River to River Corridor Transportation and Land Use Study: Final Report

Moline, Illinois

Prepared for:
City of Moline, Illinois

June 2007

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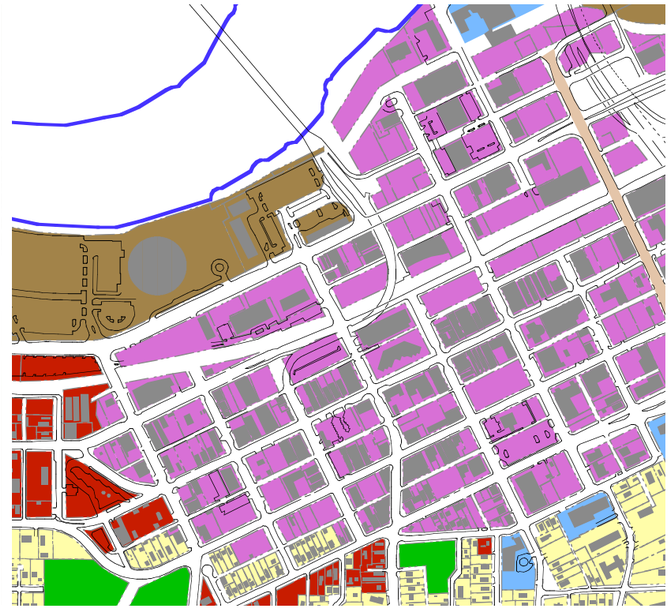
Architecture | Planning | Preservation



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All photos, drawings, and illustrations produced by Farr Associates unless otherwise noted. This report should be reevaluated and revised after 5 years as implementation progresses.

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Cover images, left to right:
•Southbound 19th Street at Avenue of Cities
•South Park Village Redevelopment Vision
•River to River Corridor Community Meeting

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Introduction

The initial phase of this project included gathering and studying background information to provide a full picture of the study area in particular, and the City of Moline in general. This information was used throughout the process, informing the plan and interaction with the City of Moline and its residents.

Introduction
Executive Summary

The 19th/27th Street corridor, or River to River Corridor, starts in downtown Moline as 19th Street, near the Mississippi River. It continues south through residential and greenway areas, closely following I-74. North of John Deere Road, the corridor veers west of I-74, where it becomes 27th Street. After 27th Street crosses the Rock River, it passes the Quad City International Airport and merges with Highway 6.

The River to River Corridor has significance to the City of Moline as a vital economic and transportation link. It connects downtown Moline with residential neighborhoods, shopping districts, the Quad City International Airport, and is the gateway across the Mississippi River into Iowa. It has certain obstacles as well. It is not conducive to pedestrian or bike travel and presents some aesthetic challenges, particularly at the south end of the Corridor.

For these reasons and many more, the City of Moline, with a grant from the Illinois Department of Transportation, decided to conduct a study to better understand these issues, and how they might be overcome. This report is particularly focused on improving pedestrian access and circulation to and along the corridor, and enhancing the look and feel of the corridor. It also explores the possibility of constructing a River to River Trail along the Corridor, providing a north-south link between the Great River Trail and the Kiwanis Trail.

Viability and Importance of a Trail

This report concludes that a trail is appropriate for the River to River Corridor. In most places, a trail can be constructed on both sides of the corridor, within the existing right-of-way, without having to purchase additional land. The River to River Corridor also has the unique opportunity to take advantage of a new pedestrian crossing being proposed with the realignment of I-74. The River to River Trail will allow Moline trail users an interstate connection across the Mississippi River to Iowa, as well as invite Iowans to cross into Moline to take advantage of its trails and other activities.

Competitive Edge among the Quad Cities

In a competitive market like the Quad Cities, it is important for cities to set themselves apart from each other, creating an identity and feel all their own. The City of Moline must find ways to gain a competitive edge as a vital, appealing place that will continue to attract residents and visitors.

A superior quality of life is one way for Moline to increase its standing among the Quad Cities. It is not enough to find a safe, agreeable place to live. Increasingly, people are searching for places to call home that also boast diverse opportunities for leisure, entertainment, and recreation. By making a commitment to increasing these opportunities, as this report recommends, Moline will rise to the top of the list of desirable places to live in the Quad Cities area.

Cities increasingly rely on a high quality of life to compete. Readily accessible recreation is one factor.

Changing World, Changing Values

In recent years, childhood obesity rates have skyrocketed, causing schools, parents, and cities to question how current practices have exacerbated the problem, and what solutions can be implemented to alleviate it. Additionally, rising gas prices and fear of the cumulative effects of years of fossil fuel dependence and depletion have made it clear that reliance on private vehicles must be decreased.

Cities will have to find ways to supply families with recreational opportunities, encouraging a more active lifestyle and all the health benefits that come with it. While the City of Moline already has several trails, the addition of the River to River Trail will increase opportunities for recreation, particularly for nearby residents. The Trail will provide new connections to parks, promoting use of the Trail to reach them.

The Trail will also provide a new option for reaching commercial or other destinations along 19th/27th Street. Not all employees who work along the corridor will choose to walk or bike to work, however, the ability to do so will likely attract some of them to take advantage of the cost savings and personal benefit of using the trail. This could be particularly true for younger people or people without private vehicles.

Connectivity and High Quality Urban Design

When designing a walkable community, two very important factors must be considered: connectivity and the quality of the pedestrian experience. Connectivity refers not only to other trails or activity areas to which a given path leads, but also connection to the surrounding neighborhoods and pedestrian network found there. In this report, an analysis was conducted to assess the connections that can be made to the corridor from existing residential neighborhoods. These connections helped determine the location of the trail, and where improved connections are needed.

It is not enough to simply provide sidewalks and claim that a pedestrian friendly environment has been achieved. Just as important as safe, well connected walkways is the adjacent development. A well-traveled path, be it a sidewalk or a trail, offers interesting scenery that is interactive and rewarding. Pathways lined with parking lots, tall fences, or blank, windowless walls are avoided because they are boring and uninspiring. A sidewalk lined with businesses, display windows, residential front yards, or community parks is a prized pathway that compels people to walk and explore.

Redevelopment with high quality urban design will create a unique destination attracting residents and businesses alike.

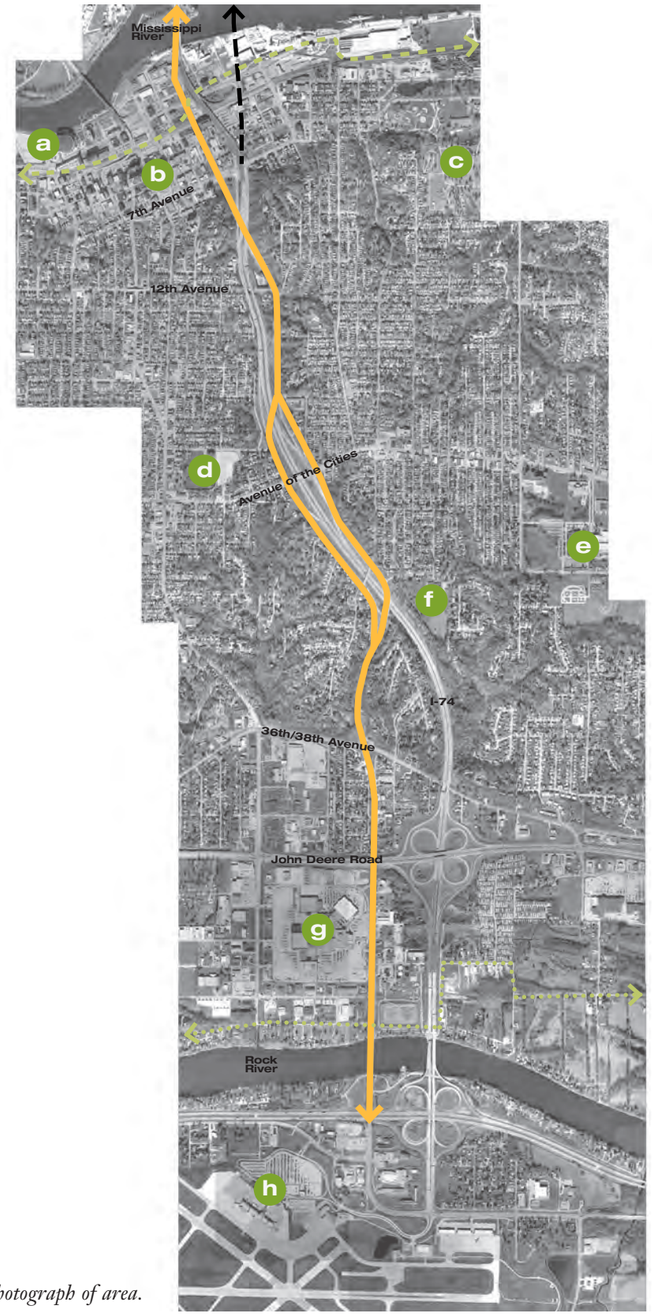
Success

Achieving the goals of this plan will require dedication and enthusiasm on the part of the City of Moline. Projects like these do not happen spontaneously, but rather as the result of the tenacity and prudence of all involved.

By conducting this study, the City of Moline has shown its commitment to improving the lives of its citizens through its continued dedication to enhancing its images and amenities. Through public meetings and outreach, citizens have been educated about the benefits of a healthy, active lifestyle, and the role that their physical surroundings can play in achieving that lifestyle. Creating awareness and bolstering participation of residents in this process will only assist in achieving the goals of this report. Residents can play an active role in moving this report forward to reality.

The City of Moline will need to partner with various organizations and individuals to initiate the project and the various tasks involved. These partners will also bring their expertise and energy to the plan, increasing the likelihood of making the vision a reality.

When this plan is fully realized, the result will be a beautiful, multi-use trail that will provide essential connections to both rivers, other trails, commercial districts, and other similar options in Iowa. The City of Moline will lead the Quad Cities in a high quality of life for all its residents.



Aerial photograph of area.

north

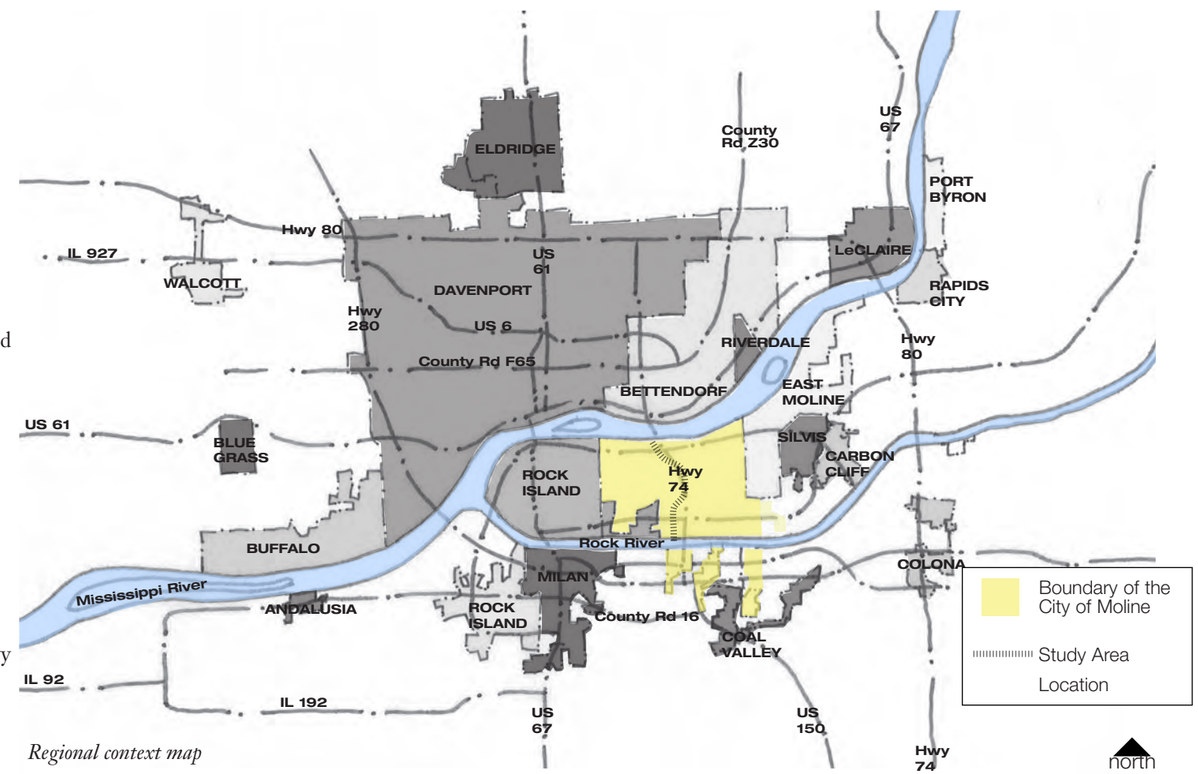
- a The Mark
- b Downtown Moline
- c Riverside Park and Cemetery
- d Browning Field & Warton Field House
- e Moline Alternative School, Roosevelt School, & MHS
- f Thomas Jefferson Childhood Center and Jefferson Park
- g South Park Mall
- h Quad City International Airport
- River to River Corridor
- Future I-74 Realignment
- Great River Trail/Ben Butterworth Pkwy
- Kiwanis Trail

Study Area

The River to River Land Use and Transportation Study (Study) is primarily focused on the 19th/27th Street corridor that starts in downtown Moline and terminates at the Rock River. The corridor starts out as 19th Street, but joins with 27th Street about halfway through, making it the 19th/27th Street corridor. The corridor is also referred to as the River to River corridor because it provides a continuous connection from the Mississippi River to the Rock River.

Purpose of the Study

Farr Associates, along with Fish Transportation Group and Goodman Williams Group, was hired to conduct the River to River Corridor Transportation and Land Use Study. The purpose of the Study is to conduct an analysis of the 19th/27th Street corridor and suggest improvements to the pedestrian access and circulation along the corridor, found in this report. In particular, the report will recommend the location of a trail along the corridor, providing an important missing link in the City's and region's trail system. The 19th/27th Street corridor was identified in the Bi-State Long-Range Regional Plan and supported in the Moline Comprehensive Plan as a missing north-south link in the trail system in the City of Moline.



Regional context map

A working group was established early in the process to help guide the project, and provide local feedback on the recommendations being made. The River to River Transportation and Land Use Study has consisted of many meetings and site visits with the consultant team, city staff, and the working group, as well as other entities involved in the study area. Residents of the area were also invited to provide their input on the future of the area.

Site Visit & Working Group Meeting #1

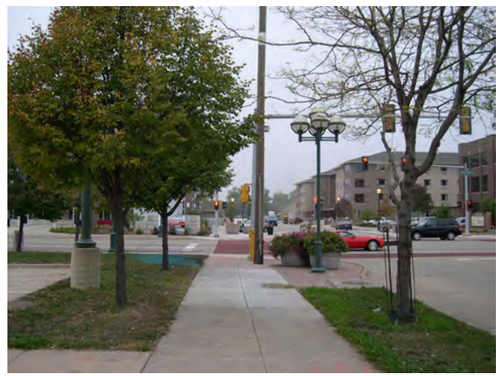
To kick-off the River to River Corridor Transportation and Land Use Study, Farr Associates conducted a site visit and met with the working group. During the site visit, a photographic inventory was taken of the corridor and surrounding areas. These photographs were used throughout the process, in the community meetings, and to clearly communicate various issues along the corridor during meetings and throughout this document. The working group meeting allowed the working group and Farr Associates to become acquainted and to clarify the purpose of the project.

Photograph taken at the Community Meeting #1.

Site Visit, Working Group Meeting #2 and Community Meeting #1

The second site visit included a working group meeting and a community meeting. At the working group meeting, the draft existing conditions analysis maps were presented and reviewed for comment. These maps are included in this document, and illustrate the current status of the corridor in terms of land use, pedestrian amenities, and transportation. The activities for the community meeting were also previewed to the working group.

Approximately 30 Moline residents assembled for this initial community meeting held at the township hall. The goal of the meeting was to solicit input to be included in the proposed plans. An Image Preference Survey (IPS) was conducted to get a sense of the general type of development and trail that would be desirable for the study area. An IPS is a presentation of images gathered from the study area as well as other sites throughout the country. Images are divided into categories relevant to the study area; in this case, the categories were The Corridor Downtown, The Corridor from 7th to 36th/38th Avenues, 36th/38th Avenue to Airport - Pedestrian Paths and Streetscape, 36th/38th Avenue to Airport - Redevelopment Opportunities.



Photograph of a downtown Moline streetscape that scored highly in the IPS.

The results of the IPS revealed resident's opinions regarding the current appearance of the 19th/27th Street corridor as well as their vision for the future. Images that received high scores were those of existing streetscape in downtown Moline, featuring wide sidewalks, grassy parkways, and pedestrian-scaled lighting. These areas exhibit qualities that contribute to a high quality pedestrian experience.

Other images of 19th Street in downtown Moline, however, scored among the lowest. These pictures show wide travel lanes with minimal pedestrian amenities or trees. At the south end of the corridor, images of the drainage ditch and stormwater pipe adjacent to the travel lanes of 27th Street scored poorly. This arrangement was identified as a barrier to redevelopment of the area since it is unattractive and compromises pedestrian connection. Images that scored positively on the south end were pictures of the existing Kiwanis Trail, which provides recreational opportunities along the Rock River.

Photograph of the Kiwanis Trail along the Rock River.

These and all preferences gathered through the IPS were used to inform the planning process and the recommendations outlined in this document.

Consultant Meeting with Illinois Department of Transportation

During the process of creating alternatives for trail placement along the 19th/27th Street corridor, it became apparent that further coordination with the Illinois Department of Transportation (IDOT) would be required. The precise location of the realignment of I-74, particularly downtown, would play a crucial role in determining the path of the trail.

Farr Associates and Fish Transportation Group met with representatives of IDOT to exchange information and better understand the future of the realignment project. The consultant team presented options for future trail placement in the downtown area, walking through each piece in detail so that IDOT could verify whether the trail would be feasible in light of the highway realignment. The recommended trail placement indicated in this document reflects the draft drawings provided by IDOT as of May, 2006.

Working Group Conference Calls

Two conference calls were conducted between Farr Associates and the working group. Both of these conference calls allowed the working group to review draft recommendations for the trail and for the mall redevelopment and provide comments. Information obtained from IDOT regarding the time line of the I-74 realignment and other projects was relayed to both the working group and City staff as well.

Community Meeting #2

On January 11, 2007, a final community meeting was held at the township hall, and a presentation of the plan alternatives was presented. Participants were asked to comment on the contents of the draft report. The comments were reviewed by city staff and have been incorporated into the final document.

Guiding principles were used throughout the planning process to provide a vision for the future of the area. Some of these guiding principles are overall goals, frequently included in planning projects across the country. The remaining principles were specifically created as a response to unique goals for the River to River Land Use and Transportation Study that were identified by the community, working group, and City staff.

Principle #1: Manage Stormwater in a Sustainable Manner

Stormwater management is a particularly sensitive issue for this area, considering both ends of the corridor terminate at rivers. Stormwater has been managed in conventional ways, particularly at the south end. Rather than directing stormwater through pipes and outfalls, it should be dealt with in a more natural way that is also sustainable.

Photograph of drainage ditch and pipe that is typical on the south end of the corridor.

Action 1-1: Construct "stormwater streets" where right-of-way permits.

Constructing streets that manage stormwater may require a paradigm shift from what people are accustomed to, but it is an excellent opportunity to use innovative techniques to manage stormwater and create more green space. Where a right-of-way is wide enough, a large bioswale can be provided in the median. This median can be used to capture and filter rainwater as well as to plant trees that help shade pavement. The "stormwater street" concept is recommended for 27th Street, south of John Deere Road. A consolidated, central median also frees up space along the sides of the right-of way to provide parking and wider sidewalks where necessary.

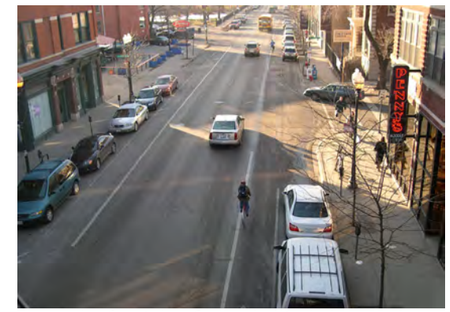
Example of a stormwater park with native plantings.

Action 1-2: Include "stormwater parks" in new developments and open space.

These wide, green areas, typically located within neighborhood street rights-of-way, serve multiple purposes. First, they provide ample park space that can accommodate both passive and active park uses. They can be wide enough to allow for comfortably-sized play areas to be incorporated safely inside. Second, designed appropriately, they can accommodate stormwater from the surrounding properties as well as the street. Open, grassy swales can convey the stormwater while filtering the water through plant materials and allowing maximum dissipation into the ground. They also integrate existing natural resources into the built environment

Principle #2: Create Streets that Safely Accommodate Cars and Pedestrians

Many of the streets along the corridor, including 19th/27th Street itself, have excessive paving widths. This results in wide expanses of empty pavement that encourage motorists to drive at higher speeds, and an unfriendly pedestrian environment that is unwelcoming and dangerous. This will be increasingly important as a trail is incorporated into the corridor. Redesigned streets can supply a full range of transportation options that serve cars, pedestrians, cyclists, and public transit.



Example of a right-of-way that includes travel lanes, bike lanes, parking lanes, parkways, and sidewalks. Street trees are planted in grates to allow for wider sidewalks in this busy pedestrian area.

Action 2-1: Reallocate existing rights-of-way.

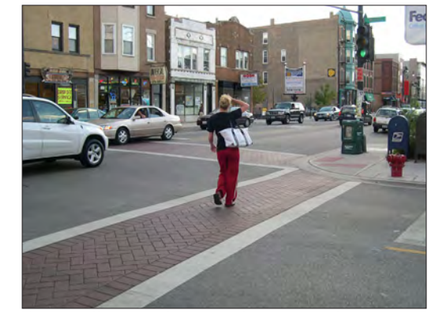
The right-of-way of existing streets should be reallocated, with narrower travel lanes and wider pedestrian areas. Many existing travel lanes are wider than 11 feet, which is the minimum accepted lane width for truck traffic. Reducing lane widths will also help slow traffic along the corridor, which will increase the safety of the road for all modes of transportation. Another benefit to reducing paving widths is the decrease in stormwater runoff during storms.

Action 2-2: Design new streets to encourage pedestrian activity.

New streets should be created using minimum travel lane widths and providing consistent sidewalks and parkways on every street. Travel lanes should be no wider than 11 feet, and parking should be provided on both sides to create a buffer between pedestrians and vehicular traffic. Sidewalks and parkways should each be a minimum five feet. Street trees should be planted in all parkways to provide shade and scale to the street.

Action 2-3: Eliminate yield turning lanes.

At almost every intersection along the corridor, yield turn lanes are provided for right turns. This allows for smooth, uninterrupted vehicular traffic flow, but severely compromises the safety and comfort of pedestrians. Yield turn lanes should be eliminated so that pedestrians and trail users can cross intersections safely, spending as little time as possible maneuvering across travel lanes.



Crosswalks provide safe pedestrian paths.

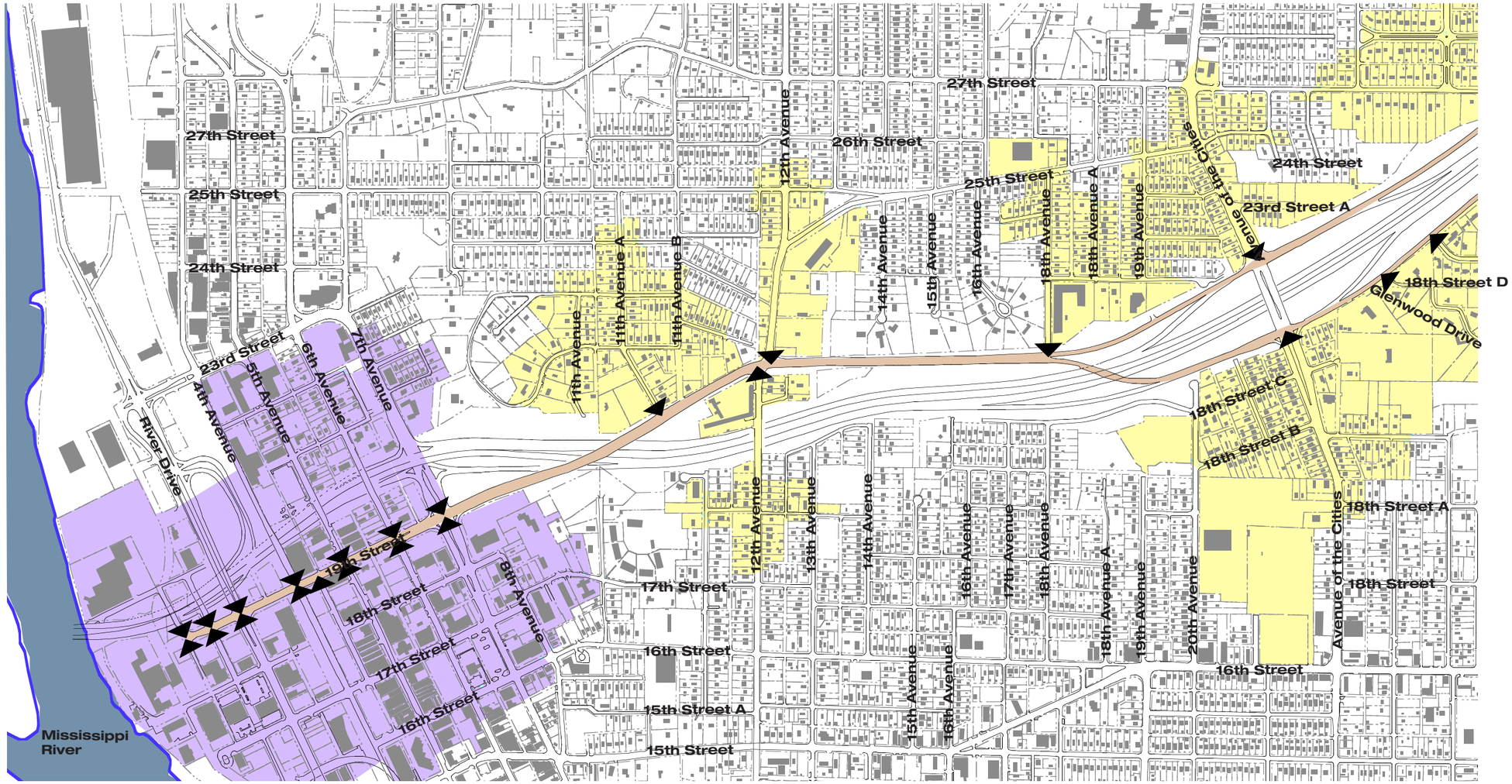
Action 2-4: Provide crosswalks at key intersections.

Intersections are areas that require pedestrians and trail users to cross travel lanes in order to continue on their path. To facilitate the safe crossing of pedestrians, well marked crosswalks should be provided. Crosswalks also alert motorists to the presence of pedestrians.

Existing Conditions

An extensive analysis of the existing conditions of the corridor was conducted. Various aspects were examined in order to understand the current status of the corridor. The following pages show the results of these analyses, and provide an explanation of some of the "on-the-ground" details.

Existing Conditions
Pedestrian Access



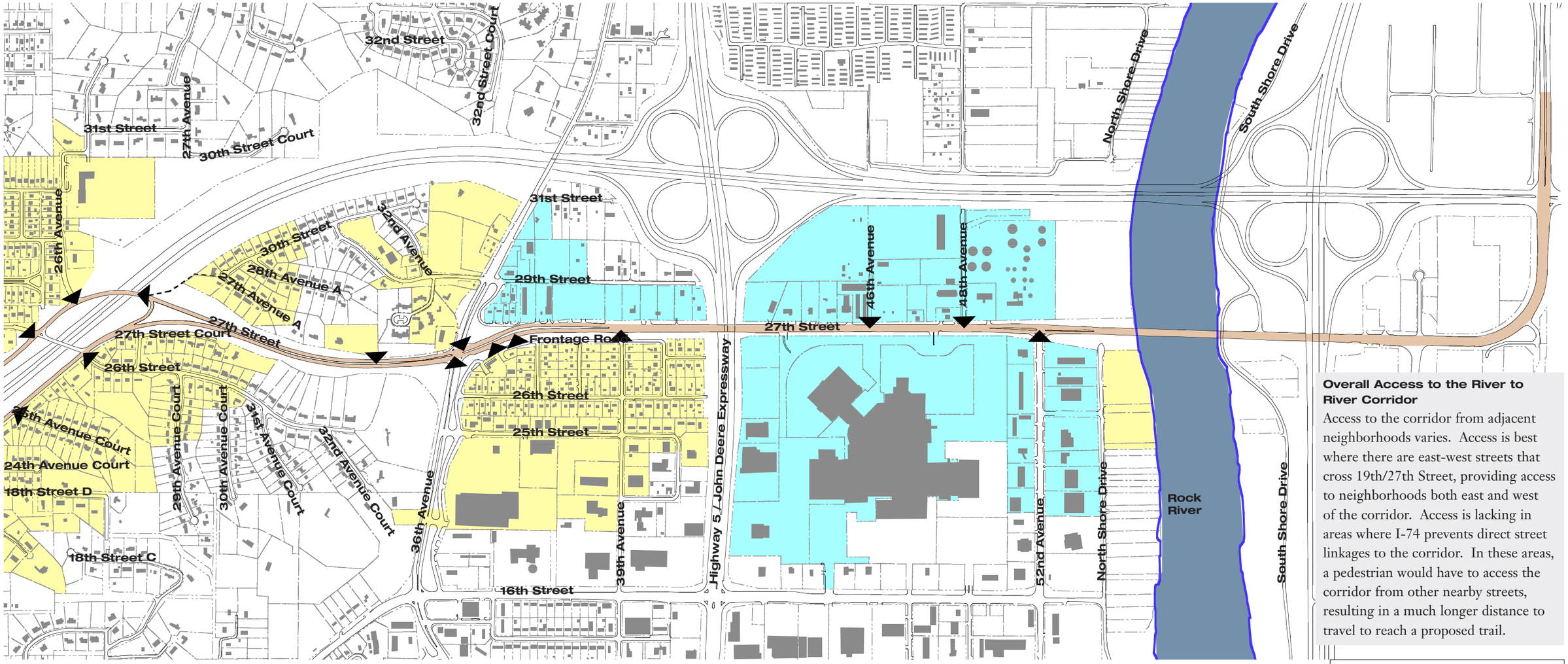
Understanding the existing access points and catchment areas for the corridor is an important aspect in determining the ultimate placement of the trail. For this analysis, access points may be in the form of intersecting roads or pedestrian paths, regardless of the presence of sidewalks or posted speed limits. The catchment areas have been measured in 1/4 mile increments, which is considered a comfortable walking distance. The shaded areas on the map to the right are not exactly 1/4 mile radii, but rather a combination of linear 1/4 mile paths that a pedestrian would take to reach the corridor.

Downtown Access

In downtown Moline, where the development pattern of a traditional downtown grid exists, access to the corridor is evident and uncomplicated. All perpendicular streets have crossings with 19th Street, making it easy for nearby neighborhoods and businesses to reach the corridor.

Access between 7th Avenue and Avenue of the Cities

Access south of 7th Avenue becomes more complicated and less direct. Many of the perpendicular streets terminate before they reach 19th/27th Street, making both access to and crossing beyond the corridor difficult, if not impossible. The corridor is also split around I-74, separating the adjacent neighbors and further complicating access.



Overall Access to the River to River Corridor

Access to the corridor from adjacent neighborhoods varies. Access is best where there are east-west streets that cross 19th/27th Street, providing access to neighborhoods both east and west of the corridor. Access is lacking in areas where I-74 prevents direct street linkages to the corridor. In these areas, a pedestrian would have to access the corridor from other nearby streets, resulting in a much longer distance to travel to reach a proposed trail.

Access between Avenue of the Cities and 36th/38th Avenues

Avenue of the Cities, the major crossing between 7th and 36th/38th Avenues, experiences heavy traffic and lacks pedestrian amenities to make it comfortable for and attractive to pedestrians. South of Avenue of the Cities access is limited due to the varying topography.

Access between 36th/38th Avenue and the Rock River

South of 36th/38th Avenue, pedestrian access to the corridor from adjacent residential neighborhoods is severely limited. Access to commercial entities along this portion of the corridor is excellent, as each businesses has its own curb cut onto 27th Street. Although there are limited residential neighborhoods south of 36th/38th Avenue, options for improving pedestrian access should be explored. Existing activity centers would benefit from increased pedestrian activity, and future changes in land uses may require improved pedestrian amenities.

north

0' 200' 400' 800' 1600'

- 1/4 mile pedestrian access to/from downtown
- 1/4 mile pedestrian access to/from residential neighborhoods
- 1/4 mile pedestrian access to/from commercial destinations

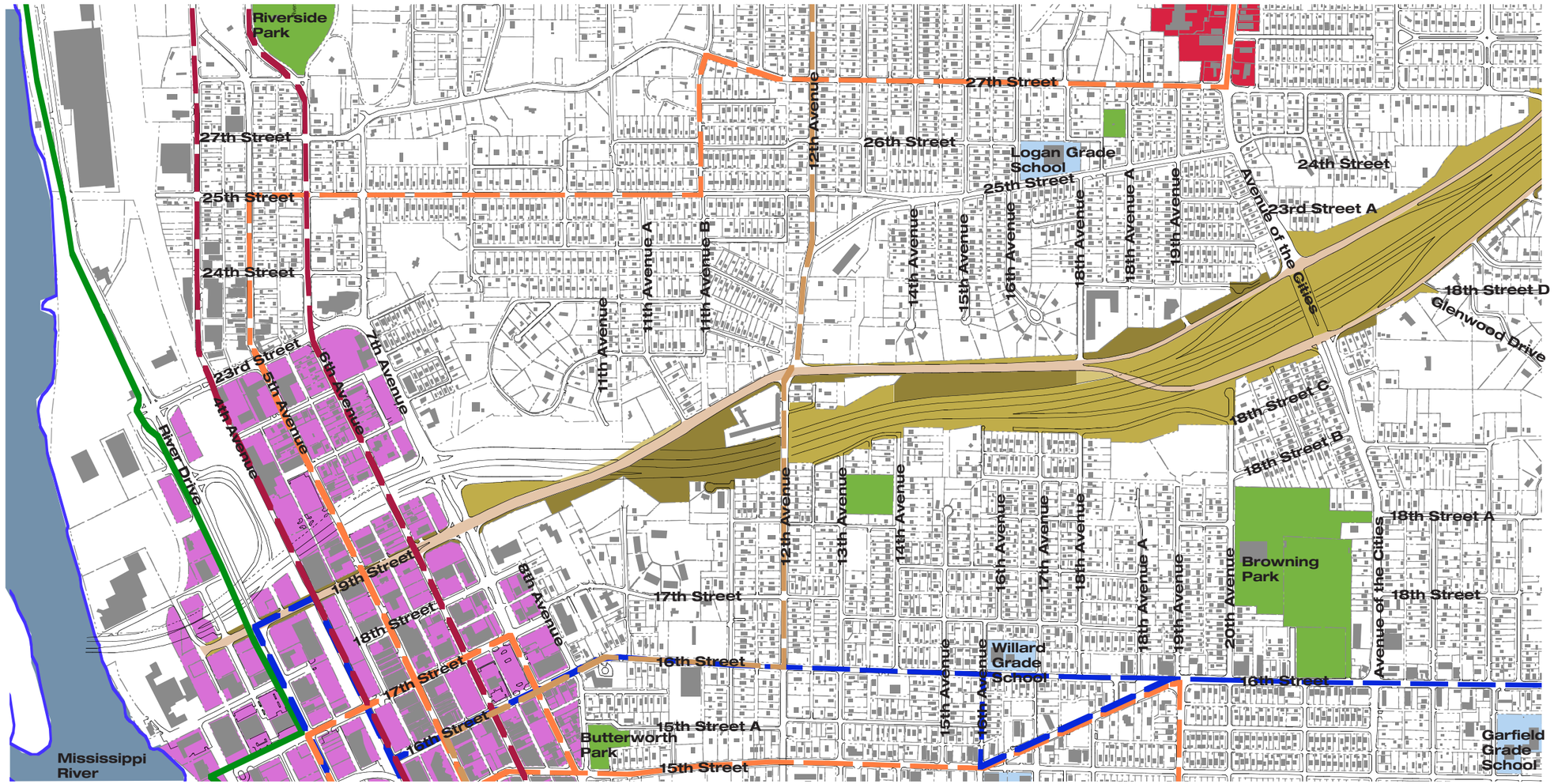
Existing Conditions

Activity Centers, Bus Routes, Trails and Right-of-Way Types

Sidewalks with a traditional parkway are generally located on both sides of the street downtown and in residential areas. The sidewalk between 7th Avenue and Avenue of the Cities switches sides near 18th Avenue.

The majority of the corridor has grass beyond the pavement, with no sidewalks.

South of 36th/38th Avenue, beyond the paving the right-of-way is used to drain stormwater.



This map is a comprehensive look at the places people visit along the 19th/27th Street corridor and the paths they might use to get there, without using a private vehicle. In addition, information is provided regarding the quality of the right-of-way beyond the paving where a pedestrian or cyclist might travel. The goal is to understand the connections between existing bus routes or trails and activity centers, as well as the existing pedestrian and bike pathways available.

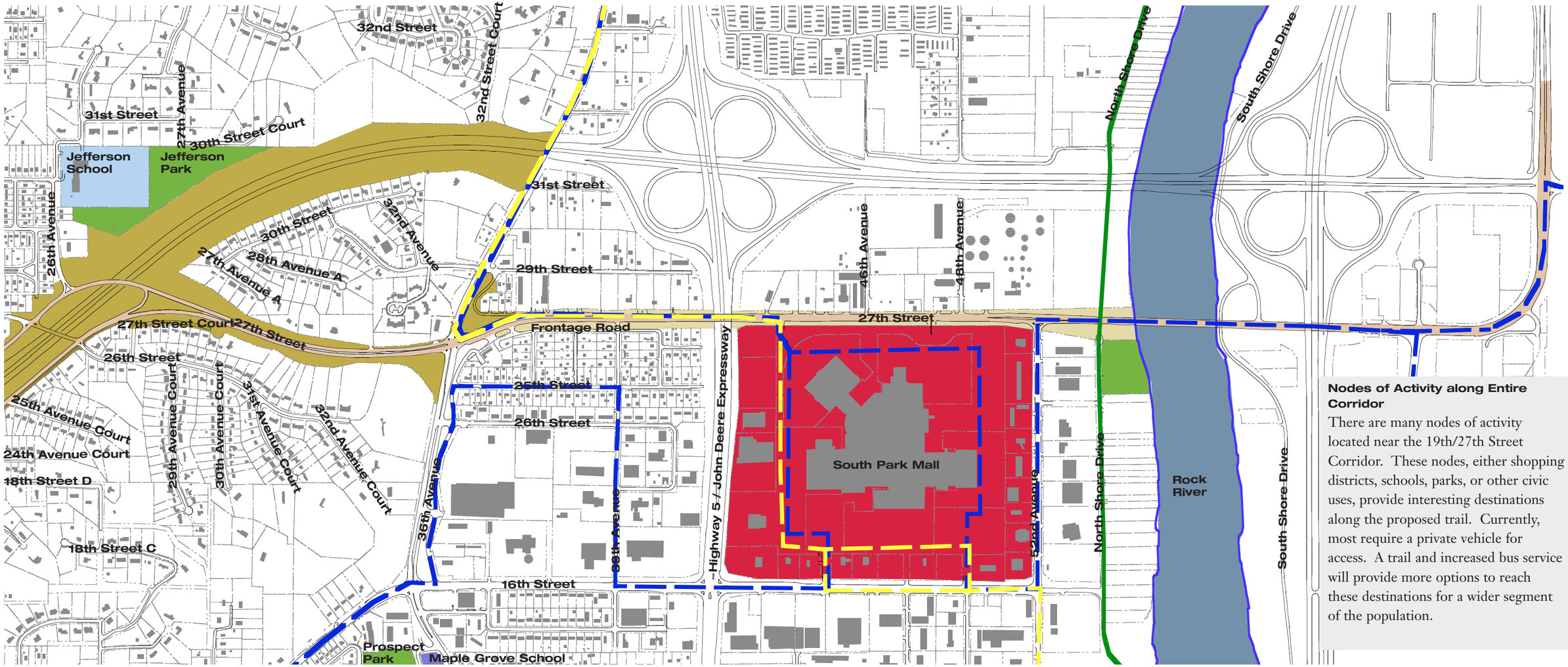
Pedestrians and cyclists do travel the corridor, regardless of the presence of sidewalks. This is not an ideal situation for either, but it highlights the need for a designated travel area for other modes of transportation. The photographs on these pages show the quality of the existing right-of-way that is available for pedestrian and bicycle use.

Overall, bus service is adequate at the north end of the corridor, where several bus routes provide access to and from downtown. There are also two bus lines that provide access to SouthPark Mall, but there are no bus routes that provide a direct link between the two via the 19th/27th Street Corridor.

Downtown

The whole of downtown Moline can be considered an activity center. Civic uses and jobs are concentrated downtown, generating a high level of pedestrian and vehicular traffic. The overall quality of the pedestrian experience is very high.

Downtown Moline is the hub for the public transportation system in the Illinois Quad Cities. Based at Centre Station, public transit operates seven days a week with six routes originating in downtown with 231 buses departing daily connecting Moline and the surrounding communities.



Nodes of Activity along Entire Corridor

There are many nodes of activity located near the 19th/27th Street Corridor. These nodes, either shopping districts, schools, parks, or other civic uses, provide interesting destinations along the proposed trail. Currently, most require a private vehicle for access. A trail and increased bus service will provide more options to reach these destinations for a wider segment of the population.

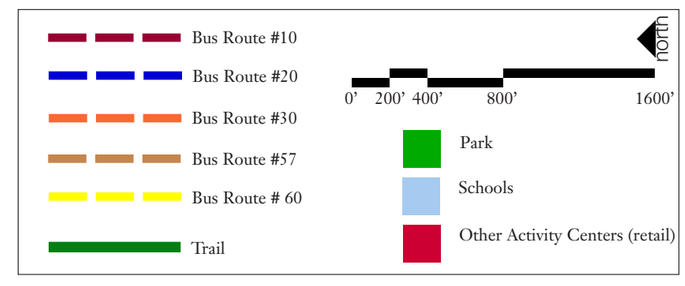
Between 7th Avenue and 36th/38th Avenue

There are several parks and schools in close proximity to the corridor in this section. These activity centers have good connection to the corridor using existing streets, however, the frequent absence of sidewalks makes pedestrian travel difficult. Bus Route 57 crosses 19th Street at 12th Avenue providing service to downtown and Moline Senior High School, the Uptown Library, and John Deere Road retail.

South of 36th/38th Avenue

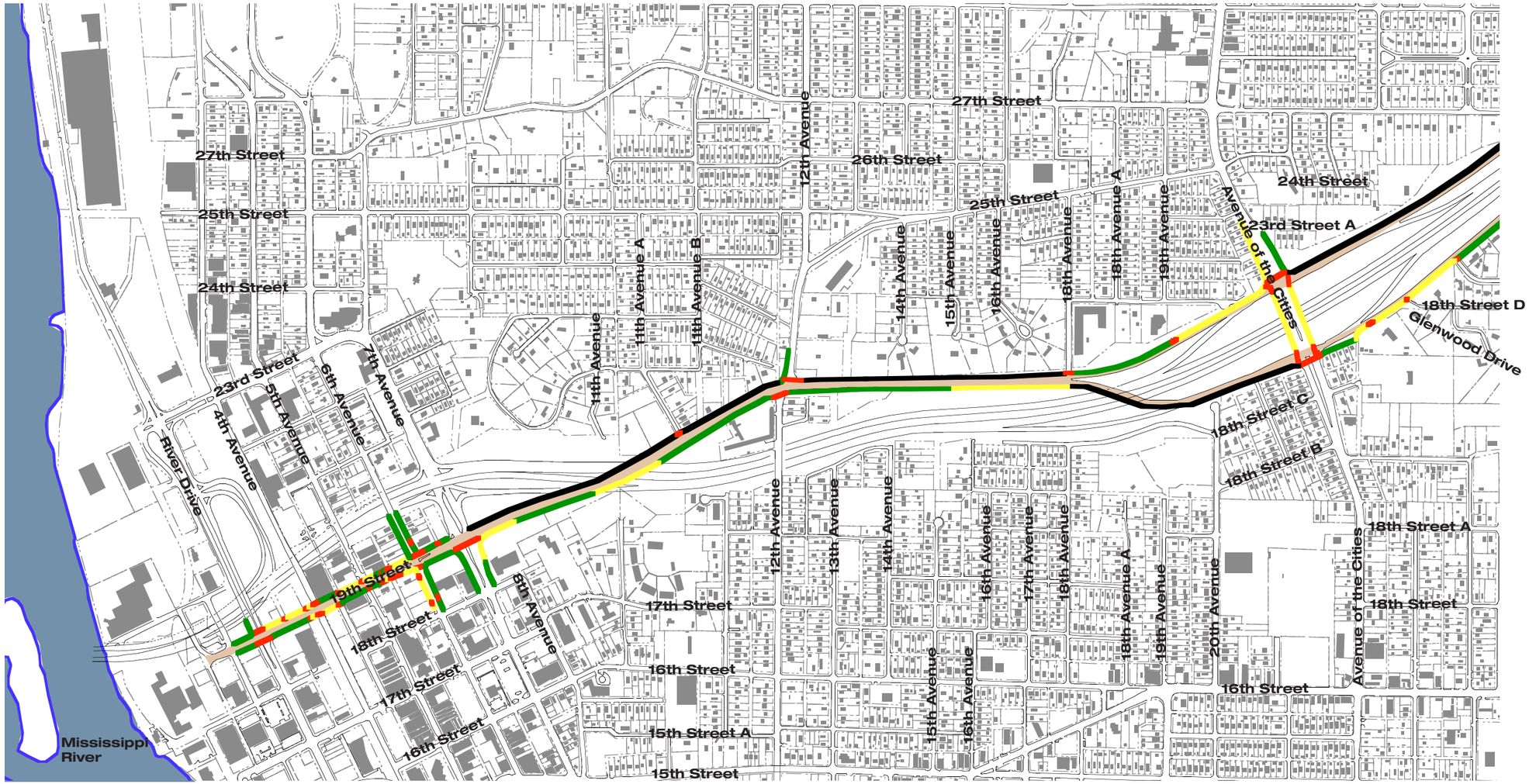
From 36th/38th Avenue to the Rock River, there are two activity centers: South Park Mall and the Rock River. South Park Mall is a major attraction that generates primarily vehicular traffic. Pedestrian amenities are non-existent in this area, as it primarily serves auto-oriented uses. The Rock River and Kiwanis Trail also attract visitors, and improved pedestrian amenities will support these recreational uses.

The SouthPark Mall area is served by two bus routes: Route 20 connecting downtown to the airport and Route 60 connecting the John Deere Road corridor east and west. As the corridor becomes more active, with a wider mix of uses, a bus route along 19th/27th Street should be considered to provide access to existing and future businesses.



Existing Conditions

PedZone Analysis



PedZone is a method for analyzing the quality of a pedestrian experience along streets in a study area. This map shows the completed PedZone analysis for the 19th/27th Street corridor. This analysis was completed using aerial photography to verify the presence of sidewalks and photographic documentation of the pedestrian perspective while present on the corridor.

Color Coding

Red lines indicate areas where pedestrians and vehicles come in direct contact. They are the most dangerous for pedestrians because they are locations where their paths cross.

Yellow lines show areas that are safe for pedestrians, but are not very rewarding. The development along areas in yellow may be set back a great distance from the sidewalk, may have blank facades, or are parking lots. The path is safe, but uninteresting.

Areas in green are the best pedestrian paths, with unobstructed sidewalks and engaging development adjacent. The pedestrian experience is enhanced by the adjacent development, which could be storefronts, parks, or residential yards or buildings.

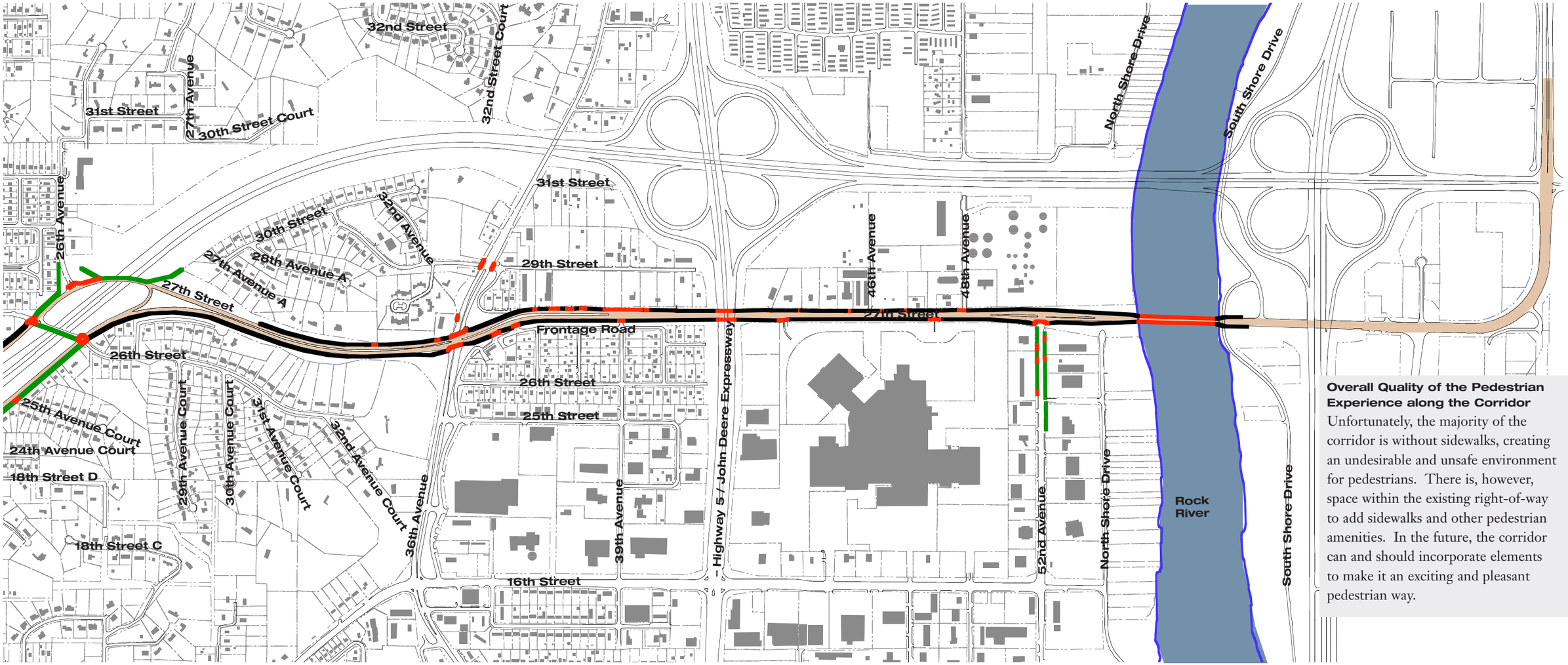
Black lines indicate locations where there is no sidewalk. In some areas, there is a wide shoulder next to the travel lanes, but no sidewalks are included.

Downtown

The quality of the sidewalk is inconsistent on 19th Street in the downtown area. There are many places where the adjacent buildings are auto-oriented uses (i.e. gas station or body shop), and therefore have wide curb cuts and parking lots. In other areas downtown, the sidewalks are well-defined and street trees are planted in parkways.

7th Avenue to Avenue of the Cities

The majority of the sidewalks in this stretch of the corridor were coded green. The sidewalk starts on the west side of the corridor, then switches



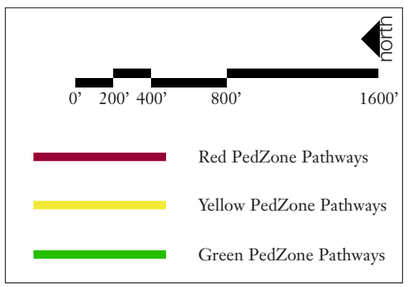
Overall Quality of the Pedestrian Experience along the Corridor
Unfortunately, the majority of the corridor is without sidewalks, creating an undesirable and unsafe environment for pedestrians. There is, however, space within the existing right-of-way to add sidewalks and other pedestrian amenities. In the future, the corridor can and should incorporate elements to make it an exciting and pleasant pedestrian way.

to the east side at 18th Avenue, where the north and southbound lanes of 19th/27th Street split. The opposite side of the street has no sidewalk, and is therefore shown in black. If a pedestrian needed to get to the neighborhoods west of I-74, they would have to get there at 7th Avenue, 12th Avenue, or Avenue of the Cities.

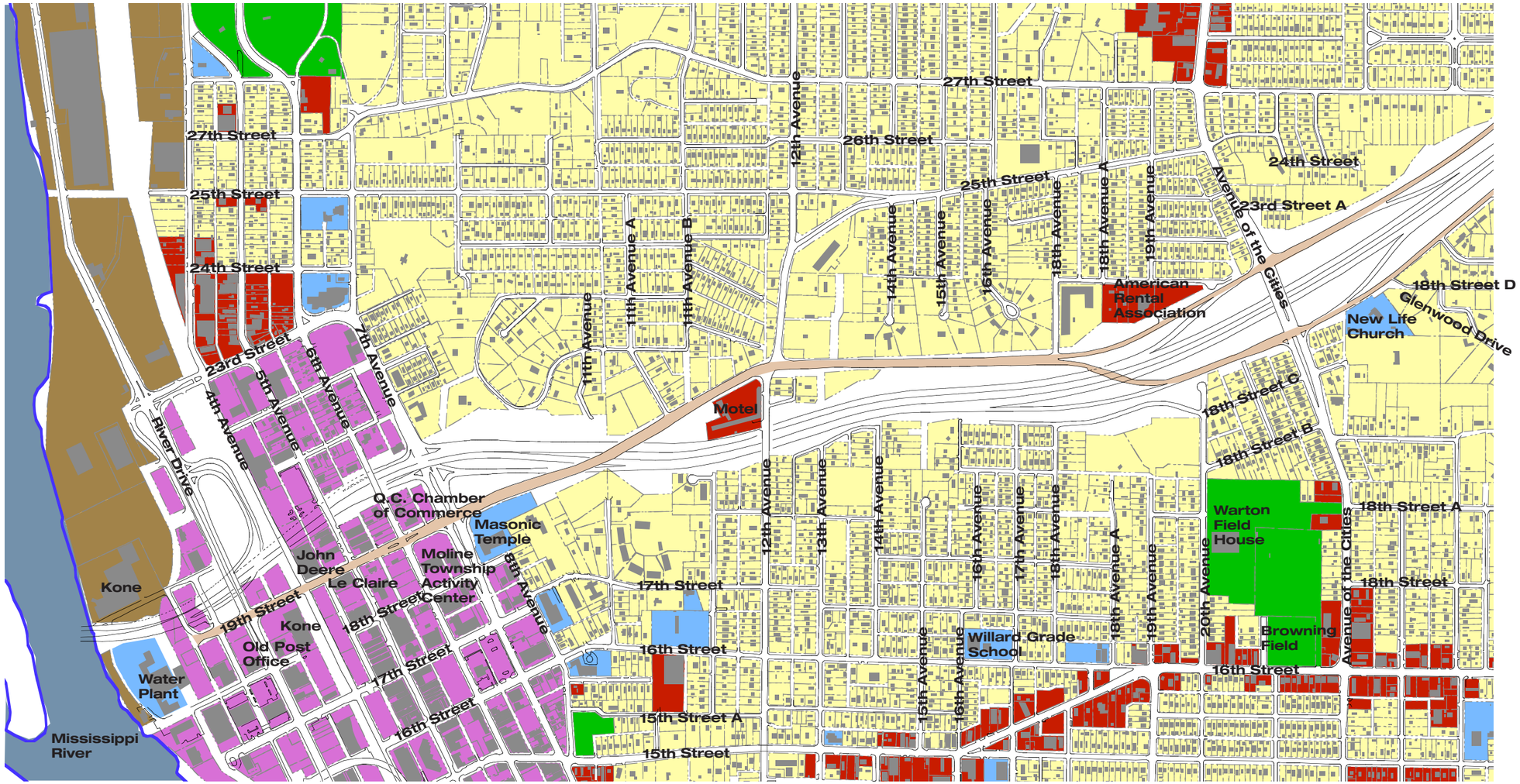
Avenue of the Cities to 36th/38th Avenue

At Avenue of the Cities, the sidewalk crosses over to the west side of the corridor. Areas marked in green are adjacent to houses; front yards are adjacent to the sidewalk. The majority of this area is green since it is largely a single family neighborhood. At the turn-around loop, where the north and southbound lanes of 29th/27th Street rejoin, the sidewalk crosses the bridge structure and continues a short way on the east side of the corridor. It then veers away from the corridor and into another single family neighborhood.

South of the turn-around loop, there is no sidewalk provided on either side of the street. The development in this area is geared towards automobiles, and pedestrian facilities were not included in the construction of streets. The areas in red indicate the large number of curb cuts here, allowing access into each commercial lot. There is no safe place for pedestrians to walk in this part of the corridor. Travel lanes are lined with gravel or paved shoulders and drainage ditches. This segment of the corridor is the most dangerous for pedestrians in its current state.



Existing Conditions
Land Use



This map shows an overview of the land uses that are found along the 19th/27th Street corridor. Generally, commercial, residential and industrial uses are clustered together, and park and civic uses are sprinkled throughout.

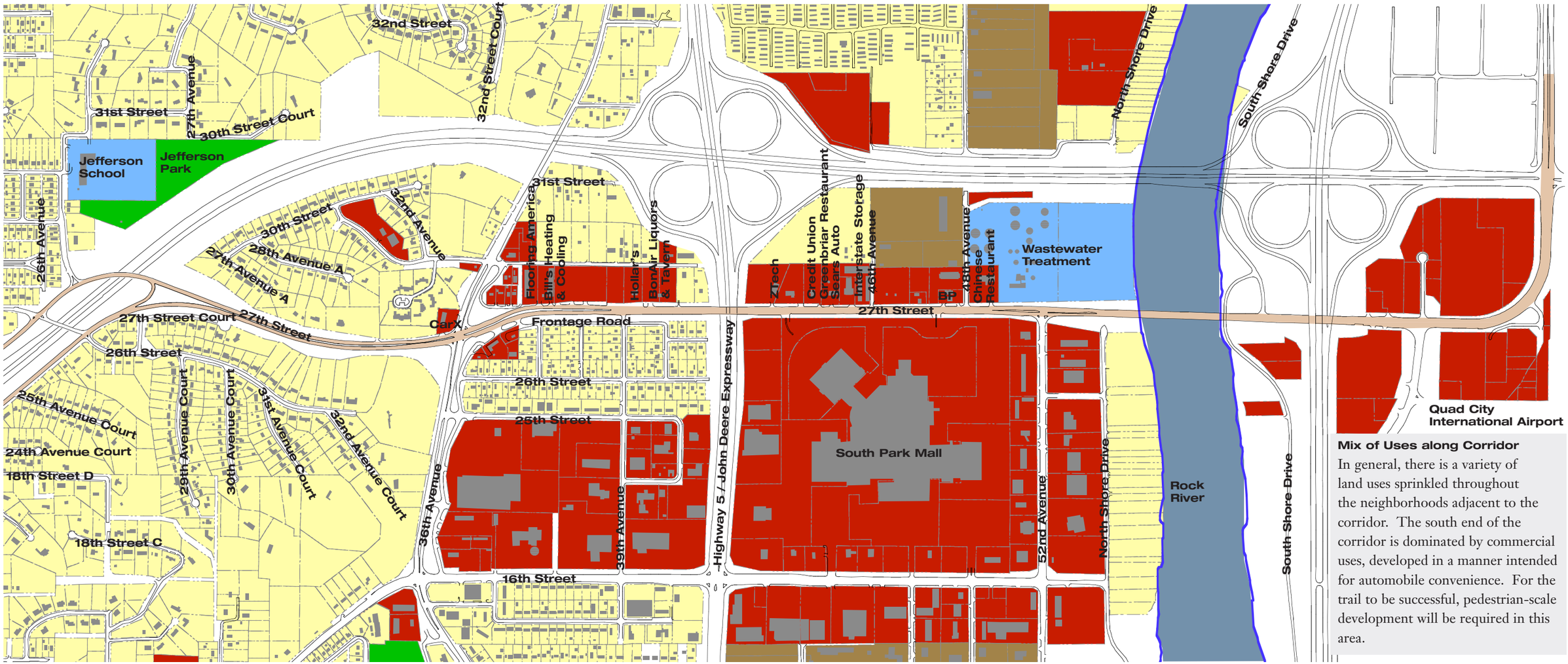
Mississippi Riverfront

Industrial uses are primarily located along the banks of the Mississippi River. Historically, rivers were not prized as natural amenities as they are today, and industry used this location to their advantage to ship goods. There are still active industrial uses here, though some are in the process of relocating.

Downtown

The "downtown, mixed-use" category encompasses a wide range of land uses. Within this category are offices, residences, gas stations, parks, and retail. This is typical of a downtown, where a diversity of uses is necessary to develop a lively town center.

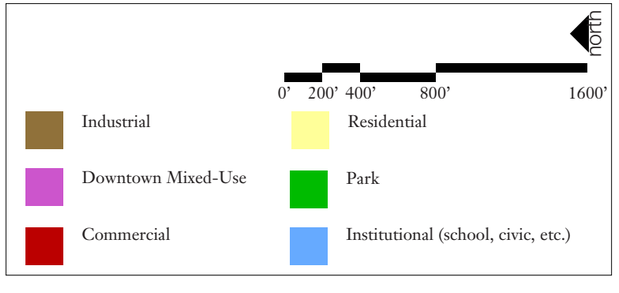
The prevailing development pattern is of a traditional urban nature, with buildings lining the streets and parking lots hidden behind buildings or consolidated in parking structures. This development pattern encourages pedestrian activity, allowing people to walk easily and safely from store to store.



Mix of Uses along Corridor
In general, there is a variety of land uses sprinkled throughout the neighborhoods adjacent to the corridor. The south end of the corridor is dominated by commercial uses, developed in a manner intended for automobile convenience. For the trail to be successful, pedestrian-scale development will be required in this area.

7th Avenue to 36th/38th Avenue
From 7th Avenue south to 36th/38th Avenue, the vast majority of land is used for residential purposes, both immediately adjacent to the corridor and beyond. These neighborhoods contain both single- and multi-family buildings. There are schools and churches located in these communities, as are some smaller pockets of commercial areas. These neighborhoods would greatly benefit from a consistent north-south trail that would provide connection to downtown and the SouthPark Mall area.

36th/38th Avenue to the Rock River
The majority of the land in this area is used for commercial purposes. The development pattern in this section, unlike downtown, is auto-oriented. As shown in the Pedzone Analysis on pages 16 - 17, there are no accommodations for pedestrians here. Buildings are set back from the front property line, with parking provided in the front yard. This is epitomized in SouthPark Mall, where the building is located in the center and is surrounded by an expansive parking lot.



Existing Conditions
Tree Cover

This map shows the existing green areas that have dense tree cover, as mapped using an aerial photograph of the study area. Areas with tree cover are often the most pleasing and enjoyable natural areas in a community, and it is important to note their location for future planning purposes.

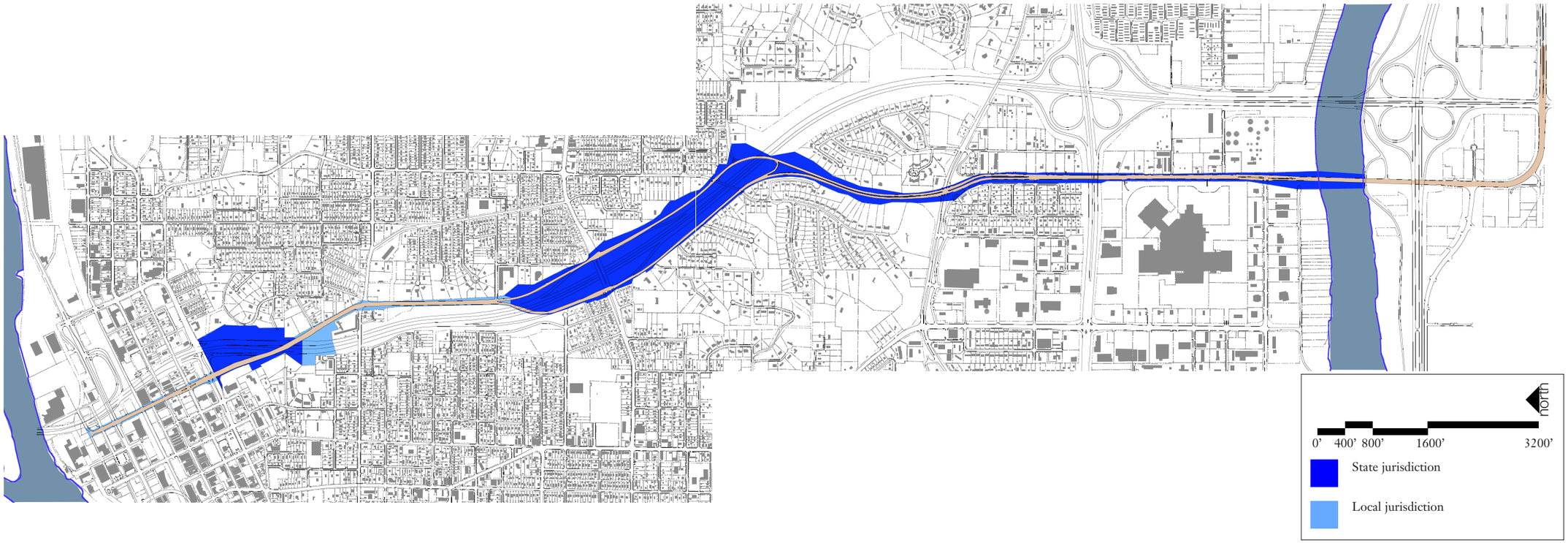
Downtown
The downtown has little tree cover, as expected. Traditionally, downtown areas are filled with buildings, leaving little space for tree density.

7th Avenue to Avenue of the Cities
From 7th Avenue to Avenue of the Cities there is greenway lining much of the corridor, and a medium amount of tree cover as compared to other areas.

Avenue of the Cities to 36th/38th Avenue
The residential areas adjacent to the 19th/27th Street corridor, from Avenue of the Cities to 36th/38th Avenue, have the largest amount of tree cover. The residential parcels here are larger, allowing more space for tree cover to fill in. There is nearly continuous greenway on the east side of the corridor in this section, but not along the west.

36th/38th Avenue to Rock River
South of 36th/38th Avenue there is no tree cover, as mapped from the aerial photograph. The land uses here are largely commercial, where tree cover and green space was traditionally not required or valued.

Overall Tree Cover
Tree cover along roughly the northern two-thirds of the corridor is dense and consistent, with the exception of downtown. The southern third of the corridor is severely lacking any tree cover, an issue that will need to be addressed to help green the corridor and give the trail a more natural feel.



An examination of road jurisdiction is key to learning who to partner with to encourage improvements. All involved parties should be included in the implementation of the plan, and funding sources for improvements may vary as a result.

Downtown to 12th Avenue
19th Street is under local jurisdiction from its genesis to 7th Avenue. At 7th Avenue, the width of the I-74 right-of-way expands to include 19th Street, which puts it under state jurisdiction. Approximately halfway between 7th and 12th Avenues, I-74 curves west, and the corridor is under local jurisdiction again.

12th Avenue to the Rock River
The corridor continues to be under local jurisdiction south of 12th Avenue, where it is completely separate from I-74. At 18th Avenue, the north and southbound lanes of 19th/27th Street split around I-74, and it remains under state jurisdiction south to the Rock River.

Primarily State Jurisdiction
The majority of the corridor is under state jurisdiction, due to the presence of I-74. This will require coordination with the Illinois Department of Transportation in order to make any changes to existing right-of-way configurations or the addition of a trail. The remainder of the corridor is under City jurisdiction, requiring only in-house coordination.

River to River Corridor Transportation Improvements

The following section provides options for trail placement along the 19th/27th Street corridor. Recommendations for intersection improvements, curb revisions, and street sections are also included.

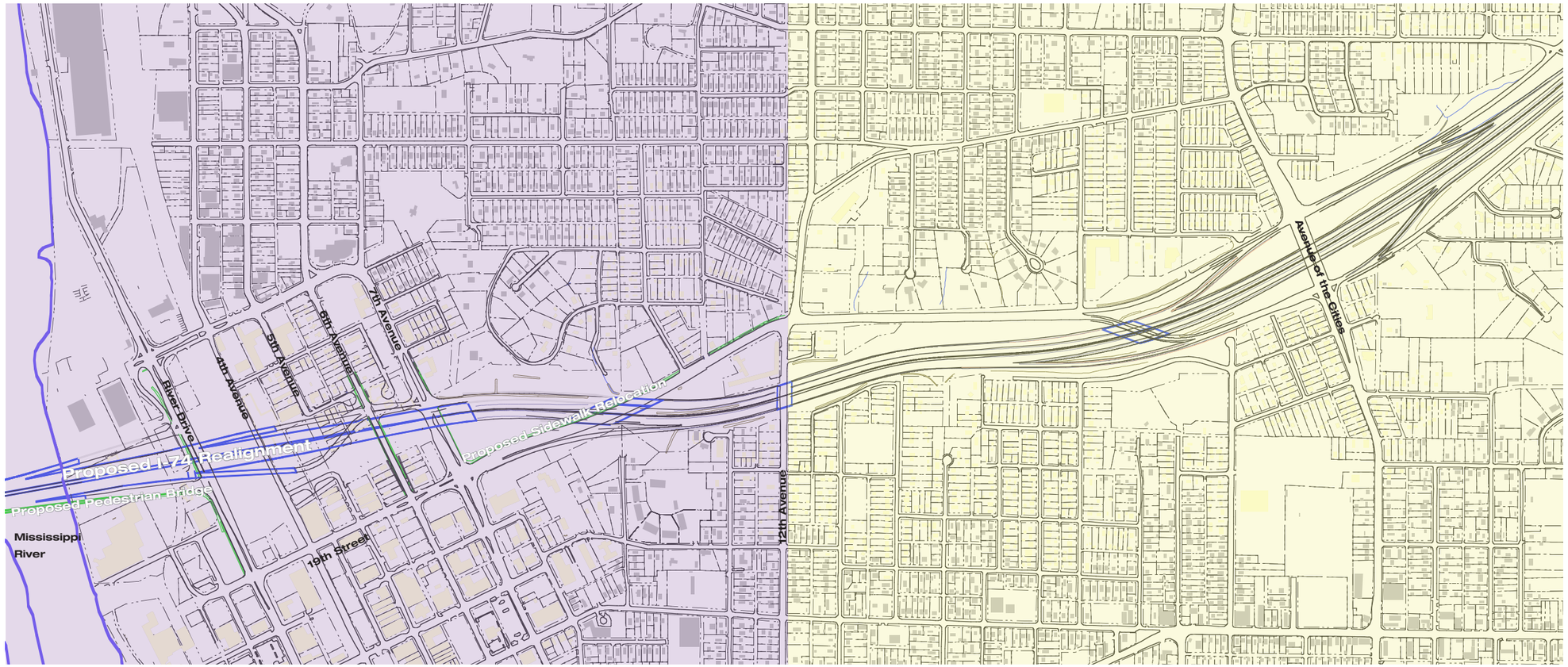
Option 1 is intended to be a short term option and as such, seeks out solutions that require the least negotiation with private property owners and the fewest changes to the existing roadway structures and intersections throughout the corridor.

Phase 2 is not shown as a separate option, but rather as an intermediate step to consider as resources become available. It can be completed in conjunction with Option 1 or separately, and will advance the trail towards Option 2. Phase 2 is not shown in all areas, but rather in those places where an intermediate option could enhance the overall trail. Some negotiation with private entities may be required.

Option 2 is the full build out, to be considered the long term goal for the corridor in the future. The viability of Option 2 depends upon the reconstruction of various roadway structures along the corridor as well as the redevelopment of key areas at the south end of the corridor.

River to River Corridor Transportation Improvements

Overview



The corridor was broken into three subareas to help organize drawings and formulate alternatives. The three subareas are: Downtown, from the Mississippi River to 12th Avenue; Greenway, from 12th Avenue to 36th/38th Avenue; and South Park Village, from 36th/38th Avenue to the Rock River.

Moline Centre

Downtown Moline, or Moline Centre, will see significant change in the future, due to the proposed changes to I-74 as it travels through downtown Moline and across the Mississippi River to Iowa. The relocation of ramps and travel lanes through downtown will have large impact on the shape of downtown, as well as the options for including a trail in the 19th/27th Street corridor.

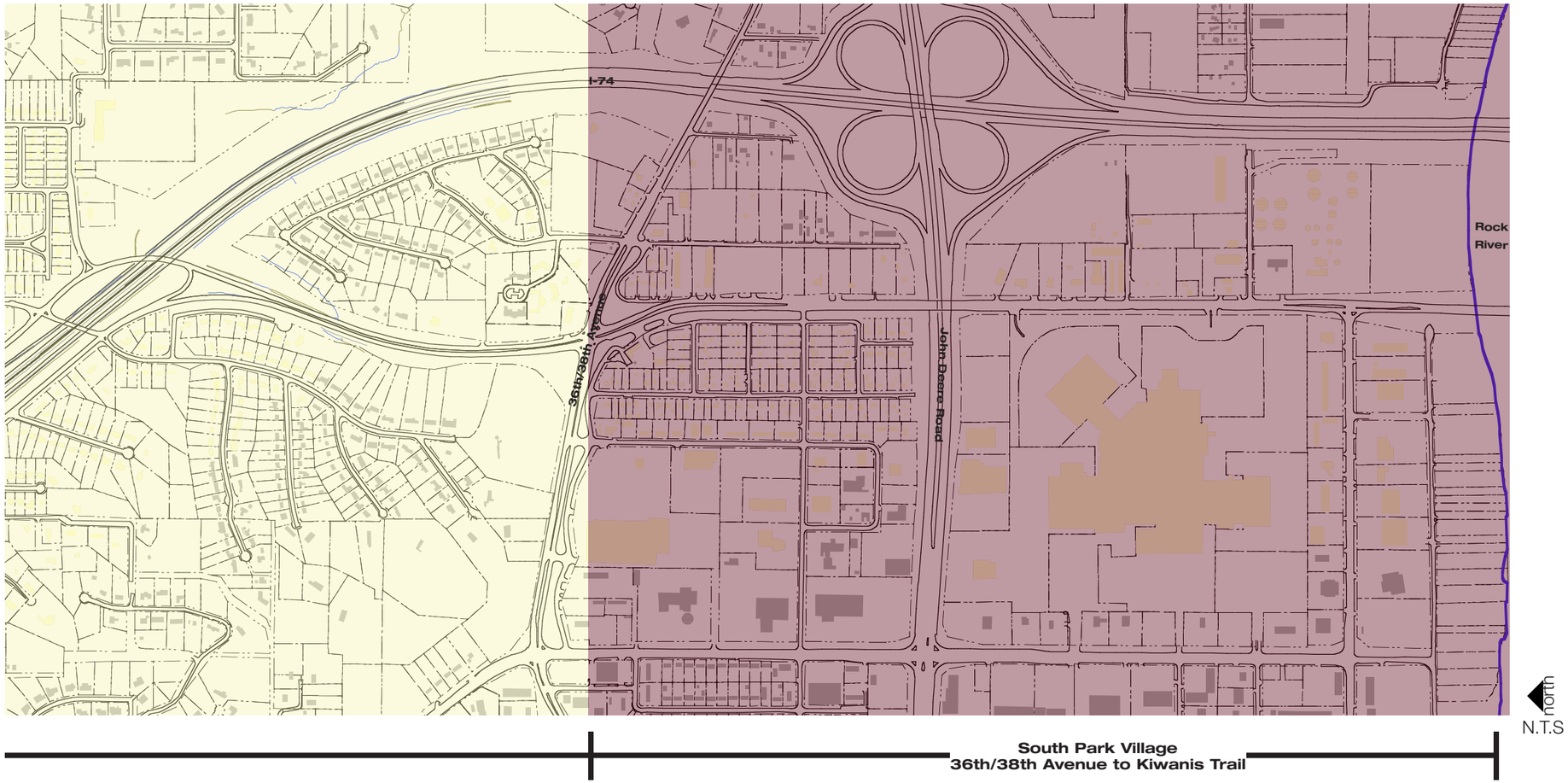
The proposed trail downtown takes advantage of the right-of-way that will be vacated with the I-74 realignment project. This vacated land provides a unique opportunity to provide a trail in an urban area that is off-street. The remaining vacated right-of-way can be used to provide additional open space.

Greenway

The Greenway subarea is dominated by single family neighborhoods, but is separated by I-74, which occupies a large swath of land in the center. The north and southbound lanes of 19th Street split, with the northbound lanes on the east and the southbound lanes on the west side of I-74.

The Greenway subarea includes Avenue of the Cities, an important east/west connection to and through the City of Moline. Currently, the pedestrian facilities on the bridge are minimal, making the bridge a daunting structure to cross. Recommendations are included for both short and long term options to vastly improve the pedestrian friendliness of this bridge.

South of Avenue of the Cities, at 26th Avenue, the separated lanes of 19th Street reunite to form 27th Street as the corridor continues southward to 36th/38th Avenue. It is the longest segment of the corridor and also the most stable. Since adjacent land uses are not likely to change, decisions regarding the trail location, connections, and related crossings can be made with more certainty about the viability of their future.



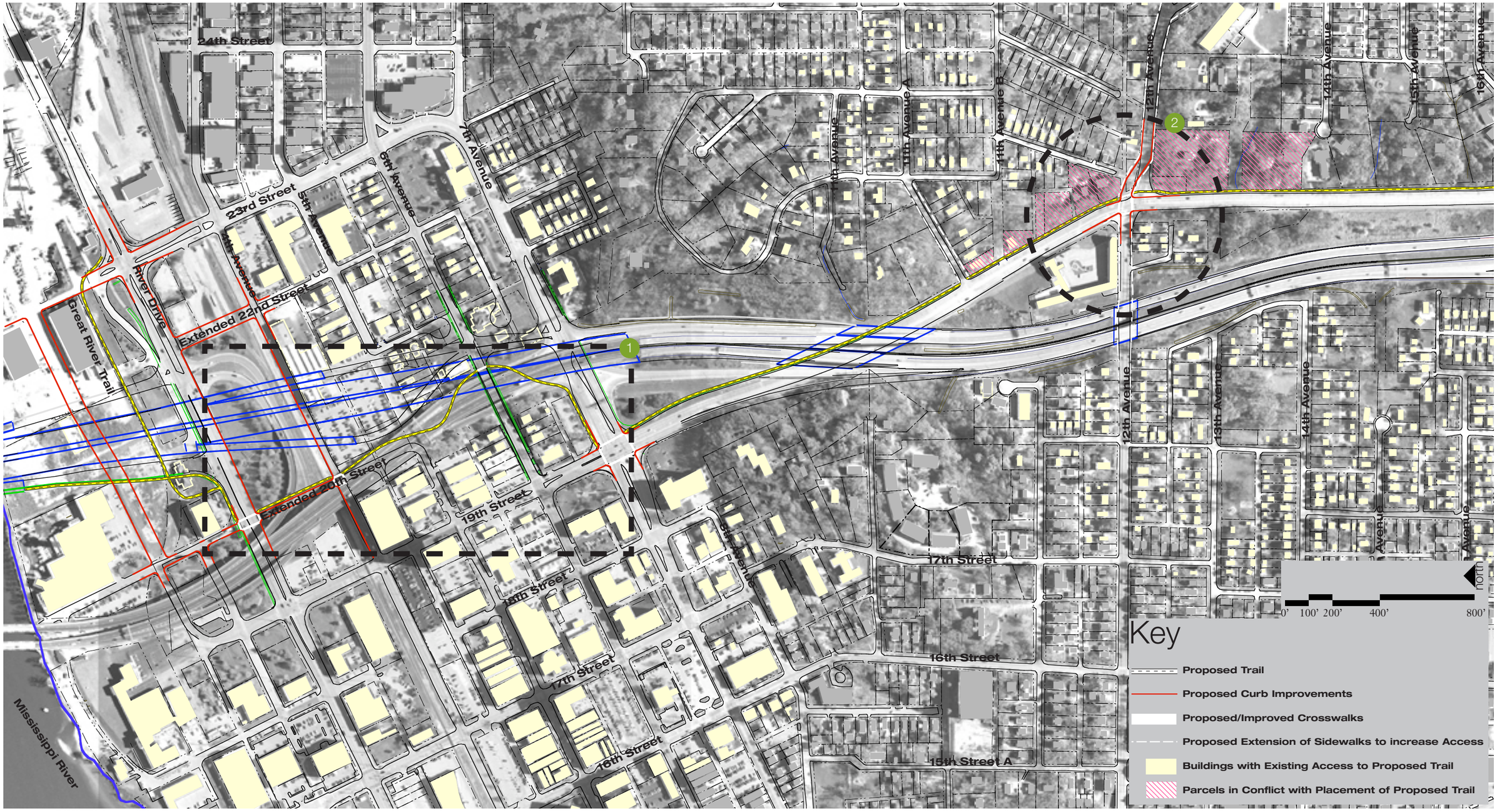
South Park Village

South of 36th/38th Avenue, the South Park Village subarea represents the largest area for potential redevelopment. There is ample right-of-way to accommodate a trail, however, decisions need to be made regarding future redevelopment possibilities of adjacent parcels.

At 52nd Avenue, the trail reaches its final intersection. At this point, the trail joins up with the Kiwanis Trail along the Rock River.

River to River Corridor Transportation Improvements

Trail Placement Option 1: Moline Centre



I-74 Highway and Bridge Reconstruction

With the reconstruction of I-74 and the bridge that crosses the Mississippi River, IDOT has agreed to provide a bicycle/pedestrian facility on the new bridge to allow walkers, cyclists, joggers, etc. to cross the River. While IDOT has not yet determined the exact bridge type and bike/pedestrian amenity, the location will be on the west side of the bridge, adjacent to, but separated from, the southbound lanes of I-74 as it crosses the River.

The exact drop off point, or point at which pedestrians and cyclists would be returned to grade has also not yet been determined. Considerations need to be made for the Great River Trail, which runs adjacent to River Drive, on the north side of the street. The current path of the trail will be intersected by new on and off ramps associated with I-74. To avoid these dangerous crossings, the trail could be relocated further north of River Drive, making use of what appears to be an unused right-of-way. This may require tunneling to cross beneath the on and off ramps, as below the ramps at this point there may be fill as opposed to structures on posts.

Trail through Moline Centre

The proposed location of the trail takes advantage of the right-of-way that will be vacated with the I-74 Realignment project. This is a unique opportunity to provide an off-street trail in an urban setting. The remaining land could be used for public open space.

While the ideal placement of any trail is to avoid as many traffic intersections as possible, this may not be feasible when a trail passes through an urban core. As the bridge reaches grade near River Road (where this trail actually begins) it faces its first grade crossing. To make this crossing as safe as possible, the proposed block pattern should be followed by extending 20th Street south of River Drive to 4th Avenue, and crosswalks should be included at this intersection. Ideally this would be a signalized intersection providing clear guidance to motorists and trail users. If a signal is not warranted, then options for a pedestrian activated signal or other means of alerting motorists should be considered.

Where the extension of 20th Street meets 6th Avenue is another grade crossing. As with the juncture at 4th Avenue above, it is recommended that this become a signalized intersection. If this is not possible, other options should be explored for the safe movement of pedestrians and bicyclists.

(For a detailed view of the trail placement through Moline Centre, see image 1 to the right.)

7th Avenue

The intersection of 7th Avenue and 19th Street is a busy intersection that will likely remain heavy with traffic or see an increase in traffic with the reconstruction of I-74. The trail will reach the intersection at the northeast corner. At this point, trail users will have to cross south to the southeast corner in order to continue on the path of the trail.

This intersection should remain signalized and, ideally, turning radii decreased and yield turn lanes eliminated. Yield turn lanes and wide turning radii encourage traffic to move at higher speeds through an intersection, making this already wide intersection even more uncomfortable for a pedestrian or bicyclist.

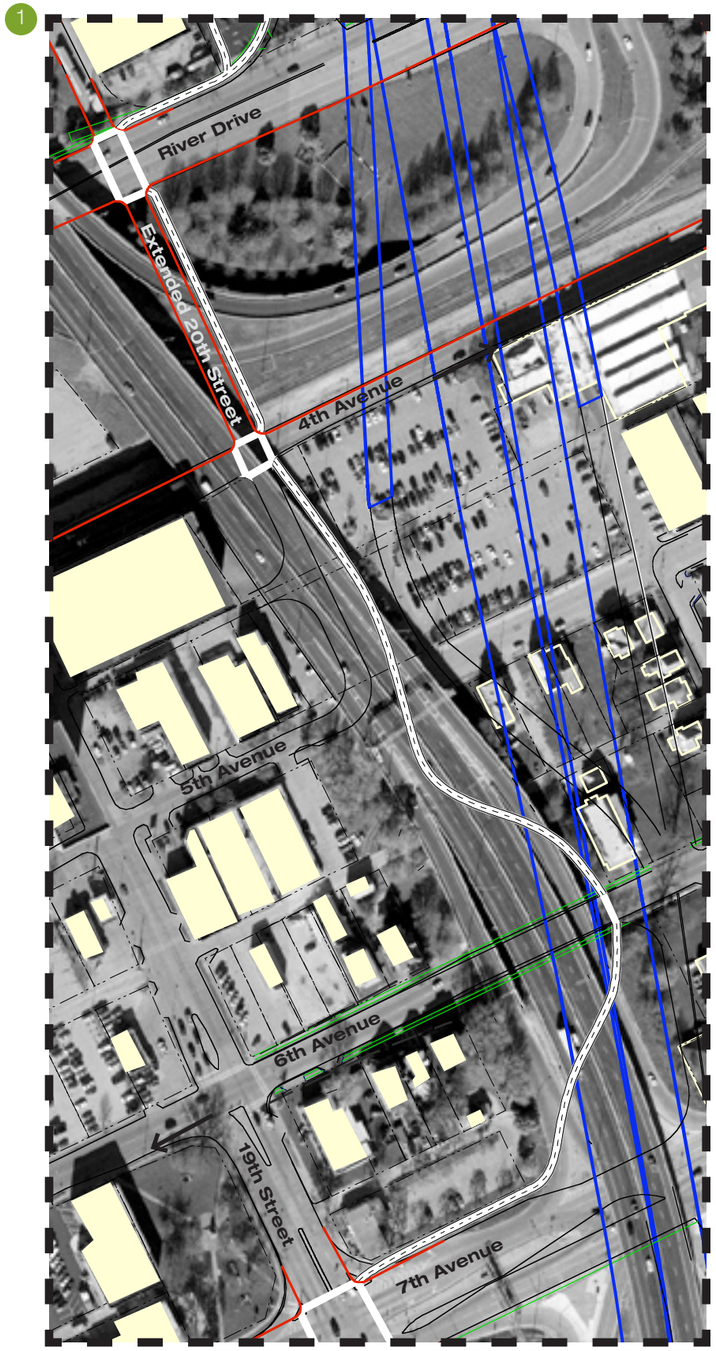
South of 7th Avenue

South of 7th Avenue, the trail continues along the east side of 19th Street. As of September 2006, draft drawings provided by IDOT's consultant include a trail in this location, replacing the sidewalks being removed from the west side of 19th Street. (This is subject to change, as the drawings are still in draft form.) Around 12th Avenue, there are several parcels that the trail will either come close to, or will actually have to cross given the current configuration of 19th Street. An arrangement will need to be made with the owners of these parcels in order to construct the trail. In the future, it may be possible to move the curbs of 19th Street, reallocating the width of the right-of-way to allow more space for the trail and buffer. (See page 41 for street section options.)

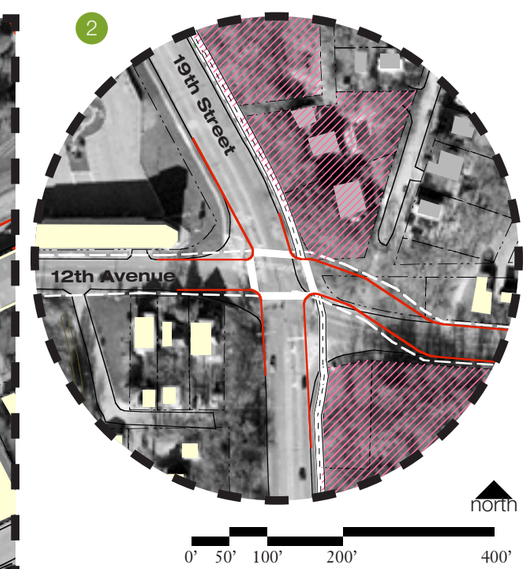
12th Avenue

The intersection at 12th Avenue is skewed, with the west side of the intersection further north of the east side of the intersection. This, coupled with the wide turning radii, results in an intersection that is hard to navigate. The proposed curbs, indicated by a solid red line in image 2 to the right, realign both sides of 12th Avenue. This would be the ideal alignment of the 19th Street/12th Avenue intersection so trail users and motorists could clearly see each other and the other half of the intersection. At a minimum, clearly designated crosswalks should be added, and the intersection should remain signalized.

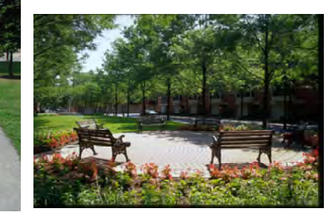
1



2



In an urban setting, such as Moline Centre, the trail provides important access to civic amenities and the central business district.



The right-of-way vacated in conjunction with the I-74 realignment project can be used to provide Moline Centre with more open space.

Recommendations/Action Items:

Extend 20th Street between River Drive and 4th Avenue.

Realign 19th Street/12th Avenue intersection to improve visibility and navigability.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

Assume ownership of vacated I-74 right-of-way.

River to River Corridor Transportation Improvements

Trail Placement Option 1: Greenway

19th Street Split to Avenue of the Cities

The trail remains on the east side of 19th Street as it splits at 18th Avenue.

Avenue of the Cities

As the trail reaches the intersection at Avenue of the Cities, it encounters another potential conflict with private property. Again, some negotiation may be required with the owners of the parcel at the northeast corner of 19th Street and Avenue of the Cities in order to construct a trail at this location.

The Avenue of the Cities bridge structure that crosses over I-74 is a significant crossing point in the greenway section of the trail, and an important access point for surrounding neighborhoods. As with other locations, the ideal situation would reduce turning radii and eliminate yield turn lanes to make the crossings safer for pedestrians. (See image 3.)

Currently, the pedestrian amenities on the bridge are lacking: sidewalks are narrow with little or no buffer from the travel lanes. Since the structure is not being reconstructed in conjunction with the I-74 project, major changes in the short term are unlikely. In the short term, however, the City should consider moving the curbs on the bridge inward and narrowing the travel lanes in order to widen the pedestrian area on the bridge (as seen in image 3a), allowing more space for bikes to pass each other on both sides of the bridge. (For long term recommendations for the Avenue of the Cities bridge structure, refer to page 35.)

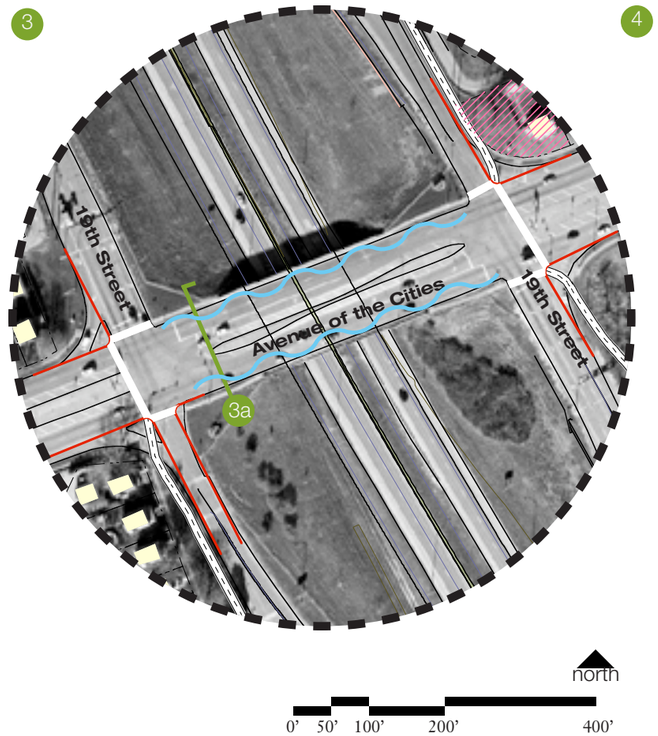
Avenue of the Cities to Turn Around Loop

The trail continues on the east side of 19th Street, taking advantage of the wide right-of-way that incorporates both 19th Street and I-74. In this segment of the greenway, the trail passes through a wooded area, providing a more interesting pathway as well as a more traditional trail feel.

Avenue of the Citites to Turn Around Loop: Phase 2

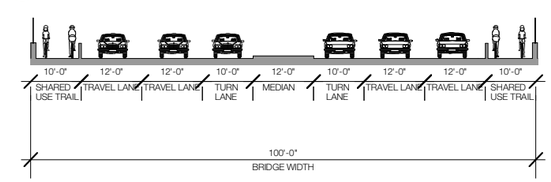
On the west side of 19th Street, adjacent to the southbound lanes, a mid-term option is shown. Phase 2 could be constructed at the same time as, or after, Option 1 is completed. It would provide nearby trail access for neighborhoods west of I-74 and 19th Street, allowing those residents to access the remainder of the trail to the south without crossing Avenue of the Cities. This segment would also create a "loop" that might be attractive to runners or walkers who are looking for a shorter distance that is more like a track.

3



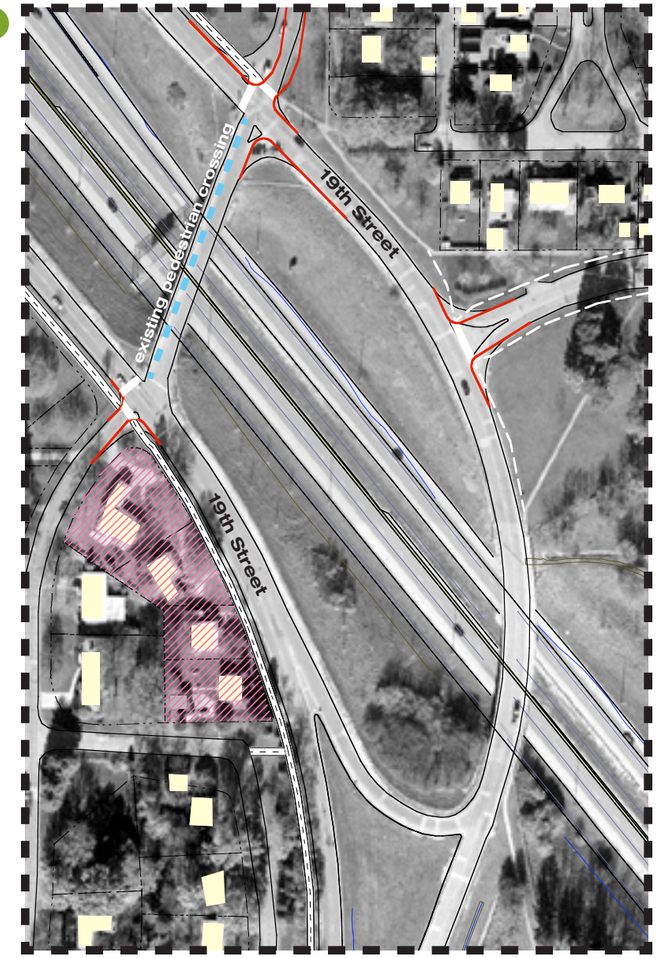
Existing Pedestrian Crossing to be Improved

3a



By reducing lane widths and moving the curbs inward on the Avenue of the Cities bridge structure, a wider pedeestrian amenity can be provided as a short term option.

4



Turn Around Loop

At this juncture, the trail crosses from the east side of 19th Street to the west side, as shown in image 4. This point was chosen because it is safer and less crowded than Avenue of the Cities. Similar to Avenue of the Cities, this structure will not be rebuilt with the I-74 project, so current pedestrian amenities will have to suffice until a later date. While the current pedestrian crossing areas are narrow, they provide safe access and a clearly delineated pedestrian path nonetheless.

Photograph taken of high school cross country team running along Avenue of the Cities bridge. The bridge is used as a crossing point for pedestrians, and is in need of improvement to make it safer.

Recommendations/Action Items:

Negotiate with private property owners to resolve parcels that are in conflict.

For Phase 2, negotiate easements or move curbs to accommodate trail.

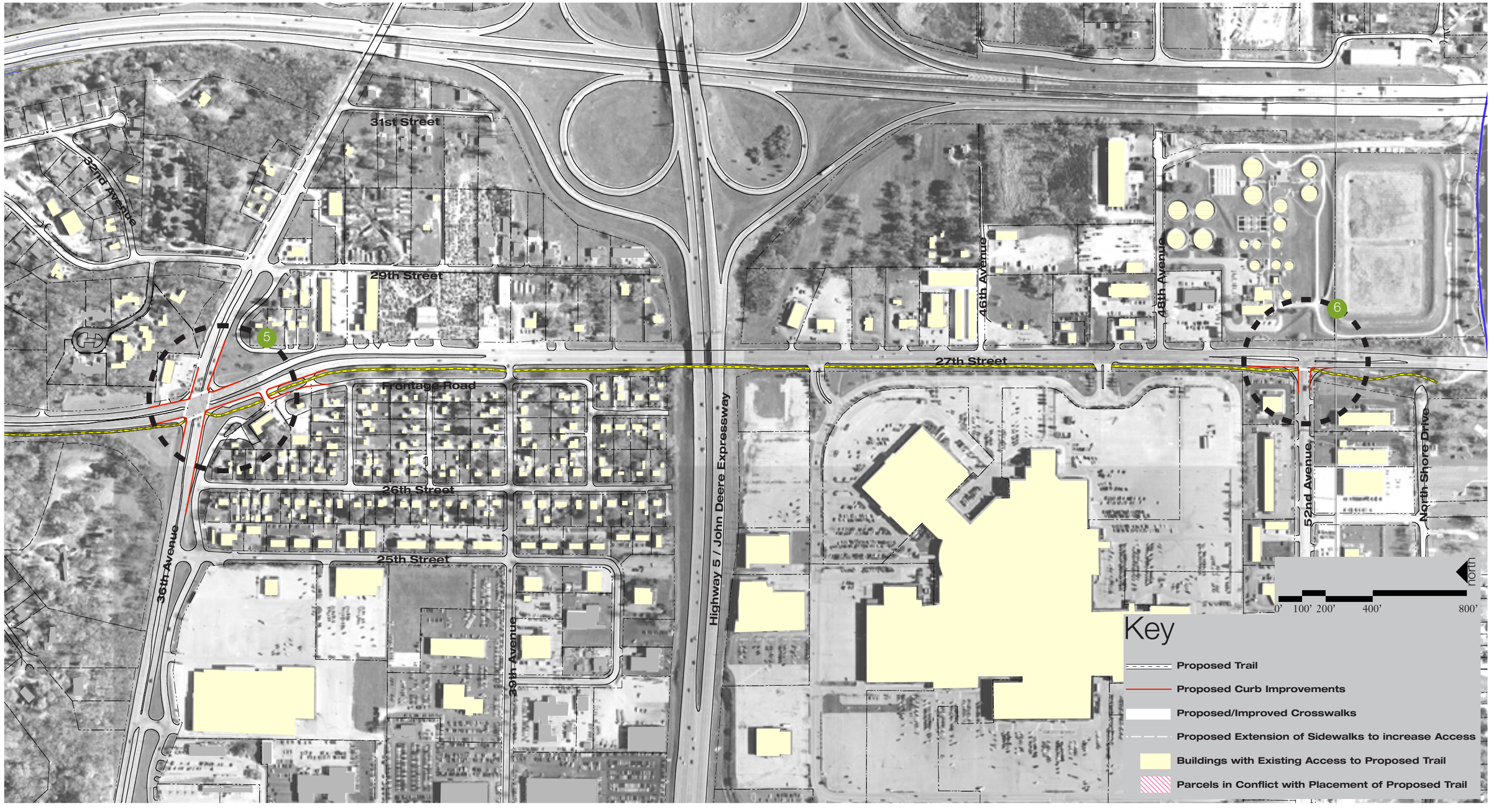
Ongoing communication with IDOT to be involved with the redesign of the structures at Avenue of the Cities and the turn around loop.

Choose right-of-way section to apply to the subarea.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

River to River Corridor Transportation Improvements

Trail Placement Option 1: South Park Village



36th/38th Avenue to John Deere Road

The trail is located on the west side of 27th Street as it reaches the intersection at 36th/38th Avenue. This is a busy intersection that is daunting for pedestrians. To become more welcoming to pedestrians and bicyclists, it should remain a signalized intersection, but should provide clearly marked crosswalks. As shown elsewhere in this report, turning radii should be decreased and yield lanes eliminated to make the crossing safer for trail users.

Reducing curb radii and eliminating yield lanes is a relatively quick and inexpensive way to make the corridor a more welcoming place for a trail and trail users. These small steps can make a big improvement in terms of safety and comfort for pedestrians and cyclists. This configuration will need to be balanced with traffic concerns so as to avoid creating vehicular circulation issues. Further study will be necessary to determine the feasibility of this configuration at each intersection.

South of the intersection, the trail continues on the west side, travelling in the buffer located between 27th Street and Frontage Road. Some curb changes are indicated on the plan shown in image 5, including the elimination of the second entrance into the residential area south of 36th/38th Avenue. These existing driveways are close together, requiring trail users to cross two vehicular pathways in less than 150 feet. The remaining driveway should be narrowed to a maximum of 25 feet.

Despite the presence of a drainage ditch on the west side, trail location is preferred here to the east side of 27th Street, at least in the short term. The east side of the street here is highly undesirable as many wide curb cuts would interrupt the trail. Much of this land is unincorporated, making change difficult in the short term.

John Deere Road Overpass

The trail continues on the west side as it reaches the viaduct at John Deere Road. There is little space for a trail under John Deere Road in the current configuration. The pavement width at this point is approximately 60 feet, with two lanes of travel in each direction. Unfortunately, it seems there are no safe short term options for the provision of a shared-use trail in this underpass.

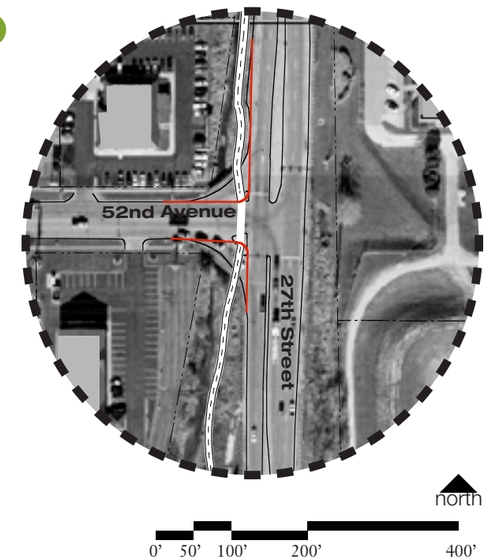
5

The long term solution is to have a wider space underneath John Deere Road to accommodate both vehicular traffic and a trail on both sides with ample buffer. IDOT currently has drawings completed for the John Deere Road reconstruction, but no consideration has been given to a trail. The City of Moline should be in contact with IDOT immediately to request that space be provided for a trail and buffer on both sides of 27th Street. At this point, IDOT has not yet finalized their design, but they will soon. The City will need to communicate with IDOT as soon as possible for the best result.

John Deere Road to 52nd Avenue

South of John Deere Road, the trail continues on the west side of 27th Street. As with the segment north of John Deere Road, this portion of the trail will be next to a drainage ditch, at least in the short term. In the long term, a different solution to stormwater management could and should be implemented, making the area more attractive. (See page 35 for more information.) Despite the presence of the drainage ditch, the west side of 27th Street is preferable to the east due to the high number of existing curb cuts for businesses. The west side, by comparison, has only two driveway entry points, and will likely remain free of curb cuts in the future as the area redevelops.

6



52nd Avenue to Rock River

52nd Avenue (shown in image 6) is the final grade crossing that the trail will encounter. This is a signalized intersection that could be made more pedestrian friendly with smaller turning radii and well-defined crosswalks, assuming this does not create significant traffic issues. South of 52nd Avenue, the trail connects with the Kiwanis Trail, and trail users can choose to follow that trail either east or west along the Rock River.

The presence of yield turn lanes, wide turning radii, and the lack of pedestrian facilities make it extremely difficult and dangerous to cross the intersection at 27th Street and 36th/38th Avenue.

Recommendations/Action Items:

Continue efforts to incorporate parcels that are currently under county jurisdiction.

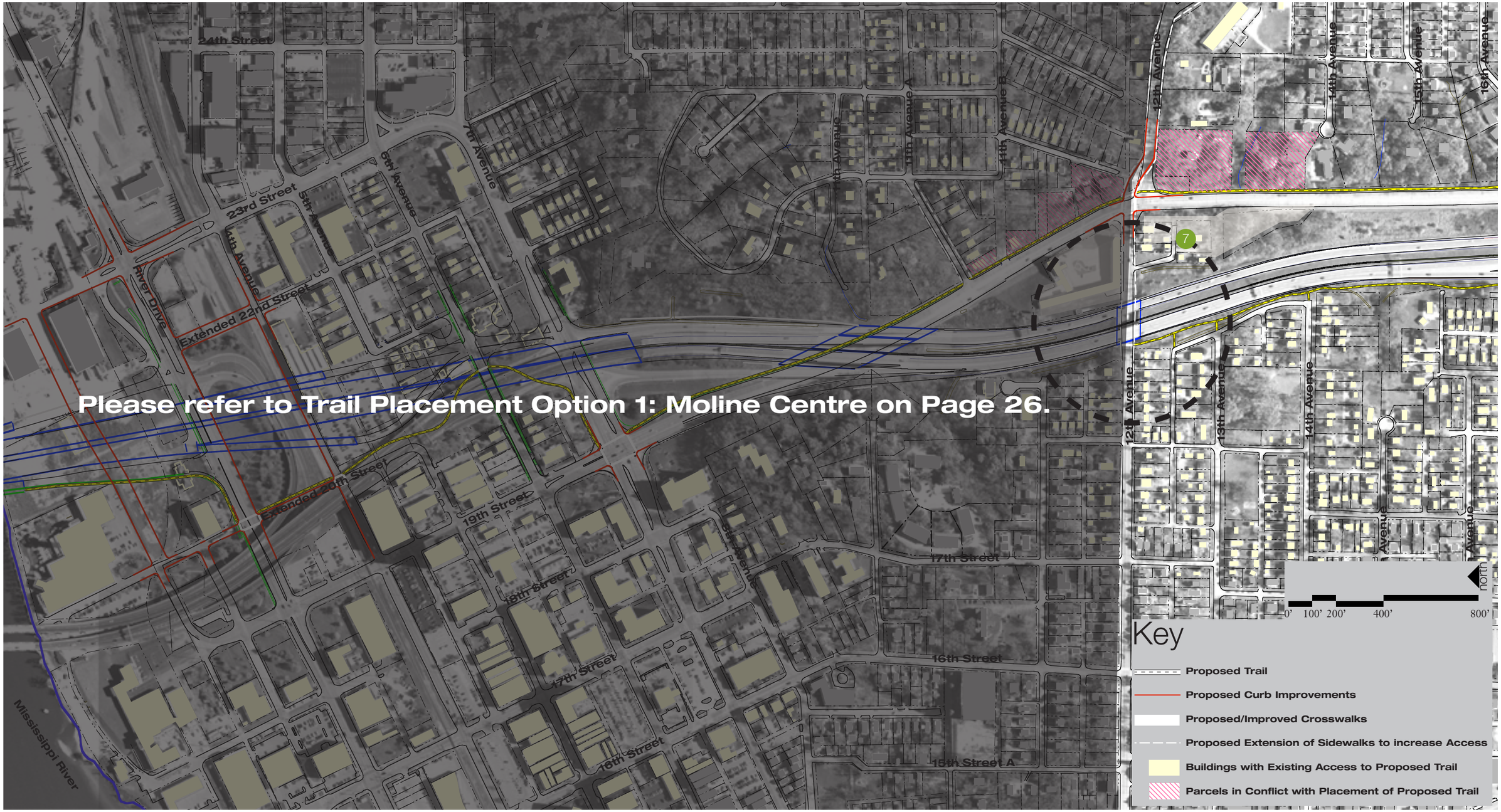
Make necessary changes to zoning map to reflect the desired future character of this subarea.

Communicate with IDOT the City's desire to incorporate a trail into the 19th/27th Street right-of-way for inclusion in their John Deere Road expansion project.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

River to River Corridor Transportation Improvements

Trail Placement Option 2: Moline Centre



Downtown to 12th Avenue

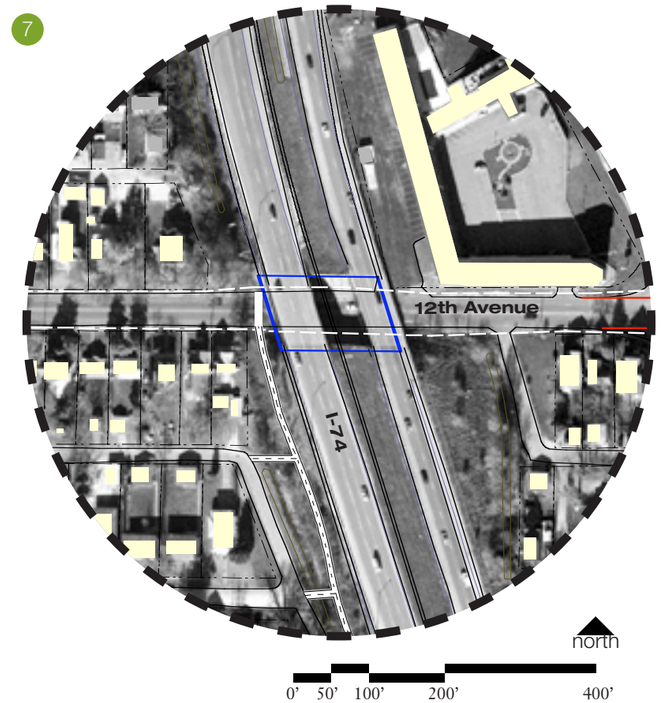
In Option 2, the configuration of the trail as it passes through Moline Centre to 12th Avenue is the same as Option 1. This represents the most viable opportunity to keep the trail off-street while using land that might otherwise remain vacant and unattractive for development. The option of a trail on the west side of 19th Street and I-74 was explored. New ramp configurations, combined with topography and private property issues, make this option unfeasible.

Crossing at 12th Avenue, West of 19th Street

The trail can begin on the west side of the corridor just south of 12th Avenue, as seen in image 7. The trail is best located west of I-74; the west side of 19th Street does not work because of the split further south and the location of I-74 ramps. West of the southbound lanes of I-74 there is excess right-of-way that can easily accommodate the trail.

Getting to the trail from the neighborhoods west of I-74 would be easy; the grid street network provides direct access. Access from the east, either as a trail user traveling south from downtown or a resident east of I-74 and 19th Street, requires crossing the 19th Street/12th Avenue intersection as well as potentially having to cross 12th Avenue at a mid-block point. In addition to adding sidewalks on both sides of 12th Avenue to provide access to the trail, a crosswalk should be provided across 12th Avenue at the point where the trail begins, west of I-74.

Directly east of this proposed crosswalk, I-74 passes above 12th Avenue. West of 19th Street, 12th Avenue is on an incline towards the overhead I-74 lanes. The result is a potentially dangerous spot for a pedestrian and bike crossing. Moving the crossing to an intersection further west might help, however, it is likely that trail users would cross at this point regardless of the presence of a crosswalk since the proposed trail passes directly south of the area. At a minimum, a crosswalk, sign, and flashing light should be installed to alert motorists to the crossing. A pedestrian-activated signal should be installed if traffic volumes warrant.



South of 12th Avenue

South of 12th Avenue, the trail continues on the east side of 19th Street (discussed in Option 1 on page 27) and the west side of I-74. On the west side of I-74, there is excellent access to the trail from the adjacent neighborhoods. Adding small trail extensions to meet up with the ends of streets or alleys will allow for easy access to the trail.

This photograph is an example of what the trail might look like as it travels south from 12th Avenue, west of I-74.

Recommendations/Action Items:

Determine appropriate crossing west of 12th Avenue to safely access trail west of I-74.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

River to River Corridor Transportation Improvements

Trail Placement Option 2: Greenway

South to Avenue of the Cities

As the trail continues south toward Avenue of the Cities, it gently bends through the unused right-of-way of I-74. Just south of 20th Avenue, there is one parcel that comes closer to the curbs than the others, making the space between the curbs and parcel lines too narrow for the trail and buffer or parkway. As in other areas, an easement will need to be negotiated with the owner of the parcel in order to construct the trail.

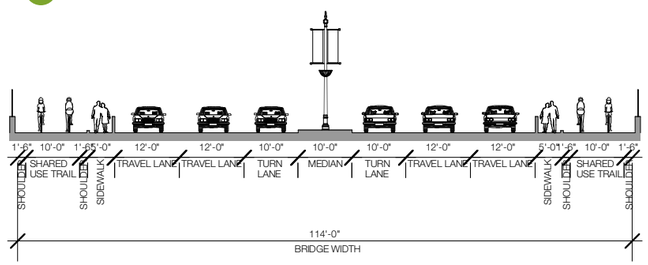
Avenue of the Cities

As in other locations, crosswalks should be added to increase pedestrian safety. If possible, turning radii should be reduced and yield lanes removed at Avenue of the Cities. In Option 1, little was done to improve the structure that crosses I-74 at Avenue of the Cities. Option 2, however, is intended to be a future alternative, which means that significant changes are possible, and in fact likely. The Avenue of the Cities bridge was constructed sometime between 1970 and 1972, and has a life span of approximately fifty years. This means that by 2022, the bridge will need to be reconstructed. This may seem too far off to consider now, however, IDOT generally begins planning for reconstruction projects ten years in advance. With 2012 being only five years away, it is not too early for the City of Moline to be in contact with IDOT regarding its desires to improve pedestrian and bike amenities on the Avenue of the Cites bridge structure.

The bridge structure could easily accommodate trail traffic on both the north and south sides with minimal additional width. Currently, vehicular travel lanes are extremely wide, and medians are flanked by excess striped pavement. By reallocating the pavement, a more attractive and safer crossing can be created. Image 8 shows the proposed changes to the Avenue of the Cities bridge.

On the new bridge structure, an opportunity exists to incorporate identity elements that would support the goals of the Avenue of the Cities Gateways Plan. The median could have decorative poles with hanging flower baskets and signs displaying the "Friends of the Avenue" logo. The median could also include plantings to add color and vibrance to the bridge. The short fence adjacent to the sidewalks on both sides of the bridge could also be decorative, displaying the logo, while still protecting pedestrians from vehicular traffic.

8



In the future, when the Avenue of the Cities bridge structure is redesigned and reconstructed, both the trail and a separate pedestrian path can be easily incorporated. Also, identity elements, such as banners and decorative fences, can display the "Friends of the Avenue" logo in a prominent way.

Avenue of the Cities to the Turn Around Loop

If Phase 2 has not been constructed in conjunction with Option 1, then it must be done with the implementation of Option 2. (For details on Phase 2, please refer to page 28.)

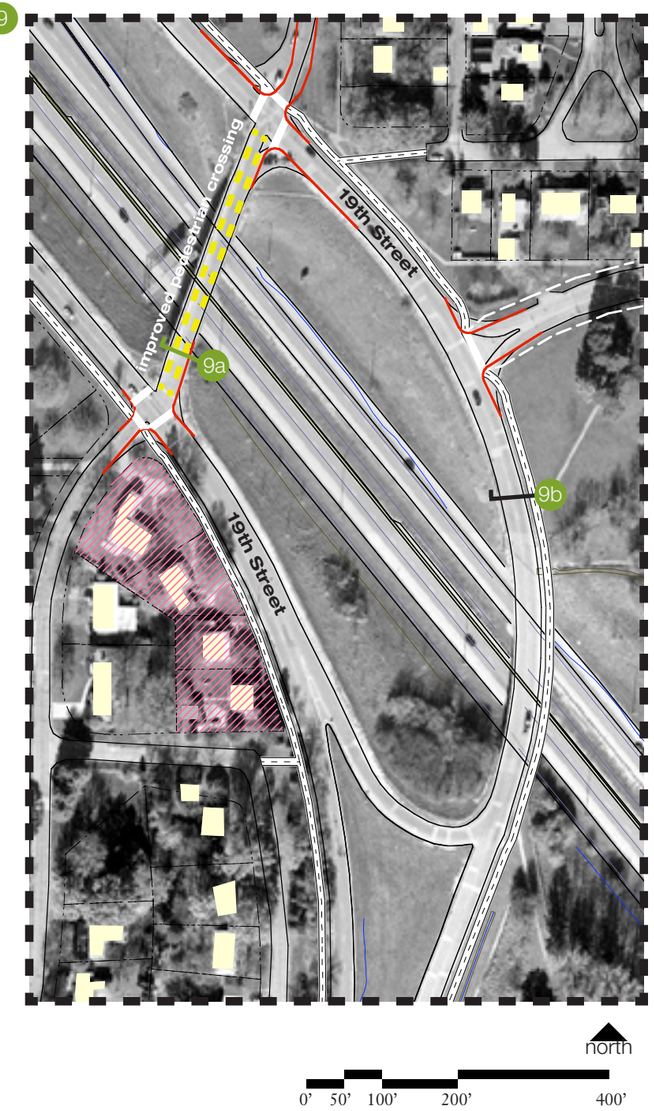
Turn Around Loop

The turn around loop was constructed between 1970 and 1971, and like the Avenue of the Cities structure, will need to be rebuilt sometime around 2020. Again, it is recommended that the City of Moline be in contact with IDOT soon so that better pedestrian amenities can be included in the design of the new structure, the planning phases for which could start as soon as 2010.

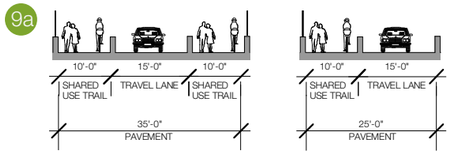
Both segments of the loop (seen in image 9), the straight portion and the curved portion, should include pedestrian and bike amenities to allow a crossing point and trail continuity. While the straight portion of the turn around loop requires a grade crossing at both ends, the curved part should allow for a seamless connection toward the south end where it meets up with the trail that runs on the east side of 27th Street.

South of the turn around loop, the trail in Option 2 continues on the east side of 27th Street. There are no crossing points or intersections from the turn around loop to 36th/38th Avenue.

9

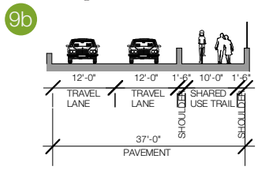


9a



The above street sections are alternatives for the straight portion of the turn around loop. The section on the left shows the trail on both sides of the structure, which would be the ideal configuration. The section on the right is the acceptable minimum, with a ten foot shared use trail provided.

9b



This street section is for the curved portion of the turn around loop. The trail only needs to occur on the east side of the structure, where it meets up with the trail as the two sides of 19th Street rejoin.

Recommendations/Action Items:

Refer to Avenue of the Cities Gateway Plan for guidance on Avenue of the Cities identity, signage, crosswalk materials, and landscaping.

Minimize lane widths on the Avenue of the Cities and turn around loop bridge structures.

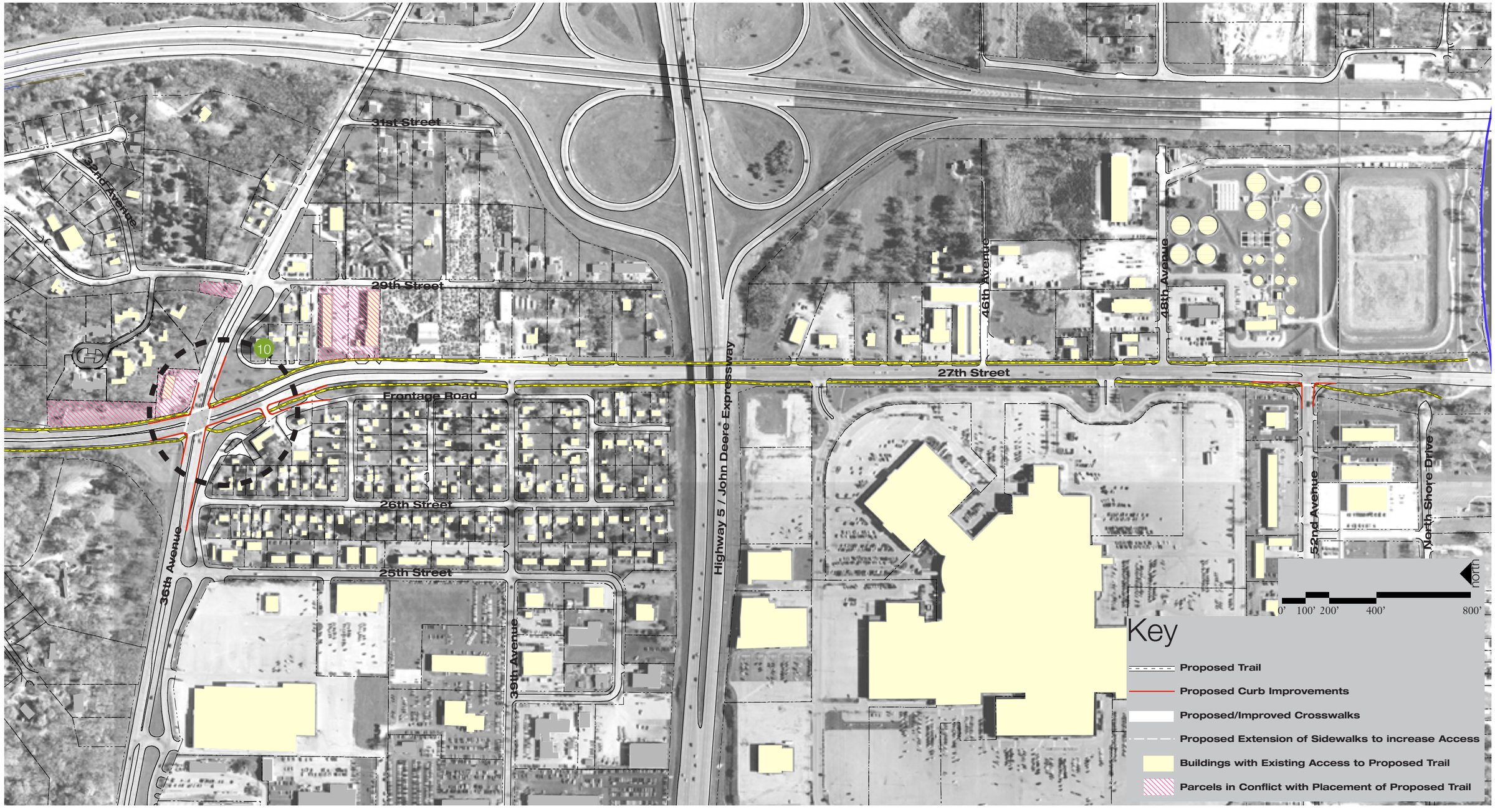
Negotiate easements, etc with private property owners where necessary.

Coordinate with IDOT to improve pedestrian amenities on the turn around loop, both the straight and curved segments.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

River to River Corridor Transportation Improvements

Trail Placement Option 2: South Park Village



36th/38th Avenue

The intersection at 36th/38th Avenue (shown in image 10) should be improved by making turning radii smaller, eliminating yield turn lanes, and providing clearly marked crosswalks. This would be ideal for the trail but should be executed with minimal disruption to traffic flow. As in other locations, negotation with private property owners may be required both at the intersection and just east of 27th Street in order to construct the trail and proposed sidewalks.

South of 36th/38th Avenue

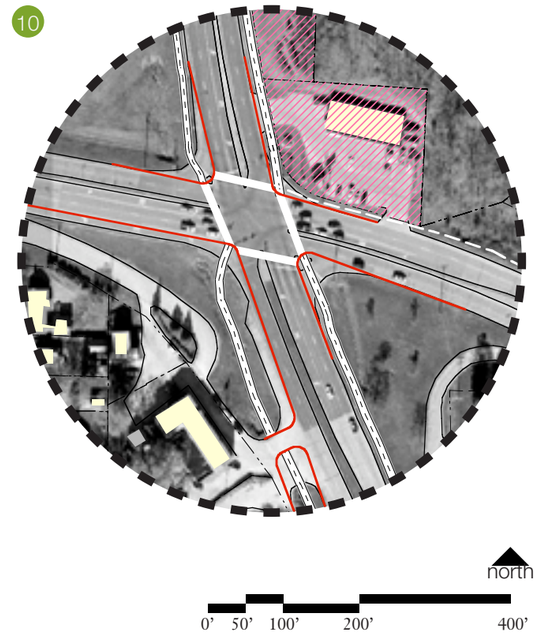
In Option 2, trail is added to the east side of 27th Street. A street section for this segment, as well as general street configuration for the area to be redeveloped, should be chosen to help guide change in the area. As redevelopment of the east side occurs, private driveways and curb cuts should be eliminated; only public streets should intersect with 27th Street. This will improve the PedZone rating of the area, reducing the number of vehicular paths a pedestrian would have to cross. (For redevelopment options, see page 51; for section options, please see page 42.)

John Deere Road

As stated previously, the City of Moline should be in communication with IDOT now so that a trail on both sides of 27th Street can be included in the widening of the John Deere Road overpass. This matter isurgent as IDOT is actively designing the new overpass.

South of John Deere Road

South of John Deere Road is similar to the area north of John Deere Road: a street section for 27th Street as well as a general street grid for the redevelopment areas should be chosen. Private curb cuts or driveways should be eliminated as redevelopment occurs, and new ones should be prohibited. Only public streets should intersect 27th Street.



Moving the stormwater pipe and ditch to the center of the street and consolidating individual driveways will improve the look of 27th Street and help make the area more desirable for a trail.

Recommendations/Action Items:

Explicitly limit private driveways and curb cuts on 27th Street. Public streets only should be allowed to intersect with 27th Street.

Review “stormwater street” concept and partner with local river advocacy groups to gain support and funding.

Review redevelopment option for the area and revise zoning to support the future vision of the area. Currently, the area is zoned B-4, which is primarily intended for auto-oriented businesses, not a vibrant mixed-use community.

Extend sidewalk network into adjacent neighborhoods to facilitate trail access.

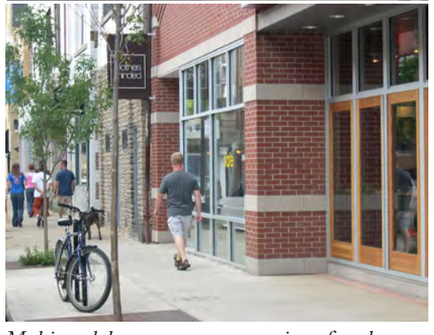
Concepts for Streets and Connectivity

This section provides general concepts that should guide the execution of the recommendations in this report, as well as street sections and a connectivity plan that incorporate the concepts in future redevelopment. The complete streets concepts found here apply to the corridor in particular, but could easily apply to other streets throughout Moline. The street sections could also be repeated elsewhere, depending on right-of-way widths.

Concepts for Streets and Connectivity

Complete Streets

Complete streets are those that carefully provide for a variety of people and modes of transportation. The River to River Corridor could be an example of a complete street once the recommendations in this document are implemented. The concepts on this page will help guide the future of the streets that comprise the River to River Corridor, ensuring they are multi-modal, safe, and active.



Multi-modal streets support a variety of modes of transportation. Each mode is welcome and supported with proper infrastructure and signage.

Concept 1: Complete Streets are Multi-modal

To accommodate multiple modes of transportation, cities need to think about streets as more than a way to quickly move vehicular traffic. Streets are public ways, intended for use by a variety of users. Public transportation, bicyclists, and pedestrians of all ability need to given as much priority as cars in the planning, design, and construction of streets.

The 19th/27th Street Corridor, for the most part, has been designed to carry private automobiles, with little to no facilities for other modes of transportation. Sidewalks do not exist along the majority of the corridor, making travel by anything other than a car extremely dangerous. The message is that travel along the corridor by anything other than a vehicle is discouraged by the City, the entity responsible for the design and maintenance of the majority of the corridor, regardless of whether this is the actual desire of the City.

The City has already begun to reverse this message by commissioning this report. The trail will encourage pedestrian and bicycle travel, and will also support additional public transit. The City should continue to support improvements to the corridor that will support multi-modal travel.

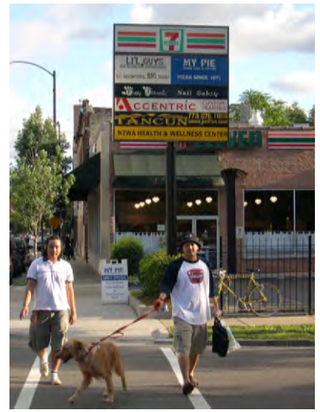
Complete streets are accessible to all abilities and ages, and encourage social connection.

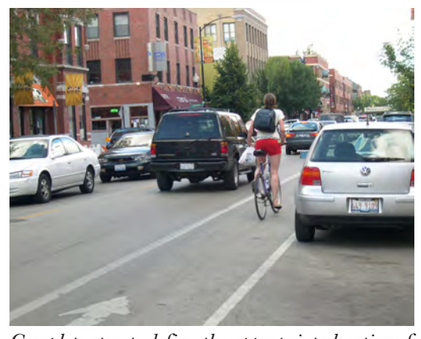
Concept 2: Complete Streets Support Walkability

By elevating the status and safety of pedestrians, complete streets encourage walking. Walkability is becoming increasingly important in the fight against obesity, but is also an important neighborhood feature that encourages a healthy lifestyle for all residents.

Complete streets support walkable neighborhoods, which are accessible to a wider segment of the population than one that is geared toward cars. Not everyone has access to a private automobile, nor is everyone able to operate one. By promoting walkable neighborhoods, people of all ages and abilities have more options for getting around.

Older people who are unable to drive are often isolated because they can no longer get to the places where they used to socialize. People who are unable to afford a modified vehicle for their wheelchairs or other assistance experience similar isolation. In a walkable community, these problems could be avoided almost entirely. Walkable neighborhoods provide social and recreational opportunities close to home, making it easier for the elderly or people with disabilities to take advantage of them. Walkable neighborhoods will not eradicate private vehicle ownership, but they can help reduce the need to have one to conduct daily life.





Complete streets define the appropriate locations for each mode of travel.

Concept 3: Complete Streets are Safe

Multi-modal streets clearly designate which part of the right-of-way is intended for which mode of transportation. This helps all users to be aware of each other, and to know where potential conflicts may be. Sidewalks are continuous, and crosswalks assist in safe crossings. Where bikes are anticipated on the street, lanes are striped to indicate where bikes should travel, and also where vehicles should not. The River to River trail does not require on-street bike lanes, however, they may be an option in the future for both downtown and the South Park Village area.

Complete streets support active, social neighborhoods by promoting a robust street life that engages residents and visitors.

Concept 4: Complete Streets Support a Sense of Community

Complete streets support and encourage people to get out on the street and be active. This increases foot traffic in both residential and commercial areas, which can be channeled into a sense of place that car-oriented neighborhoods lack. An active street life invites other active uses of the street, including sidewalk sales and outdoor cafes. Incorporating these concepts and the other guiding principles found in this document will lead to a strong sense of community that is attractive and rewarding to residents and visitors alike.

The following pages show recommended street sections for the River to River Corridor. The configuration of these sections is intended to fulfill the complete streets concepts, allocating the right-of-way to accommodate multiple modes of transportation in a way that is safe and supports walkability.

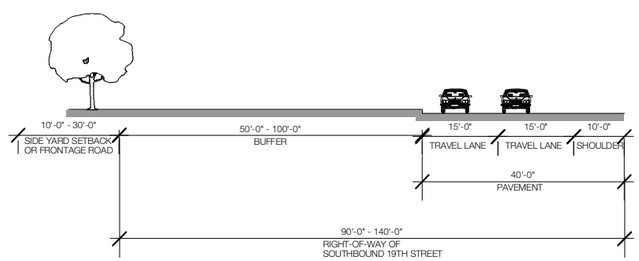
Greenway Subarea - Northbound and Southbound Split

The street sections below apply to the right-of-way from 12th Avenue to the turn around loop, where north and southbound traffic on 19th Street start out together, but then are split by I-74. The existing street configuration is roughly the same for the north and southbound lanes of 19th Street, as mirror images, and for the west side of I-74, where the trail runs near the southbound lanes. The sections below show the southbound lanes, but can be applied to the northbound lanes in reverse.

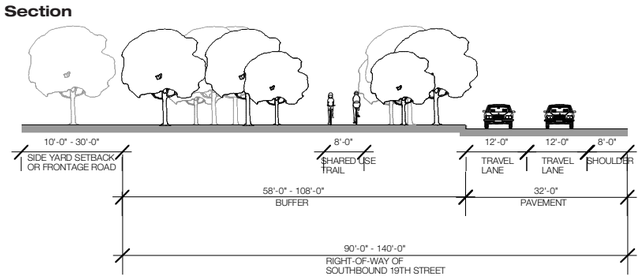
The trail can be easily accommodated within the existing right-of-way, in the buffer that is found adjacent to both the north and southbound lanes.

To decrease the overall amount of paving and increase the amount of greenspace, however, the curbs can be reconstructed to narrow the travel lanes while widening the buffer. This is particularly important if easements cannot be obtained where the proposed trail comes into contact with privately owned parcels.

a Southbound 19th Street, West Side of I-74: Typical Existing Street Section



a Southbound 19th Street, West Side of I-74: Typical Option 1 and 2 Street Section

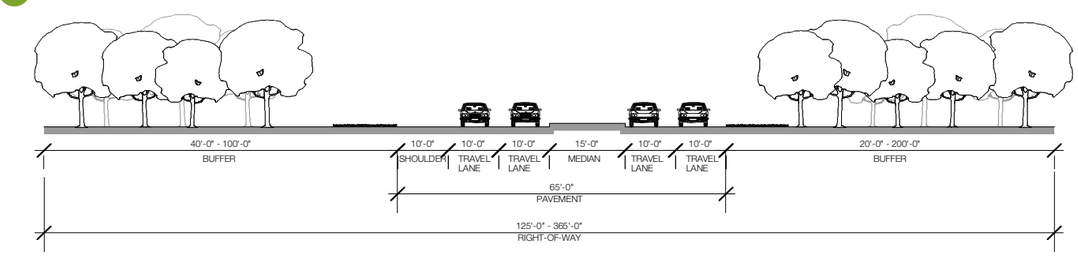


Greenway Subarea

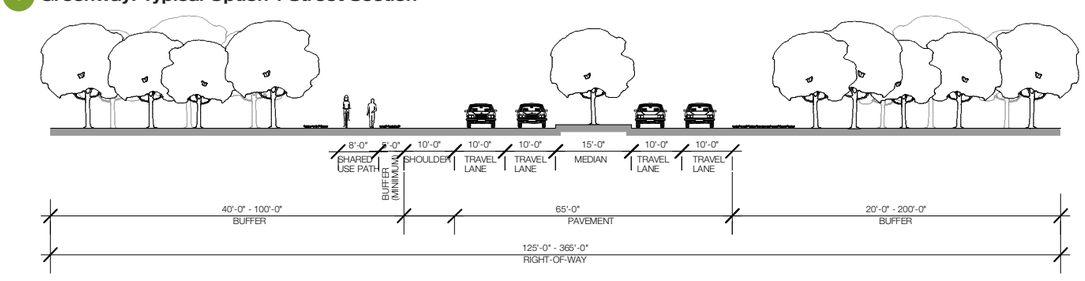
The street sections below apply to the right-of-way from the turn around loop to 36th/38th Avenue, where both directions of 19th Street reconnect and join with 27th Street. This subarea is considered the "greenway" because it is the greenest part of the corridor, with mature trees and hills creating a more natural landscape than other subareas. Trees should be preserved to the fullest extent possible while constructing the trail. The trail can gently curve through this area to provide more interest and to increase the buffer beyond 5 feet wherever possible.

Option 1 provides a trail on the west side of 27th Street, within the existing right-of-way. Option 2 provides trail on both sides of 27th Street, increasing options and access for nearby residents. In Option 2, a shoulder is added on the east side to further buffer the trail from fast moving vehicles.

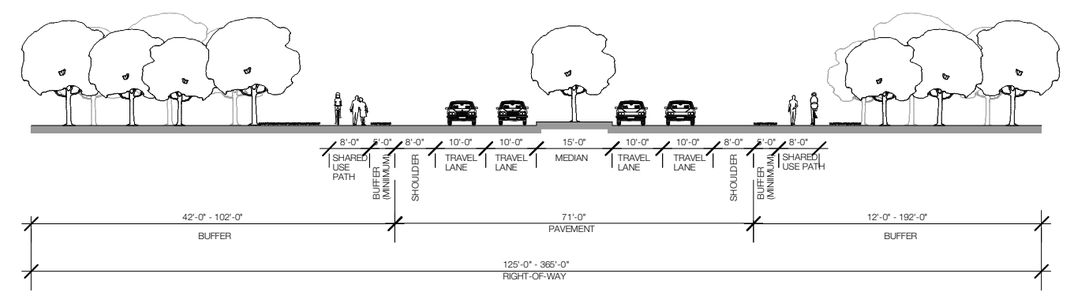
b Greenway: Typical Existing Street Section



b Greenway: Typical Option 1 Street Section



b Greenway: Typical Option 2 Street Section



Concepts for Streets and Connectivity

Options 1 and 2: Street Sections

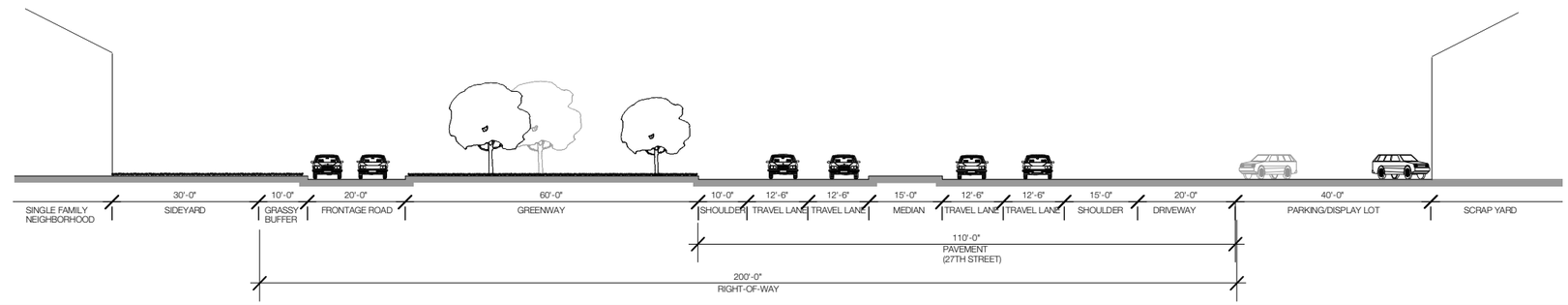
South Park Village Subarea, North of John Deere Road

The street sections on this page apply to the right-of-way from 36th/38th Avenue to 52nd Avenue, where the proposed trail terminates at the Kiwanis Trail. The trail should be constructed first on the west side of 27th Street, where fewer curb cuts exist and less change is anticipated.

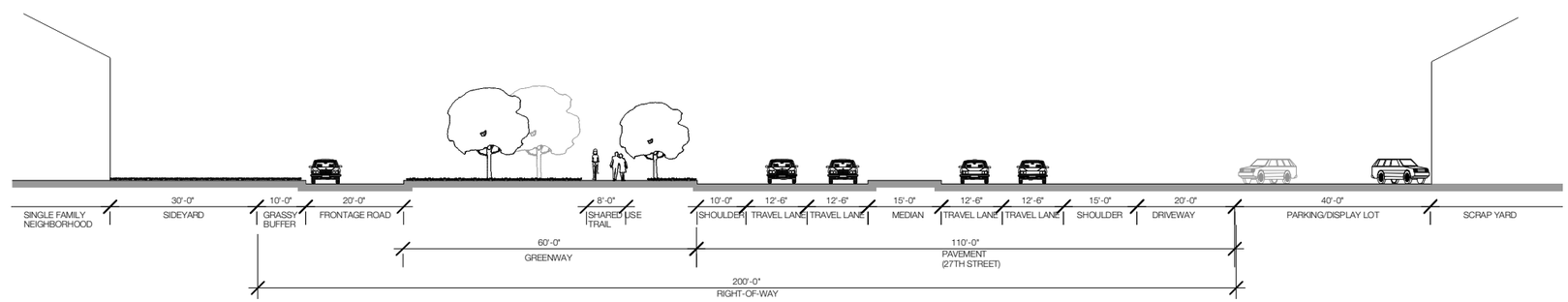
Option 1 shows that the trail can be easily accommodated within the existing right-of-way, in the buffer that is found adjacent to the residential neighborhood north of John Deere Road, and in front of the mall south of John Deere Road.

Option 2 shows a wider buffer on the west side of 27th Street, creating a wider greenway and more open space. The trail is also added to the east side of the street, where new residences may be constructed in the future.

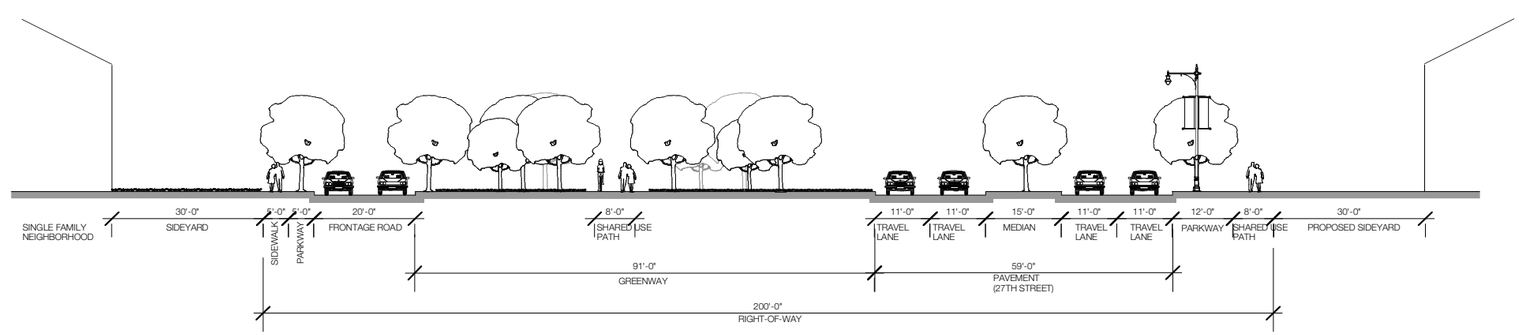
C Residential/Commercial, South of 36th/38th Avenue: Typical Existing Street Section



C Residential/Commercial, South of 36th/38th Avenue: Typical Option 1 Street Section



C Residential/Commercial, South of 36th/38th Avenue: Typical Option 2 Street Section

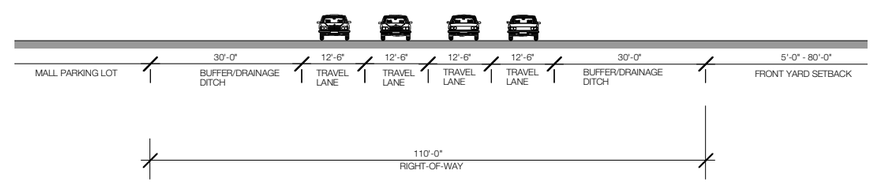


Mall Subarea, South of John Deere Road

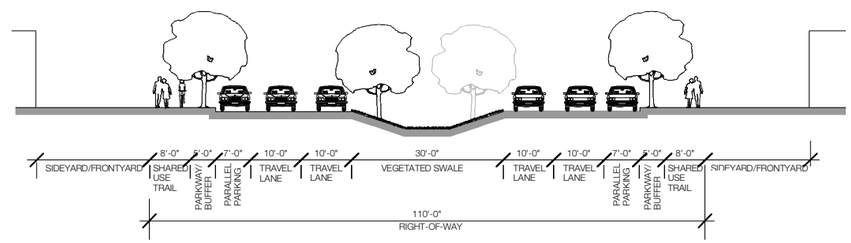
The street sections to the right apply to the right-of-way from John Deere Road to 52nd Avenue, where the proposed trail terminates at the Kiwanis Trail. This is an area that will likely see tremendous change and revitalization in the future.

The exceedingly wide right-of-way found in this portion of 27th Street can easily accommodate a shared use trail, while also providing an opportunity to incorporate unique stormwater management features. Considering the proximity to the Rock River, this street is an ideal location for the use of natural stormwater management elements, as shown in the sections to the right. On-street parking can be included on both sides of the street, one side, or not at all, depending on the land uses determined appropriate for future redevelopment.

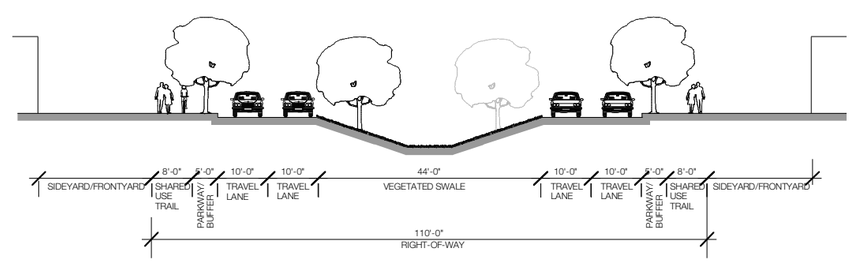
d 27th Street, south of John Deere Road: Typical Existing Street Section



d 27th Street, south of John Deere Road: Typical Option 2, With On-Street Parking



d 27th Street, south of John Deere Road: Typical Option 2, Without On-Street Parking



Rendering of what a stormwater street could look like. The median here also functions as open space, with sidewalks and bridges crossing the water.

Through the residential area between 36th/38th Avenue and John Deere Road, the trail can travel through the greenway on the west side of the street. This photograph is an example of what the trail might look like with mature trees.

The storm water "moat" that surrounds SouthPark Mall has been indentified as a barrier to redevelopment in the area, and operationally difficult for the Mall.

Moving stormwater management to the middle of the street creates a green median where plants can be grown, and stormwater is dealt with in a more natural and visually pleasing way.

Concepts for Streets and Connectivity

Trail Access and Linkages

The River to River Corridor has many activity nodes and points of interest. These places must have clear connection with the corridor, the proposed trail, public transit, and eachother. All of these aspects of the corridor will benefit from having clear connection to eachother.

Increasing connectivity will help achieve the goal of enhancing the walkability of the corridor. If connections are obvious and uncomplicated and people are aware of them, they will be more likely to take advantage of them. The maps on these pages provide recommendations for such connections and links.

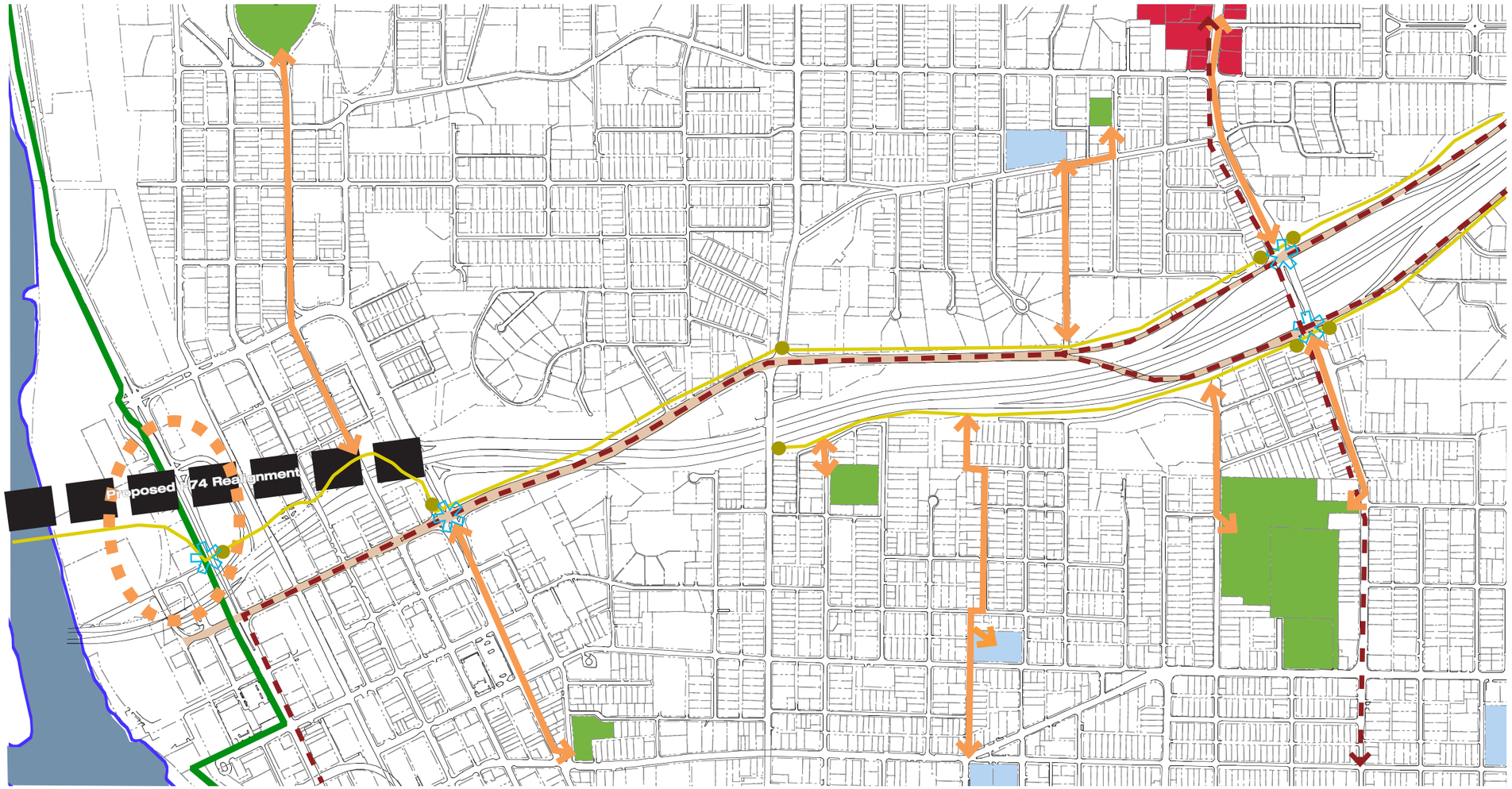
An existing gateway element in the City of Moline that demonstrates the identity of a specific area downtown.

Example of a pedestrian scale kiosk that provides local information.

Gateway Locations

Gateways are an excellent way to display civic pride and identity to both residents and visitors. Throughout the River to River corridor there are many opportunities to install gateway elements. These locations should include larger scale elements, visible from cars and buses to help orient passersby.

Potential trail users need to know where they can access the trail, where the trail will take them, and what other transportation options are available. Gateways are also excellent locations for pedestrian scale information kiosks, with maps and other information about local events and attractions.



Direct Connection to Trails, Activity Nodes

The proposed trail has several direct connections with existing trails and the proposed South Park Village. At the north end, the direct connection to the Great River Trail has not yet been designed due to the I-74 realignment project. A direct connection should be easily achieved, much like the connection south end at the Kiwanis Trail.

Sidewalk Connection to Activity Nodes

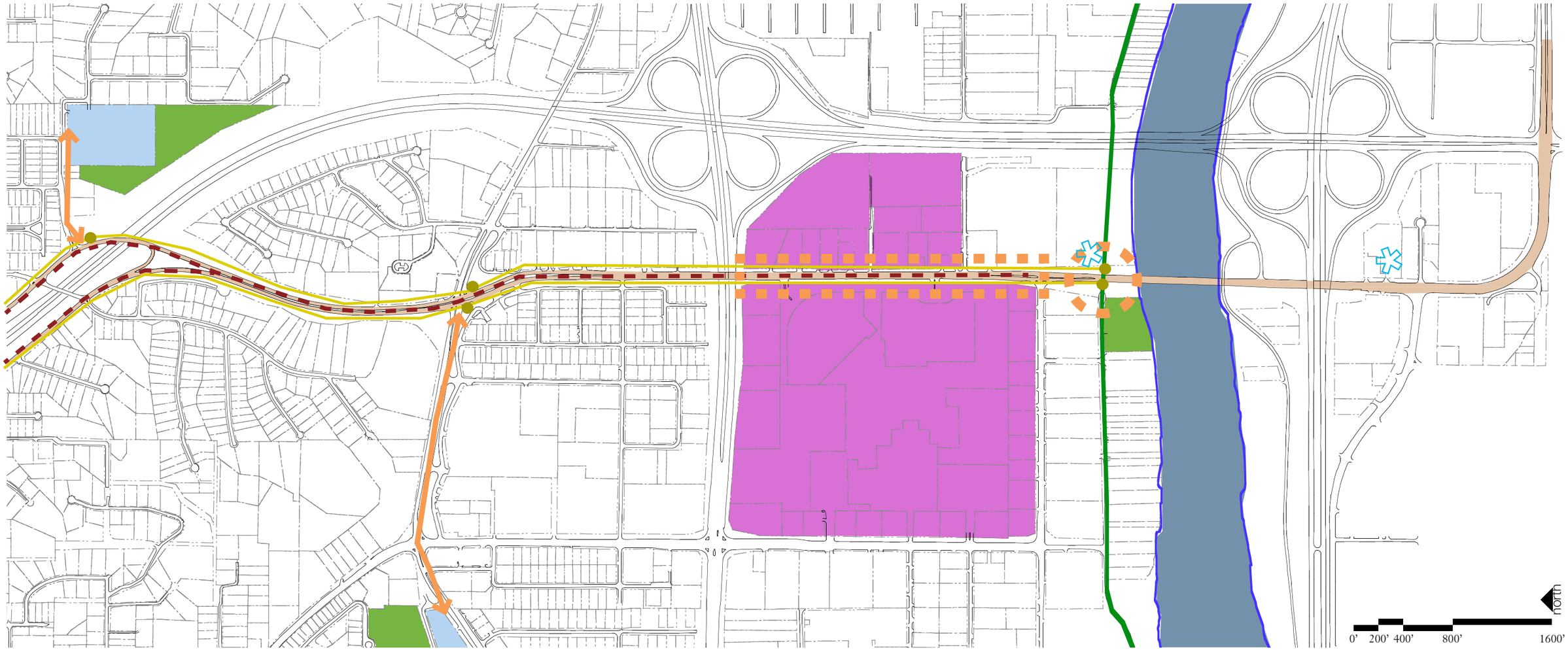
Other nodes of activity are located near the trail. They can be accessed using existing sidewalks, or may benefit from recommended sidewalk improvements as indicated in the trail placement options in this document. Simple pedestrian scale signage may be needed to assist navigation between the trail and the destination.

An express bus stop at South Park Village should reflect the proposed character, further enhancing the appeal of the area.

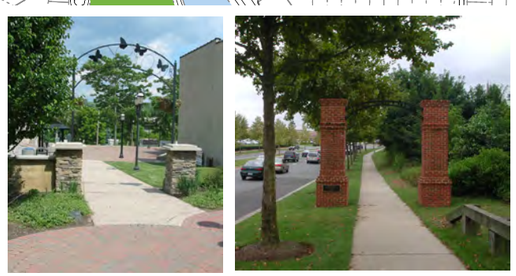
Public Transit Connection

Increased transit service is necessary to provide a full range of transit options along the corridor, and will encourage redevelopment of the entire area. Public transit is key in promoting walkability, reducing the need for a private vehicle.

Several opportunities exist for public transportation along the corridor. Connections across 12th Avenue should be enhanced, tying into



the expanded trails system. Consider extending service crossing the corridor at Avenue of the Cities, connecting the Uptown area of Moline. With the proposed enhancements in this report, the corridor itself becomes attractive for expanded transit service. Connecting the transit hub in Downtown with the retail hub in South Park Village with a limited stop express service would further support redevelopment of the area and add a full range of transit options along the corridor.



Examples of special features that could be included in trailhead design.

Trailheads

Clearly marked trailheads should be incorporated into key intersections and other locations along the the length of the River to River Corridor. Trailheads clearly indicate trail access points, and can be included on local maps. Simple directions to important nearby destinations can be indicated, further encouraging use of the trail to reach such destinations. Like gateways, trailheads provide an opportunity to display the identity of Moline or the subarea in which the trailhead is located.

Rock River Crossing

Although not included in this report, the possibility of extending the River to River Trail across the Rock River should be explored. Existing bridges could be enhanced to provide safe pedestrian areas, or perhaps a new pedestrian and bike only bridge could be constructed. Crossing options should be studied further to ensure the best location is chosen.

- River to River Trail
- Park
- Civic Institution (School, Church)
- Commercial
- South Park Village Area

Implementation Strategy

The charts on the following pages summarize the recommended actions throughout this report, as well as suggest some funding sources that might assist in paying for them. This first chart details the action items necessary to fulfill the recommendations of the report, as well as parties responsible for each action item. The second chart lists possible funding sources, and where to find more information.

Implementation Strategy

Implementation Table

This implementation table outlines the major tasks that will need to take place in order to make the ideas in this report come to fruition. Each task includes a description as well as the City department responsible for spearheading the effort. Some funding options are explored on the next page, and other funding sources should be filled in as they are secured. Ongoing communication between all involved parties will be necessary in order to be successful. This table should be updated as tasks are completed or as new tasks come to light.

Action Type	Task	Specifics	Coordination with:	Funding Options
Acquire	**Assume ownership of old I-74 right-of-way**	In order to construct the trail as shown in the downtown area, the former I-74 right-of-way will need to be acquired by the City of Moline.	Economic Development, Public Works	
Construct	**Extend 20th Street and 22nd Street**	Both 20th and 22nd Streets should be extended to continue the downtown street grid, and to create new parcels for redevelopment	Public Works	
Construct	**Extend network of sidewalks for increased trail access**	Throughout the corridor, sidewalks should be provided within the public right-of-way to increase residents' ability to access the trail	Public Works	
Study	**Realign intersection of 19th Street and 12th Avenue**	Study the feasibility of realigning the intersection of 19th Street and 12th Avenue, considering topography and cost issues.	Public Works	
Construct	**Decrease curb radii and eliminate yield turn lanes**	To increase the overall pedestrian friendliness of the corridor, curb radii should be decreased and yield turn lanes eliminated to increase pedestrian safety and comfort.	Public Works	
Survey	**Verify ability to construct trail in areas that are in conflict with private property**	Conduct a survey to verify if there is ample space in the existing right-of-way configuration for trail construction adjacent to parcels shown to be in conflict in the plans.	Public Works, Planning	
Acquire	**Purchase easements to accommodate trail where necessary**	Upon completion of the above survey, determine which parcels will require the purchase of easements in order to construct the trail.	Public Works	7
Coordinate	**Work with IDOT to include trail along River to River corridor in areas under their jurisdiction**	Much of the River to River corridor is under IDOT jurisdiction. Ongoing communication will be required to make the trail a reality.	IDOT, Public Works	
Coordinate	**Work with IDOT to include pedestrian amenities on the Avenue of the Cities and turn around loop bridge structures**	The planning phases for these two structures may begin as early as the year 2012. Begin discussions of these structures now to ensure that concerns are addressed throughout the redesign and construction process.	IDOT, Public Works	
Coordinate	**Work with IDOT to include a trail under the overpass at John Deere Road**	IDOT is already in the process of redesigning the underpass on 27th Street and John Deere Road. Discuss desire to incorporate a trail on both sides of 27th Street so that the underpass can accommodate it.	IDOT, Public Works	

Action Type	Task	Specifics	Coordination with:	Funding Options
Negotiate	**Continue efforts to annex unincorporated land along 27th Street**	Unincorporated land will need to be annexed in order to fulfill this plan.	Planning	
Regulate	**Revise zoning to reflect desired character of parcels on 27th Street**	South of 36th/38th Street, there are large areas of land that will likely redevelop in the future. Revise zoning or create an overlay district with appropriate distribution of land uses and regulations to support the desired character and vision of the area.	Planning	
Study	**Determine the safest crossing type for the trail on the west side of I-74, south of 12th Avenue**	In order to construct Option 2, a safe crossing type will need to be determined.	Public Works	
Regulate	**Consolidate driveways and curb cuts on 27th Street and prohibit new ones**	Driveways and curb cuts require pedestrians and cyclists to come into contact with vehicular traffic. For their safety, and to improve the look of the area, driveways and curb cuts should be consolidated and new ones explicitly prohibited. Only public streets should be allowed to intersect	Planning, Public Works	
Construct	**Follow recommendations for aesthetic improvements found in the Avenue of the Cities Gateways plan**	Refer to the Avenue of the Cities Gateways plan for guidance on identity, signage, crosswalk materials and landscaping	Planning, Public Works	
Coordinate	**Find partner to support "stormwater street"**	To secure support and funding for the "stormwater street" concept, partner with a local river advocacy group that can become a champion of the concept.	Planning	
Coordinate	**Apply for grants to fund "stormwater street"**	In partnership with group identified above, determine appropriate grants to pursue and complete applications.	Planning	1, 2, 4, 5, 6
Coordinate	**Apply for grants to acquire land for open space along Rock River**	As parcels become available in the floodway along the northern banks of the Rock River, the City of Moline should purchase these parcels to increase recreational opportunities in the area.	Parks, Planning	8
Construct	**Construct the River to River trail as funding becomes available**	The River to River trail can be constructed in pieces as land and funding become available.	Parks, Planning, Public Works	3, 7, 9

This funding chart corresponds with the implementation chart on the previous page. Each source of funding operates on a different system of criteria and submission schedule. Each of these options should be explored further.

Funding Option	Name	Administered by:	Description	URL	Application
1	Nonpoint Source Water Pollution Control; Section 319, Clean Water Act	IL Environmental Protection Agency	Grants can be used to protect water quality through best management practices. Must address nonpoint source pollution.	http://www.epa.state.il.us/water/financial-assistance/non-point.html	http://www.epa.state.il.us/water/watershed/forms/319-application.pdf
2	Supplemental Environmental Project Idea Bank	IL Environmental Protection Agency	Ideas for Supplemental Environmental Projects can be submitted by the general public for consideration. Companies that must settle an enforcement action are provided the list of projects in the Idea Bank for consideration in their negotiation with ILEPA.	http://www.epa.state.il.us/enforcement/sep/index.html	http://www.epa.state.il.us/cgi-bin/en/sep/sep.pl
3	Illinois Bicycle Path Program	IL Department of Natural Resources	Funds can be used for linear land acquisition or bicycle path consstruction. Funds can also go toward site clearing, grading, surfacing, etc, and for related bike path facilities.	http://dnr.state.il.us/ocd/newbike2.htm	http://dnr.state.il.us/ocd/FY07TrailsManual.pdf
4	Clean Water State Revolving Fund	IL Environmental Protection Agency	Low interest loan program can be used to implement water quality improvement, especially for project that address nonpoint source pollution.	http://www.epa.gov/region5/business/fs-cwsrf.htm	
5	Water Pollution Control - State and Interstate Program Support	US Environmental Protection Agency	Support is provided to states to prevent or reduce pollution to ground and surface waters.	http://www.epa.gov/region5/business/fs-wpc.htm	
6	Water Quality Management Planning	US Environmental Protection Agency	Funds are given to State Water Quality Program Agencies to support projects that promote healthy aquatic ecosystems. Focus is on local watershed management efforts.	http://www.epa.gov/region5/business/fs-wqmp.htm	
7	Recreational Trails Program	IL Department of Natural Resources	Funding can be used to construct a trail and related support facilities. Funding can also be used to acquire land for trails through easements.	http://dnr.state.il.us/ocd/newrtp2.htm	http://dnr.state.il.us/ocd/fy06Trailsmanual.pdf
8	Open Space Lands Acquisition and Development Program (OSLAD) & Land and Water Conservation Fund (LWCF)	IL Department of Natural Resources	Funding assistance to purchase land for new parks, park expansion, or water frontage. Also can be used for development of park land.	http://dnr.state.il.us/ocd/newrtp2.htm	http://www.dnr.state.il.us/ocd/OS-LW2006Man.pdf
9	Bikes Belong Grant	Bikes Belong Coalition	Funding for construction costs, signs, and related support facilities.	http://bikesbelong.org/page.cfm?PageID=21	http://bikesbelong.oli.us/Grants/AdvocacyAp07.pdf