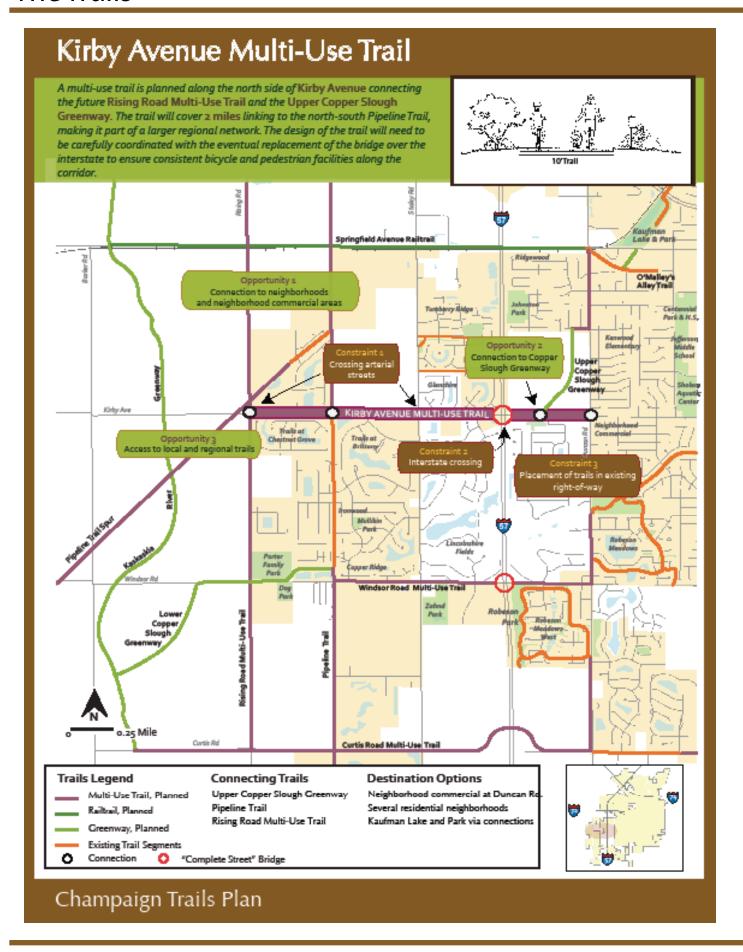
interstate does have shoulders bridge could possibly protected through travel one side of US Route 150, a



The vision for this trail is that similar to the other arterial street multi-use trails. However, U.S. Route 150 is a state route which may make it difficult for establishing a drainage ditches along the



The U.S. Route 150 Multi-Use south side of the roadway Road. At the Staley / 150 and U.S. Route 150 and safe



## Kirby Avenue Multi-Use Trail

## Opportunities



Connection to neighborhoods, parks and shopping areas

The Kirby Avenue Multi-Use Trail is an important link in the system because it connects so many different residential neighborhoods including Trails at Chestnut Grove, Trails at Brittany, Glenshire, Kenwood and more. It also connects the neighborhood commercial area at Kirby and Duncan which provides grocery, banking and other uses.



Connection to Copper Slough Greenway

A trail on the north side of Kirby Avenue would connect with the planned Upper Copper Slough Greenway. This then provides an easy link for the many neighborhoods along Kirby Avenue up towards O'Malley's Alley Trail and on to the recreational amenities of Kaufman Lake and Park and even to Centennial Park and Sholem Aquatic Center.



Access to local and regional trails

The Kirby Avenue Multi-Use Trail would connect with loca traffs such as the Upper Copper Slough and the Rising Road Multi-Use Trail. It would also connect with trails intended to be more regional including the Pipeline Trail and PipelineTrail Spur. Overall, the Kirby Avenue Multi-Use Trail is Intended to be a "feeder" to the larger



Where the Kirby Avenue Multi-Use Trail would connect with the Copper Slough Greenway



Kirby Avenue connects several new nieghborhoods



Kirby Avenue heading west towards the bridge over Interstate 57

## Constraints





Similar to Windsor Road, the Kirby Avenue bridge ove Interstate 57 is unsafe for bicyclists and pedestrians.



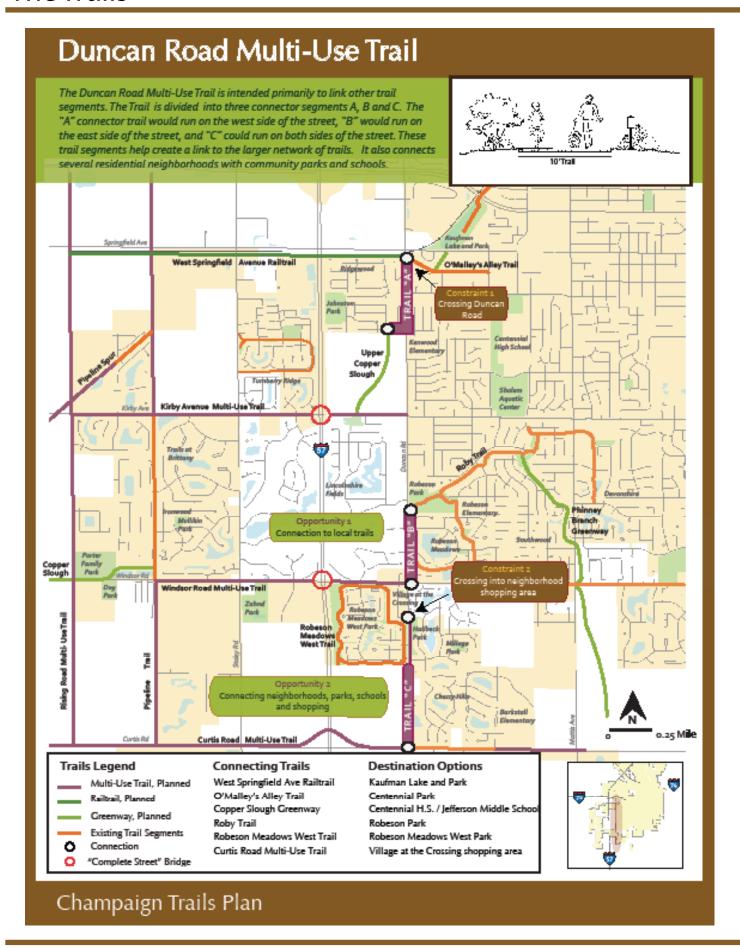
The Kirby Avenue Multi-Use Trail will need to cross Staley Road and Rising Road in order to connect with other trails in the system. Most likely, these crossings will need to coexist with the pedestrian crossing facilities at signalized intersections.

Similar to Windsor Road, the Kirby Avenue Multi-Use Trail will need to cross Interstate 57 IDOT Intends to replace the obsolete bridge structure. Further study is necessary to determine how bicycle and pedestrian facilities can be installed on the new bridge in order to comply with state and local "complete street"



Much of Kirby Avenue uses drainage ditches rather than a curb-and-gutter system to control stormwater. Drainage ditches take more space and often there is insufficient right-of-way for placing a new trail. In these cases either more right-of-way must be





## **Duncan Road Multi-Use Trail**

## **Opportunities**



## Connection to local trail system

The primary purpose of the Duncan Road Multi-Use Trail is to connect other local trails that extend to Duncan but do not connect. The "A" segment would connect O'Malley's Alley Trail to the future Upper Copper Slough Greenway along the west side of Duncan. The "B" segment would connect the trail in Robeson Meadows with a trail on the east side of Duncan. Finally, the "C" segment would run on both sides of the street and would connect the Robeson Meadows West Trail with the Curtis Road Multi-Use Trail. An additional extension of "C" on the east side of Duncan can connect the Village at the Crossing.



## Connecting neighborhoods with parks, schools and shopping

For much of Champaign, bicycling along the arterial streets is a challenge for the novice bicyclist. The three segments of the Duncan Road Multi-Use Trail creates the opportunity to provide a trail system along the busy Duncan Road thereby connecting several neighborhoods with parks, schools and neighborhood shopping. Neighborhoods to be connected include Ridgewood, Kenwood, Robeson Meadows and Cherry Hills. Parks include Kaufman, Centennial, Robeson, Hallbeck and Robeson Meadows West. The main shopping area to be connected would be Village at the Crossing.



Segment "A" would connect with the existing O'Malley's Alley Trail east of the Duncan Road.



Segment "B" would connect with the existing trail system in



The undeveloped portion of Duncan Road near Curtis Road provide: an opportunity to coordinate with the construction on new trails

## Constraints



A potential crossing point for the "C" connector near Village Office Place

(a private street at the

Duncan Road looking south at the end of O'Malley's AlleyTrail



ad looking e end of

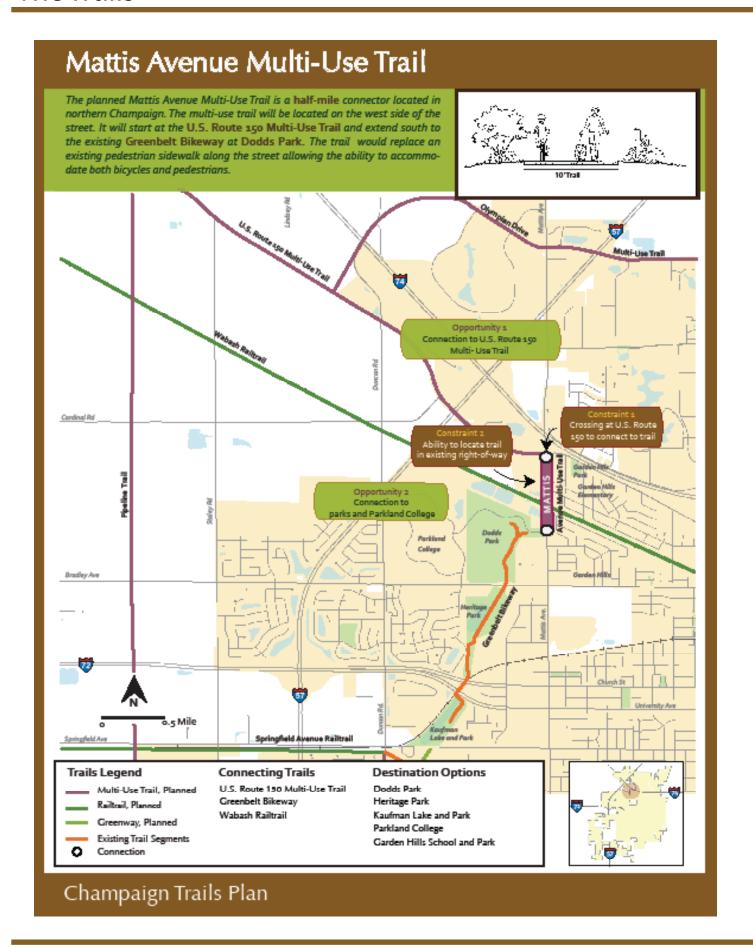
### Crossing Duncan Road

The northern segment of the Duncan Road Multi-Use Trail, entitled "A," would need to run on the west side of Duncan Road given existing development patterns. The west side provides a good connection to the West Springfield Avenue Railtrail and the Upper Copper Slough Greenway but requires crossing Duncan Road to connect to the O'Malley's Alley Trail. Since this crossing would not be at an intersection, special design consideration must be given for providing a safe mid-block crossing.

## 2 Cr

# Crossing into neighborhood shopping area.

The southern segment of the Duncan Road Multi-Use Trail (segment "C") has the potential to connect the Curtis Road Multi-Use Trail to the Robeson Meadows West Trail and eventually the Village at the Crossing neighborhoods shopping center. For this segment, the trail is proposed to run on both sides of the street. Therefore, crossing Duncan Road will be necessary. A potential crossing point could be at the north end of Hallbeck Park at the intersection of Duncan Road and Village Office Place, which is a private drive.



## Mattis Avenue Multi-Use Trail

## Opportunities



#### Connection to U.S. Route 150 Multi-Use Trail

The Mattis Avenue Multi-Use Trail is a very short "connector" trail intended to help link the U.S. Route 130 Multi-Use-Trail with the Greenbelt Bikeway. This link then allows riders to access Kaufman Lake and Park on down to the West Springfield Avenue Railtrail and others.



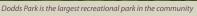
### Connection to parks and Parkland College

The Mattis Avenue Multi-Use Trail provides a connection to Champaign's largest park, Dodds Park. Dodds Park is 100 acres in size and provides soccer and softball fields, Internal trails, concessions and more. The trail also connects to the Greenbelt Bikeway which leads Kaufman Lake through Heritage Park.



Connection to U.S. Route 150 along Mattis Avenue. This existing sidewalk could be replaced with a wider multi-use trail.







### Constraints

The U.S. Route 150 and Mattis Avenue intersection can be intimidating for bicyclists and pedestrians.





Limited right-of-way along Mattis Avenue alongside the Illinois American Water Company property



#### Crossing U.S. Route 150

The U.S. Route 150 Multi-Use Trail is proposed to be located at the north side of the road at Mattis Avenue. Therefore, the Mattis Avenue Multi-Use Trail will have to cross U.S. Route 150 in order to connect. This connection will most likely have to be accomodated within a standard pedestrian crosswalk at the intersection.



# Locating trail in existing right-of-

This short stretch of Mattis
Avenue is developed with
primarily two uses - the US
Post Office and illinois
American Water Company.
Further analysis is needed to
determine if there is sufficient
right-of-way available for a
trail or if additional land is
needed from these two
owners.



## *Implementation*

## Introduction

The implementation recommendations are the result of collaboration between City and Park District staff as well as direction from the Champaign Park District Board, Plan Commission and City Council. Each trail has a corresponding implementation table detailing the lead agency, key partners, how the land for the trail may be acquired, who will construct the trail, what agencies may bear responsibility for maintenance, and the priority level of the trail. In addition, each table outlines a geographic location where the first segment of the trail might be constructed and the action steps to progress towards this goal. It is intended that each trail will eventually have a more detailed plan that addresses land acquisition, design, construction and maintenance.

### Lead

Important to the progress on each trail are the necessary agencies and organizations that will work on the implementation tasks. Those identified as "Lead" in the table will assume primary responsibility for bringing together the right partners and gather the necessary information to begin work on the implementation of that objective. Overall, the City of Champaign and the Park District are the stewards of the Trails Plan and will maintain progress on the plan's goals.





### **Partners**

Additional organizations are invited to share the workload and have a role in the decisionmaking process. "Partners" play an important part in addressing the workload and tasks of accomplishing the recommended actions in the implementation tables. Examples of these partners not identified in the table include: Champaign County Design and Conservation, non-profit groups, "friends of" trail societies, home owner associations, or property owners. These partners may become significantly involved as work on an individual trail project continues. Involving different partners allows others to bring unique resources to the table. Partners may need to become more involved if a trail is located outside the jurisdictional boundaries of the City or Park District.

### **Priority**

When assessing a trail's priority, criteria from the table on page 46 was used. These criteria were use to rank each trail in an order of importance relative to the other trails proposed. If future opportunities, such as donations or grants become available, the priority level can be adjusted accordingly.

## **Land Acquisition**

There are a variety of methods for acquiring the land needed for individual trails. Examples include donation, right-of-way purchase, right-of-way, recreation/conservation easements and dedications through development requirements. A donation is a voluntary gift of land for use as a trail. For example, a developer may construct a trail as an amentity to a subdivision and then choose to donate the trail and the land upon which the trail sits to the Park District or City for their ownership and maintenance.

For other trail projects, it is sometimes in the best interest for the Park District to purchase land for a trail by leveraging grant money for the purchase. The purchase of additional right-of-way is another method for acquisition that the City may use when building a trail that is parallel to a roadway. Land may also be acquired through a required dedication ordinance. An example of this type of ordinance was adopted for the Pipeline Trail in 2008. A recreation/conservation easement is another method for acquistion. These easements are typically granted by the property owner to the Park District while the ownership rights remain with the original property owner. However, it is the least preferred method for land acquisition because it creates a situation where the Park District is not able to apply for funding because the agency does not own the land.

### Installation

A couple of factors help determine who shall be responsible for construction of a trail. Land acquisition method, trail land ownership and maintenance responsibility are among the factors considered. As individual trail projects progress, other factors may be considered as well. For example, multi-use trails that are built in the right-of-way and are parallel to the roadway will be installed by the City because the City is responsible for acquiring the right-of-way needed.

### Maintenance

As the trails network grows over time there will be on-going maintenance needs. Maintenance includes surface repairs, litter removal, landscaping and trimming, possible snow removal, signage repair as well as fixing deficiencies of the trail. Most trails will be the maintenance responsibility of the Park District. An exception to this are the multi-use trails that will be built within the street right-of-way. These will be the maintenance responsibility of the City. Alternatively, there may volunteer groups, such as "friends of" trail societies that undertake partial maintenance for particular trails. As the trail networks grows it may be determined that different trails will have varying maintenance standards.

### **Code Amendments**

The City of Champaign Subdivision and Land Development Code contains requirements of developers for building public infrastructure as a component of proposed subdivisions. For example, the code requires developers to construct streets and sidewalks to specific standards and then dedicate them to the City for public use. In 2008 the Subdivision Code was amended to require the construction of the Pipeline Trail with eventual dedication to the Park District when the Pipeline easement is located within a proposed development site.

An implementation action of this plan is to further amend the Champaign Subdivision Code to require trail construction and land dedication when the routes mapped in this plan are within a proposed development site. This would include construction of a 10-foot wide multi-use trail within the public right-of-way along arterial street in lieu of a 4-foot wide public sidewalk which is required under the current regulations.

## CRITERIA

connectivity for transportation & recreation

linkages to destinations

resource opportunities

#### PROVIDES A CONNECTION TO

- · current or proposed trail
- · another on-street bicycle lane/route
- another mode of transportation ie. bus stop, train station
- · trail outside of Champaign

#### **PROVIDES A TRAIL**

- in an existing developed area where no trail currently exists
- that closes a gap in the existing trail system
- where some physical improvements already exist, but where right-of-way has not been opened for public use

#### **PROVIDES LINKAGES TO**

- park
- a natural area
- schools
- libraries
- · community centers
- employment centers
- · commercial center
- · current residential neighborhood
- future residential neighborhood

#### **OPPORTUNITIES TO**

- receive a land donation
- create recreation easement
- upgrade existing roads

#### **FUNDING ACCESS**

- ability to gain funding support from new developments
- availability of funding sources and opportunities

### PROVIDES A CROSSING OVER

- highway or roadway
- railroad
- stream or creek

### **Priorities**

### HIGH

- Boneyard Greenway
- Curtis Road Multi-Use Trail
- · North Champaign Trail
- Pipeline Trail
- Wabash Railtrail
- Windsor Road Multi-Use Trail

### **MEDIUM**

- Copper Slough Greenway
- Duncan Road Multi-Use Trail
- Kirby Avenue Multi-Use Trail
- Mattis Avenue Multi-Use Trail
- · Olympian Drive Multi-Use Trail

LOW

- City of New Orleans Railtrail
- · Kaskaskia Greenway
- Phinney Branch Greenway
- Rising Road Multi-Use Trail
- U.S. Route 150 Multi-Use Trail



### **Starter Opportunity Locations**

Each trail segment on the following implementation charts identify a "starter opportunity." Since a trail will not likely be built all at one time, the starter opportunity is intended to give some guidance on where to get it started.

## **Suggested First Actions**

Each trail identifies a "next step" that should be undertaken to make progress on establishing that trail. In many cases this is establishing a dialogue with property owners, other agencies, etc.

### **Cost Considerations**

It is too difficult to fully assess the costs of constructing the trails at this time. The method of land acquisition, as well as design and construction costs will be determined when the detailed plans for each trail is completed. Rather than try to calculate detailed cost estimates, this plan simply notes special financial considerations for each trail such as a pedestrian bridge, overpass bridge retrofit or an an underpass. These items would increase the cost of the trail signficantly.



BEFORE: Trail pavement needed to turn into a multi-use trail.



AFTER: Trail underpass installed beneath a highway to connect two segments of a trail.



## Greenways

Boneyard	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City	Park District	Purchase	City	Park District / City	High

Starter Opportunity: Boneyard Greenway Project Phase III (University Ave. to Washington St.)

Suggested Action: Create design concepts for Phase III

Additional Cost Considerations: Bicycle/Pedestrian bridge over I-74 to connect North Champaign Multi-Use

Trail

Copper Slough	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City	Park District	Purchase; Devt. Req.	Developer; City	Park District	Medium

Starter Opportunity: Connection of Pipeline Trail to Porter Family Park along Lower Copper Slough

Suggested Action: Create design concepts for connection from Pipeline Trail to Porter Family Park

Additional Cost Considerations: Typical land acquisition and trail construction costs expected

Phinney	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Branch	City	Park District	Purchase; Devt. Req.	Developer; City	Park District	Low

Starter Opportunity: Section of Phinney Branch between Windsor and Curtis Roads

Suggested Action: Complete a Phinney Branch Drainage Master Plan incorporating a trail where possible

Additional Cost Considerations: Additional land acquisition to make room for trail along upper portions of Phinney Branch

Kaskaskia _	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City	Park District; Forest Preserve; CCDC	Donation; Easement; Devt. Req.	Park District; Forest Preserve	Park District; Forest Preserve	Low

Starter Opportunity: Where the Copper Slough meets the Kaskaskia River

Suggested Action: Begin discussion with property owners to discuss trail opportunities

Additional Cost Considerations: Eventual Bike/Ped crossing over Interstate 72

## Railtrails

City of _	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
New Orleans	City	Park District; CUMTD	Donation; Purcahse	City	Park District	Low

Starter Opportunity: Begin trail parallel to railroad in easement beginning at Windsor Road and heading north

Suggested Action: Begin discussions with University of Illionis and CN Railroad on feasibility.

Discuss potential funding assistance with CUMTD as trail will link Illinois Terminal

Additional Cost Considerations: Crossing arterial streets where the trail cannot use existing CN bridges

Wabash	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY		
	City	Park District; Forest Preserve CCDC	Donation; ; Purcahse	Park District; Forest Preserve	Park District; Forest Preserve	High		
Starter Opportunity: Near Dodds Park								

Suggested Action: Contact Railroad and property owners to begin initial discussions

Additional Cost Considerations: Bicycle/Pedestrian bridge over I-57

West Springfield -	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Avenue	Park District	City; Forest Preserve	Donation; Purcahse	Park District; Forest Preserve	Park District; Forest Preserve	Medium

Starter Opportunity: Continuation of the O'Malley's Alley Trail at Duncan Road

Suggested Action: Contact owner of strip of property running parallel to the railroad

Additional Cost Considerations: The railroad underpass at I-57 will need a pavement upgrade

## Multi-Use Trails

Pipeline	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY	
	Park District	City	Dedication	Developer	Park District	High	

Starter Opportunity: Continuation of trail south of Windsor Road

Suggested Action: Discussion with land owners that have development approvals to determine timing

Additional Cost Considerations: Bicycle / Pedestrian bridge over I-72 to be shared with Rising Road trail

North Champaign	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	Park District	City	Purchase; Dedication	Park District; Developer	Park District	High

Starter Opportunity: Close the remaining 1/4-mile gap between Town Center Apts. and Town Center Blvd.

Suggested Action: Apply for grant or program trail project costs into the Park District's Capital Imp. Plan

Additional Cost Considerations: Bicycle / Ped. bridge over Interstate 74 connecting to Boneyard Greenway

Olympian	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Drive <sup>-</sup>	City		Dedication	Developer; City	City	Medium

Starter Opportunity: Segment between Ashland Park subdivision and Market Street

Suggested Action: Ensure a "complete street" design for Olympian Drive bridge over CN Railroad

Additional Cost Considerations: Retrofit existing bridge over I-57 to better accommodate bikes & pedestrians

Rising	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Road <sup>-</sup>	City		Dedication	Developer; City	City	Low

Starter Opportunity: East side of Rising Road between Kirby Avenue and Windsor Road

Suggested Action: Determine desired future roadway improvement design and trail location on west side

Additional Cost Considerations: Separate bicycle / pedestrian bridge to be shared with Pipeline Trail over I-72

## Multi-Use Trails

Curtis	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Road	City		Dedication	Developer; City	City	High

Starter Opportunity: Establish trail connections that would allow installation of Curtis Road / I-57 Ped. bridge

Suggested Action: Work with IDOT to understand bicycle / pedestrian bridge timeframe commitments

Additional Cost Considerations: Land Acquisition to complete trails to connect to I-57 bridge

Windsor Road -	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY	
	City		Purchase (if nec.)	City	City	High	

Starter Opportunity: "Complete street" segments leading to "complete street" I-57 bridge replacement (IDOT)

Suggested Action: Secure funding for segments leading to the I-57 bridge

Additional Cost Considerations: Additional right-of-way purchase where necessary

U.S. Route 150 -	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City	Park District; Forest Preserve		City; Forest Preserve; Park District	City; Forest Preserve; Park District	Low

Starter Opportunity: Area near future park at former Champaign Landfill

Suggested Action: Determine feasibility of establishing trail in existing right-of-way considering topography

Additional Cost Considerations: Retrofit of bridge over Interstate 57 to accommodate bicycles and pedestrians

Kirby Avenue -	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City		Dedication; Purchase (if nec.)	City	City	Medium

Starter Opportunity: Segment between Rising Road and Pipeline Trail

Suggested Action: Design trail in conjunction with a roadway improvement project for Kirby Avenue

Cost Considerations: "Complete Street" improvements for segments leading to I-57 bridge - similar to Windsor

Road

## Multi-Use Trails

Duncan	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
Road <sup>-</sup>	City		Dedication; Purchase	City; Developer	City	Medium

Starter Opportunity: Connection from Curtis Road to Robeson Meadows West Trail (Segment "C")

Suggested Action: Include trail in roadway improvement design for Duncan Road

Additional Cost Considerations: Crossing Duncan Road safely with Segment "A" and Segment "C"

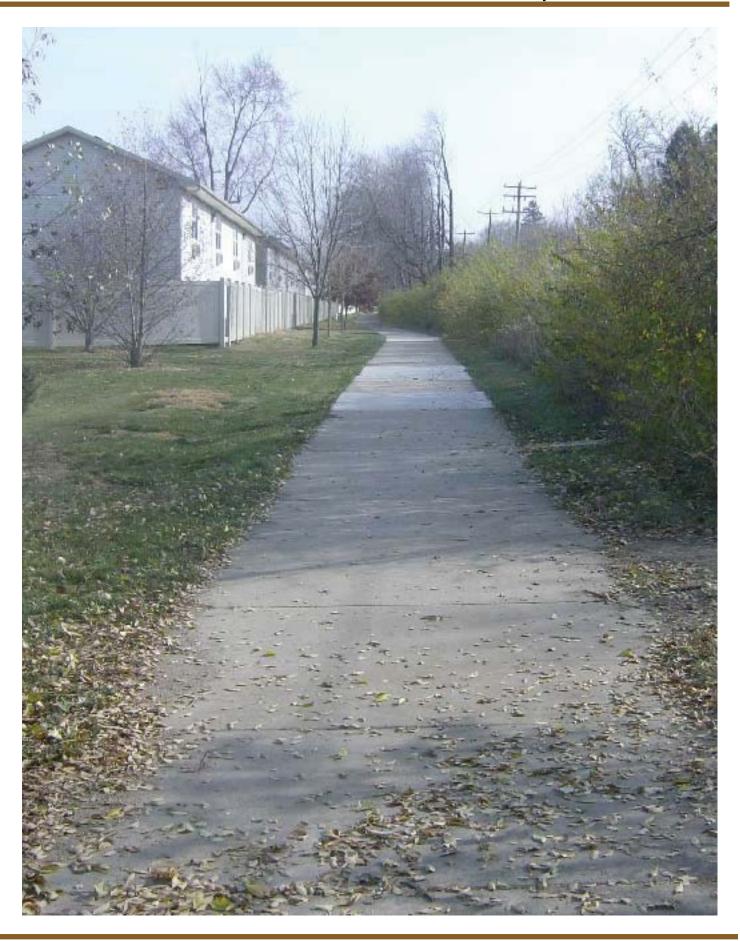
Mattis Avenue -	LEAD	PARTNERS	LAND ACQUISITION METHOD	INSTALLED BY	MAINTENANCE	PRIORITY
	City		Purchase (if nec.)	City	City	Medium

Starter Opportunity: Connect entrance of Dodds Park to Wabash Railroad (future railtrail)

Suggested Action: Meet with Post Office and Illinois American Water Company to discuss plans

Additional Cost Considerations: Potential need to purchase additional right-of-way along Mattis Avenue







# Design Guidelines, Logos and Signage



April 2008 Amended August 2010



### Prepared by

Champaign County Regional Planning Commission 1776 East Washington Street Urbana, IL 61802

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## Introduction

Champaign County Trails Design Guidelines were created to facilitate the development of all non-motorized paths throughout Champaign County, including sidewalks, bike lanes, shared use trails, and nature trails. Existing trails in the area are of varying widths and materials, and there are no standard facilities or design features that show users that they are using a trail that is part of an overall countywide system. Once implemented, these design guidelines will help create a recognizable and consistent system of greenways and trails of which Champaign County can be proud.

These guidelines were developed utilizing a collection of resources to ensure that the end product meets the needs of municipalities, special use districts, grant-funding agencies, and trail users, while maintaining accessibility requirements. In compiling these guidelines, best practices already in use in counties across the nation were combined with guidelines tailored to the specific needs of Champaign County.

## Goals and Objectives

The creation of countywide trails design guidelines is a first step in the implementation of the Champaign County Greenways & Trails Plan adopted in February 2004. The goal related to creating countywide design guidelines from the plan is "All Champaign County residents will be provided with a greenways and trails system that emphasizes safety and user-friendliness." The objectives of these design guidelines are to create a countywide system of trails that are safe, user-friendly, meet or exceed the standards of primary grant-funding agencies, and maintain environmental integrity. These guidelines are intended to create a system of trails that capture the community character and history of Champaign County and to serve as an educational and recreational resource for trail users.

### General Standards

- All facilities shall meet or exceed Americans with Disabilities Act standards.
- All paved surfaces shall meet or exceed all applicable Illinois Department of Transportation (IDOT) standards for the installation of surface type.
- All paved surfaces shall meet or exceed all applicable local codes.
- All paved surfaces shall meet or exceed current AASHTO standards for trail type.
- All guidelines shall comply with the most recent editions of ADA, IDOT, and AASHTO standards as applicable.

## Methodology

Staff interviewed participating agencies, including representatives from Champaign County, cities and villages, Park Districts, the University of Illinois, the CU Mass Transit District, IDNR and IDOT, and several local developers. Questions included what they wanted addressed in the design guidelines, what format they preferred, what practices the agencies currently followed, and the process their agency would go through to adopt the design guidelines into practice if they chose to do so. Many of the representatives were on the Greenways Steering Committee, so they were familiar with the Greenways and Trails Plan and were interested in its implementation.

### Interviews were conducted with the following organizations and individuals:

### City of Champaign

- Public Works: Steve Wegman
- Planning: Rob Kowalski, Danielle Rideout

### City of Urbana

- Public Works: Bill Gray, Doug Miller
- Planning: Libby Tyler, Paul Lindahl, Matt Wempe

### Village of Savoy

- Public Works: Frank Rentschler
- Parks & Grounds: Joshua Mikeworth

### Village of Rantoul

• Public Works: Pete Passarelli

### Village of Mahomet

• Village Administrator: Teri Legner

### Champaign County Highway

Jeff Blue

### Champaign Park District

• Bobbie Herakovich, Terri Gibble

#### Urbana Park District

• Facilities Planning: Tim Bartlett

### Champaign County Forest Preserve District

• Facilities Planning: Sally Prunty

#### CU Mass Transit District

• Planning: Cynthia Hoyle, Bill Volk

### University of Illinois

- Facilities Planning: Kevin Duff
- Facilities Engineering: Gary Biehl

### Champaign County

- Planning & Zoning: Frank Dinovo
- CUUATS: Rita Black, Susan Chavarria

### Champaign County Board

• Chair: Barb Wysocki

### Illinois Department of Natural Resources

Marla Gursh (Springfield)

### Illinois Department of Transportation

• Bureau of Design & Environment: Todd Hill

Several Local Developers

In general, support for countywide trails design guidelines was high, although many agencies stressed the importance of keeping the guidelines flexible for different settings and circumstances. They wanted a short document that would be user-friendly and easy to understand, and they wanted more pictures and diagrams and less text. Safety and practicality were top priorities for each agency, with separation of pedestrians and bicyclists from vehicular traffic and low-cost construction mentioned frequently.

After compiling the information from the interviews, the format of the design guidelines was determined. Keeping in mind suggestions made by the different agencies and formats used in other regions, the document was organized by trail type: sidewalks, bike lanes, shared-use trails, and nature trails. Sections on connections and crossings, facilities at trailheads and rest areas were also included. Each section begins with a description of the feature's use, followed by a cross-section with dimensions and engineering specifications. All design guidelines for Champaign County follow what is recommended by the Illinois Department of Transportation and the Illinois Department of Natural Resources for grant funding purposes, as well as accessibility.



# Sidewalks

### Sidewalks

Sidewalks are used primarily by pedestrians. Sidewalks in Champaign County should be accessible to all users. It is important that sidewalks be provided extensively throughout the transportation network to provide pedestrians with a safe place to travel. It should be noted that all bicyclists who choose to travel on sidewalks have the same rights as pedestrians, except where prohibited, and must yield to pedestrians. Accessible sidewalk facilities should be provided on all new right-of-way projects in Champaign County.

### **Dimensions**

### Width

- The recommended minimum width of all sidewalks is 5 feet. Sidewalks in high traffic areas, including the commercial, downtown, and campus districts, may require a width of 6 feet or greater as determined by the appropriately designated person.
- Transitions from existing narrower sidewalks may be made using tapers.

### Buffer

• Sidewalks should have at minimum a 2 foot wide mowed shoulder on both sides of the paved surface.

### Vertical Clearance

• Sidewalks should have a vertical clearance of at least 8 feet.

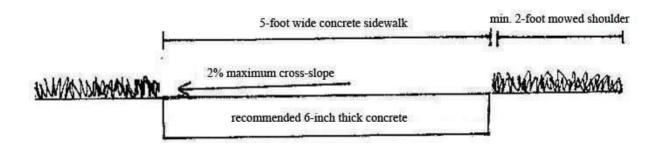
#### Miscellaneous

- The vegetative distance between the concrete surface and any water bodies (stream, wetland, lake) is recommended to be a minimum of 10 feet to reduce water pollution potential from runoff and chemicals associated with paved surfaces.
- Maximum distances for expansion joints should not exceed 75 feet.

### Engineering

### General

- All engineering of sidewalks shall meet the applicable agency's accepted engineering design standards.
- All newly constructed sidewalks shall comply with ADA accessibility guidelines.



### Slope

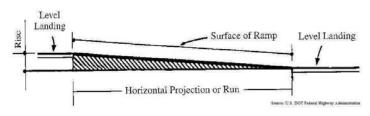
- The longitudinal slope of all sidewalks shall be a maximum of 8.3% to maintain accessibility.
- The cross-slope of all sidewalks shall be a maximum of 2.0% to maintain accessibility and should slope in one direction or be crowned.

### Ramps

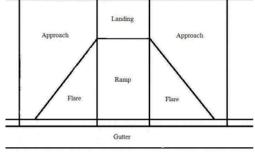
- Ramp specifications shall follow the Illinois Accessibility Code:
  - The least possible slope should be used for any ramp.
  - The maximum slope of a ramp in new construction shall be 8.3%.
  - The maximum rise for any run shall be 30 inches.
  - The minimum clear width of a ramp shall be 48 inches.
  - If a ramp has a rise greater than 6 inches, or a horizontal projection greater than 72 inches, it shall have handrails on both sides.

### Curb Ramps

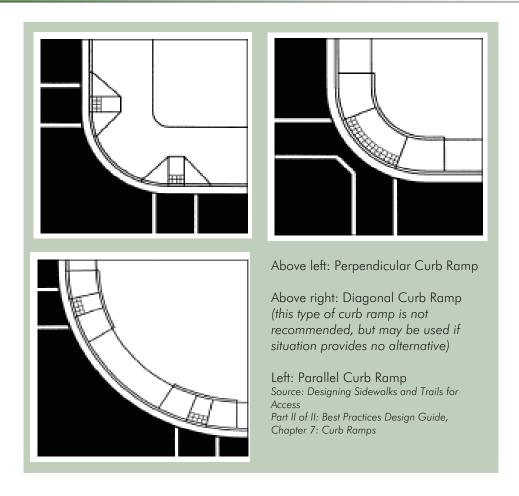
- Curb ramps shall be installed in all new sidewalk construction projects wherever an
  accessible route crosses a curb, as well as where existing sidewalks cross a curb or
  other barrier.
- The maximum running slope of a curb ramp in new construction shall be 8.3%.
- The minimum width of a curb ramp shall be 48 inches, exclusive of flared sides.
- A 4 foot by 4 foot minimum landing shall be provided at the top of a perpendicular curb ramp.
- The maximum slope of flared sides of a perpendicular ramp shall be 10.0%.
- A 4 foot by 4 foot minimum landing shall be provided at the bottom of a parallel curb ramp.
- Running slopes and cross slopes at landings shall be 2.0% maximum. No portion of the curb ramp shall exceed this maximum.
- Diagonal curb ramps should not be used because they do not allow pedestrians to properly align with crosswalks.
- Handrails are not required on curb ramps.



Above: Ramp Cross-section Right: Components of a Curb Ramp



Source: U.S. DOT Federal Highway Administration



### Detectable Warning Surface

- A detectable warning surface shall be provided where curb ramps, blended transitions or landings provide a flush pedestrian connection to the street.
- A detectable warning surface shall be provided at commercial driveways provided with traffic control devices.
- Detectable warnings shall consist of a surface of truncated domes.
- Truncated domes shall provide color contrast with adjacent surfaces.
- Detectable warning surfaces shall extend a minimum of 2 feet in the direction of travel and the full width of the curb, exclusive of flares.

### Sub grade and Sidewalk Surface

### Subgrade

Vegetation should be cleared from the 5-foot wide sidewalk path.

### Sidewalk Surface

- The sidewalk surface should be concrete.
- The concrete surface should be 6 inches thick.
- The sidewalk surface should be jointed to control cracking.
- A rough brushed surface is recommended to increase traction.



Bike Lanes

### Bike Lanes

An on-road bike lane is a one-way path that carries bicyclists in the same direction as the adjacent motorized travel lane. Bike lanes should be located on the right side of the roadway, between the parking lane (if one exists) and the travel lane. Bicycles traveling in bike lanes have the same rights and responsibilities as motorized vehicles.

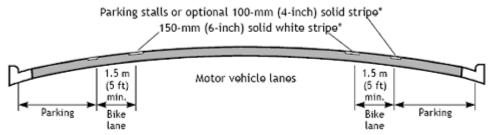
### **Dimensions**

#### Width

Varies based on roadway cross-section:

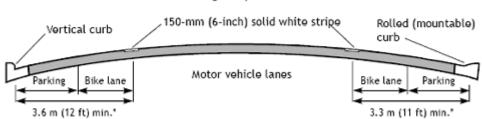
- For roadways with no curb and gutter, the minimum width should be 4 feet.
- For roadways with curb and gutter and where parking is permitted, the minimum width should be 5 feet.
- For roadways with curb and gutter and where parking is prohibited, the minimum width should be 5 feet from the face of the curb.

### (1) On-Street Parking



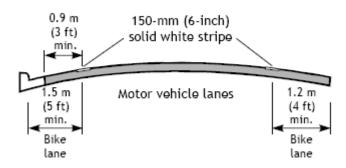
\* The optional solid stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorist may misconstrue the bike lane to be a traffic lane.

### (2) Parking Permitted without Parking Stripe or Stall

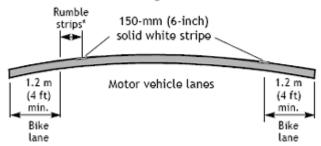


\* 3.9 m (13 ft) is recommended where there is a substantial parking or turnover of parked cars is high (e.g., Commercial areas).

### (3) Parking Prohibited



### (4) Typical Roadway in Outlying Areas Parking Protected



<sup>\*</sup> If rumble strips exist there should be 1.2 m (4 ft) minimum from the rumble strips to the outside edge of the shoulder.

Source: American Association of State Highway and Transportation Officials

### Slope/Drainage

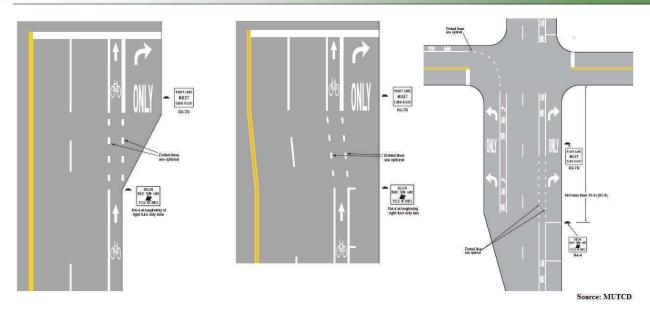
- To follow the road engineering standards adopted by each agency.
- Drainage grates and utility covers should be adjusted flush with the road surface and be bike-proof.
- Curb inlets should be used to eliminate exposure of bicyclists to grates.

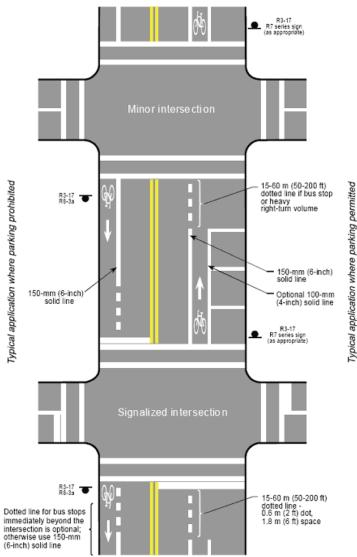
### Sub-Grade, Sub-Base, and Trail Surface

- To follow the road engineering standards adopted by each agency.
- Paved shoulders marked as bike lanes should be smooth and maintained to provide a desirable riding surface.

### Markings

- A bike lane should be delineated from the motor vehicle lanes with a 6 inch minimum solid white line.
- A bike lane may be delineated from the parking lanes with a 4 inch minimum solid white line.
- At intersections with a bus stop or right-turning motor vehicles, the solid white bicycle lane shall be replaced with a broken line for a distance of 50 200 feet.
- At other designated bus stops (including far-side intersection stops) the solid white line shall be replaced with a broken line for a distance of at least 80 feet.
- A broken line shall consist of 2 foot dashes with 6 foot spaces.
- A bike lane should be painted with standard pavement symbols to inform bicyclists and motorists of the presence of the bike lane.
- Bike lane symbols shall be white.
- Bike lane symbols shall be placed immediately after an intersection and at other locations as needed.
- When bike lane symbols are used, bike lane signs (R3-17, R3-17a, R3-17b) shall also be used.
- In areas where a sidewalk runs adjacent to or near a bike lane, such as on the University of Illinois campus, the bike lane should have a "Bike Only" sign painted on the surface to discourage pedestrians from using the bike lane as a walkway. Surface markings should be consistent throughout the community.
- Intersections approaches with bicycle lanes
  - A through bicycle lane shall not be positioned to the right of a right turn only lane.
  - When the right through lane is dropped to become a right turn only lane, the bicycle lane markings should stop at least 100 feet before the beginning of the right turn lane. Through bicycle lanes should resume to the left of the right turn only lane.
  - No markings should be painted across pedestrian crosswalks or in the intersections.
  - If used, the bicycle lane symbol marking should be placed immediately after intersections and as appropriate.





Above left: Example of bicycle lane treatment at a right-turn only lane

Above center: Example of bicycle lane treatment at parking lane into a right turn only lane

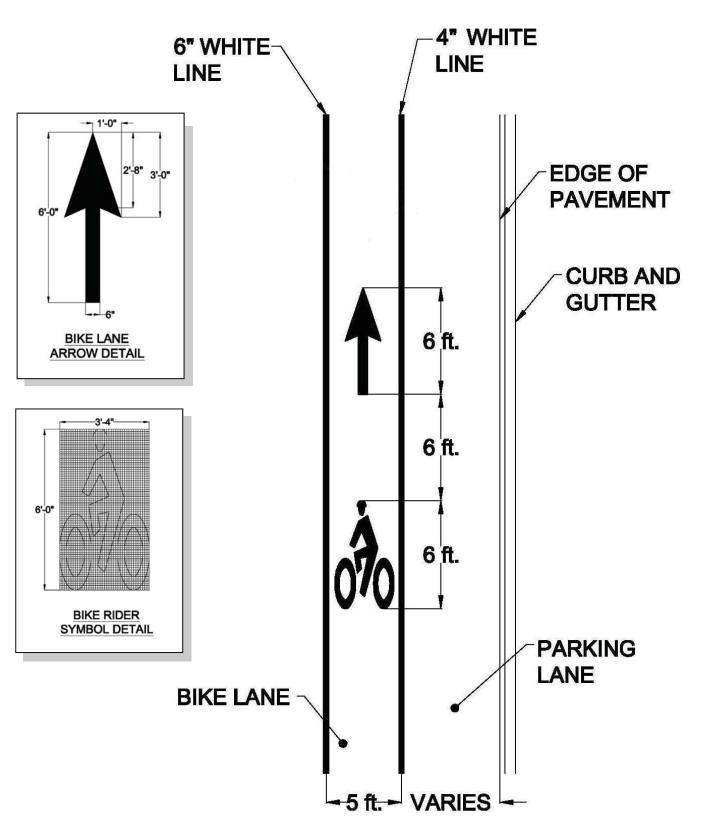
Above right: Example of intersection pavement markings—designated bicycle lane with left-turn area, heavy turn volumes, parking, one-way traffic, or divided highway

Source: Manual on Uniform Traffic Control Devices (MUTCD) 2003

Left: Typical pavement markings for bike lane on two-way street

Source: American Association of State Highway and Transportation Officials

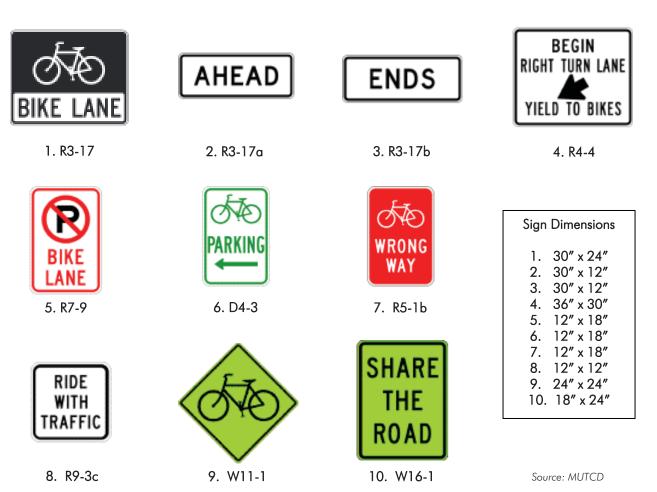
Bicycle Lane Symbol Layout



## Signage

Signs along bike lanes are intended to inform both bicyclists and motorists of the rules associated with roads with bike lanes. All signage should follow the U.S. Department of Transportation Federal Highway Administration Manual on Uniform Traffic Control Devices.

- Sign 1 shall be used in conjunction with marked bicycle lanes and be placed at periodic intervals along the marked bike lane.
- Sign 2 should be mounted directly below Sign 1 in advance of the beginning of a marked bike lane.
- Sign 3 should be mounted directly below Sign 1 at the end of a marked bike lane.
- Sign 4 may be used when motor vehicles must cross a bike lane to enter an exclusive right-turn lane.
- Sign 5 shall be installed if it is necessary to restrict parking, standing or stopping in a bicycle lane.
- Sign 6 may be installed when it is desirable to show the direction to a designated bicycle parking area.
- Sign 8 should be used only in conjunction with Sign 7, and shall be mounted directly below Sign 7.
- Signs 9 and 10 may be installed where there is insufficient width for a designated bike lane.



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Shared Lane Markings

## Shared Lane Markings

Bicycle positioning on the roadway is key to avoiding crashes with cars turning at intersections. Shared lane markings are included in the 2009 version of the MUTCD.

Shared lane markings are used to indicate correct straight-ahead bicycle position at intersections with turn lanes, and at intersections where bike lanes are temporarily discontinued due to turn lanes or other factors. Shared lane markings will be installed where deemed appropriate. The following is text regarding shared lane markings from the 2009 version of the MUTCD.

The Shared Lane Marking may be used to:

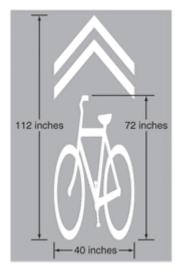
- Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle.
- Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane.
- Alert road users of the lateral location bicyclists are likely to occupy within the traveled way.
- Encourage safe passing of bicyclists by motorists.
- Reduce the incidence of wrong-way bicycling.

#### **Dimensions**

The shared lane marking consists of two chevron markings above a bicycle symbol. The entire marking is 40 inches wide and 112 inches tall. The bicycle symbol is 72 inches in height, from the top of the handlebars to the bottom of the tires.

## Markings

- Shared lane markings should not be placed on roadways that have a speed limit above 35 mph.
- Shared lane markings shall not be used on shoulders or in designated bicycle lanes.
- On shared lanes with on-street parallel parking, shared lane markings should be placed so that the centers of the markings are at least 11 feet from
  - the face of the curb, or from the edge of the pavement where there is no curb.
- On a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the shared lane markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb
- Shared lane markings should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.



Shared Lane Marking Source: MUTCD 2009

## Signage

A Bicycles May Use Full Lane sign may be used in addition to or instead of the shared lane marking to inform road users that bicyclists may occupy the travel lane. The sign may be used on roadways where no bicycle lanes or adjacent shoulders usable by bicyclists are present, and where travel lanes are too narrow for bicyclists and motor vehicles to operate side by side.

Some agencies may choose to use the *Bicycles May Use Full Lane* sign on urban streets, and *Share The Road* signs on rural roads (see page 13). Other agencies may choose to only use *Bicycles May Use Full Lane* signs or *Share The Road* signs for its roads.



R4-11

Sign Dimensions: 30" x 30"

Source: MUTCD 2009



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Shared-Use Trails

## Shared-Use Trails

A shared-use trail is a recreational pathway that may be used by pedestrians, bicyclists, rollerbladers, strollers, and skateboarders. They may connect parks, employment centers, shopping centers, and public places. Shared-use trails should not be located immediately adjacent to interstate highways.

#### **Dimensions**

#### Width

- The desired width of the surface of a shared-use trail is 10 feet. The minimum width should not be less than 8 feet.
- Transitions between existing narrower trails and the 10 foot wide shared-use trail should be created using tapers.

#### Clear Zone

- A 3-foot wide clear zone should be maintained adjacent to both sides of all shareduse trails for the use of joggers and to keep vegetation from erupting through the trail surface.
- Where a roadway runs adjacent to or near a shared-use trail, the roadway should be separated from the shared-use trail with a 5 foot wide clear zone.
- When separation of five feet cannot be achieved, a physical barrier of at least 4.5 feet high between the trail and the roadway is recommended.
  - Smooth rub rails should be attached to the barriers at handlebar height of 3.5 feet.
- The vegetative distance between the trail edge and any water body (stream, wetland, or lake) is recommended to be a minimum of 10 feet to reduce water pollution potential from runoff and chemicals associated with paved surfaces.

#### Vertical Clearance

• The vertical clearance should be a minimum of 8 feet high (or higher to accommodate maintenance vehicles).

## Subgrade, Subbase, and Trail Surface

#### Subgrade

 The trail and shoulders should be cleared of organic materials. Soil sterilants should be used where necessary to prevent vegetation from erupting through the pavement.

### Subbase

• The sub-base should be a 6-inch compacted crushed rock.

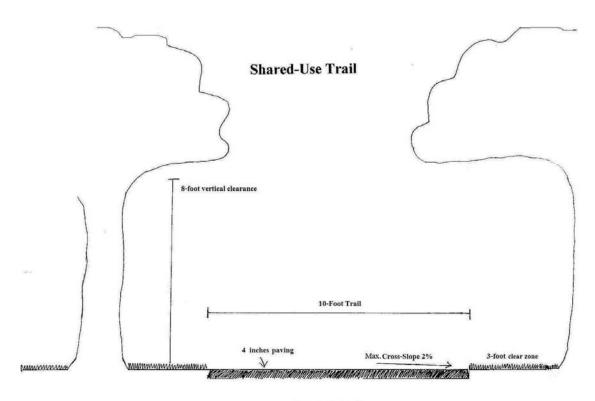
#### Trail Surface

- The following are acceptable surface types for shared-use trails:
  - Asphalt
  - Concrete
  - Compacted crushed rock

- The paved surface should be a minimum of 4 inches thick or follow the applicable agency's specifications, whichever is greater.
- Shared-use trails should be designed to sustain without damage wheel loads of occasional emergency, patrol, maintenance, and other motor vehicles that are expected to use or cross the path.
- Edge support to accommodate vehicles can be in the form of stabilized shoulders or in additional pavement width.
- Shared-use trails should be machine laid, using the appropriate machines and tools to smooth and compact the trail surface.

## Engineering

• Refer to the most recent adopted edition of the AASHTO "Guide for the Development of Bicycle Facilities" for engineering specifications, including design speed, sight distances, horizontal alignment and superelevation.

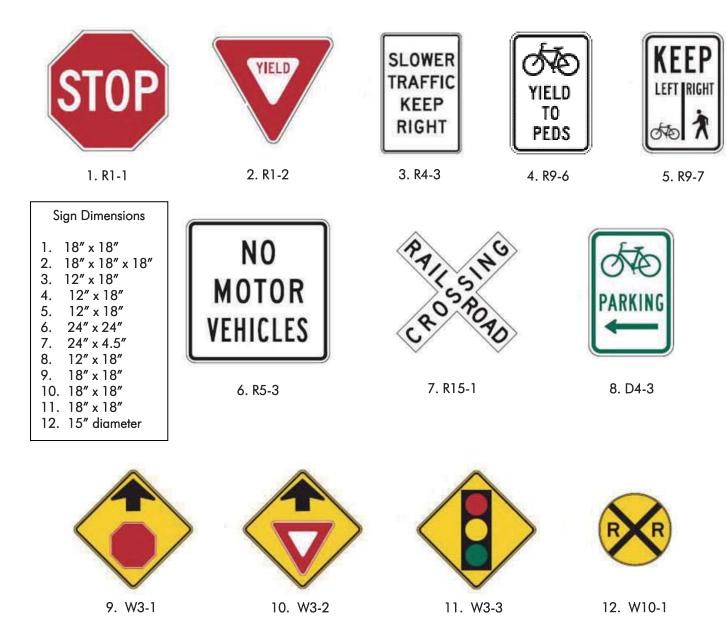


Compacted Subgrade

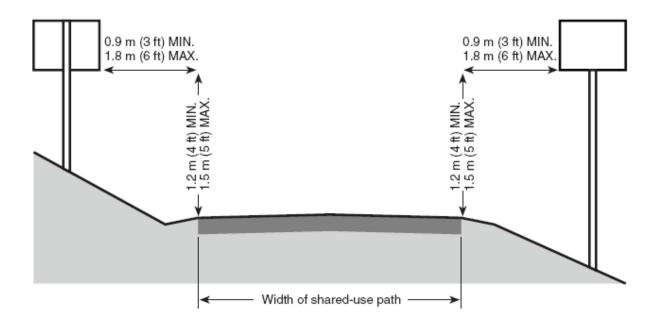
## Shared-Use Trail Signage

Shared-use trail signage (see below), especially Signs 1 and 2, should be shielded from road user visibility to decrease confusion. Sign 6 should be installed at the entrance to a shared-use trail. The trail should be signed at cross streets and vice versa so trail users know where they are and motorists recognize that they are crossing a trail. Stop signs should not be used where Yield signs would be acceptable.

Lateral sign clearance should be a minimum of 3 feet and a maximum of 6 feet from the near edge of the sign to the near edge of the path. The mounting height for ground-mounted signs should be a minimum of 4 feet and a maximum of 5 feet, measured from the bottom edge of the sign to the near edge of the path surface. Overhead signs should have a clearance of 8 feet from the bottom edge of the sign to the path surface directly under the sign (or higher to accommodate maintenance vehicles).



## Sign Placement on Shared-Use Paths



## Shared-Use Trail Markings

All surface markings on shared-use trails should be retroreflectorized and be made of skid-resistant material for safety. Obstructions in the traveled way of a shared-use trail should be marked with retroreflectorized material. Striping should not be used on shared-use trails to separate directions; yield signage should be used instead. Where there are curves with restricted sight distance, a 4 inch wide yellow centerline stripe may be used to separate opposite directions of travel.

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# Nature Trails

## Nature Trails

Nature trails are a form of shared-use path, although they typically run through environmentally sensitive areas. The surfacing and width specifications are more flexible than for shared-use paths; for example, nature trails may have a soft, permeable surface, such as bark, wood chips, or crushed aggregate in lieu of asphalt. Therefore, nature trails are not designed to be ADA accessible. The width of the nature trail may be as narrow as 18 inches to allow for passage through densely vegetated areas and hilly terrain.

#### **Dimensions**

#### Width

• Nature trails should maintain a width of no less than 18 inches.

#### Clear Zone

- Where a roadway runs adjacent to or near a nature trail, the roadway should be separated from the nature trail with a 5 foot wide mowed shoulder or vegetation.
  - When separation of five feet cannot be achieved, an approved, crash-tested physical barrier of at least 4.5 feet high between the trail and the roadway is recommended.
    - Smooth rub rails should be attached to the barriers at handlebar height of 3 ½ feet.
- The vegetative distance between the trail edge and any water body (stream, wetland, or lake) should be maintained at a minimum distance of 10 feet to reduce water pollution potential from runoff and chemicals associated with paved surfaces.

#### Vertical Clearance

- The vertical clearance should be a minimum of 8 feet high (or higher to accommodate maintenance vehicles).
- Tunnels and other undercrossings should have a vertical clearance of at least 10 feet.

## Subgrade, Subbase, and Trail Surface

In general, earthen trails do not require a subbase. If soils are particularly wet, a layer of geotextile fabric covered with a layer of aggregate may be placed between the ground and trail surface to provide a moisture barrier.

#### Trail Surface

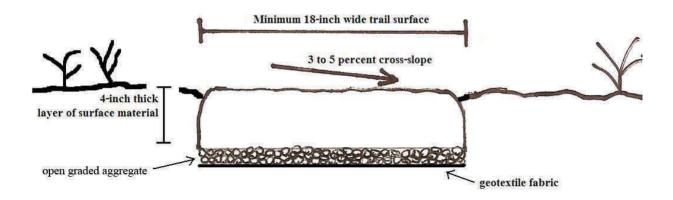
- Nature trails may use a variety of alternative surfacing, some of which are listed below:
  - Bark or wood chips
    - A 4-inch layer of bark or wood chips is recommended.
    - Bark or wood chips should be replaced every year due to compaction and dislocation.
    - Bark or wood chips should not be used near streams or wetlands or on portions of the trail with cross-drainage.

- Crushed Aggregate
  - Open-graded, crushed rock of 1 inch or smaller diameter is recommended.
  - A 4-inch thick layer of crushed rock compacted to 95 percent is recommended.
  - The sub-grade should be prepared and compacted to prevent vegetation encroachment.
- Plastic lumber
  - Plastic lumber is suitable for boardwalks in wet areas.
  - Plastic lumber may be colored or painted to blend in with the surroundings.

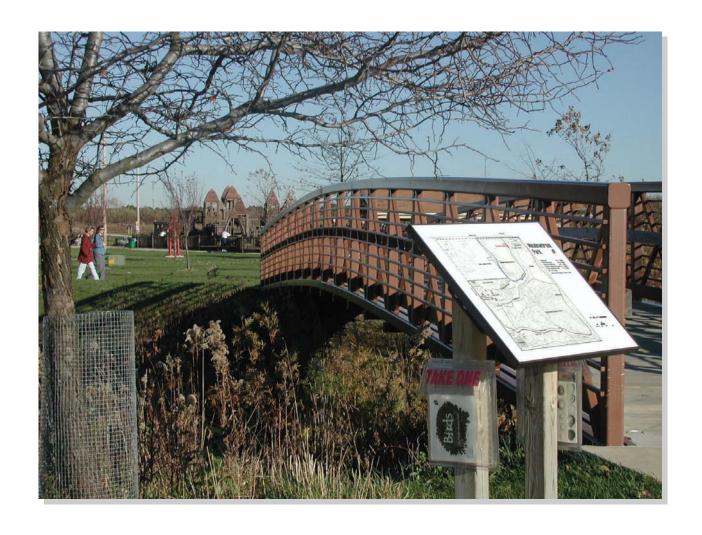
## Engineering

- Due to their often-varied topographic setting, nature trails are not designed to be handicap-accessible.
- Design Speed should be 15 mph for unpaved trails.
- The trail should be sloped to drain at 3 to 5 percent.

## **Nature Trail**



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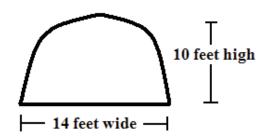


Connections & Crossings

## Connections & Crossings

#### **Tunnels**

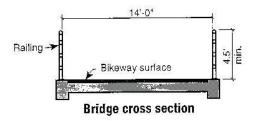
- Existing tunnels should be inspected by an engineer.
- Tunnels should have a 10 foot vertical clearance.
- Tunnels should be 14 feet wide to accommodate maintenance and emergency vehicles
- Long tunnels should have postings to use flashlights and dismount bikes.



## **Bridges**

#### General

- Newly constructed bridges on trails should be engineered based on use and span.
- If the trail corridor contains an existing bridge, the bridge may have architectural or historic features that should be evaluated by an engineer, architect, or historian.



## Decking

- The decking should be made of 4-inch thick pressure-treated planks (2 inches thick for pedestrian-only bridges).
- Planks should be laid perpendicular to the beams of the substructure.
- Planked should be laid with gaps of 1/8 to 1/4 inch between planks for drainage and to maintain accessibility.

#### Railings

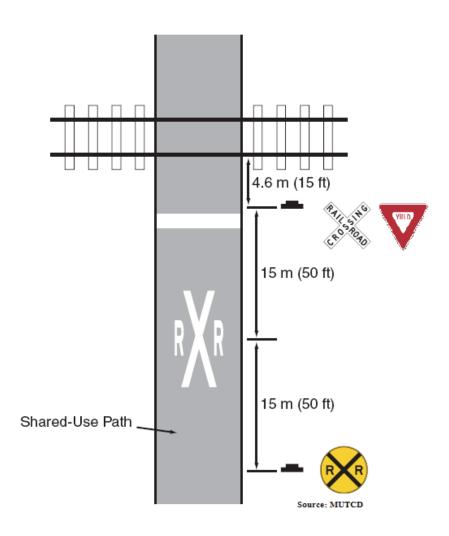
- Vertical posts should be spaced evenly apart, no more than 6 feet apart.
- Railings should support a vertical load of 50 pounds per linear foot of rail height.
- Top rail height should be at least 54 inches above the deck surface for bicyclists (at least 42 inches for pedestrian-only bridges).
- Middle rail height should be 33 to 36 inches from the deck surface, and no wider than 1 ½ inches.
- Bottom rail height should be no higher than 15 inches from the deck surface.
- There should be no more than 15 inches of vertical opening between railings.

#### **Approaches**

• Approach railings should be constructed the same as the bridge railings.

## Railroad crossings

- Trail should cross railroad at no less than a 75-degree angle.
- Gates should be installed at all trail crossings where feasible to increase safety and awareness of train crossing.
- At railroad crossings, path users should yield and watch for trains. A Yield sign may be used to facilitate this behavior.



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Facilities at Trailheads and Rest Areas

## Facilities at Trailheads and Rest Areas

A trailhead is a public access point at the beginning of a trail or at designated access points along a trail. Trailheads will usually have varying levels of services for trail users, depending on anticipated trail use, proximity to other developments, and site inventories. Rest stops are areas adjacent to the trail corridor that typically have a seating area, whether that is a bench or a gathering of boulders. Rest areas are also appropriate locations for trail art.

The following are a list of trail support facilities that may be included at trailheads and rest stops in Champaign County.

#### Information Kiosks

All trailheads should have an information kiosk with the following:

- Trail system maps and brochures
- Trail Rules and Regulations
- Distances between rest areas along the trail
- Interpretive information

#### Trail Art

- To highlight an important trail head in the Champaign County trail system, trail art may be displayed.
- Preferably, the trail art will depict something of local significance or be designed by a local artist.
- Care should be taken to ensure that vandalism is minimized, including securing the art to a heavy base.

## Bicycle Parking

Bike parking should be located at trailheads and destinations along trails, as well as at employment centers, schools, public buildings such as libraries and post offices, and shops. Bicycle storage facilities may be used in high traffic areas where users will be away from their bicycles for long periods of time (employment centers, shopping malls, schools) to protect bicycles from weather.

#### Recommended Bike Rack Placement

- Located no more than 50 feet from the building entrance or trail entrance.
- A Minimum of 24 inches from a parallel wall and 30 inches from a perpendicular wall.
- A minimum of 4 feet from curb ramps, fire hydrants, building entrances, etc.
- Facilities should not interfere with pedestrian flow. If located on sidewalks, racks and the bicycles linked to them should provide sufficient clearance around them for all types of pedestrians, including wheelchair users.
- Bicycle racks should be mounted on an 6-inch thick concrete slab.
- Bike racks should support both wheels to prevent bent rims.
- Bike racks should be fabricated of pipe or other durable material.

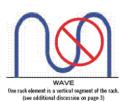
## FACILITIES AT TRAILHEADS & REST AREAS

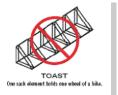












Recommended Bicycle Parking Facilities

Not Recommended Bicycle Parking Facilities

## Motorized Vehicle Parking

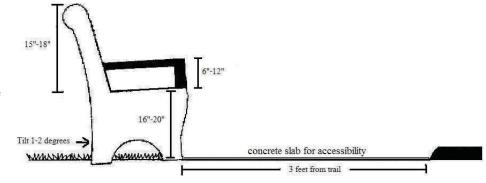
- At major trail access points, motorized vehicle parking may be provided.
- Parking lot specifications should follow the agency's adopted parking specifications.

## Landscaping

- Landscaping at trail heads and along trail corridors should be in reference to the agency's landscaping ordinance.
- Wherever feasible, use noninvasive native plant species without invasive roots.
- Vegetation may be planted beyond the grading area to discourage users from wandering beyond the trail boundary.
- Trees and shrubs should be set back at least 5 feet from the trail's edge.
- Where trail users would be exposed to increased wind, sun exposure, or snow, it is recommended to plant evergreens on the north side of the trail and deciduous trees on the south side of the trail (Evergreens will serve as a windbreak year-round, and deciduous trees will provide shade).
- Trees and shrubs may be planted in clusters and groves rather than in straight lines to break up the viewshed and add visual interest.

#### **Benches**

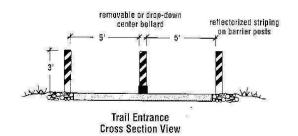
- Benches may be placed at rest areas along the trail and at trailheads.
- All benches should meet or exceed ADA accessibility requirements.
- Benches should be set back three feet from the trail edge.
- Bench back should be tilted at a slope of 1 to 2 degrees to prevent standing water
- Bench Dimensions:
  - Length should be 72 to 90 inches.
  - Seat should be 16-20 inches above the ground.
  - Back supports should be 15 to 18 inches high and extend the full length of the bench.
  - Armrests should be provided on both ends of the bench, 6 to 12 inches above the seat.

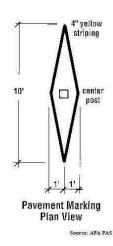


#### **Bollards**

Bollards are posts or other forms of barricades that prevent unauthorized vehicles from entering a trail.

- Bollards should be placed 10 feet from the road.
- The bollard post should be permanently reflectorized for nighttime visibility and painted a bright color for improved daytime visibility.
- A clearance of at least 32 inches wide should be provided for wheelchair access.
- When more than one post is used, 5-foot spacing is recommended.
- The recommended height for bollards is 3 feet.
- Bollards should be designed to be removable for maintenance and emergency vehicle access.





## **Drinking Fountains**

- Adults: spigot height should be 42 inches above the ground.
- Children: steps should be provided for children to access adult spigot.
- Accessible: spigot should be no higher than 36 inches, with at least 27 inches below the basin.

## Lighting

- Pedestrian level lighting may be used on Champaign County trails where nighttime accessibility is desired.
- The average maintained horizontal illumination level should be 0.5 foot-candle to 2 foot-candles.
- Lighting should be at the pedestrian scale.
- Lighting is recommended for long overpasses and tunnels.

## Trash Receptacles

- Trash receptacles may be located at trail entrances and bench seating areas.
- Trash receptacles should be set back at least 3 feet from the trail edge.
- The container should be secured to a buried concrete slab.
- Dog cleanup facilities should be located at trailheads.

#### Accessible Bathroom

- Accessible bathrooms may be located at major trailheads for trail users' convenience.
- Bathrooms should meet or exceed ADA accessibility requirements.



Logos & Signage

## Logos and Signage

The creation of a countywide logos and signage system is another step in the implementation of the 2004 Champaign County Greenways & Trails (G&T) Plan. Once implemented, these logos and sign types will help create a recognizable and consistent system of greenways and trails of which Champaign County can be proud.

## Methodology

Staff worked with all G&T agencies through the G&T Technical and Policy Committees to update the Champaign County Greenways & Trails Logo and determine uses for the logos. Staff also researched sign types from other greenways & trails plans and systems throughout the country, and worked with the Committees to create signage types for different uses, with the goal of signs being cost-efficient and long-lasting.

## Approval and Amendment to Design Guidelines

The Greenways & Trails Logos and Signage were approved by the G&T Technical Committee in January 2009, and by the G&T Policy Committee in April 2009. Both committees also amended the Greenways & Trails Design Guidelines document in April 2009 to include the final Logos and Signage as part of the document.

## Logos

The Greenways & Trails logo should be used as so for the following purposes:

- Logo should include borderlines for letterhead usage.
- Logo should have no borderlines for signage usage.
- Logo should have white border when placed on green signage.

## Signage

#### **Dimensions**

The following are dimensions for each Greenways & Trails sign type in height by width format.

```
Oval Sign:
15" x 11"

Mile Marker Sign:
18" x 9"

Point of Interest Sign:
18" x 36"

Map Sign:
24" x 36"

Arrow Sign:
7.5" x 11"
```



Greenways & Trails Letterhead Logo

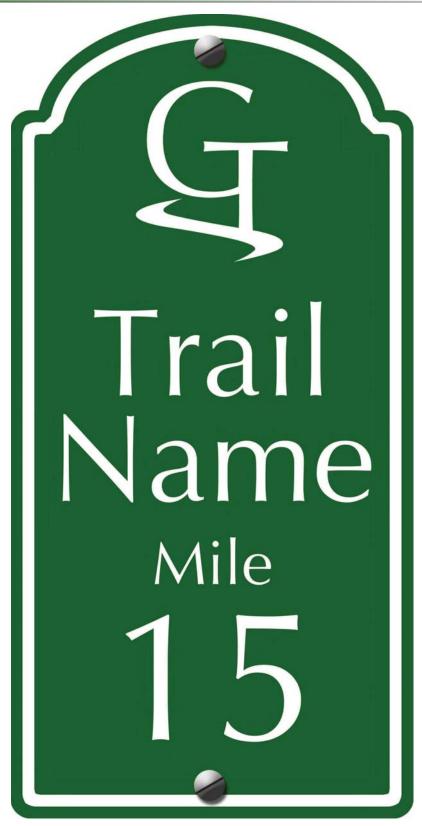


## Greenways & Trails Signage Logo

Note: Logo should have white border when placed on green signage.

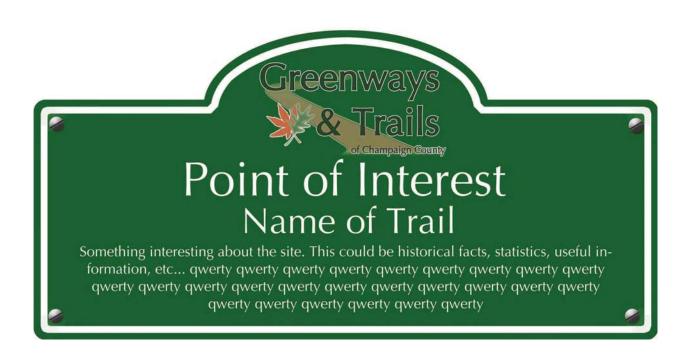


Greenways & Trails Oval Sign with Stamp Logo Sign Dimensions: 15" x 11"



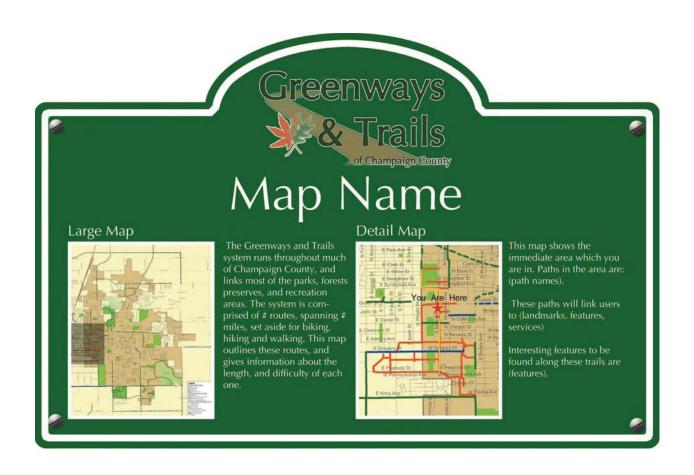
Greenways & Trails Mile Marker Sign

Sign Dimensions: 18" x 9" Logo: Stamp



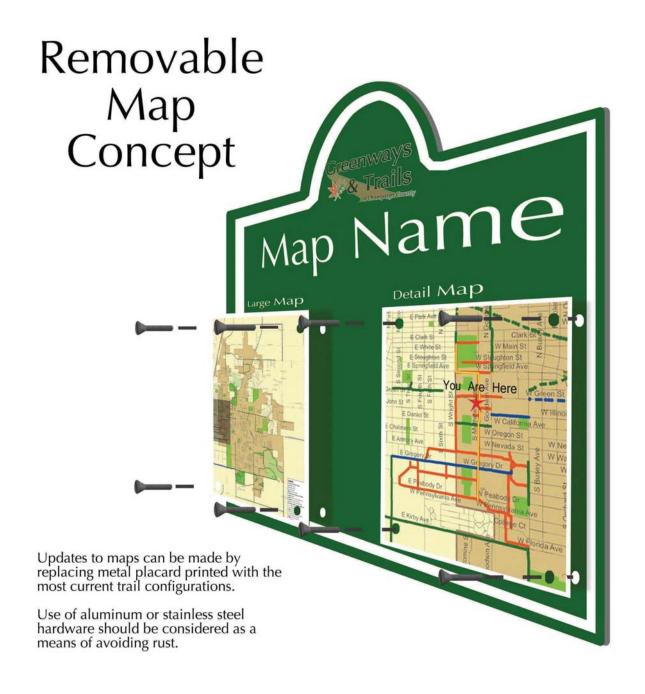
## Greenways & Trails Point of Interest Sign

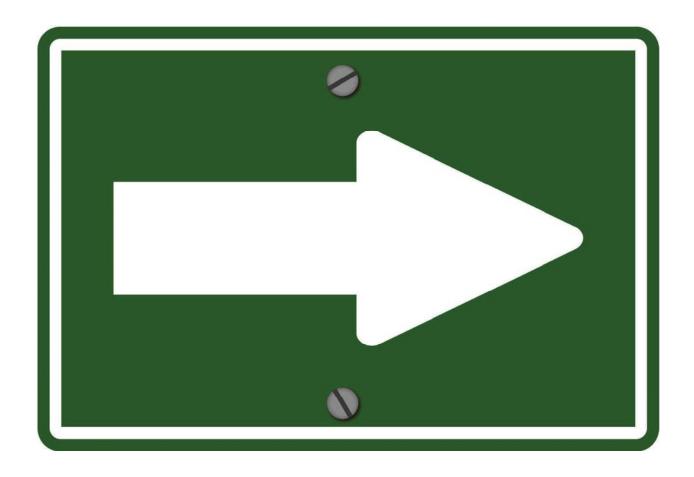
Sign Dimensions: 18" x 36" Logo: Signage



## Greenways & Trails Map Sign

Sign Dimensions: 24" x 36" Logo: Signage





Greenways & Trails Arrow Sign
Sign Dimensions: 7.5" x 11"

## Glossary

Accessibility — The extent to which facilities are barrier- free and usable by people with disabilities, including those using wheelchairs

Amenity — A useful or attractive feature or service, for example, leisure facilities

**Bike lane** — The portion of a roadway surface that is designated by pavement markings and signing for the exclusive use of bicyclists

**Bollard** — A vertical barrier installed in the trail surface to prevent unauthorized motorized vehicles from entering the trail.

Clear Zone – An area adjacent to a trail surface that is free of any unyielding obstacle.

Interpretive information — Parts of a trail or recreational facility that offer the opportunity to educate the user on various aspects of the landscape, including native plants and animals, geologic history, local history, and local economy

Intersection — An area where two or more pathways or roadways join together

Nature Trail — Facilities used exclusively by pedestrians, and are typically found in natural areas

New construction — A project in which an entirely new facility is built from the ground up or where a new facility is added to an existing facility

Obstacle — An object that limits the vertical passage space, protrudes into the circulation route, or reduces the clearance width of a sidewalk or trail

**Pedestrian** — A person who travels on foot or who uses assistive devices, such as wheelchairs, for mobility

Rest area — A level portion of a trail that is wide enough to provide wheelchair users and others a place to rest and gain relief from the prevailing grade and cross slope demands of the path

**Rub Rails** – Attached to barriers, such as guardrails, between a shared-use path and a motorized vehicle lane to give bicyclists a smooth surface to come in contact with.

Shared use path — A trail that permits more than one type of user and that has a transportation and recreation function.

Sidepath — A shared use path that runs adjacent to a roadway

Sidewalk — The portion of a highway, road, or street intended for pedestrians

Trail — A path of travel for recreation and/or transportation within a park, natural environment, or designated corridor that is not classified as a highway, road, or street

Trailhead — A parcel of land specifically designed as primary means of accessing a trail

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