



City Hall, 215 Sycamore  
Muscatine, IA 52761-  
(563) 262-4141  
Fax (563) 262-4142

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**COMMUNITY DEVELOPMENT**

**Planning,  
Zoning,  
Building Safety,  
Construction Inspection  
Services,  
Public Health**

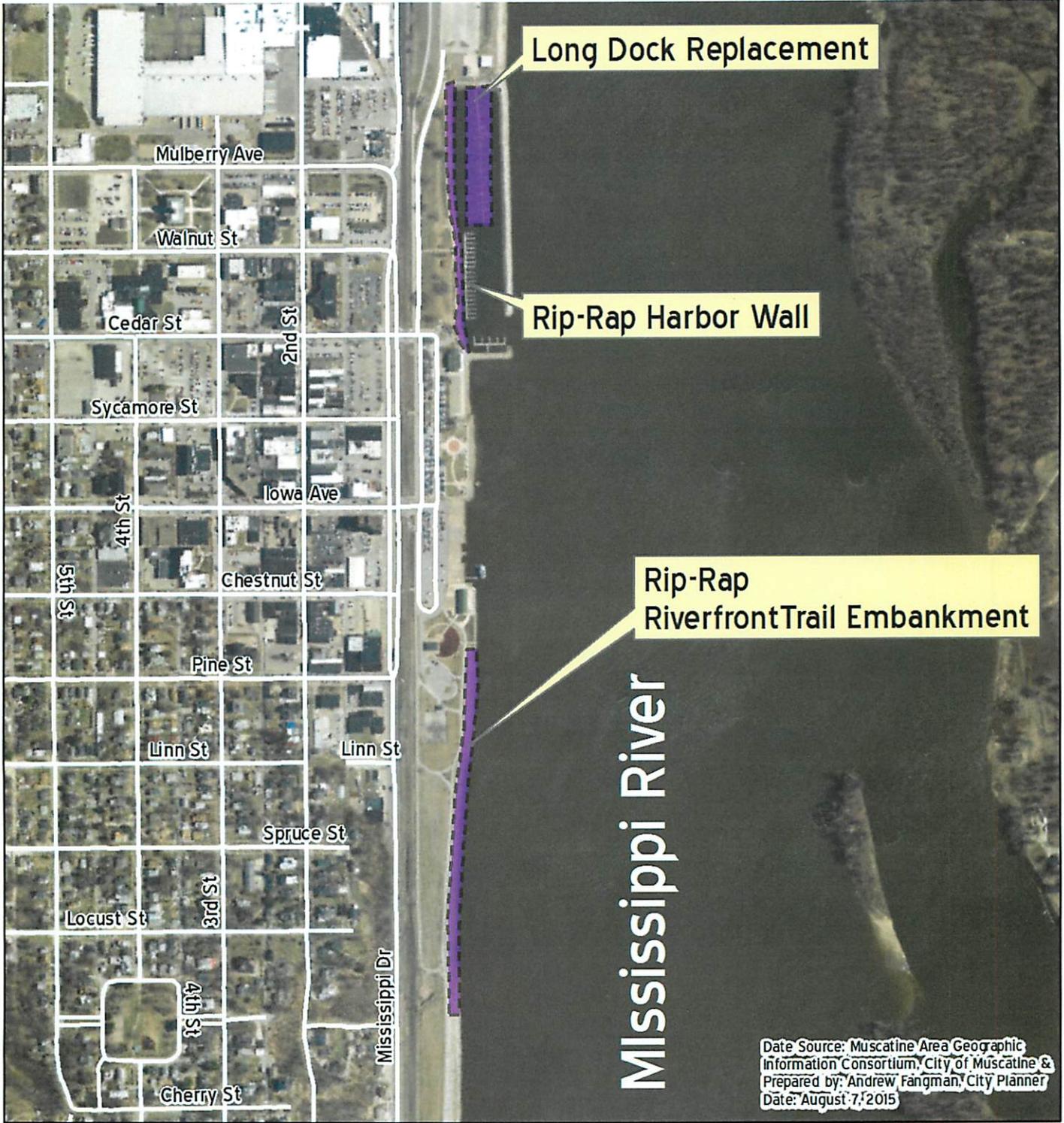
**To:** Mayor and City Council Members  
**Cc:** Gregg Mandsager, City Administrator  
**From:** Andrew Fangman, City Planner  
**Date:** August 20, 2015  
**Re:** REAP Grant - Boat Harbor & Trail Embankment Restoration Project

**INTRODUCTION:** The City currently has \$20,000 budgeted for rip-rapping the harbor wall and \$70,000 budgeted for rip-rapping the levee from Pearl City Station to Millennium Plaza. There is an opportunity to leverage these budget dollars with a REAP Grant of \$125,000 from the DNR and to also replace the Long Dock in the harbor at no additional cost to the City.

**BACKGROUND:** The Resource Enhancement and Protection (REAP) program is a State of Iowa grant program administered by the Department of Natural Resources that invests in the enhancement and protection of the state's natural and cultural resources. REAP provides money for projects in the form of grants, including a program that specifically targets city parks and open spaces. Projects eligible for this type of REAP Grant include development of parks, multi-purpose trails, shelters, shoreline restoration, fishing access, and habitat restoration. The proposed Boat Harbor & Trail Embankment Restoration Project is an opportunity to stretch City dollars allocated toward improving the Riverfront even further.

The Boat Harbor & Trail Embankment Project is comprised of three restoration projects along the Mississippi River at Riverside Park. 1) Rip-Rap will be placed along the inside harbor wall at the Muscatine Boat Harbor and Marina; insufficient rip-rap in this area is causing severe erosion problems. 2) Additional rip-rap will be placed on the 1,600 feet stretch of the Mississippi River embankment, from the Pearl City Station to the beginning of the Island Levee; insufficient rip-rap in this area is also creating erosion problems and endangering the adjacent Riverfront Trail. 3) A severely deteriorated 64 slip long dock at the Muscatine Boat Harbor and Marina will be replaced with a new dock.

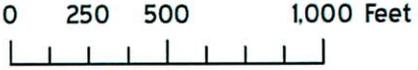
"I remember Muscatine for its sunsets. I have never seen any  
on either side of the ocean that equaled them" — Mark Twain



Date Source: Muscatine Area Geographic Information Consortium, City of Muscatine & Prepared by: Andrew Fangman, City Planner Date: August 7, 2015

# Boat Harbor & Trail Embankment Restoration Project

Location Map



Below is a breakdown of the rough costs and proposed source of funds for this project.

Project Component	Description	City Cost	REAP Request	Total Cost
<b>Rip-Rap Replacement Inner Harbor Wall</b>				
650 Tons of Class E Rip-Rap	Rip-Rap @ \$24.75/Ton	\$8,044	\$8,044	\$16,088
Diesel	Fuel for hauling	\$500	\$500	\$1,000
<b>Rip-Rap Replacement Riverside Embankment</b>				
2,200 Tons of Class E Rip-Rap	Rip-Rap @ \$24.75/Ton	\$27,225	\$27,225	\$54,450
Diesel	Fuel for hauling	\$1,750	\$1,750	\$3,500
<b>Long Dock Replacement</b>				
New Long Dock	Complete replacement	\$52,519	\$87,481	\$140,000
<b>Project Total</b>				
		\$90,038	\$125,000	\$215,038

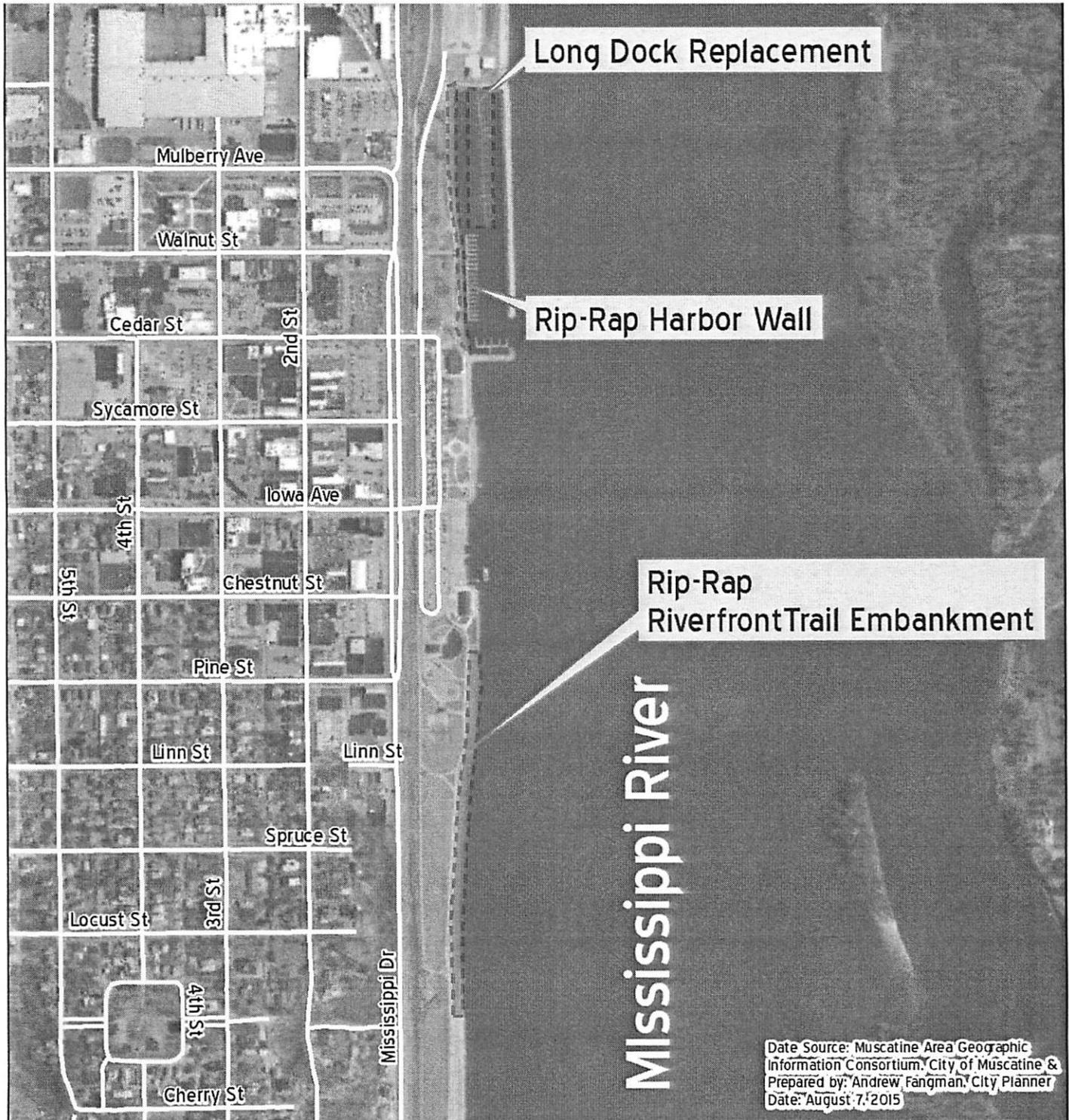
**RECOMMENDATION/RATIONALE:** That City Council approve submission of a REAP grant as outlined in this memo and the attached grant application. The proposed project uses only previously allocated funds, is made up of project already contained in the approved Capital Improvement Plan, and this project helps fulfil the following goal of the Comprehensive Plan *“Goal PR.1: maintaining existing City of Muscatine park and recreational facilities and amenities is the highest parks and reaction goal of the City of Muscatine.”*

**BACKUP INFORMATION:**

1. REAP Grant application

# I. Project Location

The City of Muscatine Boat Harbor & Embankment Restoration Project is located at 110 O'Brien Parkway Muscatine, Iowa, in Muscatine County. The project is located within Riverside Park, a municipal park locat-



## Boat Harbor & Trail Embankment Restoration Project Location Map

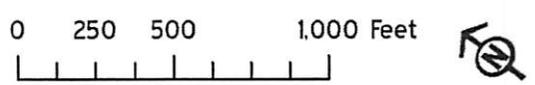


Figure 1: Location Map

## II. Project Description

The Boat Harbor & Trial Embankment Project is comprised of three restoration projects along the Mississippi River at Riverside Park in Muscatine, Iowa. 1.) Rip-Rap will be placed along the inside harbor wall at the Muscatine Boat Harbor & Marina; insufficient rip-rap in this area is cause of severe erosion problem. 2.) Additional rip-rap will be placed on the 1,600 feet stretch of Mississippi River embankment, from the Pearl City Station to the beginning of the Island Levee; insufficient rip-rap in this area is also creating erosion problems and endangering the adjacent Riverfront Trail. 3.) A severely deteriorated 64 slip long dock at the Muscatine Boat Harbor & Marina will be replaced with a new dock. The intent of the project is to ensure continued safe access to the Mississippi River and provide for high quality recreational opportunities.

All components of the project are located in Riverside Park. The City of Muscatine's Riverside Park, which includes the Muscatine Boat Harbor & Marina, is an 35 acre park that stretches 1.1 miles along the Mississippi River, directly adjacent to downtown Muscatine. The harbor has 18 slips for houseboats and 64 slips for smaller, pleasure, and speed boats. Slips are available for rent. Slips are non-covered and each one is equipped with electricity and water. There is also a gas dock. The Muscatine Boat Harbor & Marina is the only such facility on the Mississippi River between Lock and Dam 16 and Lock and Dam 17.

The Riverfront Trail, a multi-use trail, runs through Riverside Park. The Riverfront Trail is part of a larger local and regional network of trails. The Riverfront Trail is part of two federally recognized trail systems: The American Discovery Trail, which crosses the nation from San Francisco to Delaware; and the Mississippi River Trail, which runs along the Mississippi River from Minnesota to Louisiana. Within the near future the American Discovery Trail/Mississippi River Trail will be full developed through the entire length of Muscatine County. According to a count of trail users conducted by the Bi-State Regional Commission there is an average monthly trip count of 7,224 along the stretch of the Riverfront Trail that this project will help preserve.



Figure 2: Long Dock at Muscatine Boat Harbor & Marina

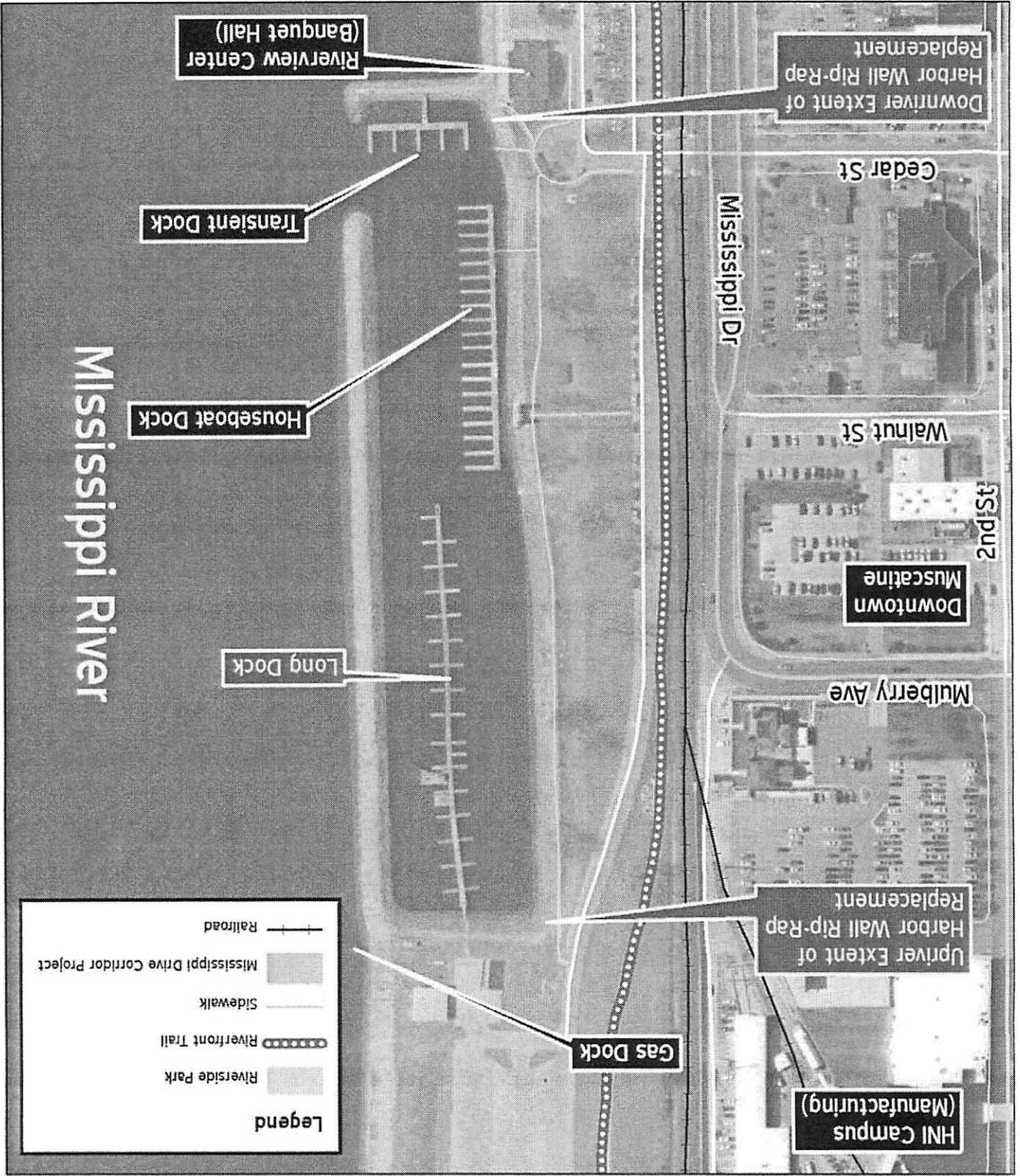


Figure 3: Inside Harbor Wall



Figure 4: Riverside Trail Embankment

### III. Development Plan, Project Boundary Map, & Aerial Photo



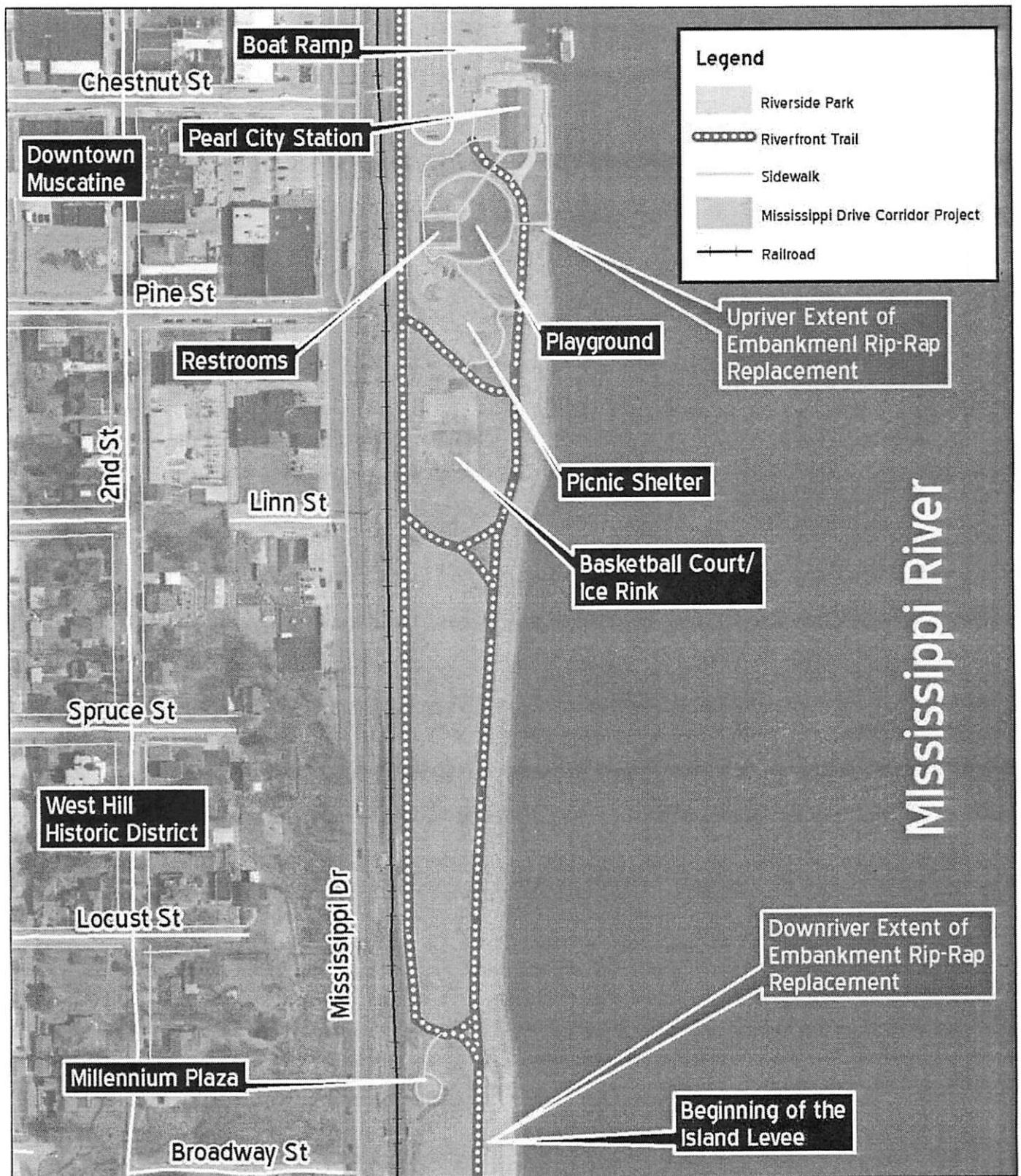
**Boat Harbor & Trail Embankment**  
**Restoration Project**  
 Boat Harbor & Marina Detail

MUSCATINE

Date: August 7, 2015  
 Prepared by: Andrew Fangman, City Planner & Information Consortium, City of Muscatine & Date Source: Muscatine Area Geographic

0 100 200 400 Feet

Figure 5: Boat Harbor & Marina Detail



# Boat Harbor & Embankment Restoration Project

## Lower Riverside Park Detail

Date Source: Muscatine Area Geographic Information Consortium, City of Muscatine & Prepared by: Andrew Fangman, City Planner Date: August 7, 2015

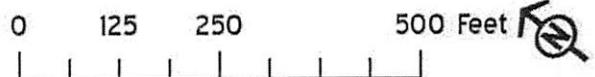
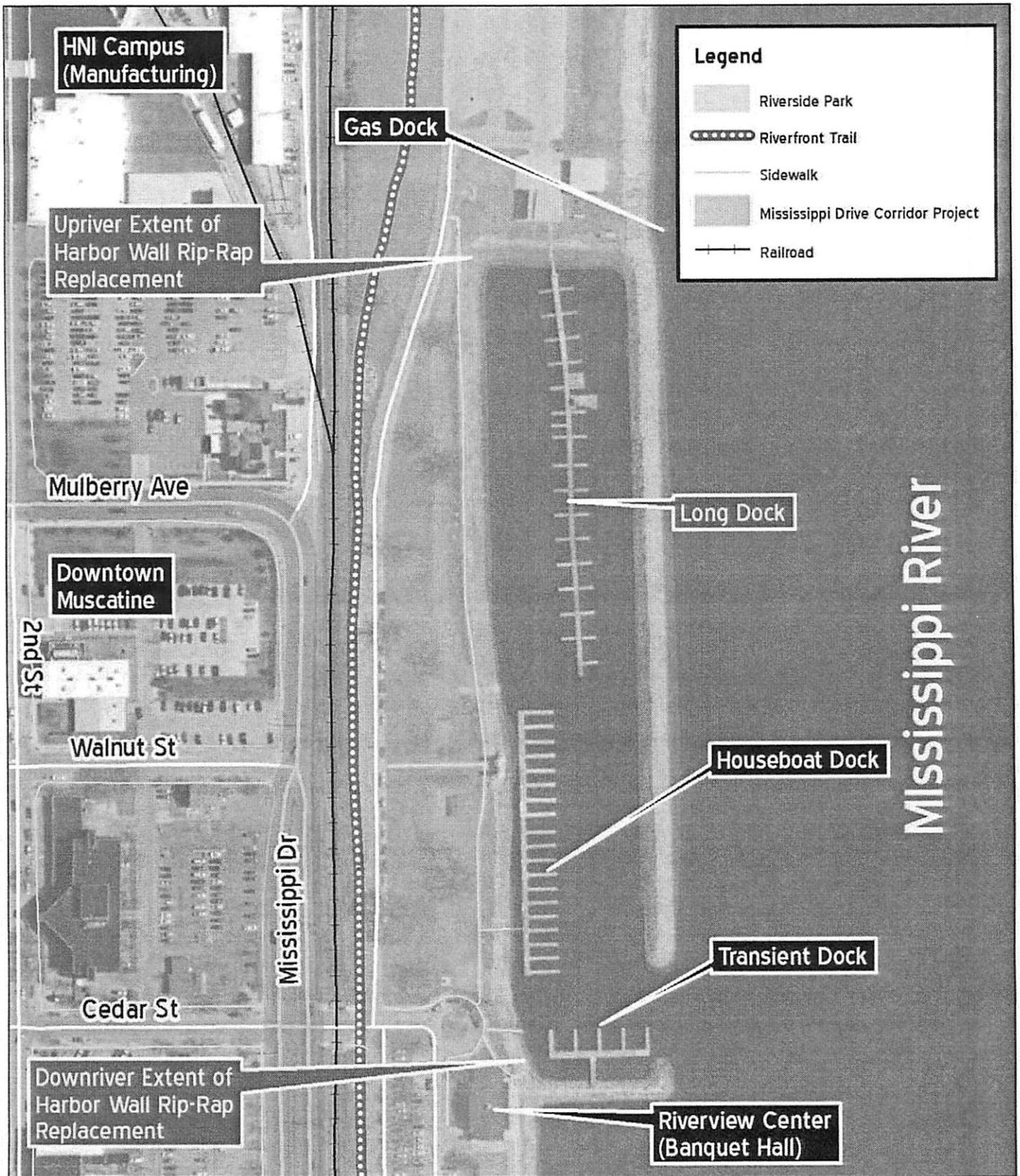


Figure 6: Riverfront Trail Embankment Detail



# Boat Harbor & Trail Embankment Restoration Project

## Boat Harbor & Marina Detail

Date Source: Muscatine Area Geographic Information Consortium, City of Muscatine & Prepared by: Andrew Fangman, City Planner Date: August 7, 2015



Figure 7: Riverside Park Detail

## IV. Project Benefits, Needs, Justifications, and Urgency

The Mississippi Riverfront is of great importance to the people of Muscatine, since the 1980's over \$18 million across 46 individual projects have been invested into turning the Muscatine Riverfront into the outdoor recreational asset that it is today. The Boat Harbor & Trail Embankment Restoration Project is necessary to preserve these investments and build off them and ensure that people of Muscatine can fully enjoy the Mississippi River.

The Muscatine Boat Harbor is a key recreational asset for wide area, as it is the only dock with fuel service available on the Mississippi River between Lock and Dam 16 and Lock and Dam 17, on either side of the river. The replacement of the rip-rap on the inside harbor wall and the replacement are necessary to keeping this vital recreational asset viable.

The rip-rap along the inside harbor wall will be replaced. Very little of the rip-rap originally placed on the inner harbor wall remains place. As a result erosion has become a major issue in this area. This erosion has progressed to a point where it is beginning to impact the sidewalk running along the top of the wall. This sidewalk is important in providing access to the boat harbor, and also a major recreational asset as it is one of the most popular places to walk in Muscatine. The lack of rip-rap and resulting erosion has left the inner harbor wall visually unappealing, marring what would otherwise be one of the most scenic vistas in the Muscatine area. Rip-rap is needed to be replaced throughout the entire inside wall to help avoid any further erosion of the wall, to help protect the sidewalk, and to restore the visual aesthetics of the area.

The current long dock located inside the Muscatine Boat Harbor are continuing to show significant wear throughout the entire dock, and has not received significant reconstruction since the mid 80's. Damage is occurring from constant exposure to sun, wind, rain, rising and falling water levels and winter weather. The boards on the top of the dock have begun to splinter and upheave causing unsafe walking conditions.



Figure 8: Inside Harbor Wall

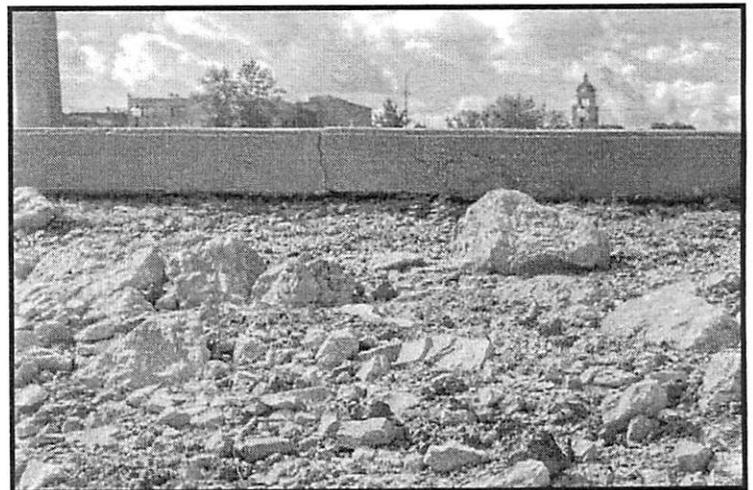


Figure 9: Erosion Beginning to Undermine Harbor Sidewalk

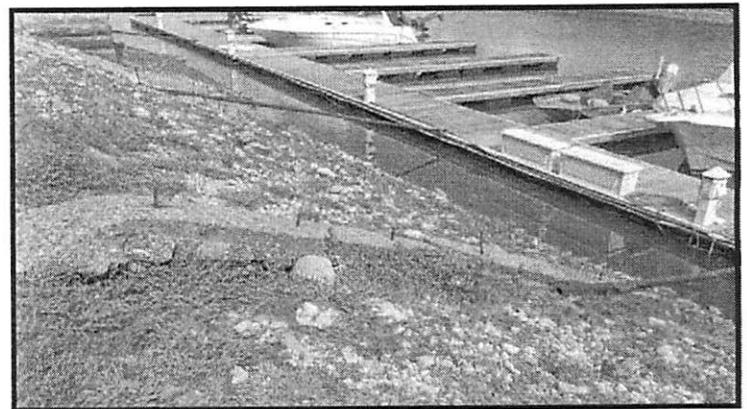


Figure 10: Inside Harbor Wall

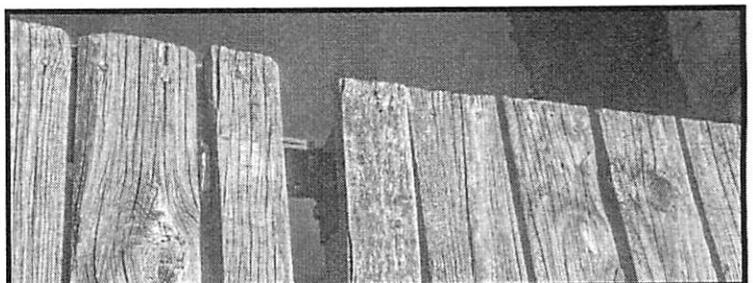


Figure 11: Deck Deterioration at the Long Dock

Bolts and screws that hold the docks and braces in place continue to break and rust, causing constant repair of the dock. The dock is also currently secured by concrete blocks and chains that allow the dock to rise and fall with the water levels. The chains frequently break due to constantly being submerged under water. The floats that hold the dock above water are approximately 25 years old and are at risk of collapsing in the near future. The entire long dock is in need of complete replacement in order to best serve the boaters in our community. The proposed new dock will restore this vital asset to the high quality that the community desires in its riverfront amenities.

The most used section of the Riverfront Trail, a multi-use trail, is the stretch located between Pearl City Station and Millennium Plaza. This stretch of trail is located as physically close to the Mississippi River as possible. All that is between the edge of the trail and the river is an embankment that was originally fully covered with rip-rap. Over time this has caused a deep gap directly off of the trail, causing safety concerns for pedestrians using the trail. Rip-rap is needed to be replaced between the trail and the top of the levee wall to create a safe trail for bike riders, walkers and runners. Additionally this lack of rip-rap is causing erosion that if left unchecked will undermine the trail. The placement of new rip-rap in this eroded area will preserve one of the most important outdoor recreational resources in Muscatine.



Figure 12: Floats Deterioration at the Long Dock



Figure 13: Dock Anchoring Chain at the Long Dock

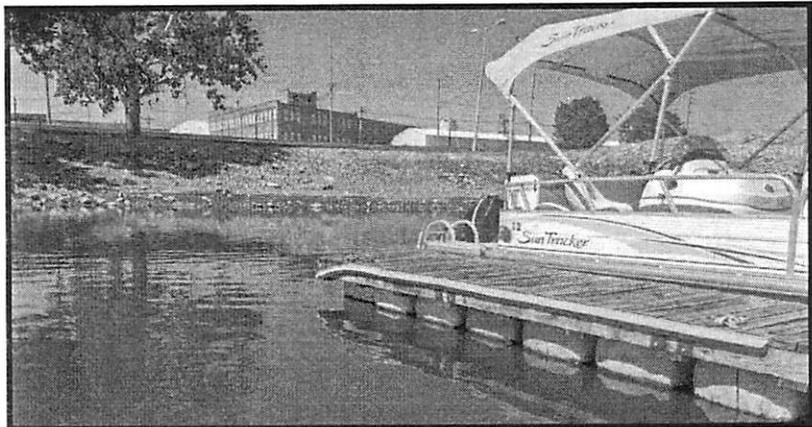


Figure 14: Long Dock & Inside Harbor Wall



Figure 15: Erosion along the Trail Embankment

Completion of the Boat Harbor & Trail Embankment Project will contribute to meeting a number of goals contained with “Outdoor Recreation in Iowa,” Iowa’s Statewide Comprehensive Outdoor Recreation Plan (SCORP). The following are the SCORP goals that the X project will most directly address. The proposal will show how this project helps achieve these goals as well as how it aligns with the overall vision of the SCORP.

**Priority 2:** Create places to go in Iowa that exemplify the best practices in natural resource conservation while providing a variety of opportunities for outdoor recreation.

**Goal 1:** Preserve, enhance and protect statewide water and land resources while specifically targeting connections (habitat and lineal greenbelts) regionally and locally to ensure a greater protection of Iowa’s open spaces.

Muscatine’s Riverfront Trail currently stretches more than six miles and connects and provides bike and pedestrian access to the majority of Muscatine’s outdoor recreation amenities including: the four most used parks in Muscatine: the Muscatine Aquatic Center, four playgrounds, the Muscatine Boat Harbor and Marina, a splash pad, 18 baseball/softball fields, two boat ramps, a skate park, a roller hockey rink, the Muscatine Soccer Complex, two riverside banquet halls, and numerous picnic shelters. In 2016 a 4 miles extension to the Riverfront trail will be constructed, which will extend the trail to and then through Deep Lakes Park. Deep Lakes Park is a new 435 acre park that is being developed by the Muscatine County Conservation Board. This park contains approximately 120 acres of open waters, spread across more than 20 individual and interconnected lakes.

The Riverfront Trail is crucial to providing connectivity at the regional, state, and national levels. The Riverfront Trail is part of two federally recognized trail systems: The American Discovery Trail, which crosses the nation from San Francisco to Delaware; and the Mississippi River Trail, which runs along the Mississippi River from Minnesota to Louisiana.

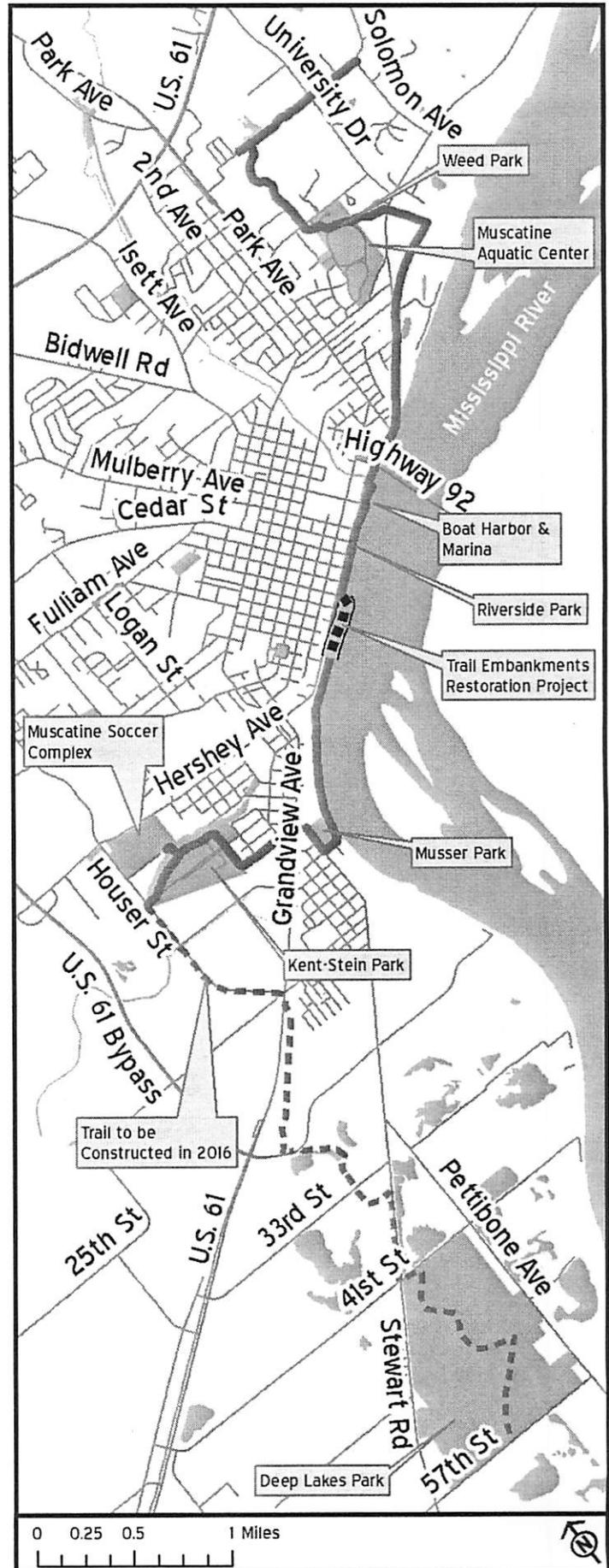


Figure 16: Riverside Trail Embankment Restoration Project in Relationship to the Riverfront Trail

The completion of three active projects will extend the American Discovery Trail/Mississippi River Trail to the north, tying it into the existing trail network in the Quad Cities area, and south into Louisa County.

The trail embankment restoration portion of this project will occur near the middle of the Riverfront Trail, which is the most heavily used portion. Preserving this portion of the trail is necessary to ensure that the Riverfront Trail continues to provide a continuous safe bike and pedestrian connection between all recreational amenities.

**Priority 2**

**Goal 3:** Provide assistance to local communities and governments to improve the quality and revitalize the recreational use of priority water bodies.

For the Muscatine area, there is no body of water with a higher priority than the Mississippi River. For the stretch of the Mississippi River between Lock and Dam 16 and Lock and Dam 17, the Muscatine Boat Harbor is a critical component in quality of outdoor recreation opportunities. It is the only dock on either side of the river with fuel service available on the Mississippi River between Lock and Dam 16 and Lock and Dam 17.

For this stretch of the Mississippi River to be used to its highest recreational potential, the services provided by the Muscatine Boat harbor and marina must be maintained at a high level of quality. The Replacement of rip-rap on the inside harbor wall and the replacement of the long dock must occur for this level of quality to be reached.

**Priority 4:** Promote outdoor recreation as a means to achieve a healthier lifestyle, enhancing quality of life for all Iowans.

**Goal 1:** Link outdoor recreation and participation to desired wellness and public health benefits.

**Goal 2:** Collaborate with existing Healthy Iowans, state, and county initiatives to promote outdoor recreation and increase participation.



Figure 17: Muscatine Boat Harbor & Marina

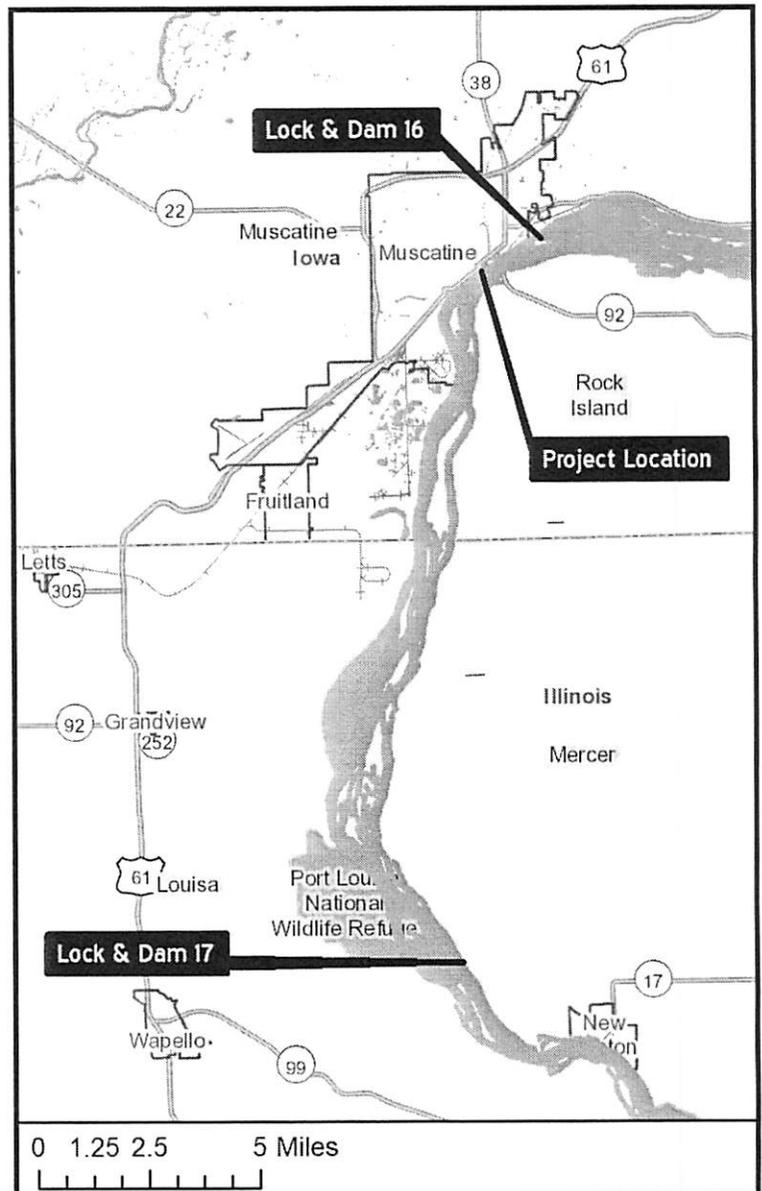


Figure 18: Project Location in Relationship to Lock and 16 and Lock and Dam 17

Since 2012 Muscatine has been engaged in a comprehensive community effort to improve community health and well-being: the Blue Zones Project. The project was brought to Iowa through an innovative sponsorship by Wellmark in collaboration with Healthways and Blue Zones. The Blue Zones Project is a community well-being improvement initiative designed to make healthy choices easier through permanent changes to environment, policy, and social networks. Muscatine became a certified Blue Zones Community in July 2014. The Blue Zones Project has had a deep reach into the community, with 4,416 community members, 3 schools, 22 worksites, and 10 restaurants becoming actively engaged in the Muscatine Blue Zones Project.

A significant part of the Blue Zones Project is to improve community health by encouraging physical activity throughout all segments of the population. Walking and organized walking groups and events are a significant part of this effort to encourage physical activity. Riverside Park, the community's favorite spot for recreational walking, is a key asset for achieving improved health. Numerous Blue Zones Project walking events are hosted at the Riverside Park.

According to a count of trail users conducted by the Bi-State Regional Commission there is an average monthly trip count of 7,224 along the stretch of the Riverfront Trail that this project will help preserve—the highest user count measured anywhere on the Muscatine trail network. While the sidewalk running along the harbor, which will be preserved through the replacement of rip-rap on the inside harbor wall, was constructed as means of access various point in the harbor, it has become a popular place to walk. It affords great views of the harbor, the Mississippi River, and the Norbert F. Beckey Bridge.

Ensuring that Riverside Park remains an attractive place to walk is a necessary step in achieving Muscatine's goal of improving community health. Completion of the Boat Harbor & Trail Embankment Restoration Project will be a major step in making sure that this happens.



Figure 18: Blue Zones Project Occurring in the Project Area

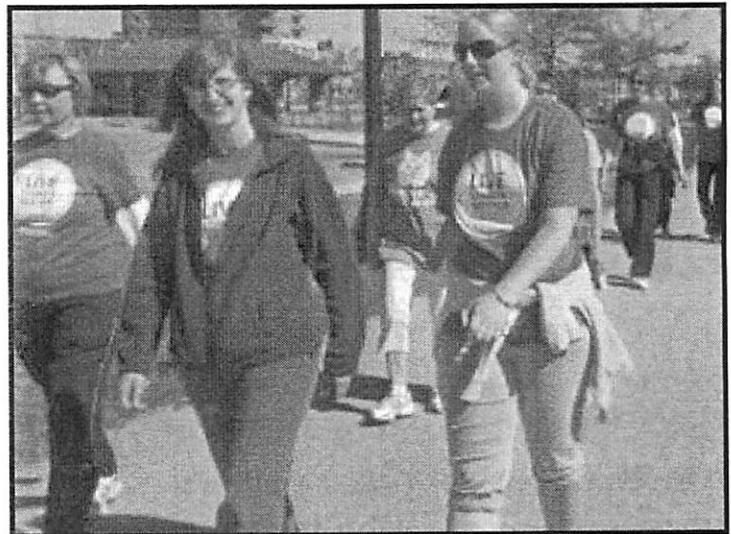


Figure 19: Blue Zones Project Occurring in the Project Area



Figure 20: Trail Users within the Project Area

As discussed in detail in Section VII of this application the Boat Harbor & Trail Embankment Restoration Project is fully supported by the City of Muscatine Comprehensive Plan. This project demonstrably reflects the outdoor recreation priorities of the people of Muscatine.

There is an urgency to complete this project within the proposed timeframe. Over the course of the next year, ground will be broken on over \$53million worth of projects that are intended to draw people to the Muscatine Riverfront. The Boat Harbor & Trail Embankment Restoration Project will leverage this substantial public/private investment in the Muscatine Riverfront. With so much being invested in the Riverfront it is vital to ensure that the portion of the riverfront that actually interfaces with the Mississippi River is in a condition that enhances all other investments in the Riverfront, and does not detract from them.

The Mississippi Drive Corridor Project is an approximately \$13 million project that will reconstruct the Mississippi Drive Corridor, which is a 1.6 mile segment of Business U.S. 61 running through Muscatine, Iowa. Prior to the opening of the U.S. 61 Bypass in 1984, the corridor was part of U.S. 61. After the opening of the Bypass, the corridor was redesignated as Business U.S. 61/State Highway 92 and remained under the jurisdiction of the Iowa Department of Transportation. In 2014 the Iowa Department of Transportation transferred jurisdiction of the Mississippi Drive Corridor to the City of Muscatine and removed its designation as a portion of State Highway 92.

Mississippi Drive runs through the heart of Muscatine, dividing the downtown from the riverfront. Like many communities across the U.S., the last sixty years of auto-centric transportation planning have caused Muscatine to turn its back on the riverfront. To add to the complexity, the railroad further divides Muscatine’s downtown and riverfront. In addition, the railroad will be raising their tracks a foot due to the river flooding patterns, which will cause a significant grade change at the existing railroad track crossings. The City has positioned itself to leverage both of these changes as opportunities to envision and transform the Mississippi Drive Corridor in support of the community.

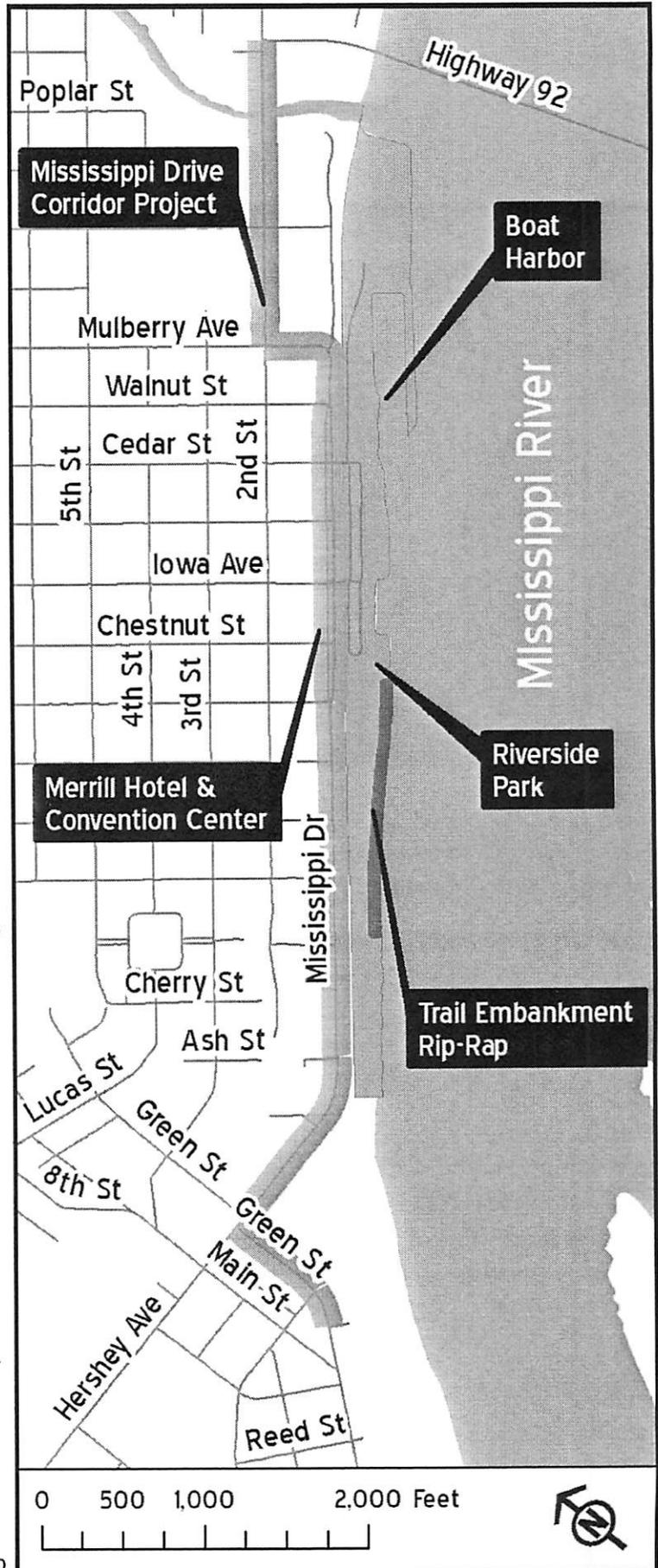


Figure 21: Location of Other Riverfront Enhancement Projects

The railroad only allows four crossing points to access the river—two are open to all modes of transportation at Cedar Street and Iowa Avenue. The crossings at Sycamore Street and Chestnut Street are pedestrian/bike crossings. One of the most important design objectives of the Mississippi Drive Corridor Project is to improve pedestrian and bicycle connections across Mississippi Drive between the Central Business District and the Riverfront. Rather than being a barrier that prevents those from downtown from getting to the Riverfront, the rebuilt Mississippi Drive will invite people to walk or bike from downtown to the riverfront.

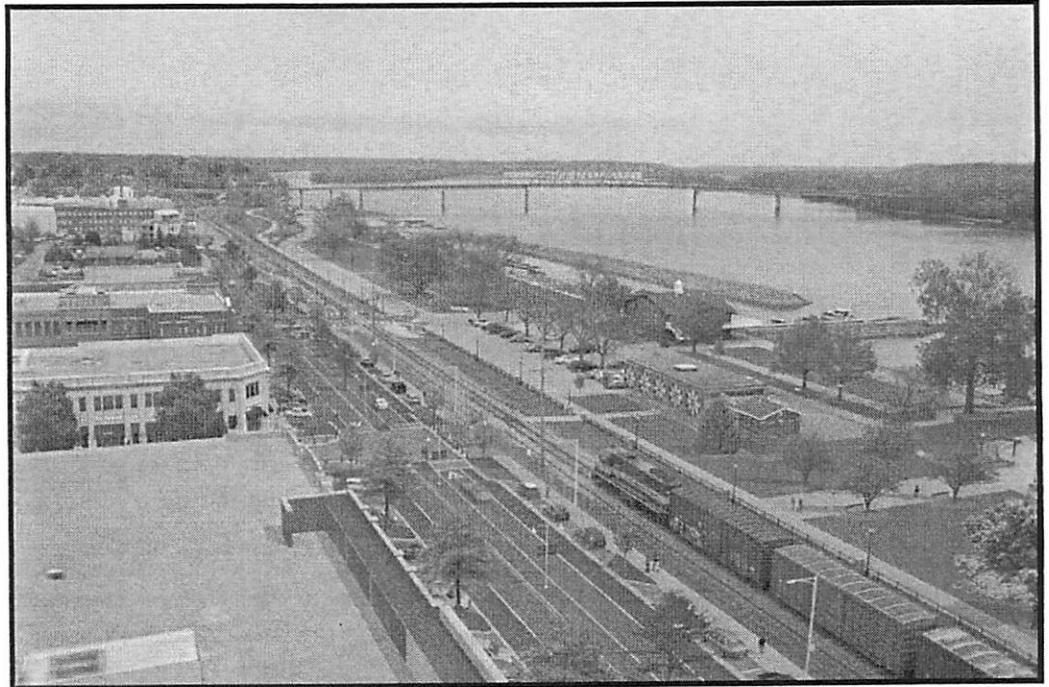


Figure 22: Conceptual Rendering of the Mississippi Drive Corridor Project

Ground will be broken on the Merrill Hotel and Convention Center at the end of this summer, with completion anticipated in 2017. This project will be located at intersection of Mississippi Drive and Chestnut Street, about 400 feet from the riverfront trail embankment rip-rap portion of this project. This \$42 million project will include: a six story hotel with 114 guest rooms, a 189 space parking garage, over 12,000 square feet of conference space, a 4,353 square foot ballroom, and a more than 1,000 square foot sixth floor balcony overlooking the Mississippi River. Completion of this project will add a significant new draw to riverfront.

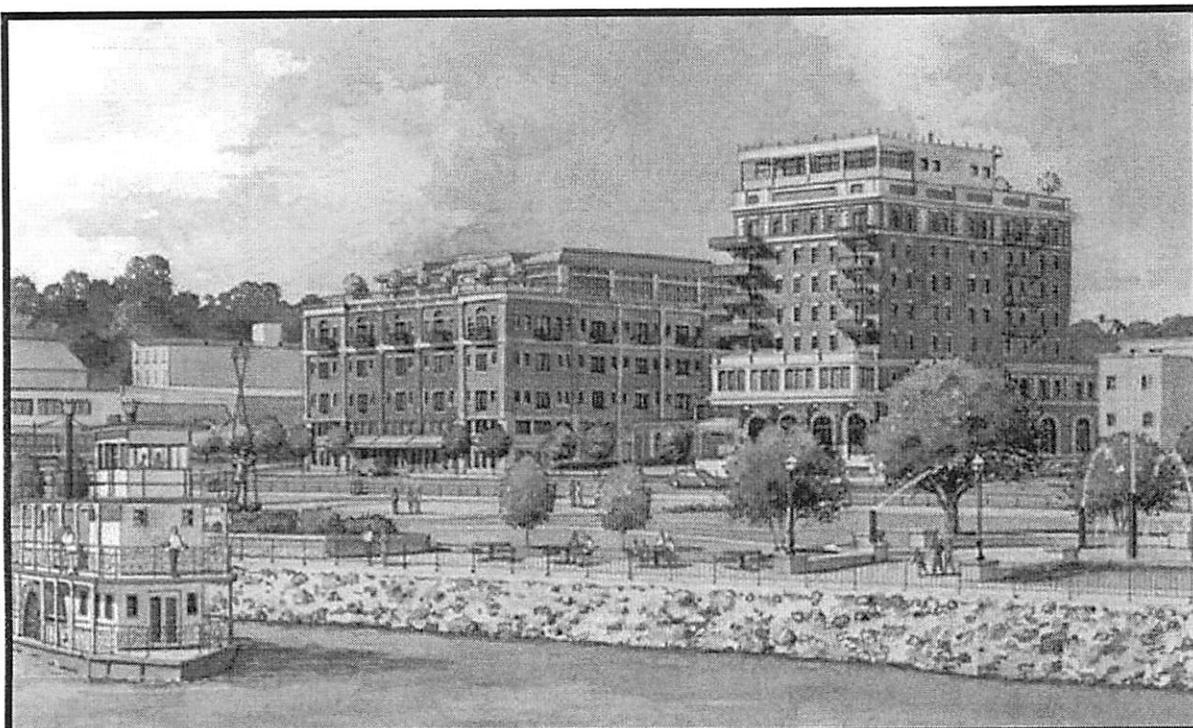


Figure 23: Rendering of the Merrill Hotel and Convention Center

## V. Environmental, Economic, and Social Impacts of Project

The long dock replacement portion of this project will have a negligible environmental impact. The existing long dock will be replaced with a comparable new dock in the same location. The portion of the project that will replace rip-rap along the Mississippi River will have a small positive environmental impact as it will stop erosion that is currently occurring due to the lack of sufficient rip-rap.

Both the Boat Harbor and the Riverfront Trail will have a significant positive impact on the quality of life in the Muscatine area as they are two of the most important outdoor recreational assets that the community possess. Without the proposed restoration these two facilities will degrade and their positive impact on the quality of life in Muscatine will dwindle.

The completion of this project will significantly improve the aesthetic of the Muscatine Riverfront. The portions of the riverfront where there is insufficient rip-rap, that this project will address, have become unsightly due to erosion and weed growth. The vistas of the Mississippi River from the Boat Harbor and the Riverfront Trail are significant community assets, this project will significantly enhance the quality of these vistas.

## VI. Historical, Archaeological, and Architectural Feature/Impacts

There is one historic resource that is located within the project area, the remaining pillar from the Muscatine High Bridge. The Muscatine High Bridge, constructed in 1891 was the first bridge crossing the river in the Muscatine area. The Muscatine High Bridge was demolished in 1972, after its replacement the Norbert F. Beckey Bridge opened. A single pillar from the Muscatine High Bridge was left standing as a tribute to this important piece of Muscatine's past. This pillar is located on the inner harbor wall, where rip-rap replacement is being proposed. Currently, the area around the base of this pillar is experiencing significant erosion. The proposed rip-rap replacement will address this erosion issue and help preserve an important historical resource.

There are no other historical resources that will be impacted by the project. This project only replaces or restores existing infrastructure.

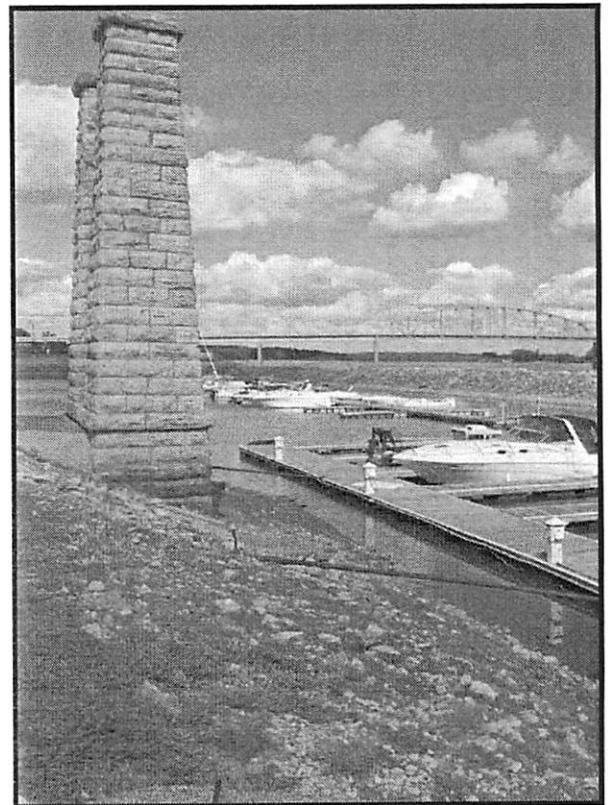


Figure 23: Muscatine High Bridge Pier and the Muscatine Boat Harbor

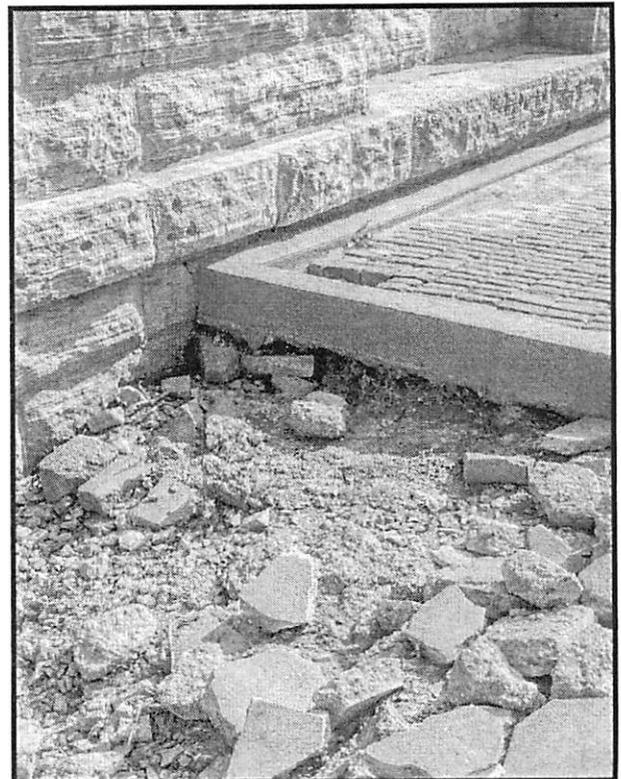


Figure 23: Erosion Occurring Around the Muscatine High Bridge Pier

## VII. Local Participation

On September 19, 2013 the City Council adopted the City of Muscatine Comprehensive Plan. The Comprehensive Plan is the vision of what community members desire Muscatine to become over the course of the next decade and the specific actions, policies, and projects needed to make this vision a reality. For a comprehensive plan to be both meaningful and successful, the vision at the heart of the plan must come from the community itself. The first step in developing this vision contained within the comprehensive plan was for community members to identify the strengths, weaknesses, challenges, and opportunities facing Muscatine and their neighborhood and what they want the City of Muscatine and their neighborhood to become. This process primarily occurred at a series of town hall meetings in the summer of 2012.

A total of eight town hall meetings were held in the summer of 2012. There was one each in the seven planning districts and one communitywide English/Spanish bilingual town hall meeting. At these town hall meetings there was a facilitated discussion on the strengths, weaknesses, opportunities, and challenges that community members felt are facing both Muscatine and their neighborhood and what improvements they desire to see. These discussions focused on four broad topics that are particularly relevant to the comprehensive plan: land use, infrastructure, economic development, and quality of life. All comments, ideas, and suggestions offered were recorded and were used as the starting point for the creation of the goals and implementation strategies of the comprehensive plan.

The goals and the implementation strategies to accomplish these goals are the heart of the comprehensive plan. Creating these goals and implementation strategies was the task of four community member advisory groups (CMAGs). The CMAGs were composed of residents and representatives from the business community, neighborhood groups, community organizations, and governmental entities. Each CMAG addressed one of the four following broad set of related topics: infrastructure, land use, economic development, or quality of life. These four CMAGs met a total of 26 times during which the 82 goals and 501 implementation strategies that are at the heart of the Comprehensive Plan.

The City's park and recreation amenities and facilities were much discussed in this public planning process. A firm consensus emerged that the maintenance and restoration of existing park and recreation infrastructure should be the highest City park and recreation goal. Goal PR.1 states, "maintaining existing City of Muscatine park and recreational facilities and amenities is the highest parks and reaction goal of the City of Muscatine."

The completion of the component project of the City of Muscatine Boat Harbor & Embankment Restoration Project, is necessary for maintaining Riverside Park and the access to the Mississippi River that the public has come to expect. Given this and the clear direction to focus on the maintenance and restoration of existing park assets by the public during the comprehensive planning process, it is clear that the proposed project is broadly supported by the community and is representative of how they wish to see park and recreation dollars invested.

## VIII. Considerations Given to Minorities, Elderly, and Disabled

The City of Muscatine Boat Harbor and Marina does meet all requirements of Section 504 of the Rehabilitation Act of 1975, Title II of the American with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title VI of the Civil Rights Act of 1964, and the Iowa Civil Rights Act of 1965. Providing ADA compliant access to the Boat Harbor is made challenging by the extreme fluctuations in the level of the Mississippi River, also as illustrated in the Figure 25 below, the north and east harbor walls are extremely steep. It would not be practical or cost effective to provide ADA accessible access across either of these harbor walls. There are no such issues with slope on the western harbor wall, where the transient dock is located, because of this the transient dock is fully ADA accessible.

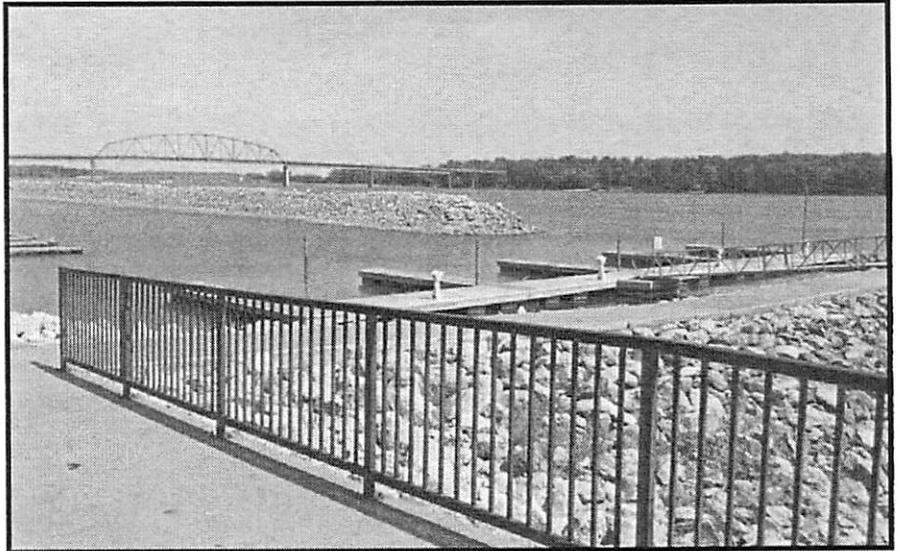


Figure 24: Existing ADA Compliant Dock (Transient Dock) at Muscatine Boat Harbor

It is the policy of the City of Muscatine to allow the seasonal rental of slips at the transient dock for those who need ADA compliant boat slips. As result there are City of Muscatine facilities that allow people with disabilities to have the same opportunities for boating recreation as those without disabilities. Completion the Boat Harbor & Trail Embankment Project will not negatively impact compliance with the ADA, the Muscatine Boat Harbor and Marina will remain compliant.

The Riverfront Trail is full accessible and compliant with the ADA. Completion the Boat Harbor & Trail Embankment Project will not negatively impact compliance with the ADA, the Riverfront Trail will remain compliant, as the project will take place on an adjacent embankment not intended for travel. This portion will of the project will help ensure that the trail remain compliant with the ADA, by keeping the trail in safe working order.

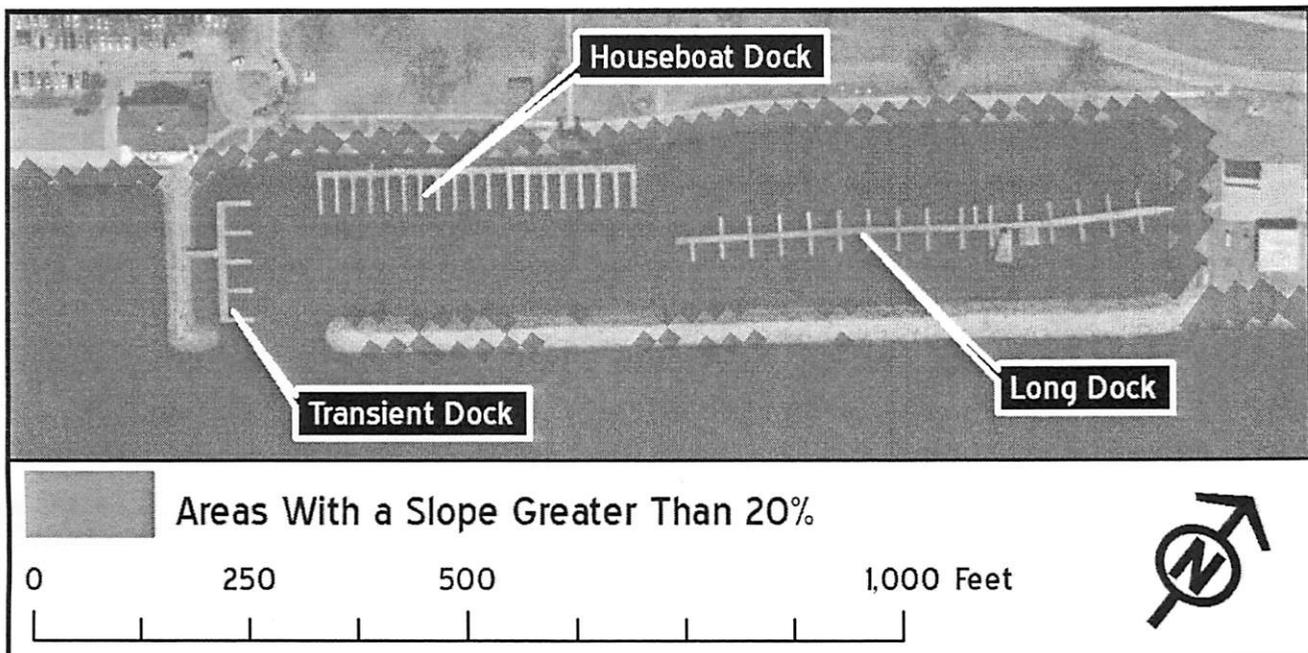


Figure 25: Slope at the Muscatine Boat Harbor and Marina