

St. Louis
Riverfront Trail
Enhancements Plan

June 2001



OFFICIAL PLANNING DOCUMENT

City of St. Louis

St. Louis Riverfront Trail
Enhancements Plan

Adopted 6/6/2001



MILLENNIUM
TRAILS

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Millennium Trails Program

Millennium Trails is a partnership between the White House Millennium Council, U.S. Department of Transportation and Rails-to-Trails Conservancy in cooperation with other agencies and organizations.

Millennium Trails will recognize, promote and support trails as a means to preserve open spaces, interpret history and culture and enhance recreation and tourism. Under this initiative, more than 2,000 trails across America will be recognized, enhanced or built. These will include hiking trails, bicycle paths, greenways and scenic byways through rural and urban landscapes and cultural and heritage trails that preserve and commemorate major events in our nation's history.

The Riverfront Trail is part of the Mississippi River Trail, a designated Millennium Trail. The Mississippi River Trail is a seven-state 1,000 mile-long trail beginning in St. Louis and ending in New Orleans.

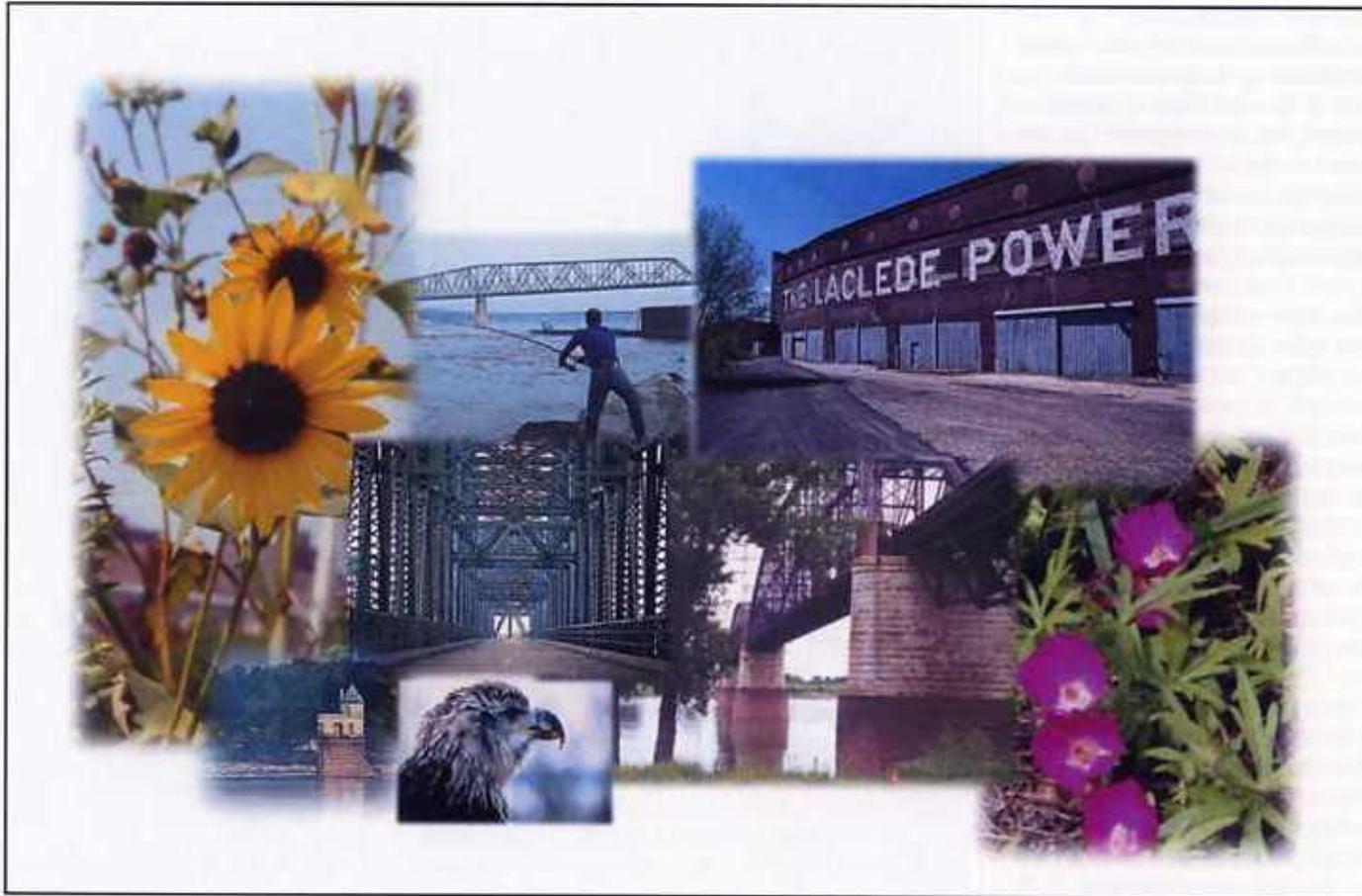


The Riverfront Trail

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Vision Statement



Our Communities . . . Living and Working with the River

Imagine . . . Twelve miles of trail that reveal a unique blend of the natural and human environments along the Mississippi River . . . A multi-use trail that connects natural beauty, wildlife, urban settings, industrial landscapes and culturally diverse neighborhoods to the region. The Riverfront Trail links vibrant communities and celebrates people working together to improve our quality of life.

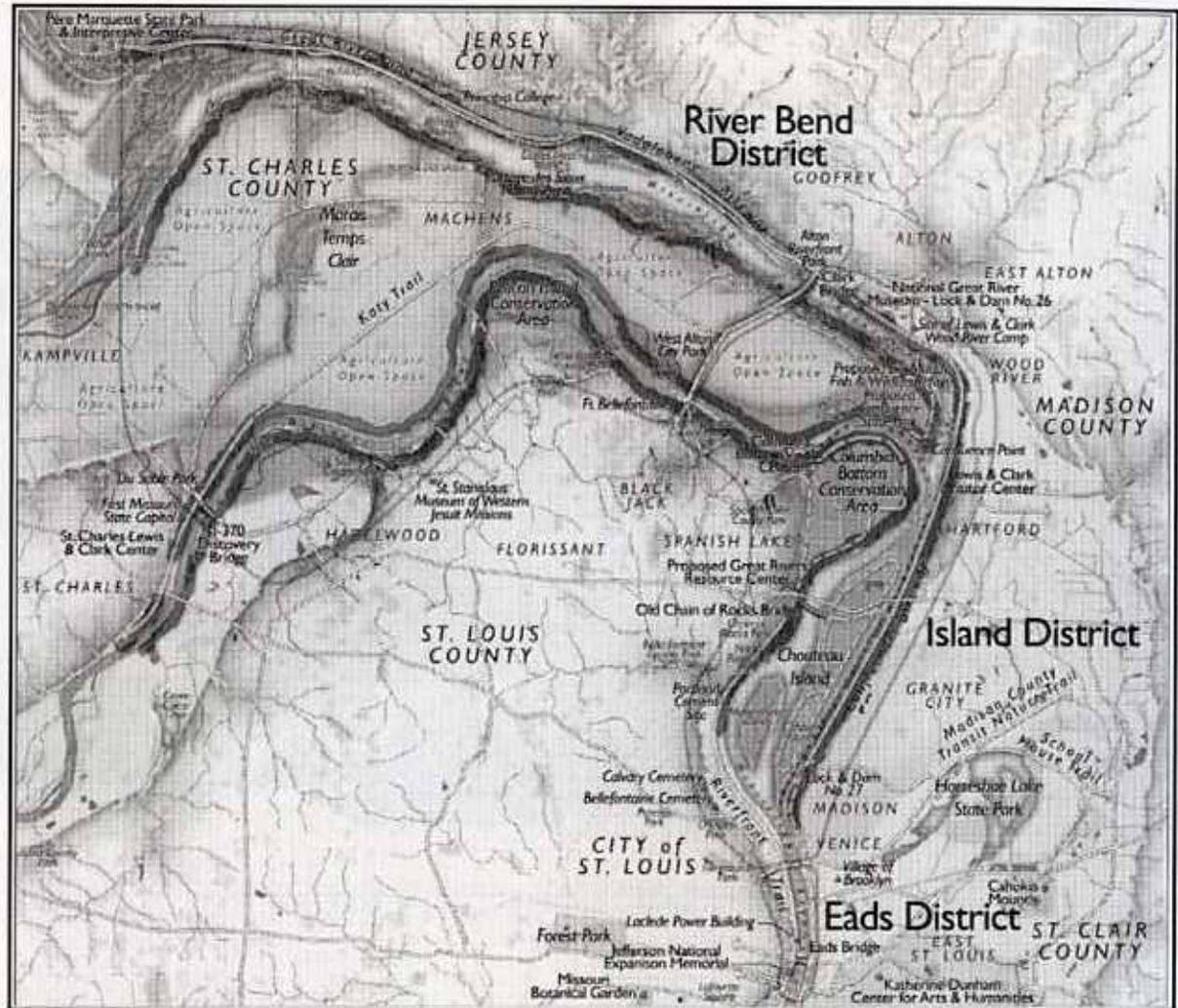
Introduction

Project Background

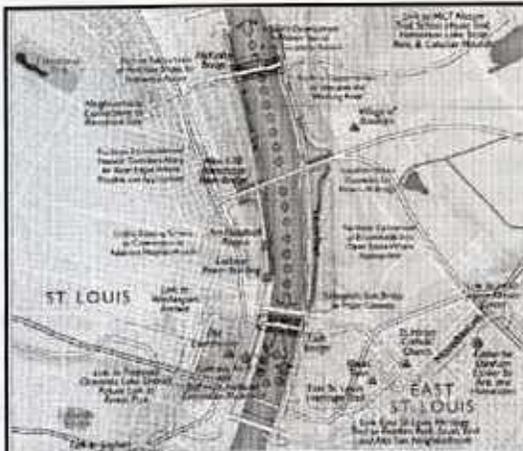
The Riverfront Trail is a 12-mile paved recreational trail that runs along the Mississippi River between the Gateway Arch/Laclede's Landing area north to the Old Chain of Rocks Bridge. The Riverfront Trail provides an opportunity for users to experience historic and industrial sections of St. Louis and natural river scenery. The universal trail surface allows for walking, biking, rollerblading and skateboarding. Initial planning for the Riverfront Trail was begun in 1987. The trail surface and preliminary signing and striping on ten miles of the Trail were completed in April, 1999.

The Riverfront Trail, is an integral part of the Confluence Greenway, a system of parks, conservation and recreation areas with trails along 40-miles of Mississippi and Missouri riverfront. The Confluence corridor runs on both banks between downtown St. Louis/East St. Louis, past Alton to the confluence of the Mississippi and Illinois Rivers and across to St. Charles.

The Riverfront Trail passes through two of the three development districts of the Confluence Greenway. The Eads District is characterized by dense urban development and a viable working river. The Island District follows a natural stretch of the Mississippi and includes valuable conservation areas and historic resources, including the Old Chain of Rocks Bridge.



*The Confluence Greenway Conceptual Plan
(The HOK Planning Group & H3 Studio)*



Eads District (The HOK Planning Group & H3 Studio)

Eads District initiatives include the following:

- Support the greenway with a multi-modal approach to access and circulation that includes private vehicles, public transportation of bus and MetroLink, non-motorized means of transportation and river taxi/tour system.
- Establish and strengthen the gateways to the Confluence Greenway especially where Eads Bridge, McKinley Bridge and the proposed I-70 bridge span the rivers.
- Facilitate the conversion of existing brown-fields into open space, if economically feasible and advantageous to the greenway system.
- Support appropriate existing economic activity and development within the greenway by recognizing the role of the Mississippi River as a working river and as such, commercial navigation, docks, rail lines, roads and other supporting infrastructure are well established and will continue to exist in the corridor.



Island District (The HOK Planning Group & H3 Studio)

Island District initiatives include the following:

- Establish and strengthen the gateways to the Confluence Greenway especially where the proposed I-70 bridge, I-270 and the Highway 367 Clark Bridge span the rivers.
- Utilize existing streets as bike and pedestrian connections to adjacent communities and amenities.
- Facilitate the develop and implementation of key projects (i.e., Chouteau Island, Great Rivers Resource Center, Old Chain of Rocks Bridge).
- Support the extension of the Katy Trail from West Alton to Confluence Point.
- Encourage sustainable and ecologically sensitive land uses and practices in all publicly accessible open space.

Investment in the Riverfront Trail

Planning and development of the Riverfront Trail has been led by the City of St. Louis with the support of other government agencies and not-for-profit groups. More than \$1 million has been invested in direct capital expenditures and in-kind services by many City departments, including Streets, Park and Recreation, and the Board of Public Service over a 13-year period. Additional sources of support include:

- Missouri Department of Conservation -- financial and technical support for habitat restoration in the trail corridor.
- Missouri Department of Natural Resources -- financial support for initial trail development.
- Missouri Department of Economic Development -- funding for the Trail Ranger program.
- National Park Service -- financial and technical support for the plan development.
- U.S. Environmental Protection Agency -- environmental remediation in Trail corridor and financial support for the Native Plant Nursery.
- Metropolitan Sewer District -- technical and financial support for Trail operations.
- Grace Hill Neighborhood Services -- coordinated Trail development and operation with various agencies; sponsored Trail Ranger Program and Native Plant Nursery.
- Trailnet -- worked with City to plan and initiate Trail construction.

Financial support for the Riverfront Trail development and operations has come from many private sources including the Gateway Foundation, the Whitaker Foundation, Mallinckrodt, Inc., William Kerr Foundation, National Fish and Wildlife Foundation, ADM, and the McKnight Foundation.

Introduction

Planning Effort

The Riverfront Trail Enhancements Plan represents a collaborative effort between the City of St. Louis, Confluence Greenway, Grace Hill Neighborhood Services, Missouri Department of Conservation, National Park Service - Rivers, Trails and Conservation Assistance Program and Trailnet. The Riverfront Trail Enhancements Plan will serve as a tool to guide future development and use of the Riverfront Trail, to increase public support and excitement for the trail, and to attract funding opportunities.

Purpose of the Plan

The purpose of the Riverfront Trail Enhancements Plan is to identify the development needs for the Riverfront Trail. A series of public, business interests, and governmental meetings were held to assess the status and needs for the development of the Riverfront Trail. The information gathered from these meetings, in combination with the overall Confluence Greenway planning guidelines, were used to guide the development proposals for the Riverfront Trail Enhancements Plan. The following outlines the developmental needs for the Riverfront Trail corridor:

Activities -- The following activities occur and should, in some manner, continue to be supported:

- Biking
- Running
- Roller blading
- Fishing
- Walking
- To experience solitude or to participate in group social activities

The following unique qualities of the trail were identified:

- Viewing the Mississippi River up close.
- Observing wildlife such as eagles, beaver, and foxes.
- Seeing unique aspects of industrial portions of the city that can only be viewed from the trail.
- Visiting historic bridges.
- Experiencing nature near the city.

The following developmental needs will be addressed in the Enhancements Plan:

Access

- Parking areas are needed along key points of the trail.
- Access to fishing opportunities will be maintained.
- Access to businesses along the trail will be maintained.
- Connections to the neighborhoods and areas of interest will be developed.
- Buses and public transportation will be optimized to increase the ability to travel to and from the trail.
- Connections to other area trails will be pursued.

Safety & Security

- Vehicular access on the trail needs to be restricted.
- Safety education will be provided.
- A means to notify authorities in case of an emergency is needed.
- Dumping must be eliminated from the trail corridor.
- Emergency vehicular access to all lengths of the trail must be maintained.
- The perception of a safe trail is very important to foster, attract and retain trail users.
- Vehicular and non-vehicular traffic control signs are needed.
- The Trail Ranger program will continue its involvement with the trail.

Landscape & Environment

- Natural habitat will be enhanced.
- Ecosystems and degraded areas will be restored.
- Brownfields will be cleaned up.

Art, Interpretation & Public Events

- The importance of industry along the trail will be recognized and conveyed to the user.
- Educational opportunities will be enhanced.
- Interpretive signage and public art will be incorporated into the trail corridor.
- A unified sign system is needed.

Amenities

- Restrooms and water fountains will be provided.
- A major "trailhead" will be developed that provides provisions, bike rentals, and storage.
- Rest stops will be developed.
- Bike racks or storage will be available.
- Orientation and information signage is needed.
- Places to sit and stop will be included.

Operations & Maintenance

- Regular trail cleaning is needed to remove sand, mud, and debris from the trail.
- Exotic plants need to be removed.
- Native vegetation needs to be restored.
- A management entity needs to be in place.
- Regular repair of the trail and its amenities must be undertaken.

Economic Development

- Tourism potential of the trail will be optimized.
- Partnerships with businesses for concessions/visitor services along the trail will be explored.
- Inclusion of nearby neighborhoods will be supported.

Overall Goals

Access

- Make the trail easily accessible and recognizable for people in the neighborhoods, the St. Louis Area and visitors to the region.

Safety & Security

- Develop programs and facilities to provide a safe trail environment.

Habitat Management

- Create viable habitat and healthy ecosystems along the trail corridor.
- Maintain a natural setting with only development that supports or is compatible with recreational activities.

Art, Interpretation & Public Events

- Integrate programs and facilities to inspire and educate the trail user about the Mississippi River corridor and St. Louis area.



Public meeting participants

Amenities

- Identify and develop necessary facilities to enhance the trail to make it a safe, fun and interesting trail experience.

Riverfront Trail Identity

- Develop a trail identity that is reflected through all design elements (i.e., site furnishings, signs, landscaping).
- Coordinate trail identity with the Confluence Greenway and other Regional Parks.

Operations & Maintenance

- Identify management and maintenance practices that create a clean and safe trail that can be maintained in perpetuity.

Economic Development

- Use the Riverfront Trail to support regional and local economic development strategies.



Public meeting participants

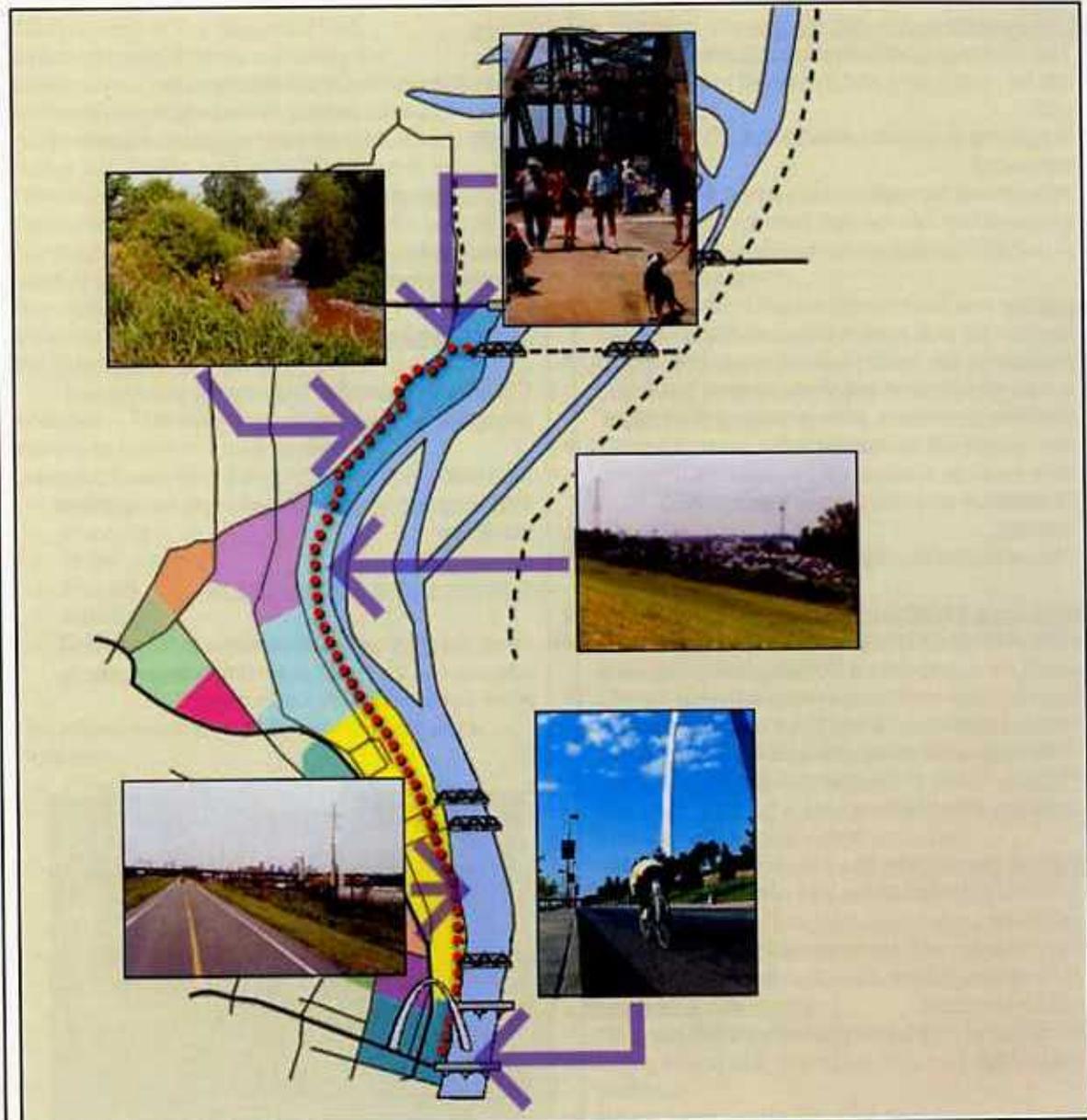
Introduction

Existing Conditions

The boundaries for the Riverfront Trail Enhancements Plan are from Leonor K. Sullivan Drive at the Gateway Arch north along the Mississippi River, through the industrial back yards of St. Louis, past North Riverfront Park, along Riverview Drive to the Old Chain of Rocks Bridge.

Currently, there exists a 10.6-mile asphalt trail that runs along the riverfront between the Gateway Arch/Laclede's Landing area to North Riverfront Park. The 1.4-mile segment from North Riverfront Park to the Old Chain of Rock Bridge has not been constructed. The trail follows the shore of the river -- at times on the west side (dry side) of the flood wall, along the east side (wet side) of the flood wall, or on top of the levee. The character of the trail varies greatly -- from urban warehouse district, industrial trucking and railroad yards, to natural areas full of wildlife habitats, native flowers, and view corridors across the river. The trail travels through a part of St. Louis' industrial beginnings and along the edges of many old St. Louis neighborhoods.

While initial planning for the Riverfront Trail was begun in 1987 by the City of St. Louis, the development for the trail is not complete. The trail surface and preliminary signing and striping have been completed through North Riverfront Park. Very few trail amenities or safety features have been installed along the trail. There are no marked trail connections between the trail and surrounding neighborhoods. Natural areas along the trail have been degraded from misuse. Current management of the trail has been an informal partnership relationship between Grace Hill Neighborhood Services, as part of the Confluence Greenway Project, local interests, and governmental departments to develop and maintain the Riverfront Trail corridor.



Character of the Riverfront Trail

Natural Resources along the Riverfront Trail

The industrial landscape of North St. Louis provides little hint of the rich natural wood of the Riverfront Trail. Despite its highly altered condition, many animal species continue to depend on the food, cover and water of this narrow corridor in an otherwise urbanized world. The surprising story of decline and resurgence of many corridor inhabitants hint at the possibility of restoring more of the diversity and function of this piece of the Mississippi River System.

The Mississippi River corridor once meandered in a vast bottomland of forests and wetlands. Remnant species survive from pre-European settlement times and provide necessary wildlife habitat and natural functions. Sycamore, silver maple, willow and other species line much of the riverbanks, anchoring the banks and slowing the flow of water. Blue heron perch on their branches surveying for food and raccoons nest in their hollows. Beyond the wooded corridor, indian grass, partridge pea and other native species survive in a landscape dominated by introduced exotics and provide important food sources for birds and insects.



*Eagles provide a large regional draw.
(Missouri Department of Conservation)*

Winged wildlife abounds along the trail, especially during spring and fall migrations along the Mississippi Flyway. Waterfowl fill the sky and shorebirds populate the sand islands, which can be viewed from the trail, during migratory peaks. Proposed river level management changes by the Army Corps of Engineers could return the endangered least tern to this stretch of the Mississippi and to the Missouri; currently nesting sites are restricted to southeastern Missouri due to the managed high spring water levels which serve barge traffic in this stretch.

Eagles, nearly extinct in the 1960s, attract many wildlife viewers in the cold days of January. Through protection and reintroduction efforts of the U. S. Fish and Wildlife Service and state agencies, including the Missouri Department of Conservation, bald eagles moved from endangered to threatened status and are now nesting in Missouri. Indigo bunting and monarch and cloudless sulfur butterflies color the summer months on the trail. More common resident species like the red-headed woodpecker and downy woodpecker dwell in tree cavities while American goldfinch and northern cardinal hide in the branches year round.

Diverse aquatic species hide in the waters of the Mississippi. Catfish attract many anglers to the banks of the Mississippi. The button industry originated in the Midwest because of the rich mussel resources provided by the Mississippi which provided meat, pottery and jewelry to the Native Americans. Today, muskrats, raccoons and other more visible wildlife seen on the trail continue to rely on these rich aquatic resources.

Common Missouri wildlife seen on the trail include deer, turkey and beaver, their stories of extirpation and return surprise many visitors because of their abundance now. Beaver leave reminders of their presence on tree stumps; although common, their secretive and often nocturnal habits mean they are seldom seen. Extinct from the area since 1915, the current population grew from six pairs introduced in the late 1930s. The state record non-typical deer came from land at Columbia Bottom Conservation Area, a few miles upstream. The Conservation Department reintroduced deer, too, in the early 20th century.

Proximity to St. Louis area residents heighten the value of natural resources of the Riverfront Trail. The trail serves not only as a refuge for its forest, fish and wildlife occupants but as an opportunity for education of and restoration efforts by its human neighbors.



*Wildlife along the trail draw visitors
from all around the region.*

Introduction

Cultural Resources along the Riverfront Trail

From early native American mound building communities to European trading outposts that developed over time into a single industrial corridor -- the story of the development of St. Louis' North Riverfront is the story of people living and working with the Mississippi River. The fishers and towboats glimpsed by users of the North Riverfront Trail today.

Glimpsed from the shore, the Mississippi can look tranquil, but steamboat pilots soon learned that this was its most dangerous stretch -- its rocky bottom and steep slope snared more steamboats than any other section of the river.

Steamboat pilots weren't the only ones who dared to challenge the River. Many men, women, and children held in slavery -- and those who helped them to freedom -- saw the River as a means of escape. The secrecy required for



North Grand Watertower (HABS/HAER 1942)

Underground Railroad activities has erased the names of most of those involved, but one 1855 newspaper preserves the story of an event that took place on the North Riverfront. Mary Meachum, widow of John Berry Meachum, the African American preacher who educated children on a steamboat moored in the Mississippi River, and two European American "agents" helped nine slaves, three of whom belonged to Henry Shaw, board a skiff above Bissell's Ferry. Most of the participants were captured on the Illinois shore.

The Illinois shore seen by hikers and bikers along the Riverfront Trail includes Mosenthein Island, named for the family that once lived there. Where the trail crosses Humboldt Street, the island's sandy beaches seem to beckon travelers to the Illinois side of the river. Unfortunately, the ferry that took sunbathers across in the 1940s is only a memory today.

By the 1940s, ferries had almost disappeared, falling victim to the railroad and the great bridges built by James C. Eads and his successors. Unlike Eads Bridge, which was built to carry pedestrians, horse-drawn wagons and trolleys, as well as trains, Merchants Bridge has carried only trains since its construction in 1889. The railroad tracks that parallel the River and Trail once carried Harry Truman's campaign train. Today they belong to the Burlington Northern Railroad and transport freight.

Although much of today's riverfront has been shaped by the industries that utilize the railroad's freight cars and the introduction of Interstate 70, much of the land immediately adjoining the Riverfront Trail is undeveloped wildlife habitat. The river and its wildlife continue to draw people

from the residential neighborhoods that lie across the interstate. Although these neighborhoods have much in common, each has its own history and identity.

Baden

This town began as a crossroads of two major thoroughfares in the early 1800s. Some of St. Louis' most famous citizens resided in Baden including the Switzer family, famous for their licorice, and William Carr Lane, the first mayor of St. Louis. Housing in Baden consists mainly of medium-sized single family brick homes built in the nineteenth and early twentieth centuries.

College Hill

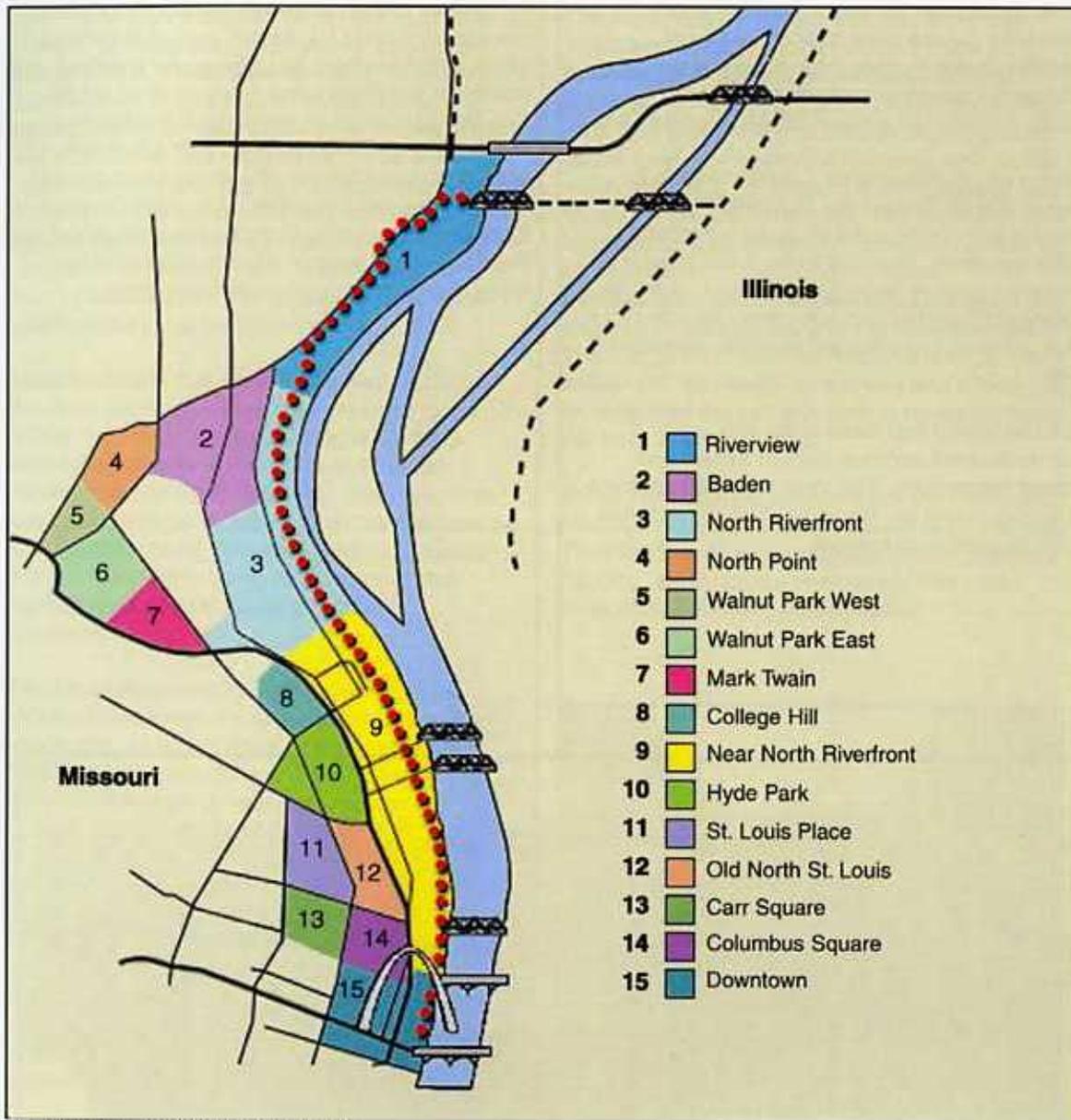
The College Hill neighborhood, bounded by I-70, Grand, Carter and Fair, takes its name from the St. Louis University College Farm that was located in the area during the 1800s. The neighborhood has large turn-of-the-century homes surrounding O'Fallon Park and many family flats.

Hyde Park

Located just two miles north of downtown, Hyde Park was incorporated in 1844 as the town of Bremen. German immigrants were attracted to the area primarily by one of the town's founders, Emil Mallinckrodt, naming it after a small town in Germany.

German and Irish immigrants were drawn to the area by job opportunities in local institutions such as the Union Stockyards, Mallinckrodt Chemical Works, and Hyde Park Brewery. The community developed into an industrial area, supporting lumber yards, furniture, barrel, and wagon making.

Introduction



Neighborhoods along the Riverfront Trail

Communication between Bremen and St. Louis was maintained via the "Great Trail," a pathway created in 1811. The Great Trail still exists in some form today, as its former route became what is now Broadway.

Bremen was never among the most affluent municipalities of St. Louis, but its well-organized, well-kept houses and strong work ethic made it among the most notable. In 1855 it was annexed into the city of St. Louis. To the detriment of the neighborhood, Interstate 70 was constructed in the 1950s, dividing the community's residential areas from the commercial areas.

Today, two active neighborhood organizations, Friedens Haus and Hyde Park Alliance offer stability for the area. There are many remaining features of interest from the area's historic roots. The McKinley Toll Bridge was constructed in 1910 to bring the Illinois Traction System line to St. Louis. The bridge now supports automobile travel across the Mississippi. The Bissell Mansion, the area's oldest brick home, constructed in the mid-1820's, was saved from highway demolition and is now a restaurant. Hyde Park developed as a public space in the 1840s from the estate of Dr. Bernard G. Farrar. In the 1870s the space was further developed to create a pleasurable and aesthetic park setting.

Old North St. Louis

Bounded by Cass, Branch, I-70 and North Florissant, Old North St. Louis has many old row and town houses. Grace Hill Neighborhood Services provides an anchor for the community, promoting a neighbors-helping-neighbors philosophy. The jewel of the area's businesses is Crown Candy Company, an old fashioned soda shop and candy store.

Introduction

While many of the neighborhoods adjacent to the Riverfront Trail have indeed seen better days there are reasons to be optimistic about the future.

Much of the region offers great views of the river and the downtown area, and the historic brick architecture has landed sections of Hyde Park and other neighborhoods on the National Register of Historic Places. In Old North St. Louis, the old Vaughn public housing site has been rebuilt into a mixed-income residential neighborhood called The Residences at Murphy Park.

In addition, urban revitalization efforts by grass-roots organizations have injected new life into these areas. Organizations such as The Grace Hill Riverfront Communities Project and HYPRE (a Hyde Park neighborhood organization), to name a few, have helped unite residents for the common good.

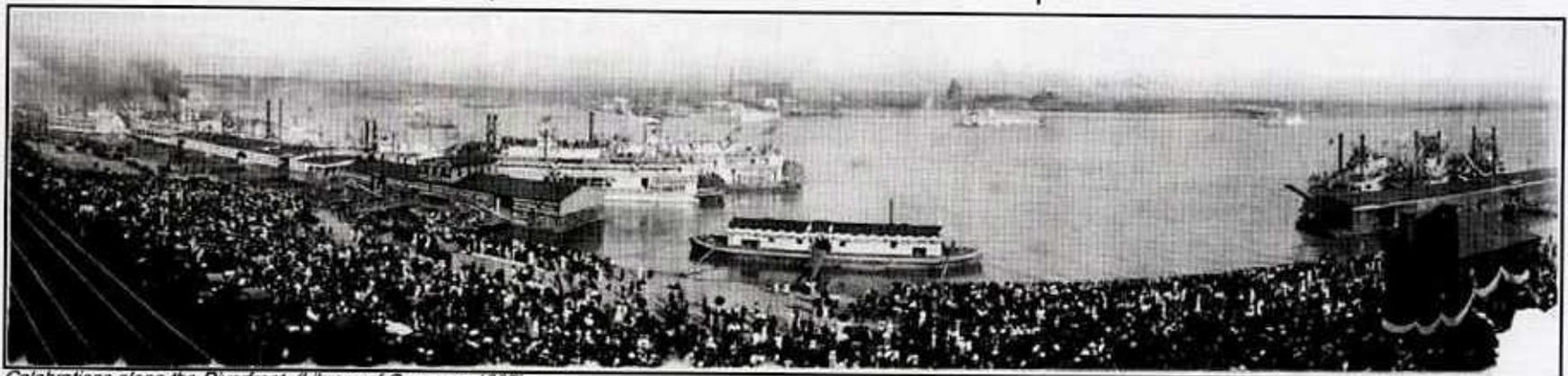
Although the commercial sectors of these areas, like most of North St. Louis, have largely disintegrated over the years, there are many noteworthy cultural resources in the region. Beautiful churches, civic pride organizations, community recreation centers, schools, and historic architecture are among the most obvious.

Calvary and Bellefontaine Cemeteries can be seen on the bluffs from the Trail. Within their fences is land never used for burial containing prairie remnants. Both the famous and infamous rest here including Tennessee Williams, General Tecumseh Sherman and John Berry Meachum. A grave guide can be obtained from the caretaker office.

It is to be hoped that these close-knit communities will continue to both rebuild and reinvent themselves. The river was the backbone of the region and the Riverfront Trail, in the future, will be integral to its survival.

St. Louis' Flood Protection System

An 11-mile system of levees and floodwall was completed by the U.S. Army Corps of Engineers in 1973. The Riverfront Trail follows the floodwall and travels on top of the levee for much of its length. The limited number of openings in the floodwall and access roads to the levee define how access to/from adjacent neighborhoods and cultural and historic sites can be routed. U.S. Army Corps of Engineers regulations to protect the integrity of the flood protection system will also determine the types of habitat restoration that may occur.



Celebrations along the Riverfront. (Library of Congress 1907)

Brownfields and Area Revitalization Efforts

Like many older industrial cities, St. Louis faces a number of obstacles that hinder its economic development. While once achieving tremendous success and vibrancy as a manufacturing and transportation center, much of the riverfront now lies abandoned and blighted by the very operations that afforded its economic prosperity. The city is now faced with malignant urban sprawl, declining inner city populations, underutilization of resources and infrastructure, and a high percentage of inner city residents who are unemployed or under-employed.

Neighborhoods that once thrived with activity in this area were ripped apart by the construction of I-70 in the 1960s, leaving behind a two-block area on each side of the highway filled with vacant and crumbling buildings. Area residents have been effectively cut off from the riverfront by the interstate along the entire corridor. Ironically, it is the river that is being rediscovered once again, leveraging for future growth and prosperity.

The North Riverfront Industrial Corridor was included in the region's Empowerment Zone application as one of its key developable sites. The Empowerment Zone is a decade-long program designed to stimulate investment, create jobs, expand businesses, and provide support for both the St. Louis and East St. Louis communities. Similarly, the official Economic Development Strategic Plan for the City of St. Louis, completed by the Sedway Group in June 1999, identifies this area as a priority redevelopment area, due to its large number of underutilized land parcels, fewer existing residents who would be displaced, and its close proximity to Downtown St. Louis.

The North Riverfront area includes more than 1,000 acres, 1,400 parcels of land, 500+ businesses, several dozen households, and an unknown number of brownfield sites, and a river port. The Riverfront Trail runs through the heart of this area connecting the Gateway Arch on the south with the confluence of the Mississippi and Missouri Rivers on the north. The proposed new Mississippi River Bridge will cross the corridor at its southern end, providing improved transportation access for industrial deliveries and creating a new gateway into the downtown area. The bridge will make this industrial corridor more visible and accessible for workers and others, but its impact on the trail and nearby neighborhoods will have to be evaluated.

Today, new regional initiatives like the Mississippi River Corridor Brownfield Initiative, are emerging. Their focus is on regional collaboration, capacity building, and resource leveraging. The multi-level, multi-boundary governmental



Brownfield site.

partnership that will be formed by this initiative will be instrumental in building regional capacity to address Brownfields redevelopment.

Ownership

One of the challenges to the redevelopment of this largely industrial area is the complex, and often confusing maze of ownership patterns that exists. While the City owns a number of vacant and abandoned buildings along the riverfront, many more are privately held and pose greater challenges for pursuing site assessment and remediation strategies. The two largest parcel owners along the riverfront are the City and Burlington Northern Railroad. The City owns much of the land immediately adjacent to the river. The City then leases some of these parcels (especially those south of Humboldt Street) to other interests for both mooring and land privileges. The Riverfront Trail Enhancements Plan uses this information to further guide trail development and access issues.



Brownfield site.

Trail Construction

Riverfront Trail Connection to Old Chain of Rocks Bridge

In order to complete the connection of the Riverfront Trail to the Old Chain of Rocks Bridge, the following 1.4 mile trail segment alignment is proposed. Although it normally follows close to the river, the Riverfront Trail will detour around the St. Louis City Waterworks plant and proceed through the lower parts of the former Old Chain of Rocks Amusement Park site. This hillside park will be restored and improved, providing not only an exciting trail linkage but a scenic overlook park convenient to local residents.

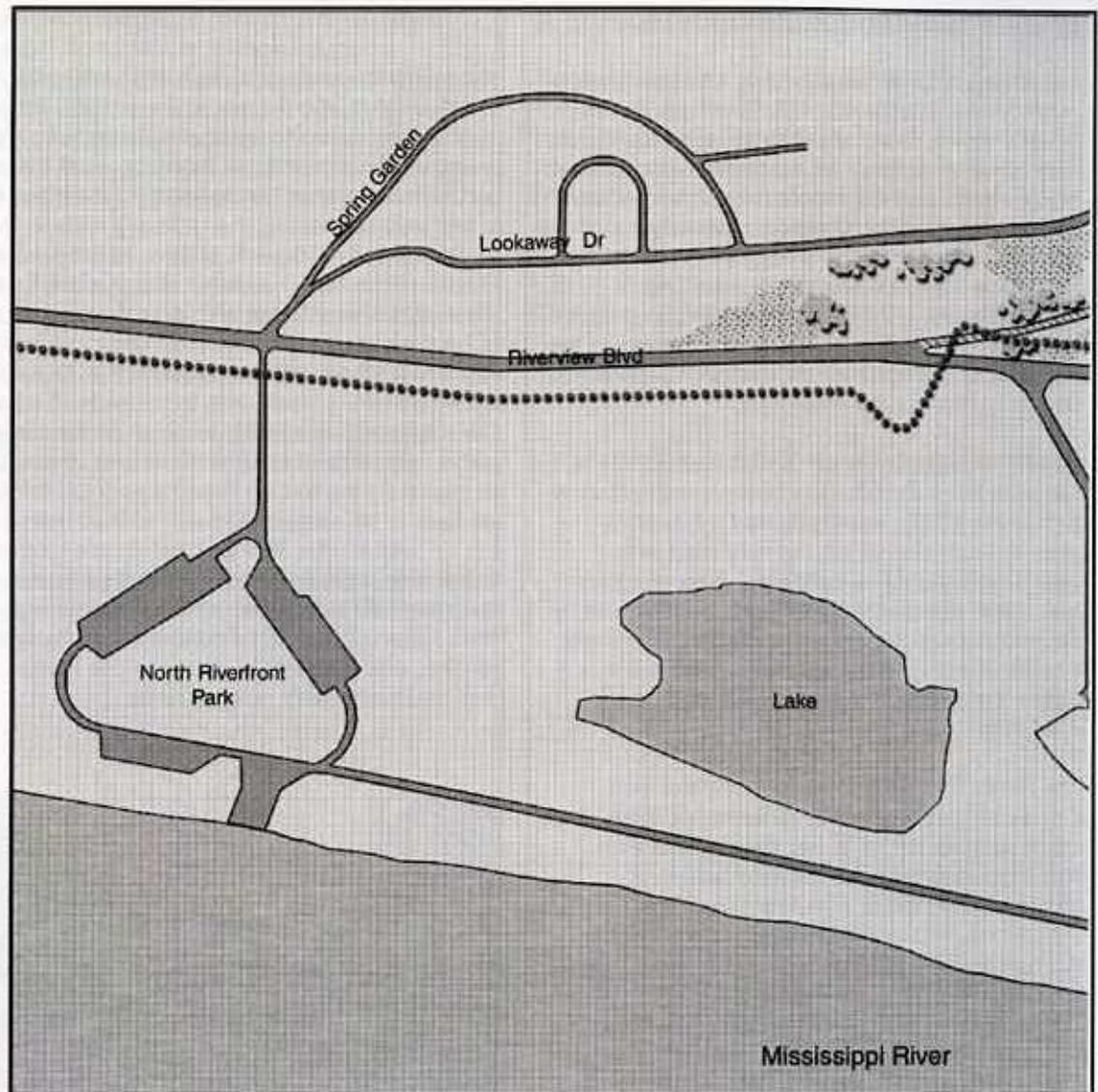
Proceeding north from North Riverfront Park, the trail will cross Riverview Blvd. to the front slope of the hillside above the City Waterworks. On the hillside vehicular access will be limited to one main route. The others roads will be reserved for pedestrians and bicycle use. Remnants of the old park, such as fountains and old stairways, will be rehabilitated. Interpretation of the water purification process as well as the history of the waterworks will be added.

Although the main trail will meander along the front of the hillside, some of the old roadways will connect to the top of the bluff. There, the old park area will be enhanced to function as a picnic area and local pocket park. Pavilions, picnic sites, a playground and a walking path will be added, along with an overlook platform.

At the north end of this park area, a second crossing will carry the trail back over Riverview Blvd. to the Old Chain of Rocks Bridge site.

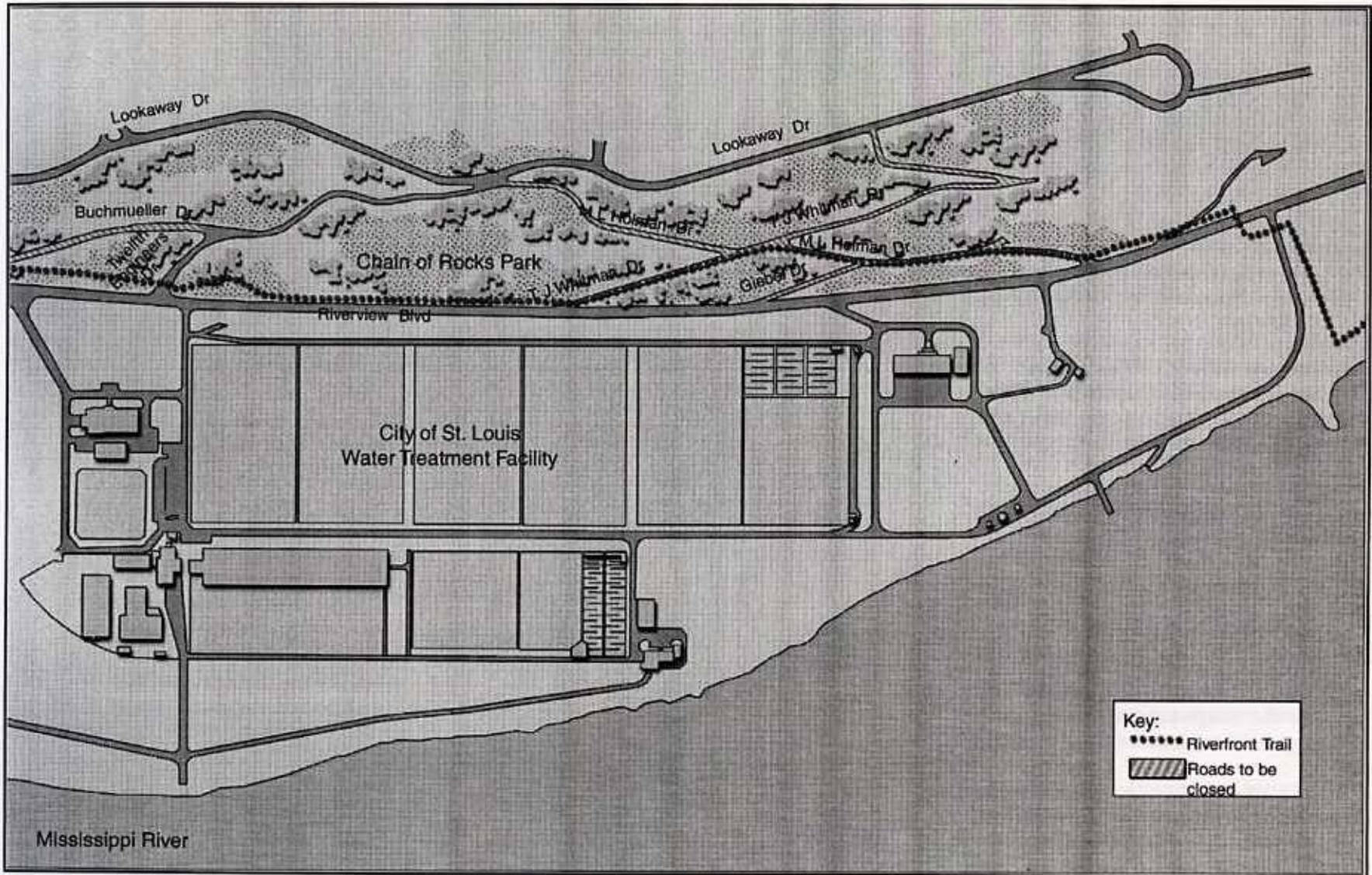
2.1

2. Trail Construction



Map showing connection between North Riverfront Park and Old Chain of Rocks Bridge.

Trail Construction



Trailheads & Access

Goals

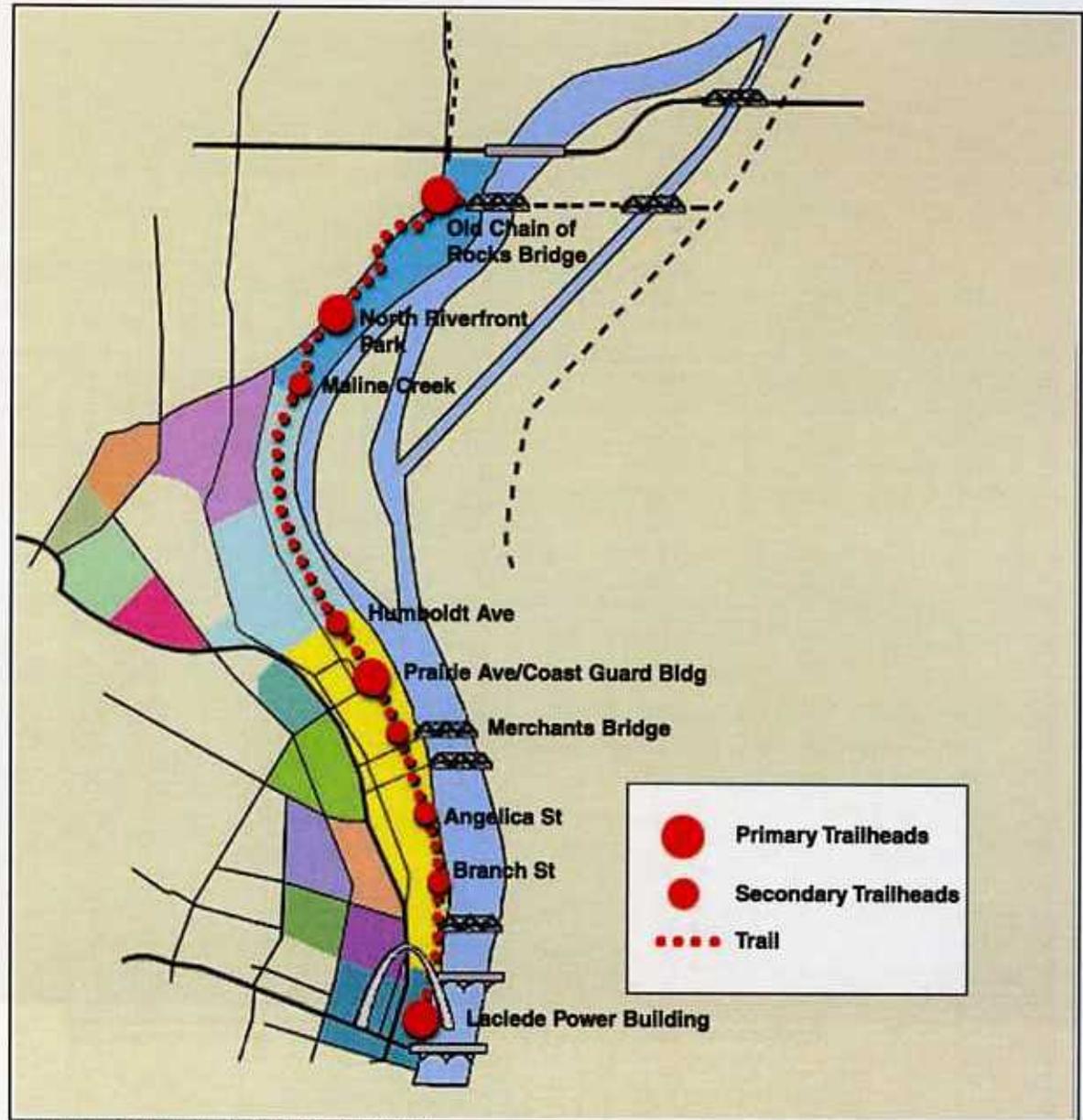
This section identifies locations along the trail where access must be provided to the Riverfront Trail for a variety of user types. Main access points to the trail will be designated trailheads (primary and secondary) with support facilities for trail users.

Additional access points are needed in order to provide access to private property and businesses that must have access to the wet side of the floodwall or levee. Also, anglers have fished the along the Riverfront Trail for generations and should continue to have access to traditional fishing areas. The goals of the section are to determine the safest and best means for the various users to access the trail.

- Establish Primary Trailheads and the types of amenities that they will have.
- Establish Secondary Trailheads and the types of amenities that they will have.
- Maintain access to private property and businesses on the wet side of the floodwall or levee and design safe vehicular crossings for these locations.
- Provide a safe means of access for anglers to fish along the trail.

3.1

3. Trailheads & Access



Locations of Trailheads along the Riverfront Trail

Trailheads

Trailheads provide an identifiable location at which the trail can be accessed. There are two types of trailheads, Primary and Secondary, that will be developed along the trail. The type of trailhead corresponds to the level of facilities that will be provided.

Primary Trailheads

Primary trailheads provide substantial facilities that support sustenance and orientation needs for both regional and neighborhood trail users. These trailheads have enough facilities to become either destinations or rest stops. Primary trailheads will contain:

- Information kiosks
- Trail maps
- Trash receptacles
- Parking Lots
- Water fountains
- Bicycle racks / bicycle parking
- Restrooms
- Concessions opportunities
- Emergency call boxes
- Native plant landscaping
- Benches & picnic tables



Laclede Power Building

Primary trailheads will be located at the following locations along the Riverfront Trail:

- *Laclede Power Building* -- Located a block north of Biddle and Leonor K. Sullivan, once renovated, it will create a vibrant center of activity (bike rentals and repairs, restrooms, concessions, etc.) and a strong anchor for the southern end of the Riverfront Trail.
- *Prairie Avenue/Old Coast Guard Building* -- Located midway along the Riverfront Trail, it will be developed as a demonstration native plant nursery site and fishing access.
- *North Riverfront Park* -- Currently one of the few locations along the Riverfront Trail that provides an ample amount of vehicle parking and restrooms, North Riverfront Park is ideally suited to hold large scale public events and provides one of the best areas to view a natural stretch of the Mississippi River.
- *Old Chain of Rocks Bridge* -- Located at the northern tip of the Riverfront Trail, OCORB is the site of many annual festivities and provides an important link to the Illinois side of the river.

Secondary Trailheads

Secondary trailheads are meant to provide orientation and access to the trail. Secondary trailheads are not as fully developed as the primary trailheads, and therefore, do not provide some of the more expensive amenities (i.e., vehicle parking, water fountains, restrooms). Secondary trailheads will contain:

- Information kiosks
- Trash receptacles
- Bicycle racks / bicycle parking
- Native plant landscaping
- Benches & picnic tables

Secondary trailheads will be located at the following locations along the Riverfront Trail:

- *Branch Street* -- provides an important connection to Hyde Park and the Near North Riverfront neighborhoods.
- *Angelica Street* -- provides an important connection to Hyde Park, College Hill and Fairground neighborhoods.
- *Humboldt Avenue* -- provides an important connection to Baden and North Point neighborhoods.
- *Maline Creek* -- provides an important connection to Baden and North Point neighborhoods.

Trailheads & Access

Laclede Power Building

The Laclede Power Building trailhead will encompass the area between the levee wall near Carr Street north along the levee system to just past O'Fallon St. The three key elements of the trailhead are the Biddle Street Rest Area, the Laclede Power Building and the river overlook area just outside the levee.

The Biddle Street Rest Area will be a modest pocket park with accessible parking, tables, signs, landscaping and wall mural. The site is visible from the Arch and is the southern gateway to the Riverfront Trail. The City owns the property and the project is projected to cost approximately \$100,000.

The Laclede Power Building is the anchor for the area and is an interesting historic structure in its own right. The initial phase of the project will bring the trail through the building. The second phase will include office space for Riverfront Trail operations and management. And the last phase will include retail services such as bike and skate rentals, snack shops or restaurants, and upgraded public rest facilities.

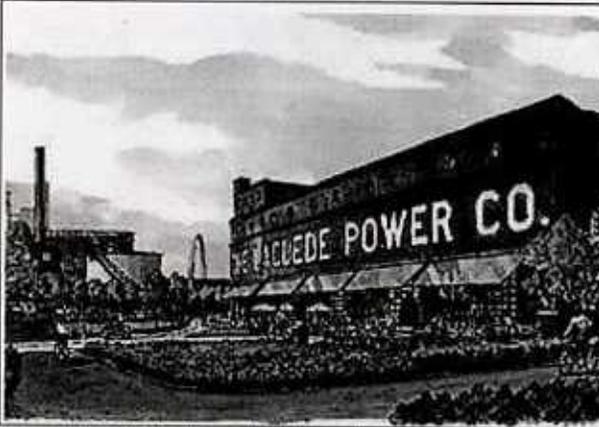
When visitors pass through the levee wall they will enter the river overlook area. This area will include items such as simple park benches, landscaping, public art (murals, sculpture), and interpretive signage. It might even include a riverboat permanently mounted at the 1993 flood height. All uses must be compatible with the flood prone environment.

3.3

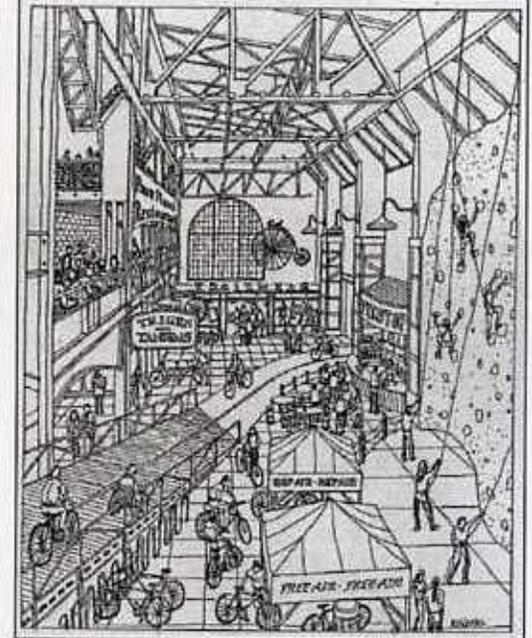
3. Trailheads & Access



Laclede Power Building Trailhead

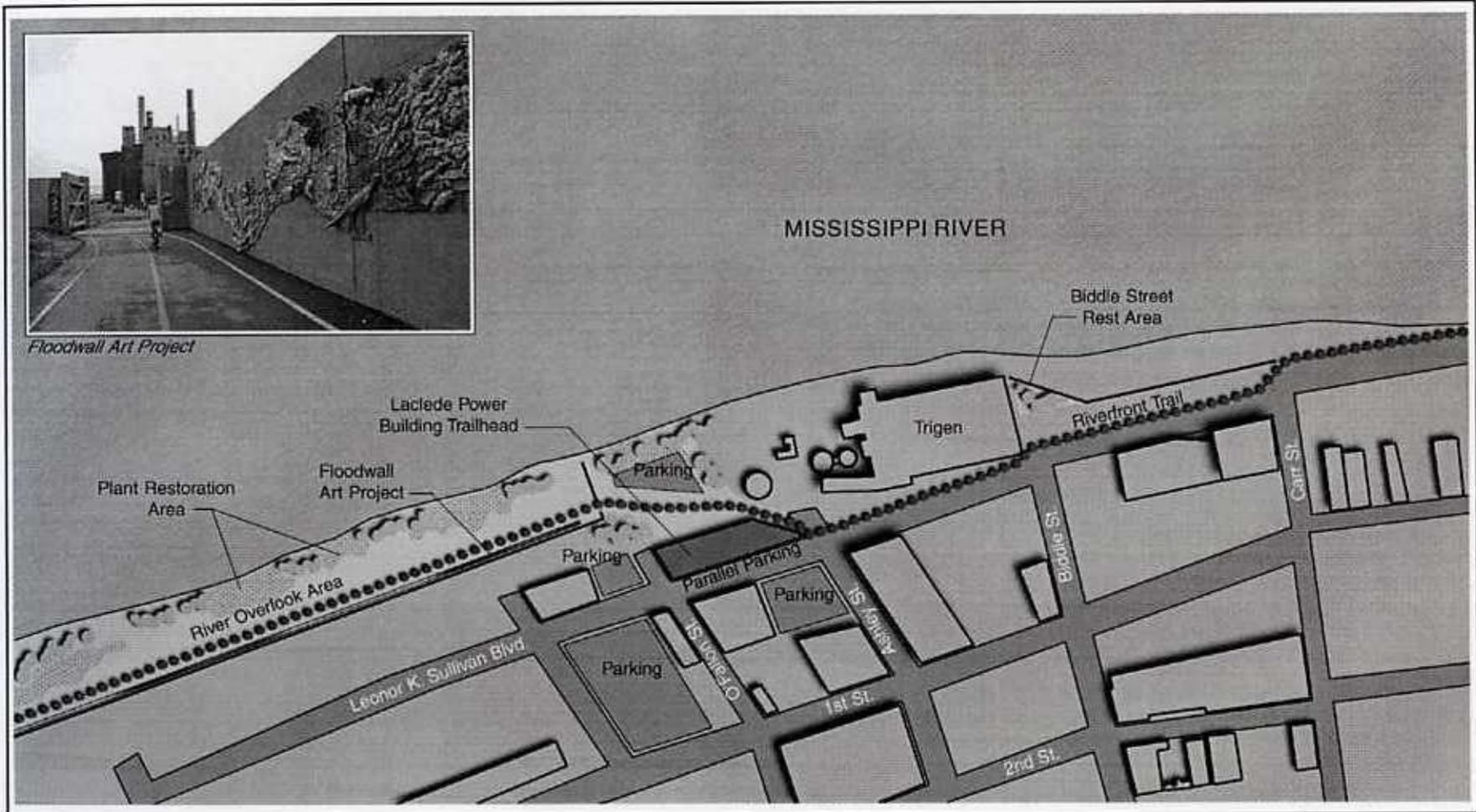


Proposed Laclede Power Building Trailhead



Proposed Laclede Power Building Trailhead (interior)

Trailheads & Access



Trailheads & Access

Prairie Avenue/Coast Guard Building

The Prairie Avenue Trailhead and Coast Guard Building trailhead will be developed in the following way:

Prairie Avenue is the connecting street to East Grand Avenue, which ties the College Hill and Water Tower neighborhoods to the Trail. It is also the thoroughfare for large trucks coming to the ADM granary, located by the floodwall.

A separate bicycle/pedestrian lane parallel to the street will be constructed that will not compete for space with trucks. Metropolitan Sewer District has agreed to assist in making space available on their property for this purpose. Planning needs to occur to create safe bike lanes along East Grand Avenue into the community (see Prairie Avenue Connector Route on page 4.5).

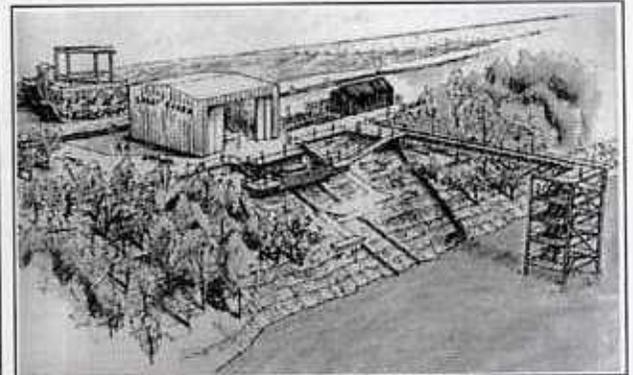
The old Coast Guard building sits approximately 150 yards south of Prairie Street where the trail intersects the floodwall. The large 2500 sq. ft. metal structure was originally a boat hangar. The structure is on the riverside of the levee from the MSD Bissell Point Treatment Plant.

Plans call for the building to be painted and the original Coast Guard signage restored. The building will have electricity, water and portable restrooms and allow for project space as well as a picnic area for trail users. The structure has large bay doors on its east and west sides that, when open, creates a much needed shaded breezeway.

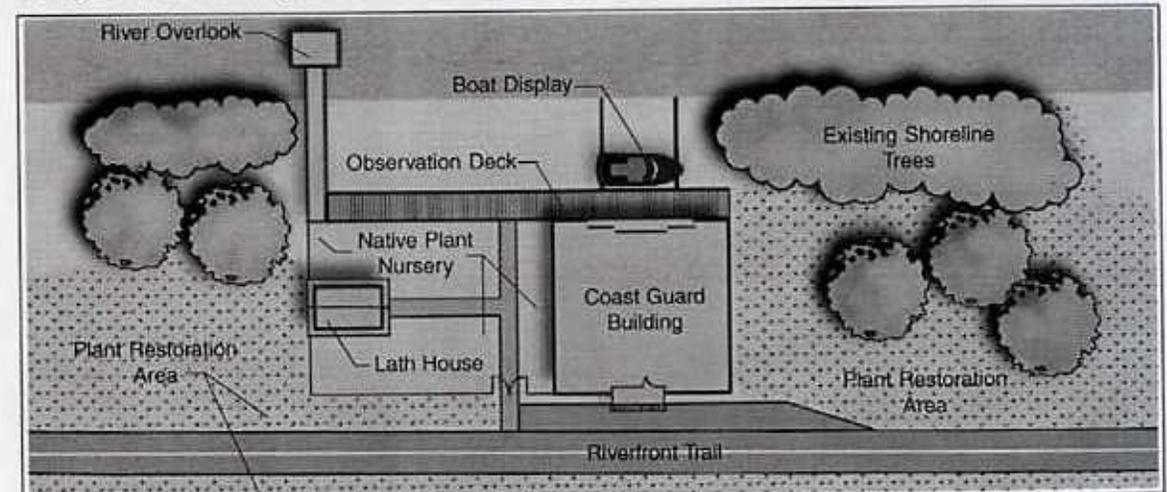
The pier will need major rehabilitation and will allow visitors to view the shore from the river as well as fish. On the north side of the building will be the native plant nursery demonstration site complete with a lath house to incubate seedlings.



Existing Coast Guard Building

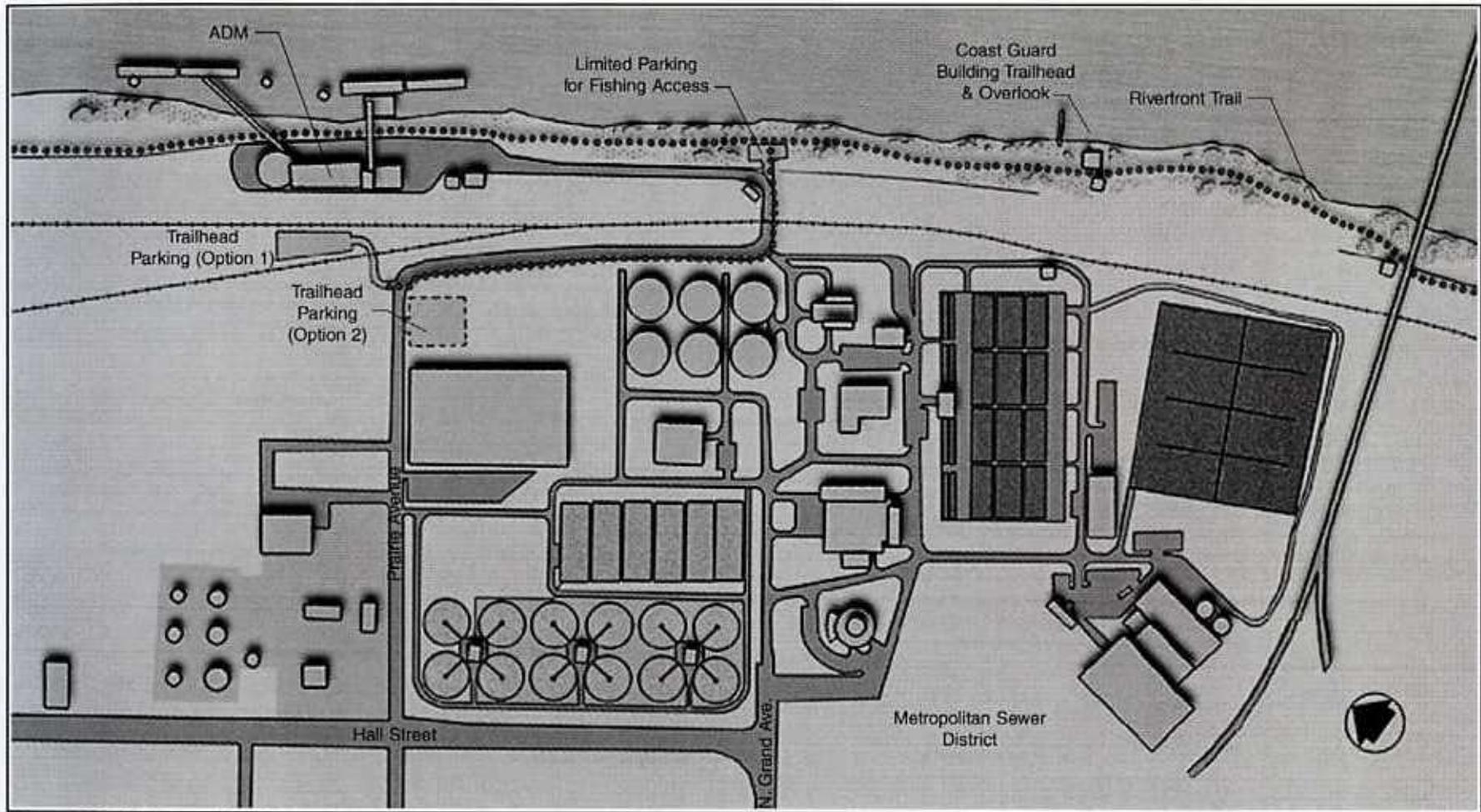


Rendering of Proposed Coast Guard Building Trailhead



Site Plan of Proposed Coast Guard Building Trailhead

Trailheads & Access



Proposed Prairie Avenue/Coast Guard Building Trailhead

Trailheads & Access

3.7

3. Trailheads & Access

North Riverfront Park

North Riverfront Park currently has its strengths and weaknesses. The Park, which stretches about 1.5 miles between Riverview Drive and the Mississippi River, is one of the few places where someone can view the River in its original form—no levees, floodwalls, or channeling. The park also has the only existing restroom for the entire Riverfront Trail. Walkers especially use the trail here.

Currently, the park is managed by the Water Department and the restroom and refuse managed by the Park Department. The park suffers from users littering and not following park rules. Parts of the trail paving are in low-lying areas that periodically flood. There is a small south parking lot where the restroom and a wildflower garden are located and a large north end parking lot where the boat ramp is located. Both parking lots have informational kiosks. Close to the north end by the Water Department is a fishing pond.

The park is conducive to a linear festival space along with a large-scale native plant landscaping effort that will include wildflowers, grasses and wetland areas. Trails will be rebuilt on a higher grade. Management that assures tighter controls on park use and maintenance is needed.

A group of local artists/developers has recently acquired 53 acres of land along the Riverfront Trail which used to be the Portland Cement property. Their vision is to convert the 15 acres along the Mississippi River, adjacent to North Riverfront Park, back into wetlands and moor a historic river dredge at the pier for educational and entertainment purposes. A bridge will be built over Riverview Blvd. to connect to a 38-acre interactive, outdoor water/sculpture park on the abandoned brownfield site.



Skiers using the trail in winter.

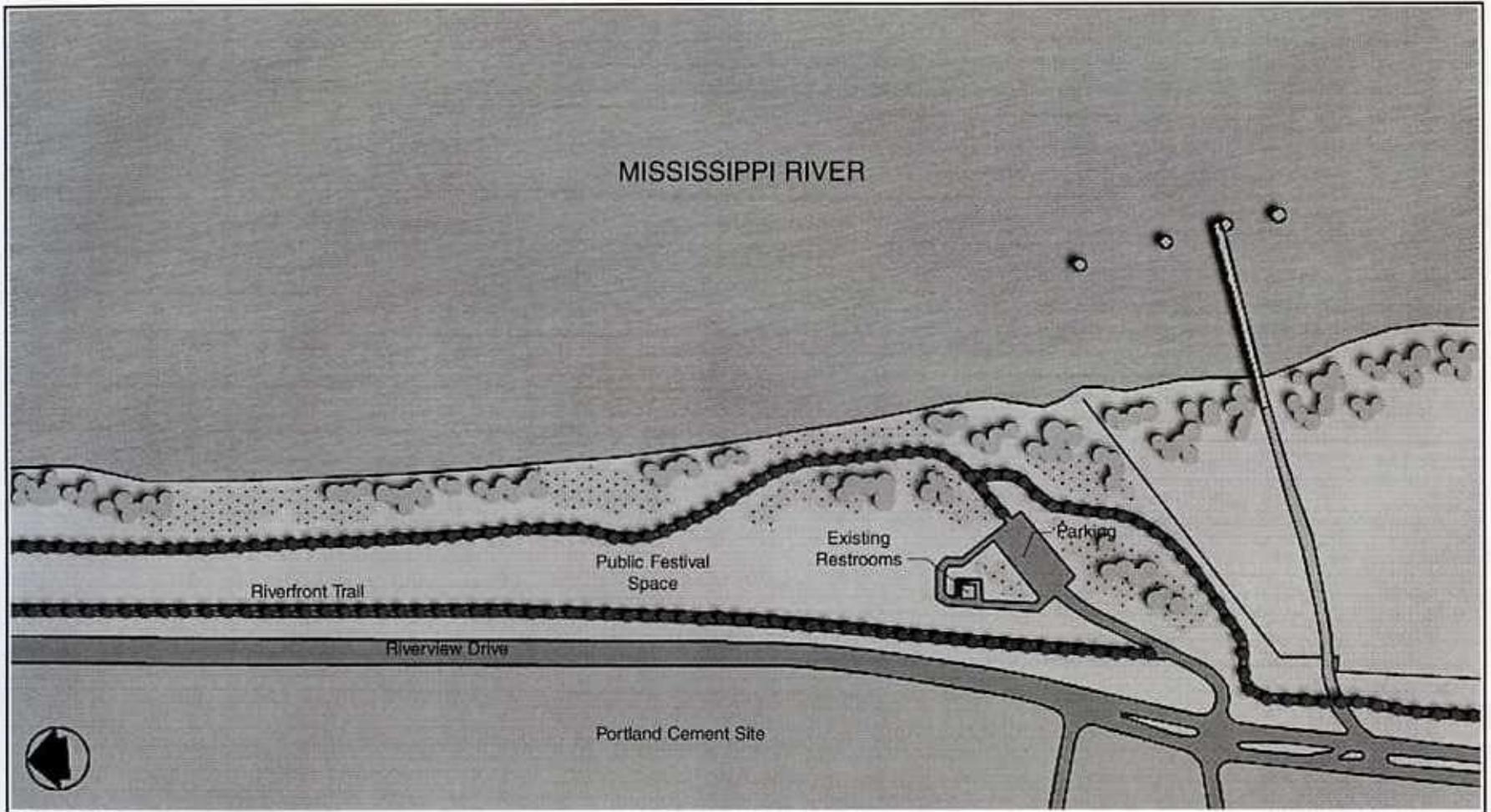


Portland Cement Site



Entrance to North Riverfront Park with the trail's only existing restrooms.

Trailheads & Access



Existing Site Plan of North Riverfront Park

Trailheads & Access

3.9

3. Trailheads & Access

Old Chain of Rocks Bridge

Once part of the fabled Route 66, the Old Chain of Rocks Bridge spans one of the most historic and scenic sections of the Mississippi River at the northern end of the Riverfront Trail. Completed in 1929 and closed in 1968 when the new Interstate 270 bridge to the north was opened, the bridge is now one of the longest pedestrian and bicycle bridges in the world.

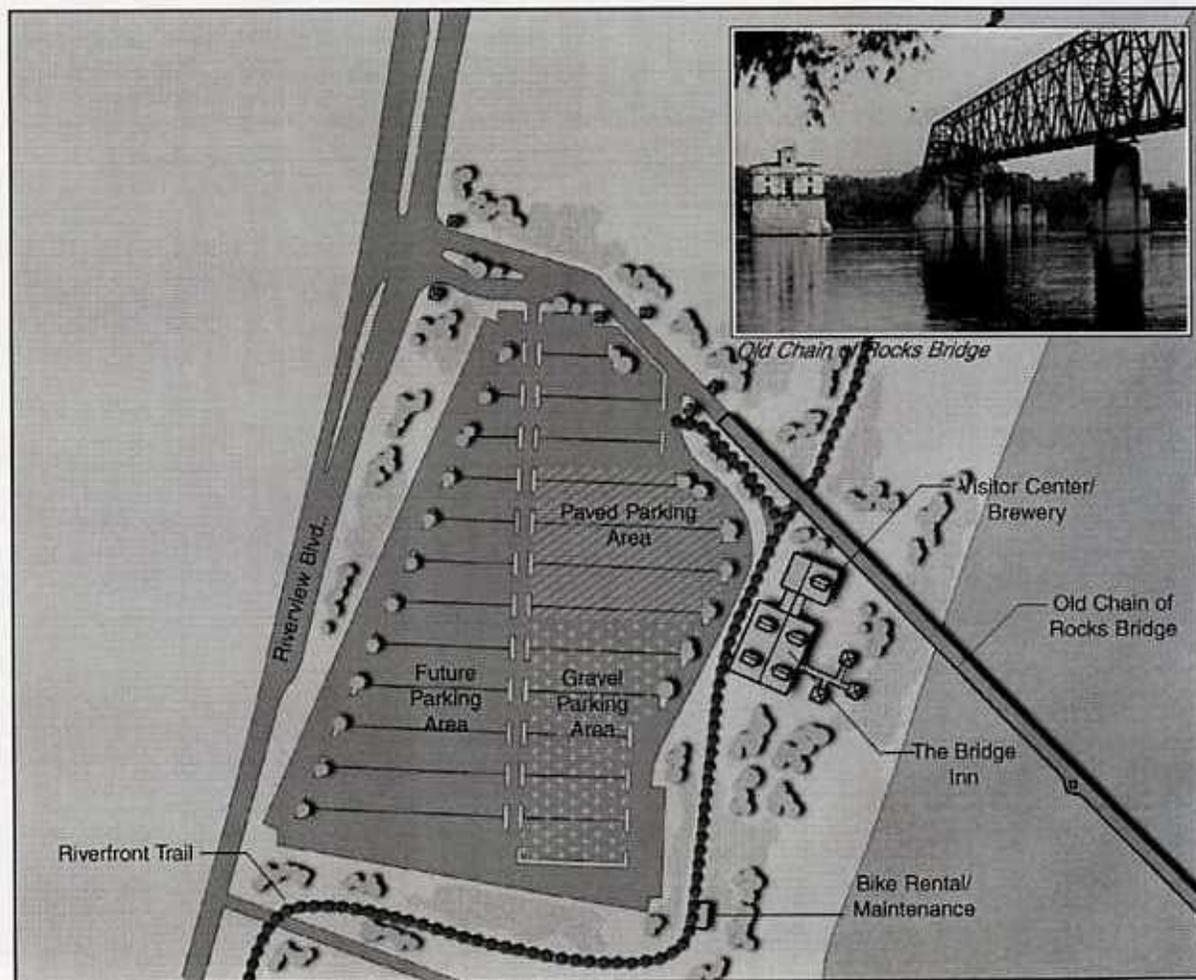
In 1996, Trailnet, Inc. leased the bridge from the City of Madison and began a \$4 million rehabilitation process. Basic repairs were completed in the spring 1999 and the Bridge opened for bicycle and pedestrian use on weekends. The bridge has captured the public's attention and has the potential to be a major destination for area residents and tourists. For example, an annual Eagle Days program drew more than 10,000 visitors in 2001.

The bridge is a unique facility. Few places in the United States have access to walk or bicycle across a waterway of the magnitude of the Mississippi River. The bridge connects to major natural and historic areas surrounding the confluence of the Missouri and Mississippi Rivers, including Columbia Bottom, Chouteau Island, and the Lewis & Clark Visitors Center.

The installation of amenities such as rest areas, parking, interpretive signage, and connecting trails is expected to be completed by 2003.

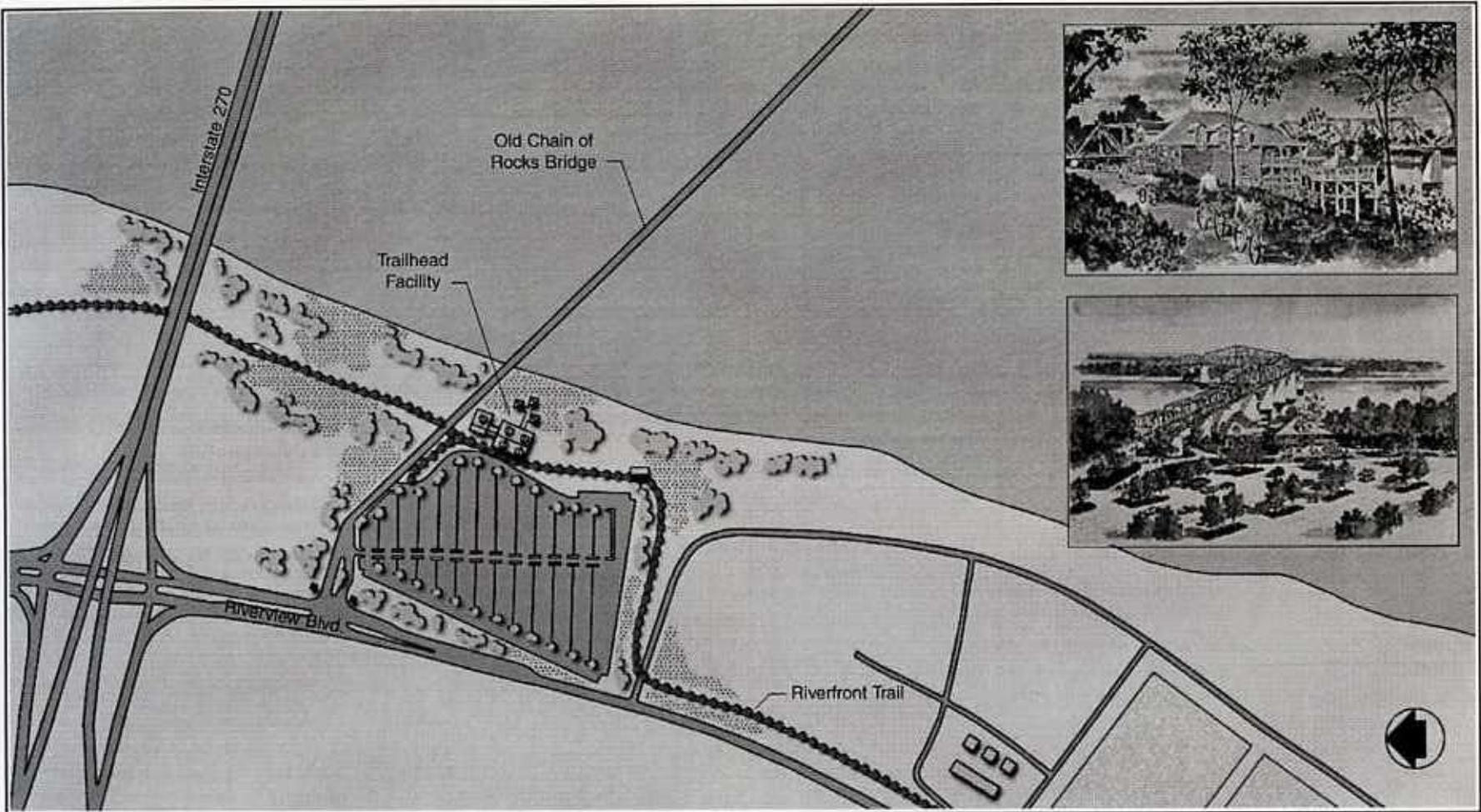
The plan for future enhancements includes viewing areas, interpretive displays, public art, restrooms, parking and picnic facilities on or adjacent to the bridge.

The Riverview Blvd/I-270 intersection will retain development compatible with conservation and recreation use.



Detailed Site Plan of Proposed Old Chain of Rocks Bridge Trailhead

Trailheads & Access



Proposed Old Chain of Rocks Bridge Trailhead

Trailheads & Access

3.11

3. Trailheads & Access

Rest Stops

Rest stops are located at intermittent locations along the trail for users to rest and / or contemplate the trail experience. They are located in areas along the trail that provide good views of the trail corridor. They do not provide facilities to support trail users sustenance or personal needs. Rest stops will contain:

- Bicycle rack / bicycle parking
- Picnic tables
- Benches / seating
- Roof structure to provide shade and shelter
- Native plant landscaping
- Good views
- Trash receptacles

Rest stops will be located at the following locations along the Riverfront Trail:

- *Biddle Street* -- Located just south of the Laclede Power Building, this modest pocket park is visible from the Arch and is part of the southern gateway to the Riverfront Trail.
- *Merchant's Bridge* -- Located at the base of the Merchant's Bridge, this overlook provides a great vantage point from which to study the architectural and engineering magnificence of the bridge, in addition to being a favorite fishing spot.
- *Humboldt Avenue* -- Located about 1/4 mile south of Humboldt Street, this is the first rest stop along the trail to be implemented. This rest site provides exceptional views across the river to Chouteau Island.

Access Points

Access points are areas along the trail that provide a means to get to the trail, but are not developed with any support or orientation amenities because they are either in close proximity to another trailhead or are too dangerous with respect to vehicular traffic. Trail identification signs should still be located at nearby street intersections to direct people to the trail. At access point locations where vehicular traffic must cross the trail, removable bollards should be placed to restrict movement to a designated area.

There are two other types of access that should be accommodated on the trail. They are vehicular crossing/combined traffic areas and fishing access points.

Vehicular Crossing / Combined Traffic Areas

Specific areas along the trail will be designated where vehicles must either cross it or drive along a certain length of the trail. These particular areas are necessary in order to accommodate either businesses or private property that must have access to the flood side of the levee or

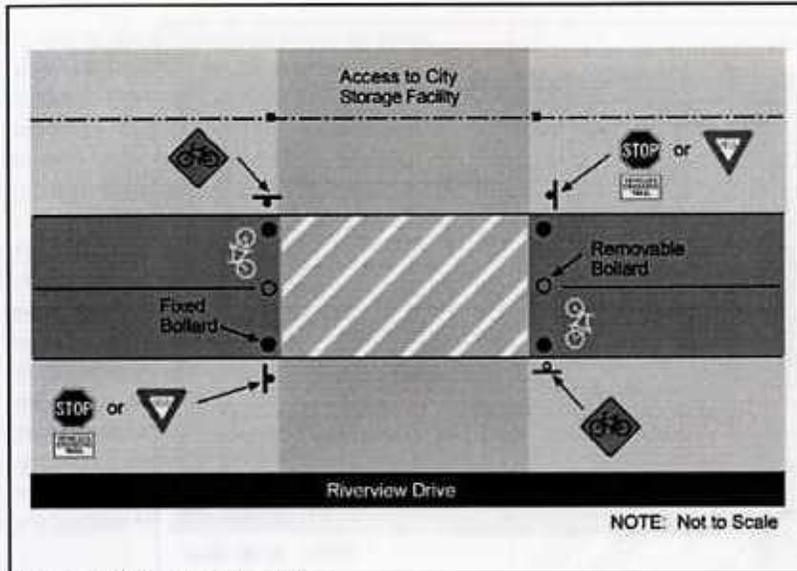


Humboldt Avenue rest stop

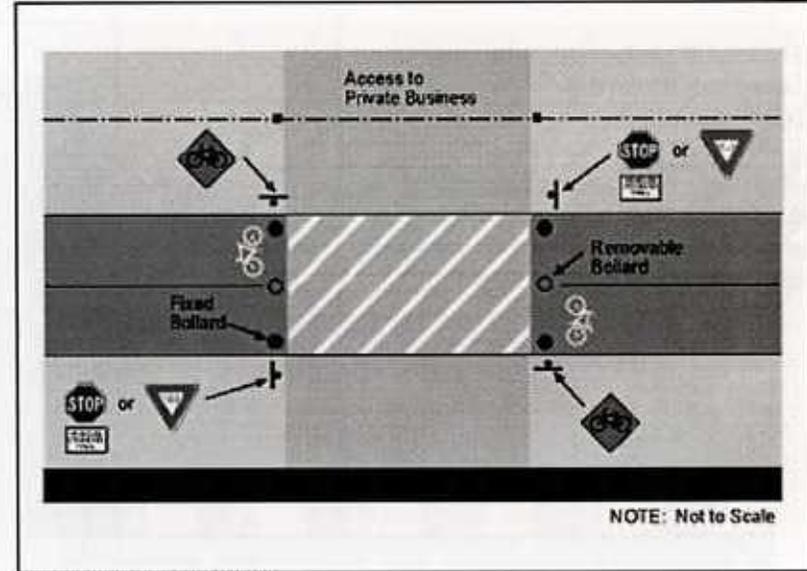
floodwall. Proper safety signing and striping that complies with American Association of State Highway and Transportation Officials (AASHTO) and Manual of Uniform Traffic Control Devices (MUTCD) guidelines should be installed at these locations. In addition, barriers should be installed to prevent vehicles from traveling further than the allowable area along the trail. According to city ordinance, Board Bill #37, vehicles are banned from traveling on the trail except at designated crossing areas. The areas where vehicle crossing will be permitted are:

- *Maline Creek* -- A gravel road crosses the path just to the north of the Maline Creek bridge for the purpose of providing access to the City's salvage yard.
- *Frucon Crossing* -- A gravel road crosses the path to the north of Maline Creek to provide access to Frucon (private business).
- *Humboldt Avenue* -- Humboldt Avenue provides access to both City property and Alberici Construction to the south and to private property to the north.
- *MSD Access Road* -- A gravel road crosses the path just to the south of the Coast Guard Building at the MSD pumping station. MSD uses this gravel road to access pumping station and wet side of floodwall.

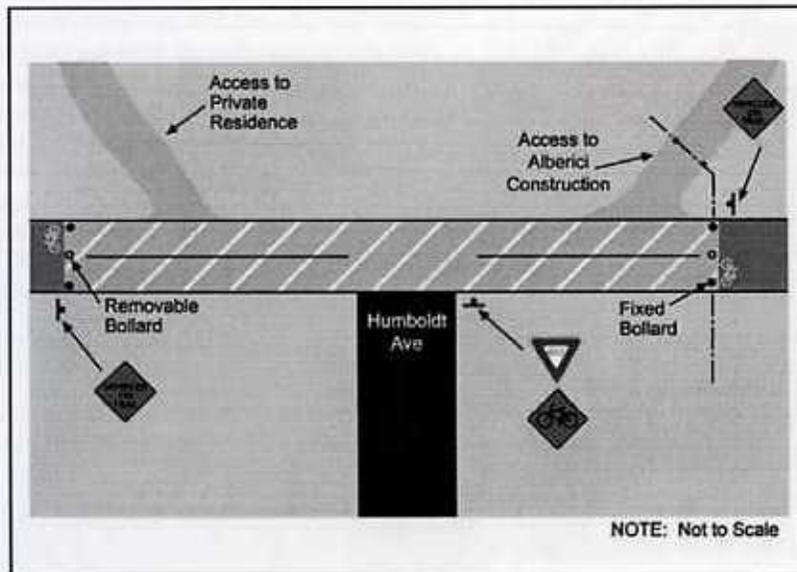
Trailheads & Access



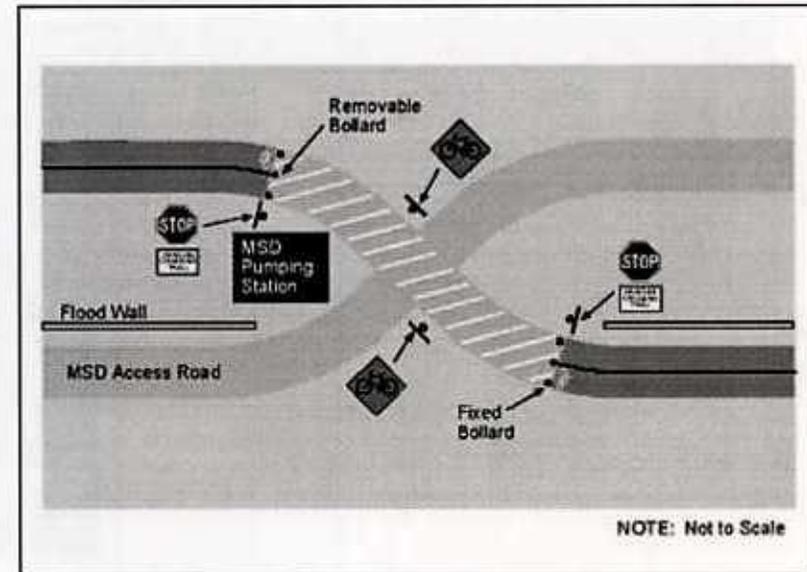
Proposed Maline Creek crossing



Proposed Frucon crossing



Proposed Humboldt Avenue crossing



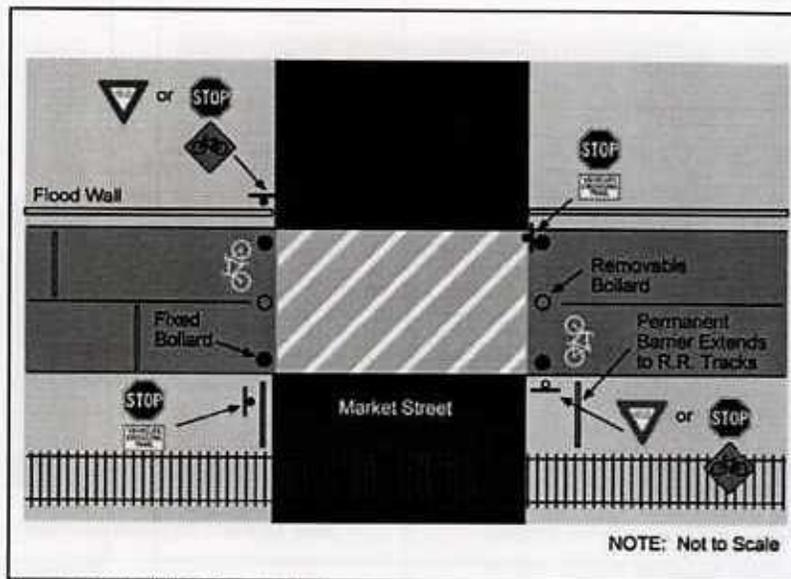
Proposed MSD Pumping Station crossing at Merchant's Bridge

Trailheads & Access

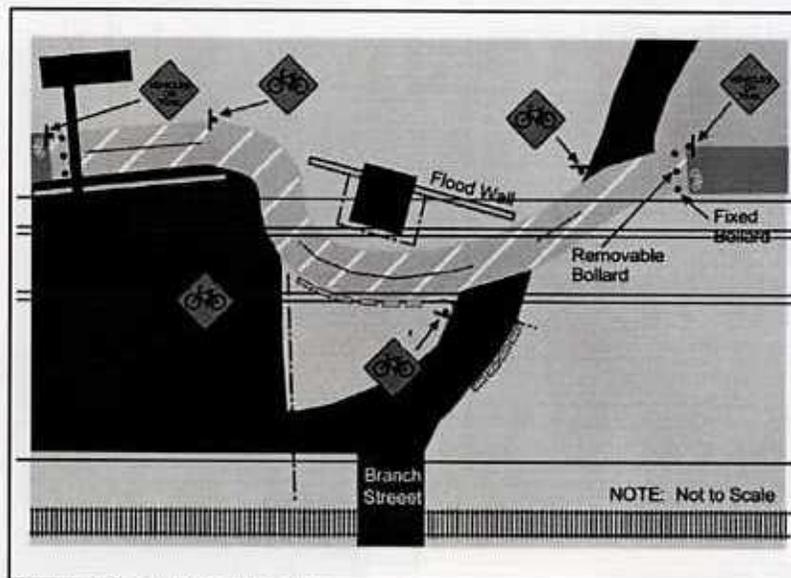
3.13

3. Trailheads & Access

- *North Market Street* -- Heavy two-way truck traffic associated with the City's dock operations.
- *Branch Street* -- City leases property to Kiesel Oil. Kiesel Oil has both mooring and land privileges and therefore must have access to the wet side of the floodwall.



Proposed North Market crossing



Proposed Branch Street crossing

Trailheads & Access

3.15

3. Trailheads & Access

Action Items & Guidelines

- Design development of Primary Trailheads which will be located at:
 - Laclede Power Building
 - Prairie Street / Coast Guard Building
 - North Riverfront Park
 - Old Chain of Rocks Bridge
- Design development of Secondary Trailheads which will be located at:
 - Branch Street
 - Angelica Street
 - Humboldt Avenue
 - Maline Creek
- Design development of Rest Stops which will be located at:
 - Biddle Street
 - Merchants Bridge
 - Humboldt Avenue
- Install necessary signage, striping and bollards for vehicle crossing areas (as identified in this section) along the trail.
 - Design of crossings must meet AASHTO and MUTCD guidelines.
 - Vehicle crossing areas should be paved in order to minimize tracking of dirt and other debris onto the trail surface.
- Fishing zone [to be determined]

- Begin construction of Primary Trailheads.
- Begin construction of Secondary Trailheads.
- Begin construction of Rest Stops.

Trailheads & Access

Angler Access

Fishing along the Mississippi River by local residents is a tradition handed down from generation to generation. Currently, anglers drive on and cross the Riverfront Trail to access their favorite fishing locations in the area between the Merchant's and McKinley Bridges.

With the increasing popularity of the trail, a safety concern has risen between the increased number of trail users and the vehicles anglers use to access their favorite spots. Trail users are concerned about the hazards of sharing the 14-foot path with cars and the limited ability to see oncoming traffic at certain trail locations. Anglers are concerned about leaving their cars out of sight from their fishing location or having to move fishing supplies for any distance.

This plan proposes the following accommodations for fishing in light of the new trail safety concerns and the city ordinance prohibiting vehicles from driving on the trail. Fishing will be allowed along the entire length of the trail. Vehicular parking to access the favorite fishing locations will be designated at the Prairie Avenue parking area. The trailside parking stalls located at the flood wall break at the trail will be reserved for angler parking.



Fishing has occurred along the Mississippi for many generations.

Summary of Riverfront Trail Facilities

	Information kiosks	Trail maps	Trash receptacles	Bicycle racks	Water	Restrooms (flush)	Restrooms (portable)	Benches	Picnic tables	Vehicle parking (lot)	Emergency phones	Native plant landscaping	Fishing Pier
Old Chain of Rocks Bridge	•	•	•	•	•		•	•	•		•	•	
North Riverfront Park	•	•	•	•	•		•	•	•		•	•	•
Malinge Creek	•	•	•	•				•	•	•	•		
Humboldt Ave			•	•				•	•	•		•	
Humboldt Ave Rest Stop	•	•	•	•	•	•	•	•	•		•	•	•
Humboldt Ave/Coast Guard Bldg			•	•				•	•	•	•	•	
Prairie Ave/Bridge	•	•	•	•				•	•	•	•	•	
Merchant's Bridge			•	•				•	•	•		•	
Angelica Street	•	•	•	•	•		•	•	•		•	•	
Branch Street			•	•				•	•			•	
Biddle Street	•	•	•	•	•		•	•	•		•	•	
Laclede Power Bldg													

Goals

One of the major keys to the success of the Riverfront Trail is to attract users to and from the trail. The Riverfront Trail will have a regional draw as part of the Confluence Greenway, attracting people from the greater St. Louis area. The purpose of the connector routes is to:

- Provide safe and identifiable routes of travel between the adjacent neighborhoods/businesses and the trail.
- Provide links between MetroLink and regional bus routes.
- Provide locations where authorized and emergency vehicles can easily access the trail.
- Provide and encourage connections to other regional bike routes, including those proposed by the City and the Confluence Greenway.

Neighborhood Connections

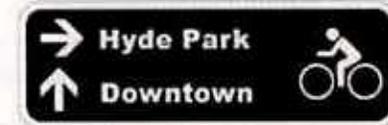
Connector routes are designated routes to travel between the trail and adjacent neighborhoods. Connector routes will be located at several points along the length of the trail, but are primarily associated with the locations of the primary and secondary trailheads. It is important that the connector routes link to focal areas (such as a neighborhood park, prominent street, major intersection) for each neighborhood that a connection is being made.

For the most part, connector routes will be designated using signs attached to poles along streets and at major intersections. A sign with a simple, singular symbol and an arrow should be used to designate the route for trail users. On busier streets, designated bicycle lanes should be implemented to provide a safe route to travel.

Following is a list of the proposed connector routes from the trailhead to the neighborhoods served by the route.

- Laclede Power Building Connector -- provides connections to Columbus Square, Carr Square, Downtown and Downtown West Neighborhoods.
- Proposed North Market Street Connector -- provides connections to Old North St. Louis and St. Louis Place Neighborhoods via a reconstructed pedestrian bridge over I-70 that connects to a vacated railroad line that is elevated above Market Street.

- Branch Street Connector -- provides connections to Near North Riverfront and Hyde Park Neighborhoods.
- Prairie Avenue Connector -- provides connections to College Hill, Fairground, O'Fallon, Penrose, Mark Twain, Walnut Park East Neighborhoods.
- Humboldt Avenue Connector -- provides connections to Baden and North Point Neighborhoods.
- Maline Creek Connector -- provides connections to Baden and North Point Neighborhoods.
- North Riverfront Park Connector -- provides connections to Riverview Neighborhood and North St. Louis County.



Connector Routes

Laclede Power Building Connector

The Laclede Power Building Trailhead provides connections to the Columbus Square, Carr Square, Downtown and Downtown West Neighborhoods. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- **Biddle Street** -- primarily a residential street.

Recommended improvements:

Street pole signs.

- **Leonor K. Sullivan Drive** -- provides a major connection between the Arch Grounds and the Laclede Power Building Trailhead. As one of the main streets through Laclede's Landing, Leonor K. Sullivan Drive is heavily traveled by both tourist traffic and construction traffic. Leonor K. Sullivan Drive provides connections to Laclede's Landing, the Admiral Casino and the Arch.

Recommended improvements:

Striped bicycle lane.

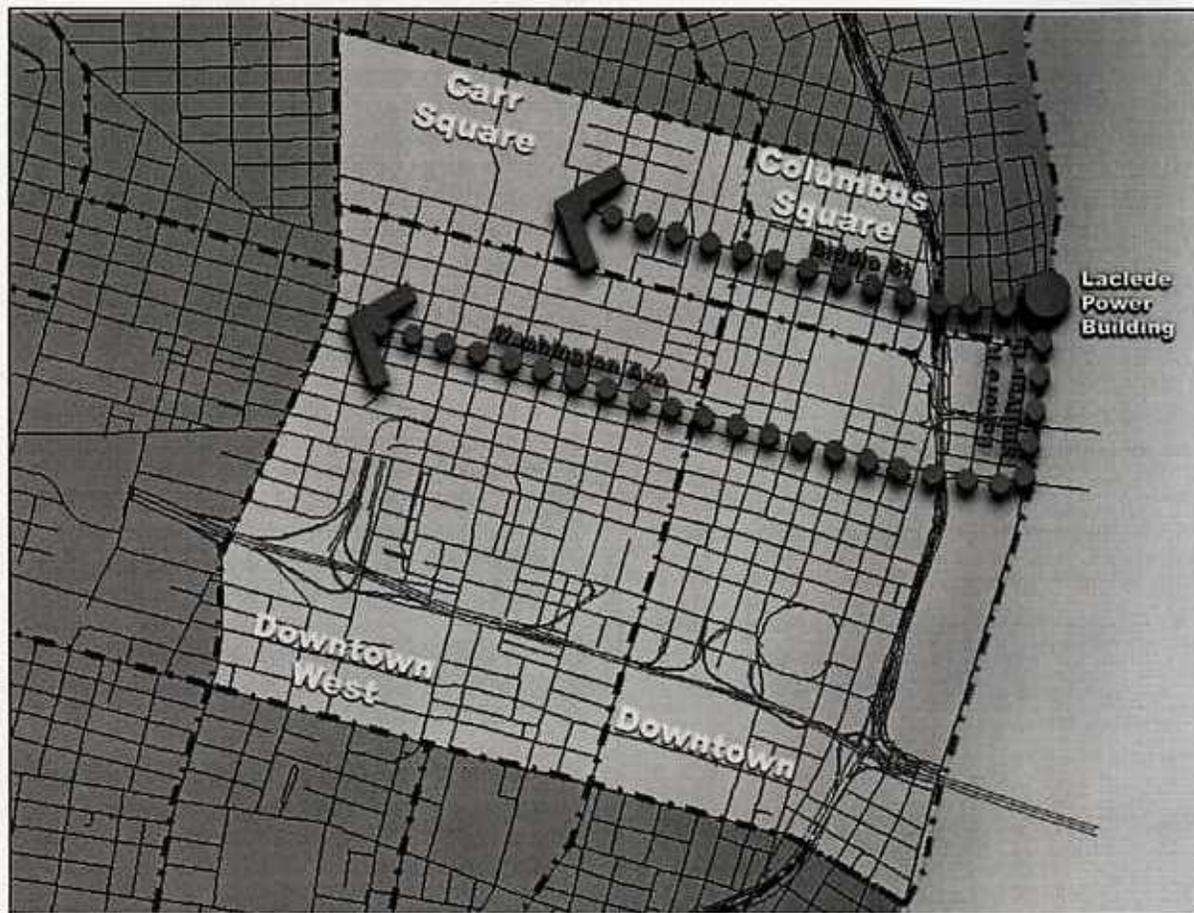
Street pole signs.

- **Washington Avenue** -- is an important street along the northern edge of Downtown. Major streetscape improvements are already occurring along this street in connection with the new Convention Center Hotel and the Washington Avenue Loft District. Washington Avenue provides connections to MetroLink, the Convention Center and the Loft district.

Recommended improvements:

Extra wide vehicular lane to accommodate bicycles.

Street pole signs.

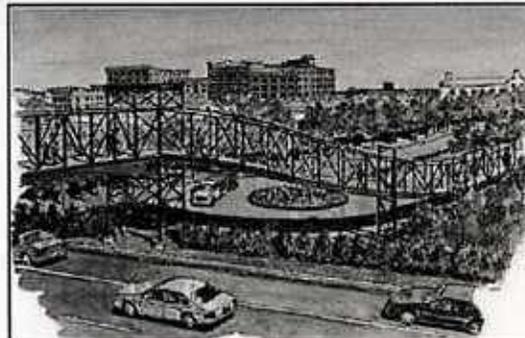


Neighborhood connections from the Laclede Power Building Trailhead.



Neighborhood connections from the Branch Street Trailhead.

North Market Street is a key arterial of the proposed 5th Ward Neighborhood Plan. It is envisioned to have a center tree island that connects to the redesigned pedestrian bridge over I-70. This new pedestrian connection will make use of the vacated elevated railroad line to reestablish the neighborhood's connection with the river in a safe manner.



Proposed Market Street pedestrian bridge. (5th Ward Neighborhood Plan)

Branch Street Connector

The Branch Street Trailheads provides connections to the Near North Riverfront, Old North St. Louis, St. Louis Place and Hyde Park Neighborhoods. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- ***Branch Street*** -- local industrial traffic east of I-70. Residential street west of I-70.
Recommended improvements:
Street pole signs.
- ***N. 9th Street*** -- primarily localized industrial traffic.
Recommended improvements:
Street pole signs.
- ***St. Louis Avenue*** -- residential street with center tree island.
Recommended improvements:
Street pole signs.
- ***13th Street*** -- residential street.
Recommended improvements:
Street pole signs.
- ***Salisbury Street*** -- heavily traveled bridge over I-70.
Recommended improvements:
Designated bicycle lane, separated from vehicular traffic OR
Extra wide vehicular lane to accommodate bicycles.
Street pole signs.

Connector Routes

Angelica Street Connectors

The Angelica Street Trailhead provides connections to Hyde Park, College Hill, Fairground, and the Near North Riverfront Neighborhoods. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- **Angelica Street** -- primarily localized industrial traffic east of I-70, residential west of I-70.

Recommended improvements:

- Striped bicycle lane.
- Street pole signs.

- **West Florissant Avenue** -- heavily traveled, very wide roadway.

Recommended improvements:

- Designated bicycle lane, separated from vehicular traffic OR
- Extra wide vehicular lane to accommodate bicycles.
- Street pole signs.

- **North Florissant Avenue** -- heavily traveled, very wide roadway.

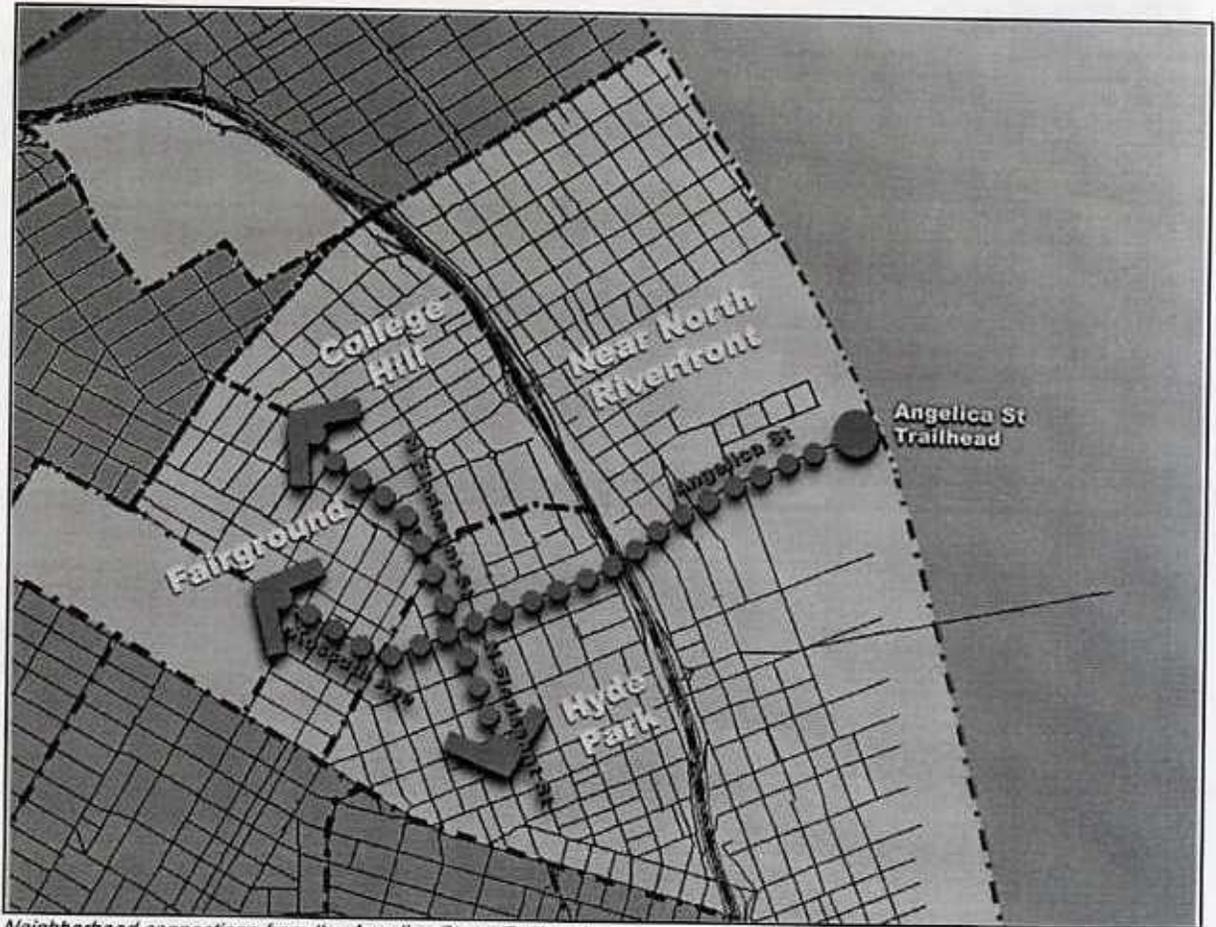
Recommended improvements:

- Designated bicycle lane, separated from vehicular traffic OR
- Extra wide vehicular lane to accommodate bicycles.
- Street pole signs.

- **Kossuth Avenue** -- primarily residential.

Recommended improvements:

- Striped bicycle lane.
- Street pole signs.



Neighborhood connections from the Angelica Street Trailhead.



Neighborhood connections from the Prairie Avenue Trailhead.

Prairie Avenue Connectors

The Prairie Avenue Trailhead provides connections to College Hill, Fairground, O'Fallon, Penrose, Mark Twain, Walnut Park East and the Walnut Park West Neighborhoods. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- ***Prairie Avenue*** -- primarily localized industrial traffic east of I-70, residential west of I-70.
Recommended improvements:
 Striped bicycle lane.
 Street pole signs.
- ***E. Grand Avenue*** -- heavily traveled by industrial, commercial and residential traffic.
Recommended improvements:
 Designated bicycle lane, separated from vehicular traffic OR
 Extra wide vehicular lane to accommodate bicycles.
 Street pole signs.
- ***Adelaide Avenue*** -- heavily traveled by industrial, commercial and residential traffic.
Recommended improvements:
 Designated bicycle lane, separated from vehicular traffic OR
 Extra wide vehicular lane to accommodate bicycles.
 Street pole signs.
- ***West Florissant Avenue*** -- heavily traveled, very wide roadway.
Recommended improvements:
 Designated bicycle lane, separated from vehicular traffic OR
 Extra wide vehicular lane to accommodate bicycles.
 Street pole signs.

Connector Routes

4.6

4. Connector Routes

Humboldt Ave & Maline Creek Connectors

The Humboldt Avenue and Maline Creek Trailheads, together, provide connections to Baden and North Point Neighborhoods. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- **Humboldt Avenue** -- primarily localized industrial traffic.

Recommended improvements:

Street pole signs.

- **North Broadway** -- heavily traveled retail and industrial thoroughfare through north St. Louis.

Recommended improvements:

Designated bicycle lane, separated from vehicular traffic OR
Extra wide vehicular lane to accommodate bicycles.
Street pole signs.

- **McLaren Avenue** -- primarily a residential street.

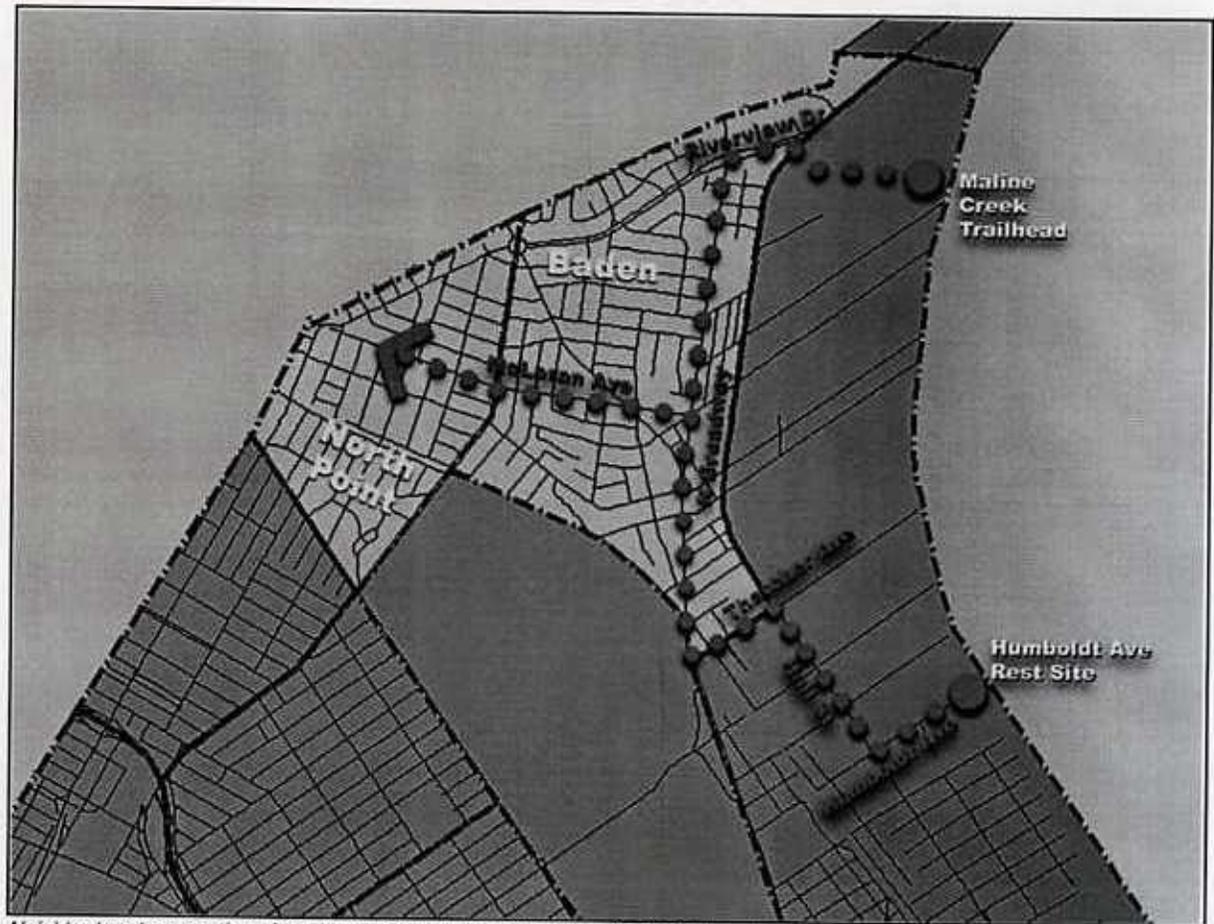
Recommended improvements:

Street pole signs.

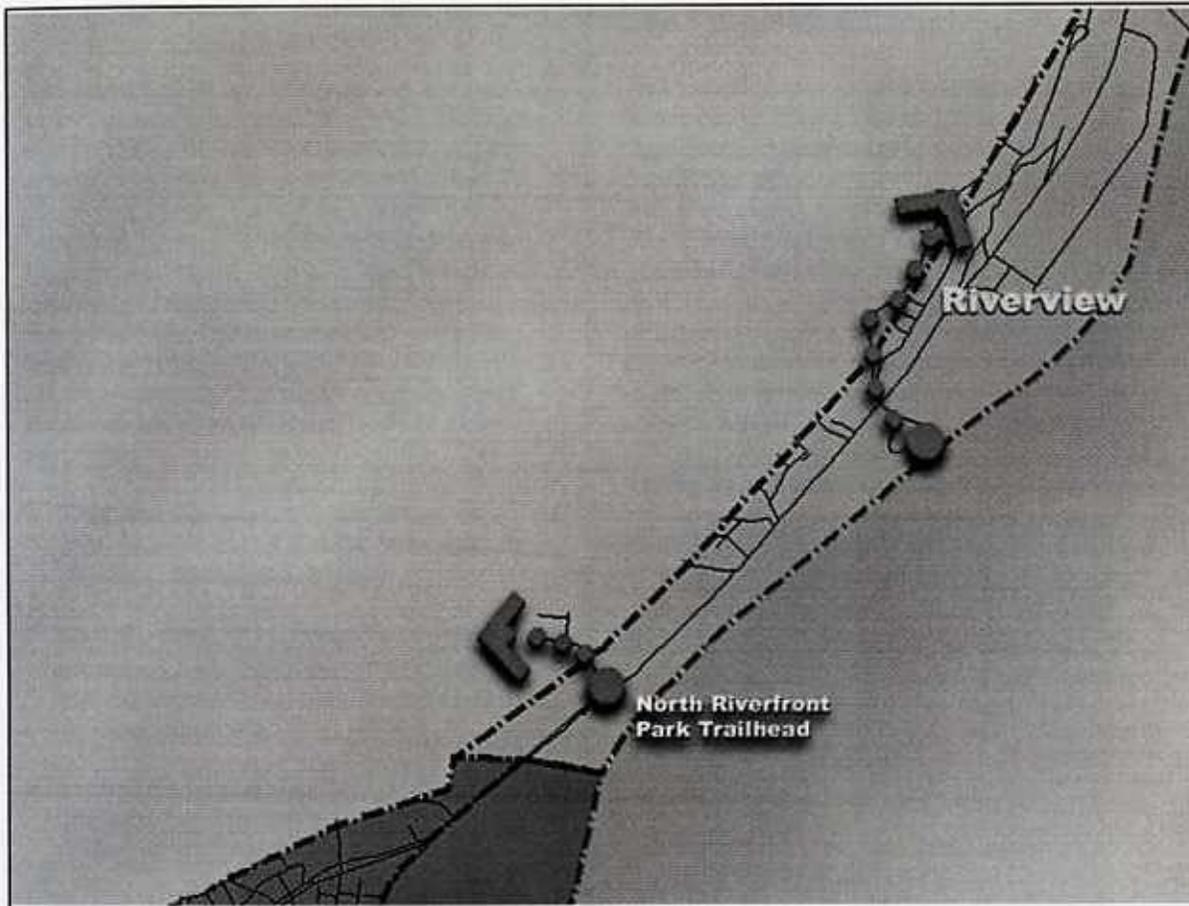
- **Riverview Drive** -- heavy traffic north of Broadway with a large tree median.

Recommended improvements:

Designated bicycle lane, separated from vehicular traffic (could be accommodated in the tree median)
OR
Extra wide vehicular lane to accommodate bicycles.
Street pole signs.



Neighborhood connections from Humboldt Avenue and Maline Creek Trailheads.



Neighborhood connections from the North Riverfront Park Trailhead.

North Riverfront Park Trailhead

The North Riverfront Park Trailhead provides connections to Riverview Neighborhood as well as north St. Louis County. Listed below are the recommended streets to make the connections, a description of the streets' character and the necessary improvements to make the street a safer connector route.

- Spring Garden Drive -- primarily a residential street.
Recommended improvements:
Street pole signs.
- Scranton Avenue -- primarily localized industrial and residential traffic, connects to bike path in Bella Fontaine Park.
Recommended improvements:
Street pole signs, curb cut connection at Riverview Drive.

Connector Routes

Action Items & Guidelines

- ✓ Design development of neighborhood connector routes.
 - Conduct a needs assessment for signs and other necessary improvements.
 - Designated bicycle lane should be wide enough to accommodate two-way bicycle traffic.
- ✓ Implement the connector route plan.
 - Install signs, striping and other needed improvements.
- ✓ Develop a sign plan for connector routes.
 - Determine appropriate locations for sign placement based on the neighborhood connector routes.
 - Graphic on sign should be consistent, simple and easy to read.
- ✓ Install signs and stripe roadways to indicate bicycle lane.
 - Striping should allow for two-way bicycle travel (either one bicycle lane in each direction or two-way bicycle lane on one side of street).
- ✓ As determined by the neighborhood connector route recommendations, determine the feasibility of creating a separate designated bicycle lane.

4.8

4. Connector Routes



Example -- signs for streets.

Goals

Trail amenities should enhance the trail user's experience by accommodating comfort, safety, and aesthetic needs. Trail amenities should include: bicycle racks, benches, sheltered structures, kiosks, trash receptacles, drinking fountains, restrooms, emergency call boxes, bollards, and signs. Trail amenities will be installed at trailheads and at overlooks/rest stops along the trail. Trail amenities can unify the landscape while at the same time create public art opportunities. The following goals should guide the selection and placement of trail amenities:

- Consider amenities that are easy to maintain and repair, made of durable materials, flood resistant, and vandal resistant.
- Balance the cost and benefits of selected site amenities by considering not only the installation costs, but also the repair and replacement costs.
- Incorporate sustainable design principles into site amenity selection by considering recycled materials and low-energy technologies.
- Establish design guidelines for site amenities that create an identity through design harmony along the trail.
- Consider combining site amenities with information and interpretive signage.

Site Furnishing Criteria

Trail amenities are a critical component of the Riverfront Trail Enhancements Plan. Appropriately selected and located site furnishings will attract trail users by their design and encourage proper use. For instance, a poorly designed bicycle rack will remain unused as bikes are locked to trees and posts, or leaned up against other available surfaces. This not only creates an eyesore, but also causes damage to property and becomes a hazard to other trail users. The following general criteria should be considered when selecting site furnishings:

- Site furnishings should be ADA accessible.
- Site furnishings should be securely mounted to a fixed surface to discourage theft.
- Site furnishings should be attractive and harmonize with other trail elements.

Benches

- Benches should be at least 6 feet long to seat 2 strangers or 3 friends comfortably.
- Benches should have backs and arm rests (a center arm rest is recommended to discourage sleeping).
- Benches should be made from durable, low maintenance materials.



Example -- Painted Steel bench

Trail Amenities

Bicycle racks

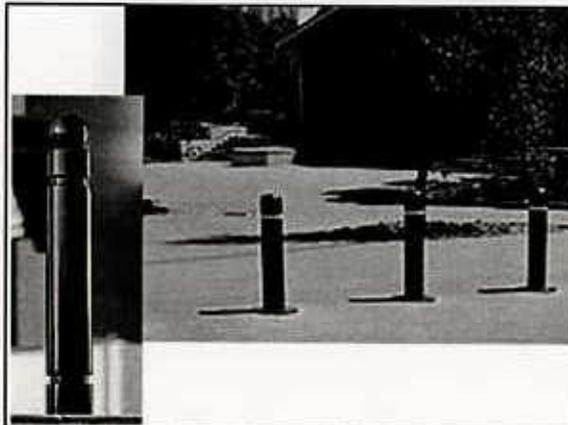
- Bicycle racks should allow the bike frame and wheel(s) to be locked securely, and compatible with a U-lock (preferred by many bicyclists).
- All racks are misused to some degree. Look for racks which provide the same opportunity for security whether the bike is on the end or middle of the rack.
- Look for a bicycle rack design that enables loading of bicycles from either side, especially in high use areas.
- Bicycle racks should support the bicycle frame and not pinch the wheel.
- Bicycle racks should be built from heavy duty materials. Galvanized steel that has been 'hot dipped' during post fabrication is economical and easily maintained.
- Bicycle racks should be securely mounted to a fixed surface to discourage theft.



Example -- Serpentine style design bicycle rack.

Barriers (Bollards or Gates)

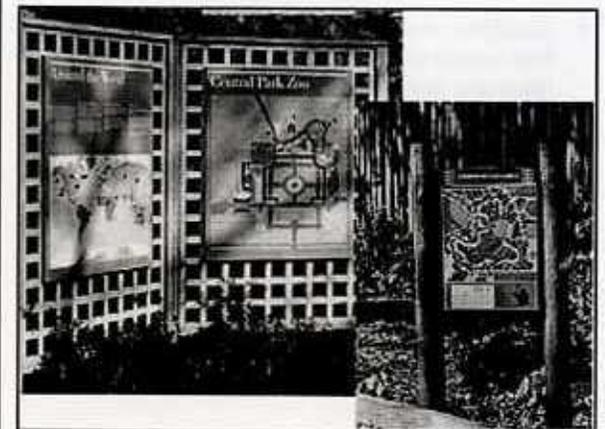
- Barriers are an ideal method for keeping unauthorized vehicles off areas of the trail where motorized vehicles are prohibited. However, emergency service vehicles must still be able to access the trail if necessary.
- Barriers should be removable in areas where security is needed but where access may also be required.
 - Barriers should be installed in areas where periodic removal is not required. If necessary, consider anti-ram bollards which look like standard bollards, but have a reinforced thickness.
 - Barriers should be built from heavy duty materials. Consider galvanized steel or painted steel (powder-coated).
 - Barriers should be attractive and harmonize with other site furnishings.



Example -- Standard and removable bollards.

Kiosks

- Locate kiosks at trailheads as indicated in Section 2 to attract users and provide information.
- Kiosks should be easily accessible and placed in locations that will not impede circulation.
- Kiosks should be limited in size to minimize visual impact on the trail environment while providing adequate space to accommodate anticipated uses.



Example -- Kiosks

Trash receptacles

- Trash receptacles should be built from heavy duty materials that are vandal resistant. Consider galvanized steel or painted steel (powder-coated). Liner should be metal rather than plastic in the event of fire.
- Trash receptacles should be attractive and harmonize with other site furnishings.
- Trash receptacles should be securely mounted to a fixed surface to discourage theft.
- Locate trash receptacles away from seating areas.



Example -- Trash receptacle

Picnic tables

- Picnic tables should be built from heavy duty materials that are vandal resistant. Consider galvanized steel or painted steel (powder-coated).
- Picnic tables should be attractive and harmonize with other site furnishings.
- Picnic tables should be securely mounted to a fixed surface to discourage theft.



Example -- Picnic table

Action Items & Guidelines

- ✓ Create a Site Furnishings Plan.
 - Minimize the range of different amenities to avoid visual clutter
 - Wherever possible, trail amenities should be grouped together to avoid visual chaos.
 - Where distinct themes unique to an activity can be identified, subtle design variations to trail amenities are acceptable and encouraged as long as the essential physical and visual character is retained. This allows flexibility for artists and designers to establish an identity for specific spaces along the trail while remaining compatible with the recommended amenities.
 - Amenities should be low-maintenance, vandal-resistant and easily replaceable.
- ✓ Implement Site Furnishings Plan.

Wayfinding

6.1

6. Wayfinding

Goals

Information and wayfinding provide the necessary directions or orientation materials so trail users know where they are, where they may want to go, how to get there, what they need to watch out for, or what might be of interest along the way. The Confluence Greenway Master Plan has a recommended sign plan for the regional trail system. The sign plan for the Riverfront Trail should comply with the recommendations presented in the Greenway Master Plan. However, in the interim, existing signs provided by Board of Public Service will be used until a regional signage program is in place. The following goals outline what the signage program should achieve:

- Provide information to create a safe environment (trail experience).
- Provide orientation information for trail users that let them know what to look for while enjoying the trail.
- Provide directions / information to enable users to easily travel between the trail and the community.



Current signage.

Information & Wayfinding

Information and wayfinding signage can help provide a safe trail experience for first time and frequent users alike. All signage installed should comply with AASHTO and MUTCD standards for traffic marking and signs. Three recommendations to make a trail user's experience safer and more enjoyable are:

- Identify hazards that may exist along the trail -- both temporary (i.e., flooding, damage, obstructions across the trail) and permanent (i.e., sharp turns, steep hills, railroad crossings, vehicular crossings, blind curves).
- Explain trail etiquette for all trail users.
- Identify locations of pay phones or safety call boxes.

Signage plays a critical role in orientating users to the trail by helping them identify where they are in relation to other features along the trail. Orientation signage should:

- Identify points of interests, nearby businesses, amenities, and other facilities along the trail.
- Indicate distances and directions to points of interests, trailheads and rest stops.
- Provide information on connecting to neighborhood routes as well as other Confluence Greenway Trails.
- Provide information on connecting to other modes of transportation such as bus routes and MetroLink.
- Identify exits along I-70 that provide access to the trailheads.

Action Items & Guidelines

- Create a Sign Plan that includes the following criteria:
 - Minimizes visual clutter
 - Uses a simple, standard symbol -- trail logo. Signage should indicate that the trail has been named a Millennium Trail.
 - Uses a combination of pole mounted signage with pavement marking and striping.
 - Includes an overall orientation map that indicates public transportation, connector routes, city streets, the trail, trailheads and rest stops.
 - Uses interpretive signage to explain points of interest.
 - Complies with AASHTO and MUTCD.
 - Replaces current mileage markers with river mile markers to ensure consistency with other parts of the Confluence Greenway trail system.
- Implement Sign Plan
 - Install necessary signs and markings.

Goals

Many visitors to the Riverfront Trail are curious about what they see and are enthusiastic and anxious to learn about the places they are visiting. They wonder how this building was used, who inhabited that island, what birds live in this wooded area, who first navigated this river, how that old powerplant functioned. But all too often there is no one to answer their questions, or to stimulate their curiosity by asking other questions.

Interpretation provides educational or experiential information that will enlighten the visitor to the history and cultural and natural resources of the area. A successful interpretive program can connect the users to the trail by giving added meaning to the user about the setting by relating its significance through the stories that are told. The goals of interpretation for the Riverfront Trail is to:

- Educate people about the importance of natural resources in their daily lives or about their relationship with natural resources.
- Tell the history of the development of our communities -- residential, industrial and commercial along the river.
- Create a sense of community pride through understanding the history of the area.
- Create an emotional connection by generating a sense of belonging and stewardship.
- Create a meaningful experience beyond that of recreation.

Themes

The following theme,

Our Communities . . . Living and Working with the River

will guide the stories that are told along the Riverfront Trail. There are numerous stories that will be told to support this theme. They are pre-settlement, development of communities, relationship of people with nature, and transportation and commerce.

Pre-Settlement -- The story of what the area was like prior to European settlement.

- Native American History
 - Origin of the name "Missouri" is Native American
 - Early transportation routes
 - Cahokia Mounds

Development of Communities -- The story of exploration and settlement of the area and how the communities developed.

- Early Exploration
 - Early European settlement -- fur traders
 - Lewis and Clark
- Settlement of Neighborhoods along the River
 - The fire of 1848 on the riverfront
 - Family ownership of Mosenthein Island
 - Settlement patterns related to the river
 - Progression of development of communities
 - Materials from the World's Fair recycled and reused to build the neighborhoods along the riverfront
 - College Hill was the original site of St. Louis University
 - Water Towers

- Historic Cemeteries
- Revitalization and Beautification Efforts during the 1970s
- Industrial Growth along the River
 - Malinkrodt
 - Proctor & Gamble
 - Development along Broadway
 - Stoveworks
- Religious / Ethnic History
 - German origins in the Baden Neighborhood
 - History of Bremen
 - Religious ceremonies -- River baptism
 - Other ethnic communities -- Polish, Irish
- Slavery / Civil War / Integration
 - Slavery, auction blocks
 - Role of the River as a boundary between slave and free states
 - Underground railroad
 - African American education via riverboats
- Infrastructure
 - Water / Sewage Treatment



Steamship on the Mississippi -- St. Louis
(Arthur Rothstein, Library of Congress 1939)

Interpretation

7.2

7. Interpretation

Relationship of People with Nature -- The story of how the river and communities developed together and affected one another.

- Degradation
 - Invasive species
 - Deforestation -- Bluffs were heavily harvested for lumber
 - River influence on land use (i.e., development of the floodplain)
 - Use and misuse of habitat along the river
 - Dumping
- Renewal
 - Old dumping site is now best place to view eagles
 - Maline Creek
 - Habitat / biodiversity in neighborhoods
 - Native prairie restoration
 - Opportunistic habitats



Captain Isaiah Sellers Tomb in Bellefontaine Cemetery
(Paul Plaget, HABS/HAER 1949)

- Wildlife, Plants and Habitat
 - River defined habitat (i.e., floodplain habitats)
 - Bellefontaine / Calvary Cemetery and O'Fallon Park provide great habitat areas, native prairie
 - Unique habitat areas along the trail
 - Grassland and woodland species
 - River is a flyway
- Flooding
 - Floodplain boundary
 - 1993 Flood

Transportation and Commerce -- The story of how the river played a major role in commerce and travel -- both locally and regionally.

- River Traffic
 - Steamboats, barges, ferries, river boats
 - Ferry stops
 - Riverboat Captains (i.e., Bissel)
 - Canal
 - U.S. Army Corps of Engineers
- Historic Routes
 - The Great Trail (1811)
 - Route 66 crosses Old Chain of Rocks Bridge
- Bridges/Railroads
 - McKinley Bridge
 - Eads Bridge
 - Impact of Interstate 70 on the river
- Commerce
 - Stockyards
 - Barge traffic

Implementation

An Interpretation Plan will be developed that refines these stories and delineates a means by which they will be told. The following are recommended to be included in the Plan:

Trail Maps

One of the quickest and most economical ways to interpret an area like the Riverfront Trail is to start by creating a trail map that is provided at each trailhead. This trail map will provide the user with wayfinding and interpretive information. Numbered signs could be placed at key points of interest along the trail. These numbers would correspond to a numbering system found in the trail map, accompanied by a short description of what is being interpreted in addition to maps and/or photos. In time, the information used to create the trail maps could be used in creating a wayside exhibit program.

Wayside Exhibits

Another way to interpret the Riverfront Trail is to set up a signage program along the trail commonly called "wayside exhibits." Because they are located outdoors, close to the features they



Wayside Exhibit (National Park Service)

interpret, wayside exhibits can readily answer the questions visitors have – when they have them – and can nurture curiosity by asking additional questions. By engaging visitors at the times and places they want information, the visitor's experiences can be made more meaningful and much more rewarding. Although a knowledgeable and articulate person would be the most compelling way to interpret a place, well-crafted waysides can be effective alternatives, and can play essential roles in a park's interpretive program.

Multimedia

Multimedia exhibits should be set up indoors at the Primary Trailheads as they are constructed. These multimedia exhibits could encompass a variety of formats including: touch screen computer kiosks, short video clips, art, and hands on laboratories.

Action Items & Guidelines

- ✓ Develop an Interpretation Plan.
 - Determine the sites along the trail to be interpreted.
 - Involve the community as they are a good resource for stories and photographs.
 - Utilize multiple media types in the interpretation plan.
 - Design upright or kiosk bases to attract attention and place them at trailheads, parking areas or similar points of assembly or access.
 - Design interpretive signs and place them in front of the item being interpreted.
 - Design low profile bases to be used along the trail. The base's simple, unadorned form helps to diminish its visual intrusion.
- ✓ Develop a trail guide that corresponds to the interpreted sites until a more permanent wayside exhibit program can be established.
- ✓ Implement the Interpretation Plan.



Example of interpretive signage.

Habitat Management

Goals

Native plants still exist along the Riverfront Trail. Native plant restoration efforts began several years ago by area residents working through Grace Hill Neighborhood Services. Without proper management, results of these restorations dwindled.

To ensure future success, a formal Native Plant Management Plan will be established. The goals of the plans are to:

- Restore native plants (grasses, trees, forbs) to Trail areas.
- Attract people to the Trail and promote biodiversity in the region.
- Attract community and organization support and involvement.
- Support and promote wildlife within the Trail areas.
- Educate neighborhood residents and regional visitors about biodiversity.
- Develop a viable nursery to support Trail development and provide resources for native plantings in the region.

Implementation

Native Planting

Despite the highly altered conditions, reestablishment of native plant communities is possible. Plantings of native trees, shrubs, vines, grasses and wildflowers will begin to recreate natural habitat structure and components. Conditions are appropriate for wet forest, wetlands, mesic prairie and dry prairie. Plantings will be designed to create a sense of openness by utilizing low growing species directly adjacent to the trail. Wildflowers will be emphasized for viewing enjoyment, rather than to mimic natural conditions.

Recommended plant species by habitat type could include, but are not limited to:

Wet Forest:

Pin oaks (*Quercus palustris*)
Bald cypress (*Taxodium distichum*)
River birch (*Betula nigra*)
Pawpaw (*Asimina triloba*)
Hawthorn (*Crataegus mollis*)
Iowa crab apple (*Malus ioensis*)
Wild plum (*Prunus americana*)
Persimmon tree (*Diospyros virginiana*)
Bittersweet vine (*Celastrus scandens*)
Jack-in-the-pulpit (*Arisaema triphyllum*)
Giant bellflower
Wild ginger
Wild leeks
Woodland phlox
Yellow wood violet

Wetlands:

Purple ironweed (*Veronia spp.*)
Golden ironweed (*Verbesina alternifolia*)
Indian cup plant (*Silphium perfoliatum*)
Halbert-leaved rose mallow (*Hibiscus militaris*)
Sweet coneflower (*Rudbeckia subtomentosa*)
False white aster (*Boltonia asteroides*)
Cardinal flower (*Lobelia cardinalis*)
Blue cardinal flower (*Lobelia siphilitica*)
Prairie cordgrass (*Spartina pectinata*)
Eastern gama grass (*Tripsicum dactyloides*)

Mesic Prairie:

Short:

Little bluestem (*Andropogon scoparius*)
Sideoats grama (*Bouteloua curtipendula*)
Northern dropseed (*Sporobolus heterolepis*)



A sampling of native plants found along the trail.

Mesic Prairie:

Tall:

- Leadplant (*Amorpha canescens*)
- White prairie clover (*Dalea candida*)
- Purple prairie clover (*Dalea purpurea*)
- Pale purple coneflower (*Echinacea pallida*, *E. simulata*)
- Butterflyweed (*Asclepias tuberosa*)

Demonstration Dry Prairie (Humboldt Rest Stop):

- Purple poppy mallow (*Callirhoe involucrata*)
- Missouri primrose (*Oenothera macrocarpa*)
- Purple beardtongue (*Penstemon cobaea* var. *purpureus*)
- American aloe (*Manfreda virginica*)
- Blue delphinium (*Delphinium carolinianum*)

Noxious Weed Management

Several non-native invasive species are present along the Trail. Major eradication efforts have been initiated and must be continued (see below). After major weed eradication, "nurse" species should be planted to retain soil and shade out undesirable species.

- Hedge parsley (*Torilis japonica*)
- Musk thistle (*Carduus nutans*)
- Sow thistle (*Sonchus* sp.)
- White sweet clover (*Melilotus albus*)
- Zoysia grass (*Zoysia japonica*)

Habitat Needs of Native Species

Many native wildlife species thrive along the Trail. A management plan that promotes native plant establishment will in turn attract more native birds, butterflies, amphibians, reptiles and mammals to the trail – some of which have been absent for some years.

A complex of forest and prairie vegetation provides food and nesting needs for birds. Thorny native shrubs provide nest site protection from predation by feral cats and other animals. Replacement of existing box elder and mulberry with more diverse native tree species will enhance food and shelter over the long term. Dead trunks and branches should be left to provide nest hole opportunities for cavity dwellers and supplemented by nesting boxes for wood ducks and bluebirds. Many butterflies and moths have specific food plant requirements which are rare in the current landscape, leading to the decline in the local populations of dependant species. For example, native milkweeds (*Asclepias* spp., especially *Asclepias incarnata*, swamp milkweed) are a food source for adult Monarch butterflies and essential in the caterpillars stage.

A variety of approaches should be taken in order to attract amphibians, reptiles and mammals to the Trail. Fishless ponds should be created for the spawning of tiger salamanders, toads and frogs. As habitats improve, new species can be introduced. Bat houses could be placed along the trail.



Indigo Bunting (Missouri Department of Conservation)



Buckeye Butterfly (Missouri Department of Conservation)

Habitat Management

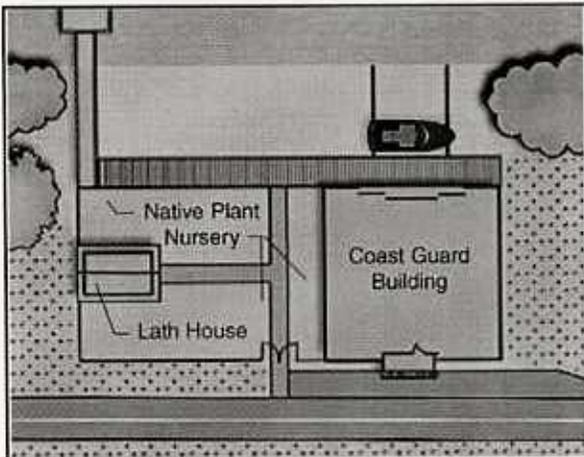
8.3

8. Habitat Management

Demonstration Nursery

A demonstration nursery is planned south of the Prairie Street Trailhead, adjacent to the Coast Guard Building which will serve as the Trail Rangers headquarters. As the nursery grows, the center of operations will move to a more commercially accessible permanent location within the nearby neighborhoods.

This demonstration nursery will provide opportunities for community involvement, training and education. As plantings mature along the trail, bulk seed may be made available for trail revegetation and for sale, which in turn may provide permanent job opportunities. Plant materials will come from a variety of sources, with sources from within 100 miles favored to ensure suitability.



Demonstration nursery

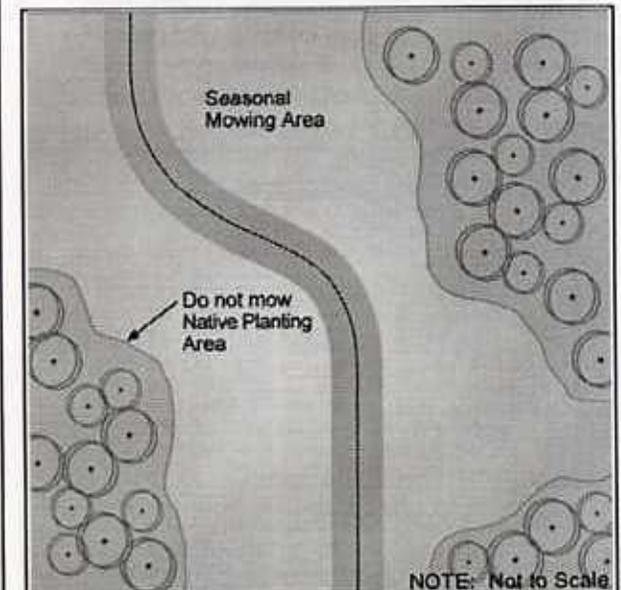
Management Plan

A Habitat Management Plan should be developed to coordinate the various volunteer efforts and to ensure their efforts do not conflict with or duplicate those of the City. The plan should contain guidelines for the following tasks:

- Systematic monitoring of stand vigor, to guide management decisions.
- Management treatments for removal of accumulated plant litter in the spring of the second or third year after establishment.
- Fire management plan (controlled burn) as it is the most effective technique for maintaining stands.
- Mowing plan, for short term treatment after June 20 when most ground nesting birds have completed incubation and left their nest sites.
- Use of broad scale herbicide applications, chain saws or bulldozers in certain areas where other management alternatives are not appropriate.
- Control of noxious weeds.
- Development of vegetated firebreak areas that are maintained with cool season grasses that are kept mowed throughout the growing season.

Creating Visually Open Areas

Currently, on most of the trail, there is a sense of disconnection with the river. Riparian corridor trees provide important functions by protecting river banks and slowing flood waters. However, existing stands are overgrown with non-native vines and shrubs which shade out native herbaceous species and limit visibility. In addition, where the floodwall is immediately adjacent to the trail, thick vegetation has been allowed to grow close to the trail.



NOTE: Not to Scale

Example of a mowing plan.

A successful Habitat Management Plan should restore native structure to provide appropriate habitat for native wildlife and open areas to allow users to feel safe and reconnected with the river. Below are some of the guidelines for creating visually open areas along the Trail.

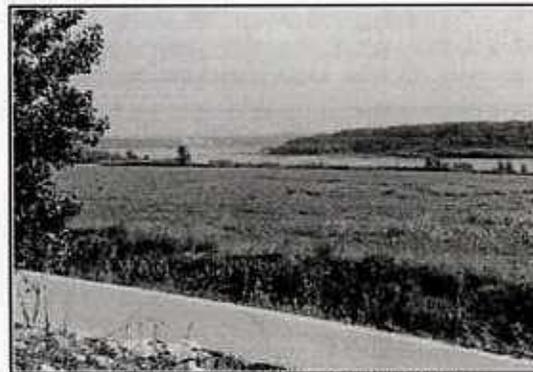
- Plant species that grow to no more than 2 ½ feet in height within the first 20 feet to either side of the trail.
- Shade trees may be planted within the 20 foot zone (on non-levee areas) but must be spaced at 50 foot intervals.
- Remove non-native shrubs and vines.
- Thin current tree stands to create limited view corridors of the Mississippi River, Chouteau Island and Illinois.
- Establish firebreaks in critical areas.



Local residents and community groups help to maintain the trail.

Decommissioned Landfills

The closed Maline Creek Landfill provides an immediate opportunity for noxious weed removal and prairie species restoration, with elevated views provided by the levee-top trail. The former Operation Brightside Landfill, which should close soon, provides additional near-term opportunities for expansive prairie plantings, again with an elevated view provided from the trail and Humboldt Rest Stop. Efforts should be made to incorporate this area in the Trail restoration and management plans.



Looking across the former Operation Brightside Landfill near the Humboldt Rest Stop.

Action Items & Guidelines

- Prepare a Habitat Management Plan for the Riverfront Trail. The plan should:
 - Recreate native plant communities, which originally occupied the Mississippi watershed, including endangered plant species.
 - Design plantings for year round color.
 - Beautify rip-rap areas (especially along the flood wall).
 - Create visually open areas for safety and view corridors.
- Develop a neighborhood-based program to help with vegetation management.
 - Involve schools, youth groups, local businesses and volunteer organizations in the development of plantings and maintenance of landscaping.
- Develop a viable nursery to support trail development.
 - Provide employment opportunities and training.
 - Provide education opportunities.

Public Art & Programs

9.1

9. Habitat Management

Goals

It is now widely recognized that arts and culture have huge potential as a very effective way of enhancing the visitor experience, providing people with either the particular motivation for a visit, or adding value to and enjoyment for the visitor when they reach their destination. The visual arts in particular are now being used in exciting ways to make places distinctive and memorable, adding new dimensions to forests, cycle trails, and canals. Temporary visual art projects can also be used in a spectacular way to attract visitors by providing something that once seen, will not be easily forgotten by the viewer. The following is a list of goals designed to guide the direction and tone of public art and events along the Riverfront Trail:

- Integrate art into trail design to enhance the trail corridor.
- Provide ongoing opportunities for public involvement through art and programs.
- Use public art and events to engage and reconnect local neighborhoods to the river and to create a regional draw.
- Use the trail as a living learning environment / laboratory.

Implementation

The creation of a successful public arts program for the Riverfront Trail allows us to celebrate the natural and cultural assets of its location -- along the Mississippi River. It helps us to foster innovation by inviting the participation of the most unique and qualified talent from the community, the nation and abroad. It offers many opportunities for public/private partnerships.

Integrated Art

Art should be integrated into trail facility design to enhance the trail corridor by including artists on design teams to collaborate on developing concepts and designs, as well as commissioning artists to create site specific artwork.

Opportunities for artist involvement may include:

- Overall renovation/beautification of the trail.
- Artist enhancement of trailheads and rest stops.
- New public spaces that are different from the traditional locations along the trail.
- Artist designed trail amenities such as seating, signage, trash cans and shelters.
- Unique paving patterns on the trail.
- Artist inspired designs for parking areas.

- Artist inspired gardens, landscaping and architectural elements.
- Create entrances to the trail.
- Interpretive works which investigate the history, culture, use and environment of the site.
- Cross-disciplinary projects in which artists collaborate with other scientists, historians, architects, etc.



Riverfront Trail near the Laclede Power Building

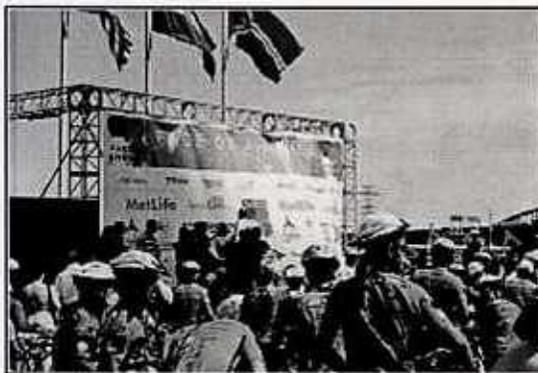


Benches can be functional as well as art.

Public Involvement through Art and Programs

Providing opportunities for ongoing public involvement with the Riverfront Trail through art and programs is highly encouraged. Some of the ways this can be achieved is by presenting activities that appeal to different audiences, developing programs that occur on a regular basis to encourage return visits and developing partnerships with other St. Louis institutions. Opportunities for public involvement may include:

- Providing venues for street artists.
- Drawing attention to the trail with special events and keeping visitors involved through ongoing programming such as art workshops.
- Commissioning interactive art that engages visitors.
- Holding walking/riding tours that focus on art and nature along the trail.
- Hosting art fairs and community festivals.



Face of America festival at Gateway Arch (June 2000)

Reconnecting with the River

Public art and events can engage and reconnect local neighborhoods to the river, as well as create a regional draw. Start by developing programs with businesses, schools and local organizations. Each project should have a community involvement components in varying degrees and involve local stakeholders and artists in the decision-making process. Then using local business groups, develop a marketing plan that draws visitors to the trail from the region. Opportunities for using art and events to reconnect with the river include:

- Using public art and events to recognize the history and cultural resources of the neighborhoods.
- Using public art to sustain and create daily use of the trail. Incorporating art will broaden the audience for the trail.
- Holding signature events (such as marathons or art fairs) to attract new visitors.
- Using local businesses to host an artist in residence program.
- Artists collaborating with businesses to highlight or interpret the trail and river.
- Creating a sense of pride and ownership of the trail.

Learning Environment/Laboratory

The trail could become a living learning environment/laboratory by using public art to enhance the interpretive program and expanding our knowledge and interest in the river and its natural and built environment. Opportunities may include:

- Providing a public art interactive studio workshop space along the trail.
- Creating a website for the trail to engage a larger audience.
- Building a database from student research that allows students to collaborate with scientists and specialists.
- Fostering collaborations between artists and students from local educational institutions.
- Engaging students in learning about the development of individual public art projects.
- Collaborate with schools to use the trail as an outdoor classroom.



The trail could serve as an outdoor classroom.

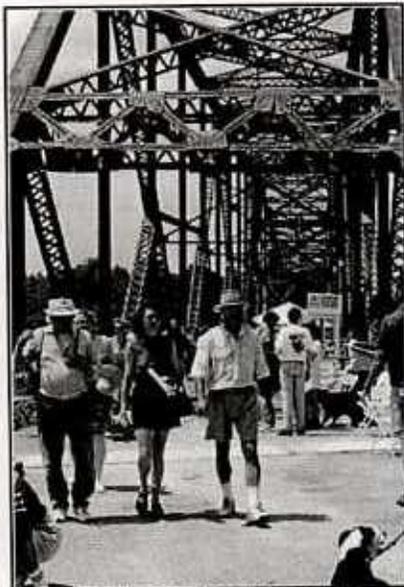
Public Art & Programs

Action Items & Guidelines

- Establish a plan for public art opportunities along the Riverfront Trail.
 - Include artists in the decision-making.
 - Establish a percentage of total budget for projects that is strictly to be used for arts along the trail.
- Develop a Public Events Programming Plan.
 - Complete the plan in cooperation with community groups, government agencies, and other partners.

9.3

9. Public Art & Programs



Festival at Old Chain of Rocks Bridge.

Goals

The purpose of this section is to identify what facilities and operational policies are necessary to ensure a safe and secure environment for trail users and others that operate near the trail. Safety addresses preventing personal injuries to users either from a self-actualized accident, or collision with another party or object. Security measures protect trail users and trail facilities from others that may do harm. The following goals are meant to provide a safe, secure and interesting trail experience.

- Create a safe trail environment.
- Establish an Emergency Operating Plan.
- Create a sense of community involvement with the trail.
- Develop a Trail Etiquette Program for trail users.
- Establish patrol of trail to maintain a safe and healthy trail experience.
- Mark hazards (temporary and permanent) that exist on the trail.

Implementation

Safety and security is an important key element for the implementation of the Riverfront Trail Enhancements Plan. Some of the important issues that this plan addresses are changing people's perceptions of crime along the trail, management of hazards along the trail and creating an etiquette program for trail users that reinforces a sense of safety and civility along the trail.

Create a Safe Trail Environment

A realistic understanding of the safety issues along the trail needs to be established. The sense of isolation and disconnectedness of the trail from the nearby neighborhoods has created a perception that the trail may be unsafe. Increasing community involvement along the trail by improving neighborhood connector routes, providing neighborhood-based programs and providing trail amenities to encourage trail use is the first step to creating a safe environment.



Emergency call boxes help to increase sense of safety for trail users.

Some additional efforts should be undertaken. These next steps include:

- Install emergency-only call boxes at Primary Trailheads.
- Enhance visual access along the trail corridor through a Habitat Management Plan.
- Increase the awareness of the safety patrols (i.e., Trail Ranger Program and St. Louis Police Bicycle Patrol) along the trail.

Trail Ranger Program

Since 1994, Grace Hill has sponsored a program where young adults from low-income riverside neighborhoods take an active role in promoting the Riverfront Trail. The Riverfront Trail



Trail Rangers assisting bicyclists.

Safety & Security

10.2

10. Safety & Security

represents an 'anchor' within the community that provides environmental, economic, recreational and educational resources for the area. Program accomplishments include re-engaging City government with the development and ownership of the Trail, removing tons of illegally-dumped solid wastes, building a 25-ton rock wall preventing erosion, and receiving a national award for environmental justice.

For the year 2001, these young adults acting as AmeriCorps Trail Rangers are developing a native plant nursery and planting native species to reclaim 6 linear acres of riverbank, collaborating to create a tiled flood wall art project, and assuring a safe and secure Trail for local and metro-area visitors by providing monitoring and maintenance services.

The program values its strong partnership with community groups, businesses, non-profit organizations, and local, state and federal government.

Establish an Emergency Operating Plan

Invariably, hazardous situations are going to occur along the trail from time to time. An Emergency Operating Plan should be established that address how to handle such situations. The emergency operating plan should include the following:

- Provide locations for emergency vehicle access to the trail.
- Provide information for operating removable bollards or gates that ordinarily restrict vehicular access.

- Provide location markers along the trail so that users can identify to safety personnel where they are call from.
- Address what actions to take when the river is in its flood stage and the flood gates may be closed (i.e., alternate routes).
- Coordinate and maximize patrols by Riverfront Trail Rangers and St. Louis Police Department.

Trail Etiquette

Visitors can do many things to help make everyone's trail experience more enjoyable. A reminder to use common sense and be courteous and respectful of the rights of others can go a long way in making the trail enjoyable for everyone. Signs explaining trail etiquette should be installed at all trailheads. The trail etiquette program should include the following:

- Rules and regulations for use of the trail -- all types of trail users.
- Indicate areas where people may or may not park their vehicles to prevent damage to resources.
- Provide safety information for those that must drive on or cross the trail.
- Establish communication protocol for trail user groups to prevent conflicts or collisions and establish mutual respect for one another.
- Coordinate with local businesses and utility services to establish safety behaviors for vehicles that must cross the trail.

Action Items & Guidelines

- Create a Trail Etiquette Program that addresses the needs of all types of trail users.
- Establish an Emergency Operating Plan for the trail.



Temporary hazards such as this should be marked for trail users.

Goals

The purpose of this section is to identify the methods and means by which the trail corridor and trail facilities will be maintained. The goal is to provide trail users with a clean and safe trail experience. This will be accomplished through the following goals:

- Establish an Operations and Maintenance Plan.

Implementation

Operations and Maintenance Plan:

Establish an operations and maintenance plan that:

- Identify routine maintenance tasks, their frequency and the person/agency responsible (i.e., trail sweeping, trash and litter pick-up, sign repair/replacement, cleaning of trail facilities, mowing schedules).
- Identify periodic maintenance tasks, their frequency and the person/agency responsible (i.e., removal of trees, controlled burn, trail resurfacing).
- Incorporate natural resources management.
- Address the Army Corps of Engineers needs regarding maintenance of the levee.
- Identify the point person responsible for implementing the plan.

Action Items & Guidelines

- ☑ Develop and implement an Operations and Maintenance Plan for the Riverfront Trail.
 - This plan should identify routine and periodic maintenance tasks as well as the person/agency that is responsible.



The trail should be kept clean of debris left by trucks crossing the trail.

Plan Implementation

12.1

12. Plan Implementation

Goals

The following are a list of goals for implementing the Riverfront Trail.

- Establish a formal process to implement the plan and to manage the trail that utilizes a public and private partnership.
- Coordinate implementation of the Riverfront Trail Plan with the Confluence Greenway and the other local planning initiatives.
- Utilize a participatory planning process that incorporates public involvement in development of trail enhancements and ongoing management.
- Provide long term funding for management and operation through the Regional Park District.
- Designate one primary Point-of-Contact to oversee all management and development activities along the trail. (funded position)
- Establish one group or agency that has ultimate responsibility over the trail development and operations.
- Include a public input and review component.

Implementation

Implementation for the Riverfront Trail Enhancement Plan will be carried out in a two-step process. The first step will rely on the Riverfront Trail Implementation Group to establish a permanent management entity to implement the plan.

Implementation of the Enhancements Plan and long-term operations and maintenance of the trail will become the responsibility of the permanent management structure once it is established. This group would establish a chain of command to ensure timely and consistent trail maintenance.

Riverfront Trail Implementation Group

The purpose of the Riverfront Trail Implementation Group (RTIG) is:

- To manage existing ongoing operations and also implementation of the Enhancement Plan until a permanent management structure has been established.
- To develop a permanent management structure for the Riverfront Trail.

The RTIG will consist of public - private partnerships that include representatives from the following organizations:

- City of St. Louis (Board of Public Service, Mayor's Office, Park Department, Planning and Development Agency, Port Authority, Streets, Water)
- Confluence Greenway
- Grace Hill Neighborhood Services

- Missouri Department of Conservation
- National Park Service Rivers, Trails and Conservation Assistance Program
- Riverside Alderman (4)
- Trailnet, Inc.
- United States Army Corps of Engineers

The RTIG will operate under the authority of the St. Louis Park Department and in cooperation with Grace Hill Neighborhood Services and the Riverfront Trail Advisory Committee.

Riverfront Trail Advisory Committee

The Riverfront Trail Advisory Committee (RFTAC) is part of Grace Hill Settlement. Members represent government, non-profits, businesses, and neighborhood organizations. The 7 year old committee of stakeholders advocates for Trail development and Trail benefits for north riverfront communities.



Public meeting.

Plan Implementation

Plan Sections	Complete by 2002	Complete by 2004	Complete by 2006
Implementation	<ul style="list-style-type: none"> Establish a Formal Process to operate and manage the trail 		
Trail Access --Trailheads & Overlooks	<ul style="list-style-type: none"> Design development -- Laclede Power Building Primary Trailhead * Design and implement safe vehicle crossing zones Design development -- Old Chain of Rocks Bridge Primary Trailhead * Rocks Bridge Primary Trailhead Design development -- Prairie Avenue Primary Trailhead. Construct Primary Trailheads 	<ul style="list-style-type: none"> Design re-development -- North Riverfront Park Primary Trailhead Design development -- Humboldt Ave. Secondary Trailhead Design development -- Maline Creek Secondary Trailhead Design development -- Angelica St. Secondary Trailhead Design development -- Branch St. Secondary Trailhead Construct Secondary Trailheads 	<ul style="list-style-type: none"> Design development -- Humboldt Ave. Rest Stop (complete) Design development -- Merchant's Bridge Rest Stop
Connector Routes		<ul style="list-style-type: none"> Develop Connector Route Plan Implement Connector Route Plan 	
Trail Amenities	<ul style="list-style-type: none"> Create a Site Furnishings Plan 	<ul style="list-style-type: none"> Implement Site Furnishings Plan 	
Information & Wayfinding	<ul style="list-style-type: none"> Create a Sign Plan Implement Sign Plan -- install signs and markings 		
Landscape & Environment	<ul style="list-style-type: none"> Prepare Habitat Management Plan * 	<ul style="list-style-type: none"> Create Demonstration Nursery * Develop a neighborhood-based program to work on vegetation 	<ul style="list-style-type: none"> Develop a viable nursery
Safety and Security	<ul style="list-style-type: none"> Complete an Emergency Operations Plan Create a Trail Etiquette Program 		
Operations & Maintenance	<ul style="list-style-type: none"> Develop an Operations and Maintenance Plan 		
Interpretation		<ul style="list-style-type: none"> Develop an Interpretive Plan Implement Interpretive Plan 	<ul style="list-style-type: none"> Update and develop Riverfront Trail Guide *
Public Arts and Events		<ul style="list-style-type: none"> Complete a Public Events Plan Complete a Public Arts Plan 	

NOTE:

* In Process or On-going

Plan Implementation

12.3

12. Plan Implementation

	Quantity	Unit	Unit Costs	Estimated Cost
General Improvements (Include planning & construction)				
Land purchase (sites TBD)	50	acres	25,000	\$1,250,000
Secondary Trailheads	4	sites	150,000	\$600,000
Safety & Security	12	miles	15,000	\$180,000
Wayfinding & Signage	24	miles	10,000	\$240,000
Connector Routes	6	unit costs	10,000	\$60,000
Trail Amenities (benches)	12	miles	15,000	\$180,000
Landscaping	12	miles	40,000	\$480,000
Interpretation	10	sites	35,000	\$350,000
Public Art	4	sites	150,000	\$600,000
				<hr/> \$3,940,000
Special Sites				
<u>Laclede Power Building Site</u>				
Building				\$3,800,000
Site improvements (parking, overlook, plaza)				\$350,000
Biddle rest area				\$250,000
				<hr/> \$4,400,000
<u>Old Chain of Rocks Bridge</u>				
Improvements (Missouri & Illinois sides)				\$9,400,000
<u>North Riverfront Park Improvements</u>				
Bridges over Riverview	2	unit cost	450,000	\$900,000
Upgrade trail system	5	miles	100,000	\$500,000
Upgrade parking lots				\$250,000
Landscaping				\$200,000
Pavilion, overlook				\$250,000
				<hr/> \$2,100,000
<u>Prairie/Coast Guard Building</u>				
Parking lot				\$90,000
Upgrade building, painting, heater, power				\$40,000
Native Plant area				\$153,000
Pier overlook area	100	sq. ft.	600	\$60,000
Cradle, boat overlook w/office				\$50,000
Parallel road for fishing				\$50,000
Improvements at gate crossing				\$50,000
				<hr/> \$493,000
Total Capital				\$20,333,000
Operations (Annual Budget)				
Maintenance	12	miles	30,000	\$360,000
Ranger Program				\$200,000
Special Events, Other Programs				\$150,000
Total Operations				\$710,000
Total Project Costs				\$21,043,000